



Parachute Trainer



Introduction

The Parachute Trainer is an immersive training system capable of supporting initial canopy control training and malfunction recognition through to mission planning and rehearsal. The product is available in two frame options.

The trainer uses Unity virtual reality technology in conjunction with a motion suit, head-mounted display and an off-floor suspension rig to provide the student with an unrivalled totally immersive and interactive training experience.

In the development of the parachute trainer we collaborated with several military parachute training schools from around the world; we know that the parachute trainer provides the best immersive and completely adaptable virtual parachute training in the world.



www.pennantplc.com

Contact: sales@pennantplc.com





Key Features

- Mission planning and rehearsal
- Malfunction recognition training for a variety of malfunctions and nuisance factors
- Pre-set scenarios including:
 - Back man in stick not making DZ
 - Collision avoidance in clouds
 - Tight DZ with minimal outs
 - Mixed stick FF followed by SL
 - Member of stick has unrecoverable nuisance factor
 - HALO, HAHO and HAMO scenarios
- Pre-Jump parachutists brief from exiting the aircraft to landing on DZ
- Selectable Parachute Types
- Selectable Weather Conditions (rain, snow, fog & cloud height)
- Selectable Time of Day (Dawn, Midday, Evening, Night)
- NVG mode to allow mission rehearsals at night
- Selectable Wind Speed (may differ with altitude)
- Selectable Virtual Environment and customisable Geospecific Terrain databases
- Body tracking system to allow altimeter checks under canopy
- Integrated communications between students and instructor
- Intuitive, easy to use modern User Interface (UI)
- Assessment module to check student competency
- After-Action replay
- Scalable system, up to 24 jump stations
- Character customization allowing end user to setup jumpers
- Commercial Off the Shelf (COTS) gaming engine allowing rapid integration of new VR hardware and visual effects
- Increased student through put (quick change)

Key Features (Options)

- Dynamic steering tension lines allowing tension configuration per canopy type
- Riser steering
- Multiview client



Aviation Regulations Alignment

The Avatar is completely customisable depending on role, environment, parachute type, time of day and equipment you would like the avatar to have. Additional Customisation options on avatars available upon request.

As well as customising the avatar the equipment is also totally customisable depending on your training needs.

Equipment options include:

- Full pack
- Rucksack
- Helmet Attachment (NVG Options)
- Night Lights
- Compass
- GPS
- Utility Pouch
- Additional Equipment - available upon request

Aircraft Options

Aircraft options include:

- Tailgate Exit Generic C130
- Side door Exit Generic C130
- Custom Aircraft - available on request

Terrain Databases

Using high speed gaming technology we can provide accurate terrain simulation from anywhere in the world. Coupled with all our other customisable features we know you will not get this level of real time pre mission simulation anywhere else.

Terrain databases included:

- Generic desert terrain
- Generic temperate terrain
- Generic water terrain
- Geo-specific customer terrains - available upon request





Supported Malfunctions & Nuisance Factors

- | | |
|---|------------------------------------|
| 1. Bag Lock | 14. Stuck Slider (Non-Recoverable) |
| 2. Horseshoe | 15. Line Over Malfunction |
| 3. No Canopy / Container Closure | 16. Broken Rigging Line |
| 4. Pilot / Extractor Chute in tow | 17. Broken Steering Line |
| 5. Pilot / Extractor Chute Entanglement | 18. Steering Line Restriction |
| 6. Streaming Malfunction | 19. Holes Rips & Tears Double Skin |
| 7. Normal Twists | 20. Holes Rips & Tears Single Skin |
| 8. High Twists | 21. 2 Canopies (Side by Side) |
| 9. Premature Break Release | 22. 2 Canopies (Bi-plane) |
| 10. Bridle Line Restriction | 23. Slow Opening |
| 11. End Cell Closure (Recoverable) | 24. Uncontrollable spin left |
| 12. End Cell Closure (Non-Recoverable) | 25. Uncontrollable spin right |
| 13. Stuck Slider (Recoverable) | |

Supported Assessments

1. Pull Rip Cord
2. Check Canopy
3. Flare 1
4. Flare 2
5. Right Turn (Trigger after 90 degrees)
6. Left Turn (Trigger after 90 degrees)
7. Cutaway
8. Enter HA
9. Leave HA
10. Final Turn into Wind
11. Release Equipment
12. Final Flare
13. Dir. To Wind at 0 ft
14. Distance from IP
15. Landing Speed
16. Entered Safe Zone





LITE FRAME

Physical Specifications

PARTICULAR	VALUE	UNIT
SINGLE JUMP STATION		
Length	2110	mm
Width	1500	mm
Height	3050	mm
Weight	400	Kg
MASTER CONTROL STATION		
Length	2182	mm
Width	1028	mm
Height	1584	mm
Weight	275	Kg

Electrical Specifications

PARTICULAR	NOMINAL	UNIT
Supply Voltage	110 / 220 /240	Vac
Frequency	50 / 60	Hz
Maximum Current	13 ^{Note 1}	A

Note¹ Combined single SJS and MCS

Supported Canopy Types

Ram - Air Canopy (Square) : Static Line and Free Fall

Trap - Air Canopy (Round) : Static Line

Sports Canopy : Static Line and Free Fall



Environmental Specifications

PARTICULAR	VALUE	UNIT	NOTES
Temperature Range	+10°C to +35°C	°C	
Relative Humidity	0 to 85	%	Non-Condensing
Supply Voltage	220 / 240	VAC	
Frequency	50 / 60	Hz	Model Dependent
Jump Station Maximum Current	5	A	Max per Station
ISO Maximum Current	3	A	
Server Rack Maximum Current	11	A	

Facility Requirements

AREA	REQUIREMENT
Footprint	4.25 m ²
Floor Loading	398 Kg/m ²
Electrical	220 / 240 VAC Single Phase
Water Supply	Not Required
Pneumatics	Not Required
Tools	No additional operating tools required Maintenance tools supplied

Supplied Documentation

Operation Manual

Maintenance Manual

Installation Manual

Optional Accessories

Dynamic steering tension lines;

Riser steering;

Multiview client.

Ordering Information

98510-000-0001A	Parachute Trainer
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98510-3021	Spares Kit
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For further information get in touch: sales@pennantplc.com