

These are Supplemental Packing Instruction for the Apex DPx only.

This is not a complete Apex BASE Owners Manual.

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One is included

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# Apex BASE Owner's Manual

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The information contained in this manual is time sensitive. Because the sport of fixed object parachuting is advancing at a high rate some of the information will become outdated. When? Time will tell. Contact Apex BASE for details on current manuals.

## **!!! WARNING !!!**

**You will die. You were born. You will live and you will die. You may die while BASE (fixed object) jumping as others have. It is your responsibility to prepare yourself and your heirs for any eventuality that may arise from your participation in such activities as parachute jumping. Parachutes sometimes malfunction, even when they are properly designed, built, assembled, packed, maintained and used. The results of such malfunctions are sometimes serious injury or death.**

**If you are unwilling to accept full and complete responsibility for your activity you may return unused equipment to Apex BASE for a complete refund. By keeping or using any equipment you are accepting full responsibility and agree not to sue or make claims against The Uninsured Basic Research Inc., DBA Apex BASE, or its directors, owners, shareholders, officers, employees, designers, suppliers.**

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# Apex DPx

Welcome to the eXciting new world of the Apex DPx. Please read the following supplemental instructions carefully. The Apex DPx is a unique parachute design and will require some time to become familiar with the new systems.

## Introduction

First look at the rig as a single parachute dual pin system. Try to ignore the Storage Cell- SC (cargo) area at first.

Some things you may notice being different from a standard Apex DP.

- The riser cover is a two piece system with adjustment. This allows adjustment when the SC is being used.
- The BOC has a Parapak fabric cover. It is very common for the BOC to scrape the ground during loading and unloading. The BOC cover will protect the spandex during the loading and unloading of the SC.

Inside the pack tray of the container you will notice Non Restrictive Riser Covers –NRRC.

This riser cover is intended to separate the risers and toggles from the parachute while packed.

Why? Sometimes it is necessary pull some slack on the riser while the parachute is packed.

This NRR cover helps reduce the snag potential between the canopy and the toggle/riser. \*See “Riser Preparation” for more details.

The Apex DPx can be used as a normal BASE rig. It was sent out in this configuration.

## Storage Cell- SC.

The Storage Cell is available in 2 sizes 1300 and 3300 cubic inches. There are 2 major differences between the sizes. One is the obvious size, second is the smaller-1300, has only 2 compression straps, therefore, is much easier to use. The larger, 3300, has several compression straps, therefore, requires more prep time before each jump and a greater understanding of the entire system. There are a few other differences but without seeing both of them they would be hard to explain.

Transitioning from the smaller SC to the larger is typically an easier step because they both

operate using similar systems.

## Accessing the Storage Cell.

Behind the 3 Ring (or “3-ring area” if your rig has non-detachable risers) you will find 2 small rings with the adjuster for the Floating Riser Covers. The FRC is the riser cover that stays with the container. Remove the excess strap from pocket, take a close look at the pocket you will need it later. Loosen the riser cover about 10 inches (20 cm).

Notice the back pad and the container are held together with loops and cable (like a wing suit). The cable ends are at the top center. Go to the pull-up cord hanging from one side. This pull-up cord was installed for you, it would not normally be there. The rig must not be

### Riser Preparation aka Tacking Link Covers

We advise the user to tack the connector link covers. Some link covers will slide (on and off the link) easier than others. Regardless of link cover type it is good practice to have them tacked when using the DPx. The idea is, if you need to adjust the riser (pull riser out of container) the link cover is less likely to slide off the link, onto the lines if the cover is tacked in place.

jumped with the pull-up cord hanging from the side. Pull both ends of the cord to expose a bit of cable. Grab the cable and pull, removing it from the loops. Work the rest of the cable out from the merge loops. Coil the cable into a circle about 5 inches (10 cm) in diameter. The Storage Cell is now visible. Go to the top of the SC and find the door. On the door is a Velcro closed pocket, put the coiled cable into the pocket with the Pre Flight Check List. Look in the Storage Cell. Take notice of a plastic backed BOC on the bottom of the SC. To prevent sharp items from poking from the SC into the BOC/pilot chute, we installed a plastic barrier. If a sharp object does penetrate the BOC, trapping the pilot chute, it could result in a total malfunction. Other sharp object may poke through the SC. The SC should be packed to reduce this poke through potential.

#### Two BOC Pockets

Take a look at the bottom of the rig (yellow cable removed). Two BOC pockets can be seen. One is on the container the other is on the Storage Cell. The container BOC is used during normal BASE rig configuration. The Storage Cell BOC is used while the DPx is eXpanded.

#### Bridle Path-

On the small SC there is a small tab of Velcro just above the SC- BOC. This is a bridle path. This path will get the bridle from the SC-BOC, past the container BOC. On the large SC the bridle path will be the piece described above as well as a longer and adjustable path for the different thickness of the SC. A bridle (included) with 2 pieces pile Velcro is needed when the Apex DPx is used in the eXpanded mode with pilot chute stowed . See Drawing page 7.

Hand held PC does not typically use the Velcro on the bridle. If a short delay is planned mate only 50%, or less, of the Velcro to avoid pilot chute hesitation. Any time Velcro is used it is imperative to understand the difference between “peel” strength and “sheer” strength. When Velcro is peeled the adhesion is concentrated in a small area. Therefore, peeling requires little effort making the peel direction more desirable for the consistency needed on a bridle used in parachuting. Velcro in sheer is a completely different thing. Now the entire piece of Velcro will work together. The strength is a multiple of the square inch contact area. Basically it gets really strong and is BAD for the consistency needed on a bridle used in parachuting. Body positioning, airspeed, pilot chute size will effect the direction and force generate by the pilot chute. We provide “Skipper” or “Skip” Velcro (1 x 1 inch Pile) to adjust the Velcro strength. In essence the Skip Velcro will reduce the strong sheer and maintain the good peel. Skip Velcro is used along the Bridle Path to cover the hook and reduce the bridle contact with the container.

#### Loading the Storage Cell- SC

Preparation needed on the Large SC only. Install a rubber band on the back side of each triangle compression. Any excess of the compression strap should be stowed the rubber band before flight.

In the beginning try to fill it with light (not heavy) stuff. This will give you a better introduction to the new dynamics of the rig (bridle routing, BOC, equipment check.....) without having the added weight. Just having the packed canopy 6 inches, or more, away from the body

will change your center of gravity and therefore may feel strange. To keep it light, back things that are bulky but not heavy- fleece jackets, empty water bottles that are NOT crushed, a Camel Back filled with air like a balloon.... This stuff will give the storage area the shape it needs without the weight. After you become comfortable and familiar with the light eXpanded system you can add weight at your own discretion.

Heavy objects should be kept close to the back pad (toward the jumper). This will help reduce the inevitable change of the Center of Gravity. The change of the C of G will have an effect on exits and body flight. When the SC is being used the FRC adjustment will need to pass through the Yoke Guide Loop-YGL. This YGL will prevent the riser and FRC from falling off the rig and over the shoulder. The FRC adjustment should be locked off using a over hand. Excess is stowed in the pocket provided. See drawing page 8.

### Pre Flight Check

We recommend a thorough pre-flight check before every jump. A check list, with a brightly colored flag, is included and can be found in the SC Door Pocket . The check must include the normal equipment check items found in the Apex BASE Owners Manual page 54 and a few more including.

- Left and right Floating Riser Cover compression. Adjust and stow all excess in the respective pocket.
- Check riser covers. No toggle or line should be visible.
- Check Storage Cell Door-closed and secure.
- Adjust and stow all excess compression straps
- Pin check. Per normal, see Owners Manual for Pre Flight.
- Bridle check. Insure safe, unobstructed, passage of bridle to the proper BOC pocket.
- Compression models only. The Compression system **MUST** be **UNDER** the Compression Cover near the BOC mouth and the pilot chute handle.
- Insure good access to pilot chute.

## Apex DPx

### **Pre-flight check list**

Storage Door closed  
Floating Riser Cover secure  
All straps stowed  
Pilot chute in proper BOC  
PC handle accessible  
Bridle routing clear to pin  
Riser connection– 3-ring  
Saddlebags closed

### **Don rig in normal fashion**

Touch PC handle  
Check clothing  
Cutaway handle in place

## Jumping the DPx

The changing of your exit Center of Gravity must be considered with any load. Practice the exit several times, with the exit weight, before every jump. The more fluid the pre exit movement becomes the easier it is to perform a comfortable exit.

“Contents may shift during flight” has never been so true. During opening the contents of the SC will be subjected to the same opening forces you are. You sink to the bottom of the harness. The contents will sink to the bottom of the SC. The contents will attempt to escape through the bottom of the SC, around or through the BOC. Pack the SC in a manner that reduces its ability to shift, damage, and possibly escape the bottom of the SC.

Wing loading of the parachute must be considered when carrying any additional weight. Under canopy the weight of the SC is not carried by the jumper. It is supported by the parachute. The jumper is somewhat squeezed between the two. During landing the parachute will no longer carry the weight and the jumper must start to carry the load as the parachute loses lift. Basically, as you land you will be required to carry the additional weight in the SC. Landings will be faster with the additional weight, unless the canopy size has been increased to compensate for the additional weight.

Wing suit flights with a DPx require far more understanding. Wing suit flights with a DPx are generally discouraged until the pilot is very familiar with both the DPx and wing suit flights as separate activities. Even then the SC must be kept to a minimum.

When the time comes to jump the DPx, start jumping it in the BASE rig mode with the Storage Cell empty and compressed (yellow cable installed). This will allow time to become familiar with the two part Floating Riser Cover and any differences that may be present from other rigs.

## Returning the DPx to the BASE rig mode.

Empty the SC. Remove the cable from the door pocket. Leave the Pre Flight list in the pocket. Tuck door and top compression straps inside the SC. Fold the SC in half. Fold the SC bottom (BOC and Velcro bridle guide) neatly in toward the center. Align the loops across the bottom and insert the cable. Continue the loop/cable merge across the bottom, up the side, finishing at the center top. Repeat for the other side. The top center loop should hold both cables. Tuck excess cable into SC area. Tighten riser cover adjustments and stow excess strap into pockets.

### Instruction

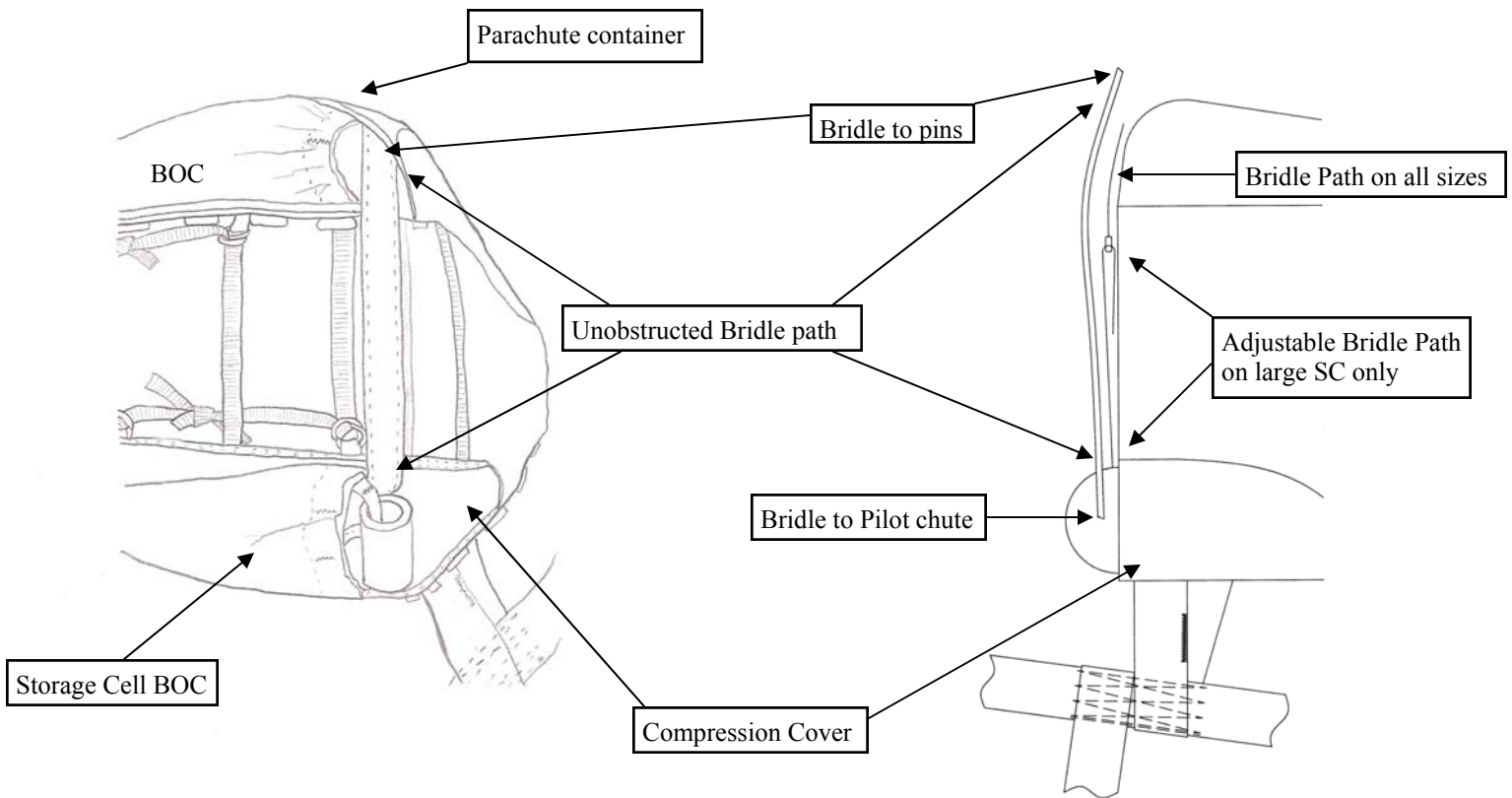
Personal instruction is available for the DPx. Working with someone that is already familiar with the DPx will bring faster enjoyment to you and your new toy. If you wish to pass such training, please play safe. It is highly recommended you become very familiar with loading and unloaded, adjusting and general use of the DPx BEFORE taking it to any exit point. Pack it (parachute), load it (fun stuff in SC) and practice exits with all the real weight. You will learn a lot by doing so.

### **! WARNING !**

It will be possible to pack more weight in the Storage Cell than is safe to jump with. How much weight is safe? That will depend on many factors that Apex BASE has no control over. A jumper experience is one place to start. Not just BASE experience but experience with heavy loads on the back. If the experienced BASE jumper is already experienced with a tandem skydiving rig he or she may be more fit to perform a DPx jumps because of the familiarity with a heavy rig. Regardless start small, start light and work your way up to heavier loads. Always remember every jumper, including you, has a limit. Exceeding that limit is simply unsafe.

Please look the Apex DPx over and play with it. DO NOT JUMP IT, until you are 100% familiar and satisfied with the DPx. Please do not hesitate to contact Apex BASE, call (951-940-1324) or email (perris@apexbase.com) with any questions.

DPx size	Canopy Size	Small SC Approximate Volume Cubic Inches	Large SC Approximate Volume Cubic Inches
DPx 3	220-240	950	2500
DPx 5	250-270	1100	3000
DPx 7	280-300	1250	3300



DPX 3300  
Bridle Routing

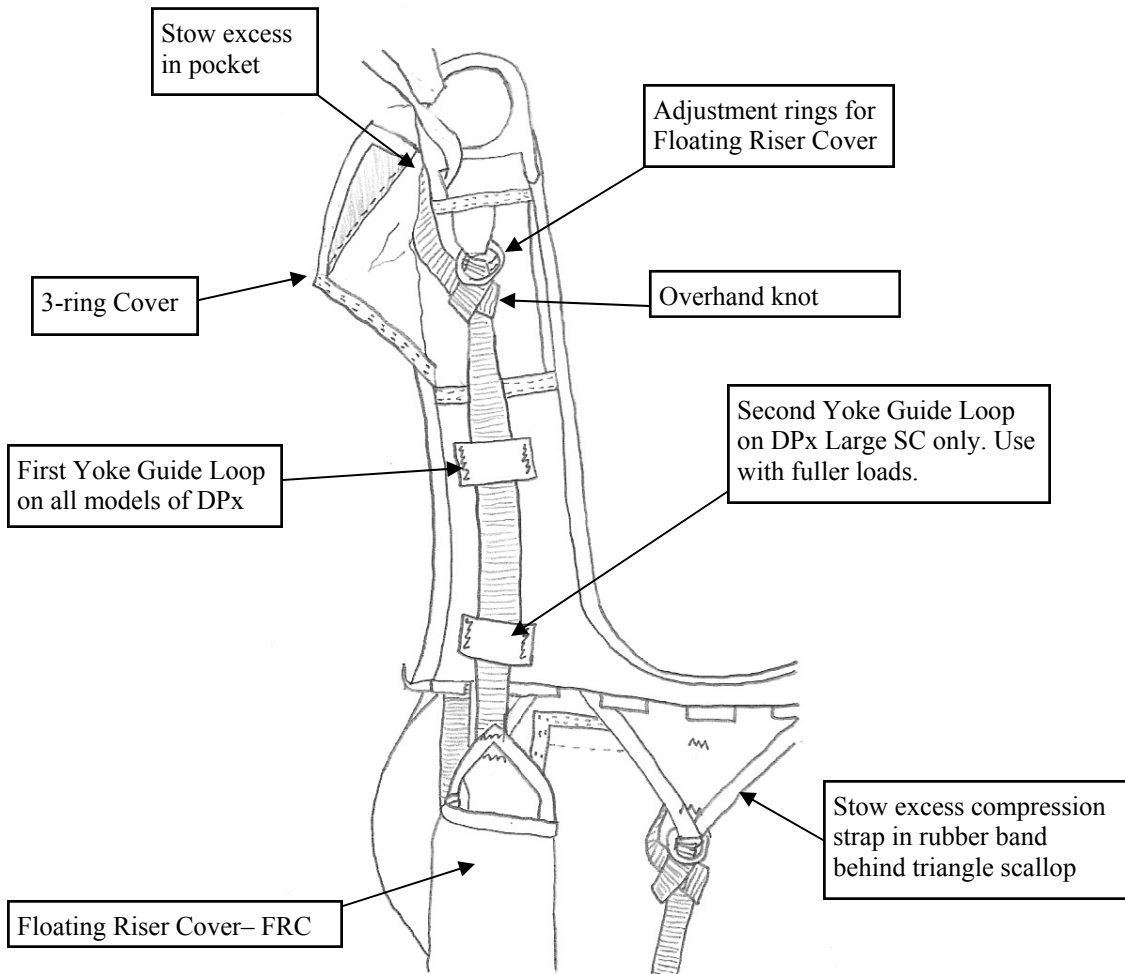
The above drawings show the proper routing for the bridle when using the expanded SC of the DPX 3300.

It is imperative that the bridle is kept clear and unrestricted by any parts of the compression system. Ensure that all excess compression straps are stowed and do not interfere with the deploying pilot chute, bridle or the parachute.

Stowing all excess compression straps. Along the bottom (near the BOC) this can be accomplished by tying the ends of two compression straps together (see drawing on left). The side compression excess can be stowed in a rubber band affixed to the back side of the triangle compression scallop. Two of the compression straps **MUST** pass behind the Compression Cover. This is to prevent the pilot chute and its handle from entangling in the compression system near the mouth of the BOC.

The use of additional Velcro tabs “Skipper” or “Skip” Velcro may be used to adjust the amount of Velcro adhesion is present. Velcro may be changed when- high airspeeds are not reached therefore the pilot chute may not exert as much force. Avoid using “100% Velcro to Velcro” contact because Velcro has it strength in a sheer direction. Contact Apex BASE if you have any questions.





The above drawing shows the riser cover area of the DPx Large SC (2800 and 3300) . The riser WOULD go from the 3-ring and would enter the Floating Riser Cover- FRC. To provide a better view the riser is not drawn.

As the capacity of the SC increases the FRC will need to be adjusted to a new position. Secure the final adjustment with a overhand knot near the adjustment rings (behind/under the 3-ring). Stow excess in the pocket provided.

The riser (s) should never be disconnected to gain access to the SC. The risers can be slid to each side to gain access to the SC and to the floating riser cover adjustment.

When the Floating Riser Cover is at the maximum position (furthest away from the 3-ring) the toggle must remain within the Floating Riser Cover.