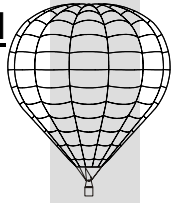


## 9.14 Flight Manual Supplement-MK 21 Burner Cruise Control Option



### 9.14.1 General Information

This supplement details the instructions and limitations necessary to ensure the safe operation, maintenance and continued airworthiness of the Ultramagic MK 21 Burner when fitted with the Cruise Control option.

The Ultramagic Mk 21 Burner may be fitted with an optional Cruise Control. The control directly replaces the Liquid Fire valve. The control is provided with a "toggle" action handle and a "rotary" action handle. This combination allows both normal Liquid Fire operation using the toggle handle and "hands-free" operation with variable power output, using the rotary handle.

The control is an optional fit and may replace one or more of the existing standard Liquid Fire valves in any of the MK 21 Single, Double, Triple and Quad burners.

All other burner functions are as described in the relevant section of the Flight Manual.

The burner may be seen in figure 1.

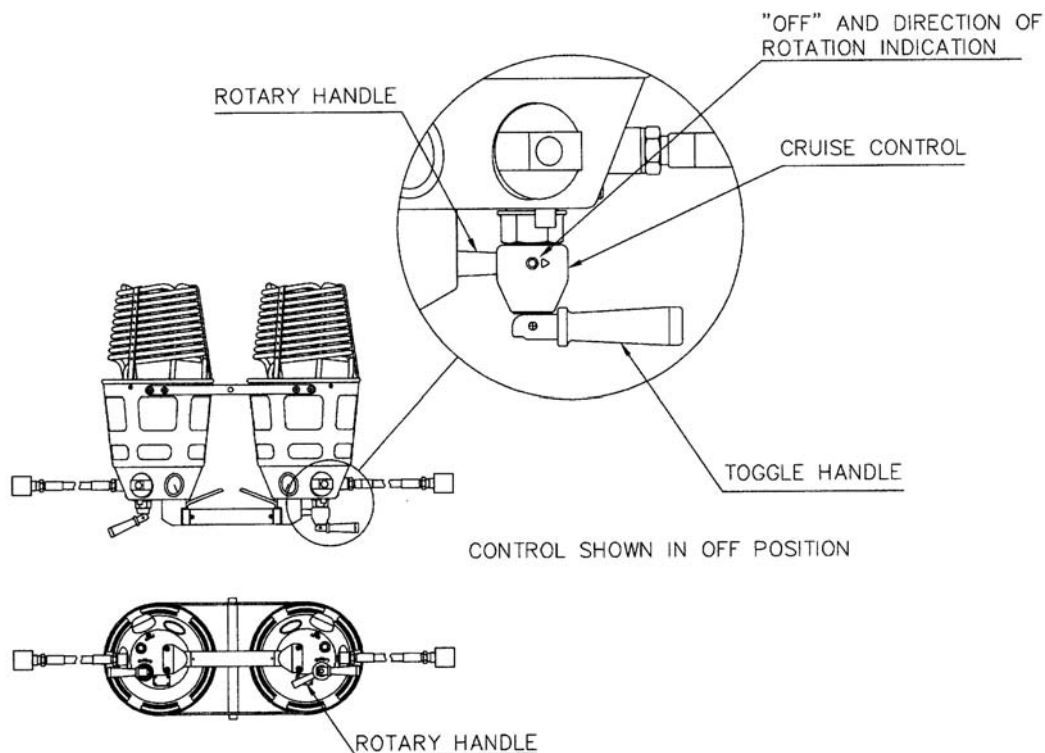
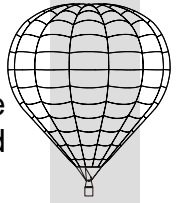


Figure 1  
Cruise Control Installation in MK 21 Burner



### 9.14.1.1 Controls and Control Functions

With the exception of the Cruise Control, the functions of all burner controls are as described in the Flight Manual. Only those controls and functions associated with the Cruise Control are therefore described.

#### Toggle Action Handle

The toggle action handle is used to control the Liquid Fire function of the burner in the usual fashion.

#### Rotary Action Handle

The rotary handle is used to control the Liquid fire function of the burner. Unlike the toggle control, the rotary handle may be released at any intermediate position from fully off to fully on, allowing fine control of the Liquid Fire power and hands free operation.

Control rotation enables or disables the flow of fuel to the Liquid Fire Jet. Increasing the degree of rotation from the off position increases the power output from the Liquid Fire jet. Note that the direction of rotation for the right hand control is opposite to the direction of rotation for the left hand control.

The side of the control body is engraved with a "0", "1" and an arrow. When viewed from above, the "0" indicates that the control is in the OFF position. Similarly, the "1" indicates that the control is in the ON position. The arrow indicates the direction of rotation necessary to turn the control to the OFF position.

### 9.14.2 Operational Limitations

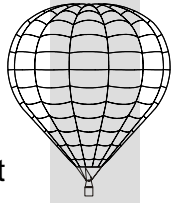
To prevent the excessive formation of propane ice on the Liquid Fire Jet, do not operate the Cruise Control for prolonged periods.

### 9.14.3 Emergency Procedures

The following emergency procedures are additional to those already described in the Flight Manual.

#### 9.14.3.1 Failure of Cruise Control Valve to Turn Off

In the event that the Liquid fire burner fails to extinguish after use of the Cruise Control, isolate the burner by turning off the Fuel Cylinder fuel valve. Make sure the Cruise Control is turned off. Continue to fly using the other burner. Land as soon as possible.



#### 9.14.4 Normal Procedures

The following procedures are additional to those already contained in the Flight Manual.

##### 9.14.4.1 Preparation for Flight

Prior to connecting the burner to the fuel cylinders, ensure that all Cruise Controls are in the OFF position. Check this by rotating the control to the limit of travel, in the direction of the arrow engraved on the side of the control body. When in the OFF position, the toggle handle will be loose. Check the toggle handle to make sure that it is loose.

Having connected the burner to the fuel cylinder, check the function of the Cruise Control by operating the toggle and then the rotary handles.

##### 9.14.5 Loading

No change

##### 9.14.6 Balloon and Systems Description

No change

##### 9.14.7 Balloon Maintenance, Handling and Care

Instructions for the Maintenance, Handling and Care of the MK21 Burner when fitted with the Cruise Control are contained in the Maintenance Manual Supplement No. 6.

##### 9.14.8 Other Manufacturers Equipment

No change.