

COLORARC 2000

XENON ARC FOLLOWSPOT

INSTALLATION AND OPERATING INSTRUCTIONS

FOLLOWSPOT

INSTALLATION AND OPERATING INSTRUCTIONS

1. INTRODUCTION

This manual gives the assembly and set-up procedures and the optical alignment of the COLORARC 2000 xenon followspot. The COLORARC 2000 contains high-voltage and high pressure components as well as emitting a considerable amount of ultra-violet light. It is therefore important that certain safety precautions are observed, both during installation and operation.

Before proceeding further, IT IS RECOMMENDED that the entire manual is read, to prevent accidental damage, either to the operator or the equipment.

2. FOR YOUR INFORMATION

NOTE	-	Signifies a procedure or condition that requires your special attention.
CAUTION	-	Signifies a procedure or condition that could damage the equipment if improperly performed.
WARNING	-	Signifies a procedure or condition that could cause bodily injury if improperly performed.

Figures in brackets refer to components identified in an Illustration.

3. SPECIFICATION

3.1	INPUT SIDE		
	1. Power supply voltage	:	200/220/240v $\pm$ 10%.
	2. Capacity	:	4200 VA.
	3. Input Current	:	20 amps.
	4. No. of phases	:	1 (one).
	5. Frequency	:	50/60 hz.
3.2	OUTPUT SIZE		
	1. No load voltage	:	100 VDC.
	2. Output voltage	:	30 VDC.
	3. Output current	:	70 ADC.
3.3	XENON LAMP:		
	1. Type	:	UXL - 2000PR.
	2. Rated lamp life	:	2000 hours.

4.1 SPOT HEAD AND STAND (Ill No. 1)

Loosen the handle (63) of the stand support arm (64). Insert the fixing plate (62) of the spot head between the clamping nuts (66) and the fibre washers (65) at the edge of the handle shaft. Set the spotlight head pivot retainer (67) in the U groove at the edge of the support arm. Support the spotlight head and lock it in position, using handle (63) to clamp the fixing plate (62).

4.2 COLOUR CHANGER (Ill Nos 1 & 7)

Insert the frame plate of the colour changer in the fixing groove (74) at the front edge of the spot light head. Secure by tightening the screw (73).

4.3 REFLECTOR (Ill Nos 2 & 4)

Open the door of the spotlight head and loosen four reflector clamps (58) and position the reflector in the reflector frame (59) and then retighten the clamps.

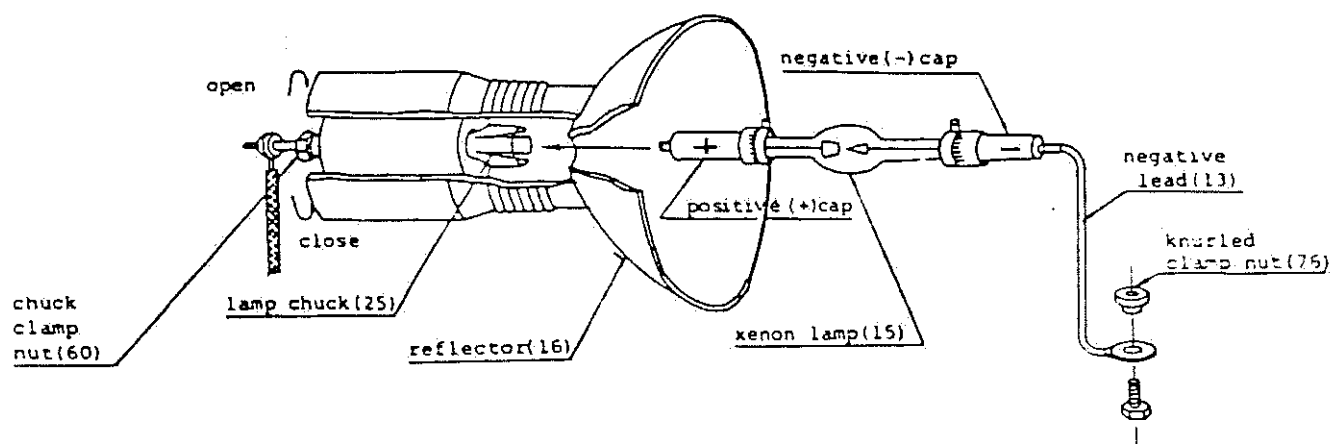
4 HEAT DEFLECTOR

Fix the heat deflector (10) on to the heat deflector frame (10-1).

4.5 XENON LAMP INSTALLATIONWARNING

The xenon lamp is a high pressure discharge lamp. The following precautions MUST BE OBSERVED when handling the lamp.

1. The lamp must be retained in its protective plastic envelope until it is installed in the lamp house.
The plastic envelope should be retained for future use.
2. Use protective gloves and a face mask when handling the lamp.
3. Do not open the lamphouse door immediately after extinguishing the lamp.



- 4.5.1 The xenon lamp has an integral lead fitted to the negative (-) cap (smaller cap). The lamp should be installed with the negative lead towards the front of the followspot.
- 4.5.2 Loosen the chuck clamp (60). Insert the positive (+) cap of the xenon lamp in to the chuck and retighten the chuck clamp nut.
- 4.5.3 Secure the negative lead to the DC terminal, using the knurled nut (76) supplied with the lamp.
- 4.5.4 Ensure that the negative lead is clear of the surrounding metal casing, to avoid H.V. leakage.

CAUTION

The chuck clamp and negative lead must be secure. Loose connections may result in overheating and failure of the lamp and chuck assembly.

4.6 FIXING OF SAFETY RINGS (Ill No 1)

The safety locking ring (38) serves to prevent the spotlight head from falling down, should the pedestal height locking lever be loosened suddenly. As soon as the operating height of the spotlight is fixed, the safety locking ring (38) should be secured.

4.7 BALANCE ADJUSTMENT (Ill No 2)

NOTE

Balancing should be carried out with the colour change unit in position.

- 4.7.1 Loosen the handle (63) which locks the spotlight head in position and check the balance of the head.
- 4.7.2 Loosen the weight clamping screws (44) and move the weight plate (45) until the balance is achieved.

5. CONNECTIONS

- 5.1 Fit a suitable plug to the mains lead of the switching regulator in accordance with the following colour code:-

RED	-	LIVE
WHITE	-	NEUTRAL
BLACK	-	EARTH

- 5.2 Wiring connections between the spotlight head and the switching regulator must be made with reference to the wiring diagram (Ill No 3). This equipment MUST be earthed.

6. VOLTAGE SELECTION (Ill No 3)CAUTION

During input voltage selection, the switching regulator should be disconnected from the mains power supply.

6.1 Open the front panel of the regulator and set to the correct input voltage as follows:-

6.2 Confirm the supply voltage is within the following limits:-

90v - 130v	:	Move switch S1 to "100V LINE" (Right).
	:	Move switch S2 either to "120V" or "100V".
180v - 260v	:	Move switch S1 to "200V LINE" (Left).
	:	Set rotary voltage selector (TCH) to either 200 - 220 - 240v.

CAUTION

1. Permissible input fluctuation to the selected voltage is $\pm 10\%$.
2. The S2 and the TCH are independent. When "100V LINE" is selected, there is no need to control the TCH. Likewise, when "200V LINE" is selected, there is no need to control the S2.
3. To control the TCH use a screw driver and select the desired voltage by setting it to the ▲ mark.
4. If, by error, 200v (180v - 260v) power is supplied while "100V LINE" is preselected, an integral alarm buzzer will give warning and operation will not be possible. In such a case, immediately cut off the mains power supply and select "200V LINE" by the S1 and then set to an appropriate input, using the TCH.

7. PREPARATION FOR IGNITION

- 7.1 Switch on the regulator power switch. Switch on the power switch (32) on the spotlight head.
- 7.2 Check that the power pilot lights are illuminated.
- 7.3 Check the correct connection of the DC power supply lines by means of a tester at the positive and negative terminals of the xenon lamp.
- 7.4 Check the correct connection of the remote control wiring.

- 7.5 Confirm that the cooling fan motors in the spotlight are functioning normally.

8. IGNITION AND ADJUSTMENT OF LAMP CURRENT (Ill Nos 1 & 3)

- 8.1 Select the standby switch (34) on the spotlight head to FULL. Open the iris shutter (5) and close the cutting shutter (6).
- 8.2 Press the arc start button (30). The xenon lamp will ignite.
- 8.3 The useful range of the lamp current for the 2kw xenon lamp is 60v - 70v. Adjust the output current of the regulator by means of the output current control and D.C. ammeter.

9. ADJUSTMENT OF XENON ARC STABILISER. (Ill Nos 2, 4 & 8)

NOTE

The xenon arc stabiliser is necessary to ensure that the arc remains stable.

- 9.1 If the xenon arc deviates either upward or downward under STANDBY current, adjust the position of the xenon arc stabiliser magnet (27) located behind the reflector, until the arc appears level. Also check the arc under FULL current lighting.
- 9.2 If the arc is not stabilised under full current lighting, it is necessary to regulate the voltage adjust screw on the coaxial electromagnet power supply (40) by means of a screwdriver. A clockwise turn of the screw increases the magnetic field of the coil of the electromagnet. An excessively strong magnetic field may sometimes cause rotation of the xenon arc. Optimum power supply voltage is DC 8v $\pm$ 2v, measured at the terminals of the coaxial electromagnet.



INCORRECT ARC CONDITION



CORRECT ARC CONDITION

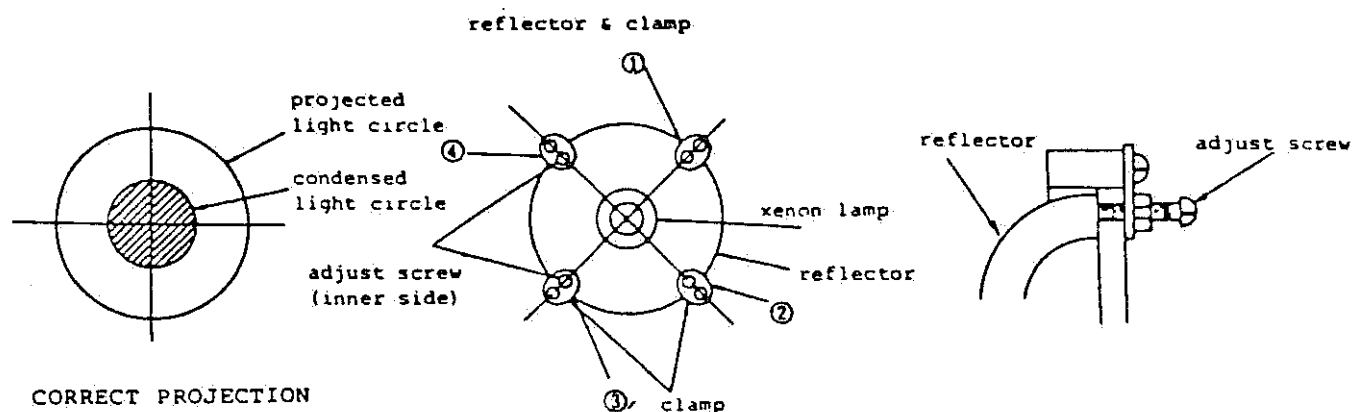
10. OPTICAL ALIGNMENT AND ADJUSTMENT (Ill Nos 2, 4 & 6)LAMP

- 10.1 Reduce lamp current to HALF (standby) level when making optical alignments and adjustments.
- 10.2 The cutting shutter (6), the iris shutter (5) and the douser (31) must be fully opened.
- 10.3 Open the rear door and adjust the light distribution by means of the following controls;
 LAMP RIGHT/LEFT adjust knob (20), LAMP UP/DOWN adjust knob (23); LAMP FORWARD/BACK adjust knob (21).
- 10.4 If light distribution is uneven or not uniform, then the reflector position should be adjusted.

Step 10.3 (above) should then be repeated.

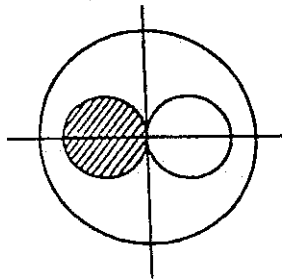
REFLECTOR

- 10.5 Adjustment to the reflector position is made while the xenon lamp is operating. If the centre of the hot spot does not come to the centre of the projected light circle, or a uniform distribution is not obtained, i.e. brightness deviates to either one side or the other, or luminosity is very low, even after the xenon lamp has been adjusted, then reflector adjustment is required. The adjustment can be made by means of the reflector clamps and the adjust screws (4 no.). Once the reflector is correctly positioned, no further adjustment should be needed, except in the event of reflector replacement.

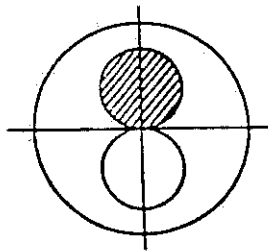


10.6

The correct light projection is shown above. If correctly aligned, even when the xenon lamp is moved in the longitudinal axis, the hot spot should always stay in the centre of the spotlight circle. If the hot spot deviates from the centre as the LAMP FORWARD/BACK knob (21) is adjusted, the following procedure should be adopted:



LATERAL DEVIATION



VERTICAL DEVIATION

Condensed light circle deviates laterally as shown in the left.

Shaded circle push the adjust screws of positions (1) and (2).

Solid line circle push the adjust screws of positions (3) and (4).

Condensed light circle deviates vertically as shown in the left.

Shaded circle push the adjust screws of positions (2) and (3).

Solid line circle push the adjust screw of positions (1) and (4).

ZOOM LENS

- 10.7 Pull the zoom lever (72) towards the rear of the front nose cover and focus with the focus handle (43).
- 10.8 Move the zoom lever towards the front of the front nose cover and focus at the minimum spot diameter by turning the zoom adjust knob (50).
- 10.9 Correction of the zoom can be made by setting the zoom lever (72) at the neutral (central) position and then turning the focus adjust handle (43).

- 10.10 The function of the focus adjust knob (50) is to regulate the movement ratio between the front and rear zoom lenses. The function of the focus adjust handle (43) is to establish focus with the iris shutter, the effect plate aperture and the cutting shutter.

11. REGULATION OF FULL AND HALF (STANDBY) CURRENT (Ill Nos 1 & 4)

- 11.1 Changeover of the FULL and HALF current is made by the standby switch (34) on the spotlight head.
- 11.2 During operation, the switch (34) must be selected to the FULL position. When the light is completely shielded by the iris shutter, the lamp current automatically drops to the HALF current mode.
- 11.3 The STANDBY current is preselected to 40 amps.

12. EXTINGUISHING (Ill No 1)

- 12.1 During a performance the xenon lamp may be ignited and extinguished by using the power switch (32) and the arc to start push button (30) on the spotlight head.
- 12.2 If the followspot is switched off after it has reached its operating temperature, then several minutes should be allowed for the lamp to cool sufficiently before the arc is able to restrike. If the period of time between followspot cues is too short to allow the lamp to cool sufficiently, then the STANDBY switch should be turned to HALF and the DOUSER (31) used.
- 12.3 After a performance, or overnight, both the power switch (32) on the spotlight head and the power switch on the regulator should be switched OFF.
- 12.4 Forced air cooling of the xenon lamp must be continued for 5 minutes after extinguishing.

13. DESCRIPTION AND OPERATION OF CONTROLS (Ill Nos 1 & 2)

13.1 IRIS SHUTTER (5)

The iris shutter is used to regulate the spot diameter to the desired size. The shutter may also be used for completely blacking out the light. The maximum opening of this shutter is factory-preset to 25mm diameter. As the iris shutter is closed almost to zero, the microswitch (4) switches the lamp from FULL to HALF (standby) current. The point at which the microswitch operates may be adjusted by repositioning the microswitch location and the sensor arm.

13.2 CUTTING SHUTTER

By using this shutter, a rectangular shaped beam can be projected. This shape can be regulated to any desired size by moving the cutting shutter blades.

The cutting shutter should also be used to protect the iris shutter blades from excessive heat.

13.3 DOUSER (31)

The douser is used to fade-in or fade-out the projected light beam. The douser may also be used to protect the iris shutter blades from excessive heat.

13.4 ZOOM ADJUST KNOB (50)

The ratio between the front and rear lens must be varied to match the projection throw. When the projection throw has been fixed, focusing is carried out using this knob.

13.5 ZOOM LEVER STOPS (80)

The zoom lever stops are provided on the slot for the zoom lever, to allow the operator to determine the limits of the zoom function. To change the stop position, loosen the set screw, move the stop and retighten.

13.6 FOCUS ADJUST HANDLE (43)

Focusing with the iris shutter (5), the cutting shutter (6), the effect plate (79) is achieved by the use of this handle. Where required, a 'soft-focus' effect is also possible.

13.7 XENON LAMP SUPPORT (82)

This support is necessary when the spotlight head must be transported with the xenon lamp in position in the lamphouse. The Y shaped support must make a light contact with the arc lamp cap after the optical alignment has been completed. When the lamp position is to be readjusted, right/left or up/down, the lamp support must be removed.

13.8 EFFECT PLATE SLOT

Effect plates, having various aperture shapes cut in them, for example, star, triangle, rectangle etc., may be inserted in this slot. To obtain focus on the effect plate, pull the zoom lever (72) backwards and then adjust the focus with the focus adjust handle (43).

13.9 COLOUR CHANGER (Ill Nos 1, 2 & 7)

- 13.9.1 To set a particular colour frame in position, press down the appropriate colour operating lever (70). Pressing a second lever will automatically release the first colour frame from its operating position.

- 13.9.2 Colour filter medium can be replaced with the colour changer attached to the spotlight head, but it is easier if the colour changer is first removed from the spotlight head.
- 13.9.3 Removal or replacement of the colour frame (70) must be carried out with the colour frame in the "UP" position. Pull the colour frame release knob (69) to release the clamping pin set into the groove and to release the lock. The colour frame may now be removed from the pivot shaft.
- 13.9.4 For left-handed operation, the colour frames may be dismantled and repositioned on the opposite side of the colour changer.
- 13.9.5 When the 245mm colour filter medium frame is to be used, it should be placed in the frame holder (57).

13.10 HOUR METER

- 13.10.1 The hour meter is installed on the left hand side (when viewed from the rear) of the followspot lamphouse. It shows, in hours, the cumulative running time of the xenon lamp, when operating at FULL lamp current.
- 13.10.2 It is not possible to return the hour meter to zero and so, when a new lamp is installed, a note of the hour meter reading should be taken and used as the starting point for the life of the new lamp.
- 13.10.3 A mains frequency selector is incorporated in the hour meter and is accessible by removing the rear lower cover on the lamphouse.

14. SAFETY PRECAUTIONS

- 14.1 The arc lamp must be retained in its protective plastic envelope until it is installed in the lamphouse.
- 14.2 Use protective gloves and a face mask when handling the lamp.
- 14.3 Do not open the lamphouse door immediately after extinguishing the lamp.
- 14.4 Do not operate the xenon lamp in excess of the specified rated operating current. The rated current of the UXL-2000PR is 70 amps.
- 14.5 The xenon lamp requires forced air cooling. Do not operate the followspot if the cooling fan motors are out of operation.

WARNING

The xenon lamp emits a considerable amount of ultra-violet rays which are hazardous to unprotected human eyes.

Do not watch the xenon light without protective glasses.

15. TERMINATION OF ARC LAMP LIFE

- 15.1 The rated life of the xenon lamp is approximately 2000 hours. The lamp is considered to be near the end of its useful life, and should be replaced immediately, when any of the following symptoms are observed:-

<u>SYMPTOM</u>	<u>CAUSE</u>
1. Light output flickers.	Electrode tip worn.
2. Inner surface of lamp appears blackened and light output is reduced.	Electrodes vaporised.
3. Lamp voltage exceeds the specified maximum rating.	Tip of negative electrode worn
4. Lamp fails to start easily	

16. MAINTENANCE

- 16.1 The reflector, xenon lamp and the lenses should be kept free of dust, oil, grease etc, using alcohol and a soft cloth.

- 16.2 Avoid touching the quartz wall of the xenon lamp envelope with bare hands.

Reducing agents, such as sodium, adhering to the fingertips may be transferred to the quartz, causing devitrification. If contamination occurs, the quartz should be cleaned immediately, using alcohol and a soft cloth.

- 16.3 Ensure that all electrical connections are tight and that plugs and cables are undamaged.

17. STORAGE

- 17.1 When the spotlight must be stored for a prolonged period of time, the xenon lamp must be removed from the spotlight head and stored separately, in its original plastic envelope, in a safe place.

- 17.2 Setting up and operating the followspot after a period of storage requires the same care and procedure as the initial operation.

18. FAULT FINDING AND RECTIFICATION

SYMPTOM	CAUSE	CHECK POINTS	ACTION
No discharge	i. No supply voltage present.	a. Check power switch	a. Turn power switch to on
		b. Check fuse.	b. If fuse is blown, replace, using specified fuse.
	ii. Switching regulator does not operate.	a. Check power switch on switching regulator.	a. Switch on power switch (cooling fan motors on switching regulator and lamp house should operate.
		b. Check that voltage selector is correctly set and and matches mains supply voltage	b. Set selector to correct position
		c. Check fuse on switching regulator	c. If fuse is blown, replace, using specified fuse
	iii. Door switch of spotlight is OFF	a. Check door switch position.	a. Close door completely to switch on.
	iv. Ignition does not function.	a. High frequency pulse should be heard when the arc start push button is pressed. Check whether 100V AC is present at the ignitor high voltage unit.	a. If 100V AC is preset, the high voltage unit should be replaced.
	v. Faulty contact in electrical circuit.	a. Check all terminal connections.	a. Tighten connections.

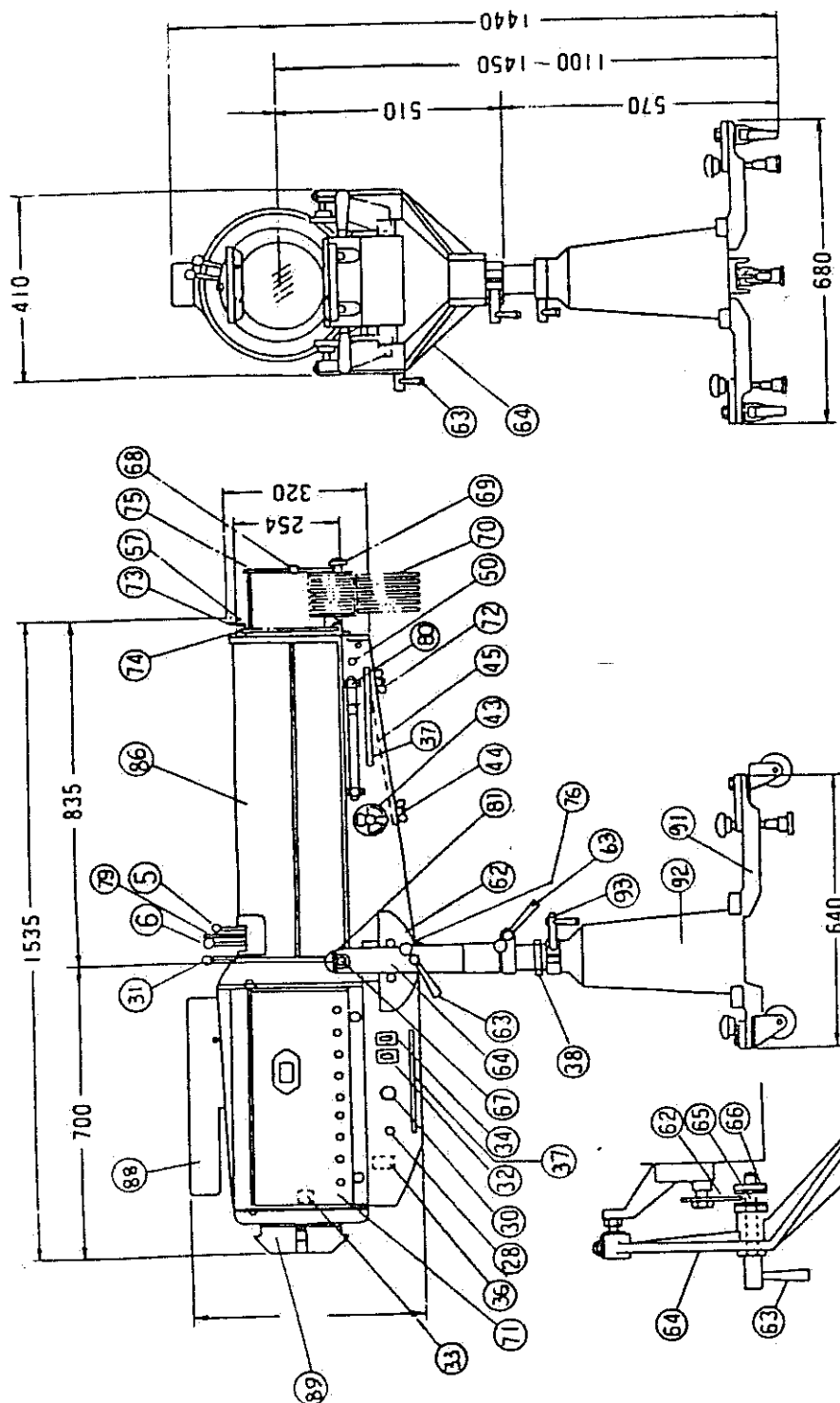
18. Fault Finding and Rectification (Continued)

SYMPTOM	CAUSE	CHECK POINTS	ACTION
Ignitor operates normally but xenon lamp does not ignite	i. Open circuit of 100V DC is not present on (+) (-) terminals	a. Failure of switching regulator components. b. Check switching regulator fuses.	a. Replace defective components b. If fuse is blown replace, using specified fuse.
	ii. End of lamp life imminent.	a. High frequency pulse voltage spark is established between lamp electrodes.	a. Install new xenon lamp.
	iii. Output current is regulated too low.	a. Raise output current.	a. Turn current adjuster clockwise to increase current.
	iv. Faulty contact in output DC cables or insufficient contact of xenon lamp.	a. Check and confirm.	a. Repair or tighten as necessary.

19. SPARE PARTS LIST

See Appendix No. 1.

THE OF SHTS



TITLE COLORARC 2000 FOLLOWSPOT :
GENERAL ARRANGEMENT.

Fuse
Theatre Equipment
W. I. Fuse & Co. Ltd. Wilford Road, Nottingham.

ORG. No. ILL. No. 2. SHT OF SHTS

MATERIAL:

FINISH:
PROCESS:

Spec:

COLOUR:

TOOLING:

GENERAL NOTES

1. All dimensions in mm.
2. All dimensions subject to tolerance ± 0.13 (except hole centres, hole diameters and material not shown).
3. Hole centre tolerance ± 0.12
4. Fit to be a P.C.D. to be within 0.1 of true position.
5. Hole diameter tolerance -0 ± 0.1
6. Machined diameters to be commensurate with D1 T1/A.
7. Angular tolerance ± 1 .
8. Surface finish to BS2643 mirror finish RH 0.05.
9. All dimensions shown are before any external finish.

10. REMOVE ALL BURRS
 & SHARP EDGES.

COMPONENT REF.

PROJECT/SITE

DRM.

CKD.

APP.

DATE _____

SCALE

Aug. '85.

DRG. No.

ILL. No 2.

第41下

SLIMS

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COLORARC 2000 FOLLOWSPOT:
LAMPHOUSE & PEDESTAL.



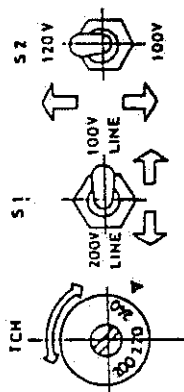
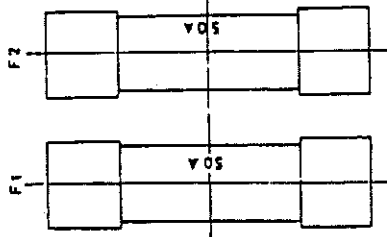
Five
Theatre Equipment

W. J. Furse & Co. Ltd., Willford Road, Nottingham.

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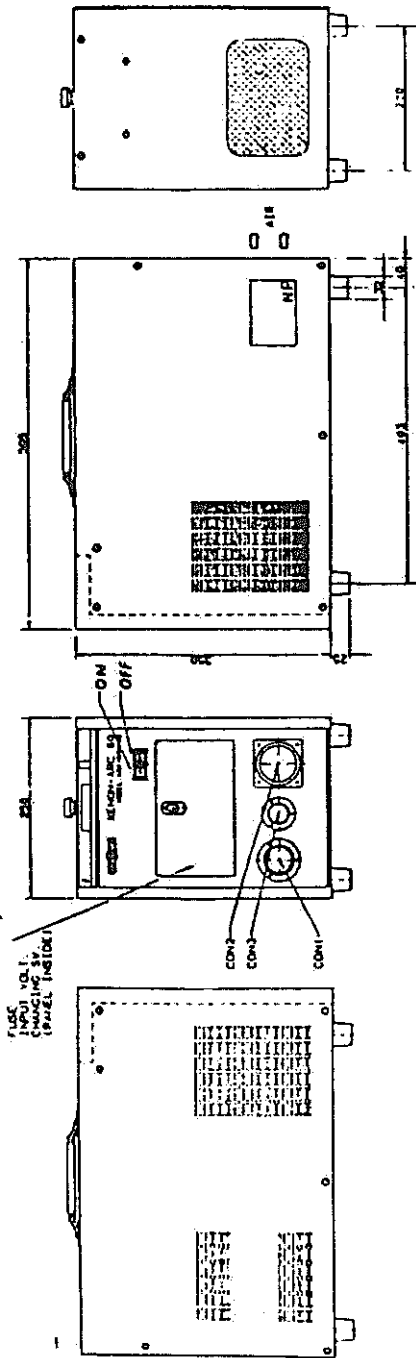
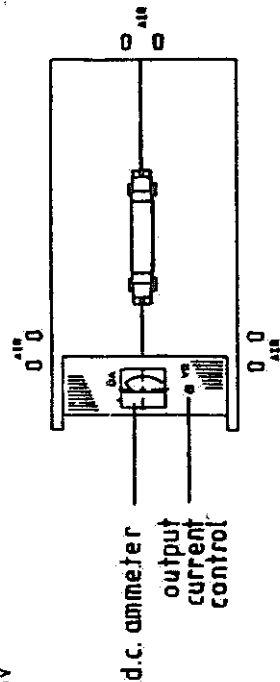


IF
IN DOUBT
ASK



TCH: 200V LINE SYSTEM 200 220 240V
ROTARY SELECTOR

CON 1 8mm² x 3 core x 5m TO MAINS
CON 2 22mm² x 2 core x 3m POWER TO LAMP
CON 3 0.75mm² x 6 core x 3m CONTROL WIRING



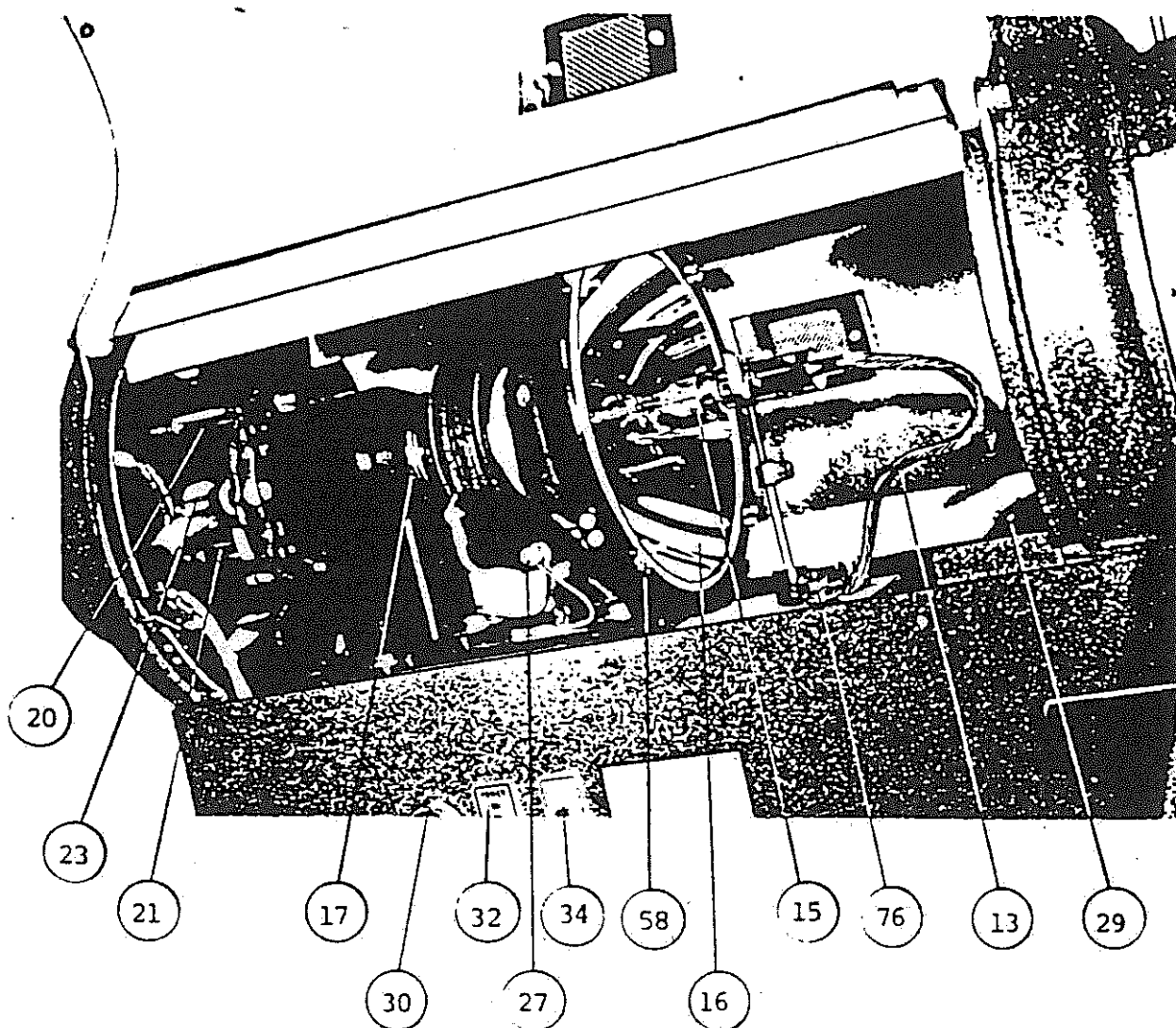
TITLE COLORARC 2000 FOLLOWSPOT: REGULATOR, VOLTAGE SELECTION & CONNECTION.

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W. J. Furse & Co. Ltd., Willford Road, Nottingham.

DRG. No. ILL. No. 3.	SHT OF SHTS
MATERIAL:	
FINISH:	
PROCESS:	
SPEC:	
COLOUR:	
TOOLING:	
GENERAL NOTES Unless stated otherwise:- 1. All dimensions in mm. 2. All dimensions subject to tolerance 10.12 D.D. (except hole centres, hole diameters and material about slots). 3. Hole numbers tolerance 10.12. 4. Notes on a P.C.B. to be within 0.1 of a true position. 5. Hole diameter tolerance -0 +0.1. 6. Machined dimensions to be dimensioned within 0.125. 7. Angular tolerance 1:1. 8. Surface finish to be 0.8 Ra or better. 9. All dimensions shown are unless any stated finish. 10. REMOVE ALL BURRS & SHARP EDGES.	
COMPONENT REF.	
PROJECT/SITE	
DRN.	CKD. APPD.
DATE	SCALE
Aug. '85.	
DRG. No. ILL. No. 3.	SHT OF SHTS



- 13. Negative (-) Lead
- 15. Xenon Lamp, UXL-2000 PR
- 16. Reflector
- 17. Arc Stabiliser Electromagnet
- 20. Xenon Lamp Right/Left Adjust Knob
- 21. Xenon Lamp Forward/Back Adjust Knob
- 23. Xenon Lamp Up/Down Adjust Knob
- 27. Arc Stabiliser Permanent Magnet
- 29. Cooling Fan Motor
- 30. Arc Start Push Button
- 32. Power Switch
- 34. Full/Half Switch
- 58. Reflector Clamp
- 76. Clamp Nut



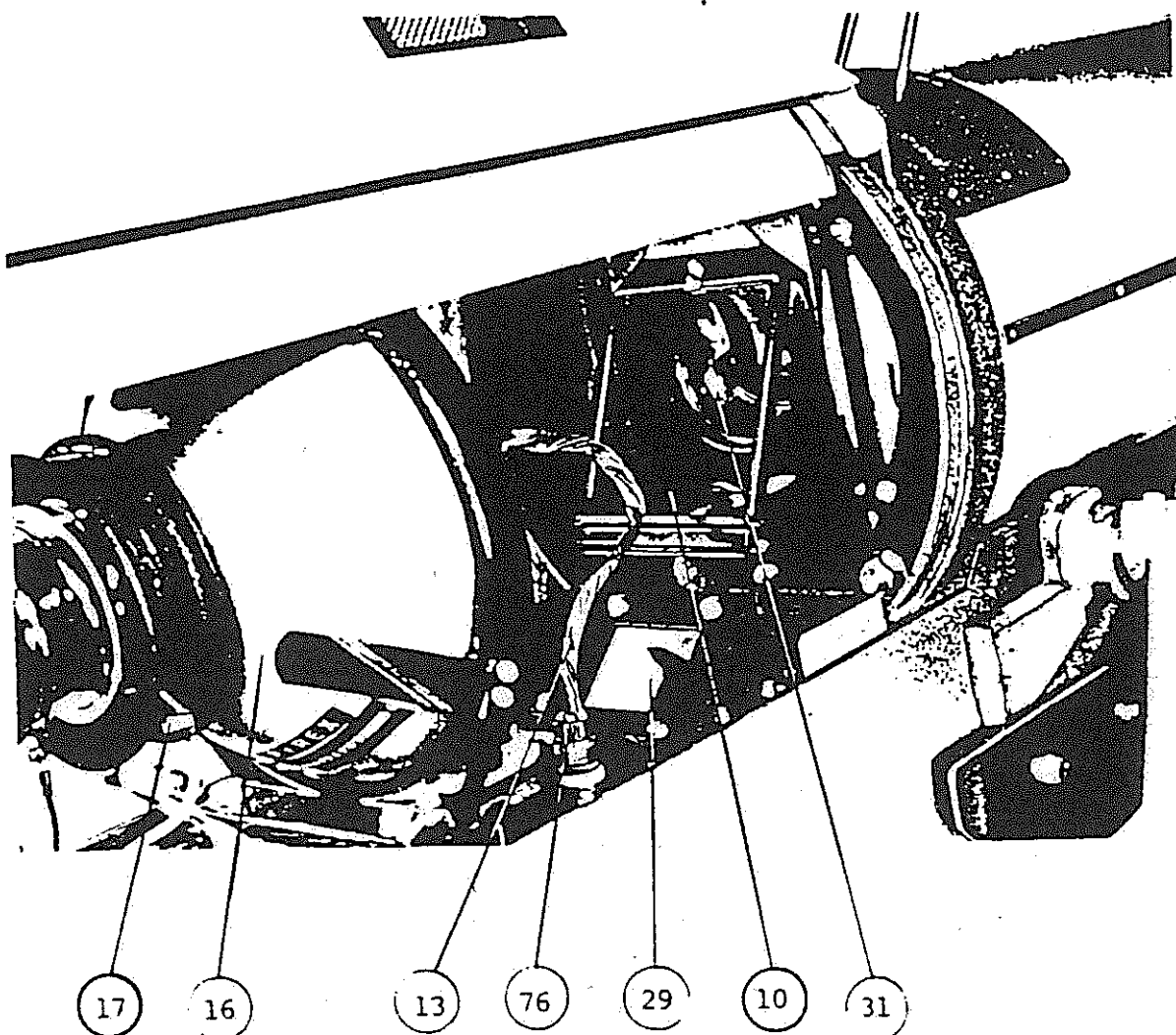
THEATRE EQUIPMENT

DATA SHEET

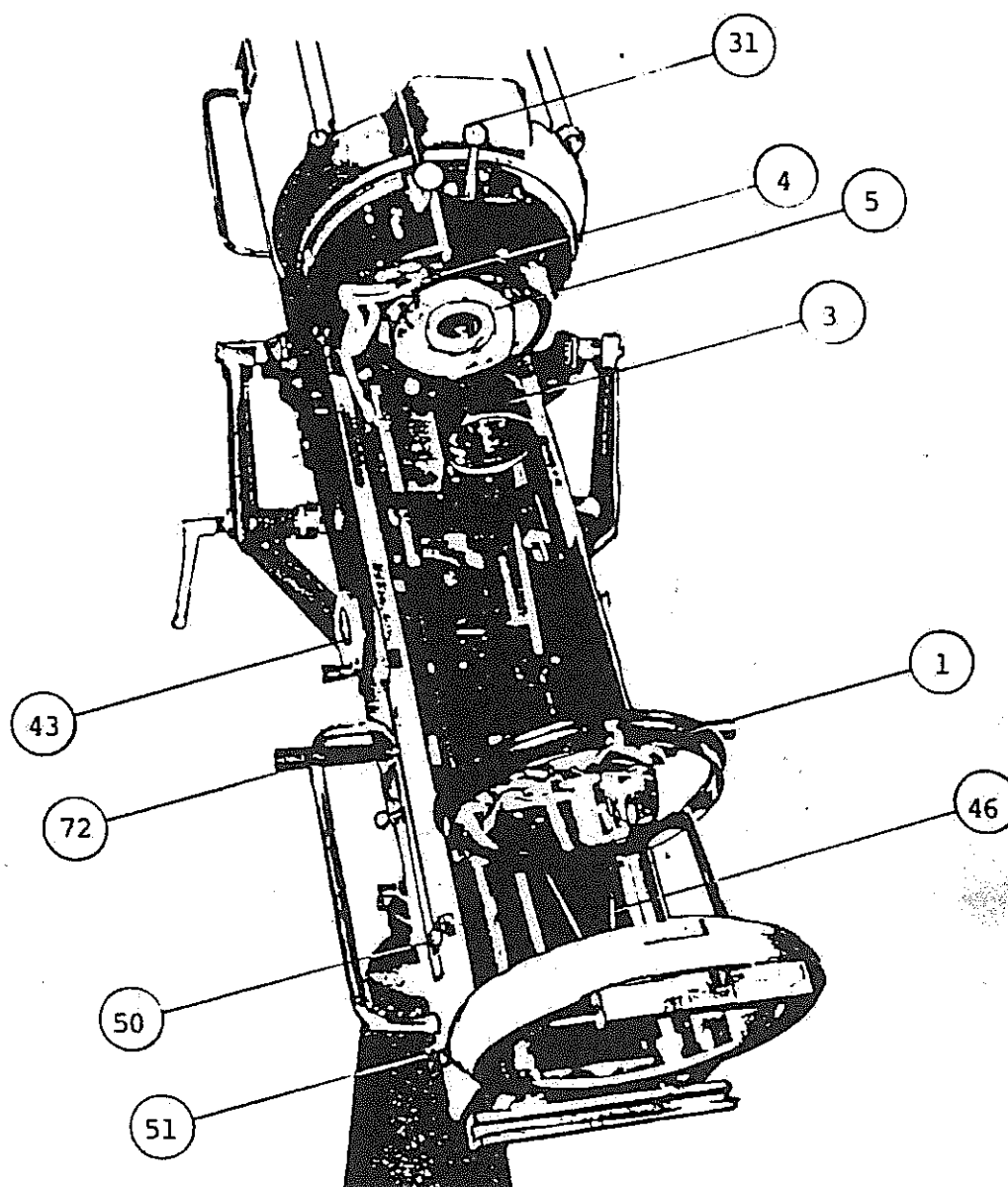
FOLLOWSPOT OPTICAL ASSEMBLY

DS 65/19

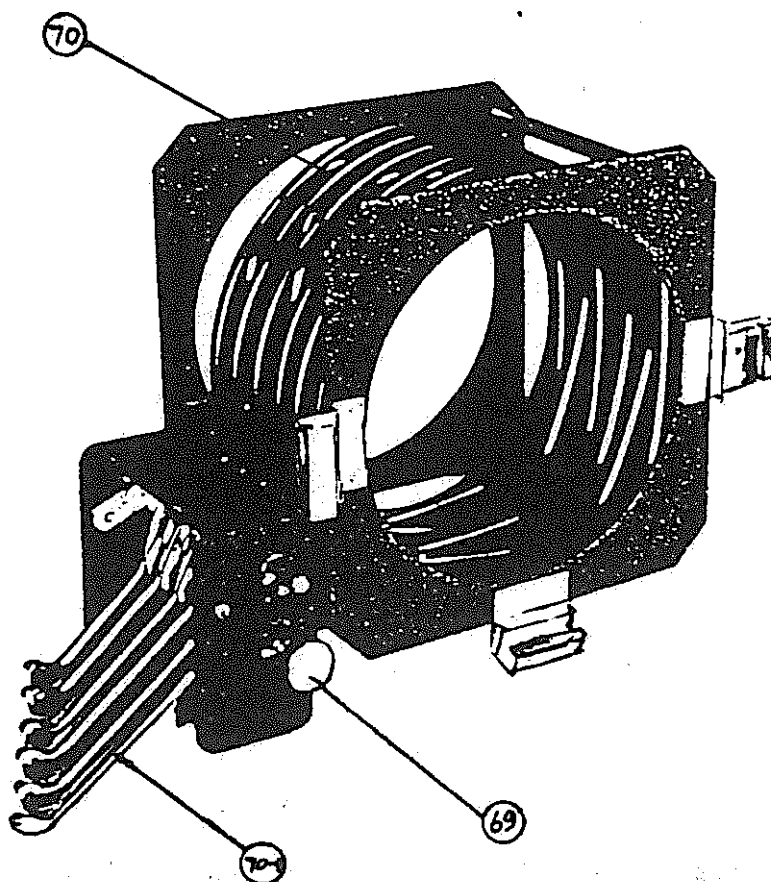
ILL. N° 5.



- 10. Heat Deflector
- 13. Negative (-) Lead
- 16. Reflector
- 17. Arc Stabiliser Electro-Magnet
- 29. Cooling Fan
- 31. Douser Blade
- 76. Clamp Nut



- 1. Front Zoom Lens
- 3. Rear Zoom Lens
- 4. Microswitch
- 5. Iris Shutter
- 31. Douser Handle
- 43. Focus Adjust Handle
- 46. Zoom Wire
- 50. Zoom Adjust Screw
- 51. Pilot Lamp (Full/Half)
- 72. Zoom Lever Shaft

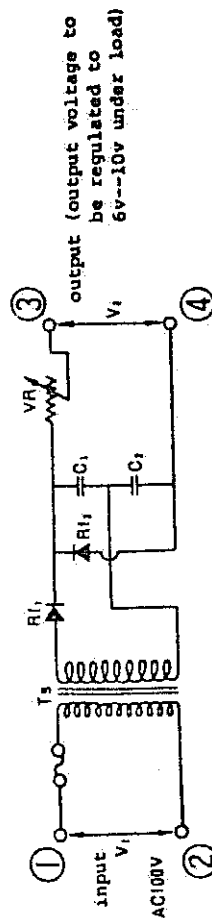
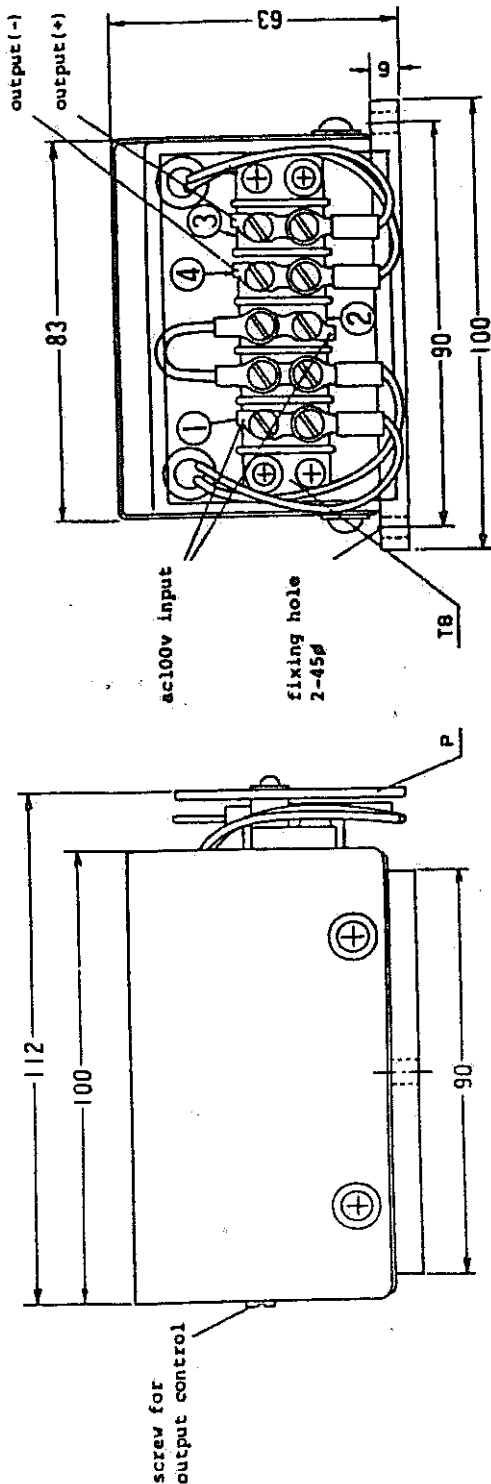


- 69. Colour Frame Release Knob
- 70. Colour Medium Frame
- 70-1 Colour Operating Lever



IN IF
DOUBT
ASK

DRG. No.	ILL. No. 8.	SHT OF SHTS
MATERIAL:		
FINISH:		
PROCESS:		
SPEC:		
COLOUR:		
TOOLING:		
GENERAL NOTES Unless stated otherwise:- 1. All dimensions in mm. 2. All dimensions subject to tolerance ± 0.12 (except hole centres, hole diameters and material sheet sizes). 3. Hole centre tolerance ± 0.19 . 4. Holes on a P.C.D. to be within 0.1 of a true position. 5. Hole diameter tolerance $-0 +0.1$. 6. Machined chamfers to be dimensioned within 0.1 T.P.R. 7. Angular tolerance $\pm 1^\circ$. 8. Screw threads to BS2443 coarse pitch M 6H/6g. 9. All dimensions shown are before any initial finish. 10. REMOVE ALL BURRS & SHARP EDGES.		
COMPONENT REF.		
PROJECT/SITE		
DRN.	CKD.	APPD.
DATE	SCALE	
Aug. '85.		
DRG. No.	ILL. No. 8.	
SHT	OF	SHTS



TITLE COLORARC 2000 FOLLOWSPOT :
POWER SUPPLY FOR CO-AXIAL
ELECTRO-MAGNET.

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Furse Theatre Equipment

W. J. Furse & Co. Ltd., Wilford Road, Nottingham.

ISSUE	DATE	NOTE	DRN	REVISION	REVISION	DRN

PARTS LIST

<u>PART NO.</u>	<u>DESCRIPTION</u>
1	Zoom lens - front.
2	Zoom guide shaft.
3	Zoom lens - rear.
4	Micro switch.
5	Iris shutter.
6	Cutting Shutter
7	Spring.
8	Light shield plate.
9	Correction lens.
10	Heat deflector.
11	Arc viewing glass.
12	Heat plate.
13	Negative (-) lead: integral part of lamp.
14	Ignitor bakelite plate.
15	Xenon lamp.
16	Reflector.
17	Arc stabiliser electromagnet coil.
18	Spring.
19	Spring.
20	Xenon lamp right/left adjust knob.
21	Xenon lamp forward/back adjust knob.
22	Positive (+) lead.
23	Xenon lamp up/down adjust knob.
24	Spring.
25	Chuck assembly.
26	Cooling fan motor.
27	Arc stabiliser magnet.
28	Power pilot lamp.
29	Cooling fan motor.
30	Arc start push button.
31	Douser.
32	Power switch.
33	Door switch.
34	Full/half (standby) switch.
35	Tesla coil.
36	Hour meter.
37	Handrail.

<u>PART NO.</u>	<u>DESCRIPTION</u>
38	Safety locking ring.
39	Wire, guide pulley.
40	Power supply for coaxial electromagnet.
41	Zoom spring.
42	Zoom pulley.
43	Focus adjust handle.
44	Weight clamping screw.
45	Weight.
46	Zoom wire.
47	Zoom, nylon stop.
48	Guide pulley.
49	Guide pulley.
50	Zoom adjust knob.
51	Pilot lamp (full/half).
54	Stand clamping knob.
55	Castor.
56	Hood.
57	Colour filter medium holder.
58	Reflector clamp.
59	Reflector frame.
60	Chuck clamp nut.
61	Terminal board for operation circuit.
62	Spotlight body fixing plate.
63	Locking handle.
64	Stand support arm.
65	Fibre washers.
66	Clamping nut.
67	Spotlight head - pivot retainer.
68	Colour filter medium frame retainer.
69	Colour frame release knob.
70	Colour changer - colour filter medium frame.
71	Lamp house door.
72	Zoom lever shaft.
73	Knurled head clamping screw.
74	Colour changer groove.
75	Colour changer assembly.

<u>PART NO.</u>	<u>DESCRIPTION</u>
77	Relay.
78	Ignitor.
79	Effect plate slot (Gobo holder).
80	Zoom lever stop.
81	Stop plate.
82	Xenon lamp support assembly.
83	Hour meter relay.
84	Light baffle.
85	Front zoom lens clip.
86	Front nose cover.
88	Lamphouse ventilation duct.
89	Lamphouse rear door.
91	Pedestal foot.
92	Pedestal column.
93	Pedestal height locking lever.
99	Douser microswitch.
100	Rear zoom lens mount.