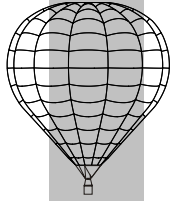


**ULTRAMAGIC MAINTENANCE MANUAL SUPPLEMENT N°18****'TEKNO' BASKETS****Section 1 - General**

This supplement defines the particular maintenance and inspection requirements for the CT-01, CT-02 and CT-03 Ultramagic Hot Air Balloon 'Tekno' Baskets.

Sections 1 to 5 detail the specific maintenance procedures and the parts used. Section 6 details the applicable inspection schedules and test requirements.

Due to the innovative materials and concept introduced with the 'Tekno' baskets, some of the generic maintenance instructions for baskets no longer apply. Thus a specific Maintenance Manual Supplement is required where the Maintenance Manual. Indexes are kept in line with the Ultramagic Maintenance Manual to facilitate its use. All other limitations, instructions and safety information contained in the Maintenance Manual remain applicable.

**1.1.3 Basket (Preventive maintenance)**

Replace with the following:

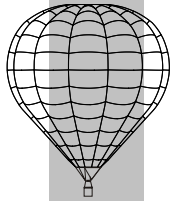
- Cleaning
- Replacement of wall protection panels
- Replacement of wall cushion padding
- Replacement of handles for the occupants
- Replacement of cross tensor tapes or nylon rods
- Assembling and disassembling of brackets and straps for the external fitting of cylinders (if due)

**Section 2 – Envelope Repairs****2.12.8 Karabiners**

The following karabiners are allowed when rigging a 'tekno' basket to the envelope.

- 30 kN Steel – Stubai / DMM
- 900 kg St Steel - Quick Link (Maillon Rapid)
- 27 kN Steel - Faders

**WARNING:** Design Loads of the Basket must be considered in any case.



## Section 3 – Basket Repairs

### 3.1 General Maintenance

The basket should be regularly cleaned and inspected. Basket may be washed with soapy water (no strong detergents) It must then be allowed to dry before storing.

### 3.4 Rawhide

Special dry rawhide is used on the 'tekno' baskets to allow the "hinge" function. Replacement requires stapling and stitching of the new panels, which must be of the appropriate size.

### 3.5 Wicker

(Not applicable)

### 3.7 Basket Floors

Any crack longer than 15 cm and 3 mm depth (two cross-banded veneers) or more in the plywood floor requires work involving its replacement. If this is the case, contact Ultramagic for further information.

### 3.9 Basket Materials

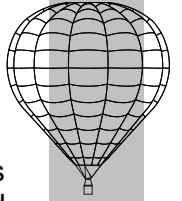
The Floor of the 'Tekno' basket is manufactured from 9mm varnished marine plywood for CT-01 and CT-03 and from 12mm for CT-02. The basket wire cables are made from Stainless Steel 7x7+0 or 6x7+1 with nominal diameter of 5 mm, and are terminated by Stainless Steel thimbles and Copper ferrules.

### 3.10 Pilot restraint harness attachment points

The main frame or frame corner eyelets may be used as an attachment point for the restraint harnesses. Being a part of the main Stainless Steel structure, these eyelets must be free from any damage or crack. Should any damage be noticed then contact Ultramagic, S.A. or one of its agents for advice and details.

### 3.12 Protection walls

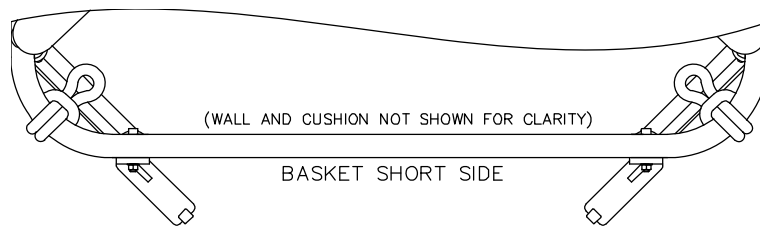
Walls provided are secured to the structure and are filled with round foam at the top and special honeycomb panels below. Removal or replacement of this filling is possible thanks to the special Velcro openings at the side. Honeycomb panels must be replaced when a crack or a deep bending line is found through the whole panel. Damages or cuts on the fabric walls are allowed unless the consistency of the walls is jeopardized or passing holes larger than 5 cm diameter are present.



### 3.13 Cross tensor tapes

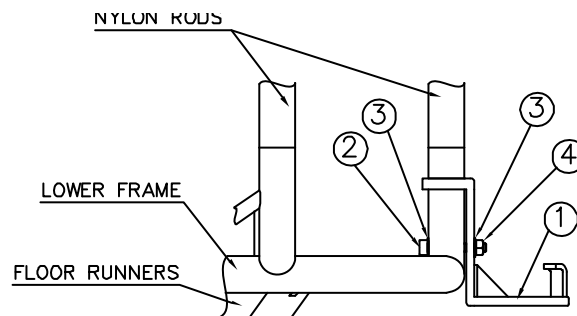
Eight cross tensor tapes (4 long, 4 short) are provided with the basket walls. Tape is made of polyester with tubular shape and a minimum strength of 900 daN. Tapes and buckles must be free of damage, corrosion or distortion.

### 3.14 External fitting for cylinders (optional assembly)



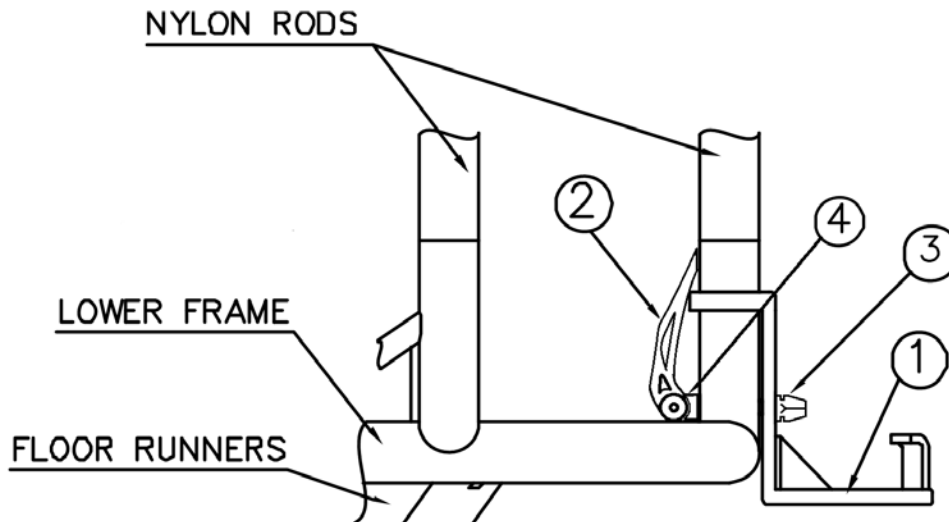
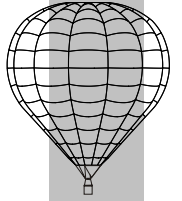
**Figure 1**  
**Top view of the external supports**

Fitting and removal of the external supports must be carried out in accordance to Figures 1 and 2. A 5mm Allen key and 10mm spanner are required for the locking means. Note that top rings of the support bracket must be fitted into the basket lower frame sockets. When using the second generation of external supports no tools are required for the locking means. Fitting and removal of the second generation external supports must be carried out in accordance to Figure 3.



ITEM	DESCRIPTION	DWG / PART NUMBER
1	EXTERNAL CYLINDER SUPPORT BRACKET	3200-1100
2	M6x40 ST STL HEX DRIVE SCREW TO DIN912	MA-FE-0200
3	M6 ST STL WASHER TO DIN125	CR-C-0140
4	M6 ST STL AEROTITE LOCK NUT	VE-C-0250

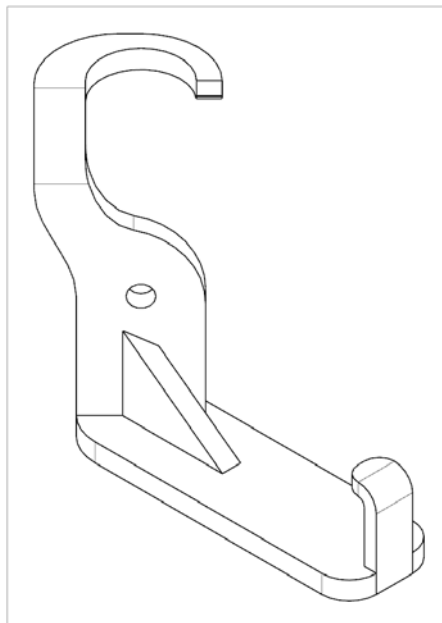
**Figure 2**  
**Close view (side) of the first generation bracket assembly**



**Figure 3**  
**Second generation bracket assembly (closed position)**

ITEM	DESCRIPTION	DWG / PART NUMBER
1	EXTERNAL CYLINDER SUPPORT BRACKET – Second Generation	3200-1100 (Issue 2)
2	SEAT BOLT QUICK FASTENER – CAM (Shown Closed)	CI-TK-1116 – Cam
3	SEAT BOLT QUICK FASTENER – NUT	CI-TK-1116 – Nut
4	SEAT BOLT QUICK FASTENER - SADDLE	CI-TK-1116 – Saddle

When fitting the second generation brackets ensure that the quick release clamp is firmly secured to the closed position with no less than 12 complete turns. When removing the second generation brackets turn the quick release clamp towards the open position and then untighten the nut. The open and close rotation senses are indicated on the quick release clamp cam. Note that for the purpose of fitting and removing the second generation brackets it is not required to disassemble any other part of the basket.



**Figure 4**  
**Second generation bracket detail (left hand)**

## Section 4 – Fuel Systems

No change.

## Section 5 – Instruments

No change.

## Section 6 – Inspection Schedules

### 6.1 Pre-flight Checks (“A” Type)

Replace with the following:

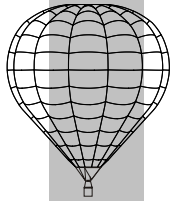
#### Basket

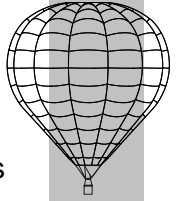
1.  Check the general condition of the basket for damage.
2.  Ensure that the basket wires are free of damage and twists.
3.  Ensure that the burner frame and poles fit correctly and are free of damage.
4.  Ensure that the attachment points are secure and that all karabiner screws are locked.
5.  Make sure that cross-tensor tapes are correctly fitted and tightened.
6.  Check that wall panels are firmly closed and tightened.
7.  If fitted, check that external fuel cylinders are mounted as per 39.4.11.5.

### 6.3 100 hour / annual inspection (“B” Type)

Basket (replace with the following):

1.  Check the condition of the basket wires, especially at the bottom corners where they enter the runners and on the ferrules.
2.  Check the condition of the nylon rods. Ensure they are not broken, badly bent or twisted.
3.  Ensure that the basket stainless steel frames (top and bottom) have no cracks, corrosion or significant distortion. Any weld suspected of being damaged shall be die-penetrant tested. Special attention to the pole sockets and structural welding must be taken.
4.  Ensure that the floor and wooden runners are free from noticeable cracks or indentation, especially on the screws and fixings to the structure. Check that all bolts and screws are secured.
5.  Check the integrity of the cross tensor tapes and their buckles. Look for any distortion other than normal wear. Check for corrosion and operation of the buckles.
6.  Check that the protective leather on the bottom of the basket is free from excessive damage that would allow the basket itself to become damaged or the wall become loose.
7.  Inspect the condition of the walls and their filling. Remove and check all the honeycomb panels looking for cracks or deep bending lines. Pay attention to the main Velcro joints and sewing.
8.  Check that the handles provided for the occupants are serviceable.
9.  If applicable, visually inspect the optional external fittings for cylinders.





## 6.6 Inspection Requirements

### 6.6.2 Envelope

Karabiners – Check as per Maintenance Manual but considering the components described in section 2.12.8 of this Supplement.

### 6.6.3 Load Frame

Check as per Maintenance Manual but considering the components described in section 2.12.8 of this Supplement.

### 6.6.6 Baskets

Section concerning Basket weaving is not applicable. Other sections remain applicable except for those which are amended below. Observe also new paragraphs:

**Basket floor** – inspect the floor for significant cracks on both faces. Any crack longer than 15 cm and 3 mm depth (two cross-banded veneers) or more is not permitted. Pay particular attention to the area where the floor joins the stainless Steel frame.

**Basket wires** – Check for damage to the wire structure as no damage is acceptable. Inspect the swage joints as well as where the wire comes out of the floor of the basket and the guidance rings on the top frame.

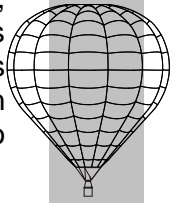
**Nylon Rods** – Nylon rods must be inspected to ensure that they are not cracked or seriously bent. Check the lengths of the rods of the basket and the burner against the burner rigged position to ensure that there is no excess on the wires that would allow the rods to pop out.

**Cross tensor tapes** – This part provides the stiffness and rigidity to the basket, as well as some shock-absorption capability. Cuts or significant fraying other than normal wear are not permitted. Check also the retention capability of the buckle, its operation, and any sign of corrosion on it. Check that the length of the tapes is appropriate to secure each corner eyelet.

**Honeycomb panels** – Special panels are fitted into the fabric walls to provide additional protection to the occupants in case of side impact against any hard obstacle. These panels are not considered as a structural component but flight cannot be initiated if any of the panels are missing or shows signs of serious damage which may have reduced its shock absorption capacity.

**Fabric walls** – The fabric panels provide a flexible and lightweight surround which prevents the passenger or equipment from falling or escaping from the basket. Top attachment tapes and Velcro must be in good condition. Side Velcro tapes must fix firmly each corner, and the honeycomb should be properly held. Damages or cuts on the fabric walls are allowed unless the consistency of the walls is jeopardized or passing holes larger than 5 cm diameter are present.

**External fitting for cylinders** – Check that the suspension straps, their Carbine hooks, rings and sewing are in good condition. Inspect the horizontal straps and their buckles for any sign of damage. Visually check the support brackets and their locking means (screw, nut and washers or quick release clamp) for evident distortion, cracks, oxidation or damage. Check the padded spacer for deformation or cuts. Normal wear is allowed to any of the mentioned parts unless it is suspected that its strength has been reduced.



## 6.7 Unscheduled Inspections

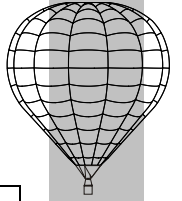
### 6.7.3 Hard Landing Inspection

Add the following:

[...] When fuel cylinders are carried externally, a B-Type inspection must be undertaken on those units suspicious of having been affected at the landing, paying special attention to the bottom of the pressure vessel.

## Section 7 – Airworthiness Limitations

No change.



## Section A2 – Inspection Checklist

Apply the following list specific to the 'Tekno' baskets:

REGISTRATION		BASKET S/N	
--------------	--	------------	--

CHECK	SECTION	ASPECTS	YES /NO	INSP.
BASKET	Wires	1. Check the condition of the basket wires, especially where they enter the floor and around the ferrules.		
	Nylon Rods	2. Check the general condition of the nylon rods.		
	Frame & Sockets	3. Ensure that the stainless steel structure and its welding does not show signs of evident damage or corrosion.		
	Floor & Runners	4. Ensure that the floor and wooden runners are free from cracks or damage. Check screws and fixings.		
	Cross Tensors	5. Check the condition of the cross tapes and buckles.		
	Rawhide	6. Check that the protective hide on the bottom of the basket is free from excessive damage.		
	Walls	7. Check for important damages or cuts on the walls. Check honeycomb panels, Velcro tapes and sewing.		
	Handles	8. Check that the internal handles are serviceable.		
	External cylinder fittings	9. If applicable, visually inspect the optional external fittings for cylinders.		