

ShowChangers

ParScan

1000W Halogen Beamlight with variable pan and tilt movement and Integral Colour Change

The ParScan is a lightweight, compact 1kW spotlight with remote control of movement and an integral colour change system where up to sixteen colours may be included in a continuous strip within a scroll mechanism.

The combination of a Par 64 1kW source, a comprehensive colour change unit and automated movement provides an intense beam of coloured light which can move at a variable speed. This finds applications not only for special effects, but also in situations where spotlights are in inaccessible positions, or where weight restrictions imposed by unsupported trussing limit the number of spotlights capable of covering the stage.

ParScan is supplied complete with a barrel clamp, and instructions on making a colour scroll. Alternatively, a ready-made scroll may be purchased as an accessory.

Item Numbers

ParScan	76 054 10
1000W 240V Class CP/60 lamp, clear	34 260 07
1000W 240V Class CP/61 lamp, stipple	34 261 02
1000W 240V Class CP/62 lamp, spread	34 262 08

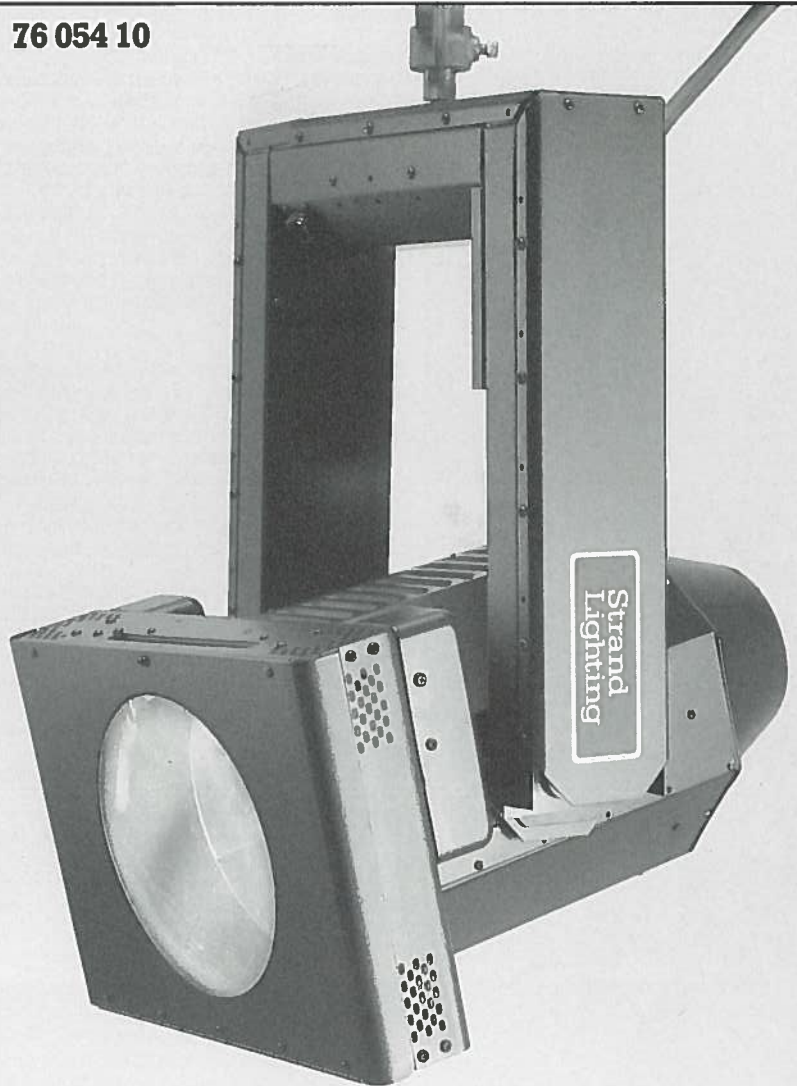
Accessories

Size 2 Colour scroll (Drama)	76 052 40
Size 2 Colour scroll (FX)	76 052 66
Set of adhesive tapes	76 050 00

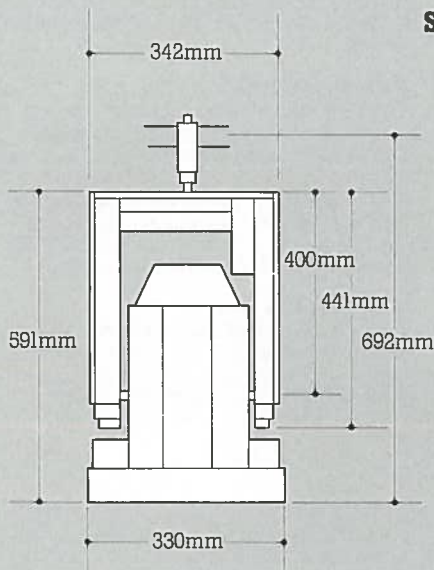


Strand Lighting

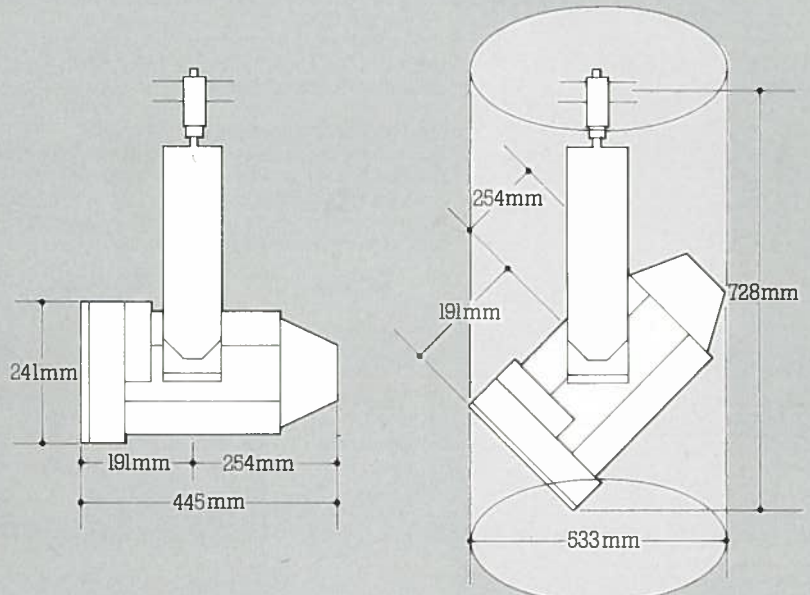
76 054 10



Static



Dynamic

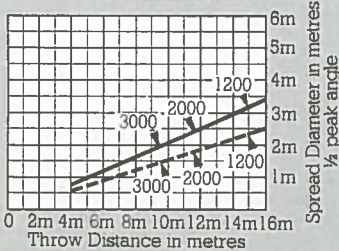
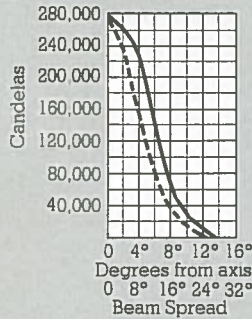


76 054 10 Performance

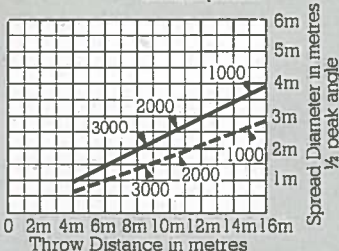
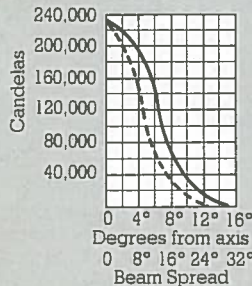
Oval beam spread, rotatable around axis, spread determined by choice of lamp.

Class CP/60 300 hour, 3200°K
1000W 240V PAR64 lamp, clear front
1/2 peak angle 12° x 9° oval
1/10 peak angle 20° x 17° oval
275,000 peak candelas

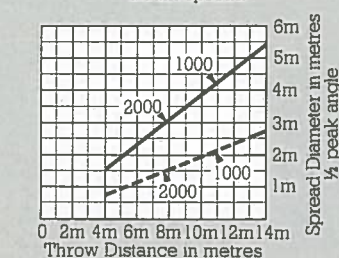
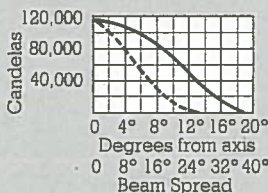
The figures on the diagonal lines indicate the illumination value in lux at beam centre



Class CP/61 300 hour, 3200°K
1000W 240V PAR64 lamp, stipple front
1/2 peak angle 14° x 10° oval
1/10 peak angle 22° x 18° oval
230,000 peak candelas



Class CP/62 300 hour, 3200°K
1000W 240V PAR64 lamp, lens front
1/2 peak angle 22° x 11° oval
1/10 peak angle 34° x 20° oval
115,000 peak candelas



Specification

Par 64 Light Source

Beam spread is determined by the choice of 1000W Par 64 sealed-beam tungsten halogen lamps. These lamps are available with a clear, stippled or spread lens front all producing an oval beam distribution. The lamp may be rotated in its housing to locate the optimum position for the oval beam at any attitude of the spotlight.

Colour Unit

The integral colour change mechanism utilises any selection of between three and sixteen colours which are formed into a continuous strip and attached to twin rollers which spread the colour across the front of the spotlight. The rollers are independently driven by two electronically-controlled servo motors via toothed-belt drives. The use of belt-drives enables the scrolls to be easily rotated manually when the colour strip has to be replaced, and also, it reduces the overall width of the luminaire.

The on-board microprocessor maintains an accurate count of not only the number of roller revolutions required for each colour position, but also the number of interruptions in a beam of light caused by opaque tapes placed on each frame of colour, and recorded by the optical sensor. This dual counting system ensures reliable and accurate positioning of the chosen colour filter within the beam of light.

In addition to selecting the choice of colour, the control system may also instruct the ParScan to change colour at a given speed. Colours may be selected from within 2.5 seconds to a maximum of 20 seconds if a slow change of colour wash is required.

Colour Scrolls

The strip of colour filters which form a scroll may be made to suit individual needs or purchased as a ready-made accessory in one of a choice of specially recommended colour selections. Each ParScan is supplied with full instructions on how to produce a scroll, and rolls of the self-adhesive and opaque tape are available as an accessory to make custom scrolls.

The strip of colour filters is easily attached to the mechanism by twisting three quick-release fasteners on the front of the unit, hinging the front panel to gain access to the twin scrolls, and then attaching each end of the strip to the scrolls by a piece of self-adhesive tape. The length of filter media is then rolled onto the scrolls manually, and when tight, the edge of the strip is looped into the optical sensor unit. With the hinged panel relocated, power may then be applied to the system, whereupon the ParScan follows a preprogrammed self-checking cycle during which the number and length of each colour frame is calculated and stored for future reference.

Two standard scrolls are available as accessories: a selection of ten general tints for theatrical use, and ten stronger colours for special effects purposes. All colours are taken from the Strand filter range, and each scroll comprises the following selection:

Drama		Effects	
1. Clear	Clear		
2. Pale Rose	154 Golden Amber	134	
3. Pale Gold	152 Red (Primary)	106	
4. Pink Tint	90 Magenta	113	
5. Mid Rose	110 Purple	96	
6. Light			
Lavender	136 Middle Blue	91	
7. Steel Blue	117 Dark Blue (Primary)	119	
8. Azure Blue	144 Blue Green	116	
9. Medium Red	164 Moss Green	122	
10. Pea Green	121 Dark Green (Primary)	124	



Strand Lighting ParScan

Movement

Two high-torque servo motors provide a range of movement of up to 340° horizontal pan, and up to 220° vertical tilt. The low-voltage motors are belt driven to provide positional resolution and a repeatability of one degree in either axis.

The advanced software controlling the movement of the ParScan incorporates acceleration curves to minimise any shock on the filament even during repeated fast actions.

Each ParScan may be instructed from the control desk to move at a preset speed, so although a complex movement can be programmed to coincide with a cue, the individual ParScans can follow their own course in any time from an almost instantaneous two seconds, to a leisurely twenty seconds.

Microprocessor Control

All of the automated functions of the ParScan are controlled by a central microprocessor unit housed in the stirrup assembly. This micro-computer decodes information from the data signal to control the pan and tilt movements, colour selection and speed of action.

When power is applied to the system, each ParScan unit is programmed to perform a complete range of movement and if there is any obstruction, the microprocessor records the reduction in range and compensates accordingly.

Multiplexed Control Data

A single, multicore cable supplies each ParScan with power and multiplexed colour and movement instructions via a rugged, latching multipin connector.

Ninety-nine ParScan units may be individually addressed and controlled, and the system may be extended by selecting two or more units to the same channel number. Channel numbers are set by selecting the address on the two-digit thumbwheel switch found on the inside of the stirrup assembly. A separate Showchangers data sheet describes the options available for the connection and installation of a ParScan system, and includes details of more extensive systems which include other units from the Showchangers range.

Power Supply

Power at mains voltage, and 24V dc, is supplied by the single multicore cable connecting each ParScan to the control system. The colour change unit is securely bonded to the housing of the luminaire, and both parts of the assembly are separately earthed. Two versions of ParScan are available for either 110V or 220/240V applications.

Fan Cooled

ParScans are equipped with low-noise fans which direct an airflow through the electronic circuits, and also onto the colour compartment thus extending the life of the filter strip.

The Company reserves the right to make any variation in design or construction to the equipment described.

Rank Strand Limited
P.O. Box 51, Great West Road,
Brentford, Middlesex TW8 9HR,
United Kingdom.
Telephone: 01 560 3171 Telex: 27976