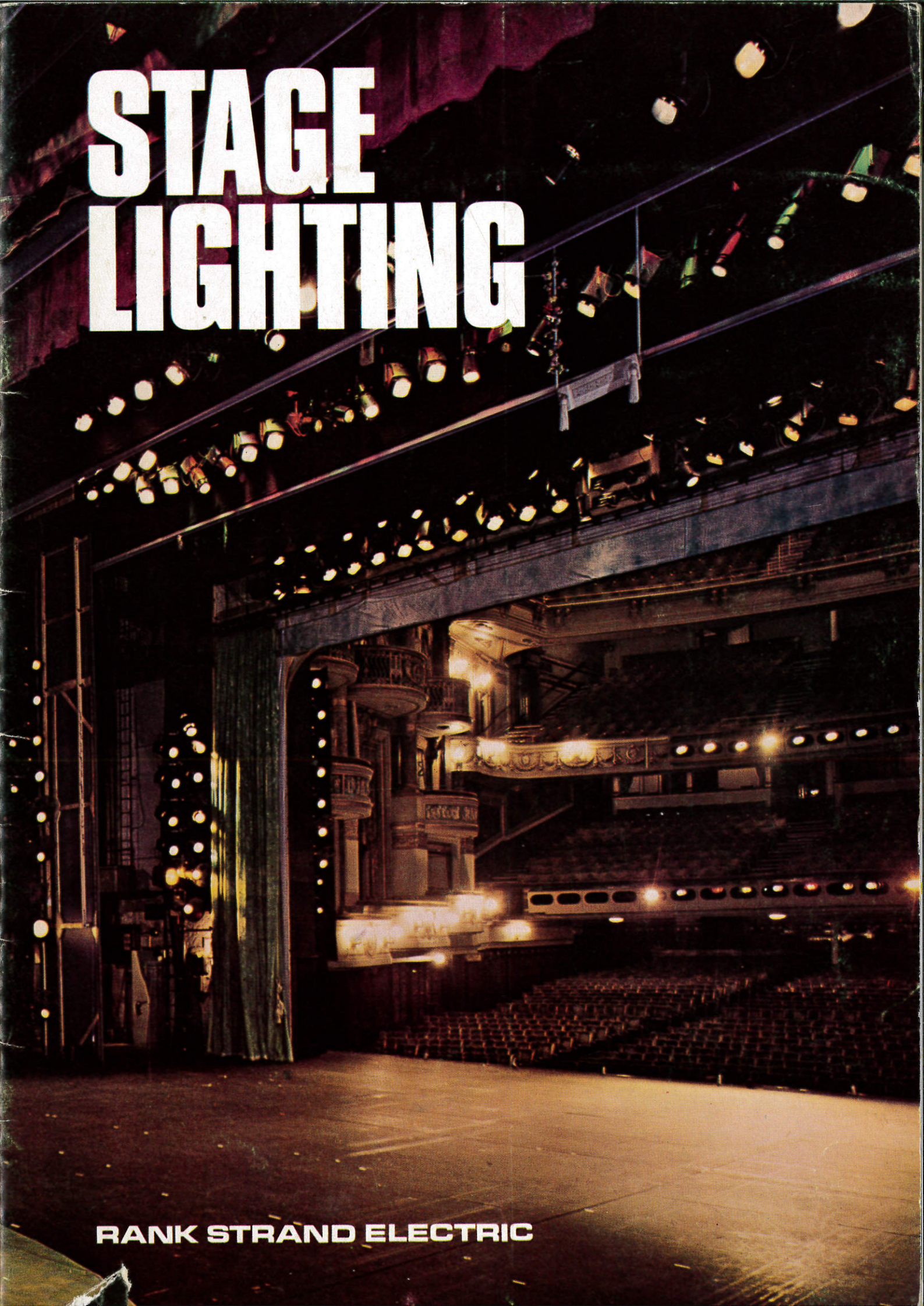
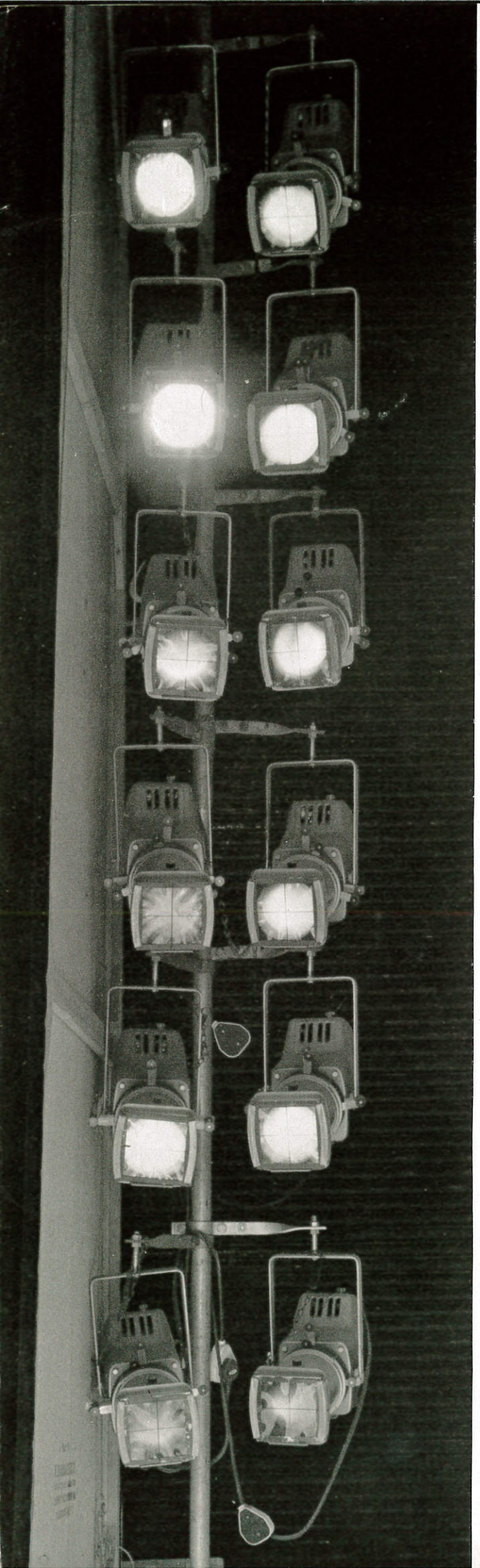
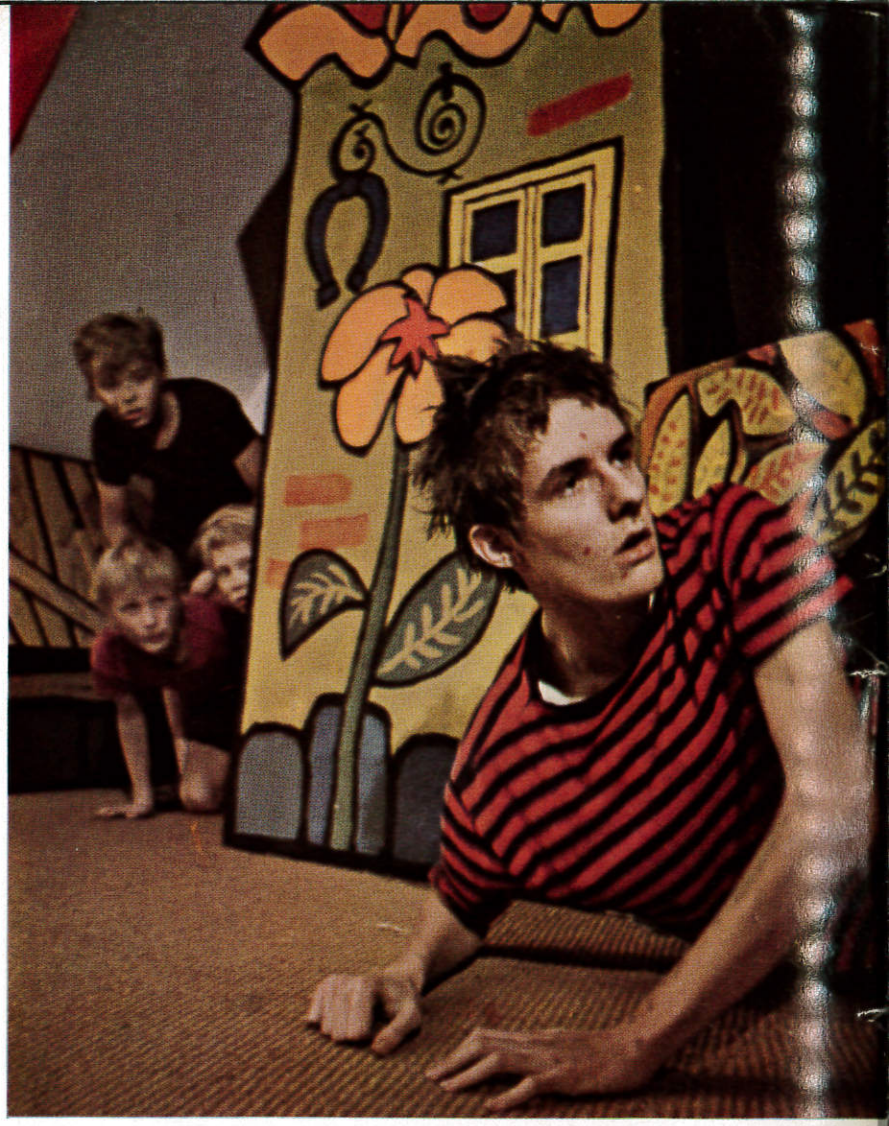
STAGE LIGHTING



RANK STRAND ELECTRIC





The lights on our front cover are the lights of Drury Lane Theatre—probably the most famous theatre in the world. There has been a Theatre Royal there ever since Charles II published the patent for "The King's House" and for a company to be called "The King's Servants" in 1662. The stage lighting in our picture, the lighting control and the electrical installation are all by Rank Strand.

In our context it is immaterial which is the most famous theatre either in London or in this sceptr'd isle, or for that matter that other island across the Irish Sea, because Rank Strand stage lighting is in them all; there are no exceptions. Like the one in Drury Lane the other two London theatres of historic foundation, the Royal Opera House, Covent Garden and the Theatre Royal in the Haymarket, are equipped throughout, including the wiring, by Rank Strand. Go out of London to, say, the Royal Shakespeare Theatre, Stratford-upon-Avon and you find it too has just been re-equipped by Rank Strand.

Move where you will and you will find stage lighting by our famous firm. Nor do we have to look only at established theatres. This is a great theatre building age. Every new

CURTAIN UP!

theatre built since the Second World War has Rank Strand stage lighting. Once again, whether it's a civic theatre, a university or school stage or just a simple drama space for training the very young, there are no exceptions.

It is only Rank Strand who can supply *and* manufacture *and* install the whole range of stage lighting—the dimmer and its desk control, the lantern with its lamp and the colour filter in its frame. We can cover all stage lighting requirements and to any scale from the minimal installation of say half-a-dozen circuits on temporary dimmers to the great installation of two or three hundred circuits controlled by a computer. This catalogue is about stage lighting—or rather about the equipment you need to do stage lighting properly so that it can play its full role in theatre today.

Rank Strand Electric stage lighting is backed by a world-wide organisation of associate companies, branches and agents. The greater part of our equipment is manufactured in our large modern factory in Kirkcaldy, Scotland, while equipment for the specifically American market is made in the plant in Los Angeles, California. Research and development are complementary, taking immediate advantage of the latest techniques on both sides of the Atlantic.

RANK STRAND
FRESNEL SPOTS

The first need in stage lighting is to direct a pool of light anywhere on the stage. The distance and angle at which that light has to be thrown will vary, so also will the size of the pool of light required; adjustable equipment is therefore essential.

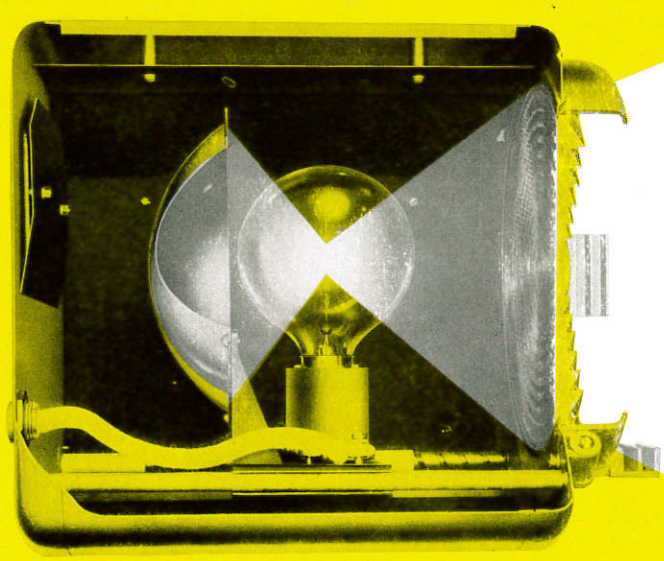
The easiest type of equipment to use for this purpose is a Fresnel lens spotlight. Not only can the beam of light be spread to *flood* or contracted to *spot* by moving the lamp relative to the lens at the touch of a single knob but the edges of the beam are soft giving a gentle delineation which facilitates the lapping over of light—side by side and layer upon layer—when, as is usual on a stage, several spotlights are used together.

The limits between which the light can be adjusted are given as two types of angle. The $\frac{1}{10}$ peak angle represents the useful light and the $\frac{1}{2}$ peak angle the extra bright part in the centre. The transition from one angle to the other is smooth and the beam is quite free of all striation. All Rank Strand Fresnel spotlights give a wide range of adjustment but in the case of the Patt's 223 and 743 this is exceptionally good.

Although the object of this type of spotlight is to produce a circular pool of light, variable in size with soft edges, there are times when it is necessary to intercept and cut off parts of the beam to prevent the light straying onto, say, nearby scenery. To do this a barndoor attachment is slipped into the front runners; the whole barndoor assembly rotates and carries four separately hinged flaps.

As a Fresnel spot is focused down the light becomes more and more concentrated. The final result is a narrow intense beam which can be used perhaps to represent the rays of the sun. Where a desire to see these actual rays of light constitutes the main aim, it may be preferable to use a device designed specifically to give a very narrow near-parallel beam. This, known as the Beamlight, has therefore been included in our Fresnel pages though in fact the optical system for this special purpose is quite different.

The best guide to the intensity of one Fresnel relative to another is the wattage of the lamp and the lens diameter. The Rank Strand range has been designed to take advantage of modern tooling and production processes. The result is a series of compact, efficient, attractively-styled models unrivalled anywhere.



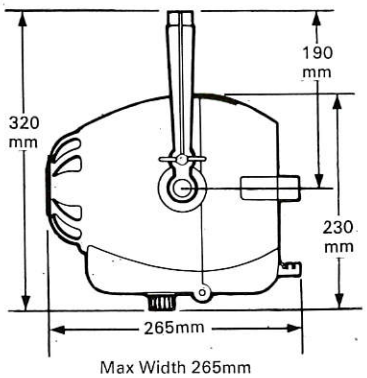
Patt 123

500W

Beam Spread
$\frac{1}{10}$ peak angle: 26° spot to 51° flood, soft-edged
$\frac{1}{2}$ peak angle: 16° spot to 42° flood, soft-edged

Lamphouse pressure die-cast aluminium alloy, with bottom-hinged lens front and lamp tray.
Fork pressure die-cast, reversible, with friction disc tilt clamp and $\frac{3}{8}$-in. Whit. bolt and wingnut for suspension and swivel clamp.
Lens 150mm dia. short focus Fresnel, recessed mounted. Colouvred for Patt. 123/C.
Lampholder P.28 medium prefocus, porcelain body, fitted with 1m external length of 3-conductor, sheathed, heat-resisting cable.
Reflector 115mm dia. spherical, polished anodised aluminium.
Adjustment bottom slide focus of lampholder together with reflector.
Colour Frame double die-cast runners fitted, one 165mm square metal frame for Cinemoid supplied.

Lamps 500W max. P.28 base. 55.5mm l.c.l.
Class T/1 recommended for stage use.
Accessories
Four-door rotatable barndoor, 23 **132** 02
Superior rotatable barndoor, 23 **131** 07
Colour change wheel, 200/250v 50Hz, 23 **410** 00
Additional metal colour frame, 27 **401** 04



Max Width 265mm
Weight 2.6kg

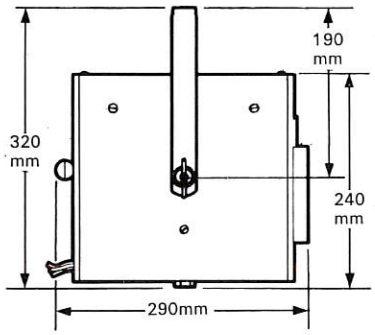
Patt 45

500W

Beam Spread
$\frac{1}{10}$ peak angle: 14° spot to 45° flood, soft-edged
$\frac{1}{2}$ peak angle: 8° spot to 36° flood, soft-edged

Lamphouse steel pressings, with side-hinged rear door access.
Fork mild steel, reversible, with thumbscrew tilt clamps and $\frac{3}{8}$-in. Whit. bolt for suspension and swivel clamp.
Lens 115mm dia. short focus Fresnel, recessed mounted with lens guard.
Lampholder P.28 medium prefocus, porcelain body, fitted with 1m external length of heat-resisting cable.
Adjustment recessed bottom slide focus.
Colour Frame double runners fitted, one 145× 135mm millboard frame for Cinemoid supplied.

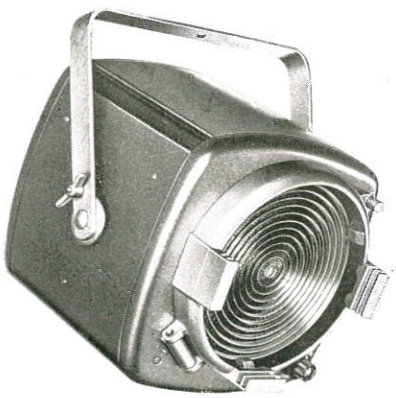
Lamps 500W max. P.28 base. 55.5mm l.c.l.
Class T/1 recommended for stage use.
Accessories
Additional millboard colour frame, 27 **076** 04
Additional metal colour frame, 27 **650** 04



Max Width 230mm
Weight 3.7kg

Patt 743
Patt 223

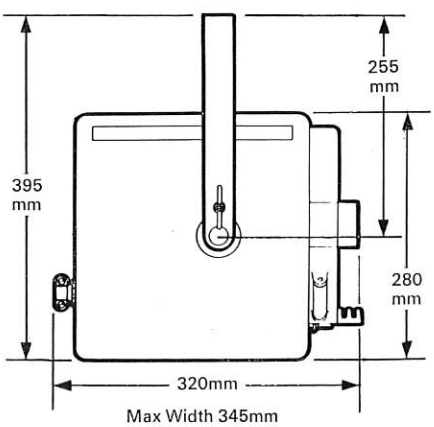
TUNGSTEN HALOGEN 1000W
1000W



Beam Spread
$\frac{1}{10}$ peak angle: 15° spot to 80° flood, soft-edged
$\frac{1}{2}$ peak angle: 8° spot to 60° flood, soft-edged

Lamphouse steel pressings with diagonally-hinged, die-cast lens front.
Fork mild steel, reversible, with friction disc tilt clamp and $\frac{3}{8}$-in. Whit. bolt and wingnut for suspension and swivel clamp.
Lens 200mm dia. short focus Fresnel, recessed mounted. Colouvred for Patt. 743/C, 223/C.
Lampholder GX 9.5 for Patt. 743, P.28 medium prefocus for Patt. 223, fitted with 1m external length of 3-conductor, sheathed, heat-resisting cable.
Reflector 150mm dia. spherical, polished anodised aluminium.
Adjustment lead-screw focus from front and rear.
Colour Frame double die-cast runners fitted, one 215mm square metal frame for Cinemoid supplied.

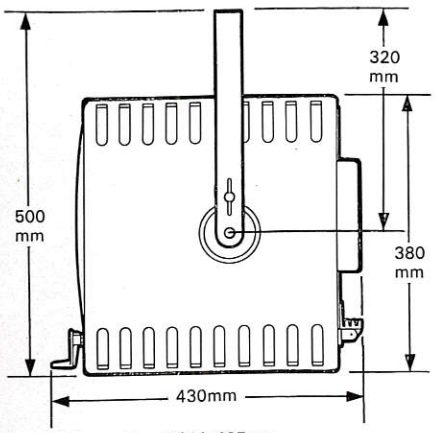
Lamps
Patt. 743 1000W max. GX 9.5 base. 55mm l.c.l.
Class T/9 or CP/48 recommended for stage use.
Patt. 223 1000W max. P.28 base. 55.5mm l.c.l.
Class T/6 recommended for stage use.
Accessories
Four-door rotatable barndoor, 23 **633** 00
Additional metal colour frame, 27 **632** 00



Max Width 345mm
Weight 6.8kg

TUNGSTEN HALOGEN 2000W

Patt 243 BP



Max Width 405mm
Weight 14kg

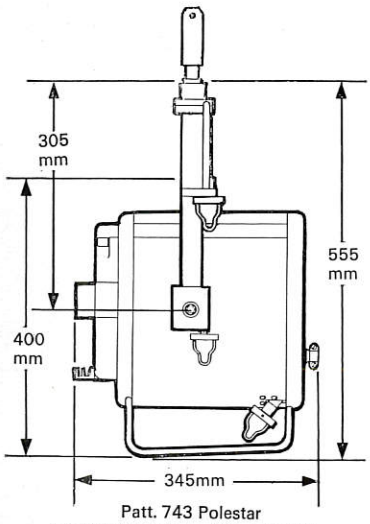
Beam Spread
$\frac{1}{10}$ peak angle: 16° spot to 50° flood, soft-edged
$\frac{1}{2}$ peak angle: 10° spot to 40° flood, soft-edged

Lamphouse pressed steel, with bottom-hinged lens front.
Fork mild steel, reversible, with friction disc tilt clamp and $\frac{1}{2}$-in. Whit. bolt and wingnut for suspension and swivel clamp.
Lens 250mm dia. short focus Fresnel, recessed mounted. Colouvred for Patt. 243BP/C.
Lampholder G.38 bipost, fitted with 1m external length of 3-conductor, sheathed, heat-resisting cable.
Reflector 190mm dia. spherical, polished anodised aluminium.
Adjustment lead-screw focus from front and rear.
Colour Frame double die-cast runners fitted, one 300mm square metal frame for Cinemoid supplied.

Lamps 2000W max. G.38 base. 127mm l.c.l.
Class CP/41 recommended for stage use.
Accessories
Four-door rotatable barndoor, 23 **133** 08
Additional metal colour frame, 27 **061** 0T
$1\frac{1}{8}$-in. dia. hollow TV spigot, 26 **593** 09
Hook clamp for $1\frac{1}{8}$-in. dia. TV spigot, 26 **594** 04

TUNGSTEN HALOGEN 1000W
TUNGSTEN HALOGEN 2000W

POLESTAR



Patt. 743 Polestar
Max Width 430mm Weight 11.8kg

PATT. 743 POLESTAR 1000W
Lamphouse, lens, reflector and GX 9.5 lampholder as Patt. 743 but with internal terminal block for external cable. Fitted with lens guard and carrying handle.
Fork fitted with $1\frac{1}{8}$-in. dia. TV spigot for suspension and geared mechanism for pole operation of tilt and swivel through hook couplings.
Focus pre-tilted geared hook coupling for pole operation.

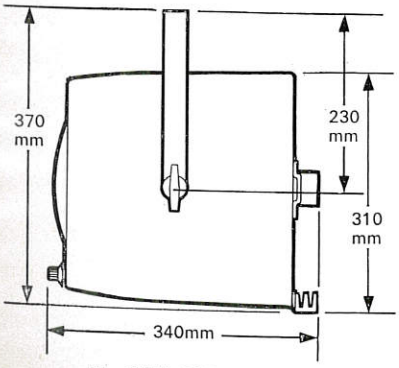
PATT. 243 POLESTAR 2000W
Lamphouse, reflector and G.38 lampholder as Patt. 243BP but with internal terminal block for external cable. Fitted with lens guard and carrying handle.
Lens 250mm dia. wide angle Fresnel lens providing 18°/55° $\frac{1}{2}$ peak angle.
Fork as for Patt. 743 Polestar, above.
Focus as for Patt. 743 Polestar, above.

Accessories
2.4m pole, hook coupling, 23 **590** 03
1.2m extension pole for above, 23 **591** 09
Hook clamp for $1\frac{1}{8}$-in. dia. TV spigot, 26 **594** 04

Patt. 243 Polestar

TUNGSTEN HALOGEN 1000W

BEAMLIGHT Patt 750

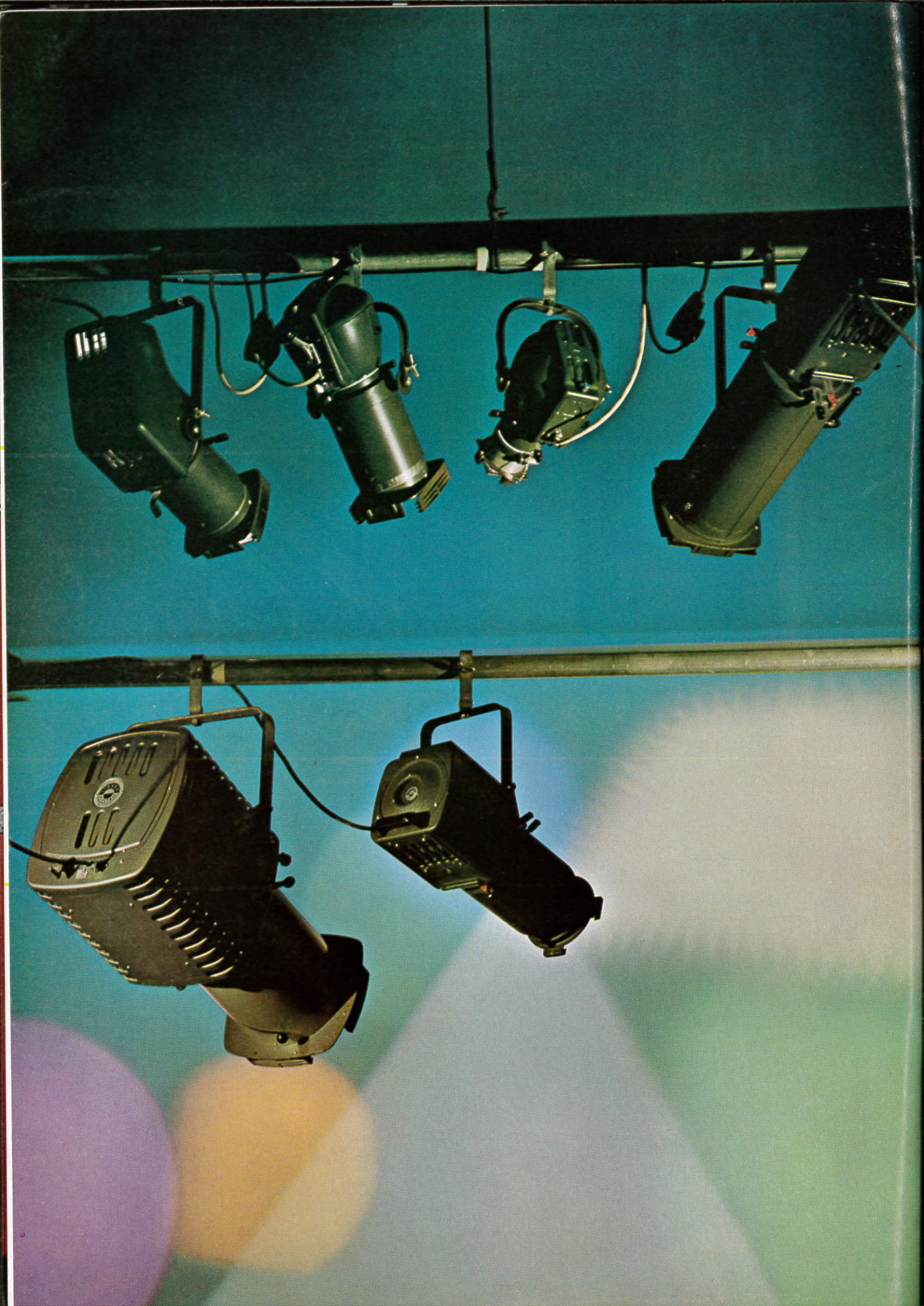


Max Width 345mm
Weight 4.2kg

Beam Spread
$\frac{1}{10}$ peak angle: 9° min. to 18° max. soft-edged
$\frac{1}{2}$ peak angle: high intensity, near-parallel

Lamphouse spun aluminium.
Fork mild steel, reversible, with heat-resisting thumbscrew and friction pad for tilt clamp and $\frac{3}{8}$-in. Whit. bolt and wingnut for suspension and swivel clamp.
Reflectors 250mm dia. parabolic and 80mm dia. spherical frontal reflector and baffle, polished anodised aluminium.
Lampholder GX 9.5 fitted with 1m external length of 3-conductor, sheathed, heat-resisting cable.
Adjustment lead-screw movement of reflector from rear.
Colour Frame double die-cast runners fitted, one 300mm square metal frame for Cinemoid supplied.

Lamps 1000W max. GX 9.5 base. 55mm l.c.l.
Class T/9 or CP/48 recommended for stage use.
Accessories
Additional metal colour frame, 27 **061** 0T



RANK STRAND
PROFILE SPOTS

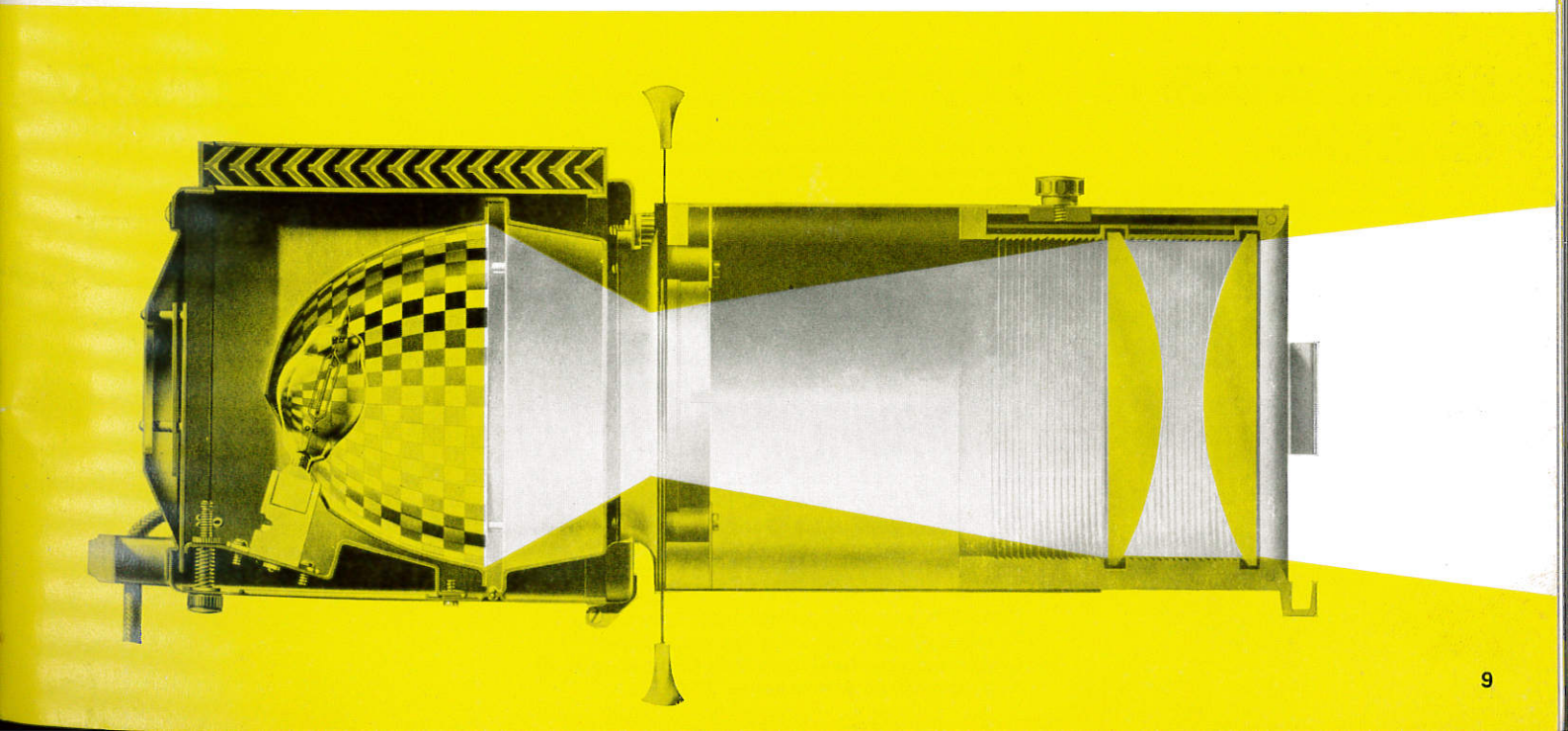
The term spotlight is now used rather loosely in stage lighting but originally of course it contained the idea of picking something out—quite literally isolating a person, an object or an area in a pool of light. Wherever this kind of accurate isolation, beam-shaping or other precise control of the beam of light is essential then the Profile type of spotlight is required. The very fact that this type always has at least four separate beam-shaping shutters, all adjustable in or out and for angle, indicates that more time and care will be required in their use. For variable circular beams an iris diaphragm accessory can be inserted.

Light collected by an efficient reflector system is focused on an internal gate with four externally-operated shutters, with runners for an iris diaphragm or a cut-out mask. The profile of this gate is in turn focused by a lens which gives the beam that particular shape. In consequence Profile spots are particularly suitable for use from out-front because the straight-sided shutters allow the light to be cut-off accurately at the proscenium or, where there is not one, then at the boundary between stage and audience. They can also be used with special cut-out masks to project leaf patterns, prison bars and so on.

The Bifocal is a unique Rank Strand spotlight, similar in principle to a standard Profile spot, except that the gate is fitted with two complete sets of four shutters. One set gives the usual hard profile framing, the other with red operating knobs is situated out-of-focus and has vignetted edges in order to give soft-edge framing. Thus a mixture of hard and soft edges is possible.

The efficient beam spread, described by the maximum cut-off angle and $\frac{1}{2}$ peak angle, of both Profile and Bifocal spotlights is determined by the focal length of the lens and therefore in each wattage range Rank Strand provide wide, medium and narrow-angle versions. The beam spread could be shaped right down by a small aperture but when this is done the shutters, or iris, must of necessity cut-off and waste most of the light. Excessive wastage can be avoided by choosing the right amount of concentration of the beam. From out-front a medium beam type with an angle of 20° or so will often be appropriate except for a really long throw from a large auditorium where a narrow-angle of 12° will concentrate the light further. On-stage, however, or where the spotlight is hanging from a very low ceiling height, a wide-angle will be essential to get the light to spread as quickly as possible.

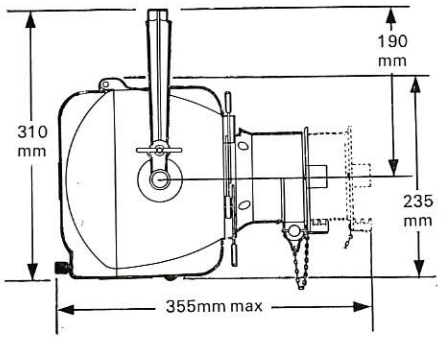
To assist in choosing the right lens variant for the job in hand the throw distance necessary to obtain a useful 3-metre wide spread is included in the detail descriptions overleaf. These are of necessity a general guide only; to achieve a special effect it may be quite legitimate to operate at extremely close range, or even exceptionally long range.



Patt 23

500W

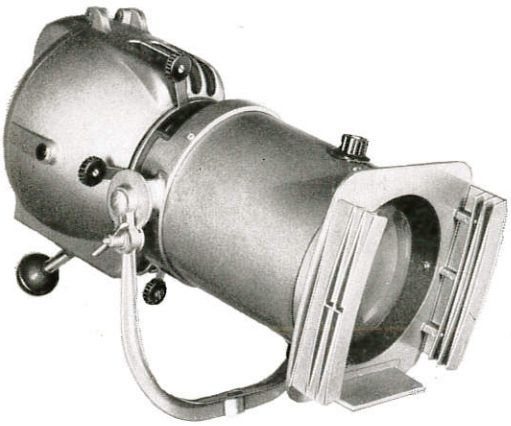
Beam Spread
Patt. 23: Cut-off 20° max. ½ peak angle 20°
3m spread at 8.5m throw
Patt. 23W: Cut-off 36° max. ½ peak angle 36°
3m spread at 4.5m throw
Lamphouse pressure die-cast aluminium alloy, with top-hinged rear access.
Fork pressure die-cast, reversible, with friction disc tilt clamp and ⅜-in. Whit. bolt and wingnut.
Lampholder P.28 medium prefocus, porcelain body, fitted with 1m external length of 3-conductor, sheathed, heat-resisting cable.
Reflectors 180mm dia. faceted ellipsoidal rear, and annular frontal, polished anodised aluminium.
Gate Assembly four beam-shaping shutters with external heat-resisting knobs, each capable of 90° rotation around the optical axis; also gate runners.
Lens 90×125mm plano-convex, one for Patt. 23, two for Patt. 23W, in sliding lens tube.
Colour Frame double die-cast runners fitted, one 100mm square metal frame for Cinemoid supplied.
Lamps 500W max. P.28 base. 55.5mm l.c.l.
Class T/1 recommended for stage use.
Accessories 12-leaf iris diaphragm, 23 **363** 09
Set of four fixed aperture masks, 23 **362** 03
Diffuser glass in frame, 23 **374** 01
Colour change wheel, 200/250v 50Hz, 23 **382** 08
Additional metal colour frame, 27 **359** 0T



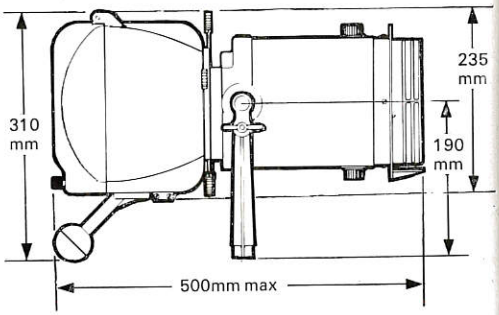
Max Width 265mm
Weight 3.2kg

Patt 23N

500W



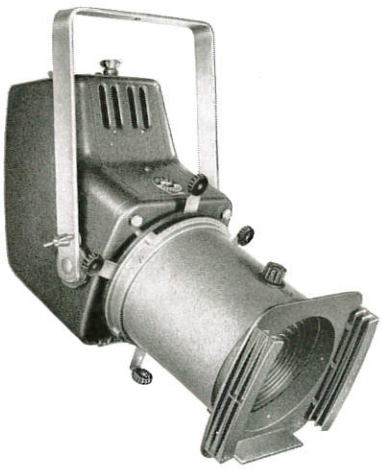
Beam Spread
Cut-off 11° max. ½ peak angle 11°
3m spread at 15.5m throw
Lamphouse pressure die-cast aluminium alloy, with top-hinged rear access. Fitted with handle.
Fork mild steel, reversible by handtool, with friction disc tilt clamp and ⅜-in. Whit. bolt and wingnut for suspension and swivel clamp.
Lampholder P.28 medium prefocus, porcelain body, fitted with 1m external length of 3-conductor, sheathed, heat-resisting cable.
Reflectors 180mm dia. faceted ellipsoidal rear, and annular frontal, polished anodised aluminium.
Gate Assembly four beam-shaping shutters with external heat-resisting knobs, each capable of 90° rotation around the optical axis; also gate runners supplied with removable 12-leaf iris diaphragm.
Lens 150×230mm plano-convex in sliding tube.
Colour Frame double die-cast runners fitted to die-cast lens front, one 165mm square metal frame for Cinemoid supplied.
Lamps 500W max. P.28 base. 55.5mm l.c.l.
Class T/1 recommended for stage use.
Accessories
Set of four fixed aperture masks, 23 **362** 03
Colour change wheel, 200/250v 50Hz, 23 **622** 08
Additional metal colour frame, 27 **661** 07
Spigot adaptor for telescopic stand, 26 **484** 02



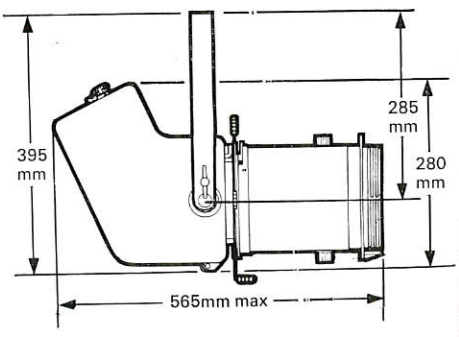
Max Width 285mm
Weight 5.6kg

Patt 263 & 264

1000W



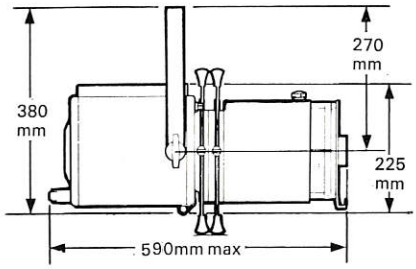
Beam Spread
Patt. 263: Cut-off 20° max. ½ peak angle 18°
3m spread at 8.5m throw
Patt. 264 Bifocal: Cut-off 17° max. ½ peak 17°
3m spread at 10m throw
Patt. 263W, 264W: Cut-off 26° max. ½ peak 26°
3m spread at 6.5m throw
Lamphouse steel pressings, bottom-hinged gate.
Fork mild steel, reversible, with friction disc tilt clamp and ⅜-in. Whit. bolt and wingnut.
Lampholder P. 28 medium prefocus, porcelain body, pretilted 30° from the vertical, fitted with 1m external length of 3-conductor, sheathed cable.
Reflector 160mm dia. faceted ellipsoidal.
Gate Assembly four beam shaping shutters for Patt. 263, 263W; four hard-edge and four soft-edge shutters for Patt. 264, 264W; also gate runners.
Lens 150mm dia. long focus Fresnel for Patt. 263; 150mm dia. plano-convex for Patt. 264; 150mm and 90mm dia. plano-convex for Patt. 263W, 264W.
Colour Frame double die-cast runners fitted to die-cast lens front, with 165mm square metal frame.
Lamps 1000W max. P.28 base up. 89mm l.c.l.
Class T/4 recommended for stage use.
Accessories 12-leaf iris diaphragm, 23 **625** 04
Colour change wheel, 200/250v 50Hz, 23 **622** 08
Additional metal colour frame, 27 **661** 07



Max Width 305mm
Weight 7.5kg

TUNGSTEN HALOGEN 1000W

Patt 764 & 763

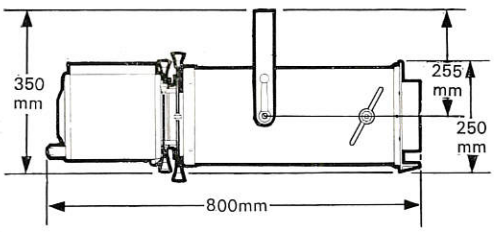


Max Width 280mm
Weight 8.1kg

Beam Spread
Patt. 764 Bifocal, 763: Cut-off 20° max. ½ peak 14° 3m spread at 8.5m throw
Patt. 764W, 763W: Cut-off 28° max. ½ peak 20° 3m spread at 6m throw
Lamphouse pressed steel with bottom-hinged gate and lens tube; rear handle fitted.
Fork mild steel, reversible, with lever compression tilt clamp and ⅜-in. Whit. bolt and wingnut.
Lampholder GX 9.5 with p.t.f.e. wiring to internal terminal block and 1m external length of 3-conductor sheathed, heat-resisting cable.
Reflector 160mm dia. faceted ellipsoidal.
Gate Assembly four hard-edge and four soft-edge beam shaping shutters for Patt. 764, 764W; four hard-edge only for Patt. 763, 763W; all with external heat-resisting knobs; also gate runners.
Lens twin 150mm dia. plano-convex in sliding, but captive, die-cast lens tube.
Colour Frame integral runners in die-cast lens tube, one 190mm square metal frame supplied.
Lamps 1000W max. GX 9.5 base. 55mm l.c.l.
Class T/9 or CP/48 recommended for stage use.
Accessories
12-leaf iris diaphragm, 23 **625** 04
Additional metal colour frame, 27 **754** 00

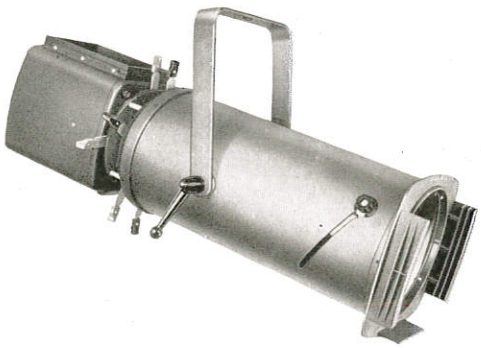
TUNGSTEN HALOGEN 1000W

Patt 774



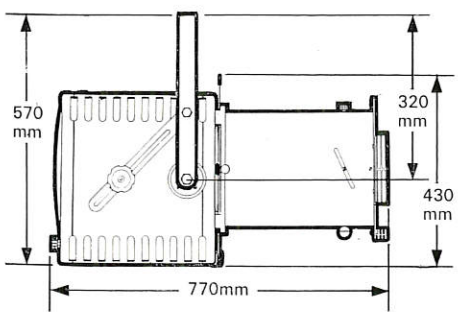
Max Width 305mm
Weight 12.6kg

Beam Spread
Bifocal: Cut-off 12° max. ½ peak angle 10°
3m spread at 14m throw
Lamphouse pressed steel with bottom-hinged lamphouse; rear handle fitted.
Fork mild steel, reversible by handtool, with lever compression tilt clamp and ½-in. Whit. bolt and wing-nut for suspension and swivel clamp.
Lampholder GX 9.5 with p.t.f.e. wiring to internal terminal block and 1m external length of 3-conductor sheathed, heat-resisting cable.
Reflector 160mm dia. faceted ellipsoidal.
Gate Assembly four hard-edge and four soft-edge beam-shaping shutters with external heat-resisting knobs; also gate runners.
Lens twin 200mm dia. long focus plano-convex in helically sliding internal lens tube.
Colour Frame double die-cast runners fitted to die-cast front, one 215mm square metal frame for Cinemoid supplied.
Lamps 1000W max. GX 9.5 base. 55mm l.c.l.
Class T/9 or CP/48 recommended for stage use.
Accessories
12-leaf iris diaphragm, 23 **625** 04
Additional metal colour frame, 27 **632** 00



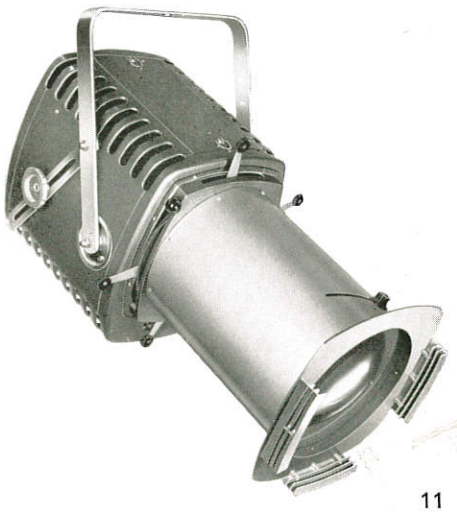
2000W

Patt 253



Max Width 430mm
Weight 24.5kg

Beam Spread
Cut-off 24° max. ½ peak angle 24°.
3m spread at 7m throw.
Lamphouse pressed steel, with removable top.
Fork mild steel, reversible, with slotted locking bar and handwheel for tilt clamp and ½-in. Whit. bolt and wingnut for suspension and swivel clamp.
Lampholder P.40 large prefocus, porcelain body, pretilted 15° from the vertical, with heat-resisting wiring to internal terminal block.
Reflector 230mm dia. faceted ellipsoidal.
Gate Assembly four beam-shaping shutters and 18-leaf iris diaphragm all with external heat-resisting knobs; also gate runners.
Lens 200mm dia. plano-convex in helically sliding internal lens tube.
Colour Frame double die-cast runners fitted to die-cast front, one 300mm square metal colour frame for Cinemoid supplied.
Lamps Tubular 2000W max. P.40 base. 87mm l.c.l.
Class A1/218 or CP/28 recommended for stage use.
Accessories
Additional metal colour frame, 27 **061** 0T
Hand-operated magazine for 4 colours, 23 **636** 07
1⅛-in. dia. hollow TV spigot, 26 **593** 09
Hook clamp for 1⅛-in. dia. TV spigot, 26 **594** 04

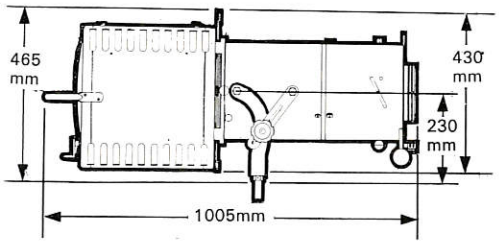


RANK STRAND FOLLOW-SPOTS

A follow spot is in fact a narrow-angle Profile spotlight with various refinements which enable its operator to direct it quickly and continuously so that he can keep the beam of light on a moving target. For regular use the three purpose-built models shown here are recommended. An exceptionally efficient Compact Source Iodide (CSI) lamp which gives four times the light is used in the Patt. 765 Highspot. This lamp cannot be controlled through a dimmer but the operator can perform all necessary actions on cue by means of the strip shutters and iris.

TUNGSTEN HALOGEN 2000W

Patt 793



Max Width 430mm
Weight 27.2kg

Beam Spread
Cut-off 13° max. ½ peak angle 8°
3m spread at 16m throw

Lamphouse pressed steel, with removable top access. Handles at rear and on lens front.

Fork mild steel, shaped to avoid gate controls, reversible by handtool, with slotted locking bar and handwheel for tilt lock and fitted with spigot for stand.

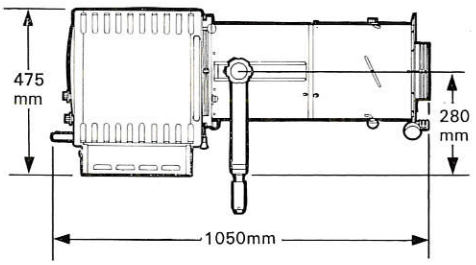
Lampholder porcelain body, with heat-resisting wiring to internal terminal block.

Reflector 230mm dia. faceted ellipsoidal.

Gate Assembly four beam-shaping shutters and 18-leaf iris diaphragm with blackout disc all with external heat-resisting knobs; also horizontal gate runners.
Lens 250mm dia. plano-convex in helically sliding internal lens tube.
Colour Frame double die-cast runners fitted to die-cast front, one 300mm square metal frame for Cinemoid supplied.
Lamp 2000W max. G.38 base, 127mm l.c.l.
Accessories
Additional metal colour frame, 27 **061** 0T
Hand-operated magazine for 4 colours,
23 **636** 07

C.S.I. 1000W

Highspot Patt 765



Max Width 430mm
Weight 31.7kg
(excluding external regulation unit, 23kg)

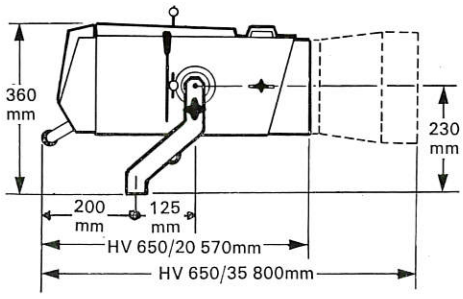
Beam Spread
Cut-off 14° max. ½ peak angle 14°
3m spread at 15m throw
Lamphouse pressed steel, with removable top access. Handles at right-hand side and on lens front.
Mounting mild steel fork with handwheel tilt lock and fitted with TV spigot. Supplied complete with tripod base, braced stand.
Control Gear all EHT starting circuitry contained within lamphouse together with hour-counter. 3m external length of 3-conductor cable fitted for 220/250v 50Hz supply. External compact regulation unit supplied has fixed connector to mate with loop cable from lamphouse.

Lampholder special EHT G.22 medium bipost.
Reflector 210mm dia. ellipsoidal form.
Gate Assembly 18-leaf iris diaphragm and blackout disc; horizontal and vertical strip shutters rotatable 30° around optical axis.
Lens Twin 250mm dia. plano-convex in helically sliding internal lens tube.
Colour Frame double die-cast runners fitted to die-cast front, one 300mm square metal frame for Cinemoid supplied.
Lamp 1000W Compact Source Iodide.
Accessories *as for Patt. 793 above, or:*
Mechanical dimming shutter assembly,
23 **740** 06

TUNGSTEN HALOGEN 650W

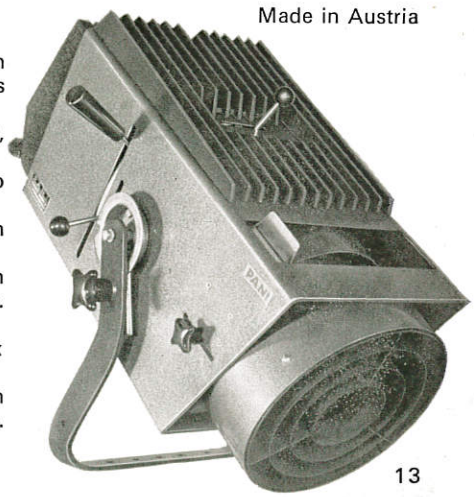
PANI HV650

Made in Austria



Max Width 345mm
Weight 13kg

Beam Spread
HV 650/20 Cut-off 17° max. 3m spread at 10m
HV 650/35 Cut-off 10° max. 3m spread at 17.5m
Lamphouse pressed steel with die-cast cooling fins and bottom-hinged die-cast rear section.
Fork mild steel, shaped to avoid gate controls, reversible, with clamping disc tilt lock.
Lampholder GX 6.35-24, with built-in resistor to extend lamp life, mounted on hinged rear section.
Reflectors 140mm dia. ellipsoidal rear and 155mm dia. spherical frontal.
Gate Assembly 12-leaf iris diaphragm with built-in blackout disc and four built-in beam shaping shutters.
Lens Twin plano-convex in sliding lens tube.
HV 650/20 200mm plus 150mm dia. plano-convex
HV 650/35 230mm plus 150mm dia. plano-convex
Colour Runners internal double runners for 185mm square colour frame, mounted between twin lenses.
Lamp 650W, GX 6.35-24 base.
Osram G.m.b.H. 64540.



RANK STRAND CINEMOID

'Cinemoid' sheets are exceptionally durable being mechanically strong, impervious to moisture and self-extinguishing even after deliberate prolonged contact with a naked flame. The material complies with British Standard 3944 and has been approved by all the principal authorities throughout the world.

Sheet Sizes
710×635×0.25mm, (28×25-in)
1420×635×0.25mm, (56×25-in)

1. Yellow
2. Light Amber
3. Straw
4. Medium Amber
5. Orange
5A. Now 58
6. Red (Primary)
7. Light Rose
8. Deep Salmon
9. Light Salmon
10. Middle Rose
11. Dark Pink
12. Deep Rose
13. Magenta
14. Ruby
15. Peacock Blue
16. Cyan (Blue Green)
17. Steel Blue
18. Light Blue
19. Dark Blue
20. Deep Blue (Primary)
21. Pea Green
22. Moss Green
23. Light Green
24. Dark Green
25. Purple
26. Mauve
27. Smoky Pink

29, 30, 31 See below

32. Medium Blue
33. Deep Amber
34. Golden Amber
35. Deep Golden Amber
36. Pale Lavender
38. Pale Green
39. Primary Green
40. Pale Blue
41. Bright Blue
42. Pale Violet
43. Pale Navy Blue
45. Daylight
46. Chrome Yellow
47. Apricot
48. Bright Rose
49. Canary
50. Pale Yellow
51. Gold Tint
52. Pale Gold
53. Pale Salmon
54. Pale Rose
55. Chocolate Tint
56. Pale Chocolate
57. Pink
58. Deep Orange
60. Pale Grey
61. Slate Grey
62. Turquoise
63. Sky Blue
66. Pale Red
67. Steel Tint
68. Giselle Blue

Sheet Sizes
620×530×0.25mm, (24½×21-in)
1240×530×0.25mm, (49×21-in)

29. Heavy Frost
30. Clear
31. Light Frost
69. Ariel Blue

"The Trade Mark 'Cinemoid' denotes a particular brand of self-extinguishing acetate sheeting which is made in England specially for use as colour filters, and which is distributed throughout the world by Rank Strand Electric."

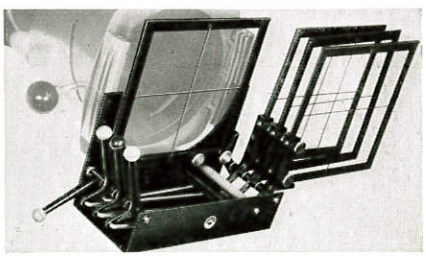
COLOUR CHANGE

Hand-operated magazine with four colour frames for Cinemoid, to fit front runners of Patt. 253, 293 or Patt. 765 — 23 **636** 07

Remote Colour Change Wheels, 200/250v 50Hz 4 r.p.m. motor-driven, with five apertures for Cinemoid.
320mm dia. for Patt. 23, 23W. — 23 **382** 08
445mm dia. for Patt. 123 only. — 23 **410** 00
445mm dia. for Patt. 23N, 263, 264. — 23 **622** 08

Push-button control boxes for above, 200/250v 50Hz, to provide five colour aperture selection, or continuous, remote control. With PRESET/GO master switch and cartridge fuse.
1-unit control box, 23 **383** 03
2-unit control box, 23 **384** 09
4-unit control box, 23 **385** 04
6-unit control box, 23 **389** 06

Control Cable 7-conductor colour-coded 250v insulated and sheathed.

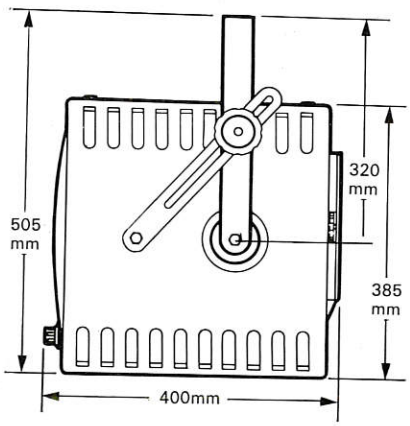


RANK STRAND
EFFECTS PROJECTORS

The projection of some kind of detailed picture—whether from a moving slide or stationary one—requires a more elaborate optical system than for any other stage lighting application. This technique is not necessarily used as an economy measure but rather to provide scenic effects unobtainable in any other way; a quick change of locale for instance. Slides can be naturalistic or symbolic; the production and projection of these being a matter for co-operation between the scenery and lighting designers.

In addition Rank Strand provide a series of standard moving effects attachments —clouds, waves, flames and so forth. All these effects are available here not only for sale but on hire so that the same basic projector can vary its output from week to week as the production or the mood demands.

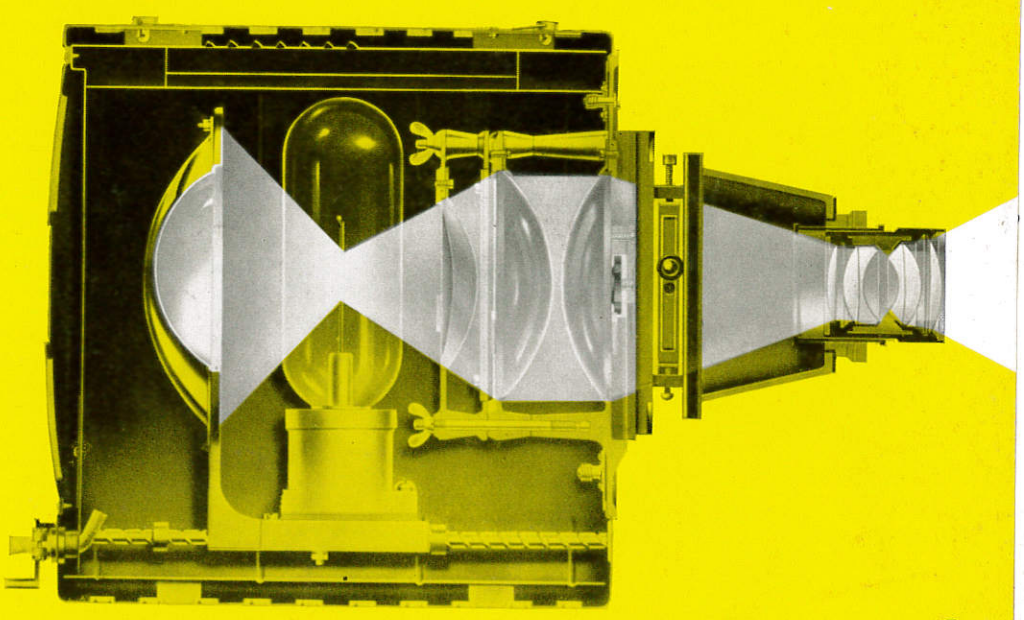
2000W



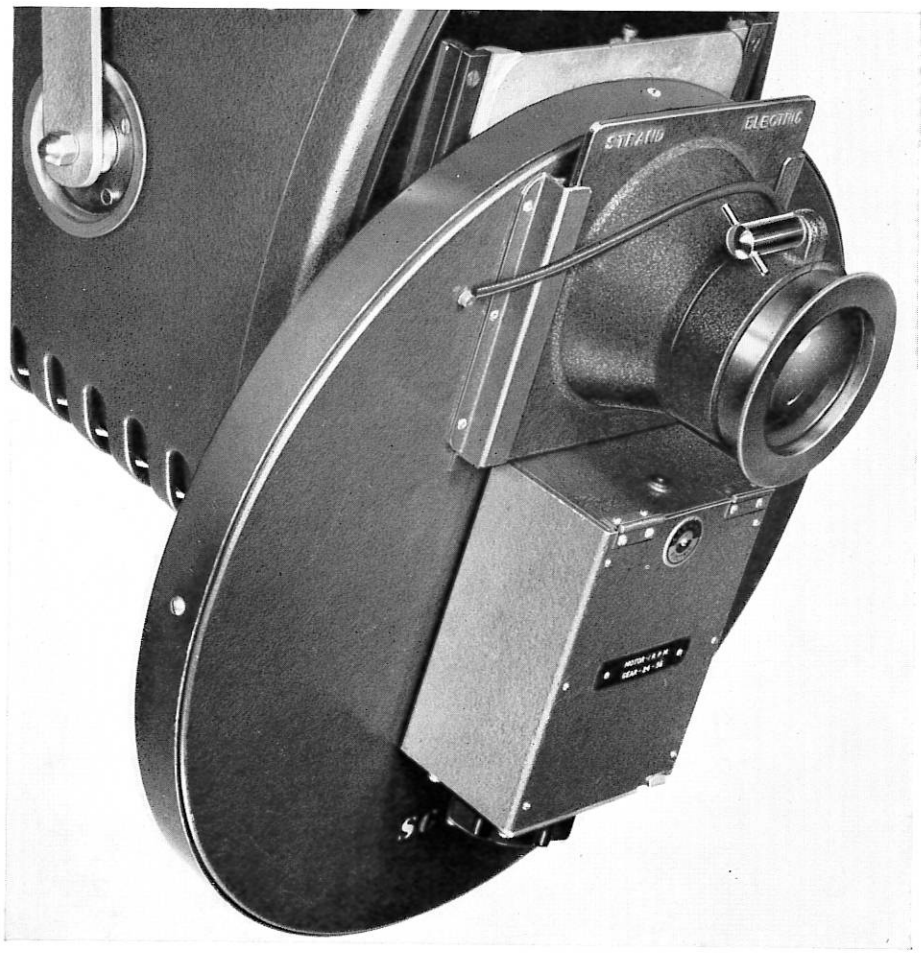
Max Width 420mm
Weight 16.5kg

Patt 252

Lamphouse pressed steel, with removable top access. Die-cast front removable together with complete condenser lens assembly.
Fork mild steel, reversible, with slotted locking bar and handwheel for tilt clamp and $\frac{1}{2}$-in. Whit. bolt and wingnut for suspension and swivel clamp.
Lampholder P.40 large prefocus, porcelain body, fitted with 1m external length of 3-conductor, sheathed, heat-resisting cable.
Reflector 190mm dia. spherical, polished anodised aluminium.
Adjustment lead-screw movement of lamp tray from rear.
Condenser Lens 150mm dia. 3-element with 115mm dia. meniscus and two 150mm plano-convex including full area of horizontally-slatted heat-absorbing glass. Separate die-cast mounts provide access to all surfaces.
Runners die-cast with edge-operated clamping discs for 205mm wide backplate optical effects attachments.
Lamps 2000W max. P.40 base. 87mm l.c.l.
Class A1/218, CP/28 recommended for stage use.
Accessories
$1\frac{1}{8}$-in. dia. hollow TV spigot, 26 **593** 09
Hook clamp for $1\frac{1}{8}$-in. dia. TV spigot, 26 **594** 04
Optical effects, lenses etc. see overleaf.



Patt 252 ATTACHMENTS



Patt. 252 with turntable front, slide carrier and high definition objective lens necessary for scene projection.

Patt. 252 with disc type moving effects attachment and commercial quality objective lens.

MOVING EFFECTS ATTACHMENTS

Disc Type 475mm diameter case, 200/250v 50Hz motor drive with potter's wheel drive for speed adjustment and reversal of rotation of 445mm dia. thick plate glass disc with continuous photographic transparency, 13cm dia. gate aperture. Fitted with die-cast turntable backplate, to fit 205mm wide runners, to allow 360° rotation around optical axis of the effects projector. Front runners for 175mm wide backplate objective lenses.

Thunder Clouds	24 **653** 01
Fleecy Clouds	24 **134** 0T
Storm Clouds	24 **135** 05
Rain	24 **136** 00
Snow	24 **137** 06
Running Water	24 **138** 01
Smoke	24 **140** 05
Flames	24 **141** 00
Chromosphere	24 **667** 00
Dissolving Colours	24 **147** 03
Psychedelic Mk. 2	24 **723** 04
Kaleidosphere	24 **724** 0T

Box Type 445×270mm wide, as above, but with reciprocating internal movement of slides and/or break-up glasses. Rotation around optical axis limited.

Sea Wave	24 **143** 01
Water Ripple	24 **144** 07
Under Sea	24 **145** 02

SLIDE PROJECTION ATTACHMENTS

Turntable Front die-cast, to fit 205mm wide runners, to allow rotation around optical axis of the projector. With aperture for slide carrier (below) and with runners for 175mm wide backplate objective lenses 24 **154** 04

Slide Carrier metal slide carrier for two 3¼×4-in. slides with removable adaptors for two 3¼-in. square slides. 24 **156** 05

OBJECTIVE LENSES

Commercial Quality with die-cast backplate 175mm wide for Moving Effects Attachments where high definition is not required. Sliding lens jacket with tommybar clamp.

6.5cm (2½-in.) focal length	24 **151** 08
7.5cm (3-in.) focal length	24 **152** 03
10cm (4-in.) focal length	24 **153** 09

High Definition essential for slide projection. Dallmeyer, with micrometer focusing.

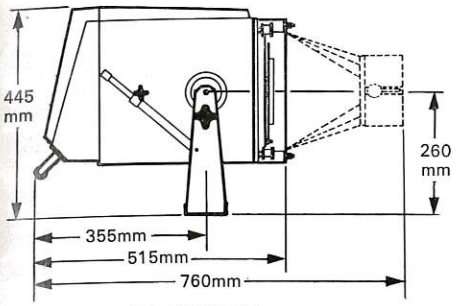
10cm (4-in.) f/1.9 Dallmeyer lens	24 **391** 06
175mm wide backplate for above	24 **392** 01
15cm (6-in.) f/1.9 Dallmeyer lens	24 **393** 07
175mm wide backplate for above	24 **394** 02

Accessories

Adjustable metal mask for moving effects	24 **343** 00
Beam divertor mirror to fit **151, 152, 153** objective lenses	24 **346** 07

SCENE PROJECTORS

TUNGSTEN HALOGEN 2000W

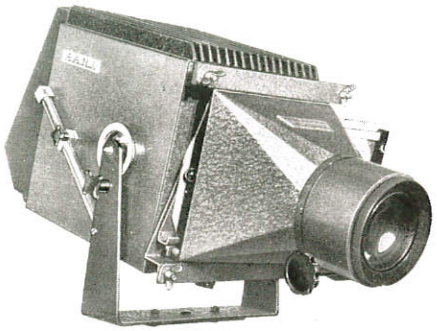


Max Width 605mm
(including slide carrier)
Weight 25.5kg

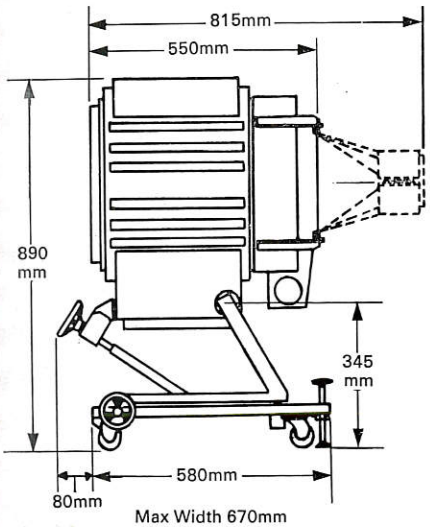
Slide Size 13×13cm or 18×18cm square.
Lamphouse pressed steel with die-cast cooling fins and bottom-hinged die-cast rear section.
Fork mild steel, reversible, with clamping disc tilt lock and also locking bar.
Lampholder GY.16.
Reflector 270mm dia. spherical.
Condenser Lens 230mm dia. 3-element with heat-absorbing glass.
Slide Carrier rotatable through 70°, for two 13×13cm or 18×18cm square slides.
Cooling internal tangential fan.
Lamp 2000W, GY.16 base. 70mm l.c.l.
Class CP/43, Osram G.m.b.H. 64788, Philips 6364P
Objective Lenses, for 18×18cm square slide projection, including backplate for 276mm mounting centres. Slide focusing.
18cm focal length, f/1.27
22cm focal length, f/1.28
27cm focal length, f/1.3
33cm focal length, f/1.35

PANI BP2

Made in Austria



TUNGSTEN HALOGEN 5000W

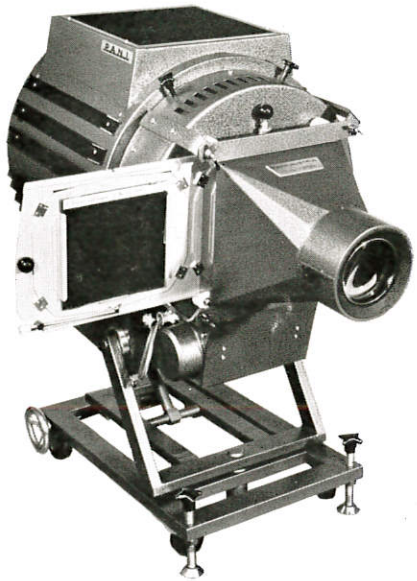


Max Width 670mm
(including slide carrier)
Weight 48kg

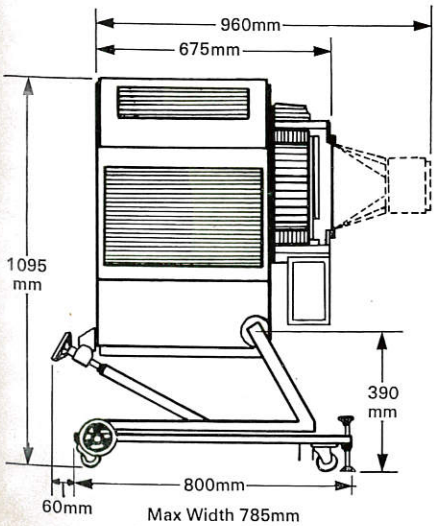
Slide Size 18×18cm square, 4.6m image at 5m throw with 18cm objective lens.
Lamphouse multi-louvred, with hinged rear door.
Mounting fitted to wheeled trolley with jacking clamps, and lead-screw adjustment of tilt.
Lampholder G.38 Bipost.
Reflector 270mm dia. spherical.
Condenser Lens 230mm dia. 3-element with heat-absorbing glass.
Slide Carrier rotatable through 70°, for two 18×18cm square slides. Fine adjustment for 20° angular rotation of each slide provided.
Cooling two internal tangential fans for condenser system and an additional fan to cool the slide stage.
Lamp 5000W, G.38 base. 165mm l.c.l.
Class CP/29, CP/35, Osram G.m.b.H. 51703.
Objective Lenses 18, 22, 27cm focal length as for BP2 above.
Alternative condenser for 33cm lens
33cm focal length, f/1.35
Alternative condenser for 40 or 50mm lenses
40cm focal length, f/1.4
50cm focal length, f/1.4
Accessories
Divertor mirror for BP5

PANI BP5

Made in Austria



TUNGSTEN HALOGEN 10,000W

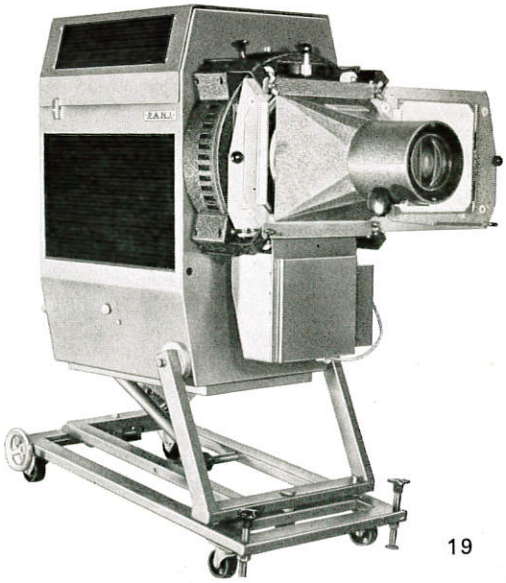


Max Width 785mm
(including slide carrier)
Weight 86kg

Slide Size 24×24cm square. 5m image at 5m throw with 22cm obj. lens.
Lamphouse pressed steel with multi-louvre panels, with hinged top for internal access.
Mounting fitted to wheeled trolley with jacking clamps and lead-screw adjustment of tilt between 12° above and 35° below horizontal optical axis; also available for suspension.
Lampholder G.38 Bipost.
Reflector 270mm dia. spherical.
Condenser Lens 320mm dia. 3-element with heat-reflecting and heat-absorbing glasses.
Slide Carrier rotatable through 70°, for two 24×24cm square slides. Fine adjustment for 20° angular rotation provided.
Cooling two internal tangential fans for the condenser system and also two fans to cool the slide.
Lamp 10,000W. G.38 base. 254mm l.c.l.
Osram G.m.b.H. 51805.
Objective Lenses for 24×24cm square slide projection, including backplate for 276mm mounting centres, slide focusing.
22cm focal length, f/1.28
27cm focal length, f/1.3
33cm focal length, f/1.35
Accessories Divertor mirror for BP10
Right angle divertor attachment for BP10

PANI BP10

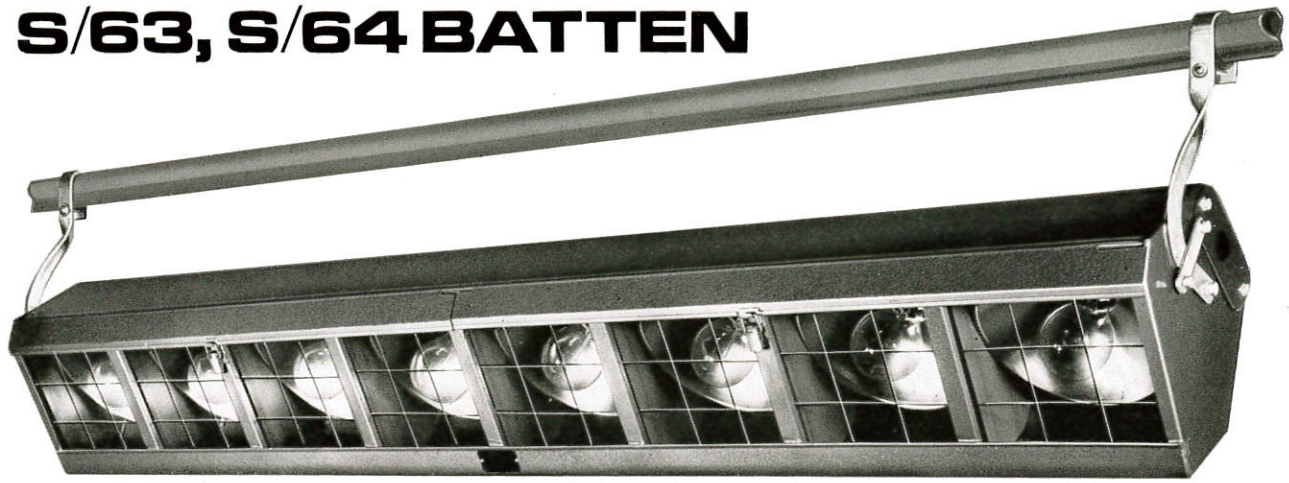
Made in Austria



RANK STRAND FLOODLIGHTS

Floodlights provide a fixed, wide-angle beam. Banks of the larger floodlights are ideal for colour lighting of a cyclorama background; single floodlights are also invaluable for lighting the off-stage aspects of a stage setting, such as door and window backings. Compartment batten, which is in effect a number of small floodlights joined end to end, serves to provide a relatively low intensity colour wash over the acting area of a large scale stage but for the smaller stage is more suitable for close range colour lighting of a cyclorama or backcloth.

Patt S/63, S/64 BATTEN

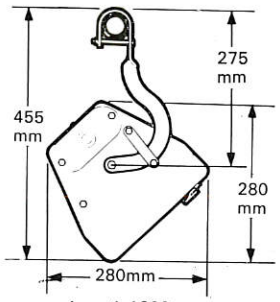


Beam Spread from each compartment:
$\frac{1}{10}$ peak angle 105°; $\frac{1}{2}$ peak angle 90°
Construction pressed steel channel, end sections and compartment divisions at 230mm centres.
Lampholders E.27(ES), porcelain body.
Reflectors 215mm dia. etched and anodised.
Colour Frames internal runners to each compartment with top-hinged lid and toggle fastener. One set of 210×235mm metal frames supplied.
Suspension pair of adjustable tilt brackets, for suspension from 48mm nominal external dia. pipe, supplied with each length of batten.
Wiring internally wired to numbered terminal blocks at both ends of the wiring trough as above right:

Patt. S/63 1830mm (6-ft) nominal length, 8 compartments wired on 3 circuits.
Patt. S/64 as above, but on 4 circuits.
Lamps 150W. E27 base. G.L.S. clear.

FOOTLIGHT version with offset reflectors to minimise projection above stage level.
Patt. S/63/F 1830mm (6-ft) nominal length, 8 compartments wired on 3 circuits.
Patt. S/64/F, as above, but on 4 circuits.

Accessories Additional colour frame, 27 **240** 09
Cable grip for 20mm max. ext. dia. 23 **519** 04
Pair of adjustable tilt floor brackets, 23 **620** 07
Set of four castors for above, 23 **621** 02



Length 1830mm
Weight 14.5kg

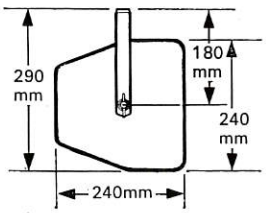
Patt 137, 60 & 49

Pressed steel body, with sprung-closed hinged lid over colour runners. Steel fork with tilt clamp. Fitted 1m external 3-conductor, heat-resisting cable.

PATT. 137 — 200W

Beam Spread $\frac{1}{10}$ peak angle 105°, $\frac{1}{2}$ peak angle 90°
Lampholder E.27 (ES), porcelain body.
Reflector 215mm dia. etched and anodised.
Colour Frame metal, 210×235mm, one supplied.
Lamps 200W max. E.27 base. G.L.S. clear.
Accessories
Additional colour frame, 27 **240** 09
Masking Hood, 23 **245** 00

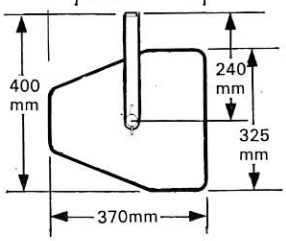
Max Width 325mm
Weight 3.6kg



PATT. 60 — 500W

Beam Spread $\frac{1}{10}$ peak angle 90°, $\frac{1}{2}$ peak angle 55°
Lampholder E.40 (GES), porcelain body.
Reflector 265mm dia. etched and anodised.
Colour Frame metal, 300mm square, one supplied.
Lamps 500W max. E.40 base. G.L.S. clear.
Accessory
Additional colour frame, 27 **061** 0T

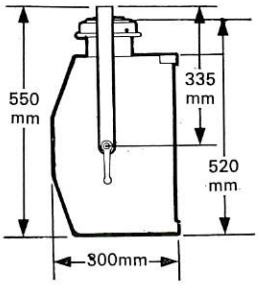
Max Width 370mm
Weight 5.4kg



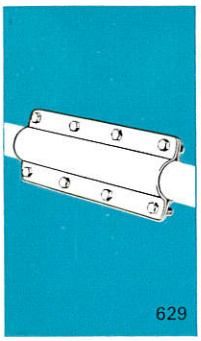
PATT. 49 — 1000W

Beam Spread $\frac{1}{10}$ peak angle 120°, $\frac{1}{2}$ peak angle 100°.
Lampholder E.40 (GES), porcelain body.
Reflector 385mm dia. etched and anodised.
Colour Frame metal, 410mm square, one supplied.
Lamp 1000W max. E.40 base. GLS clear.
Accessory
Additional colour frame, 27 **067** 02

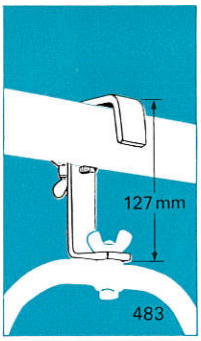
Max Width 515mm
Weight 10.8kg



RANK STRAND
CLAMPS, STANDS AND BRACKETS

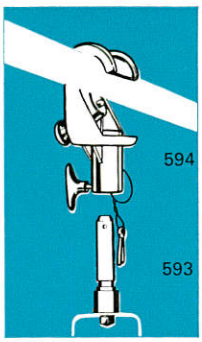


Clamping plate to join 48mm ext. dia. pipe end to end, 1kg. 26 **629** 05



Hook clamp with thumbscrew for 48mm ext. dia. pipe, 0.35kg. 26 **483** 07

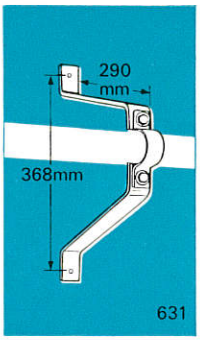
Safety chain 560mm long with clip hook, 0.2kg. 26 **064** 0T



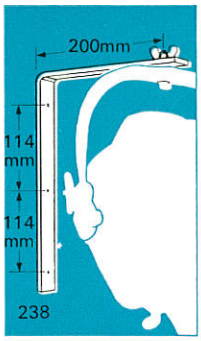
Hook clamp for 1⅛-in. dia. TV spigot and 48mm ext. dia. pipe, 1kg. 26 **594** 04

1⅛-in. dia. TV spigot with ⅜-in. Whit. stem, 0.7kg. 26 **592** 03

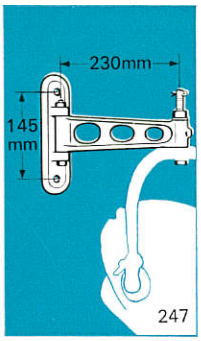
TV spigot ½-in. Whit. stem. 26 **593** 09



Bracket for rigid fixing of 48mm ext. dia. pipe to wall or ceiling, 1.8kg. 26 **631** 09

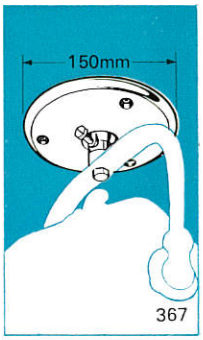


Wall bracket, for one or two small spotlights, one over and one under, 0.8kg. 26 **238** 09

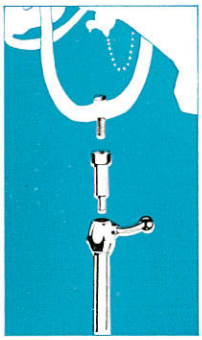


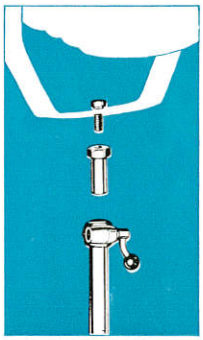
Single swivel wall bracket, with ⅜-in. Whit. stem for any small spotlight, 0.8kg. 26 **247** 00

Double swivel wall bracket, 1.4kg. 26 **248** 06

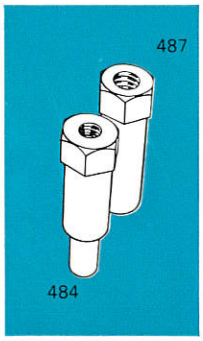


Die-cast ceiling or base plate, with ⅜-in. Whit. stem for any small spotlight, 0.4kg. 26 **367** 0T



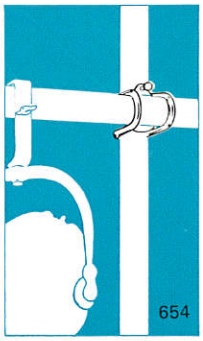


When a telescopic stand has to be used the suspension fork has to be reversed and a spigot adaptor is required to screw over what was the suspension bolt. The smaller units with a ⅜-in. Whit. bolt require a 26 **484** 02 spigot adaptor or a 26 **592** 03 1⅛-in. dia. TV spigot. The larger units with a ½-in. Whit. bolt require a 26 **487** 09 spigot adaptor or a 26 **593** 09 TV spigot.

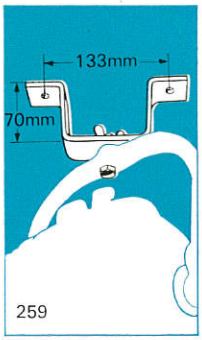


Spigot adaptor, ⅜-in. Whit. for Patt. 23, 45, 60, 123, 137, 223, 263/4, 743, 763/4, 0.35kg. 26 **484** 02

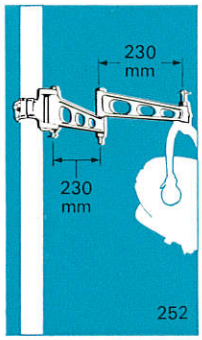
Spigot adaptor ½-in. Whit for Patt. 49, 243, 252, 253, 774, 0.35kg. 26 **487** 09



Clamp to join 48mm ext. dia. pipe at right angles, 0.6kg. 26 **654** 0T

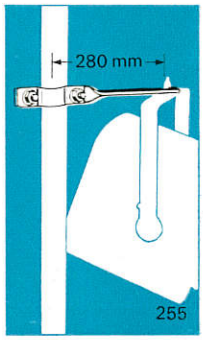


Ceiling fixing saddle, 70mm depth, 0.45kg. 26 **259** 09

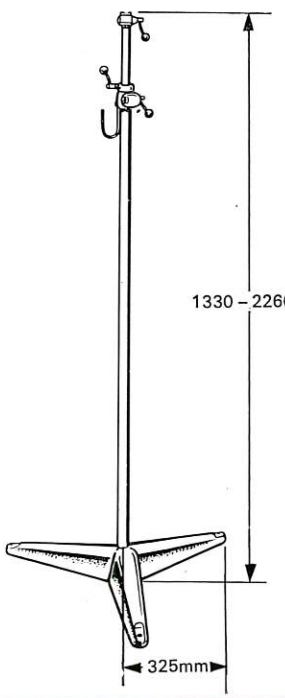


Double swivel arm boom bracket with clamp for vertical 48mm ext. dia. pipe for any small spot. 1.5kg. 26 **252** 00

Single swivel arm boom bracket, 0.9kg. 26 **251** 05

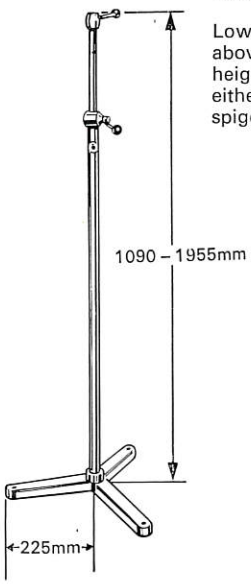


Boom bracket with clamp for vertical 48mm ext. dia. pipe, 1kg. 26 **255** 07



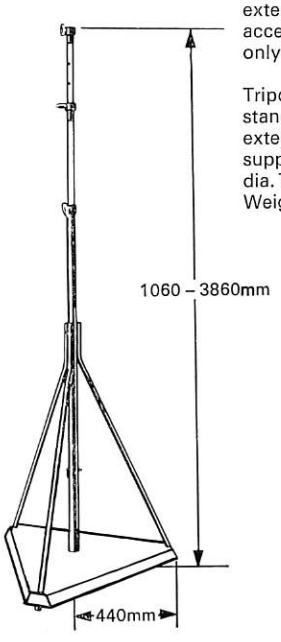
Telescopic stand, single extension, to accept either **484** or **487** spigot adaptor. Weight 9 kg. 26 **626** 09

Set of three castors for above. 26 **630** 03



Junior telescopic stand, single extension, to accept **484** spigot adaptor only. Weight 6.6kg. 26 **627** 04

Low stand, base as above, 215mm fixed height, to accept either **484** or **487** spigot. 26 **656** 00



Tripod base, braced stand, double extension. Will accept **484** spigot only. Weight 16.3kg. 26 **742** 06

Tripod base, braced stand, 1.06m extending to 1.8m supplied with 1⅛-in dia. TV spigot. Weight 12.5kg. 26 **741** 00

LIGHTING CONTROL

It is the control which brings all the varied stage lighting circuits together and makes them an instrument of artistic expression. No matter what the termination, how well directed or appropriately focused the Fresnel, the Profile spot, Effects projector or the Floods, the stage picture will ultimately be *made* by operating the dimmers from the control panel.

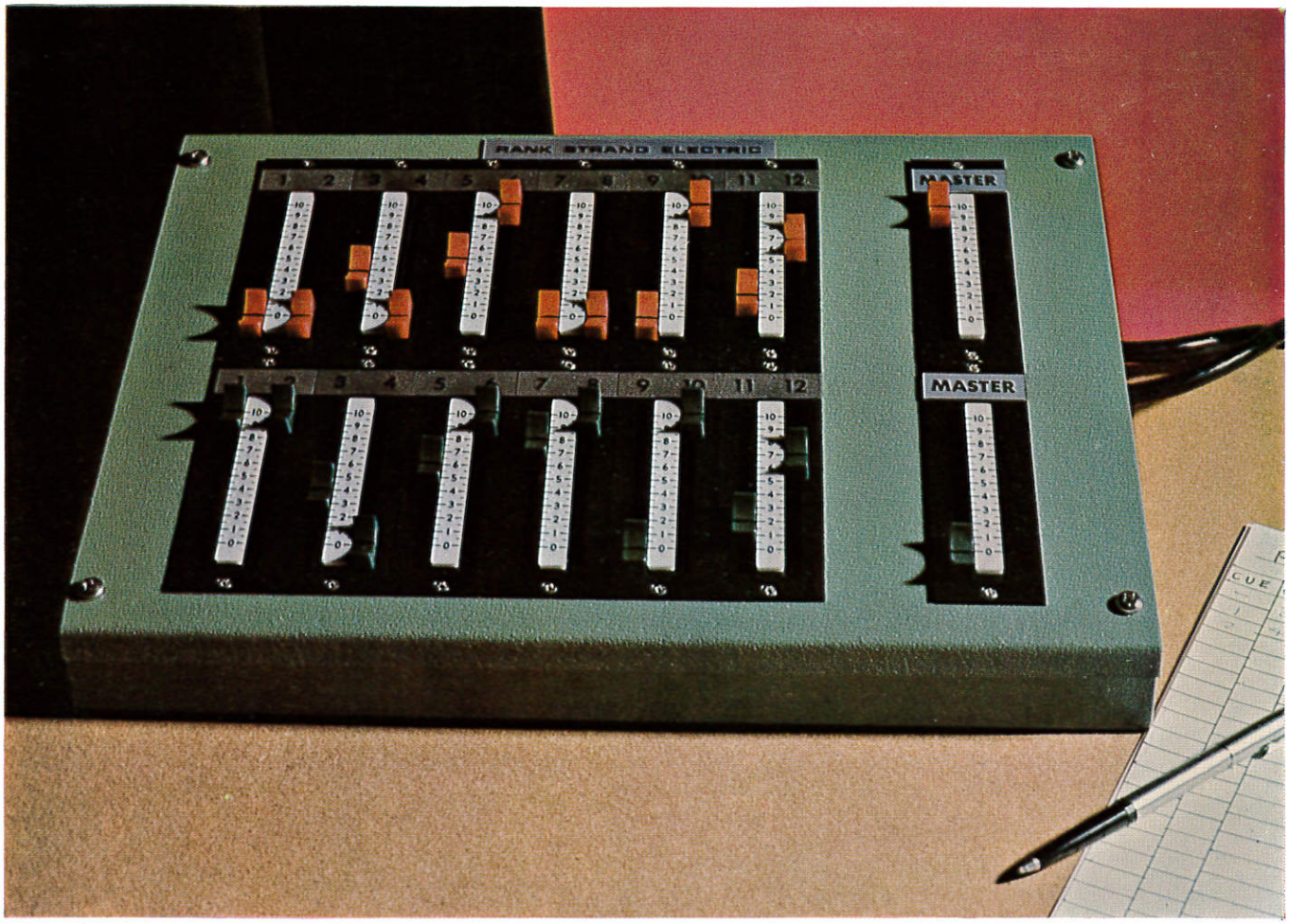
Dimmers are used to balance the light within a stage picture and also to facilitate the change, gradual or fast, from one picture to another. To ensure precision and smoothness in these changes it is necessary to have one set of dimmer levers to hold the lighting balance for the picture now on the stage, and another on which to preset the picture that is to come. All the Rank Strand systems in this catalogue are Preset controls although in our advanced types for the larger theatres there may be only one complete set of dimmer controls—the lighting pictures being instantly recorded by magnetic means and stored as so many presets for immediate access.

All Rank Strand systems are provided with wire-wound potentiometer controls ensuring an exceptional accuracy of matching for an intensity level between levers both on the same preset and on other presets. These dimmer levers are mounted at close centres and designed for finger-tip operation. It is thus perfectly possible to work numbers of them simultaneously and carry out simpler lighting changes without occupying a whole preset. Moreover the provision of grouping switches enables different parts of a preset to be used independently giving, over say three presets, a wide number of possible combinations.

In modern practice the dimmers are quite separate from the control panel and can be located at some distance from it. Dimmers are mounted in racks of twenty for permanent installation and as packs of six in the case of portable models. All load carrying wiring and connections terminate there, the control panel itself being connected by whatever length of multicore may be necessary. For certain applications such as the auditorium decorative lighting (the 'House lights') push button control, initiating an automatic fade in and out of the relevant circuits, may be appropriate instead of hand regulation.

Nowhere does the worldwide coverage of Rank Strand Electric show to greater advantage than in control. Not only does this put us in touch with the best electronic and computer technology on both sides of the Atlantic, but Rank Strand are thereby able to provide a unique and all-embracing service for all the more complex and advanced lighting control systems.

RANK STRAND MINI-2 PORTABLE CONTROL



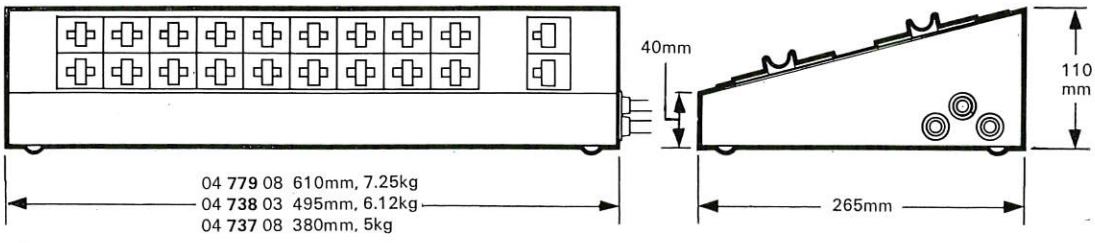
The Mini-2 range allows a complete break-away from the load-dependent, limited load capacity resistance dimmers and the primitive control facilities of all direct-operated switchboards.

The compact control desks, for 24, 18, 12 or just 6 channels, simply plug-in to the required number of 6-dimmer packs, each Thyristor dimmer controlling up to 2000 watt of tungsten lamp load through twin socket outlets. For remote operation the 2m control cable to each dimmer pack can be extended by a 10m or 30m plug-in extension cable.

The control desks for 24, 18 or 12 dimmer channels have two sets of dimmer levers, each set with a master fader, so that precise intensity levels can be preset in advance of the lighting in use. The two separate master faders allow a gradual changeover or a lap change from one preset to the other, or for one preset to be added to the other.

For 6 dimmer channels a simple 6-lever control box is available—presetting facilities are superfluous when all dimmer levers can be operated by the fingers.

24-channel, 2-preset desk, 04 **779** 08
18-channel, 2-preset desk, 04 **738** 03
12-channel, 2-preset desk, 04 **737** 08
6-channel, 6-lever control box, 04 **736** 02
10m 6-channel control extension cable, 04 **739** 09
30m 6-channel control extension cable, 04 **753** 00



MINI-2 PORTABLE DIMMER PACK

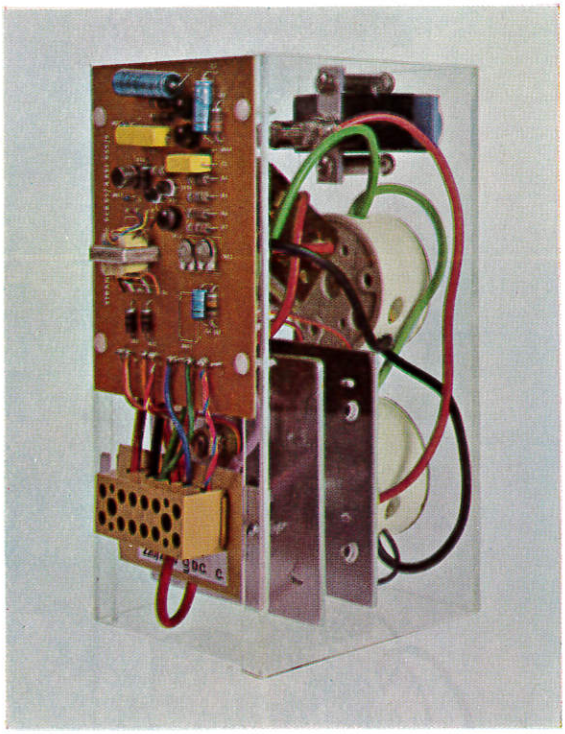
Each dimmer pack contains six 60 watt minimum to 2000 watt maximum variable-load Thyristor dimme. modules and a common power supply module. As each pack is self-contained, requiring only a 220/250v 50Hz supply, each pack can be placed wherever it is most convenient for plugging-in and/or patching the 220/250v tungsten lamp load circuits. The only restriction is that the ventilation louvres in the base, spaced by rubber feet, and in the back must not be obstructed.

An 8-pin socket to mate with the control cable from the desk is provided in the right-hand end; also a large capacity cable grip for the incoming supply which must include an earth continuity conductor. The rear cover is removable to provide access to the supply terminals and to internal distribution wiring.

6-Dimmer Pack for 220/250v 50Hz single phase supply with six Thyristor dimmers each with shrouded-contact fuse and twin 15 amp 3-pin sockets 04 **735** 07

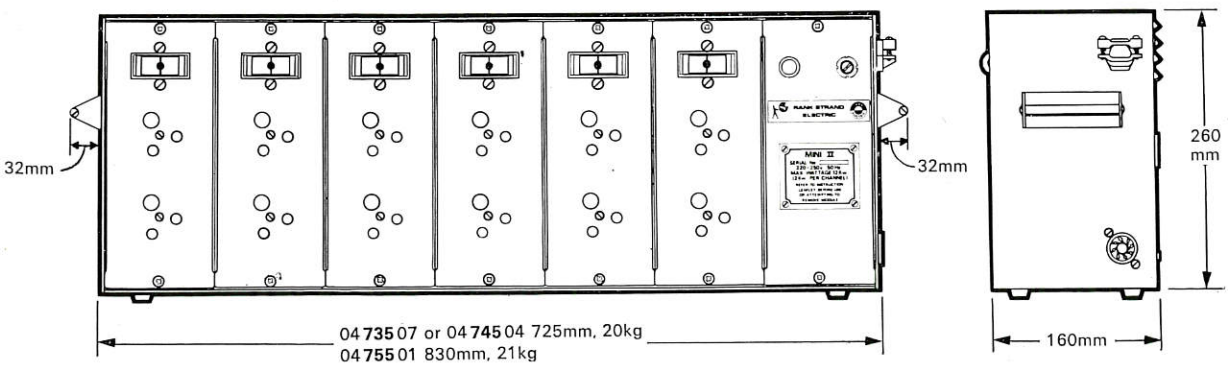
6-Dimmer Pack, as above, but with twin 5 amp 3-pin socket outlets. 04 **745** 04

6-Dimmer Pack for 220/380v 50Hz three phase and neutral supply with six Thyristor dimmers each with Zed type fuse and twin Schuko outlets. *Not suitable in U.K. where 2m phase separation required.* 04 **755** 01



MINI-2 THYRISTOR MODULE

Each dimmer module has a pair of Thyristors mounted on heat sinks, one for the positive and one for the negative half cycle of the 50Hz supply. The signal to the gate connection of each Thyristor determines the amount of each half cycle that is conducted; these signals are derived from the printed circuit trigger card. The trigger card also isolates the desk control signal from the load circuit and permits master control and presetting facilities. The dimmer module is fitted with a quick-acting HRC fuse to give full load fault protection, also a substantial inductive filter, and twin socket outlets for the controlled output.



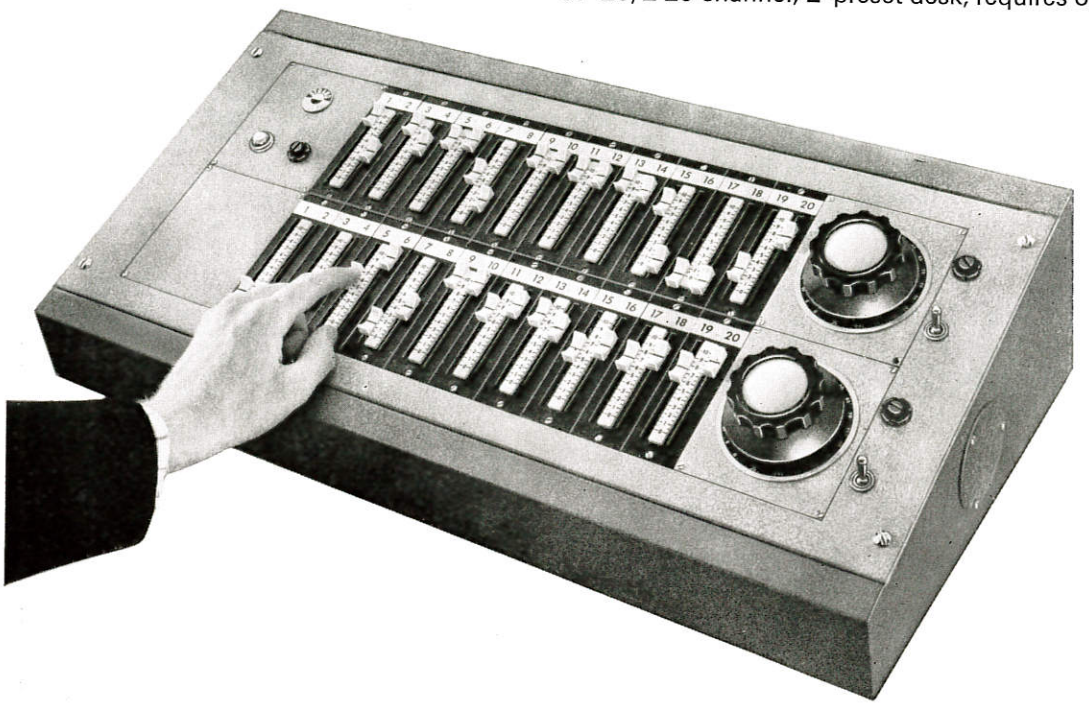
RANK STRAND JP SERIES

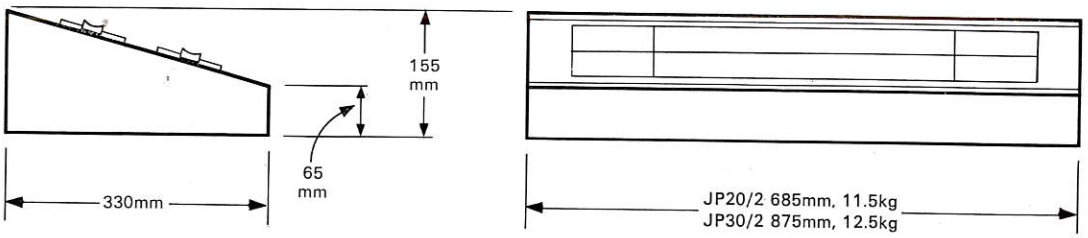
These compact desks, for use with permanently-installed STM Thyristor dimmer racks described on page 30, provide the essential facilities for presetting precise intensity levels in advance of the lighting in use and master faders to change from one effect to the next. They have the great merit of being so easy to comprehend that no particular know-how or technique is required for either plotting or operation, an important factor in multiple-user situations such as a multi-purpose hall.

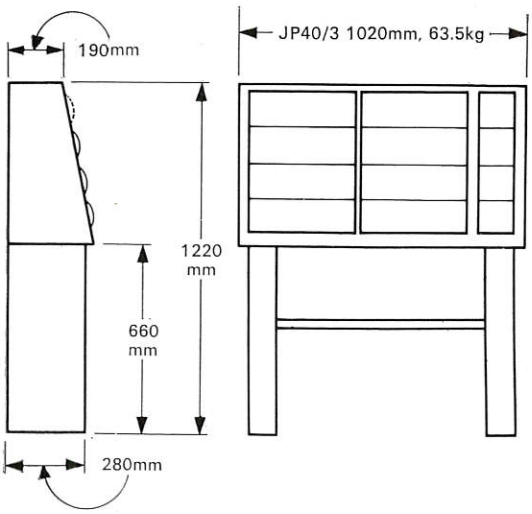
The 2-preset desks are for table-top mounting but the 15° angled operational area is removable for access and reversible within the enclosure if wall-mounting is required. Control cable entry is through the right-hand end when table-top mounted.

JP 30/2 30 channel, 2-preset desk, requires one 20-channel and one 10-channel dimmer rack.

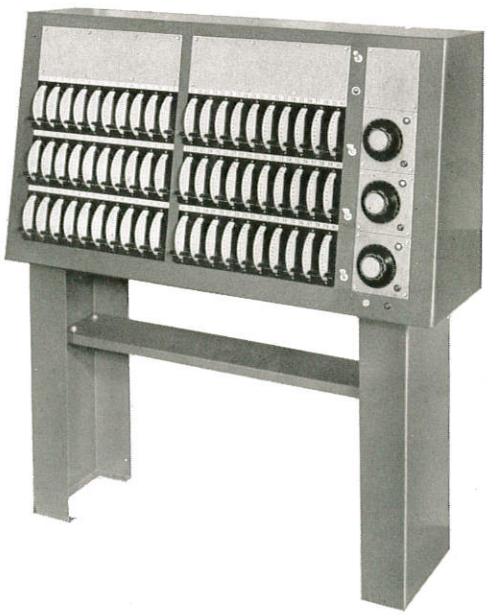
JP 20/2 20 channel, 2-preset desk, requires one 20-channel dimmer rack.



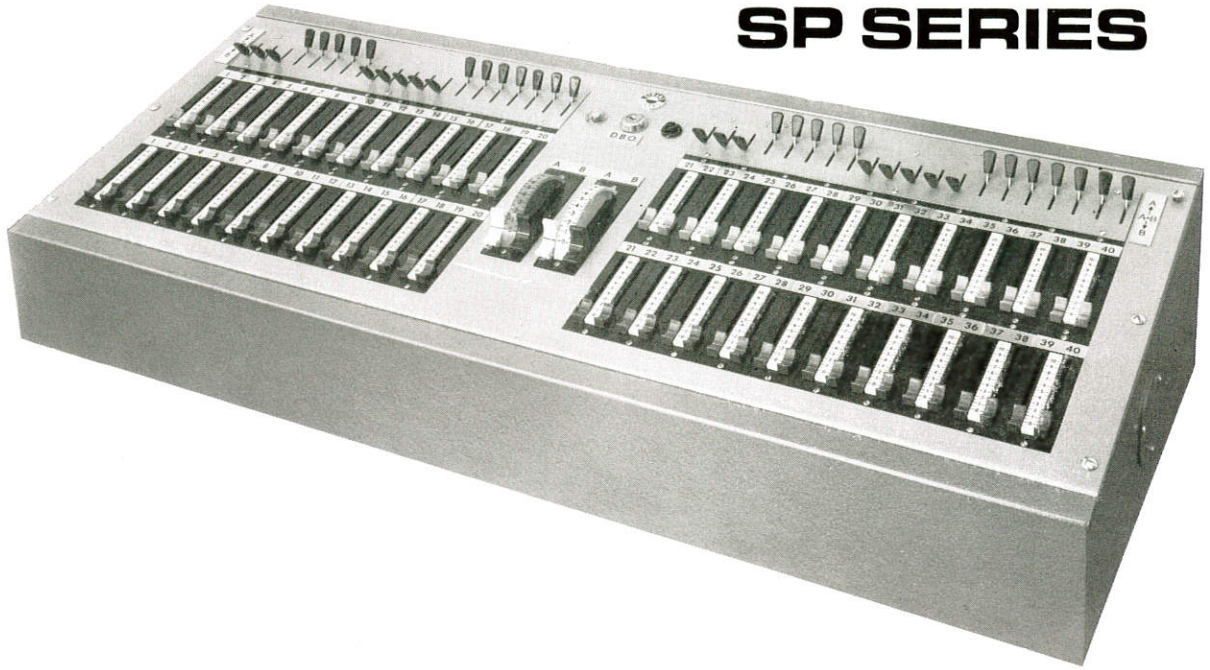




JP40/3 3-preset desk for 40 control channels is a floor-mounting near-vertical wing panel suitable for a seated or standing operator. Rear access is required for initial connection of the control cables to the two 20-dimmer racks, and for subsequent inspection. Control cable entry is within the thickness of either of the two legs.

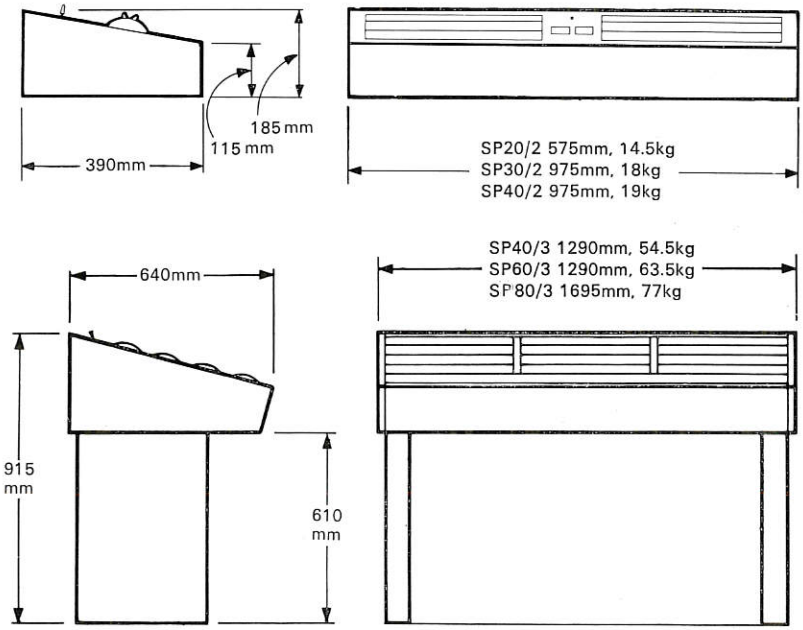


RANK STRAND SP SERIES



SP desks, for STM or XTM Thyristor dimmer racks, extend the presetting possibilities of two or three sets of dimmer levers by the addition of a single lever-action grouping switch to each control channel and by the provision of two master faders for each preset.

The three-position switch, with 30° separation between adjacent positions to ensure positive indication, is mounted immediately above the dimmer levers for each control channel and groups all presets to either the A master faders, or the B master faders, or when central to both the A and B master faders simultaneously. A lighting change can be limited to part of a preset and any channels common to both the incoming and outgoing lighting on any one preset can be grouped to both master faders and kept steady when cross-fading from one effect to the next. The grouping facilities are also invaluable for the two-part lighting fades allowing one group to lead or change at a different rate from the other group. The master faders, with quadrant scales, are smooth and effortless to operate as they control internal printed-circuit master dimmer amplifiers.



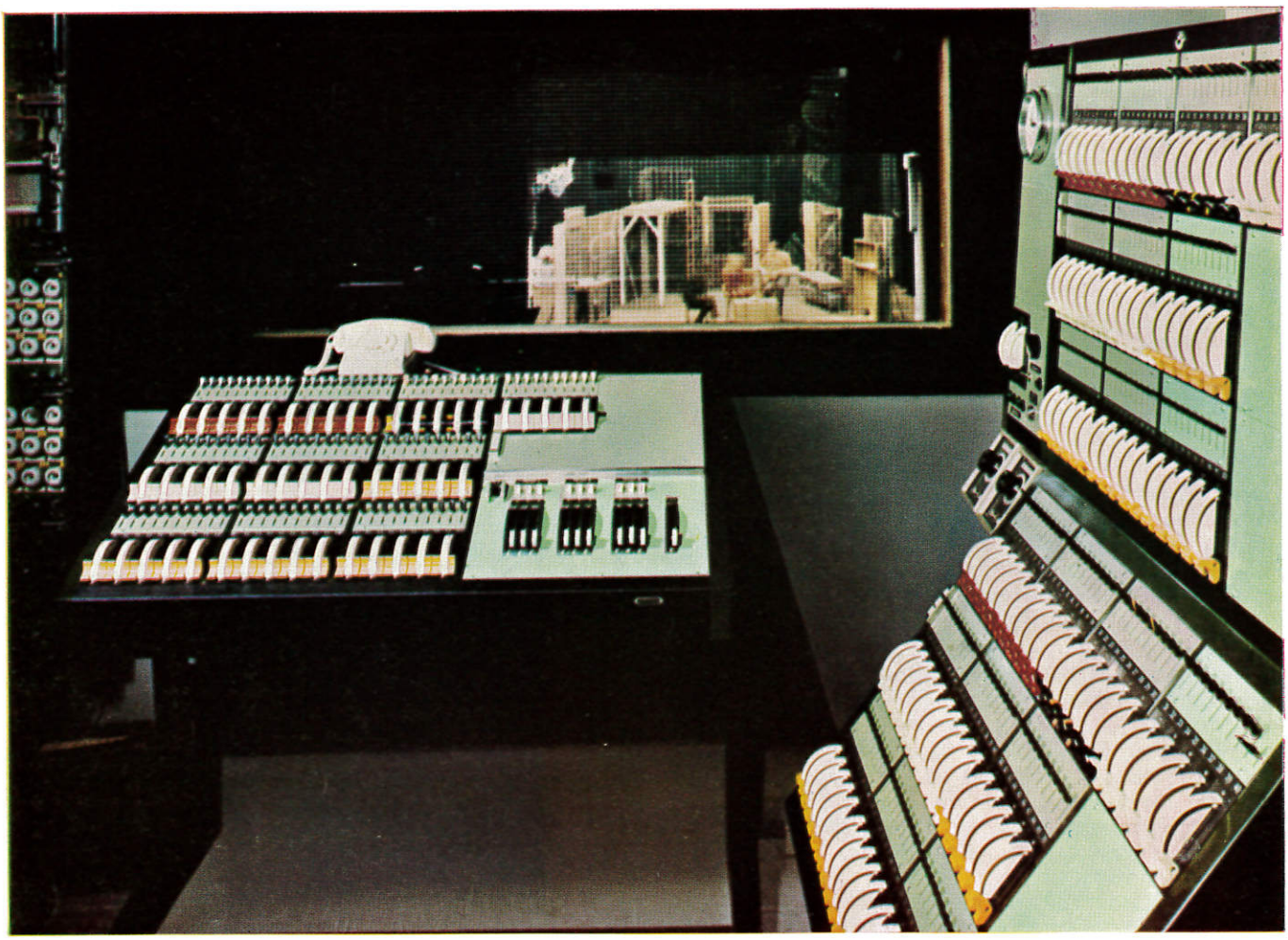
2-PRESET DESKS, for 20, 30 or 40 control channels, are for table-top mounting, but reversible for wall-mounting.

SP 40/2 40-channel, 2 preset, 2-group desk
SP 30/2 30-channel, 2 preset, 2-group desk
SP 20/2 20-channel, 2 preset, 2-group desk

3-PRESET DESKS for 40, 60 or 80 control channels, are free-standing desks with hinged top internal access. An additional master fader is provided to inhibit the response, on all presets, of a permanent group of control channels selected at the time of order; these are normally those channels controlling F.O.H. spotlights which are often required to change at a different rate from the remainder.

SP 80/3 80 channel, 3-preset, 2-group desk
SP 60/3 60 channel, 3-preset, 2-group desk
SP 40/3 40 channel, 3-preset, 2-group desk

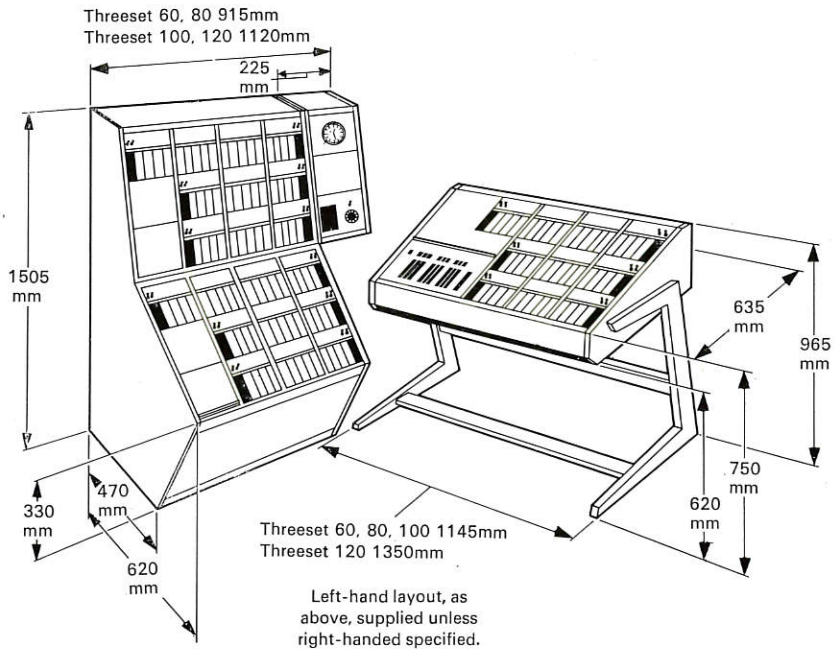
RANK STRAND THREESET



Threeset consoles, for 60, 80, 100 or 120 STM or XTM Thyristor dimmers, have three presets each with separate three-position switches to group to the three master faders provided for each preset. An additional master fader, making ten in all, is provided to inhibit the response, on all presets, of a permanent group of control channels selected at the time of order.

Each control channel has three identical dimmer levers, all with quadrant scales, and three lever-action switches. On each preset the three position switch, with a 30° separation between adjacent positions, is mounted immediately above the dimmer lever to ensure a clear indication of the grouping.

One preset, and all the master faders, associated group blackout switches and the dead blackout switch, are housed in a low-back, freestanding centre desk. The other two presets are mounted on the two slopes of a shaped wing unit. All controls are within reach of a seated operator, but the desk and wing arrangement does not preclude the help of an assistant. Provision is made to house other accessory controls which need to be within reach; a sweep-second clock, levers for auditorium and presentation lighting and a dimmer for local lighting are already fitted.



Left-hand layout, as above, supplied unless right-handed specified.

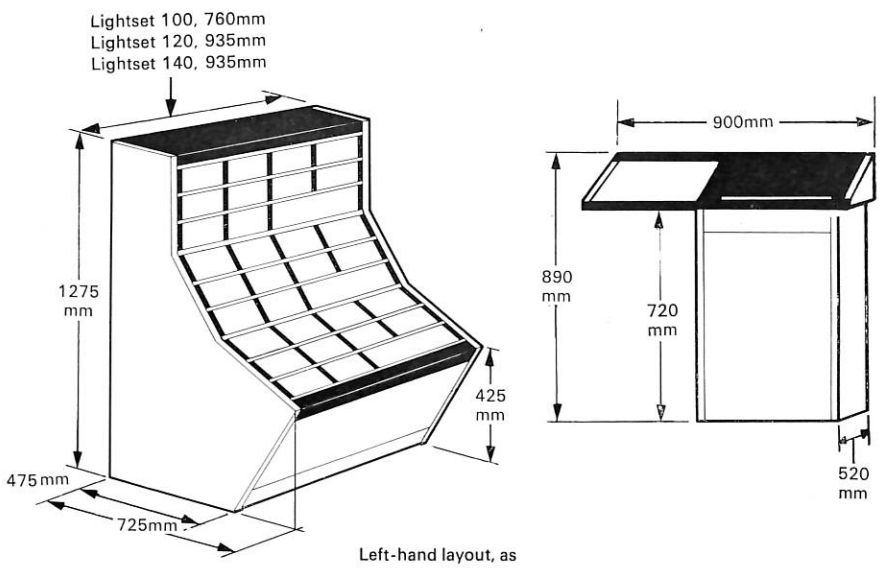
RANK STRAND LIGHTSET

Lightset consoles have 3-presets of luminous control units combining group selection and indication within the quadrant scale for each dimmer lever. The same plug-in units contain the solid-state switching and routing elements.

Grouping to the Red master fader, to the White master fader, to both faders simultaneously, or off (black) is separate for each preset. Group selection is by pressing momentarily, the appropriate master push together with the scale moulding of the control unit. Positive indication of this grouping is always given by red and/or white internal illumination of the scale. All White On, or Off, and All Red Off master pushes are provided for each preset; also a Transfer push which instantly transfers the existing white grouping to the Red master fader so as to free the White master fader for a new selection.

The six master faders can be grouped to either one of two grand master faders, or independent of them both. Another master fader is provided to inhibit the response, on all presets, of a permanent group of control channels.

A low-back desk, with hinged-top internal access, is provided for 40, 60 or 80 control channels. For 100, 120 or 140 control channels the 3-presets are housed in a shaped wing with a separate desk for the master controls. The power unit housed in the pedestal of the desk requires a local three phase and neutral supply.



Left-hand layout, as above, supplied unless right-handed specified.

RANK STRAND DIMMERS

STM THYRISTOR DIMMERS & RACKS

The new STM Thyristor dimmer is the successor to the original JTM dimmer introduced by Strand Electric in 1965. These, of which nearly 100,000 modules were made, were first in Europe to bring presetting and variable load dimming within reach of low budget installations. STM represents considerable improvement in technical performance especially in the temperature and long term stability of the trigger card.

Each STM dimmer module, for either 60/2000W or 60/5000W tungsten lamp load, is complete with inductive filter and is self-contained, i.e. is not dependent on any common power supply except the incoming 220/250v 50Hz phase to neutral mains supply. Each wall-mounting dimmer rack is internally wired as a complete distribution system from the three, two or single phase and neutral busbars through to the pressure-pad terminals for load, neutral and earth connections individual to each dimmer channel. All external connections are located behind the hinged fuse panel which is fitted with a 440v rated shrouded-contact fuse, or Zed type fuse if specified, to each channel. Ventilation of each 20-channel or 10-channel dimmer rack is now by natural airflow, or fan assisted where there is a high proportion of 5000 watt dimmers.

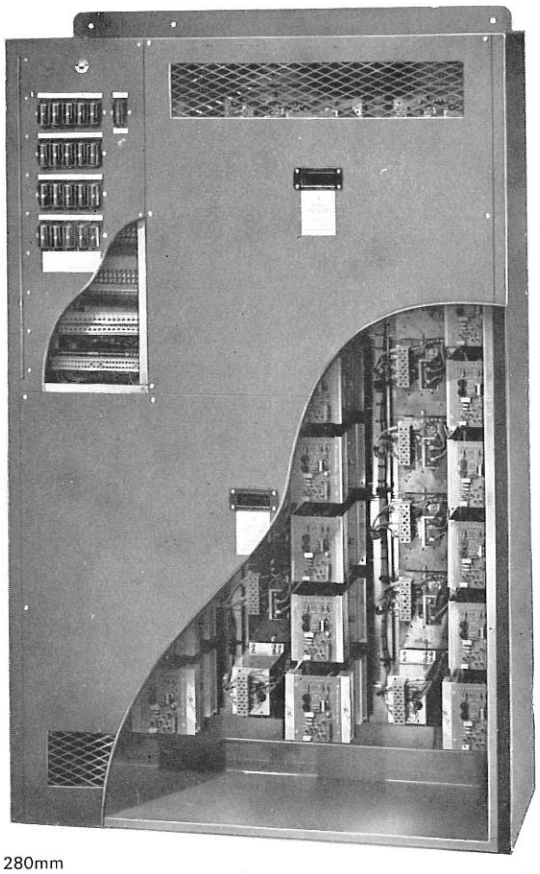
TU, PTU DIMMERS

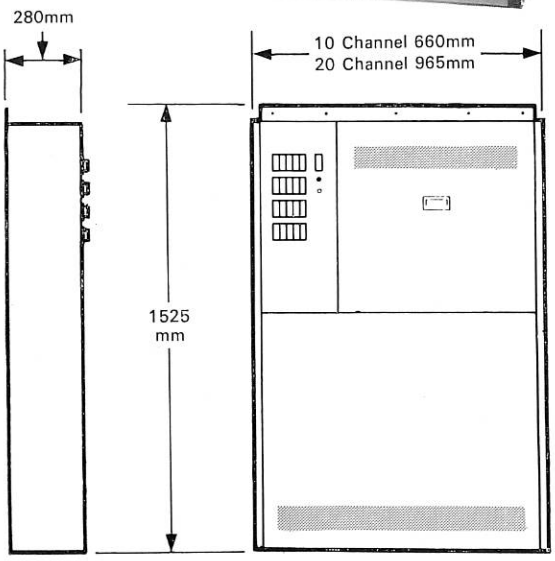
Similar dimmer modules, in individual wall-mounting enclosures, are available for controlling auditorium and presentation lighting. TU series are for simple control by a remote lever box. PTU series have an additional printed-circuit card to allow up, down or to preset level multi-position control from parallel-connected sets of push buttons.

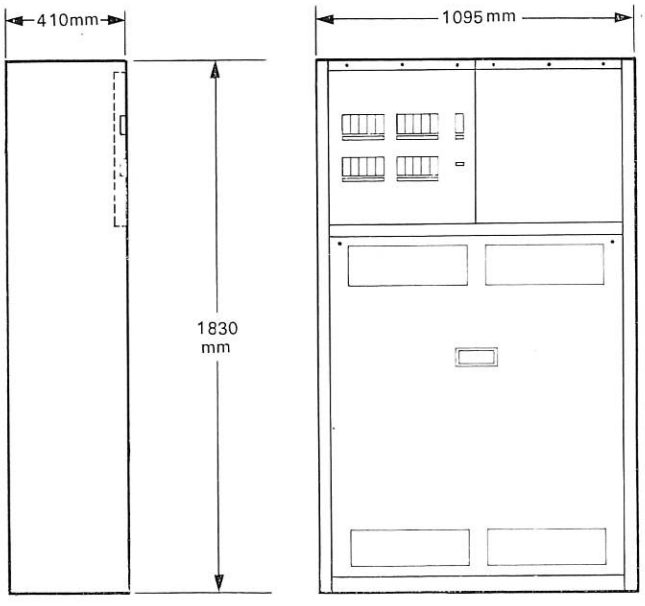
XTM THYRISTOR DIMMERS & RACKS

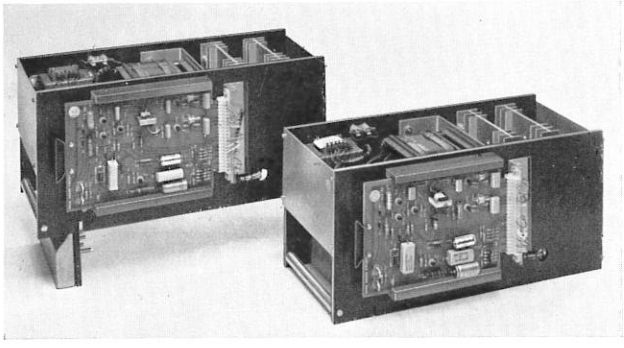
These dimmer modules and associated 20-dimmer racks meet the exacting requirements of repertoire theatres and broadcast television studios where large dimmer capacities and the highest standards of filtering and accessibility are required. They complement the high technical standards of Rank Strand dimmer memory systems.

The self-contained dimmer modules for 2500W, 5000W or double-width for 10,000W maximum, can either be plug-in or wire-in, and a choice of plug-in trigger cards is available for 'S' law, or for hard-firing with either closed-loop linear or square law. The 220/250v 50Hz 20-dimmer racks are internally wired, have a recessed fuse panel and require only front access.









RANK STRAND MEMORY SYSTEMS

The biggest advance in stage lighting control in recent years has been the ability to record instantly and recall on cue—equally instantly—the entire content of a stage picture. Dimmer intensity memory, commonly using a magnetic store, is nowadays no novelty but it has been expensive. Rank Strand were not only the first to provide lighting controls with memory action but their present range is unique in its comprehensiveness.

System DDM is based on software for a standard mini-computer and allows any degree of sophisticated control facility to be programmed in. A system such as Rank Strand's DDM although *capable* of being operated simply is offered on the assumption that lighting will become more and more sophisticated and that the operator will ultimately put up virtuoso performances using every facility to the full.

System MMS provides a wide-ranging choice of operational facilities, all including instant dimmer memory with random recall at a phenomenally low price. MMS stands for Modular Memory System and has the unique feature of consisting of a series of electronic bricks each with the operational controls on the face of the panel and the associated integrated circuitry on the reverse. The modules can all plug-in to a common digital data link and therefore there is a choice not only of the operational facilities but also the layout of the desk. It is perfectly possible to allow space for extra facilities to be added at a later date or even to substitute at any time other modules for those originally installed.

Space does not allow detailing in this catalogue of the relative merits of the various Rank Strand Memory Systems and reference should be made to our current brochure 'Dimmer Memory Lighting Control Systems'.

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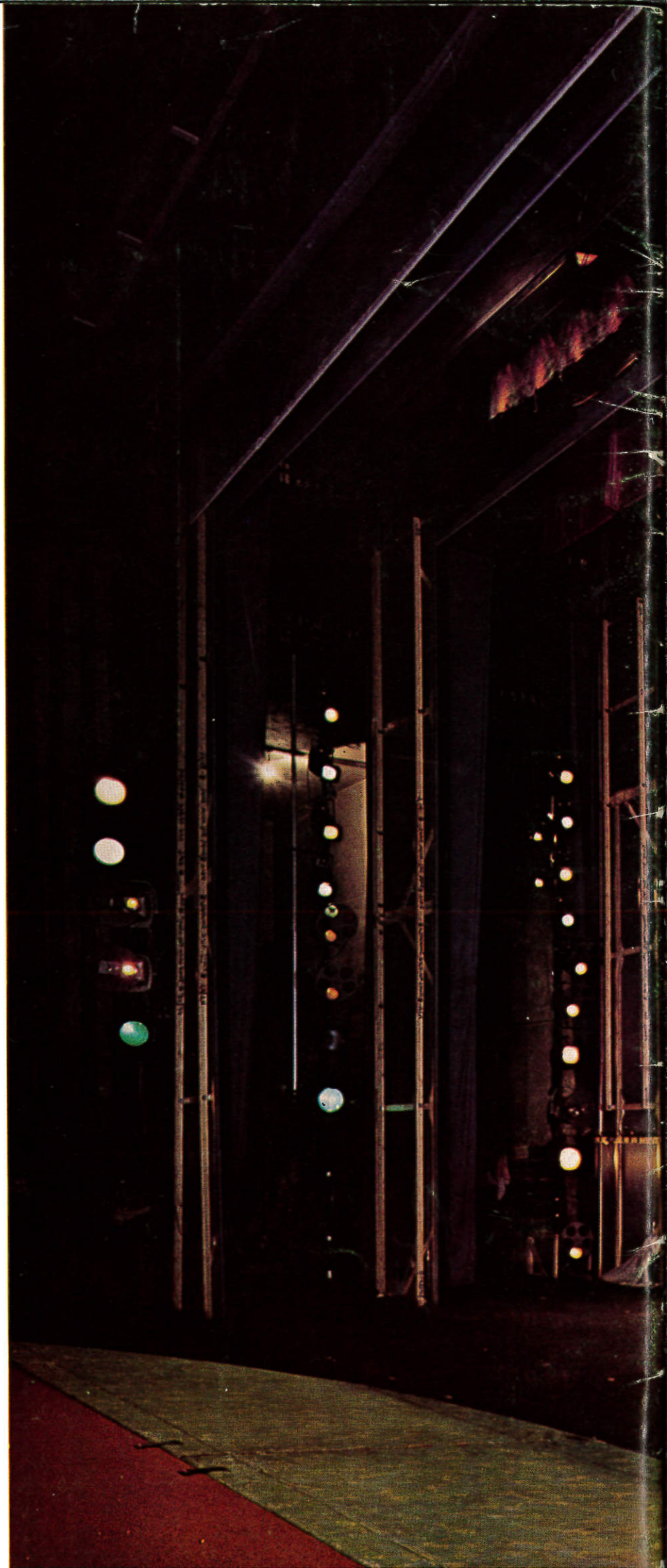

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The Company reserves the right to make any variation in design or construction to the equipment described.

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