



**TPDS G-12
OWNER'S MANUAL
ASSEMBLY, PACKING and MAINTENANCE**

2024

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-G12-700





Tactical Parachute Delivery Systems, Inc.
4035 Correia Drive, Zephyrhills, FL 33542
Phone 813.782.7482 Fax 813.788.2799

STATEMENT OF CONFORMANCE

This letter is to inform that all components of the **G-12 Cargo Parachute** 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 G-12 Cargo Parachute meets all Military Standards and Specifications.

Sincerely,

Henri Pohjolainen
President

Tactical Parachute Delivery Systems, Inc.



Table of Contents



Chapter 1 Product Information

- 1.1 Tactical Parachute Delivery Systems, Inc. pg. 1
- 1.2 Main Container Specifications pg. 1
- 1.3 Main Container Capabilities and Features pg. 3
- 1.4 Main Parachute Specifications pg. 3

Chapter 2 Tools

- 2.1 Check List of Tools pg. 1
- 2.2 Recommended Packing Tools pg. 2

Chapter 3 Inspection Processes

- 3.1 Inspection Procedure Table pg. 1

Chapter 4 Assembly Instructions

- 4.1 Line Continuity Chart pg. 1
- 4.2 Assembly of Main Parachute to Main Risers pg. 2
- 4.3 Assembly of Risers to the Clevis Hook pg. 6

Chapter 5 Main Parachute Packing Instructions

- 5.1 Preparing and Line Check pg. 1
- 5.2 Flaking the Main Parachute pg. 2
- 5.3 Securing the Deployment Bag to the Canopy pg. 5
- 5.4 Securing the Drogue to the Cargo Canopy pg. 7
- 5.5 Securing the Drogue Pouch to the Drogue pg. 8
- 5.6 Packing the Drogue into the Drogue Pouch pg. 12
- 5.7 Folding the Apex Protector Cover pg. 14
- 5.8 Placing the Canopy into the Deployment Bag pg. 15
- 5.9 Closing the Deployment Bag pg. 16
- 5.10 Stowing the Suspension Lines pg. 18
- 5.11 Closing the Line Protector Flap pg. 22
- 5.12 Securing the Risers to the Deployment Bag pg. 23
- 5.13 Securing the Deployment Bag to the Container pg. 25
- 5.14 Closing the Main Container pg. 27

Chapter 6 Repairs

- 6.1 Repair Guidelines pg. 1
- 6.2 Data Card Information pg. 2

Chapter 7 Care and Maintenance

- 7.1 General Storage Requirements pg. 1
- 7.2 Parachute Storage Requirements pg. 1
- 7.3 In-storage Inspections pg. 1
- 7.4 Water Contamination Guide pg. 2

Chapter 8 Repack Cycle Authorization

- 8.1 Repack Cycle Authorization pg. 1

Chapter 9 Limitations

- 9.1 TPDS G-2 Limitations pg. 1

Chapter 10 List of Spare Parts for the TPDS G-12

- 10.1 List of Spare Parts for the TPDS G-12 Cargo Delivery Parachute Assembly pg. 1

Chapter 11 Spare Parts for the TPDS G-12

- 11.1 Spare Parts for the TPDS G-12 Cargo Delivery Parachute Assembly pg. 1

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 **TPDS G-12** Cargo Delivery Parachute Assembly.

1.2 Main Container Specifications

Materials:

Main Container: 1000 Denier Nylon Cordura

Deployment Bag: 10 oz. Army Duck Fabric

Webbing:

Main Risers- (4)

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

Tensile Strength **7000 lbs. / 2721 kg.**

Pilot Chute Bridle-

1 1/2" (3.81 cm.) Type 4 Mil-T-5038

Tensile Strength **1500 lbs. / 685 kg.**

Static Line-

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

Tensile Strength **4000 lbs. / 1820 kg.**

Suspension Lines:

Polyester Dacron

Tensile Strength **800 lbs. / 365 kg.**

Hardware:

Clevis Hook-

MS-70087-2

Proof Load **20000 lbs. / 9090 kg.**

Separable Connector Link- (4)

MS22002-1

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





Size:

Complete TPDS G-12 Assembly -

30" long x 20" wide x 15" deep
76.2 cm. x 50.8 cm. x 38.1 cm.

Weight:

Complete TPDS G-12 Assembly -

65 lbs. (29.48 kg.)

Fabric Colors:

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

Webbing Colors:

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



1.3 Main Container Capabilities and Features

The **TPDS G-12** is a complete assembly of military equipment manufactured to the highest standards using the best **Military Specification** materials available in today's market. The **TPDS G-12** is manufactured in the United States in a facility that is Federal Aviation Administration (**FAA**) certified for manufacturing parachute equipment.

These high standards of materials and workmanship will provide years of quality service.

The **TPDS G-12** CARGO Parachute provides the capability to safely deliver cargo from an aircraft in-flight for vertical assault.

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

1.4 Main Parachute Specifications

Diameter Size	64'
Number of Gores	48
Fabric	PIA-C-44378 T-4
Suspension Line	Polyester Dacron Braid
Line Length	32' (10 m.)
Canopy Shape	Parabolic
Packed Weight Complete	45 lbs. (20 kg.)
Packed Volume	2430 cu. in.
Carrying Capacity	2500 lbs. (1135 kg.)
Rate of Descent	26 fps. w/2000 lbs. (26 fps. w/ 907 kg.)
Opening Time	6 sec.







Chapter 2

Tools

Use this page to record which tools are used during the packing of your **TPDS, Inc. G-12 Cargo Delivery Parachute**. Mark which tools, and how many were used for packing and document all tools after work is complete.

2.1 Tool Check List

Tool used:

Pre-packing

Post-packing

Shot Bags	___ used	___ used
Line Separator	___ used	___ used
Packing Paddle	___ used	___ used
Temporary Pins	___ used	___ used
Tension Hook	___ used	___ used
Tension Plate	___ used	___ used
Screw Driver	___ used	___ used
Link Separator Tool	___ used	___ used
Scissors	___ 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
- 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 assembly is complete. Verify proper assembly and that system is clean and free from foreign materials.
Canopy	Inspect for rips, holes, tears, burns, dampness, foreign materials and completeness of stitching.
Apex	Inspect for cuts, breaks, burns, and completeness of stitching on the radial seam and lateral band.
Upper Lateral Band	Inspect for cuts, holes, burns, and completeness of stitching.
Gore Sections	Inspect for rips, holes, tears, burns, dampness completeness of stitching and legible markings.
Middle Lateral Band	Inspect for cuts, holes, burns, and completeness of stitching.
Vented Gores	Inspect netting for cuts, holes, breaks, burns, tears, and completeness of stitching.
Lower Lateral Band	Inspect for cuts, holes, burns, and completeness of stitching.



Radial Seams	Inspect for cuts, holes, tears, and completeness of stitching.
Information Panel	Inspect for legibility.
Line Attachment Tapes	Inspect for cuts, holes, tears, burns, and 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 cuts, holes, tears, burns, and 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 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, holes and tears.



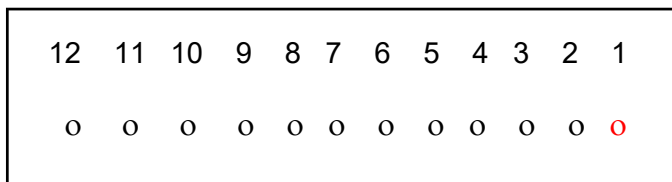
Chapter 4
Assembly

4.1 Line Continuity- CARGO Parachute.

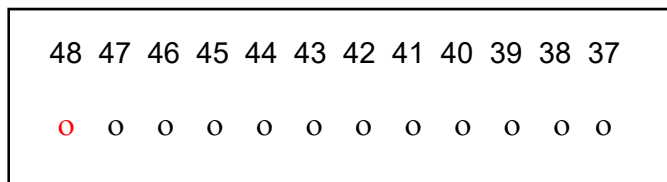
****BEFORE ASSEMBLY****

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

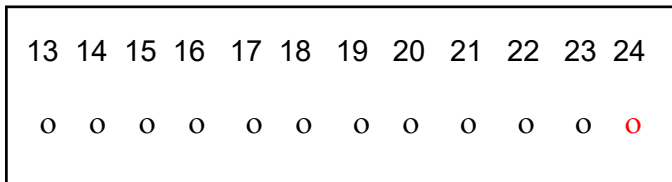
Line Continuity for the TPDS G-12 CARGO Parachute



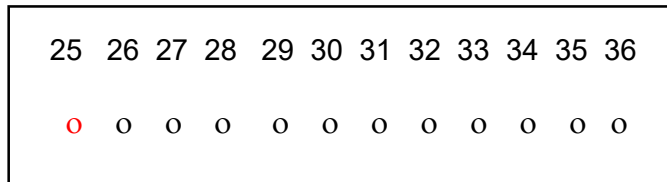
Top Left #1 Riser



Top Right #1 Riser



#2 Left Riser



#2 Right Riser

4.2 Assemble the CARGO Parachute to the Main Risers.



Begin by laying out the CARGO Parachute **TPDS-G12-200** on the packing table or floor.



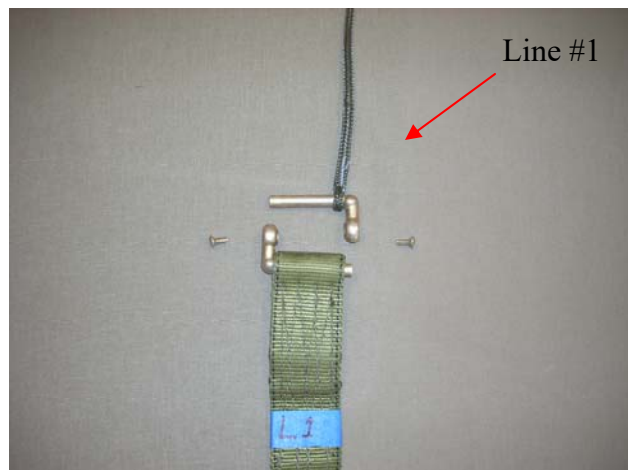
With the Apex of the Canopy hooked to the table ring or hook, be sure that the line group 1-24 is on the left side and that the line group 48-25 is on the right side. Line #1 and Line #48 should be on top.



Remove the two (2) screws from the sides of the Separable Connector Link. **(TPDS-G12-203)**

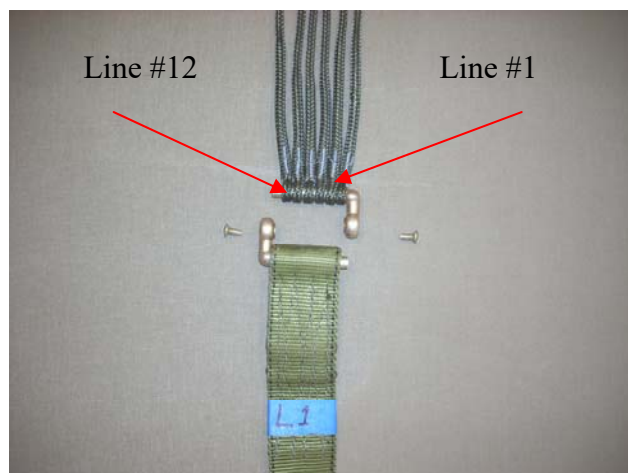


Use a link separator tool to open the connector link.



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

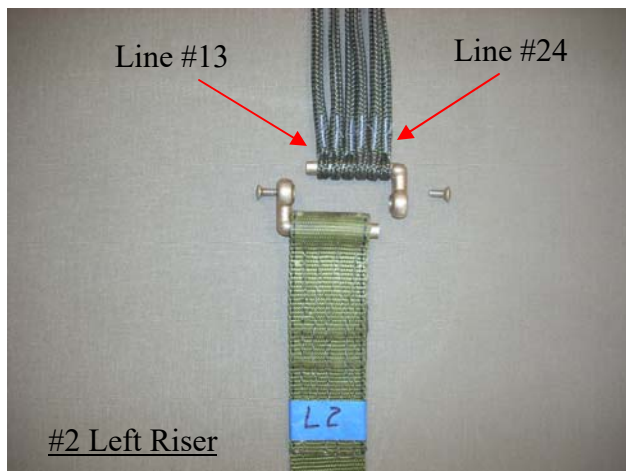
It is very important not to twist the line as you follow it to the loop. Every effort should be made to keep the lines straight from the skirt to the link.



Continue to place lines #2 - #12 onto the link.

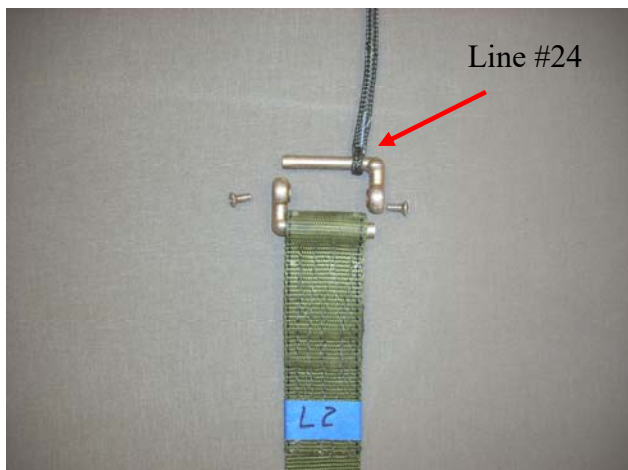


Pass the other half of the Separable Connector Link through the **Top Left Riser**, tighten the screws as shown.



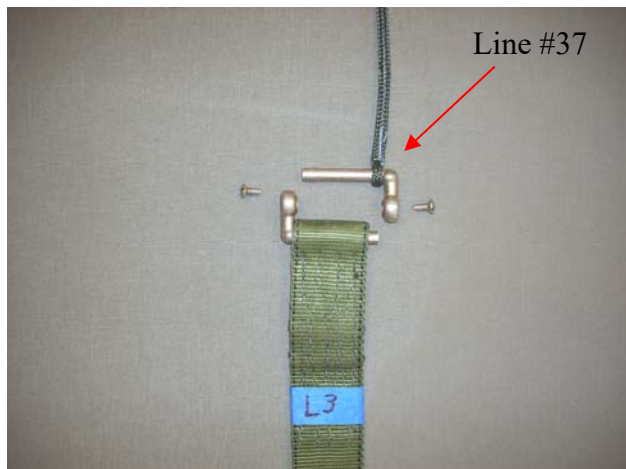
Continue to place lines **#23 - #13** onto the link.

Pass the other half of the Separable Connector Link through the **#2 Left Riser**, tighten the screws as shown.



Open another connector link and begin by placing line **# 24** onto the link.

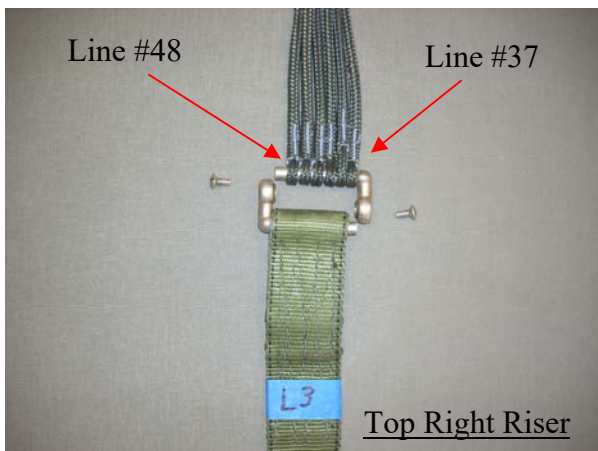
Keep the lines straight to the link.



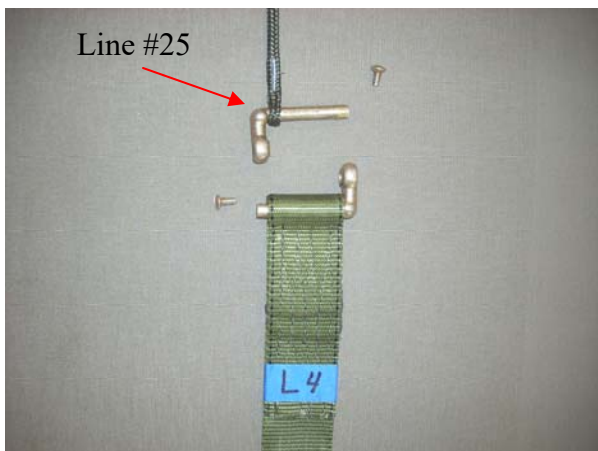
Open a 3rd connector link and begin by placing line **# 37** onto the link.

Keep the lines straight to the link.

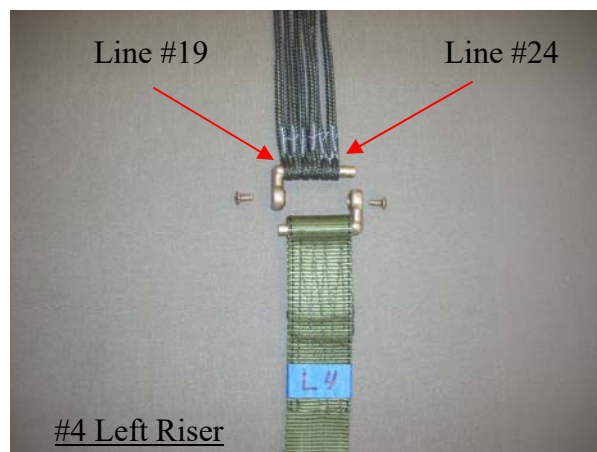




Continue to place lines **#38 - #48** onto the link.
 Pass the other half of the Separable Connector Link through the **Top Right Riser**, tighten the screws as shown.



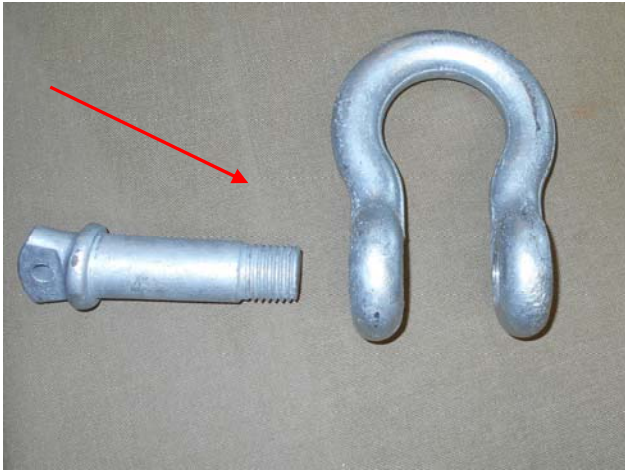
Open a 4th connector link and begin by placing line **#25** onto the link.



Continue to place lines **#26 - #36** onto the link.
 Pass the other half of the Separable Connector Link through the **#4 Right Riser**, tighten the screws as shown.

All the lines of the should now be on the Risers in the correct order.
 See page 1 for the line continuity chart.

4.3 Assemble the Risers to the Clevis Hook.



The Clevis Hook. **TPDS-G12-220**



Pass the Main Riser onto the Clevis Hook.
Thread and tighten the Bolt of the Clevis Hook.



Chapter 5

Cargo Parachute Packing

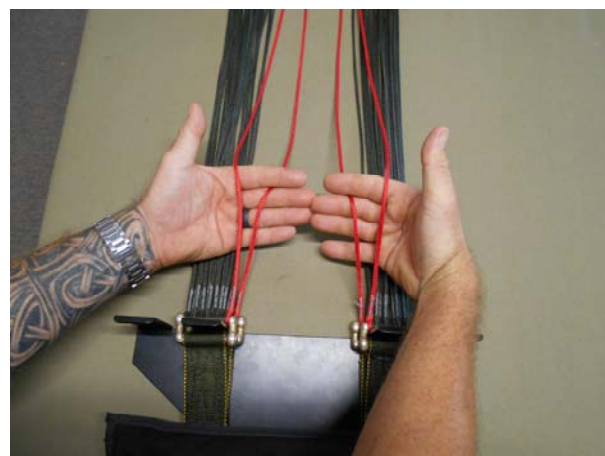
5.1 Preparing and Line Check.



Lay the **TPDS-G12-200 G-12** Cargo Parachute on the table.



Hook up the apex to the table ring or hook. Square the Apex.



Check suspension lines for proper layout using four-line check method.

Remove any twists and tangles in the lines.





5.2 Flaking the Cargo Parachute.



Pictured above is the top of the Cargo Parachute. Red lines indicate lines #1, #24, # 25, & #48.



Continue until all panels of that side of the canopy are flaked.



Flake one side of the canopy. Be sure to clear the material from between the lines.

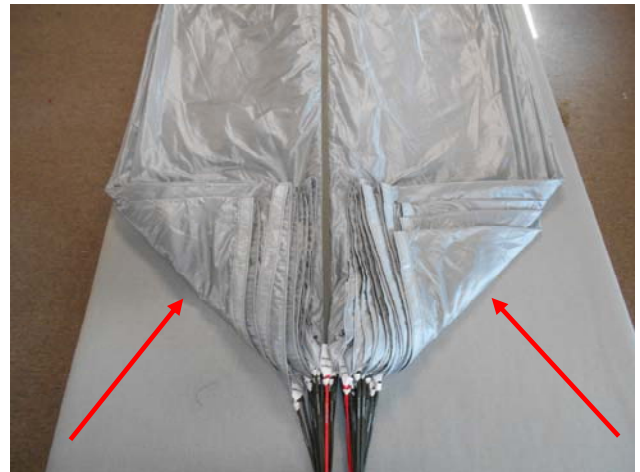


Flake the other side of the canopy.





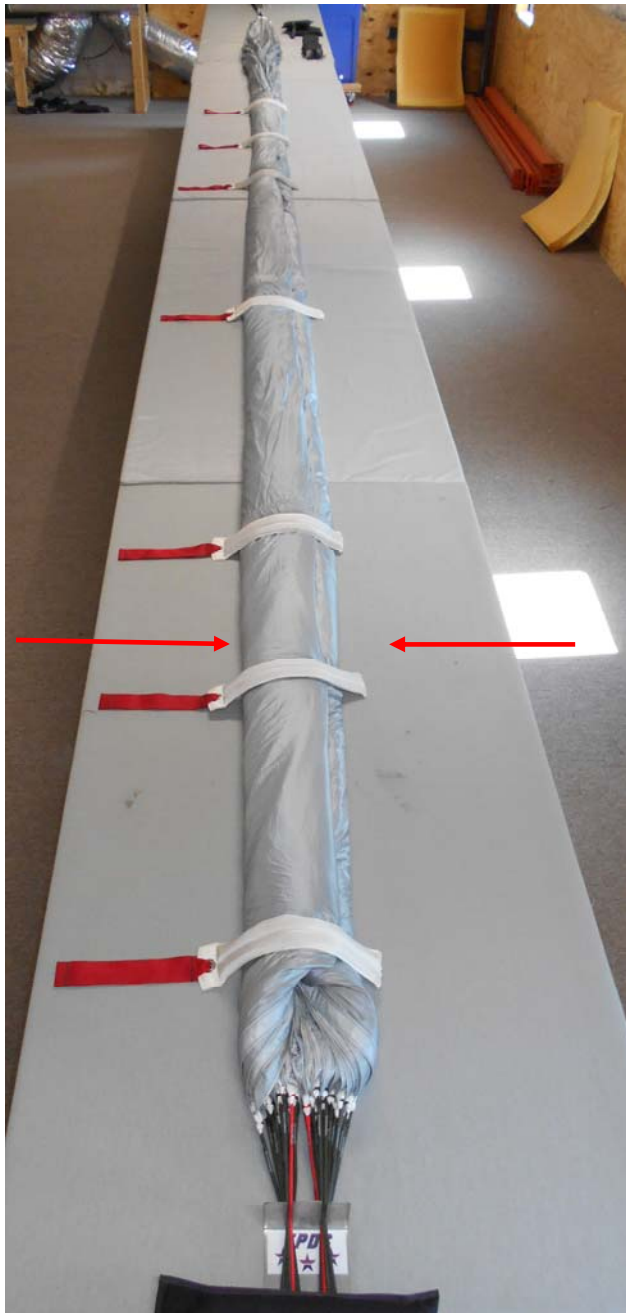
Carefully lay the flaked sides down onto the table.



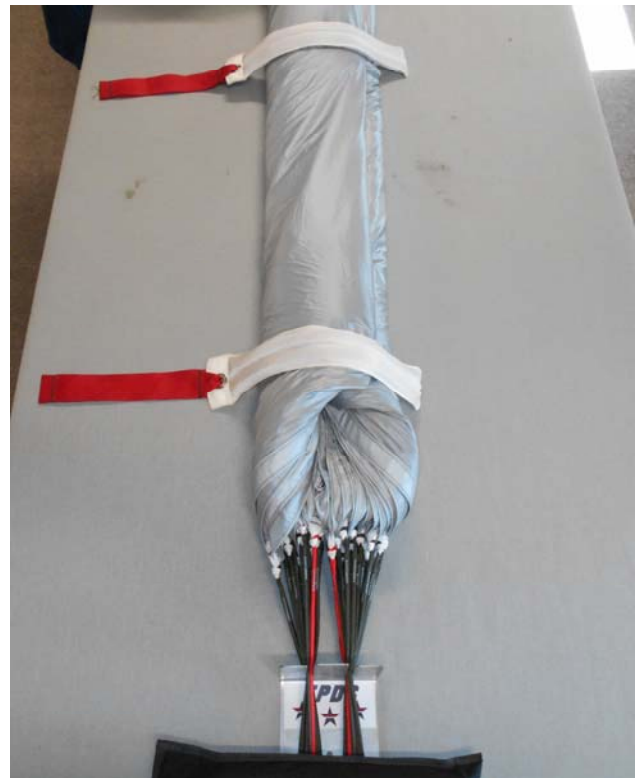
Fold the corners to the center as shown.



Fold the flaked gores to the center of the parachute.



Fold the gores to the center a second time. Hold in place with weights.



5.3 Securing the Deployment Bag to the Canopy.



With the Parachute flaked prepare the Apex Protector Cover **TPDS-G12-212** and Deployment Bag.



Pass the Apex lines through the opening of the cover.



With the D-bag turned inside-out pass the Drogue Bridle through the T-8 loops then through the apex lines, then under the apex cover loop.



Pass the end of the bridle through the small loop of the bridle.



Pass the tail end of the Bridle through the loop of the bridle as shown.



Tighten the knot formed.



Turn the D-bag right side out. Should look like this.

5.4 Securing the Drogue to the Cargo Canopy.



Pass the tail of the Drogue Bridle through the loops of the Drogue and the loop of the Center Line.



Pass the end of the Bridle through the small loop of the bridle.

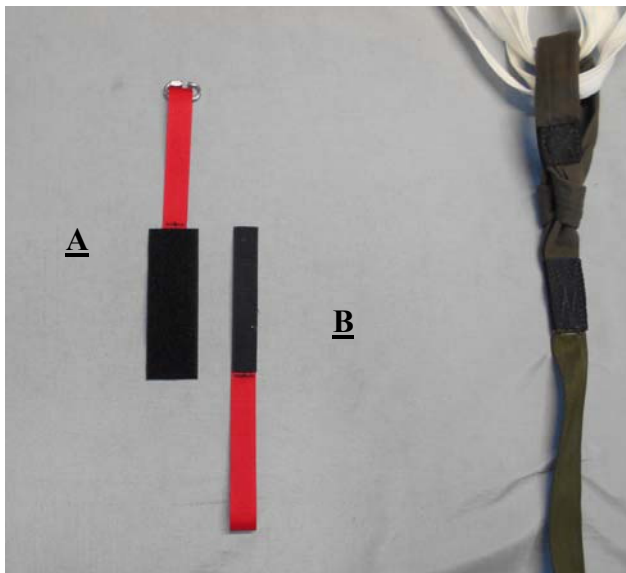


Pass the Drogue through the opened loop of the Drogue Bridle.



Tighten the knot formed. Drogue is ready.

5.5 Securing the Drogue Pouch to the Drogue.



Pictured above is the S/L Pile Velcro Connector (A) (TPDS-G12-210) & the S/L Hook Velcro Connector (B) (TPDS-G12-209).

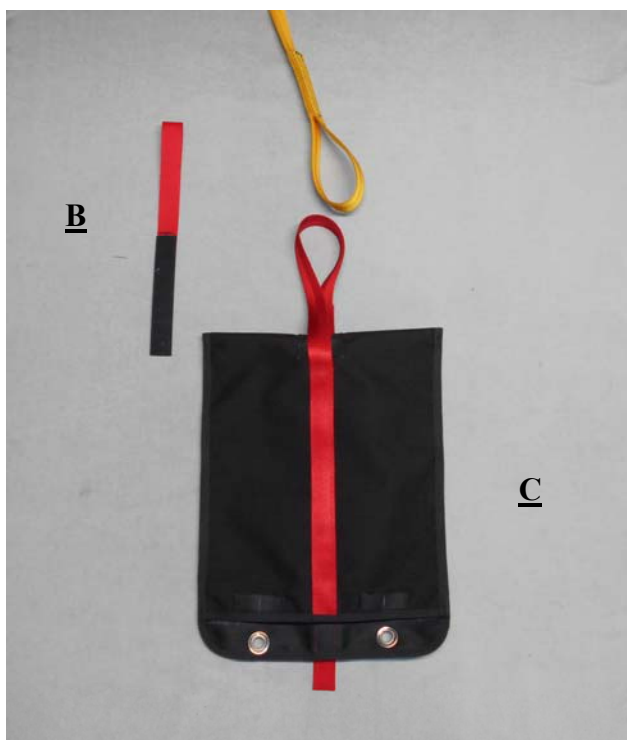


Attach the Pile Velcro Connector to the top of the Drogue using the Stainless Steel Connector Link (TPDS-G12-217).

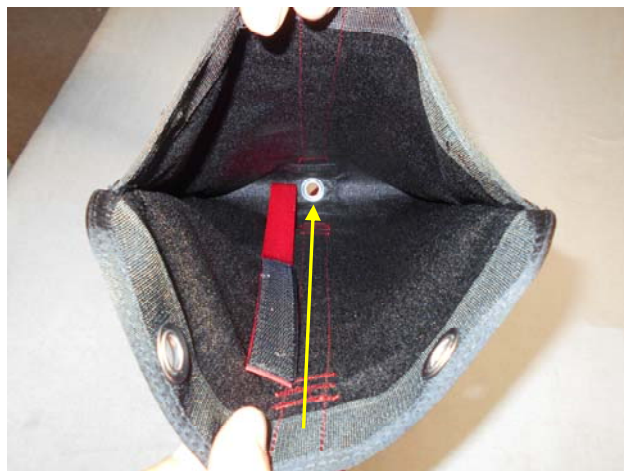
Use the loop of T-4.



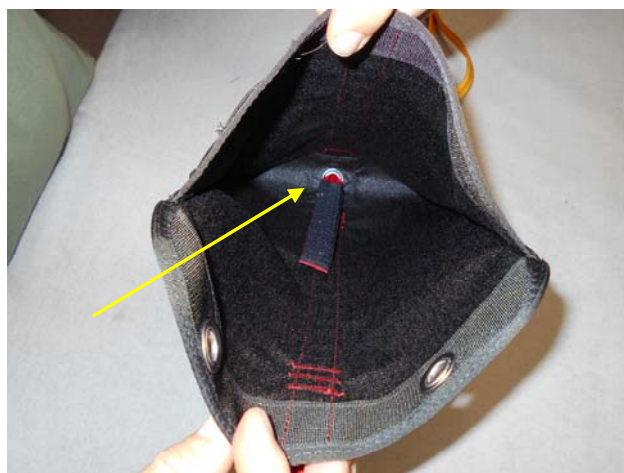
Pictured above is the S/L Pile Velcro Connector (A) (TPDS-G12-210) attached to the Drogue.



Pictured above is the Hook Velcro Connector (B) and the S/L Drogue Pouch (C) (TPDS-G12-207).



Pass the Hook Velcro Connector from the inside of the Drogue Pouch through the grommet.



Should look like this.



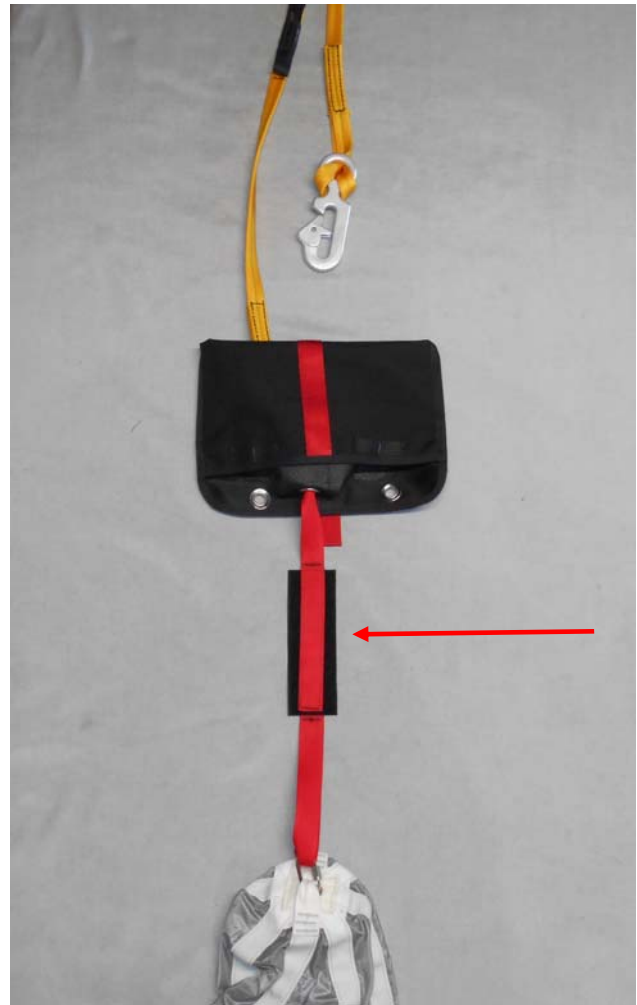
Pass the tail end of the Static Line (TPDS-G12-211) through the two loops of the Static Line Pouch.



Tighten the knot formed.



Pass the Hook of the Static Line through the loop of the tail end of the Static Line .



Mate the Hook and Pile Connectors. Drogue is ready to be packed into the Pouch.



Fold the Drogue to the center.

5.6 Packing the Drogue into the Drogue Pouch.



“S”-fold the Drogue into the Pouch.



“S”-fold the Drogue Bridle as shown.



Close the flap over the opening and secure with a bight of the Bridle through a rubber band stow.



Secure the Pouch closed with another bight of the Bridle through the other rubber band stow.

**5.7 Folding the Apex Protective Cover
TPDS-G12-212.**



Straighten and square the Apex Cover to the Parachute and Apex lines.



Fold the Apex Cover over in half.



Fold the sides to the center.



Fold once more to the center.

5.8 Placing the Canopy into the Deployment Bag.



Carefully "S"-fold the Apex into the D-bag.



Continue to "S"-fold the entire canopy into the D-bag.

5.9 Closing the Deployment Bag.



With the lines in the center of the D-bag secure the lines through either Cotton Loop. Secure the lines with a second bight using the other Cotton Loop.



Fold the outer flap over the first two bights and pass the black loop over the Cotton Loop then secure the lines through the Cotton Loop.



Pass the other Black Loop through the white Cotton Loop and secure a bight of the lines through the white Cotton Loop.

5.10 Stowing the Suspension Lines.

5.10.1 Stowing with Rubber Bands.



Begin by pulling the lines to either far corner of the D-bag.

Secure the lines with a bight through the rubber band.



Stow a bight of the line in the opposite corner rubber band.

Continue stowing the lines from one side to the other.



Pull the Deployment Bag Flap over the stowed lines.



Mate the hook and pile Velcro on the sides of the Deployment Bag.

5.10.2 Stowing with Cotton Loops.



Pull the Deployment Bag out of the bin.



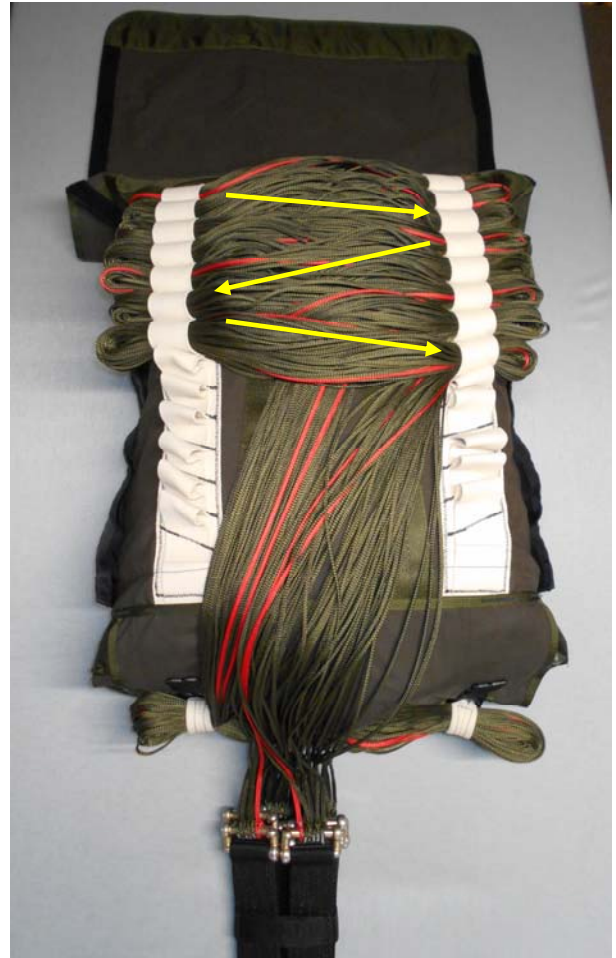
Pull the Suspension Lines from the top of the D-bag across towards the opposite far end.



Stow a bight of the line in the first Cotton Loop.

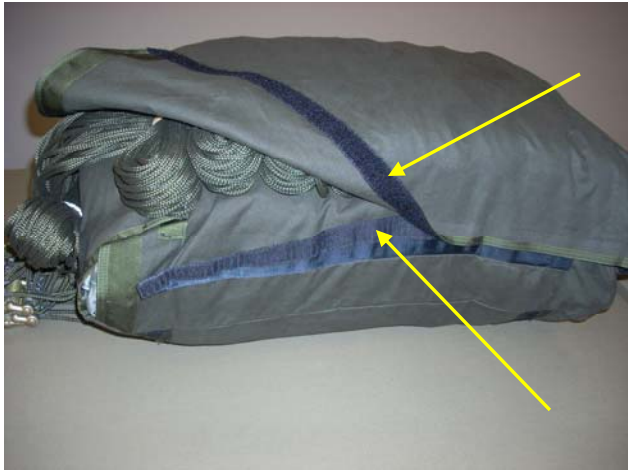


Stow another bight of the line in the Cotton Loop across from the first.



Continue stowing the lines back and forth from side to side.

5.11 Closing the Line Protector Flap.



Mate the hook and pile Velcro on the sides of the Deployment Bag.



5.12 Securing the Risers to the Deployment Bag.



Carefully flip the Deployment Bag onto the Line Cover Flap and bring either Riser up to the corresponding rubber stow band.



Stow the other Riser in the corresponding rubber stow band.



Stow both Risers under the center stow band.

The G-12 Cargo Parachute is ready to be placed into the Container.

5.13 Securing the Deployment Bag into the Container.



Shown above is the packed D-bag and G-12 Main Container (TPDS-G12-201).



Flip the Container over the D-bag and pull the Clevis Hook (TPDS-G12-220) up through the slot as shown. Be sure to be on both sides of the red webbing.



Should look like this.



Place the Drogue Pouch on top of the D-bag with the Static Line coming out the bottom of the Container.

5.14 Closing the Main Container of the TPDS G-12.



With the Deployment Bag in the Main Container place the Drogue Pouch (stowed Bridle up) on top of the Deployment Bag.

Parachute Apex and Bridle towards the top of the Container and the Static-Line out of the bottom.



Thread a length of #80 Break-tape through the four (4) loops of the Container and the loop of the Static-Line.



Pull the #80 Break-tape tight to close the flaps. Use a Surgeon's knot to tie the #80 Break-tape.



Tie two (2) more overhand knots to secure the #80 Break-tape.



Cut the #80 Break-tape to about 2".



With the Container securely closed with the #80 Break-tape stow 2" of the first bight of the Static-Line into a rubber band at the top of the Container.



Stow 2" of a second bight of the Static-Line in a rubber band opposite of the first.



Continue to stow the Static-Line back and forth with about 2" in each rubber band.



Stow the Carry Bag into the side pocket.

Chapter 6

Repairs**6.1 Repair Guidelines.**

Stitching and restitching on parachute items constructed from nylon, Cordura, 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

Main Suspension Line

A Damaged Main Suspension Line should be replaced.

Container

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



6.2 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 are 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 7

Care and Maintenance

7.1 General Storage Requirements

To ensure that serviceability standards of the **TPDS, Inc. G-12** 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 G-12**.
2. The **TPDS G-12** shall be stored in a dry, well ventilated location and protected from pilferage, dampness, fire, dirt, insects, rodents and direct sunlight.
3. The **TPDS G-12** 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 G-12** will **NOT** be stored in a damaged, dirty or damp condition.
5. The **TPDS G-12** 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.

7.2 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.

7.3 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.





7.4 Water Contamination Guide

If the **TPDS G-12 Cargo Delivery Parachute** 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.



Chapter 8

Repack Cycle Authorization



All of the materials, purchased items and parts used in the fabrication process for **Tactical Parachute Delivery Systems (TPDS) G-12** 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 six (6) months 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 six (6) months is authorized only if a logbook 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 our main canopies of **six (6) months** for certain military and civilian applications, in countries that do not impose a more restrictive repack cycle for parachute products.

Chapter 9

Limitations**9.1 TPDS G-12 Limitations****20 year Maximum Life Limitations for TPDS Parachute Assemblies.**

Without further limitations, each **TPDS G-12 Canopy** has a maximum life limitation of **20 years** from the date of manufacture. This consists of a maximum shelf life of 10 years followed by a maximum service life limitation of 10 years from the date the harness/parachute was placed into service. Further limitations include:

	<u>Main</u>	<u>Harness/Container</u>
Shelf Life Limitation	10 years	10 years
Service Life Limitation	10 years	10 years
Useful Life Limitation	100 deployments	100 deployments

WATER JUMPED CANOPIES:

Cargo Parachute- if the Cargo Parachute is used in a water drop- it shall have 5 years or 10 drops (**which ever comes first**) remaining for its Useful Life Limitation.

HARNESS/CONTAINER:

If the Harness/Container is dropped into water, it shall have 5 years or 10 drops (**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.



Chapter 10

Parts List

CARGO PARACHUTE DELIVERY SYSTEM

Part #	Manufactured Part
TPDS-G12-100	CARGO PARACHUTE DELIVERY SYSTEM Includes: Main Container, Main Parachute - G-12, Main Risers, Connector Links, Deployment Bag, Clevis Hook, Drogue/Pilot-Chute, Bridle, Static-line w/Snap, S/L Drogue Deployment Bag, Static-line Connectors, Gear Bag, Closing Loops, Rubber Bands, Rapide Link, Owner's Manual
TPDS-G12- 200	G-12 MAIN PARACHUTE
TPDS-G12- 201	MAIN CONTAINER
TPDS-G12- 202	MAIN RISERS (PAIR)
TPDS-G12- 203	SEPARABLE CONNECTOR LINK ("L" BAR) x4
TPDS-G12- 203-1	REPLACEMENT SCREWS FOR SEPARABLE CONNECTOR LINK
TPDS-G12- 204	MAIN PARACHUTE DEPLOYMENT BAG
TPDS-G12- 205	DROGUE/ PILOT-CHUTE
TPDS-G12- 206	DROGUE/ PILOT-CHUTE BRIDLE
TPDS-G12- 207	S/L DROGUE POUCH
TPDS-G12- 208	S/L DROGUE POUCH SEPERATOR LANYARD
TPDS-G12- 209	S/L DROGUE HOOK VELCRO CONNECTOR
TPDS-G12- 210	S/L DROGUE PILE VELCRO CONNECTOR
TPDS-G12- 211	MAIN STATIC LINE w/SNAP for PILOT CHUTE/BRIDLE DEPLOYMENT
TPDS-G12- 212	APEX PROTECTOR COVER
TPDS-G12- 213	STATIC LINE SAFETY PIN
TPDS-G12- 214	STATIC LINE RETAINER RUBBER BANDS
TPDS-G12- 215	DEPLOYMENT BAG LINE RETAINER RUBBER BANDS
TPDS-G12- 216	
TPDS-G12- 217	RAPIDE LINK
TPDS-G12- 218	#80 BREAK-TAPE (ROLL)
TPDS-G12- 220	CLEVIS HOOK
TPDS-G12- 221	COTTER PIN





Part # Manufactured Part

Main Parachute

TPDS-G12-200	64' CARGO DELIVERY PARACHUTE
--------------	------------------------------

Materials

TPDS-G12-230	Main Canopy Material- Ripstop Nylon
TPDS-G12-231	Main Canopy Suspension Line- Round Dacron 900 lbs.
TPDS-G12-232	Main Container Material- 1000 Denier Cordura
TPDS-G12-233	Main Deployment Bag Material- Army Duck

Accessories

TPDS-G12-700	G-12 Main Container Owner's Manual
TPDS-G12-800	G-12 Gear Bag



Chapter 11

Spare Parts



TPDS-G12-201 MAIN CONTAINER



TPDS-G12-203 SEPARABLE
CONNECTOR LINK



TPDS-G12-202 - MAIN RISERS - PAIR



TPDS-G12-204
MAIN DEPLOYMENT BAG





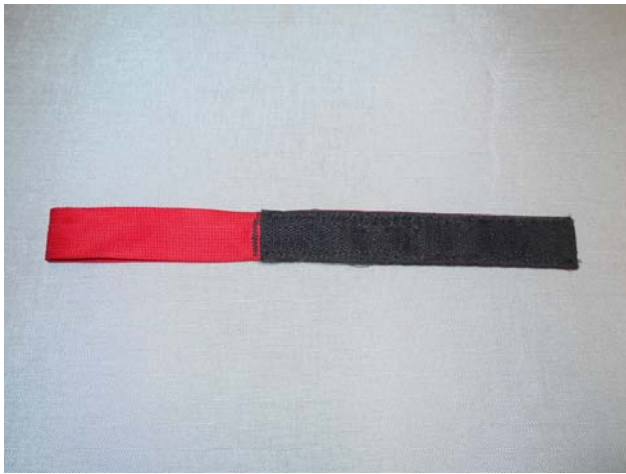
TPDS-G12-205 DROGUE/PILOT-CHUTE



TPDS-G12-206 DROGUE BRIDLE



TPDS-G12-207 DROGUE POUCH



TPDS-G12-209 S/L PILOT-CHUTE
HOOK VELCRO CONNECTOR



TPDS-G12-210 S/L PILOT-CHUTE
PILE VELCRO CONNECTOR



TPDS-G12-211 MAIN STATIC LINE



TPDS-G12-212 APEX PROTECTOR
COVER



TPDS-G12-213 STATIC-LINE
SAFETY PIN



TPDS-G12-214 STATIC-LINE
RETAINER RUBBER BANDS



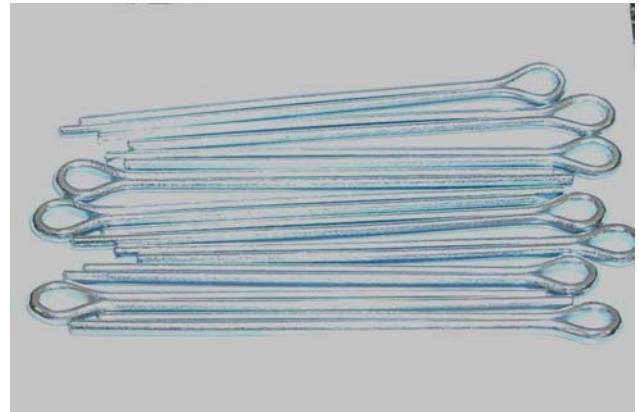
TPDS-G12-215 DEPLOYMENT BAG
LINE RETAINER RUBBER BANDS



TPDS-G12-220 CLEVIS HOOK



TPDS-G12-217 RAPIDE LINK



TPDS-G12-221 CLEVIS HOOK
COTTER PINS x10



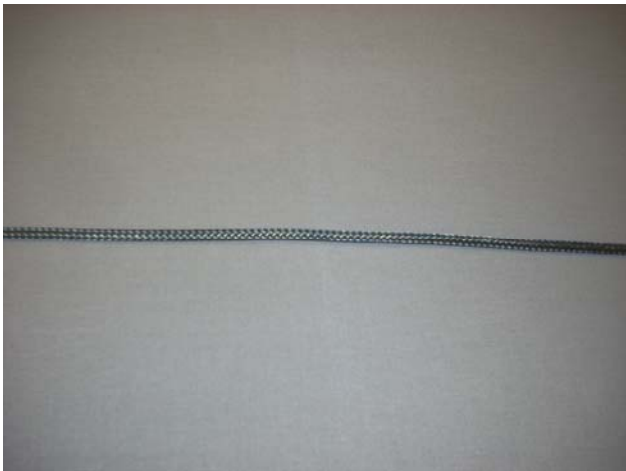
TPDS-G12-218 #80 BREAK-TAPE



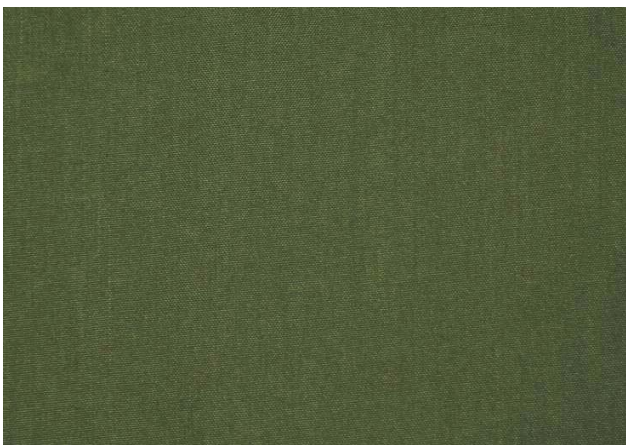
TPDS-G12-230 MAIN CANOPY MATERIAL



TPDS-G12-233 DEPLOYMENT BAG MATERIAL

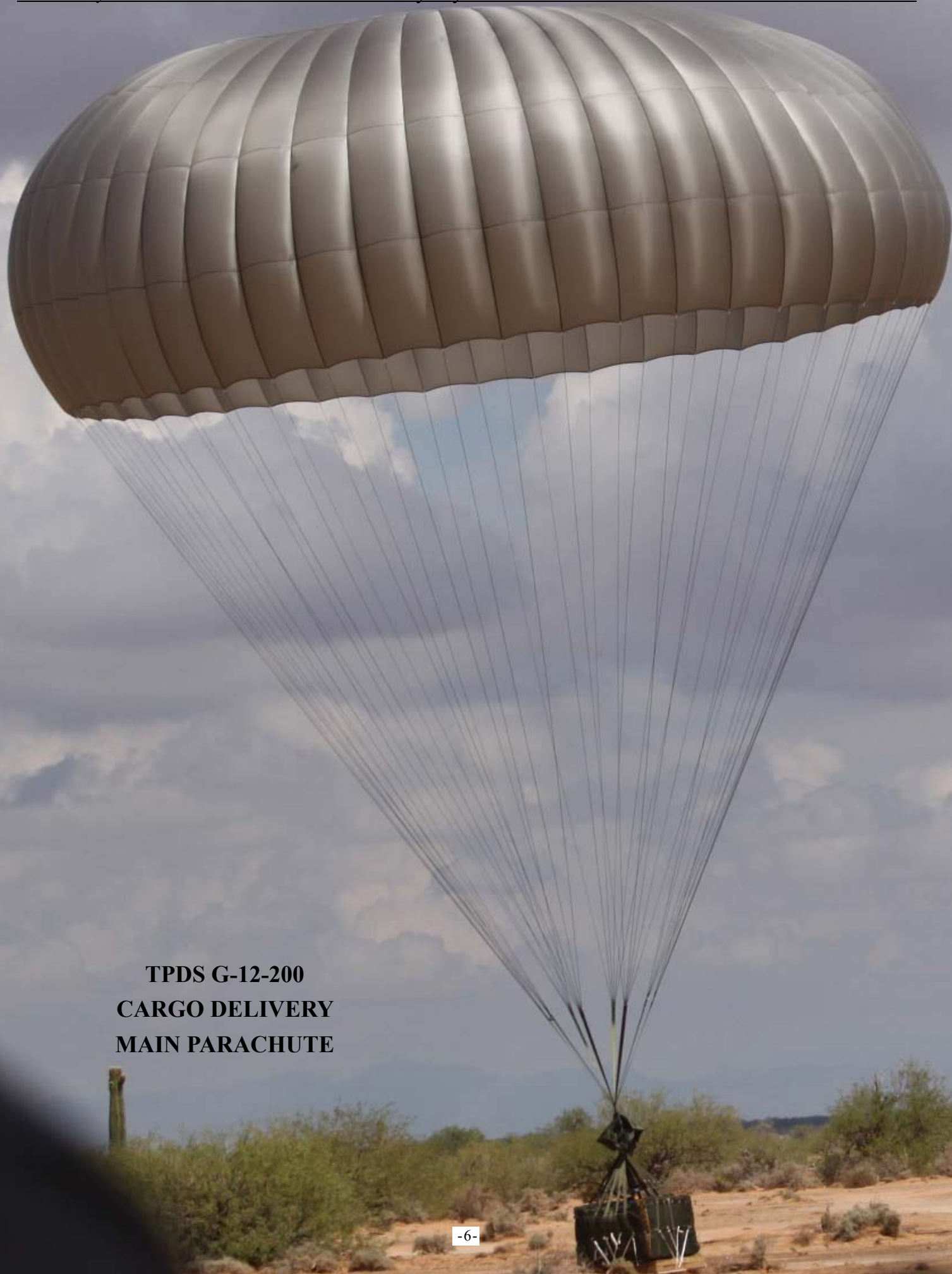


TPDS-G12-231 MAIN CANOPY LINE

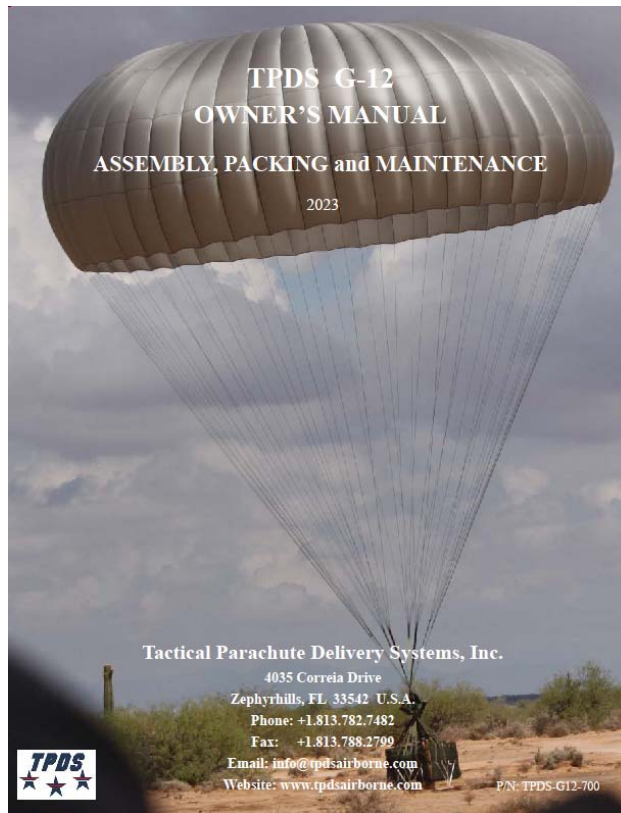


TPDS-G12-232 MAIN CONTAINER MATERIAL





**TPDS G-12-200
CARGO DELIVERY
MAIN PARACHUTE**



TPDS-G12-700
CARGO DELIVERY PARACHUTE
MANUAL



TPDS-G12-800
GEAR BAG

NOTES: