

### Care and Maintenance

Treated with care your Raybox will give years of trouble free service.

- ✎ Never increase the voltage above 12 V
- ✎ Check that the bulb unit is free from dust
- ✎ Place the unit onto a large white sheet of paper when in use to observe the best results in colour and light experiments.
- ✎ Store the unit in it's box when not in use.
- ✎ Make sure that all electrical connections are clean to ensure good electrical contact.

### Fault Finding

In the event that the raybox light unit fails to function correctly, check the following:

- ✎ Is the bulb filament broken? If so, replace bulb.
- ✎ Is the bulb loose in the housing? If so, remove the bulb, gently bend the contacts together slightly, and then replace bulb.
- ✎ Are all the wires correctly attached to the bulb holder? If not, re- solder or replace any broken connection.
- ✎ Are all the wires correctly connected to the plugs provided? If not, reconnect the plugs to the wire.
- ✎ Is the power unit faulty? The switch used is of a standard type available from any electrical component retailers.



## INSTRUCTIONS FOR THE USE OF THE

# Raybox

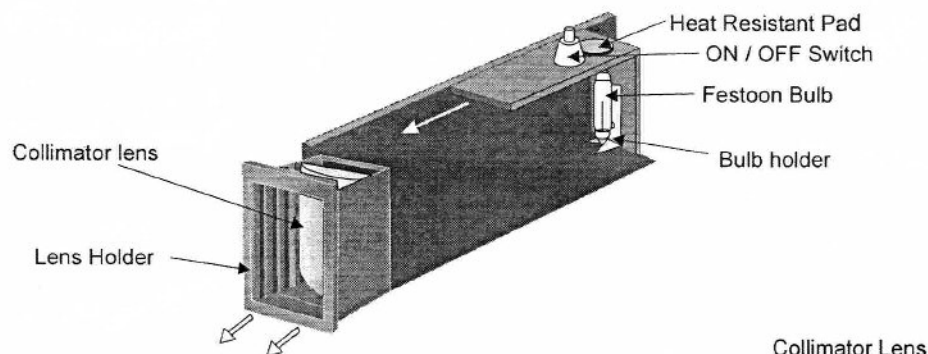
## Light unit



## THE RAYBOX LIGHT UNIT

The Raybox light is a practical, easy to use product, designed with straightforward functionality in mind. It's compact design ensures ease of storage and lasting durability.

*Please read this user guide in order to get the best results from your raybox unit.*

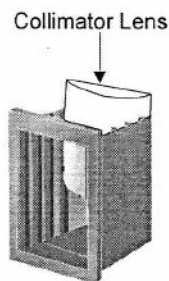


### **Lens Holder**

The lens holder is used to hold various slides and filters in place. It is removed from the unit via the front of the outer casing.

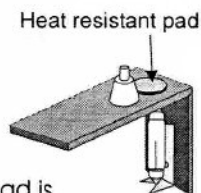
### **Collimator Lens**

A collimator lens positioned in the rear of the holder facilitates the production of parallel rays.



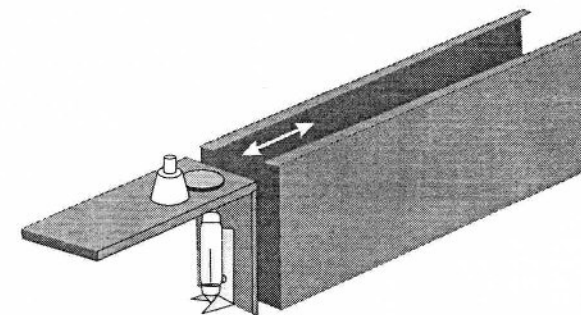
### **Bulb Holder**

The bulb holder houses a low voltage (12 V) festoon bulb which combines good illumination with electrical safety. Positioned on top of the bulb is the ON / OFF switch. For safety purposes a heat resistant pad is positioned directly above the bulb. The bulb holder can be removed by sliding out of the front of the unit in order to change the bulb.







### **Replacing the bulb**

With the lens holder removed, the bulb holder can be slid out of the casing for easy replacement of the bulb.



Due to the design of the unit, replacement of the bulb is quick and simple. A spare bulb is supplied with the unit for your convenience.

-  Remove bulb holder
-  Lift out bulb
-  Slot new bulb into place
-  Slide unit back into the casing.

**Safety Tip :** When in use the bulb gets very hot. Before changing the bulb make sure that it has cooled down.

### **Use of Your Raybox**

This raybox unit can be used to enable the study of the transmission of light, reflection and refraction, the effects of filters of white light , colour mixing and the appearance of different colours under white light and colour illumination. To facilitate this, an extensive range of related accessory apparatus is available from your stockist.

### **Using The Raybox**

Your Raybox unit requires a 12V AC or DC power supply which has a minimum output of 0.8 Amps. Lower voltage may also be used which will reduce any heating effects and may extend the life of the bulb. Connect the banana plugs at the rear of the bulb holder to the power supply. Once the bulb is switched ON, light will travel down the unit and pass through the lens holder which is positioned at the front of the unit. Variation in the output of light from the unit is achieved by use of a selection of single, double and multi-slit combs, combined with a comprehensive range of primary and secondary filters. For the production of parallel rays, the collimator lens should be installed in the rear slots of the lens holder.