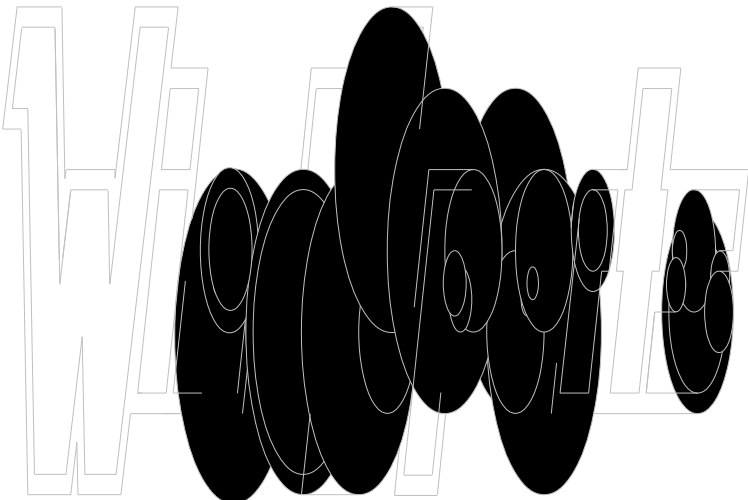
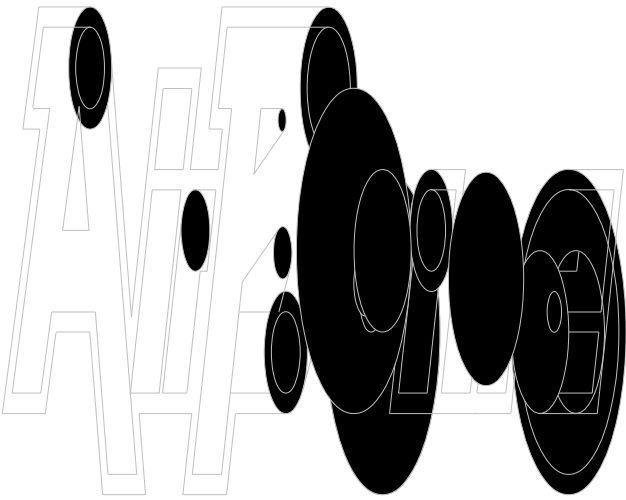


THE
BLITZ



AIRBORNE WINDSPORTS BLITZ

By

OWNERS MANUAL

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TABLE OF CONTENTS

SECTION 1 - DESIGN FEATURES	2
SECTION 2 - SPECIFICATIONS	2
SECTION 3 - OPERATING LIMITATIONS	3
SECTION 4 - ASSEMBLY PROCEDURE	4
SECTION 5 - PRE-FLIGHT INSPECTION	6
SECTION 6 - FOLD DOWN PROCEDURE	7
SECTION 7 - FLIGHT TECHNIQUE	8
SECTION 8 - TUNING	9
SECTION 9 - PERIODIC INSPECTION	13
SECTION 10 - TRANSPORTATION AND STORAGE	14
SECTION 11 - MAINTENANCE RECORD	15

AIRBORNE WINDSPORTS BLITZ

SECTION - DESIGN FEATURES

The Blitz is probably the first hang glider to use computer aided design technology. Designed with the competition pilot in mind, the Blitz is not only a top performer with an excellent glide ratio, its slow flying capabilities and light handling allow pilots to core thermals easily and stay in the air longer. The glider has excellent static balance, making launching easy. Landing is also surprisingly easy as the Blitz holds its nose up well.

You will be happy to see that no expense has been spared in the finish of your Blitz. The glider has closer batten spacing, doing away with those awkward intermediate battens seen on most other performance hang gliders.

In the set up area nuts and bolts have been replaced by ball lock quickpins, and quick clips for the pullback tensioner and nose catch. No need to detach the compensator when packing up or laying flat, the compensator has been designed so it remains attached.

Leading edges, crossbars and uprights are interchangeable left to right. The uprights can be changed without removing any wires, an operation that takes only a few minutes.

It is important that this manual be read and understood. Preflight procedures, and periodic inspections are essential.

If you require any more information contact your dealer or call us direct. We will be happy to give any assistance.

SECTION - SPECIFICATIONS

	137		155
Sail Area	137 st ft (12.8 Sq m)		155 sq Ft (14.7 Sq m)
Wing Span	30ft 8" (9.4 m)		33 ft (10.06m)
Aspect Ratio	6.9		6.9
Weight	29kg		34kg
Pack-up Length	17ft 6" (5.3m)		19 ft (5.8m)
Breakdown Length	12ft 5" (3.8m)		14.1 ft (4.3m)
Pilot Weight Range	45 to 65 kg		60 to 95 kg
V _{NE}	53 mph		53 mph
Minimum Speed (@ Maximum Weight)	18 mph		18 mph
Maximum Speed @ Minimum Weight	50 mph		50 mph

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SECTION - OPERATING LIMITATIONS

This glider must not:

- 1) be flown with more than the payload specified on the placard (see below).
- 2) exceed 30 degrees nose up or down to horizon.
- 3) exceed 60 degrees bank angle left or right to the horizon.
- 4) be flown inverted or backwards.
- 5) be flown with auxiliary power unless designed, installed and tested by the factory.

PLACARDS

BLITZ 155				Serial No		
Operating Limits			Caution			
<ul style="list-style-type: none"> ● Recommended Pilot Weight Range 60-95 kg ● Indicated Stall Speed - 20 mph for 95kg pilot ● Indicated Maximum Speed - 50 mph for 60kg pilot ● Flight operations should be limited to non aerobatic manoeuvres. ● Load should only be applied to the glider through the pilots hang loop. Towing devices which load the glider elsewhere can be dangerous. ● Minimum Pilot Rating - Intermediate 			<p>THIS GLIDER MUST NOT:</p> <ul style="list-style-type: none"> ● be flown with more than 110 kg payload; ● exceed 30° nose up or nose down; or ● exceed 60° bank angle (either left or right) <p>No negative G or Aerobatic Manoeuvres</p> <p>To be flown solo only</p> <p style="text-align: right;">A4-7057.DOC</p>			
AIRBORNE WINDSPORTS Pty. Ltd. NEWCASTLE, N.S.W. AUSTRALIA				ALWAYS FLY SAFELY		

BLITZ 137				Serial No		
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AIRBORNE WINDSPORTS BLITZ

Operating Limits		Caution	
<ul style="list-style-type: none"> ● Recommended Pilot Weight Range 45-65 kg ● Indicated Stall Speed - 18 mph for 65kg pilot ● Indicated Maximum Speed - 50 mph for 45kg pilot ● Flight operations should be limited to non aerobatic manoeuvres. ● Load should only be applied to the glider through the pilots hang loop. Towing devices which load the glider elsewhere can be dangerous. ● Minimum Pilot Rating - Intermediate 		<p>THIS GLIDER MUST NOT:</p> <ul style="list-style-type: none"> ● be flown with more than 80 kg payload; ● exceed 30° nose up or nose down; or ● exceed 60° bank angle (either left or right) <p>No negative G or Aerobatic Manoeuvres</p> <p>To be flown solo only</p> <p>A4-7057.DOC</p>	
AIRBORNE WINDSPORTS Pty. Ltd. NEWCASTLE, N.S.W. AUSTRALIA	ALWAYS FLY SAFELY		

SECTION - ASSEMBLY PROCEDURE

The wing can be assembled in two positions, either laying flat or standing on the control frame.

ASSEMBLY ON THE CONTROL FRAME

Assembling the BLITZ on the control frame is the most popular method as the sail is up off the ground and is less prone to being soiled or damaged.

Our suggested sequence is as follows:

- 1) Lay the wing down with zip up and the nose facing approximately 120 degrees from the wind direction. Unzip the bag.
- 2) Spread the control bar down tubes out and insert the base bar. The pip pin is then inserted with the cover firmly secured. Check that all the rigging wires are outside the control frame.
- 3) Rotate the control frame to the vertical position and rotate the wing 180 degrees so that it is sitting on the base bar.
- 4) Remove the glider bag and unclip all of the ties.
- 5) Carefully spread both leading edges out half way then spread them both out to its approximate flying position.

IT IS ESSENTIAL THAT THE KEEL AND THE LEADING EDGES ARE KEPT IN THE SAME PLANE OR DAMAGE WILL RESULT.

- 6) Raise the kingpost and attach the reflex bridle.
- 7) Remove the battens from the bag. Place all of the "red" battens in the left wing. Insert the top surface battens from # 1 to # 9 using gentle pressure until they meet resistance. When securing the battens place the bottom loop on first and tension by placing the top loop into the batten end fitting. The under surface battens are then inserted and secured by a single bungy only. The same procedure is used for the "green" battens in the right wing. The tip struts are inserted after tension is on

The battens should be checked against the template every 10 hours.

- 8) The cross booms are now tensioned by pulling the pull back strap until the cross boom shackle is positioned on the QUICK CLIP. If the pullback appears to be jammed check the VG pulleys in the undersurface of the glider.

- 9) The nose wires can now be attached onto the QUICK CLIP.
- 10) Insert the nose batten tail end first and locate it on the fitting on the front of the keel.
- 11) Attach the nose fairing applying the top velcro first then gently tension over the nose plates and attach the velcro to the undersurface.
- 12) You are now ready for the wing pre-flight inspection. It is imperative that you carry out this inspection every time you rig and before you fly.

ASSEMBLY LAYING FLAT.

- 1) Lay the wing down with zip up and the nose facing into the wind direction. Unzip the bag.
- 2) Spread the control bar down tubes out and insert the base bar. The pip pin is then inserted with the cover firmly secured. Check that all the rigging wires are outside the control frame.
- 3) Hold control bar and rotate glider 180 degrees so the bar is underneath.
- 4) Remove the glider bag and unclip all of the ties.
- 5) Carefully spread both leading edges out half way then spread them both out to its approximate flying position.

TO PREVENT DAMAGE KEEP THE KEEL AND THE LEADING EDGES IN THE SAME PLANE.

- 6) Raise the kingpost and attach the reflex bridle.
- 7) Remove the battens from the bag. Place all of the "red" battens in the left wing. Insert the top surface battens from # 1 to # 9 using gentle pressure until they meet resistance. When securing the battens place the bottom loop on first and tension by placing the top loop into the batten end fitting. The under surface battens are then inserted and secured by a single bungy only. The same procedure is used for the "green" battens in the right wing. Insert the tip struts after the tension is on.

The battens should be checked against the template after every 10 hours of airtime or when the glider has been left setup in for lengthy periods in windy conditions.

- 8) The cross booms are now tensioned by pulling the pull back rope until the cross boom shackle is positioned on the QUICK CLIP. Lift the rear of the keel as the tension is applied. If the pullback appears to be jammed check the VG pulleys in the undersurface of the glider.
- 9) Walk to the nose of the glider, holding the keel through the undersurface raise the nose pushing back at the same time.
- 10) Attach nose wires onto the quick clip and put nose nappy into place.
- 11) Park glider 120 degrees from wind direction and proceed with the pre-flight inspection.

SECTION - PRE-FLIGHT INSPECTION

The wing was designed so that parasitic drag would be kept to a minimum. This means that most of the pre flight check points are enclosed.

A thorough pre-flight inspection is mandatory for any aircraft, and the best technique is a circular walk around the wing.

The nose plates are the ideal area to start your pre-flight check followed by each assembly point.

Keep in mind the three most critical set up areas:

- 1) The nose quick clip;
- 2) control bar base tube bolts; and
- 3) the cross boom tensioner.

Starting at the nose we suggest the following checklist (ensuring all bolts and fasteners have the appropriate thread protruding beyond the nut.)

- 1) Check the nose plate assembly ensuring that the king post wire is not kinked.
- 2) Walk towards the tip feeling for dents in the leading edge.
- 3) Check sail tensioning screws and eyelets.
- 4) Crouch down and lift tip to eye level to inspect cross boom/leading edge junction. Ensure that

the tip strut is in order.

- 5) Walk towards the keel checking all batten tensioners.
- 6) Check that all reflex bridle line attachments are in order and not caught under any battens.
- 7) Check that the Cross bar retaining shackle is secured on the quick clip.
- 8) Check the Rear top rigging and that the reflex bridle carabina is properly closed.
- 9) Check King Post base.
- 10) Repeat steps #2 - #6 in reverse order.
- 11) Check all lower rigging.
- 12) Check Control Bar corners are correctly assembled with pip pin and cover in place.
- 13) Check hang loops are correctly positioned and in good order.
- 14) Check control bar top assembly.
- 15) Check Cross Tube Hinge, and Cross Tube Strap.
- 16) Ensure that the double surface is done up and Nose Fairing is secure.

SECTION - FOLD DOWN PROCEDURE

To fold down your Blitz, just reverse the set-up procedure steps as described. Included here are a few guidelines to follow which will save you time and prevent wear areas on your sail.

De-rigging on A frame

- 1) Let off the sail tension.
- 2) Pull out all the battens.
- 3) Attach top control bar padding.

- 4) Disconnect reflex bridle.
- 5) Fold both wings in symmetrically, bringing both leading edges back at the same time.
- 6) Roll the sail up carefully to avoid unnecessary creases. Use the padding provided to avoid sail wear.
- 7) Attach ties.
- 8) Place glider bag in position.
- 9) Roll glider over, undo control bar and fold into leading edge pockets, onto padding.

For de-rigging flat, attach top control bar padding undo nose wires and pull wing forwards of control bar. Then follow steps as above.

SECTION - FLIGHT TECHNIQUE

Take Off..Don't forget to hook in...

The Blitz has an even static balance and is very easy to launch. Hold the nose in the neutral position with the wings level, run hard keeping the nose at the same angle, ease bar out for lift off.

Turns..

With its excellent roll rate the Blitz can be easily directed into a turn even at slow speeds, however for a fast roll rate, it is best to pull in for a little extra flying speed.

To enter a turn move to one side and push out slightly. The glider will maintain in the turn until the turn is removed by pilot input. Allow yourself plenty of margin for safety.

Don't Fly too slow when scratching close to the hill.

Stalls..

When practising stalls make sure you have sufficient altitude. Push out slowly, the glider will tend to mush without dropping a wing. The sink rate will increase in this mush mode more than two fold.

If you push out harder the nose will pitch higher, this is followed by a gentle pitch down until the glider regains flying speed and recovers from the stall.

Never stall the glider with the nose pitched up to high. This is a dangerous manoeuvre and can result in a tail slide and severe tumble.

If you push out to much in a turn the glider will turn tighter unless you are flying very slow, in which case you may tip stall. So keep on a little extra speed in turns until you get used to the glider.

Spins

As with all the later design gliders the Blitz will resist spinning. If you do stall a wing in a turn and enter the initial stages of a spin, move your weight forwards and the glider will recover.

Thermaling

The optimum speed for thermaling is a little above the min sink flying speed, it may be necessary to fly faster than this in rough conditions to maintain good control. Depending on the nature and area of the thermal a bank angle of between 10 and 50 degrees can be used.

Landing

Landing is easy in a Blitz.

Your final approach should be a straight glide into the wind faster than trim speed, approx 27 mph.

Bleed your speed off slowly keeping wings level and ground speed.

In light or no wind a strong flare is required. In strong wind it is possible to fly the glider onto the ground still slowing up gradually.

SECTION - TUNING

Your Blitz was test flown and delivered to you in good trim. Adjustments may be made to compensate for slight trim variations as follows.

Batten Profile

If your Blitz develops a turn or a pitch problem, the first thing to do is to check your battens against the template provided as follows:

- 1) Lay the template out on a flat surface.
- 2) Start with the keel batten lining the nose of the batten up with the start of the line. The line should be above the batten.
- 3) If the batten does not line up, gently apply pressure using your hand or knee along the batten, try to get a smooth curve. Battens with plastic ends should line up from the aluminium. Battens should be checked after 10 hours airtime.

Pitch

If your Blitz develops a pitch problem, check that the hang strap is in the correct position.

Careful positioning of the hang strap will compensate for pitch problems. Always ensure that the hang strap is looped around the keel and not allowed to move for or aft from its set position.

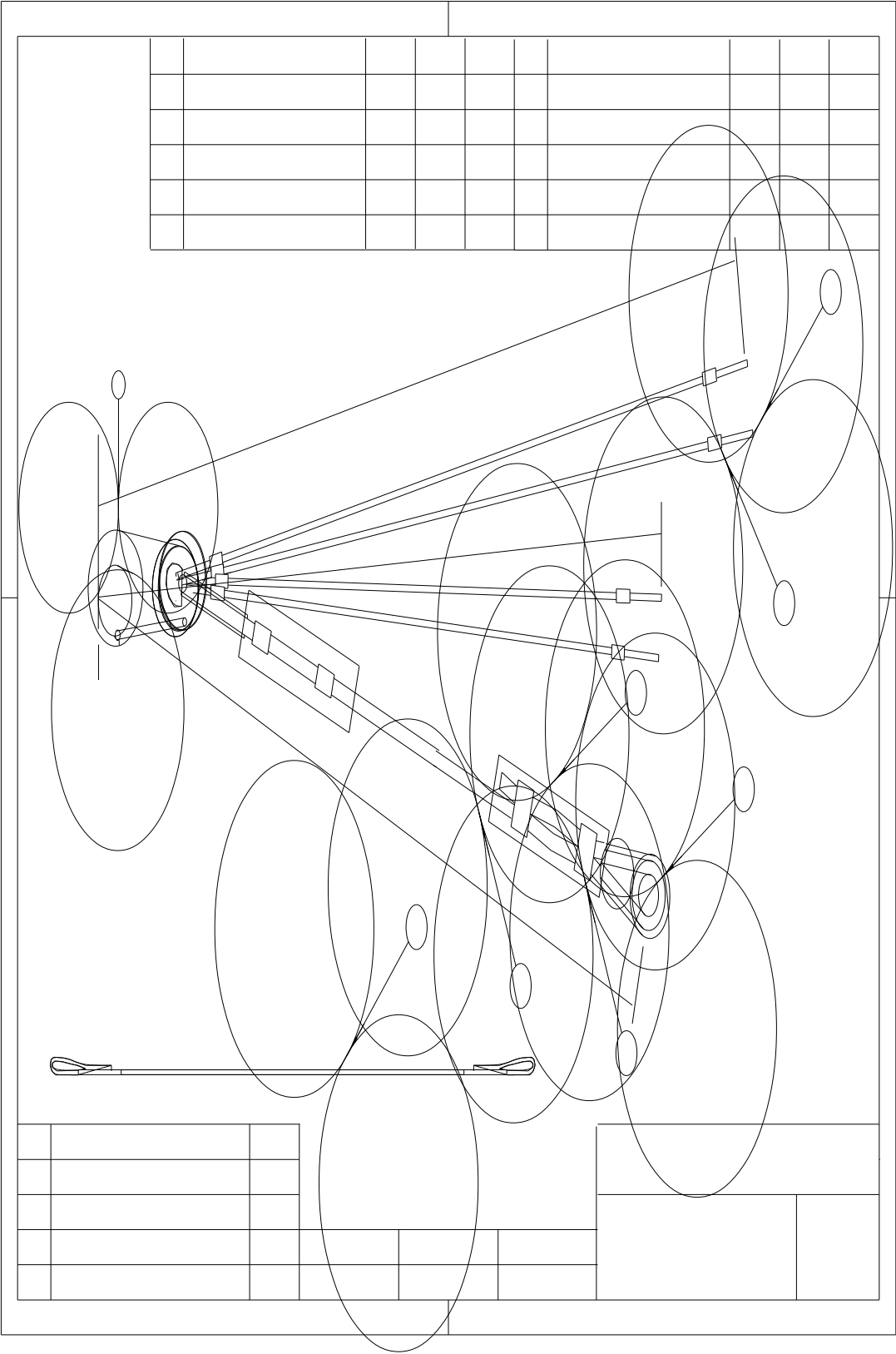
If further trim correction is necessary consult your dealer or the factory. Use a back-up loop and be sure it is free in all harness positions.

If it is necessary to replace either the luff lines or the compensator line check that the replacement parts conform to the drawings on the next two pages.

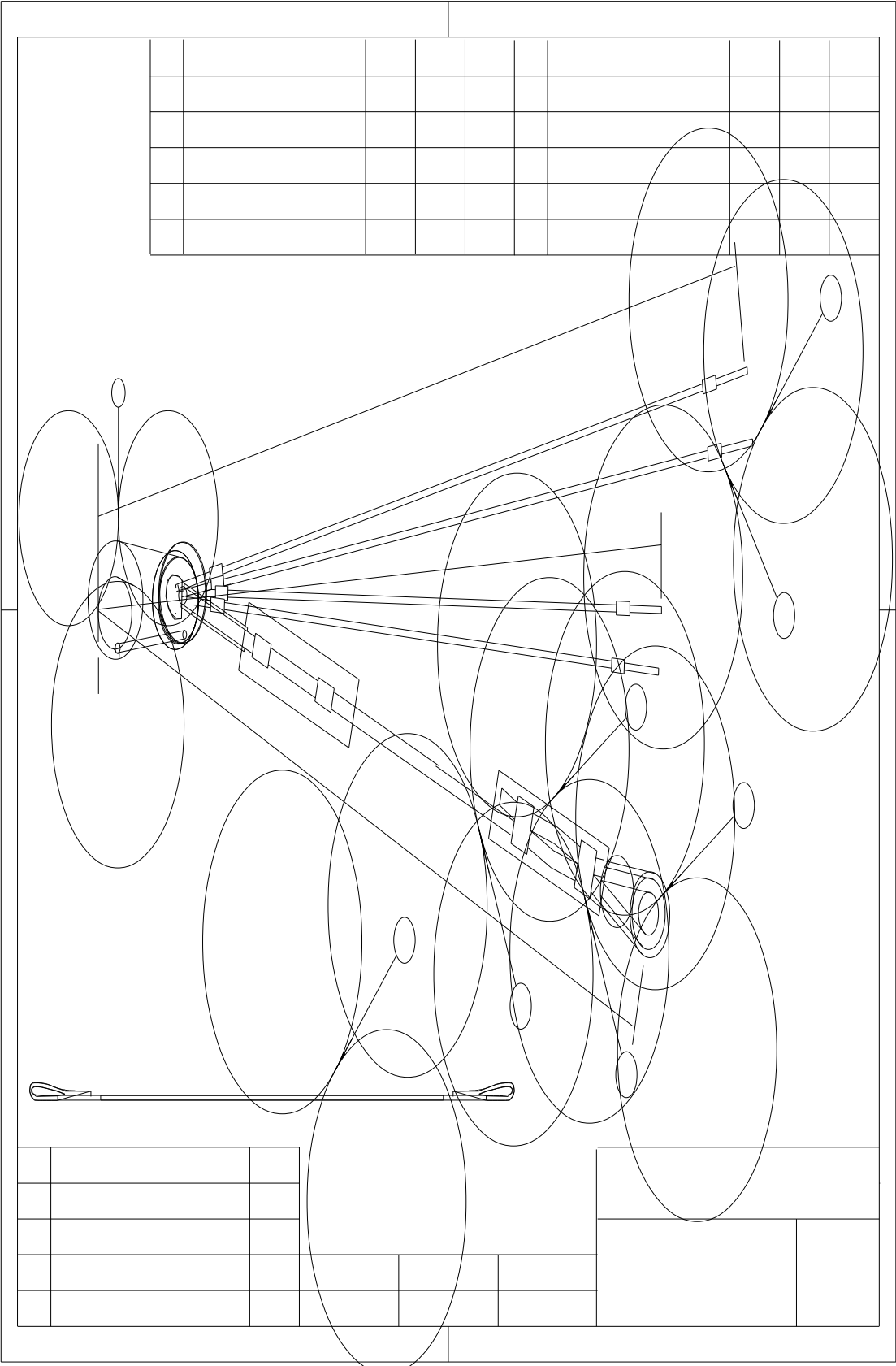
Roll.

If your glider develops a turn, check for any twisted wires or tangs. Check the leading edges making sure they are straight. If the turn persists consult your dealer or the factory.

AIRBORNE WINDSPORTS BLITZ



AIRBORNE WINDSPORTS BLITZ



SECTION - PERIODIC INSPECTION

Your Blitz will require little maintenance if you care for it properly. Always use the padding provided, and follow the periodic inspection as follows.

Hang straps should be checked for signs of wear before every flight.

Every 10 hours

- * Check top and bottom surface battens using template.

Every 50 hours

- * Inspect all wires, nuts, bolts, pip pins, cross bar hinges and pull back tension mechanism.
- * Inspect reflex bridle lines, sail eyelets, sail screws, bridle line carabineer and quick clips.
- * Check all tubes for dents or sign of wear.
- * Check batten elastics for symmetrical tension and signs of wear.
- * **Check VG - Xbar rope. Replace if worn.**

Every 100 Hours

- * A complete inspection of your glider is recommended, Consult your dealer or the factory.

SECTION - TRANSPORTATION AND STORAGE

Avoid damage to your glider by using well padded racks.

We recommend that you support the glider in at least 3 places to spread the load.

Flat straps should be used for tie downs to avoid damage to leading edge mylar.

Store the glider in a dry room off the ground, air the glider out regularly to avoid mildew, and never store wet.

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SECTION - MAINTENANCE RECORD

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MAINTENANCE RECORD (continued)[illegible]