MODERN EQUIPMENT for the 21st CENTURY SOLDIER

INVASION II

MILITARY PARACHUTE HARNESS PERSONNEL TYPE





TACTICAL PARACHUTE DELIVERY SYSTEMS, Inc. 4035 Correia Drive Zephyrhills, FL 33542 U.S.A. Website: www.tpdsairborne.com Email: info@tpdsairborne.com Phone: +1(813)782-7482 Fax: +1(813)788-2799



<u>21st</u> CENTURY AIRBORNE TROOP STATIC-LINE SYSTEM

INNOVATIVE DESIGN FOR ADVANCED MILITARY MISSIONS

Harness/Container

- 3-Ring Main Release System~ Optional
- Ultimate Static-Line Aircraft Security Design
- Split Saddle Leg Strap Design~ Optional
- Drogue Main Deployment~ Optional
- System Gear Bag Stowage Feature
- Cotton Loop or Rubber Band Deployment Bag Options
- Automatic Activation Device for Reserve Container Capability~ Optional

<u>Main Parachutes</u>

- Multiple Main Canopies to Accommodate all Tactical Military Missions
- Optimal Rate of Descent Main Canopy Design
- Steerable and Non-Steerable Main Canopies
- Steerable Canopies Designed to Eliminate Rapid Rate of Descent in Turns
- Main Canopy Apex Damage Eliminator Design

Reserve Parachutes

- 28 ft. Reserve Canopies for Slower Rate of Descent
- Reserve Mesh Design to Avoid Main/Reserve Entanglement



Airborne Harness/Container System

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

The Invasion II consists of a back pack Main Container (INV-200) with a static line deployed round parachute and a front mounted Reserve Container (INV-100) with the Invasion II Reserve Parachute (INV-300).

The Invasion II may be set up as a *Foreign Object Debris* (F.O.D.) free airborne system with unique Velcro attachments for Static-line deployment.

It is a "saddle" harness designed to accommodate any size jumper with any aircraft commonly used in military operations. There are seven (7) points of adjustment to the harness and three (3) easy dress-up points for quick gear-up and gear-off.

Main Container (INV-200) Capabilities and Features:

Physical 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. / 1045 kg.



Materials cond. :		
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.
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	Tensile Strength	2500 lbs. / 1130 kg.
with "V" Ring Quick Fit Bar PS 27765	Tensile Strength	2500 lbs. / 1130 kg.
Leg Strap Hardware-		U
B-12 PS 22044-1 or PS 22017 Quick Ejector	Tensile Strength	2500 lbs. / 1130 kg.
with "V" Ring Quick Fit Bar PS 27765	Tensile Strength	2500 lbs. / 1130 kg.
Reserve Container Top Connector Point-	0	8
"D" Ring Angled- PS 22046-1	Tensile Strength	5000 lbs. / 2270 kg.
Static Line Snap Hook-		
MS 70120	Tensile Strength	1750 lbs. / 800 kg.
Reserve Container Lower Connector-		

Alligator Snap - FDC1575BO

Size:

Main Container -

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

Weight:

Main Container -

16 lbs. (7.26 kg.)

w/ Deployment Bag, Static-Line and Gear Bag

Container Colors:

Olive Drab Green

Harness Colors:

Olive Drab Green

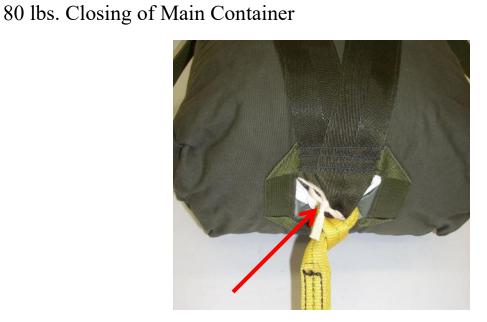
TPDS * * *

80 lbs. BREAK-TAPE MAIN CONTAINER:





Riser to Deployment Bag 80 lbs. Break-tape



80 lbs. Break-tape Canopy to Deployment Bag Attachment



Container Special Features:

7 Points of Adjustments and 3 Easy Points of Dress-up:



Airborne Reserve Harness/Container - (INV-100)

Physical Specifications:

Materials:

Reserve Container-	420 Denier Para Pak Nylon
Webbing:	
Reserve Risers-	
1 23/32" (4.3 cm.) wide Type 8 Mil-W-4088	Tensile Strength 4000 lbs. / 1814 kg.
Lower Attachment Straps-	0
1" (2.54 cm.) wide Type 17 Mil-W-4088	Tensile Strength 2500 lbs. / 1134 kg.
Tension Device-	Tensue su engli 2500 105.7 1104 kg.
650 lbs. (295 kg.) Flat Dacron Line	Tensile Strength 650 lbs. / 295 kg.
Hardware:	
Butterfly Snaps- PS 22042-1	Tensile Strength 5000 lbs. / 2270 kg.
Size:	
Reserve Container-	8" high x 16" wide x 8" deep
	20 cm. x 40.5 cm. x 20 cm.
Weight:	
Reserve Container-	3.7 lbs. (1.68 kg.)
Container Colors:	
Olive Drab Green	
Harness Colors:	
Olive Drab Green	
Ripcord:	

Grip material	
Grip shape	Cloverleaf
Cable material	
Center Pull or Right-hand Side-Pull	2 Stainless Steel Pins



INVASION II RESERVE CONTAINERS



TPDS-INV-100-1 Right-Hand Pull Reserve Container



TPDS-INV-100-2 Center Pull Reserve Container



INVASION II Parachutes

Main Parachute: 28 Gores

INV-400 - 35 ft. Non-steerable RoundINV-401 - 42 ft. Non-steerable RoundINV-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.



INVASION II Main Parachute - Non-Steerable 28 Gores





INVASION II Main Parachute - Non-Steerable **28 Gores**

Performance Data

INV-400

15 fps @ 210 lbs.

0 mph (0 km/h)

<10 angle of oscillation

7-8 seconds

4 mps @ 91 kg.

100-360 lbs. (45-163 kg.)

Suspended Weight Range: Rate of Descent:

Forward Speed: Stability Range: 360° Turn: **Opening Time:**

Physical Specifications

INV-400

2.6 seconds at 150 kts.

Canopy Weight: Modification: Anti-Inversion Netting: Yes Fabric: Colors: Shape: Parabolic Diameter: Number of Gores: 28 Suspension Line: Suspension Line Length: Suspension Line Connector Links: MS22002-1 Connector Tensile Strength: 3000 lbs. / 1360 kg.

16 lbs. (7.26 kg.) OCV (Oscillation Control Vent) PIA-C-44378 Type IV OD Green or Foliage Green 35 feet (10 m) 525 lbs. Polyester Braid 574.0 cm.@ 2kg./5 lbs. Tension

INV-401

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. 0 mph (0 km/h)<10 angle of oscillation

7-8 seconds

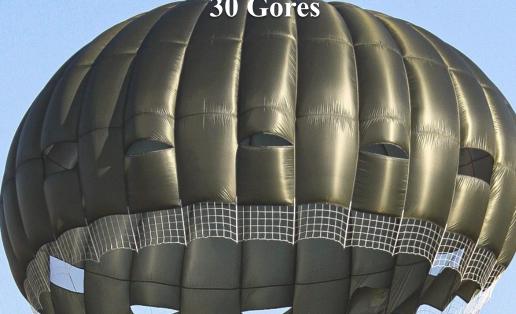
2.6 seconds at 150 kts.

INV-401

19.2 lbs. (8.7 kg.) OCV (Oscillation Control Vent) 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 MS-22002-1 3000 lbs. / 1360 kg.



INVASION II Main Parachute - Non-Steerable 30 Gores



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INVASION II Main Parachute - Non-Steerable 30 Gores

Performance Data INV-404 INV-405 Suspended Weight Range: 100-360 lbs. (45-163 kg.) 200-425 lbs. (91-193 kg.) Rate of Descent: 15 fps @ 210 lbs. 13 fps @ 225 lbs. to 15 fps @ 425 lbs. 4 mps @ 91 kg. 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-404</u> <u>INV-405</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: 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

Connector Tensile Strength: 3000 lbs. / 1360 kg.

3000 lbs. / 1360 kg.

MS-22002-1



INVASION II Main Parachute - Steerable 28 Gores







INVASION II Main Parachute - Steerable 28 Gores

Performance Data

INV-402

15 fps @ 210 lbs

100-360 lbs (45-163 kg.)

Suspended Weight Range: Rate of Descent:

4 mps @ 91 kg. Forward Speed: 8 -10 mph (13-16 km/h) **Stability Range:** <10° angle of oscillation 360° Turn: **Opening Time:** 2.6 seconds at 150 kts.

Physical Specifications

INV-402

7-8 seconds

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.

I<u>NV-403</u>

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.

I<u>NV-403</u>

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 MS-22002-1 3000 lbs. / 1360 kg.



INVASION II Main Parachute - Steerable 30 Gores





INVASION II Main Parachute - Steerable 30 Gores

	INV-406	INV-407
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	MS-22002-1
Connector Tensile Strength	: 3000 lbs. / 1360 kg.	3000 lbs. / 1360 kg.









INVASION II Reserve Parachute (INV-300)

Physical Specifications

Shape:	Conical
Diameter:	
Canopy Weight:	9.9 lbs. (4.5 kg.)
Number of Gores:	
Panels per Gore:	
Canopy Cloth:	PIA-C-44378 Type IV
Suspension Line:	
Suspension Line Length:	555 cm. @ 2 kg./5 lbs. Tension
Suspension Line Connectors:	MS22002-1
Connector Tensile Strength:	
Maximum Suspended Weight:	

Colors: Standard - White Optional - OD Green

Ripcord

The Ripcord consists of a stainless steel grip and a flexible steel cable to which steel ripcord pins are swaged. The ripcord used with the **INVASION II Reserve** has two ripcord pins 1 1/4-inch in length **OR** one pin for the single pin option.

Grip material	5/16" Stainless Steel Tubing
Grip shape	Cloverleaf
Cable material	Flexible Steel
Number of pins	



Airborne Harness/Container System

Capabilities and Features:

The **Invasion II Gear Bag (INV-800)** is a light-weight, high quality and durable gear bag designed to carry the Main and Reserve Containers and Parachutes.

It is manufactured in the same facility as the Invasion II made of 1000 denier Cordura and Type 8 webbing for the handles. It stows easily in the back pad of the Invasion II Main Container to be retrieved upon landing under canopy.

The Invasion II Gear Bag comes as a standard feature of the Invasion II. Extra bags may be ordered.



The Back Pad Pocket for the Invasion II Gear Bag.



INV-800 INVASION II GEAR BAG





TACTICAL PARACHUTE DELIVERY SYSTEMS, Inc.

4035 Correia Drive Zephyrhills, FL 33542 U.S.A.

Website: www.tpdsairborne.com

Email: info@tpdsairborne.com

Phone: +1 (813)782-7482

Fax: +1 (813)788-2799