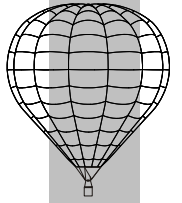


## SUPPLEMENT 33

### 'SKY' BASKET, BURNERS AND CYLINDERS WITH ULTRAMAGIC ENVELOPES



#### 33.1 GENERAL INFORMATION

The information contained here in this document, supplements or supersedes the basic manual only in the areas listed. For limitations, procedures and performance information not contained in this supplement, consult the basic Ultramagic Flight Manual.

This supplement is issued to cover additional actions to be taken to safely and efficiently use Sky baskets, burners and cylinders with Ultramagic envelopes.

#### 33.2 LIMITATIONS

##### 33.2.2 Meteorological Limitations

The balloon must not be flown in meteorological conditions which could give rise to erratic winds and gusts of 10 knots (5.1 m/s) above the mean wind speed.

##### 33.2.5 Fuel

The fuel pressure must never exceed the safe working pressure of 15 bar (218psi)

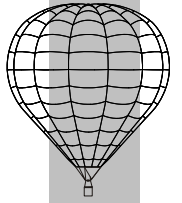
Burner operating pressure must be within the range 4 – 12 bar (60 – 180psi)

**CAUTION:** *Care should be exercised if the fuel pressure is below 5.5bar (80 psi)*

##### 33.2.15 Other manufacturers equipment

The burners and baskets manufactured by Sky Balloons which may be used in combination with Ultramagic envelopes are listed in section 33.8

The equipment must be identifiable as an FAA type certified vehicle with the applicable Type Certificate Data Sheet B01CE.



### 33.3 EMERGENCY PROCEDURES

#### 33.3.2 Substitute - Pilot Light Failure

If a pilot light fails and cannot be re-lit continue flying on another burner whilst the problem is investigated as follows:

- 1) Ensure that the pilot valve and cylinder valve are open and that the cylinder has fuel in it. Check that the fuel connector is correctly assembled.
- 2) Briefly activate the blast valve of the affected burner, whilst a second burner is in use, to test for fuel flow to the burner as a whole.
- 3) If no flow is present try another cylinder.
- 4) If flow is present but pilot light cannot be re-lit proceed, as normal, on a working burner, and land as soon as possible.

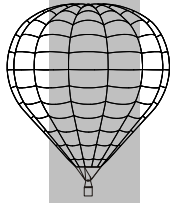
In the unlikely event of no pilot lights being operational proceed as follows:

- 1) Close cylinder valve to one burner. Open the liquid fire valve on this burner fully, to its locked position. Crack open the cylinder valve gradually and light the liquid fire system. Do not rely on the built in igniter to achieve this, matches are better.
- 2) Adjust the cylinder valve opening to give a liquid fire flame 0.5m (approx 2ft) high.
- 3) Use this flame as a pilot light for another burner. Land as soon as possible.
- 4) It is also possible, with care, to use the cylinder valve to regulate the flow to the liquid fire system being used as a pilot light, to switch between pilot light mode and full power mode. This method, however, is only recommended if low fuel levels require two connected cylinders to be used to achieve a safe landing. In this case the fully active burner shall be retained for final approach and landing.

**WARNING** - *Partially open valves are subject to cooling by the restricted flow of propane and, as such, this process should only be used in true emergencies. Prolonged operation could freeze the valve to the extent it cannot be turned off or could even freeze the flow altogether. This is one of the reasons for the rule "land as soon as possible".*

**Note-** If the main fuel hoses are removed from the support rod covers they are long enough to reach fuel cylinders at the opposite end of the basket.

**CAUTION-** *Care should be taken when operating with the fuel hoses outside of the support rod covers, as the liquid fuel pressure can cause the hose to deflect when the blast or whisper valve is operated. This may change the direction of the burner and flame.*



## 33.4 NORMAL PROCEDURES

### 33.4.5.2 Rigging the basket and burner.

Sky burner frames are similar to Ultramagic.

Assembly is therefore similar to that of an Ultramagic and the same checks should be carried out.

## 33.5 LOADING

No change

## 33.6 BALLOON AND SYSTEM DESCRIPTION.

### 33.6.2.2 Burner and burner frame.

Refer to applicable Sky Balloons Flight Manual approved for use in the USA as listed on TCDS B01CE.

### 33.6.2.3 Basket

Refer to applicable Sky Balloons Flight Manual approved for use in the USA as listed on TCDS B01CE.

### 33.6.2.4 Fuel Cylinders

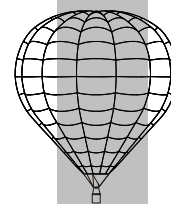
Refer to applicable Sky Balloons Flight Manual approved for use in the USA as listed on TCDS B01CE.

## 33.7 BALLOON MAINTENANCE, HANDLING AND CARE.

Refer to applicable Sky Balloons Maintenance Manual approved for use in the USA as listed on TCDS B01CE.

## 33.8 OTHER MANUFACTURERS EQUIPMENT

33.8.3 (Add the list from next page)



## SKY BASKETS BURNERS and CYLINDERS

Basket Size (cm)	Type	Empty Mass (kg)	UM Envelope size range
107 x 129	Open	60	56 - 90
119 x 155	Open	80	77 - 120
129 x 180	Open,ST	100	105 - 140
157 x 207	ST	160	140 - 180
157 x 247	ST,DT	180	160 - 250
157 x 287	ST,DT	230	200 - 425
157 x 307	DT	260	180 - 250
157 x 327	DT	280	200 - 425
157 x 355	DT	300	200 - 425
157 x 407	DT	350	200 - 425
157 x 420	DT	400	300 - 425

Burner Type	Mass (kg)	UM Envelope size range
Mistral double	22	56 - 210
Mistral triple	35	180 - 300
Mistral quad	44	250 - 425

Cylinder Type	Empty Mass (kg)	Fuel Capacity (kg)	Basket range
V-30	18	30	All
V-40	20	40	All

- See General Notes below

### Notes :

- Dimensions of the basket are external in the base.
- ST means Single Partition and DT Double Partition.
- UM envelope sizes are given in thousands of cubic feet, so 65 mean 65.000 ft<sup>3</sup>.

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