

# Minim 23

Do not discard packaging before locating the LAMP which is packed with the MINIM SPOTLIGHT within the one outer carton.

## MOUNTING

These spotlights are supplied with M.10 (coarse) Bolt, Washer and Wingnut for compact mounting from a variety of suitable brackets, or for suspension from horizontal 48mm outside diameter pipe by a Hook Clamp (order code 26 493 07). Whichever method of suspension is used the access to the colour frame, and accessory runners with the spring safety clip, must remain at the top — this will ensure that the lamp filament is above the lamp base.

Do not mount on, or near, a combustible surface. In the most onerous conditions of use parts of the housing can reach up to 180°C after prolonged use (all operator controls are heat-insulated).

When mounted the suspension bolt must always be vertical — this will allow the full range of tilt and swivel and will prevent edge-on burning of the projector lamp filament and the consequent danger of premature lamp failure by the filament coils short-circuiting.

In premises requiring a licence for public entertainment the requirements of the local Authority will often require a secondary means of suspension even for such a compact, lightweight luminaire with a captive suspension fork. In these circumstances a Safety Chain (order code 26 064 18), with a clip hook both ends, can be looped through the rear handle of the spotlights.

If mounting singly on a Telescopic Stand is required then the fork must be reversed so that the safety clip remains above the lens. In addition a Spigot Adaptor with an M.10 thread (code 26 873 08) will be required to screw over what was the suspension bolt. If a Crossbar (code 26 857 07) is mounted on a Stand the M.10 bolt, washer and wingnut can be used directly through the holes provided in Crossbar.

## CONNECTION

The 1m long length of 0.75mm<sup>2</sup> 3-conductor high temperature insulated flexible cable should be connected to the supply through a separable connector so that the spotlight can be disconnected for safety when relamping. The earth (safety) conductor has green/yellow insulation.

The lamp supplied incorporates an internal fuse but the supply should be protected by a fast-acting HBC fuse-link to BS.88 or IEC.241 if it is to be fed direct from a mains supply. Reputable Thyristor dimmer controlled circuits incorporate fuse-links of equal or better standard.

## LAMP

Each Minim Spotlight is supplied with a 240V or 220V tungsten halogen projector lamp with a GY9.5 base and 46.5mm light centre length.

Before lamping, or re-lamping always disconnect from the supply. Quartz envelope tungsten halogen lamps all attain a high temperature very quickly and remain hot for a considerable period after switching off, or failure, and are dangerous to handle in this condition. Allow to cool for at least 5 minutes before attempting to remove a lamp.

DISCONNECT from all poles of the supply and, if relamping, ALLOW TO COOL before releasing the small, central screw at the top of the rear pressing which allows the captive top to be slid back to provide full length internal access. Do not handle the quartz envelope of the lamp directly as finger prints can cause premature lamp failure. This lamp has two unequal size pins — in this spotlight the large pin should be arranged on the right hand side when facing the lens; insert the pins into the sockets of the lampholder and press firmly down so that the bottom of the lamp seats upon the flat top of the lampholder. Resecure the top cover before re-connecting the supply.

Where there are no local or national regulations requiring internal access to require the use of a tool, the screw securing the top cover may be discarded and replaced by the small thumbscrew provided loose with each Minim spotlight; in these circumstances press the spare starwasher over the thread to make the thumbscrew captive.

## ADJUSTMENT

First ensure that the mounting bolt is vertical and that the recessed focussing knob is at the bottom (and therefore the lamp filament above the lampholder). Next withdraw all four beam shaping shutters to their limit of movement. Light up and direct the spotlight, using the rear

handle, to the area to be lit securing the required swivel by the M.10 wingnut and the tilt by the side handwheel. Do not tilt upwards more than 45° above horizontal or beyond vertically downwards. Adjust the lens by releasing the focussing knob and slide, gently, until a hard-edged circle is projected.

Next set the beam shaping shutters to produce the beam shape required; the top shutter changes the bottom of the projected beam, the right hand shutter the left hand side of the beam. Finally move the lens to either hard or soft focus the beam edges.

For smaller circular beam an Iris Diaphragm (order code 23 363 17) can be inserted in the gate runners provided just forward of the shutter plane. Patterns cut out of thin metal can be inserted in the gate runners and projected (remember top to bottom, and left to right reversal of the projection due to the lens).

If a spread wider than the generous 28° spread is required then, when cool, release the top front cover (secured by the small central screw at the front) and slide forward. Insert the additional Wide Angle Lens and Mount (order code 27 800 4T) with the curved surface forward and secure to the bottom pressing through the hole provided near the shutter plane. Check this lens is parallel to the front lens before securing top cover. Adjust, as described previously the maximum circular spread will now be 38°.

## COLOUR FRAME

This spotlight is supplied complete with a 125mm square Colour Frame (of special heat-resisting fibre) for 'Chromoid' thin-film, high temperature colour filter. The spring clip at the side of the colour/accessory runners ensures retention and safety even when used near-vertical.

Fully saturated colours from the 'Chromoid' range should be avoided in this compact, high output spotlight especially with an extra wide angle lens which is particularly onerous for extended filter life. The following colours have proved particularly useful, and practical.

86. Warm Blue	134. Golden Amber
87. Nile Blue	136. Light Lavender
89. Lavender Tint	140. Sea Blue
90. Pink Tint	144. Azure Blue
95. Scarlet	149. Canary
97. Light Golden Amber	150. Pale Yellow
98. Pale Golden Amber	151. Gold Tint
102. Light Amber	152. Pale Gold
103. Straw	158. Deep Orange
107. Rose Pink	161. Light Sky Blue
117. Steel Blue	164. Medium Red
121. Pea Green	167. Steel Tint
	171. Lilac

Identify 'Chromoid' by order code 36 100 01 and colour(s) by number. Sheet size is 610 x 510mm (24 x 20-in).

## SPARE LAMPS

The re-order codes for the lamps supplied originally are:

RSE/18 500W 240V	34 218 10
RSE/18 500W 240V	34 218 20

For special application different, but interchangeable lamps may be purchased:—

Class CP/82 500W 240V (high output)	34 349 65
Class CP/82 500W 220V (high output)	34 349 57
Class M/38 300W 240V (long life)	34 350 71
Class M/38 300W 220V (long life)	34 350 8T
Class CP/81 300W 240V (high output)	34 349 49
Class CP/81 300W 220V (high output)	34 349 30

## MAINTENANCE

The lens, when cold, should be cleaned with a damp cloth; and the reflector polished with a soft dry cloth. A full range of packaged spares is available for the Minim 23 — an illustrated Spares Sheet to aid positive identification is available on request.



# Rank Strand

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