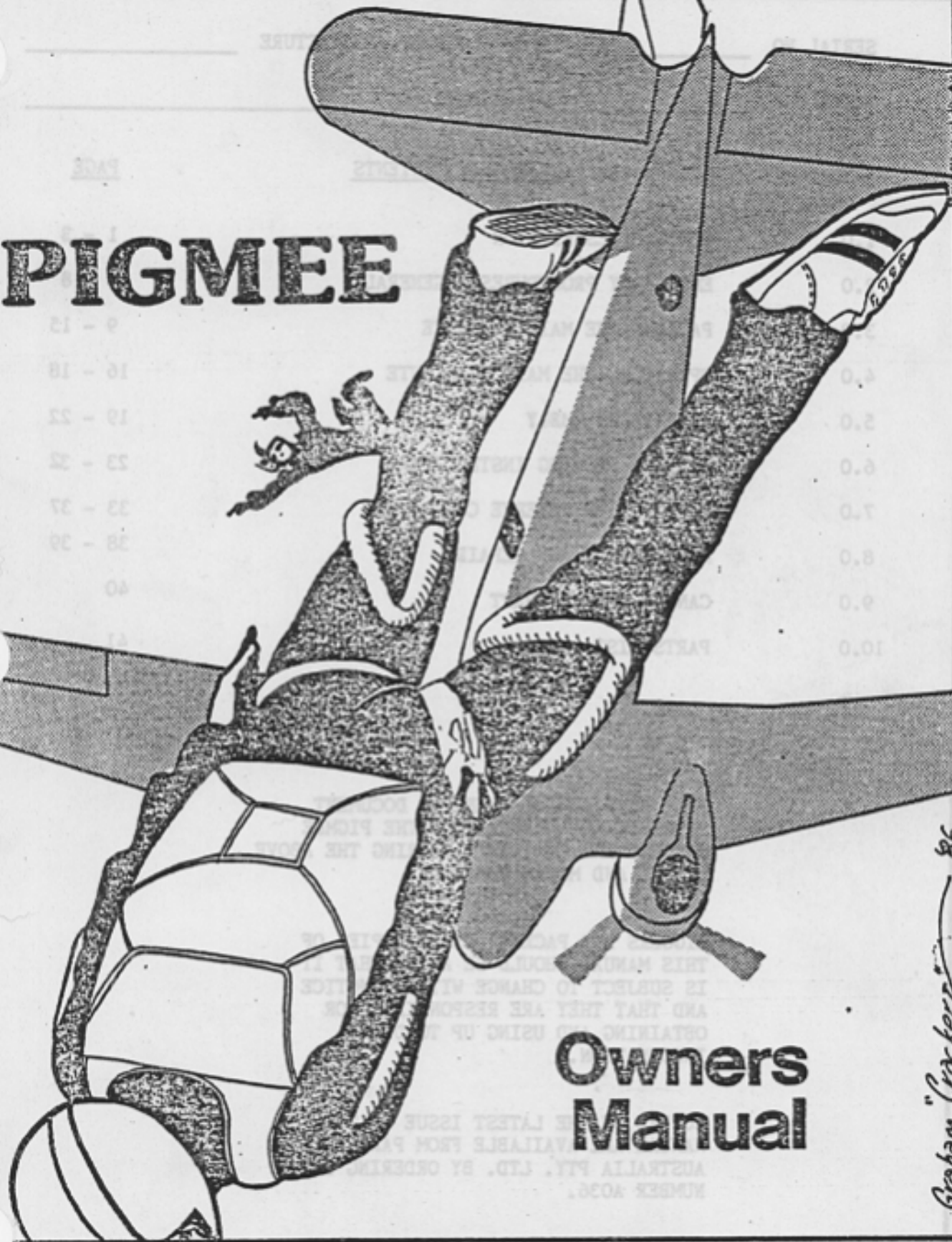


# PIGMEE



## Owners Manual

*Graham "Crackers" '86*

**PARACHUTES AUSTRALIA PTY. LTD.**

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SYDNEY. 2010

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SERIAL NO \_\_\_\_\_

DATE OF MANUFACTURE \_\_\_\_\_

MODEL NO \_\_\_\_\_

SIZE \_\_\_\_\_

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THIS IS A SERIAL NUMBERED DOCUMENT SPECIFICALLY WRITTEN FOR THE PIGMEE HARNESS AND CONTAINER BEARING THE ABOVE SERIAL AND MODEL NUMBERS.

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1.0 GENERAL DESCRIPTION

1.1 INTRODUCTION

The Pigmeo is a fully integrated harness and dual parachute container assembly designed for sport parachuting. It was first released in December 1977, has gone through several design changes and is now produced as the Pigmeo IV.

1.2 HARNESS FEATURES

The Pigmeo incorporates a split saddle harness, with adjustable leg and chest straps. It has two lightweight side adjusters for adjustment of the backstrap.

The primary load-bearing members are made from 5500lb Type 7 webbing and 2500lb MIL Spec Hardware.

1.3 CONTAINER FEATURES

The Pigmeo has a 'Tandem Back' (Piggyback) pack assembly consisting of reserve and main parachute containers mounted one on top of the other, with a common dividing wall. The main risers are retained along the side of the reserve container and above the 3-ring, or 'S' wrap release.

1.4 MAIN RISER RELEASE

In later models, the main parachute uses the 3-ring release designed and patented by Bill Booth. Pigmeos made prior to December 1979, used exclusively the 'S' wrap release patented by Parachutes Australia.

In December 1979, PA introduced the Pigmeo II which had the 3-ring installed as standard. In June 1981, armoflex housings and nylon coated cutaway cables were incorporated on production models.

The Pigmeo IV offers the patented Single Operation System (SOS)\* which is an interconnected cutaway handle and reserve ripcord to sequentially release the main parachute risers and then activate reserve parachute deployment.

The Pigmeo IV also offers a Two Action System (TAS) with separate and independent cutaway handle and reserve ripcord.

1.5 MANUFACTURED STANDARD

The Pigmeo is manufactured to comply with Australian Department of Aviation, Air Navigation Order ANO 103.18 Equipment Standards - Emergency Parachutes.

To demonstrate compliance with ANO 103.18, the United States Federal Aviation Administration, Technical Standard Order TSO C23b was used as the specification.



1.5  
contd.

Parachutes Australia holds both a Certificate of Type Approval (CTA) issued by the Australian Department of Aviation and a letter of TSO Authorisation from the United States FAA for the Pigmee.

The Pigmee II, III and IV meet the requirements for a 'Standard Category' parachute under TSO C23b which means the Pigmee harness can be used with any TSO'ed 'Low Speed' or 'Standard Category' reserve canopy. Users should be aware that a 'Low Speed' reserve canopy will de-rate the whole assembly to a 'Low Speed Parachute'.

1.6

SERVICE LIFE

Each model of the Pigmee Pack and Harness Assembly has a maximum service life of 15 years from the date of manufacture, whether it is in use or in storage due to the natural degradation of the synthetic materials used in manufacture.

However, this doesn't imply that a system in constant use will last the full 15 years. Replacement may be necessary sooner if wear is excessive.

1.7

PIGMEE OPTIONS

The Pigmee has a number of options which make it ideal for student training, including an optional adjustable harness designed to fit 90 per cent of all people.

An FXC 12000 or KAP 3 Automatic Activation Device (AAD) may be supplied and fitted to the main or reserve containers. A static line is available for the main and static line stowage loops are supplied if the static line version is specified at the time of ordering.

A lanyard release to automatically activate the reserve after cutaway from the SOS or TAS version is an option which can be fitted at any time.

The Pigmee comes in seven main container sizes to suit most main canopies (with the exception of the T-10).

For main deployment, either the ripcord, pull-out (POP) or throwaway (TAP) pilot deployment is offered ... in fact, provision for more than one system can be made at the time of manufacture to allow a student to buy equipment and progress through training and then convert to hand deployment later.

The Pigmee has four reserve risers which will accept 'L' bar or rapide connector links and is suitable for both round and square reserves with diaper, free bag or container-stowed lines.

Instructions for assembly, packing operation and maintenance are found within the Pigmee Owners Manual.

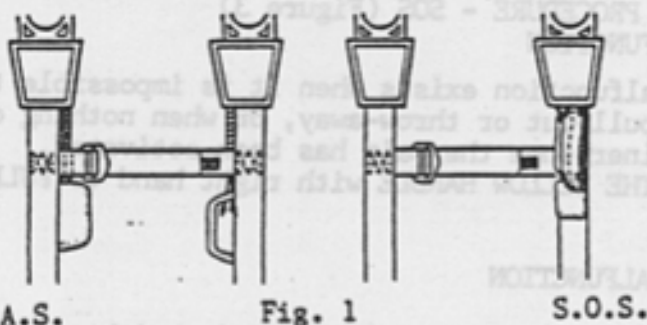
\* Australian Patent No. 510,530  
United States Patent No. 4,262,865



2.0

EMERGENCY PROCEDURES - GENERAL

The Pigmee features two popular reserve deployment systems, The Single Operation System (SOS) and The Two Action System (TAS) (Figure 1).



T.A.S.

Fig. 1

S.O.S.

2.1

SINGLE OPERATION SYSTEM -SOS

This is the first system marketed in the world which combines the single point release and reserve activation in a one-handle operation.

The one-action handle is positioned just below the left shoulder and consists of a yellow handle with velcro pile backing which mates with two strips of velcro on the harness to form a channel through which the reserve ripcord lies and terminates in a red over-ride handle.

This system was designed to answer all emergency situations. Should a partial or total malfunction occur, the skydiver simply pulls the reserve ripcord (yellow handle), disconnecting the main parachute and activating the reserve in one operation (Figure 2).



Figure 2.

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2.2 EMERGENCY PROCEDURE - SOS (Figure 3)  
TOTAL MALFUNCTION

A total malfunction exists when it is impossible to pull the ripcord, pull-out or throw-away, or when nothing comes from the container once the main has been activated. The procedure is: PULL THE YELLOW HANDLE with right hand to FULL ARM'S LENGTH.

PARTIAL MALFUNCTION

A partial malfunction is the situation with canopy open or partially open but distorted, damaged or an incomplete opening sequence causing a high rate of descent. The procedure is: PULL THE YELLOW HANDLE with your right hand TO FULL ARM'S LENGTH.

WATER OR HIGH WIND LANDINGS

In either of these situations it is necessary to disconnect the main canopy without deploying the reserve. In both cases, the red over-ride handle is held firmly against the harness with the left hand while the yellow handle is pulled down the left side until it comes up against the red handle. The main will disconnect without activating the reserve.

TREE LANDINGS

If a tree landing is imminent hold the yellow handle firmly against the harness with the right hand to prevent it being pulled while passing the tree.

THE OVER-RIDE HANDLE

If you pull the small red handle situated below the yellow cutaway handle, the reserve will deploy without disconnecting the main parachute.

REMEMBER: ONE ACTION COVERS ALL MALFUNCTIONS  
NO CHOICES ARE REQUIRED, ONLY ONE ACTION NECESSARY  
PULL THE YELLOW HANDLE TO FULL ARM'S LENGTH



Fig 3a

STEP 1

To commence procedure  
Locate yellow handle and  
bend legs back into the arch  
position. Place right hand  
around yellow handle and  
take a FIRM grip. Place left  
hand over right. Left hand  
jumpers may prefer to reverse  
this hand position.

STEP 2

In one hand continuous movement  
PUNCH the yellow handle to FULL  
arms length maintaining a grip  
on the handle.



Fig 3b



Fig 3c

STEP 3

Then with the left hand take  
hold of all the exposed cables

STEP 4

PUNCH them out until all cables  
are completely detached. as a  
further override procedure look  
for the red handle. If it is  
still in position, pull it as  
well.



Fig 3d



### 2.3 TWO ACTION SYSTEM - TAS

This system consists of a separate nylon cutaway handle, on the right hand side of the harness below the chest strap and a metal reserve ripcord on the left hand side.

The cutaway handle activates the 3-ring release and the metal reserve ripcord activates reserve deployment.

### 2.4 EMERGENCY PROCEDURE - TAS TOTAL MALFUNCTION

A total malfunction exists where it is impossible to deploy the main parachute or where nothing deploys from the main container once the ripcord, pull out, or throw-away pilot chute has been activated.

The procedure is: PULL THE RESERVE RIPCORD (metal handle) with the left hand ACROSS THE BODY AND ALL THE WAY OUT.

#### PARTIAL MALFUNCTION

A partial malfunction is the situation with the main canopy open or partially open but distorted, damaged or an incomplete opening sequence causing a high rate of descent.

The procedure is: PULL THE CUTAWAY HANDLE with the right hand ACROSS THE BODY AND ALL THE WAY OUT. Then, IMMEDIATELY PULL THE RESERVE RIPCORD with the left hand ACROSS THE BODY AND ALL THE WAY OUT (Figure 4)

#### WATER OR HIGH WIND LANDINGS

In either of these situations it is necessary to disconnect the main canopy without deploying the reserve.

The procedure is: PULL THE NYLON CUTAWAY HANDLE with the right hand ACROSS THE BODY AND ALL THE WAY OUT.

#### TREE LANDINGS

If a tree landing is imminent hold the nylon cutaway handle firmly against the harness with the left hand to prevent it being pulled while passing through the tree. Also cover the reserve ripcord if under the main parachute.





Fig 4a

STEP 1

Look at the Cutaway Handle and the Reserve Ripcord. Grasp both handles.

STEP 2

Pull the Cutaway Handle across the body, all the way out. Discard the Handle.

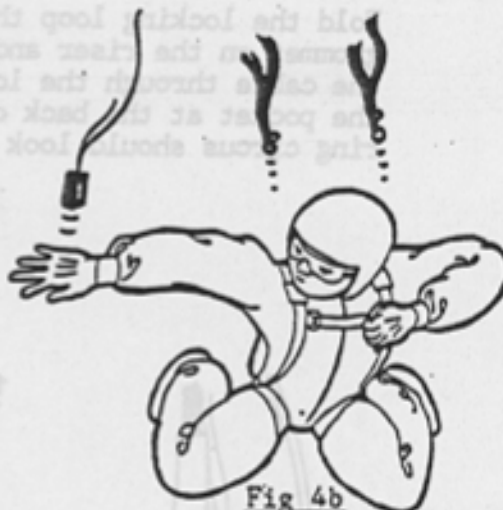


Fig 4b

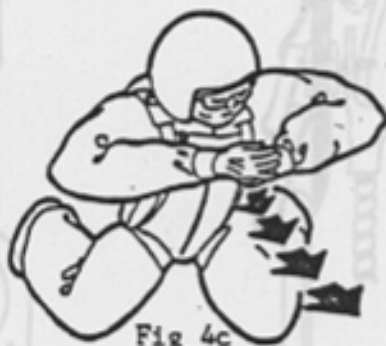


Fig 4c

STEP 3

Bring the Right Hand over to the Reserve Ripcord.

STEP 4

Pull the Reserve Ripcord across the body all the way out with both hands.



Fig 4d

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## 3.0 PACKING THE MAIN PARACHUTE

- 3.1 Attach the main canopy connector links to the risers. Most square canopies are designed to use French rapide links and the Pigmeo's main risers are self-buffing when used with these.

Attach the risers to the harness by connecting the three rings. Place the riser behind the harness ring and insert the bottom ring of the riser through the ring on the harness (Figure 5a). Then insert the top ring on the riser through the middle ring.

Fold the locking loop through the top ring, back through the grommet on the riser and through the grommet on the cable. Route the cable through the loop (Figure 5b). Then route the cable into the pocket at the back of the riser so it is covered. The three ring circus should look like Figure 5c.



Fig. 5a

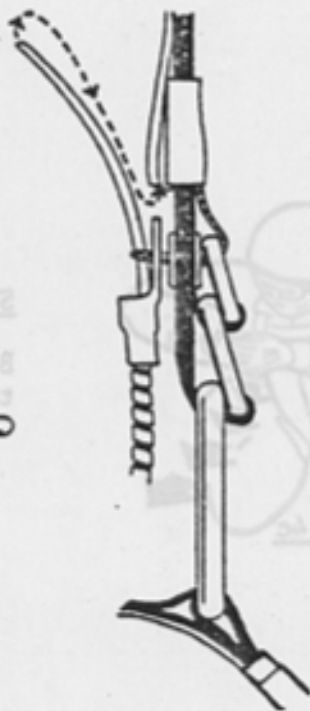


Fig 5b

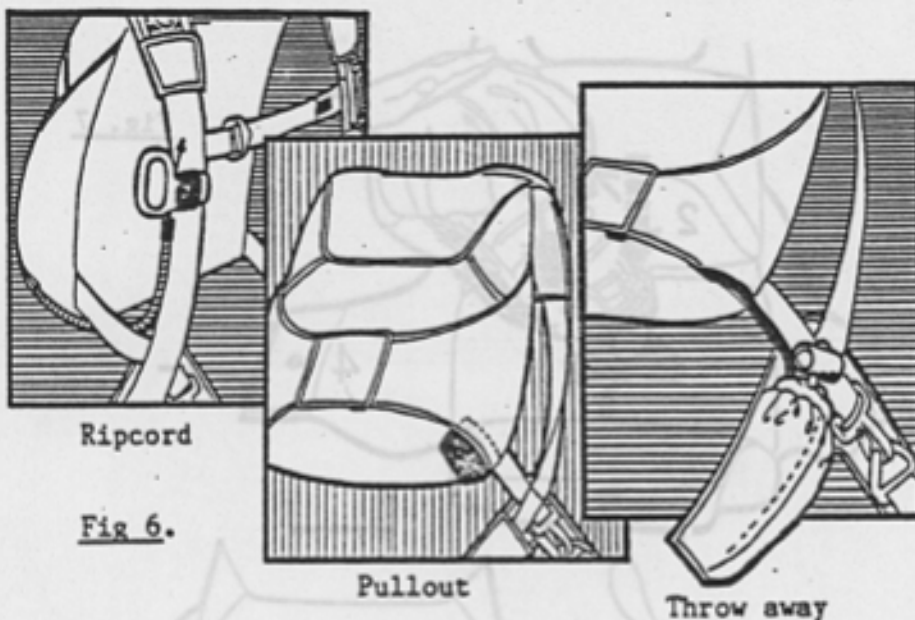


Fig 5c

Pack the main according to the manufacturer's instructions.



The Pignee main canopy deployment can be activated in one of three separate ways - by ripcord, pull out pilot chute and throw-away pilot chute (Figure 6).



.2

#### RIPCORD DEPLOYMENT

NOTE 1: A bridle chord (item B019) of 1.0 metre length should be used with (item B021) Skyhook pilot for best results.

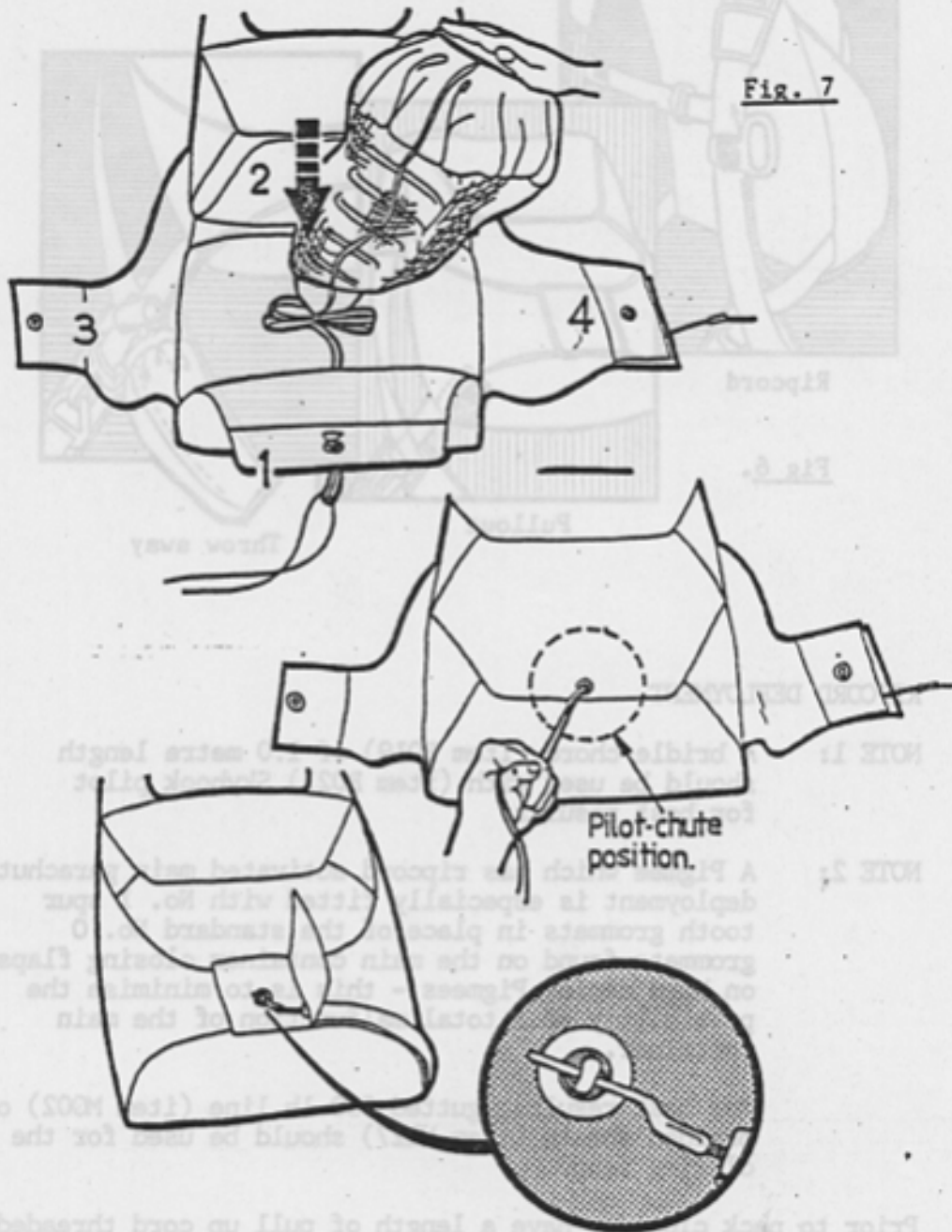
NOTE 2: A Pignee which has ripcord activated main parachute deployment is especially fitted with No. 1 spur tooth grommets in place of the standard No. 0 grommets found on the main container closing flaps on hand deploy Pignees - this is to minimise the possibility of a total malfunction of the main container.

For best results, gutted 550 lb line (item M002) or braided sheath (item M127) should be used for the closing loop.

Prior to pack closure, have a length of pull up cord threaded through the closing loop and the ripcord routed through its housing, ready for closure.



The closing sequence is numbered in Figure 7.



Firstly, place the bag in the container, making sure it has been packed in such a way that the canopy fills the bag and it is as flat as possible.



Then S-fold the bridle line on top of the bag and under the pilot chute, which must then be compressed before the flaps are sequentially closed - first the bottom, then the top, the left then the right.

After the last flap has been closed, place the ripcord pin through the closing loop. When it is in place, EXTRACT THE PULL UP CORD, making sure you do not dislodge the pin.

### 3.3 PULL OUT PILOT CHUTE

### 3.4 ASSEMBLY OF PARTS

The Pull Out Pilot Chute (POP) consists of a 30 inch diameter canopy with a pulled down apex. The handle assembly is a soft fist-sized velcro handle with 1000 lb tape attaching a metal pin to the handle. The velcro handle attaches to an area at the bottom right-hand-side of the container.

A bridle length of 5'-6' (1.5-1.8m) is recommended between canopy surface and pilot chute base to allow the pilot chute to get above your "burble" to where it will produce the most drag.

If the bridle is too short, it will still be in a partial vacuum when it is required to deploy the canopy. If it is too long, it can tangle with lines or be dangerous when doing canopy relative work.

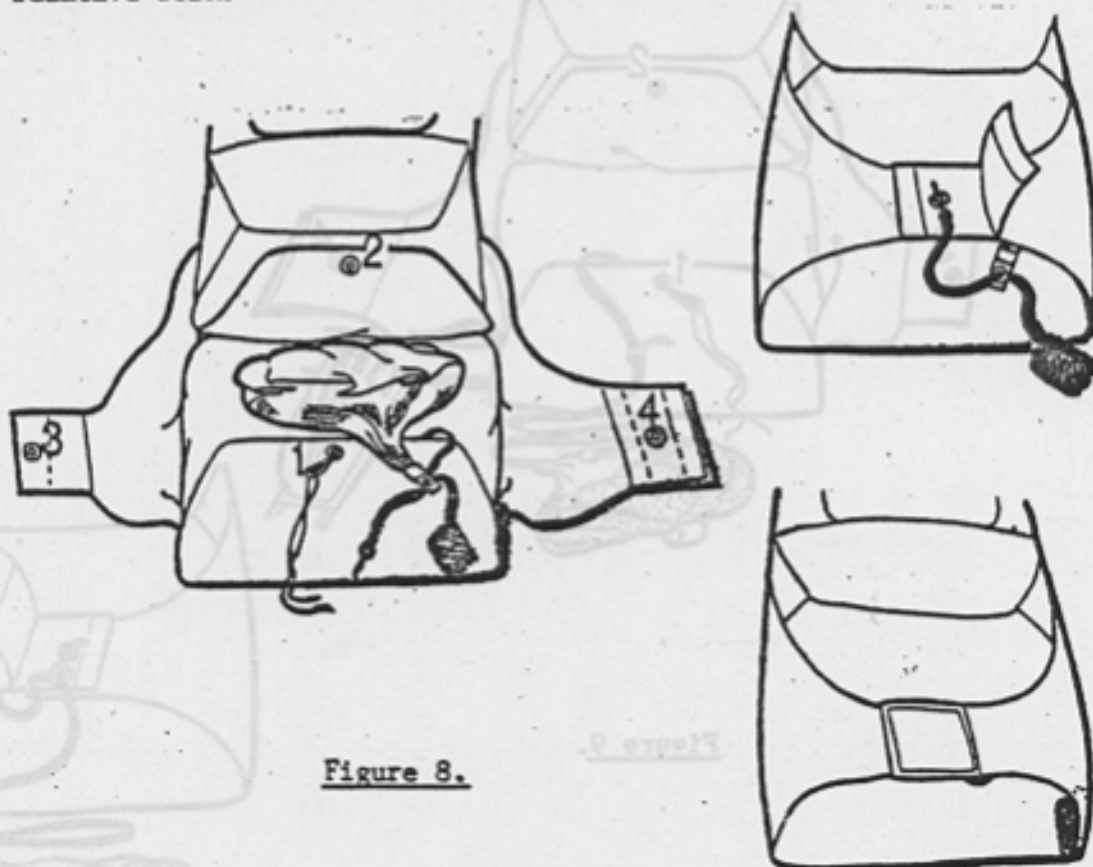


Figure 8.



3.4 STOWING THE PULL OUT PILOT CHUTE

Pack the main normally and place it in the container. Stow excess bridle line under the bottom flap or under the POP chute which is compressed on top of the bag. Ensure the handle and pin are outside the bottom right-hand side of the pack. (see Figure 8).

Close the pack from bottom to top, left to right as shown in Figure 8. When all four flaps have been closed, insert the pin and EXTRACT the pull-up cord, making sure the pin is not dislodged.

Position the handle on the velcro and tuck the webbing under the side flap.

3.5 THROW AWAY PILOT CHUTE

The Throw Away Pilot Chute (TAP) has a rigid handle attached to the TOP of the pilot chute and is stowed in an elasticised or velcro-fastened pouch on the leg strap. Some systems have the pilot chute pouch attached to a belly-band.

The bridle line is routed from the TAP pouch into the rig with the webbing bridle attached by velcro. A CURVED pin is used with the TAP.

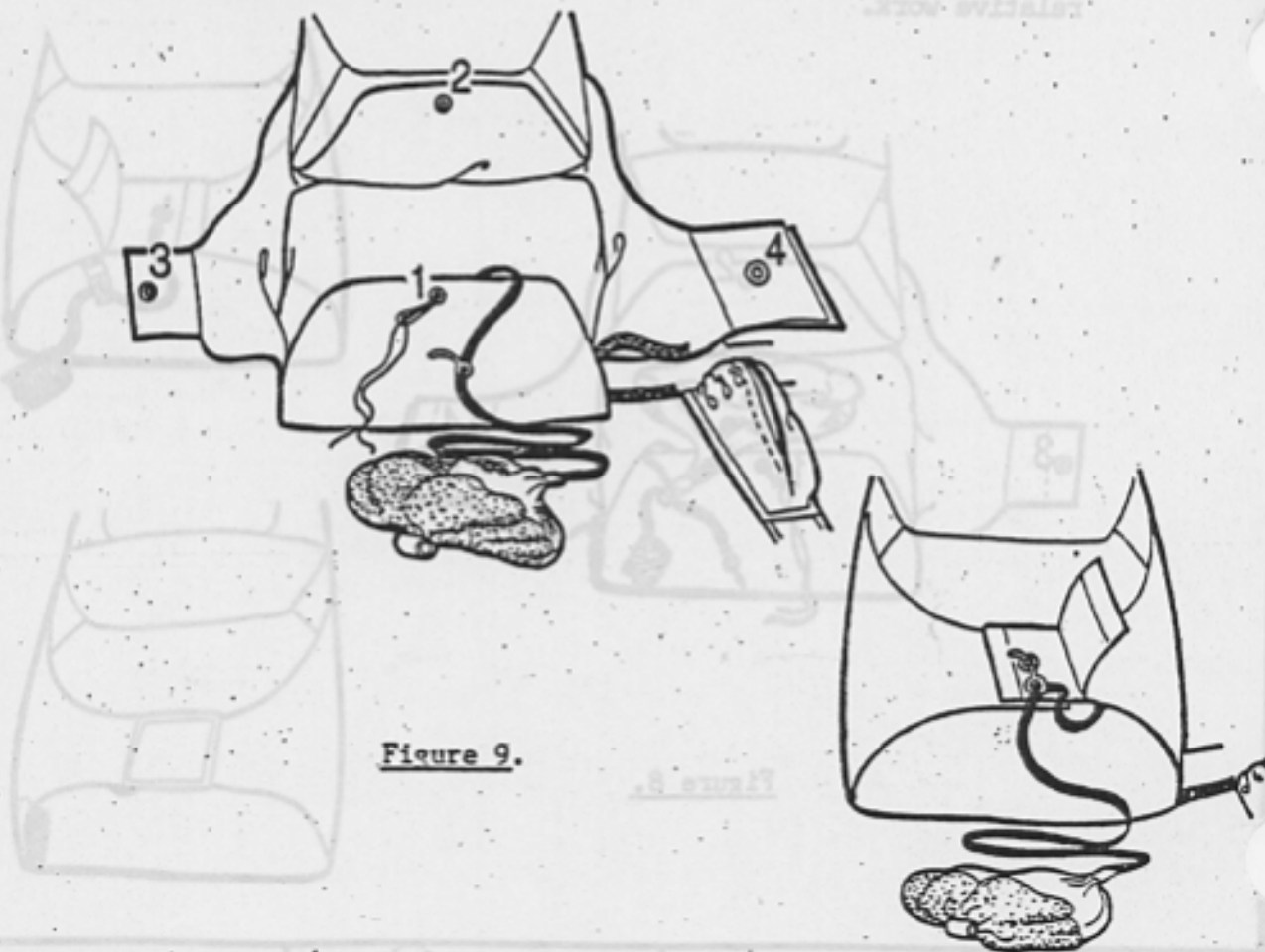


Figure 9.



3.6

STOWING THE THROW AWAY PILOT CHUTE

Ensure the parachute is packed correctly in the container. Stow excess bridle and then route the remainder (from the curved pin back to the pilot chute) out from the bottom right-hand side of the container (Figure 9).

Close the pack in the sequential order shown in Figure 9 - from bottom to top, left to right. Then insert the pin, ensuring the bridle is running out of the BOTTOM of the container.

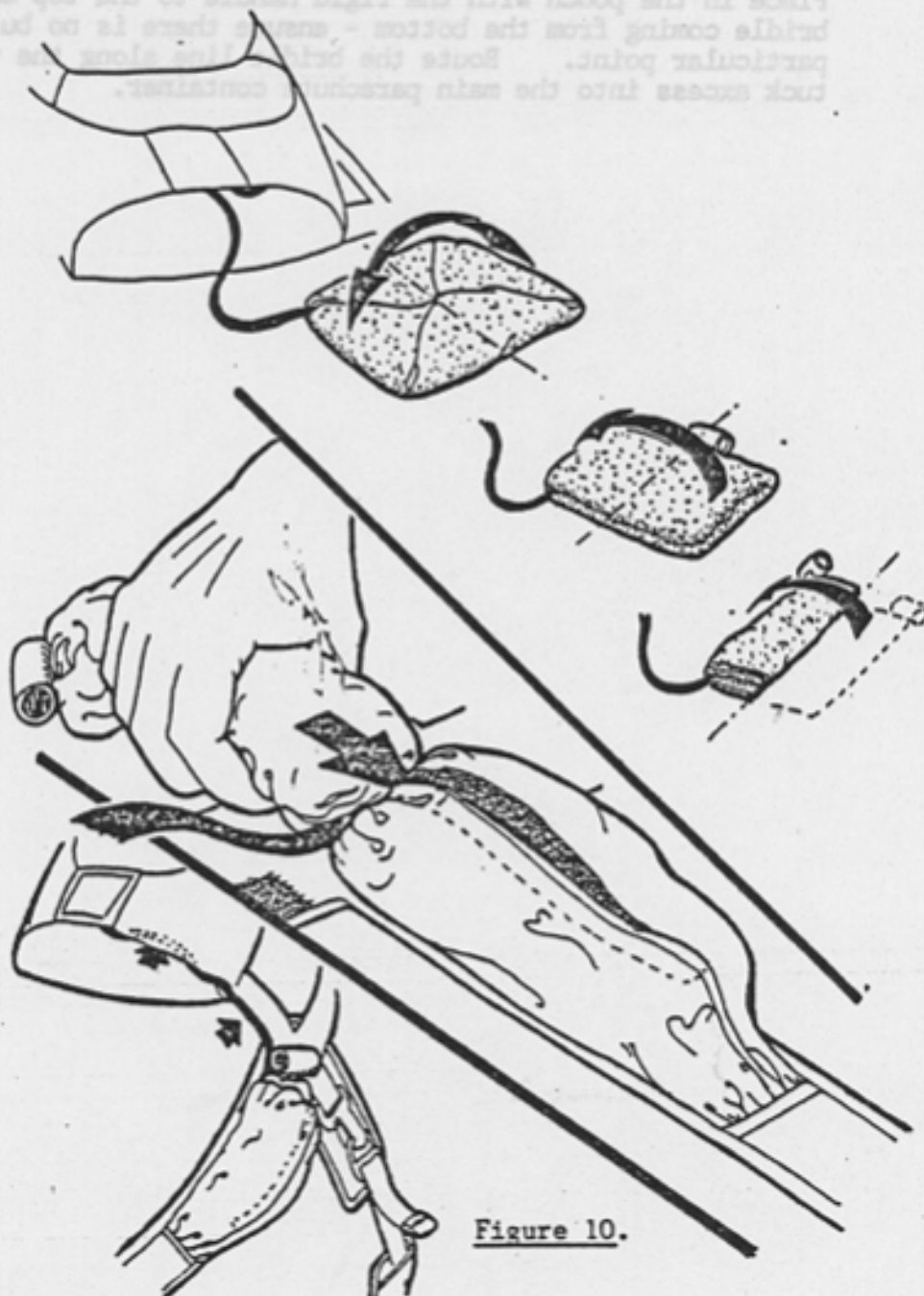


Figure 10.



Lay the pilot chute face down on the ground and S-fold the excess bridle line into the centre.

Fold the pilot chute INWARDS as shown in Figure 10, making a square shape, with the bridle line coming from the corner nearest the pouch. Then fold the pilot chute again, exposing the rigid throw away handle. Fold again into a rectangular shape - it should be now ready to stow in the leg-strap pouch.

Place in the pouch with the rigid handle to the top and the bridle coming from the bottom - ensure there is no bulk at any particular point. Route the bridle line along the velcro and tuck excess into the main parachute container.

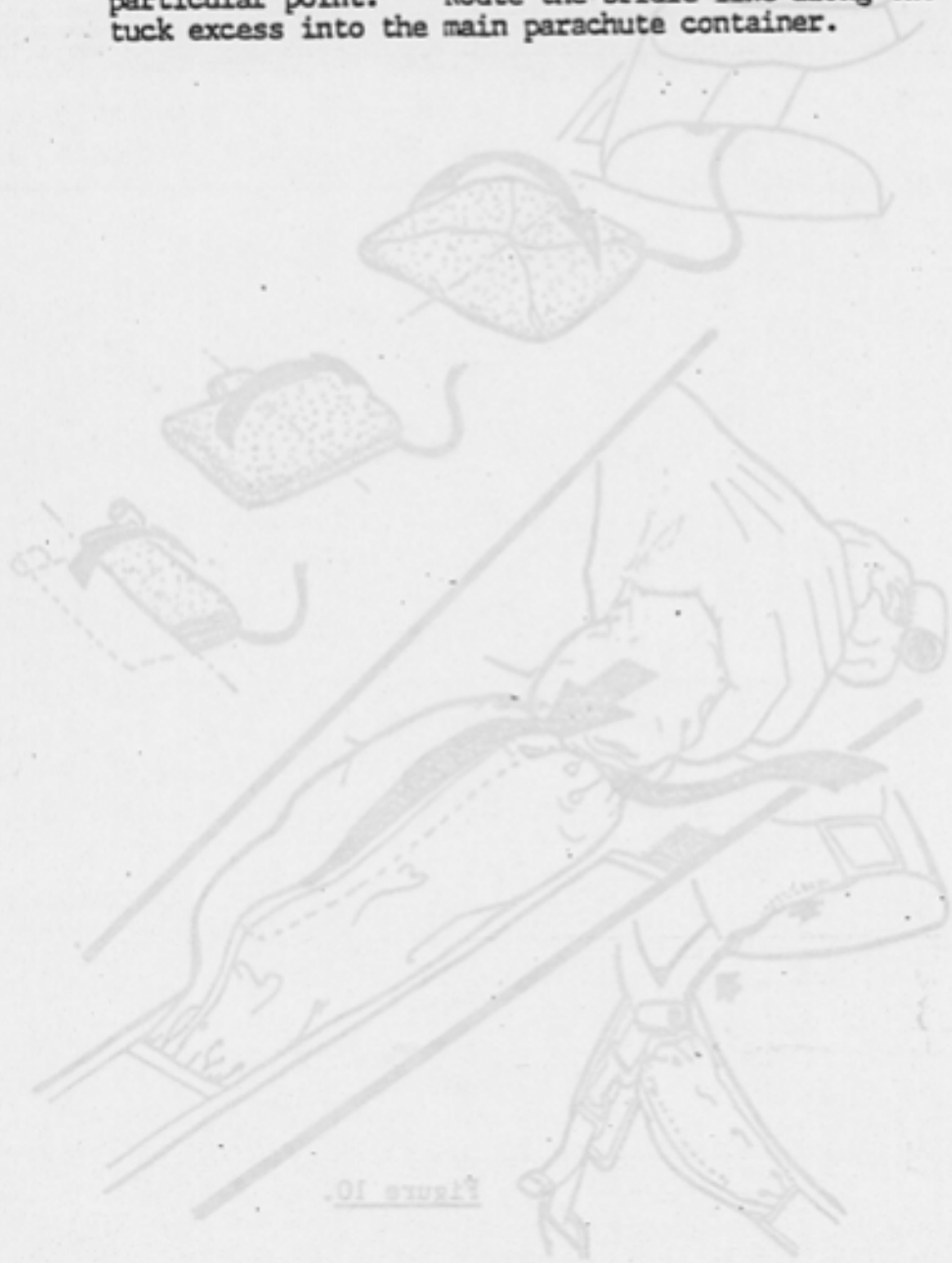


Figure 10





4.0 OPERATING THE MAIN PARACHUTE

There are three ways to operate the deployment of the main parachute with the Pignee system - with either a ripcord, pull out pilot chute or throw away pilot chute.

4.1 USING THE RIPOCORD

For best results, maintain a face-to-earth attitude and look at the ripcord (Figure 11). Graps the ripcord with the right hand and bring the left over your head to compensate for the shift in body position.

Punch the ripcord out, bringing the arms out to the hard-arch position. DO NOT drop the ripcord.

If the main does not deploy after several seconds, look over your shoulder to see if the pilot chute is caught in your burble - if so, just drop one shoulder to alter the airflow.

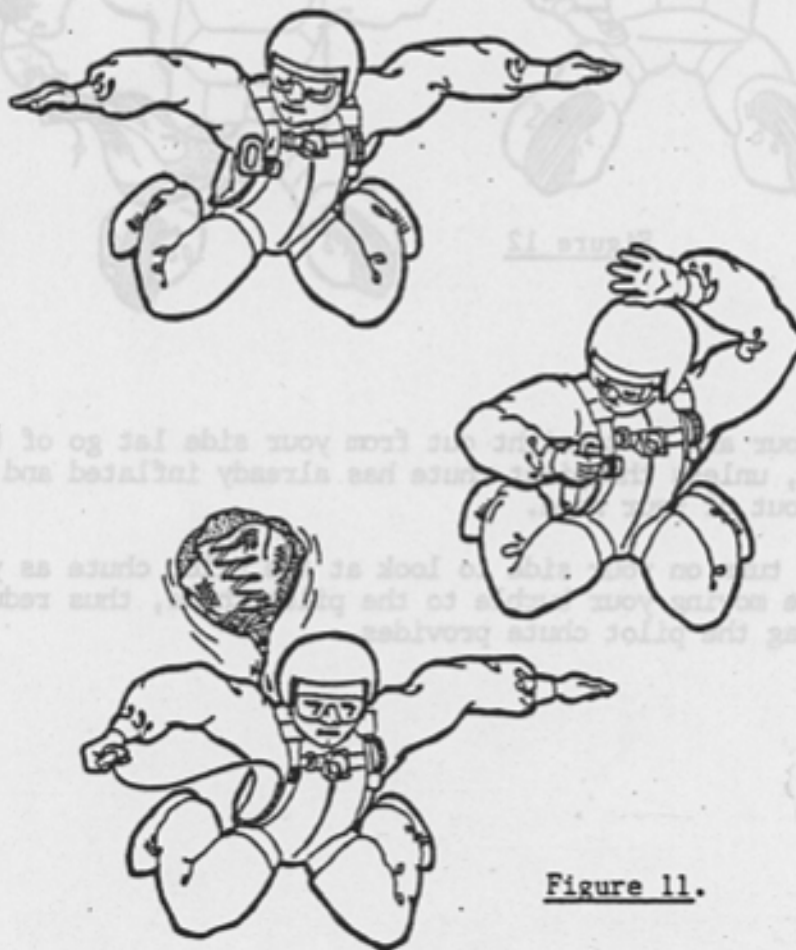


Figure 11.



## 4.2

## USING THE PULL OUT PILOT CHUTE

Similarly, maintain a stable, face-to-earth position. Grasp the velcro handle at the bottom of the pack (make sure you have practiced this procedure several times on the ground beforehand) and pull it in the direction of the arrows (Figure 12), into the slipstream beside your body.

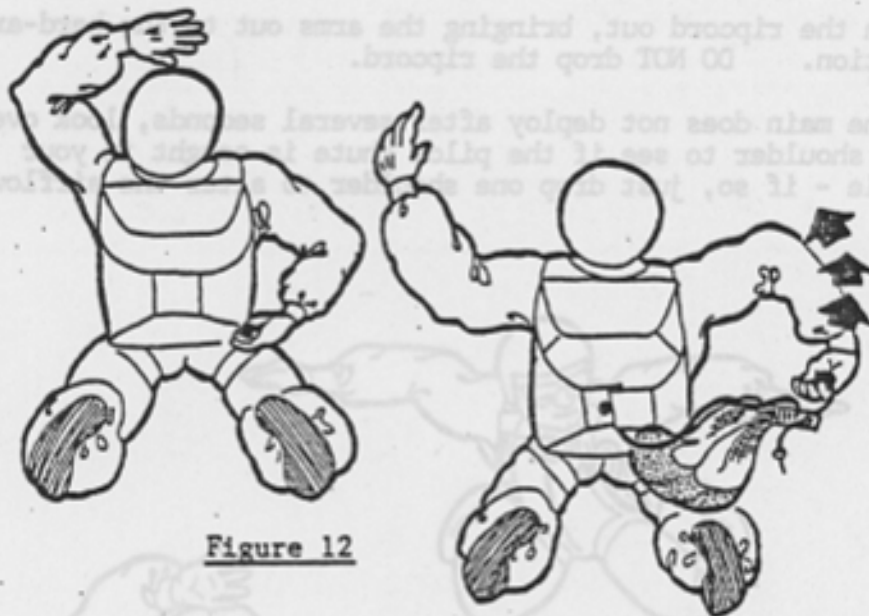


Figure 12

When your arm is straight out from your side let go of the handle, unless the pilot chute has already inflated and is taken out of your hand.

DO NOT turn on your side to look at the pilot chute as you will be moving your burble to the pilot chute, thus reducing the drag the pilot chute provides.



4.3

USING THE THROW AWAY PILOT CHUTE

The same applies ... ensure you are falling stable, in a face-to-earth attitude - look at the rigid handle of the throw away, bring your left arm in to compensate for the pull and grasp the handle firmly (Figure 13).

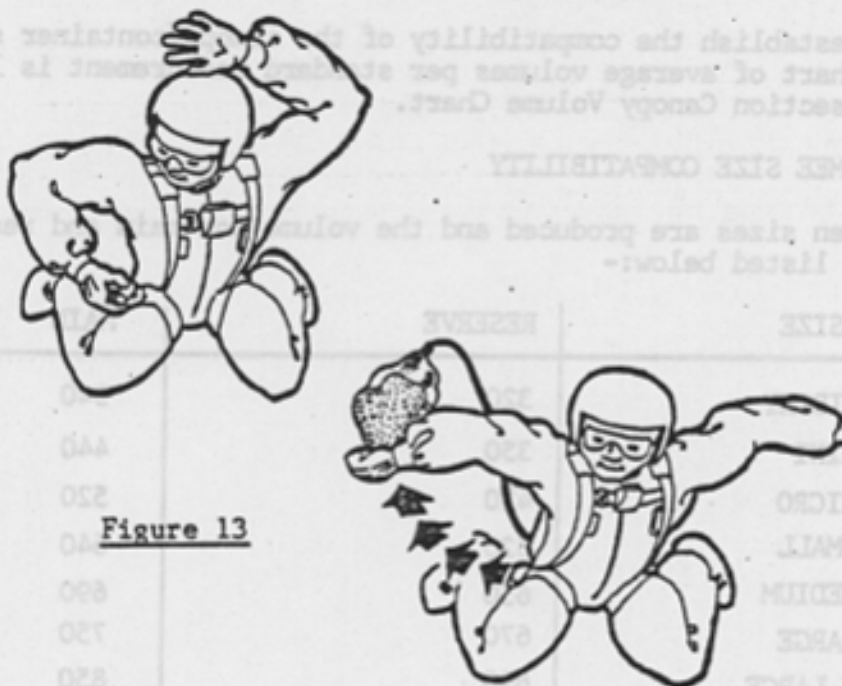


Figure 13

Pull the pilot chute out into the slipstream and let it go - the throw away pilot chute WILL NOT be snatched from your hand like the pull out pilot chute.

DO NOT hold on to the throw away pilot chute for any length of time, unless it is necessary, and do not wave it about.



5.0 RESERVE ASSEMBLY

5.1 COMPATIBILITY

The Pigmeo reserve container and harness is manufactured in various sizes to be compatible with a large range of currently available reserve and main canopy combinations.

To establish the compatibility of the canopy/container size, a chart of average volumes per standard measurement is listed in section Canopy Volume Chart.

5.2 PIGMEO SIZE COMPATIBILITY

Seven sizes are produced and the volume for main and reserve are listed below:-

SIZE	RESERVE	MAIN
MIDGET	320	340
MINI	350	440
MICRO	420	520
SMALL	520	640
MEDIUM	650	690
LARGE	670	750
X LARGE	690	850
XX LARGE	710	900

5.3 RISER COMPATIBILITY

The Pigmeo pack and harness is fitted with four reserve risers but canopies that use two risers can be used.

Best canopy performance will be achieved on a 4-riser system not only is the rate of descent lower but steering is much easier and more effective.

TWO RISER RESERVES

If you are going to use two risers, use the front two which are constructed from type 7 webbing and NOT the two type 8 webbing rear risers.

When two risers only are used, fold back the type 8 rear riser and tack to the diagonals using 5 chord nylon waxed. Use a surgeons knot, leaving a 20mm tail.



#### FOUR RISER RESERVES

The harness is set up for four L-bar connector links PA P/N H019. If you are going to use rapide links then you must modify the risers as detailed in Figure 14.

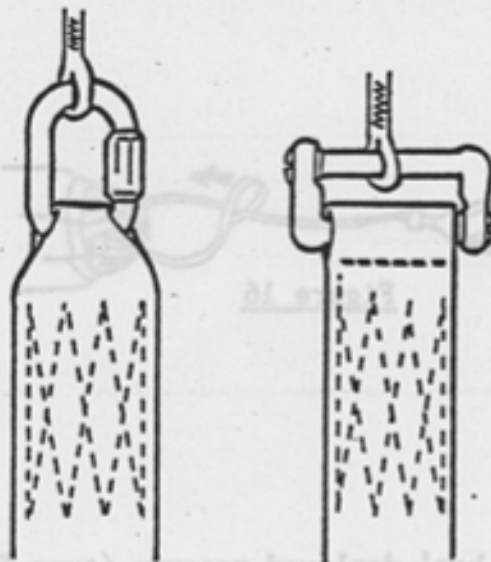


Figure 14

#### RISER END MODIFICATION FOR RAPIDE LINKS

Remove the single lateral type 301, 5 chord stitch located 25mm (one-inch) from and parallel to the end of the riser.

Also remove the vertical edge stitch between the lateral and the structural double "W" stitch freeing the buffer webbing (which is also removed). Care must be taken not to disturb the double "W" stitch.

#### 5.4 FITTING PILOT CHUTE AND BRIDLE

It is recommended to use a P/N B021 Skyhook pilot chute with the Pigne system.

Install the bridle cord with the smaller loop fitted to the pilot chute as illustrated in Figure 15 and then install the pilot chute/bridle assembly to the apex of the canopy as illustrated in Figure 16.



Figure 15

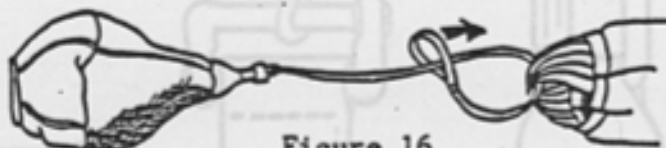


Figure 16

When using a 'free bag' deployed reserve (type 5 packing method) the bridle length **MUST** be equal to or greater than the rigging lines of the canopy. The bridle **WIDTH** must be as specified for reserve canopy/container size.

RESERVE CANOPY/CONTAINER SIZE	BRIDLE WIDTH
Small (S)	45mm
Medium (M)	45mm
Large (L)	75mm

### 5.5 FITTING CANOPY TO RISERS

To attach the reserve canopy to the reserve risers firstly lay out the parachute with the name plate gore facing up and open the reserve pack also facing up. Install on two or four risers as necessary, ensuring you refer to the canopy manufacturer's assembly instructions. Perform a four-line check.

**NOTE:** When using connector links P/N H019 tighten end screws, firstly one then the other until equally tensioned.

With rapide links, hand tighten barrel and then tighten 1/4 of a turn with a spanner. Do not overtighten .... if the barrel does not lighten, then replace the link.



5.6

FITTING THE RESERVE RIPOORD

The Single Operation System provides for the cutaway handle (yellow) and the reserve activation handle (red) to be interconnected.



The cutaway cables attached to the yellow handle are routed into the tubes which travel to the canopy release rings. The reserve ripcord cables attached to the red handle (arrowed in Figure 17) and up through the reserve ripcord housing. The backing velcro mates with velcro on the harness.

**WARNING:** It is illegal to assemble a Pignee using SOS without the interconnection of red and yellow handles.

Figure 17



6.0 RESERVE PACKING INSTRUCTIONS

6.1 RESERVE DEPLOYMENT METHODS

There are five distinct reserve canopy deployment methods which are compatible with the Pignee reserve container.

These are identified as Types 1 to 5 (see below) and in Figures 18 through to 23.

The packer must determine which one of the five is used for a particular reserve canopy. This information is available from the reserve canopy manufacturers packing instructions.

Follow the canopy manufacturers instructions up to the stage where the reserve is ready to be stowed in the reserve container, then follow the Pignee packing instructions.

6.2 TYPE 1 Canopy first deployment, lines stowed horizontally in the container tray. Figure 18a, 18b and 18c.

6.3 TYPE 2 Two bite diaper, with split line groups, one line group locks the diaper, compensated by offsetting a stow of the other line group in the container tray. Figure 19a, 19b and 19c.

6.4 TYPE 3 Full diaper with all lines stowed left to right or perpendicular to the radial (longitudinal) seam of the canopy. Figure 20a, 20b and 20c.

6.5 TYPE 4 Full diaper, choker type with all lines stowed on the diaper parallel to the radial (longitudinal) seam. Figure 21a and 21b (round parachute) and 22 (square parachute with diaper).

6.6 TYPE 5 Free bag, canopy stowed in bag and lines stowed in bag and lines stowed on or in the bag. Figure 23.

6.7 PACING THE CONTAINER

NOTE: The closing loop lengths will depend on the volume of canopy but ensure the ripcord pull does not exceed 22lb (10 kg) It is a good idea to fit two new closure loops for each repack.

6.2 PROCEDURE FOR TYPE 1 DEPLOYMENT METHOD

Type 1 Canopy first deployment, lines stowed horizontally in the container.

LAY OUT Lay the canopy and harness out, inspect thoroughly and straighten.





PLEAT

Flake in the normal way with an equal number of gores on each side following packing instructions for that canopy.

PACKING CARD

Check serial number and date of manufacture, fill in packing card details.

SKIRT

Fold as per manufacturer's instructions.

LONG FOLD

Long fold as per manufacturer's instructions, noting it must finally be the depth of the rear wall of the reserve container.

DIAPER

Is not applicable to Type 1 deployment method.

RISERS

Lay the risers in the container tray under the protector flaps.

LINE STOWAGE -TYPE 1 DEPLOYMENT METHOD

The lines are stowed on the tray of the reserve container. Commence stowing at the bottom back corner (Figure 18a) and stow towards the top, using good quality rubber bands.

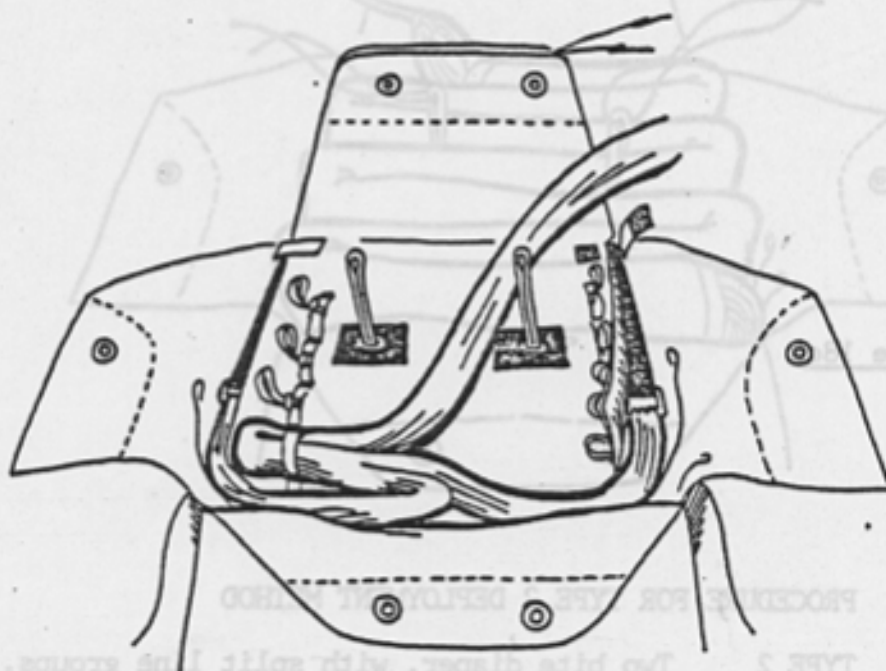


Figure 18A

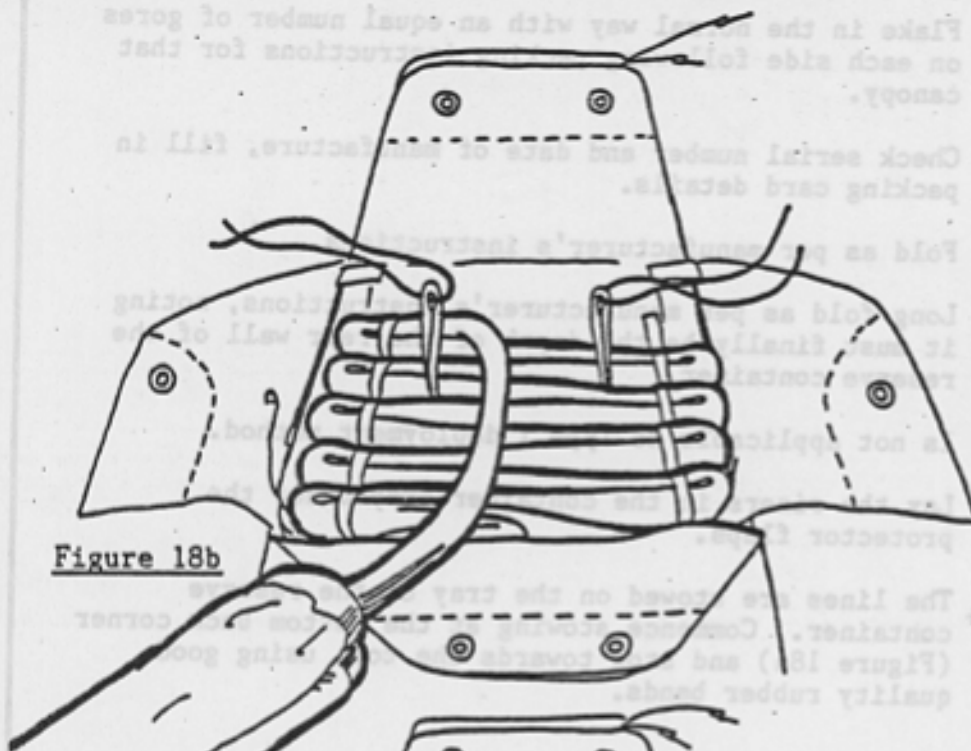


Figure 18b

Ensure the closure loops are clear of the lines and come up outside the stows rather than from inside. Insert pull up cords (Figure 18b)

**CANOPY STOWAGE**

The canopy is S-folded horizontally, commencing at the rear wall of the reserve container (Figure 18b) and stowing towards the top (Figure 18c).

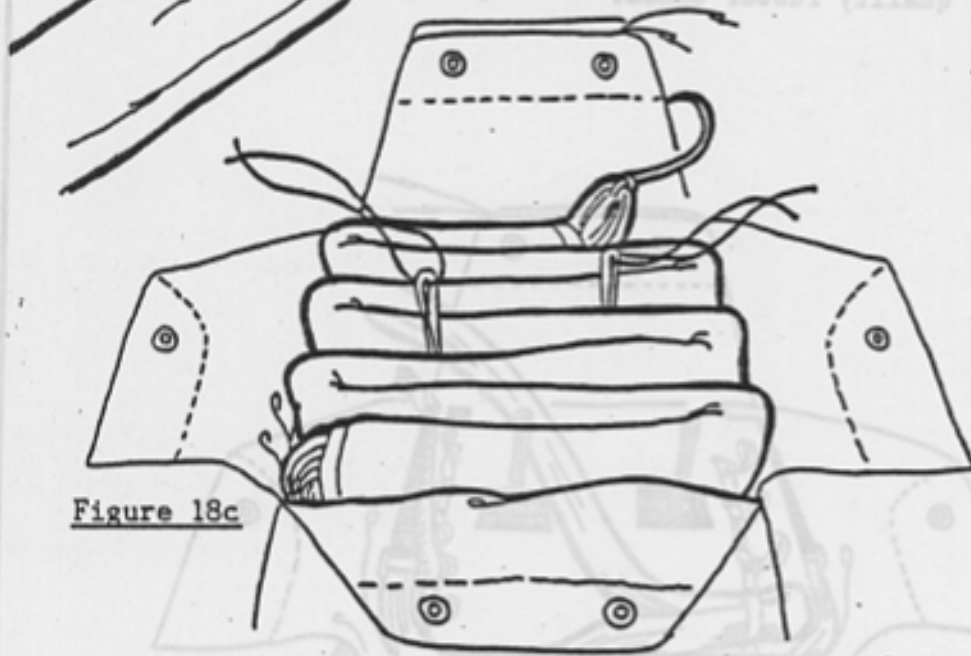


Figure 18c

**6.3 PROCEDURE FOR TYPE 2 DEPLOYMENT METHOD**

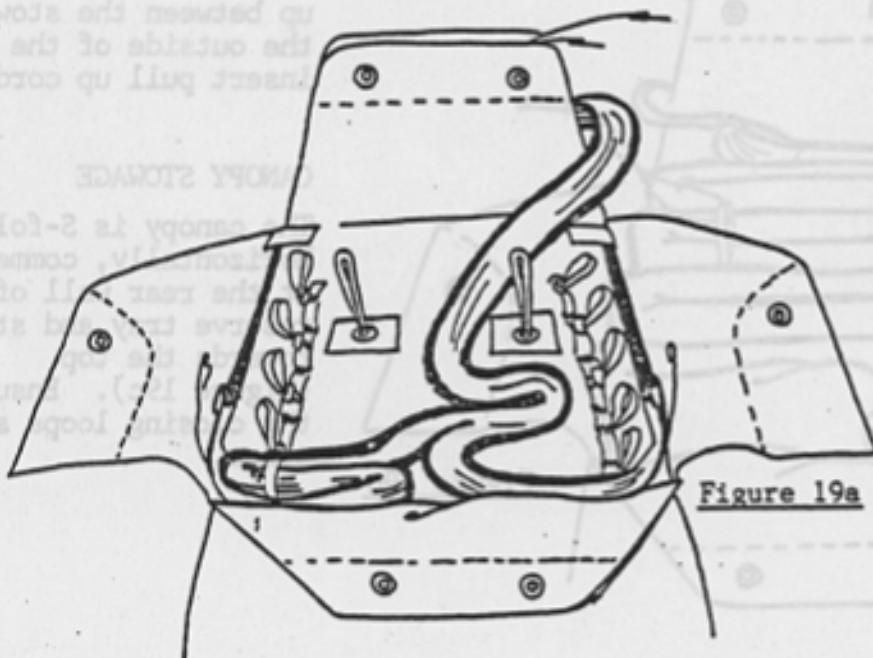
**TYPE 2** Two bite diaper, with split line groups. One line group locks diaper, compensated by offsetting a stow of the other line group in the container tray.

**LAY OUT** Lay the canopy and the harness out, inspect thoroughly and straighten.



- PLEAT Flake in the normal way with an equal number of gores on each side following instructions for that canopy.
  - PACKING CARD Check serial number and date of manufacture and fill in details.
  - SKIRT Fold as per manufacturer's instructions
  - LONG FOLD As per manufacturer's instructions. It must finally be the depth of the rear wall of the reserve container.
  - DIAPER Follow the manufacturer's instructions for locking the diaper.
  - RISERS Lay the risers in the container tray as per Figure 19a so the connector links are under the protector flaps.
- LINE STOWAGE: TYPE 2 DEPLOYMENT METHOD

TYPE 2



Start at the bottom of the container (Figure 19a), firstly stowing the excess line to compensate for the offset stow in the diaper.

Figure 19a

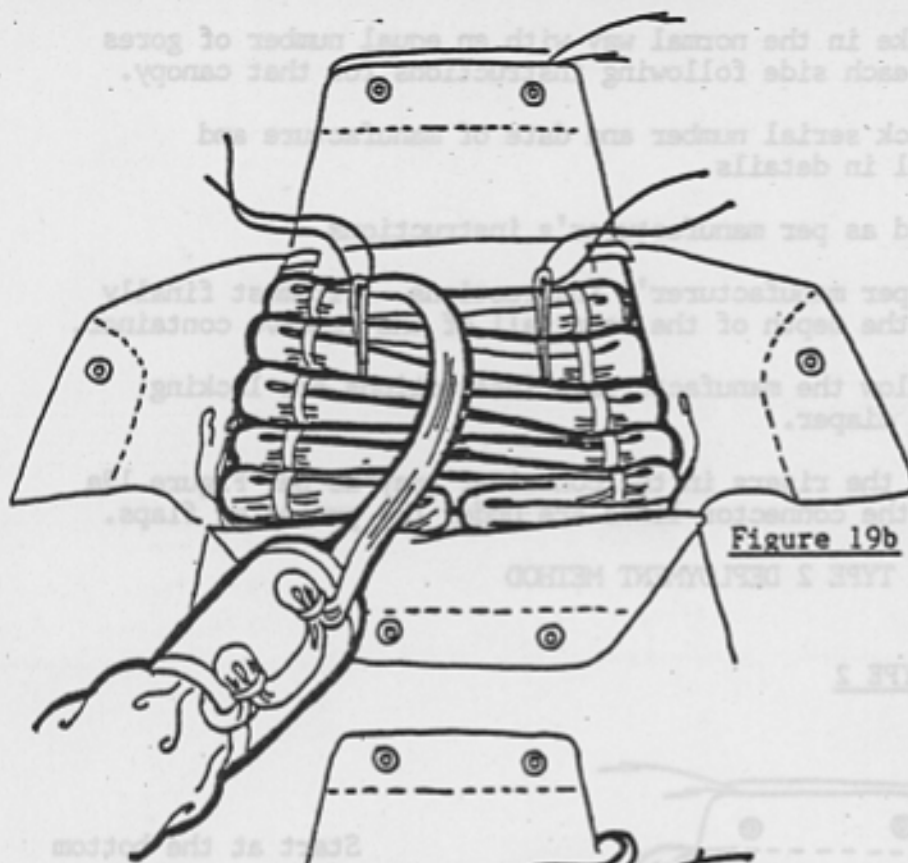


Figure 19b

Then continue stowing all the lines as a single group (Figure 19a from left to right across the bottom, working towards the top of the tray (Figure 19b).

Use good quality rubber bands which hold the stows tightly. Ensure the closure loops come up between the stows, on the outside of the stows insert pull up cords.

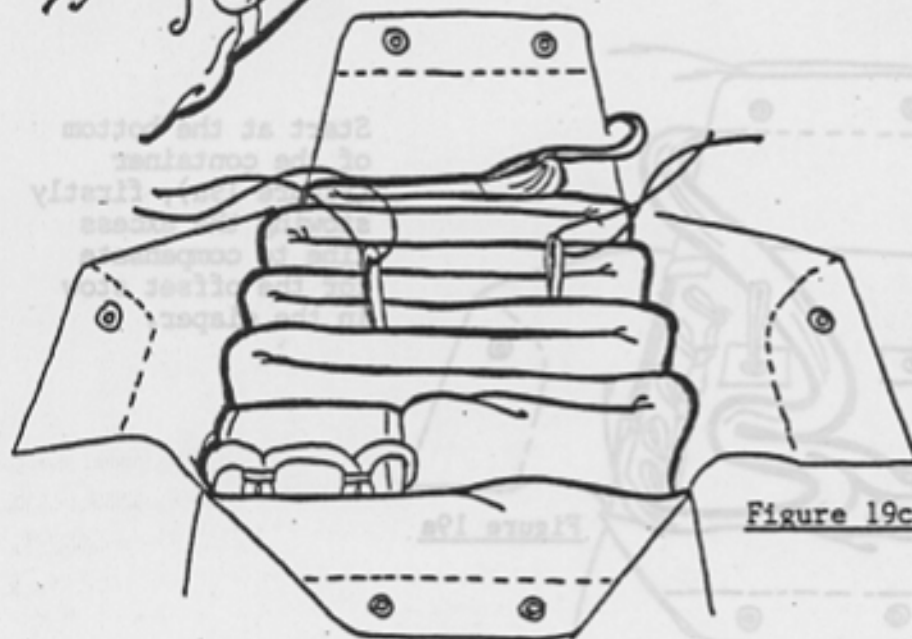


Figure 19c

**CANOPY STOWAGE**

The canopy is S-folded horizontally, commencing at the rear wall of the reserve tray and stowing towards the top (Figure 19c). Ensure the closing loops are clear.

**6.4 PROCEDURE FOR TYPE 3 DEPLOYMENT METHOD**

**TYPE 3** Full diaper with all lines stowed left to right or perpendicular to the radial (longitudinal) seam of the canopy.

**LAY OUT** Lay the canopy and harness out, inspect thoroughly and straighten.



- PLEAT Flake in the normal manner with an equal number of gores on each side following the instructions for that type of canopy.
- PACKING CARD Check serial number and date of manufacture, and fill in details.
- SKIRT Fold the skirt as manufacturer instructs.
- LONG FOLD Long fold as per manufacturer's instructions. It must finally be the depth of the rear wall of the reserve container.
- DIAPER Follow the manufacturer's instructions on closing the diaper.
- RISERS Lay the risers in the container so they are under the protector flap.

LINE STOWAGE: TYPE 3 DEPLOYMENT METHOD

Follow manufacturer's instructions, fold canopy in half as per Figure 20a until it is compact as in Figure 20b.

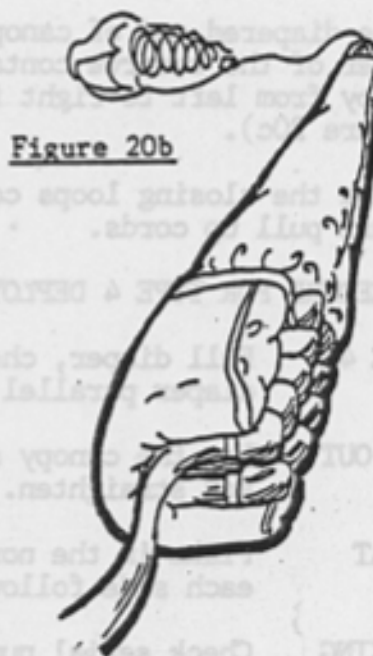
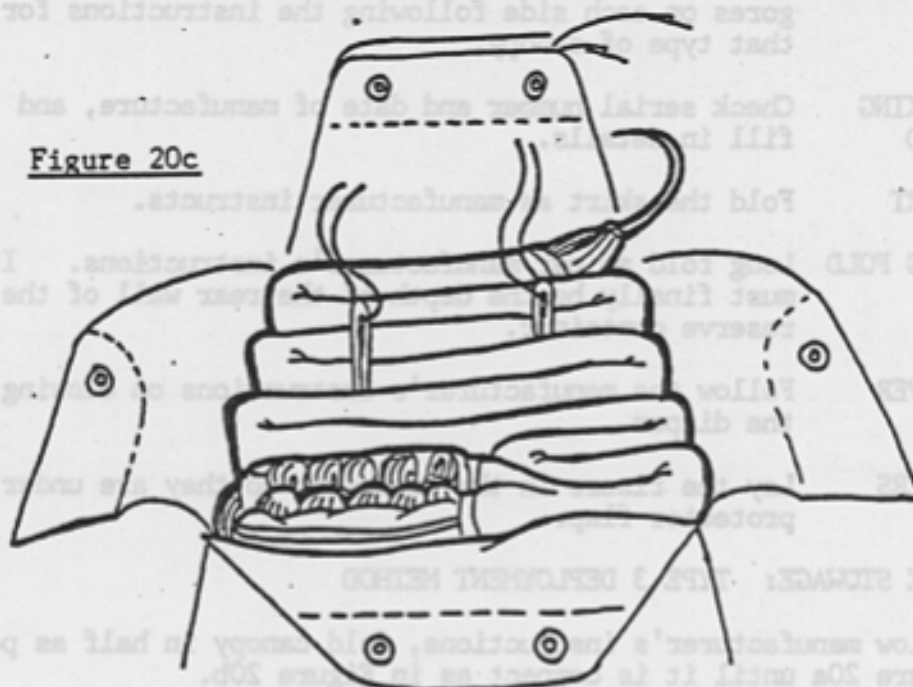




Figure 20c



CANOPY STOWAGE

Place diapered end of canopy neatly, but tightly, into the bottom corner of the reserve container, on top of the risers. 5-fold the canopy from left to right from bottom to top of the container (Figure 20c).

Ensure the closing loops come between the folds of the canopy. Insert pull up cords.

6,5

PROCEDURE FOR TYPE 4 DEPLOYMENT METHOD

**TYPE 4** Full diaper, choker type with all lines stowed on the diaper parallel to the radial (longitudinal) seam.

**LAY OUT** Lay the canopy and harness out, inspect thoroughly and straighten.

**PLEAT** Flake in the normal way with equal number of gores on each side following the instructions for that canopy.

**PACKING CARD** Check serial number and date of manufacture, fill in packing card details.

**SKIRT** Fold as per manufacturer's instructions.

**LONG FOLD** Long fold as per manufacturer's instructions.

**DIAPER** Follow manufacturer's instructions for locking



**RISERS**

Lay the risers in the container tray as in Figure 21a so they are under the protector flaps.

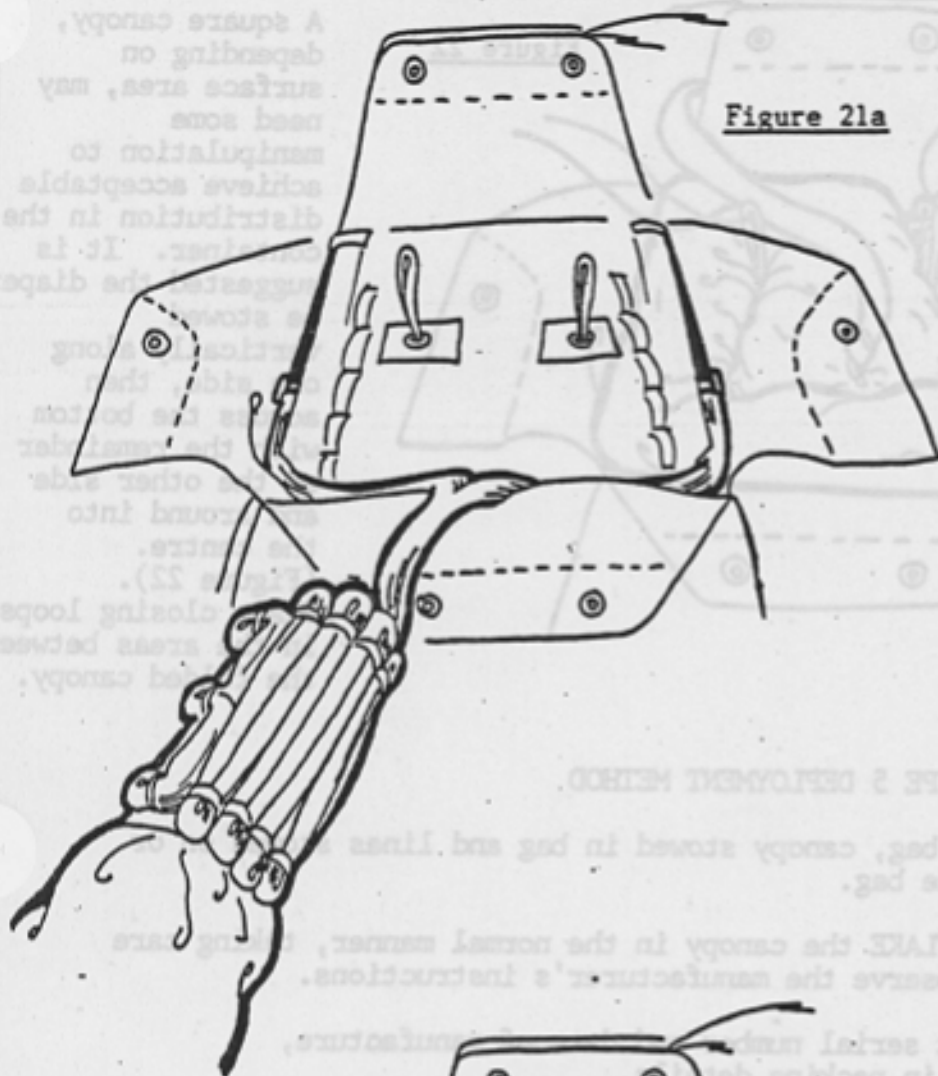


Figure 21a

**LINE STOWAGE:  
TYPE 4 DEPLOYMENT  
METHOD**

Lines are stowed as a group on the diaper (Figure 21a). There is no need to use the line stowage loops on the reserve tray. Follow the canopy manufacturer's instructions for line stowage.

**CANOPY STOWAGE**

The reserve must be finally long folded to the depth of the rear wall of the reserve container.

A round canopy is S-folded horizontally, commencing at the rear wall and stowing towards the top of the reserve container tray. Figure 21b. Make sure closing loops are free and insert pull up cords.



Figure 21b

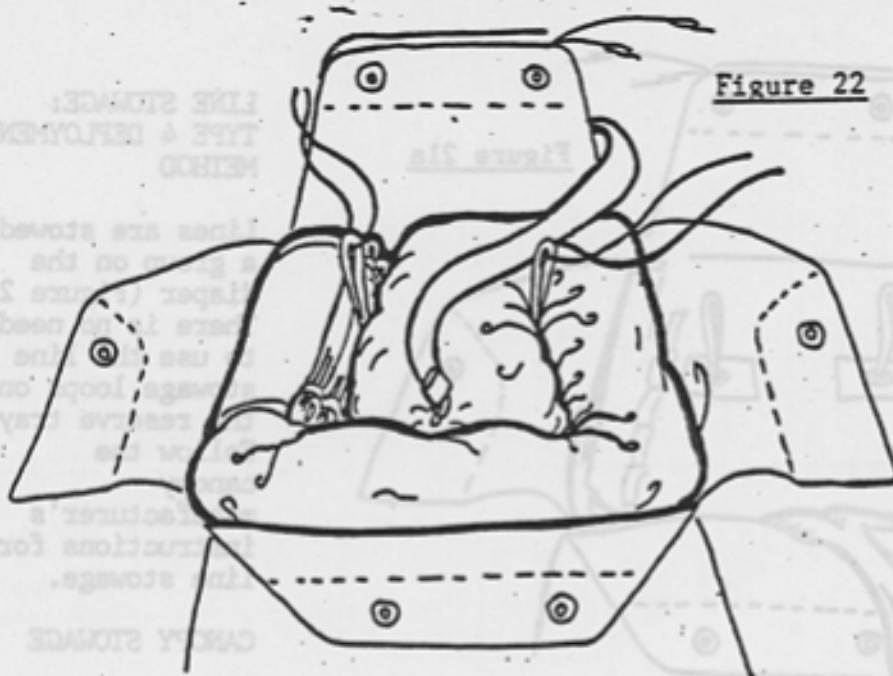


Figure 22

A square canopy, depending on surface area, may need some manipulation to achieve acceptable distribution in the container. It is suggested the diaper be stowed vertically along one side, then across the bottom with the remainder up the other side and around into the centre. (Figure 22). Place closing loops in the areas between the folded canopy.

6.6 PROCEDURE FOR TYPE 5 DEPLOYMENT METHOD

**TYPE 5** Free bag, canopy stowed in bag and lines stowed on or in the bag.

**LAY OUT** and FLAKE the canopy in the normal manner, taking care to observe the manufacturer's instructions.

**PACKING CARD** Check serial number and date of manufacture, fill in packing details.

**PACK** the canopy into the bag as per the manufacturer's instructions.

**LINE STORAGE/BAG POSITIONING**

Secure the mouth of the bag with two bites of line. The remainder of line free stows in the pocket on the outside of the bag.





Lift bag into container and position as in Figure 23.

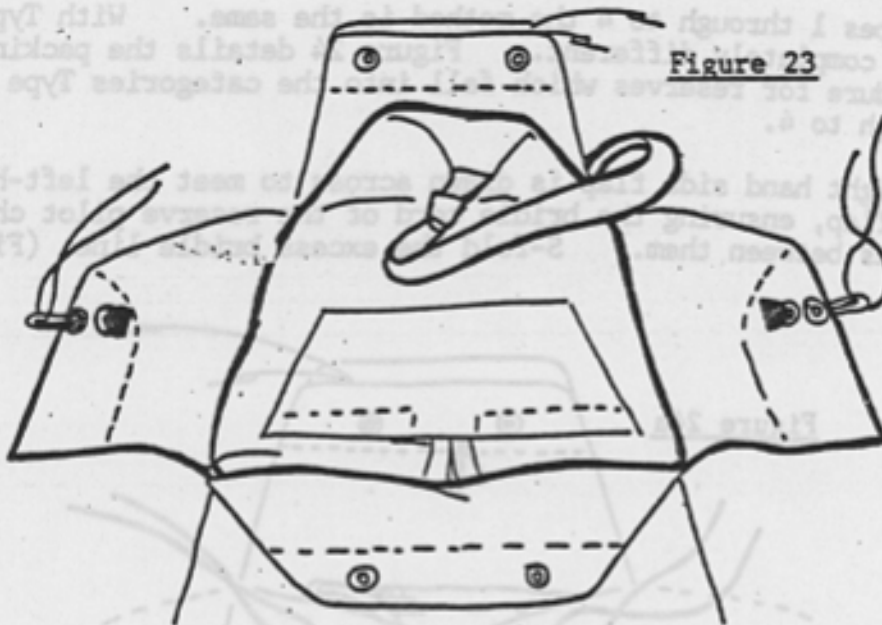


Figure 23

NOTE: The closing loops DO NOT come from the bottom of the container, they are located on the right and left horizontal flaps. A central locking loop for the bridle line is provided to contain the free bag until the pilot chute and bridle line has fully extended. Place pull up cords in all three.

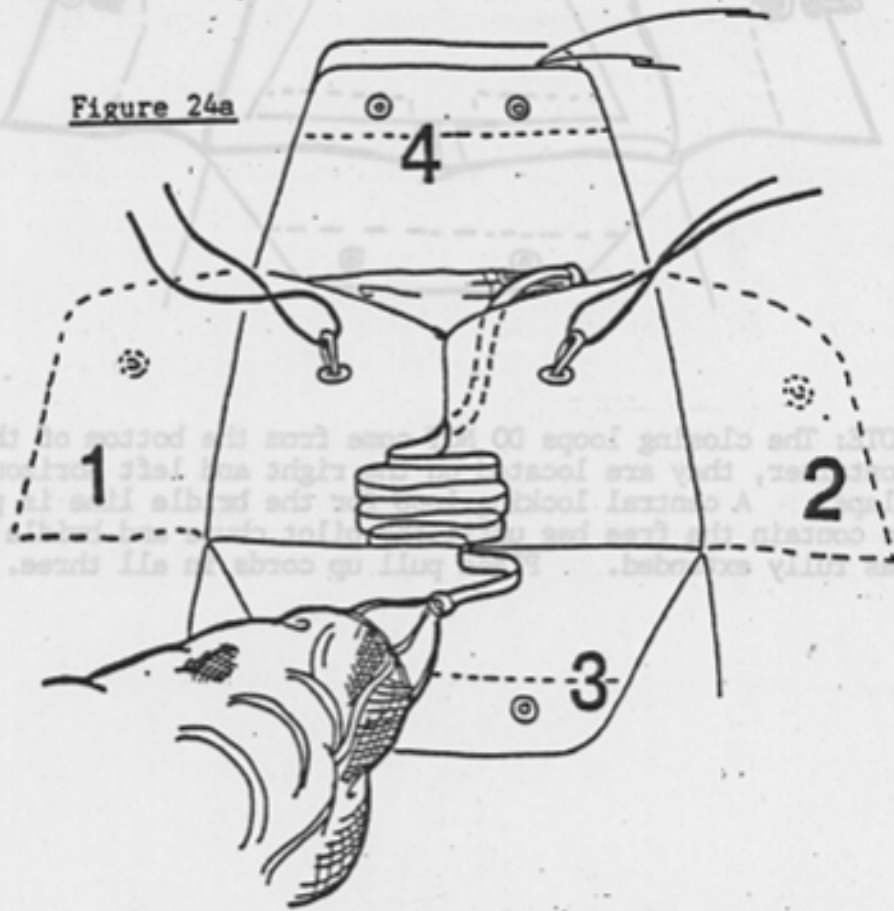


### CLOSING THE RESERVE CONTAINER

In Types 1 through to 4 the method is the same. With Type 5 it is completely different. Figure 24 details the packing procedure for reserves which fall into the categories Type 1 through to 4.

The right hand side flap is drawn across to meet the left-hand side flap, ensuring the bridle cord of the reserve pilot chute emerges between them. S-fold the excess bridle line. (Figure 24A).

Figure 24a



Bring up the bottom flap (No. 3) and, using temporary packing pins, secure it through the closing loops. Ensure the pilot chute bridle line comes out the top of the flap, between the two flaps (Figure 24B).

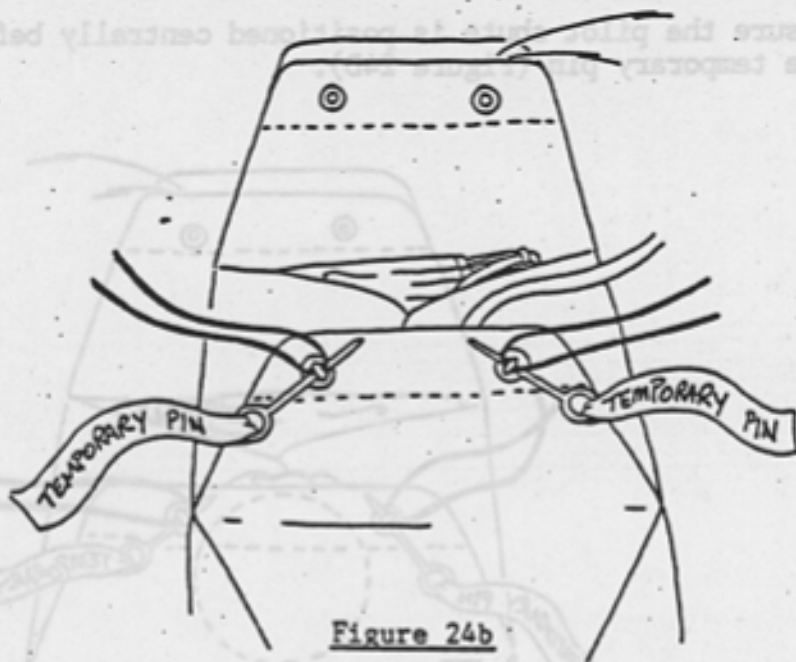


Figure 24b

Compress the pilot chute, catching the folds of the pilot chute material between the spring spirals. Remove one packing pin (Figure 24C) and insert the pilot chute under the bottom flap as per the arrow in Figure 24C.

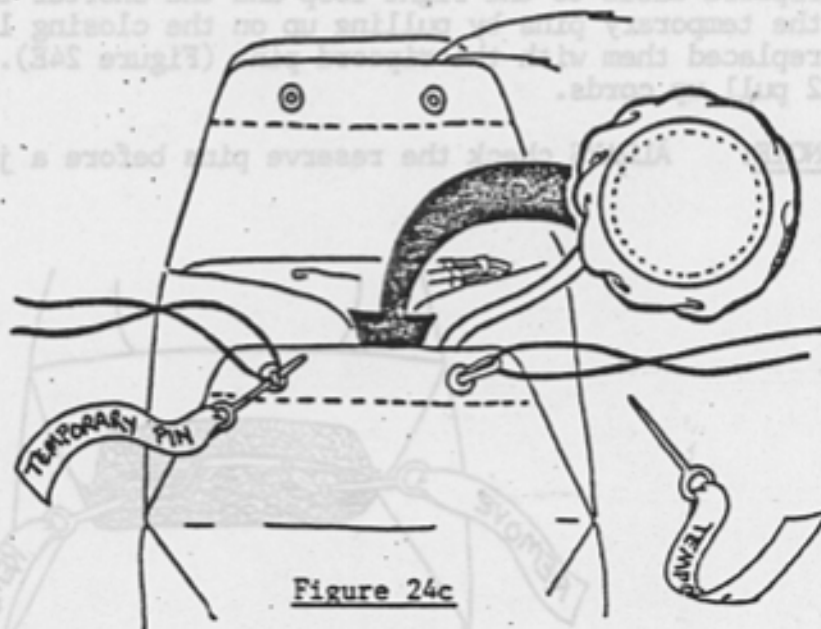


Figure 24c



Ensure the pilot chute is positioned centrally before reinserting the temporary pin (Figure 24D).

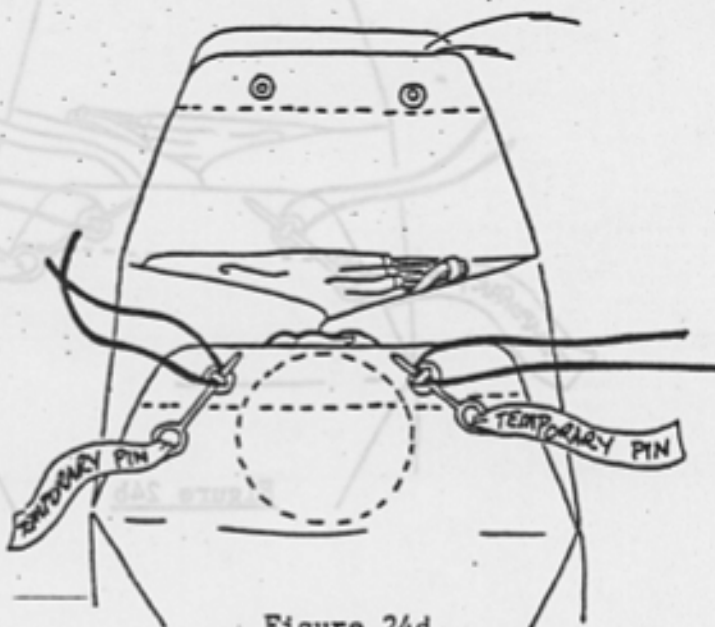


Figure 24d

Bring the top flap (No. 4 in Figure 24A) into position. Bring the top flap down and secure in place using the temporary pins, and then ensure the reserve is packed neatly. Install the longer ripcord cable to the right loop and the shorter to the left. REMOVE the temporary pins by pulling up on the closing loops after having replaced them with the ripcord pins (Figure 24E). Remove the 2 pull up cords.

**NOTE:** ALWAYS check the reserve pins before a jump.

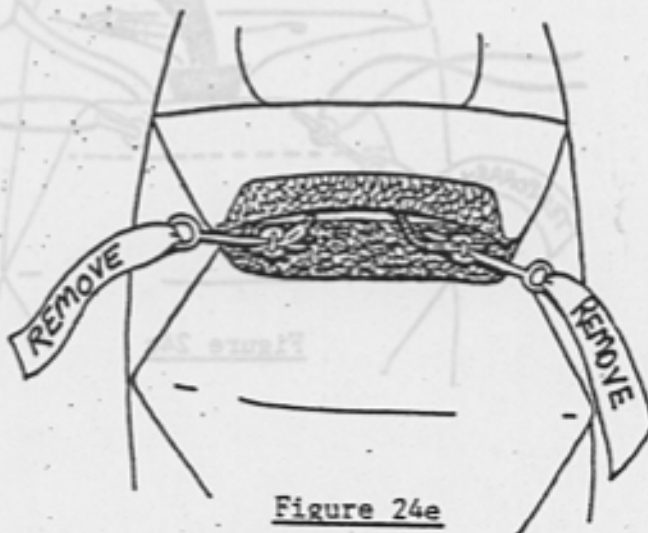


Figure 24e



1.2

## CLOSING THE RESERVE CONTAINER, TYPE 5

Pull the left and right side flaps across and route the elastic loop through the central grommet (after placing pull up cords in all three loops (Figure 25)).

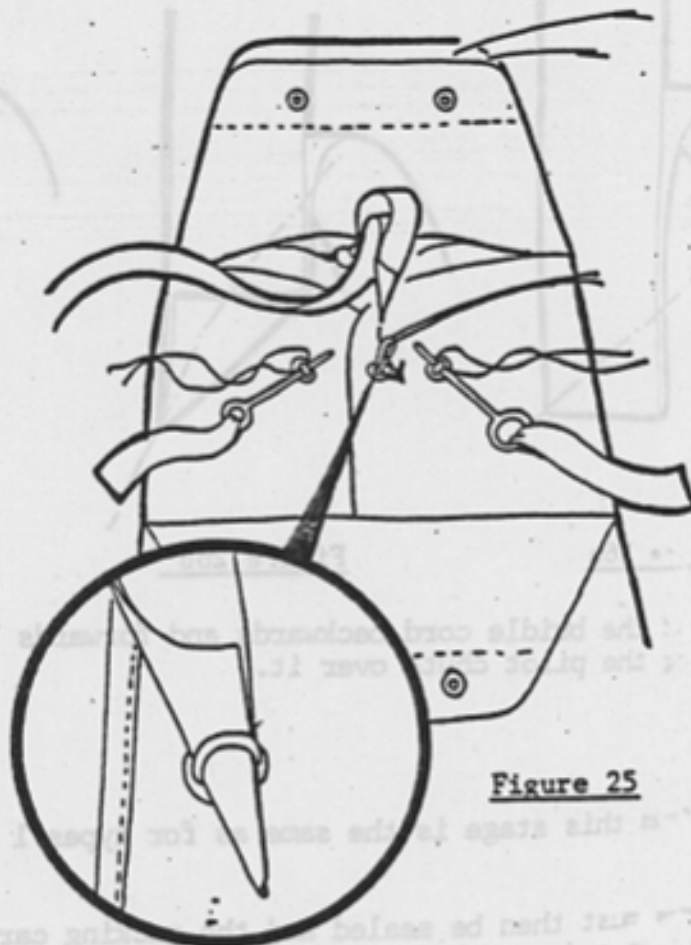


Figure 25

Two loops must be attached to the left and right side flaps of the reserve container and routed through the two grommets. These take the place of the two which are normally routed from the bottom of the tray with containers designed for reserve types 1 to 4. A central elastic closing loop is used to contain the free bag (Figure 23) until the pilot chute and bridle is fully extended.



bite of bridle line close to the apex of the bag and fold  
that length along a 45 degree angle (Figure 26). Fold to  
long needle fold with a sharp point (Figure 26). Insert  
needle fold half-way into the elastic loop. **EXTRACT PULL-UP  
FROM ELASTIC LOOP.**



Figure 26a

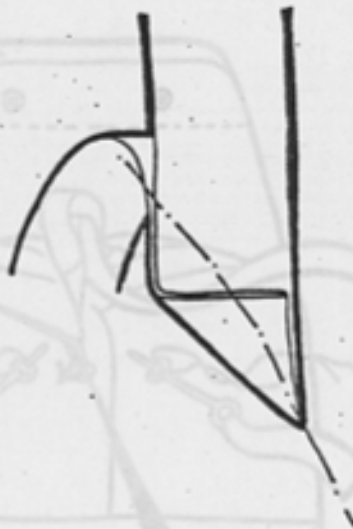


Figure 26b



Figure 26c

the bridle cord backwards and forwards before  
the pilot chute over it.

this stage is the same as for types 1 through to 4.

must then be sealed and the packing card filled in.  
and repack is due every 120 days.

Two loops must be attached to the left and right side flaps of the  
reserve container and routed through the two grooves.  
The place of the two which are normally routed from the bottom  
the tray with container designed for reserve types 1 to 4.  
central elastic closing loop is used to contain the free bag  
until the pilot chute and bridle is fully extended.



## 8.0 MAINTENANCE AND REPAIR

The responsibility of maintenance of the Pigmee lies with a qualified parachute rigger. Any suspected damage from acid, oil, water, chaffing, cuts, burred fittings, wear, sunlight, etc. should be referred to an approved maintenance workshop.

Repairs are classified as daily maintenance, minor repair or major repair.

### 8.1 DAILY MAINTENANCE

This means the replacement of component parts which require only assembly. This is within the scope of a parachute packer (D. of A. Class C Rigger).

### 8.2 MINOR REPAIR

A repair other than a major repair, for example, stain removal, ripcord pocket repair, canopy patches, housing replacement, housing and grommet replacement. All minor repairs are within the scope of a parachute rigger (D. of A. Class B Rigger).

### 8.3 MAJOR REPAIR

This is a repair that, if improperly accomplished, might appreciably affect the strength, performance, flight characteristics or any other factor affecting airworthiness. A major repair must be carried out under the direct supervision of a senior rigger (D. of A. Class A Rigger).

### 8.4 ALTERATION

This is a change to any aspect of the parachute assembly from its original specifications. Any alteration must be carried out by the manufacturer or with his written approval.

### 8.5 REPAIR METHODS

The only approved method of repair is the remanufacture or factory-like replacement of the damaged area. In making a repair, the Pigmee should be used as the model and all parts, seams or methods should duplicate the original.

### 8.6 MODIFICATIONS

The Pigmee has undergone a number of design changes since introduced in 1978.

All Pigmeees manufactured after a modification order is released will have the modification incorporated at the time of manufacture.

Modification Orders will be classified as either mandatory or optional.



Pigmees manufactured prior to the release of the Modification Order ARE REQUIRED to have the modification retrofitted if it is classified as MANDATORY.

The following is a list of Modification Orders that have been raised together with the classification, affected serial numbers and date of release.

- S007-MOD-01 Pigmee Housing End Tab Mod.  
Pigmees S/N 001 through 014 to have grommet fitted to housing, mandatory, use drawing S7/16 Issue 2.
- S007-MOD-02 Pigmee Teflon Reserve Housing  
Reserve housing teflon tube replaced with better quality teflon, optional S/N001 through 290.
- S007-MOD-03 Pigmee S/S Spiral Housing Mod.  
Pigmee Mod. 3 Stainless Steel spiral tube cutaway housing, optional S/N001 through 433.
- S007-MOD-04 Pigmee Main Container Grommet Mod.  
Pigmee with main R/C deployment #1 grommet in place of #0 grommet, S/N001 through 440.
- S007-MOD-05 Pigmee 1 Bendix Housing Kit  
Pigmee 1 Teflon tube replacement with Bendix tube housing, optional, S/N001 through 437..
- S007-MOD-06 Pigmee 1 Armoflex Housing Kit  
Pigmee 1 to be retrofitted with Armoflex Housing Set P/N H100, Mandatory, S/N001 through 461.
- S007(B)-MOD-06 Pigmee II Armoflex Housing Kit  
Pigmee II to be retrofitted with Armoflex Housing Set P/N H100, Mandatory, S/N461 through 954.
- S007-MOD-07 Pigmee Reserve Lanyard Release  
Pigmees for student training may have Lanyard to activate reserve, optional, all, use B049 Kit.
- S007-MOD-08 Pigmee 'S' Wrap Mod.  
Pigmees with 'S' Wrap Riser release and using H094 cutaway handle to have locking loop extended.





9.0

CANOPY VOLUME CHART

The canopy volume chart specifies the average volume of current production canopies as determined by the standard measurement method.

CANOPY TYPE	Cu. In.	CANOPY TYPE	Cu. In.
Reserves		Mains	
<u>HOBBIT</u>	312	Firefly w/Kevlar	338
Phantom 24	324	<u>HOBBIT</u>	338
Featherlite R2-1	338	X210 w/Kevlar	364
K20	338	Firefly	416
<u>AEROLITE</u>	350	Swift	416
Phantom 26	364	Unit w/Kevlar	442
K22	364	Merlin Lite	442
Swift	367	Pegasus	468
Piglet II R-1	390	Unit	468
Preserve III	390	Comet CRW	520
SAC	390	Spirit	520
Firefly	416	X228	520
Strong Lopo Lite	442	<u>SP I STUDENT CANOPY</u>	520
Super 22 (low speed)	442	Cruiselite	520
R4, R5	468	Kestral	520
Safety Flyer	468	Lissaman Star	520
K26	468	Mini Foil	520
Super 22 Std.	468	Strato Flyer	520
Phoenix	510	Wizard	572
National Lopo	520	Superlite	572
Security	520	Merlin	614
Strong Lopo	520	Titan	624
PA LOPO P8	520	Unit III	624
X228 R	520	30'XL	624
Reliant	572	Crusair	645
26' Super Steerable	572	9 Cell Pegasus	650
T10 A Reserve	624	Unit IV	655
28' Surplus	884	Unit (original)	655
		260 XL	676
		Delta Cloud	676
		X300	676
		Comet 300	676
		F111 RW PC	676
		Piglet II	676

NOTE: Canopies manufactured by PA are in capitals and underlined.



10.0

PARTS LIST

All parts are available from Parachutes Australia or PA dealers.

- S007 Pigmeo Harness and Container (see order form)
- B011 Pigmeo Deployment Bag (specify canopy)
- B016 Pigmeo Risers (specify canopy), 3-ring
- H094 Pigmeo Reserve Handle (yellow)
- H090 Pigmeo Reserve Cables and Ripcord Pins (includes red override handle)
- H098 Pigmeo Main Ripcord One Pin
- M034 Reserve Closure Loops and Washer (set of two)
- A029 Packing Cards
- B021 Pigmeo Pilot Chute (Skyhook)
- B028 Throwaway Pilot Chute Assembly, complete
- B047 Pull Out Handle, Pin and Bridle and Pilot Chute
- B013 Pigmeo Packing Mat
- B014(S) Small Carry Bag
- A036 Pigmeo Owners Manual
- H099 Pigmeo Student Static Line
- H040 Pigmeo Student Dummy Ripcord

NOTE: Canopies manufactured by PA are in capitals and underlined.