

## Supplement 50 MK-32 RANGE OF BURNERS

### 50.1 General Information

This supplement details the instructions and limitations necessary to ensure the safe operation, maintenance and continued airworthiness of the Ultramagic MK-32 range of Burners.

The section indexes on this supplement are preceded with the §50.X, and the suffix is kept in line with the Ultramagic Flight Manual. The content of this supplement replaces or appends the information contained on the Flight Manual for the scope to which this supplement is intended.

The MK-32 range of burners is available in double, triple and quad variants. All the variants are provided with the usual burner functions. In addition, the liquid valve (also known as whisper, quiet or silent valve) is provided with a handle design which allows the simultaneous operation of the main and liquid valves with a single hand. When operating both handles simultaneously, the output power is approximately doubled. Note that this feature does not prevent the normal - isolated- operation of the liquid fire.

The double burner variant of the MK-32 is shown in Figure 1.

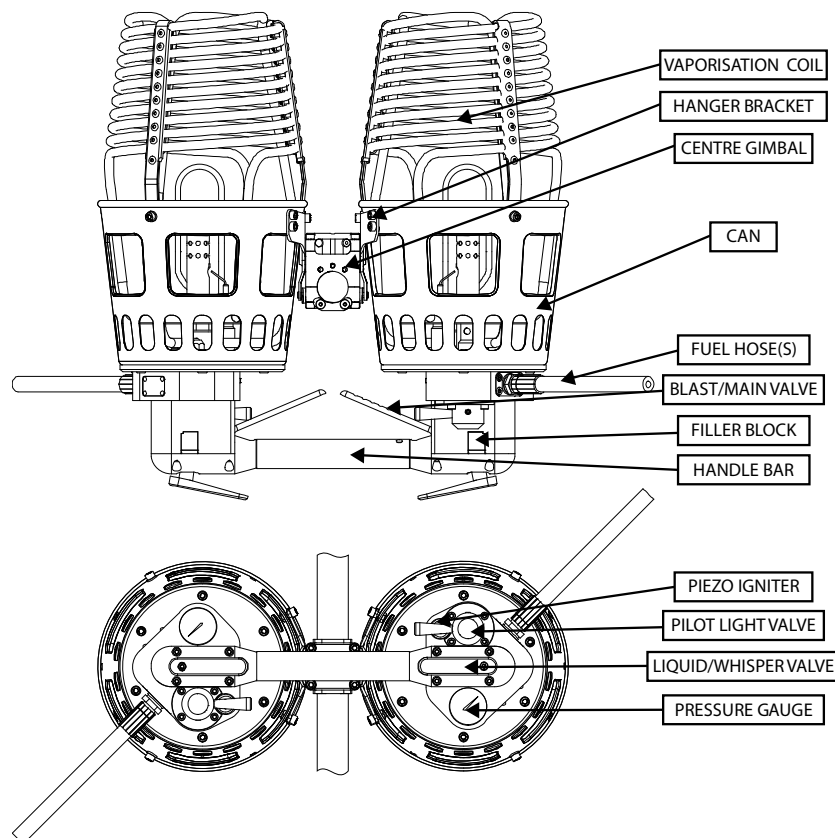
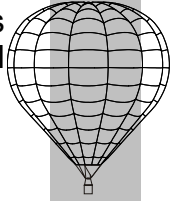


Figure 1

The main blast and liquid valves are a squeeze action type. The pilot valve is rotary action. The burner is assembled to the burner frame using a Centre Gimbal (refer to Flight Manual Supplement 16).



#### 50.1.5 Identification of parts

Burner model and s/n can be found engraved over a Stainless Steel metal plate riveted to the main valve block. Note that each individual burner pot has a unique serial number.

### 50.2 Operational Limitations

#### 50.2.5 Fuel (Add the following)

Maximum cylinder pressure allowed for the use of the burner is 15 bar (218 psi). Note that this maximum pressure may be used where a large pressure drop off is expected during initial flight operation. For general operational use, a maximum pressure of 12 bar (174 psi) should be maintained.

#### 50.2.12 Minimum Burner Requirements

Mk-32 Burner Variant	Envelope Size Range [1000 ft <sup>3</sup> ]	Envelope Size Range [m <sup>3</sup> ]
Double	56 – 225	1590 – 6370
Triple	120 – 315	3400 – 8920
Quadruple	180 – 500	5100 – 14415

#### Maximum Altitude

The maximum allowable altitude for safe burner operation is 18,000 ft (5500 m).

### 50.3 Emergency Procedures

No change.

### 50.4 Normal Procedures

#### 50.4.5 Preparing the aerostat for flight (Add the following)

#### Use of the Hydraulic actuator

If the optional hydraulic actuator is to be used, push and remove the filler block from its slot in the burner valve block and replace it with the hydraulic actuator. The hydraulic control handle is used to fire the main blast, alternatively to the default main blast handle.

The hydraulic actuator can be left assembled permanently, although it is recommended to replace it with the filler block for road transportation.

**50.5 Loading**

No change.

**50.6 Balloon and Systems Description**

## 50.6.3 Dimensions and weights (Burner and Frame)

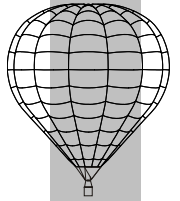
	Double	Triple	Quad
Mass	23.5 kg (52 lbs)	33 kg (72 lbs)	41.5 kg (92 lbs)

**50.7 Balloon Maintenance, Handling and Care**

Refer to the latest approved Ultramagic Maintenance Manual and its Supplement Nr.23.

**50.8 Other Manufacturers Equipment**

No change.



**S  
5  
0  
M  
K  
-  
3  
2  
B  
U  
R  
N  
E  
R  
S  
E  
R  
I  
E  
S**