



OPERATING MANUAL

SKY ROSE

GR 0028 HMI 1200

GR 0029 HMI 2500

GRIVEN[®] s.r.l.
FARI PROIETTORI PER TEATRO E DISCOTECA
Via Bulgaria, 16 46042 CASTELGOFFREDO (MN)
Telefono 0376/779483 - Fax 0376/779682

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CONTENTS OF PACKAGING

In the carton for this projector contains:

- o 1 projector operating manual
 - o 1 SKY ROSE projector
 - o 4 mono jack plugs
 - o 1 bi-polar plug GEWISS 32 Amp
-

GUARANTEE

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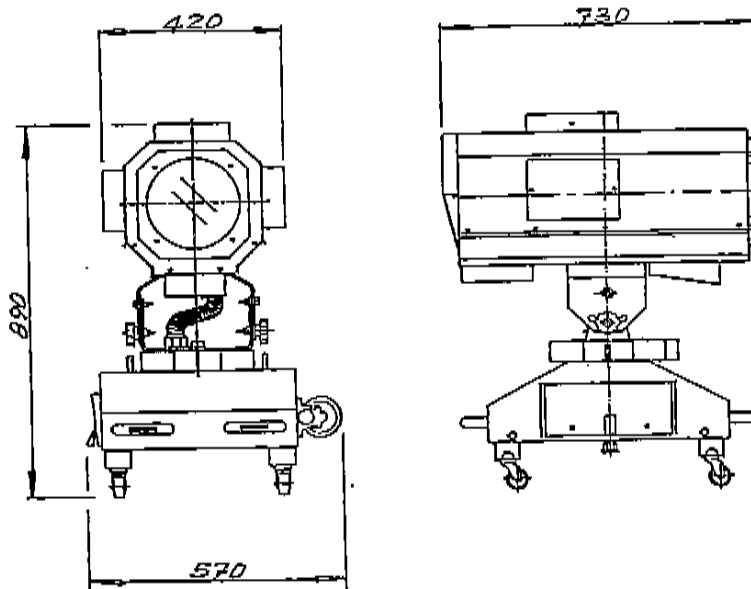
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1 DESCRIPTION OF PROJECTOR

1.1 DIMENSIONS, DESCRIPTION AND BASIC LAYOUT

For the detailed description of the spare parts see paragraph 7 - SPARE PARTS FOR PROJECTOR 1200 or 8 - SPARE PARTS FOR PROJECTOR 2500.



- | | |
|------------------------------------|---------------------------|
| 1) Overhead cover for lamp changes | 9) Pinion end of movement |
| 2) Side covers for lamp changes | 10) Wall plug |
| 3) Lens | 11) Base of projector |
| 4) Main body SKY ROSE | 12) Handles |
| 5) Fan | 13) PCB cover |
| 6) Yoke | 14) Cable connection |
| 7) Counter yoke | 15) Wheels |
| 8) Photocell knob | |

1.2 TECHNICAL INFORMATION

Dimensions	width 57 x 73 x 89 cms
Weight	50 Kg. [1200] 65 Kg [2500]
Manufacturing materials	Zinc plated and black enamelled steel
Nominal Mains voltage	230 V
Mains Frequency	50+60Hz
Nominal current	14A (1200) - 17 Amp [2500]
Power Consumption	3000VA (1200) - 6000VA (2500)
Fuse	5x20 250V 5 AT
Lamp (manufacturer's data)	Discharge metal halide - 5600°K - life 750 hours socket - SFC 15,5-6 (1200) or SFA 21-12 [2500]
Optical system	1 lens PCX Ø 230 R 350
Ventilation	forced air with 3 fans
Switch	Magneto termic 4500 K 25 Amp
Projected rays	28
Distance	HMI 1200 = 5 Km HMI 2500 = 6/10 Km
Cone dimension	22°
Optional accessories	4 Channels remote controller 0+10 V

2. INSTALLATION OF PROJECTOR [COPY ENCLOSED WITH UNIT]

2.1 PRELIMINARY CONTROLS

Prior to installation check for any damaged parts; pay particular attention to the case, the lens, the mirrors and wheels. Remove the two connecting plates for later use.

2.2 MOUNTING OF LAMP

- 1) Open all three covers (2 side covers and one upper) unscrewing all the screws; unscrew the lamp holding knobs of the lamp socket and insert the lamp, avoid touching the bulb with bare hands or with a dirty rag; do not shake it and check that the rotating dish has all mirrors or does not have any damaged mirrors.
- 2) Install lamp keeping the eye toward the lens; tightly screw the knobs holding the lamp. [drawing D]

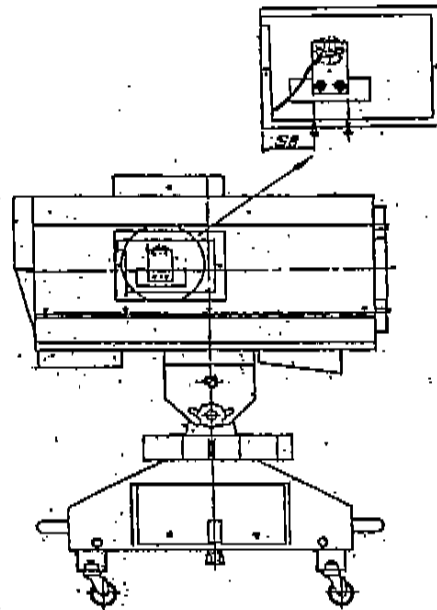


FIG. D
VERSIONE PROIETTORE
SKY ROSE 2500

2.3 POSITIONING OF THE PROJECTOR

The projector should be installed on an absolutely horizontal surface on its wheels or on the supplied bases for a permanent installation; this will allow best ventilation. The head allows a maximum of 35° degrees from the horizontal.

2.4 ELECTRICAL CONNECTIONS

- 1) Connect the supplied plug to the Mains with a cable 3 x 2,5 mm².
- 2) Connect to Mains checking for correct voltage (230V - 50/60Hz).
- 3) The Mains should be protected by a good ground and a differential thermomagnetic switch with the following electrical characteristics:
 - projector 1200 = nominal current (In) 20A - value of switching (Id) 0,03A;
 - projector 2500 = nominal current (In) 25A - value of switching (Id) 0,03A.

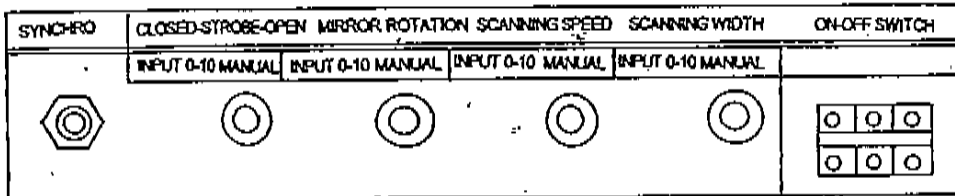
2.5 CONTROL OF FUNCTIONS

1. Prior to using the projector verify the correct operation of the lamp (if necessary check point 4 - FAULT FINDING CHECK LIST).
2. Open the control cover, and turn on the thermomagnetic switch; the projector should rotate to the right and the lamp should light.
3. The light intensity of the lamp will reach its maximum after approximately 60 seconds.
4. For manual operation, rotate the knobs checking the movement of projector; for a remote control operation insert the 4 jacks with a 0-10 V input.

3. USE OF PROJECTOR

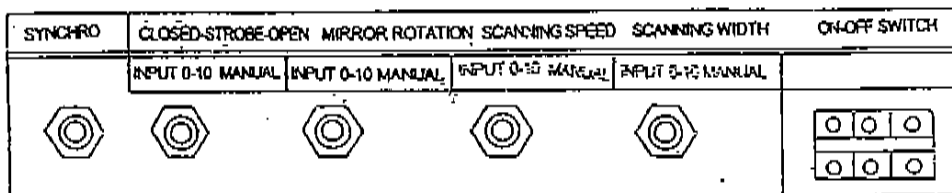
3.1 STAND-ALONE MODE

1. Connect the projector to the Mains; lamp will reach its maximum intensity after 60 seconds.
2. Adjust the following using the knobs on the panel:
 - strobe and black-out
 - width of scanning
 - speed of scanning
 - speed of rotation of the rays
3. If required connect the SKY ROSE to another as shown below:

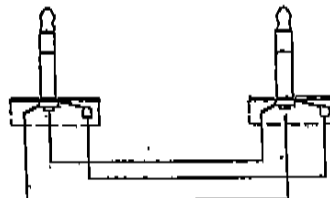


3.2 FUNCTIONING WITH REMOTE CONTROL

3.2.1 To control the operation of the SKY ROSE, manually through a remote controller, connect the 4 jacks to a 0-10V controller as follows:



3.2.2 Connection for Operation in Synchro with another SKY ROSE



4. FAULT FINDING CHECK LIST

Below, is a detailed list of the most common problems which can arise during installation or use with the indication of the probable causes and suggested repairs. Before working on the projector disconnect the Mains and allow the lamp to cool down..

To identify spare parts refer to paragraphs 1 - DESCRIPTION OF PROJECTOR, 7 - SPARE PART FOR PROJECTOR 1200 HMI or 8- SPARE PARTS OF PROJECTOR 2500 HMI

4.1 UPON INSTALLATION OF PROJECTOR

4.1.1 Lamp does not light

- 1) No Mains input (circuit breaker tripped or open) or voltage too low [< 190 V].
- 2) Fuseholder cap not fully screwed down.
- 3) Lamp inserted in lamp socket wrong.
- 4) Lamp damaged due to mishandling.
- 5) Old lamp.

4.1.2 Lamp lights but switches off immediately

- 1) Check Mains present (circuit breaker may have tripped and recheck its electrical characteristics).
- 2) Fuse blown (check presence of Mains).
- 3) Lamp defective (lamp touched with bare hands or dirty rag during installation).

4.2 DURING OPERATION

4.2.1 Lamp does not light, or lights and subsequently goes off

- 1) Check for presence of Mains - (circuit breaker tripped).
- 2) Cap of fuseholder not fully screwed down.
- 3) Fuse blown (check Mains voltage).
- 4) Lamp mounting screws not fully screwed down.
- 5) Old lamp.
- 6) Ignitor or ballast defective.

4.2.2 Projector does not scan but mirror dish rotates

- 1) Scan motor defective [see page 8 point 5.3] (possible cause: the photodiodes that regulate the beginning and the end of the scan have changed their position (see page 9, regulation of photodiodes).
- 2) Before changing it, check that the photodiodes and the banner are normal (page 9).
- 3) PCB regulating movement is defective (page 8 point 5.2.).
- 4) Connecting cable is defective.

4.2.3 Dish does not rotate but scans, light and black-out are normal

- 1) Connecting cable to motor is open.
- 2) Defective motor.

4.2.4 Black out does not function

- 1) Open cable to motor.
- 2) Defective motor.
- 3) Screws which are holding the cover are not fully screwed down.

4.2.5 Reduced light output

- 1) Old lamp.
- 2) Dirty lens.
- 3) Mirror dish dirty.
- 4) Cover of black-out half opened (see point 4.2.4).

4.2.6 Projector lights - reaches the minimum position and stops at the pinion

- 1) The photodiodes have changed their position during transport or operation.

4.2.7 Projector lights - reaches the minimum returns to max and stops at the pinion

- 1) The photodiodes have changed their position during transport or operation.

4.2.8 Lamp lights but even when moving the knobs, nothing happens

- 1) Fuse blown.
- 2) Fuse holder not fully screwed down.
- 3) Transformer G 13 S defective.

5 SUBSTITUTION OF PARTS

For the identity of the appropriate spare parts refer to 1 - DESCRIPTION OF PROJECTOR, 7 - LIST OF SPARES FOR PROJECTOR 1200 or 8 - LIST OF SPARES FOR PROJECTOR HMI 2500.

CAUTION: always disconnect Mains supply before removing cover or changing lamp (it is not enough to switch off the projector) and always allow at least 10 minutes to cool down the lamp.

5.1 SUBSTITUTION OF LAMP

- 1) Open the three doors (the 2 on the sides and the one on top for better control).
- 2) Unscrew the screws and remove the lamp.
- 3) Insert the new lamp into the socket with the utmost care.
 - do not touch the lamp with bare hands or dirty rags.
 - do not shake the lamp or touch with metal parts or sharp parts.
 - keep the eye of lamp down (see fig. D pag. 5)
- 4) Mount the lamp tightly with the screws.
- 5) Close the door, and screw down the small knob.

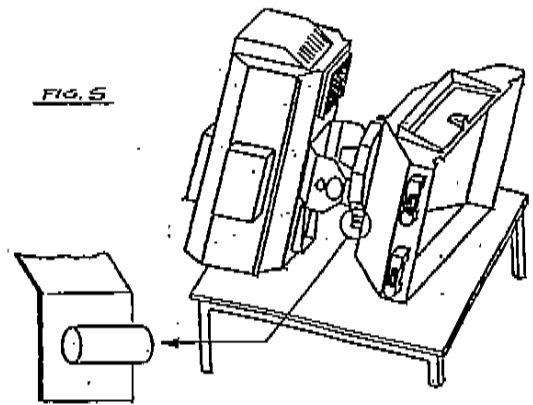
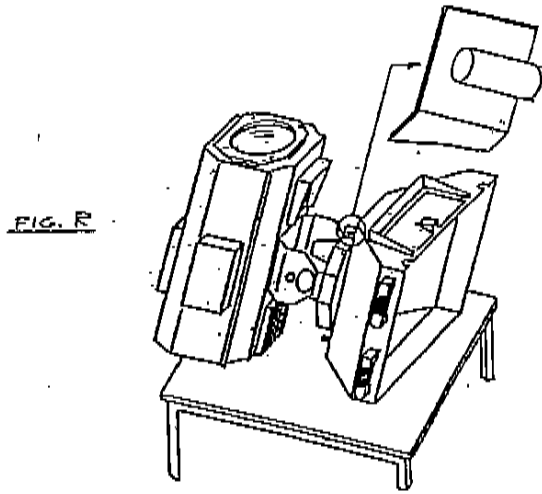
5.2 SUBSTITUTION OF PCB

- 1) Set the projector on one side and unscrew the lower bottom.
- 2) When open, disconnect the cables to the fan.
- 3) Remove the small knobs used for manual adjustment.
- 4) Unscrew the 2 small screws which hold the PCB and the 8 screws of the jacks and potentiometers, remove the PCB, unlock the cables - REMEMBER THEIR EXACT POSITION.
- 5) Change PCB
- 6) Reconnect the different cables (ATTENTION: a faulty connection will mean inverted scanning, which will probably damage the motor and also inverted movement of the black-out endangering the lamp life - opening instead of closing the black-out at the end of operation).
- 7) Replace the screws and the washers of the potentiometers.
- 8) Replace the small knobs by pressing them with the utmost care to avoid breaking the potentiometers.
- 9) Reconnect the fan cables.
- 10) Close the doors and rescrew their screws.
- 11) Light the lamp and check its operation.

5.3 SUBSTITUTION ON THE SCANNING MOTOR

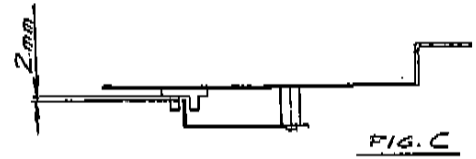
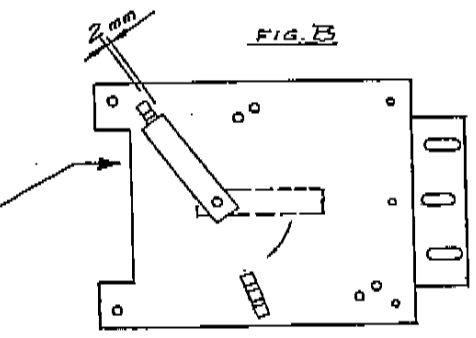
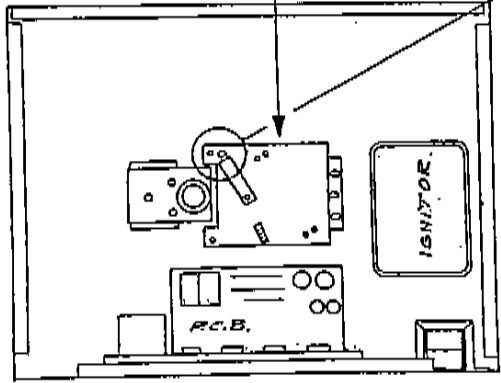
- 1) Set the projector on one side [fig. R].
- 2) See substitution of PCB.
- 3) Unscrew the three screws of the motor yoke.
- 4) Remove the motor, unscrewing its screws, disconnect the cables REMEMBERING WHICH IS + AND WHICH IS -
- 5) Substitute the motor paying attention to the phase, because if connected incorrectly it will irreparably damage the motor (see above).
- 6) Prior to rescrewing the motor support, remove the cover of the photodiodes and check the point - turning it by 90° until it touches the pinion [Fig. A]. The point should be in the position indicated in figures B and C.
- 7) Move the projector in the other direction until it touches the other pinion (fig. S) The pin should be in the second position as per figure C.
- 8) Remount the motor yoke until the gears are properly engaged.
- 9) Close the projector, performing the above in reverse order.

DRAWINGS

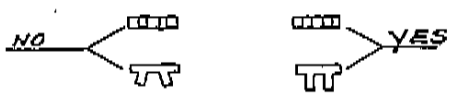


COPERCINO PROTEZIONE

FIG. A

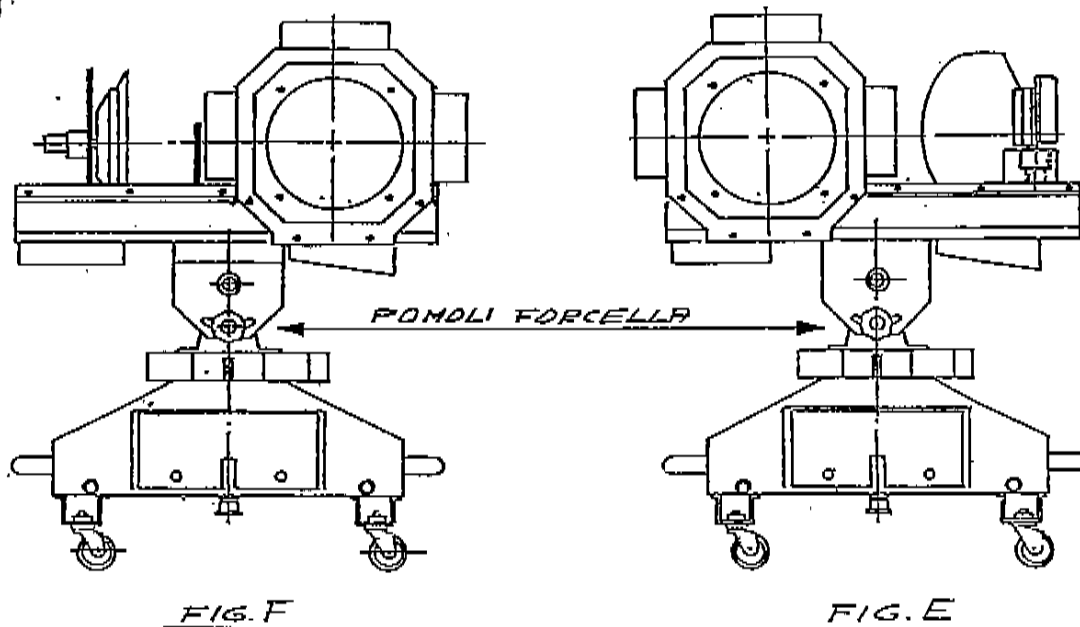


CHECK POSITION OF PHOTODIODE
FOTODIODO



5.4 SUBSTITUTION OF THE DISH MOTOR OR BLACK-OUT MOTOR.

- 1) Tightly screw down the knobs of yoke (see fig. E and F).
 - 2) Open the upper part of the projector, unscrewing all screws. Also unscrew both the supporting sockets [only for HMI 2500 see fig. D]. Replace the motors for the black-out [fig. E] and for the dish [fig.F].
- CAUTION: When replacing the black-out motor pay attention to the phases because a defective connection will result in the following: at the switching off of the unit the black out, instead of closing, will remain open, thereby reducing lamp life.



5.5 SUBSTITUTION OF THE PCB FUSE

- 1) Open the control door; the fuse is on the top on the left; unscrew it with a screwdriver and substitute it.
- 2) Close the cover tightly.

For any further information or suggestions on how to find faults and their repair, contact:

GRIVEN s.r.l.
Via Bulgaria, 16 46042 CASTELGOFFREDO - MANTOVA (ITALIA)
telefono 0376/779483 - fax 0376/779682.

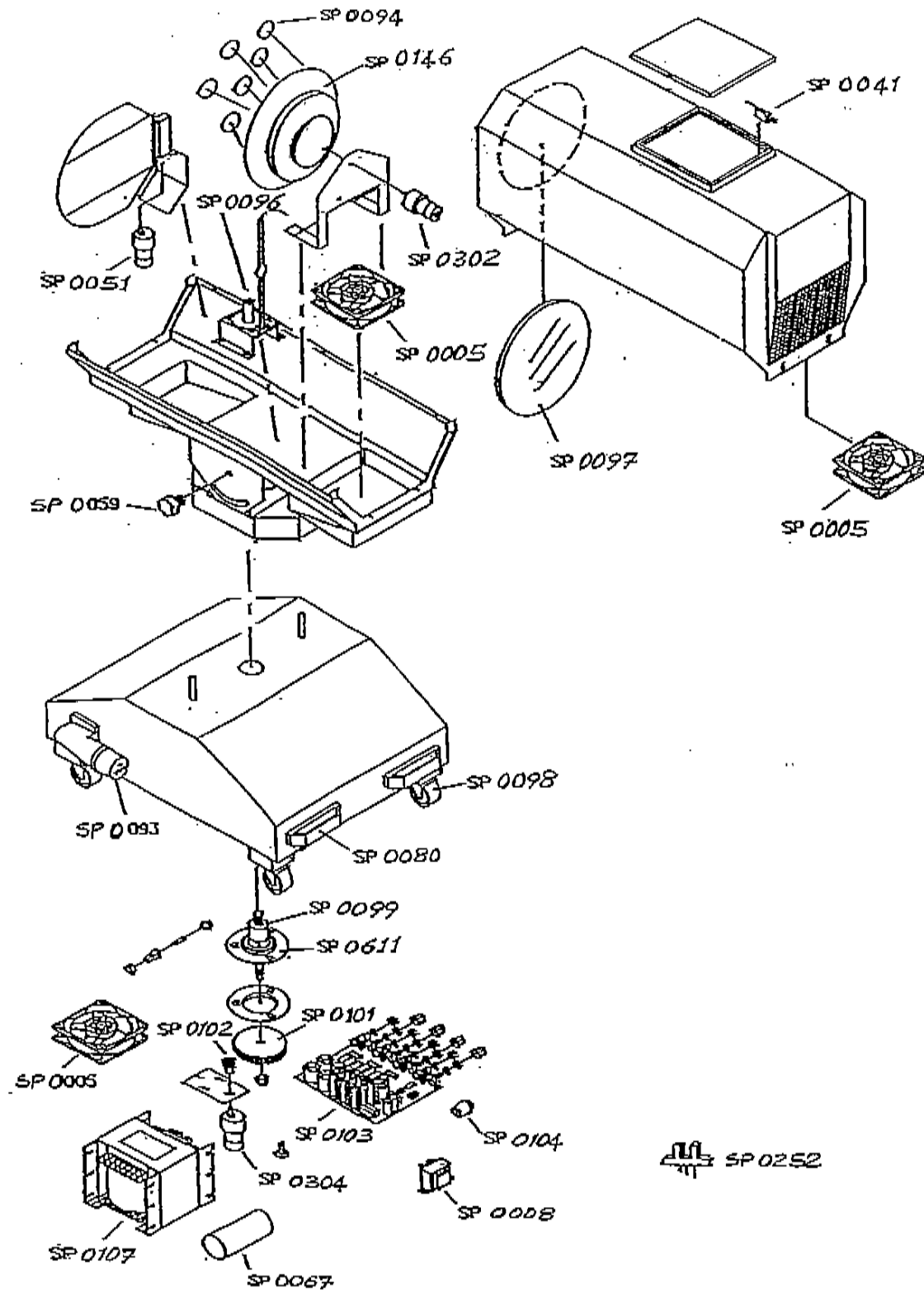
6 MAINTENANCE

For the best operation of the projector it is necessary to periodically perform some maintenance. These operations do not require the opening of the body; in any event, before beginning any operation **CAUTION**. always disconnect the mains supply before any operation and cool down the lamp and projector.

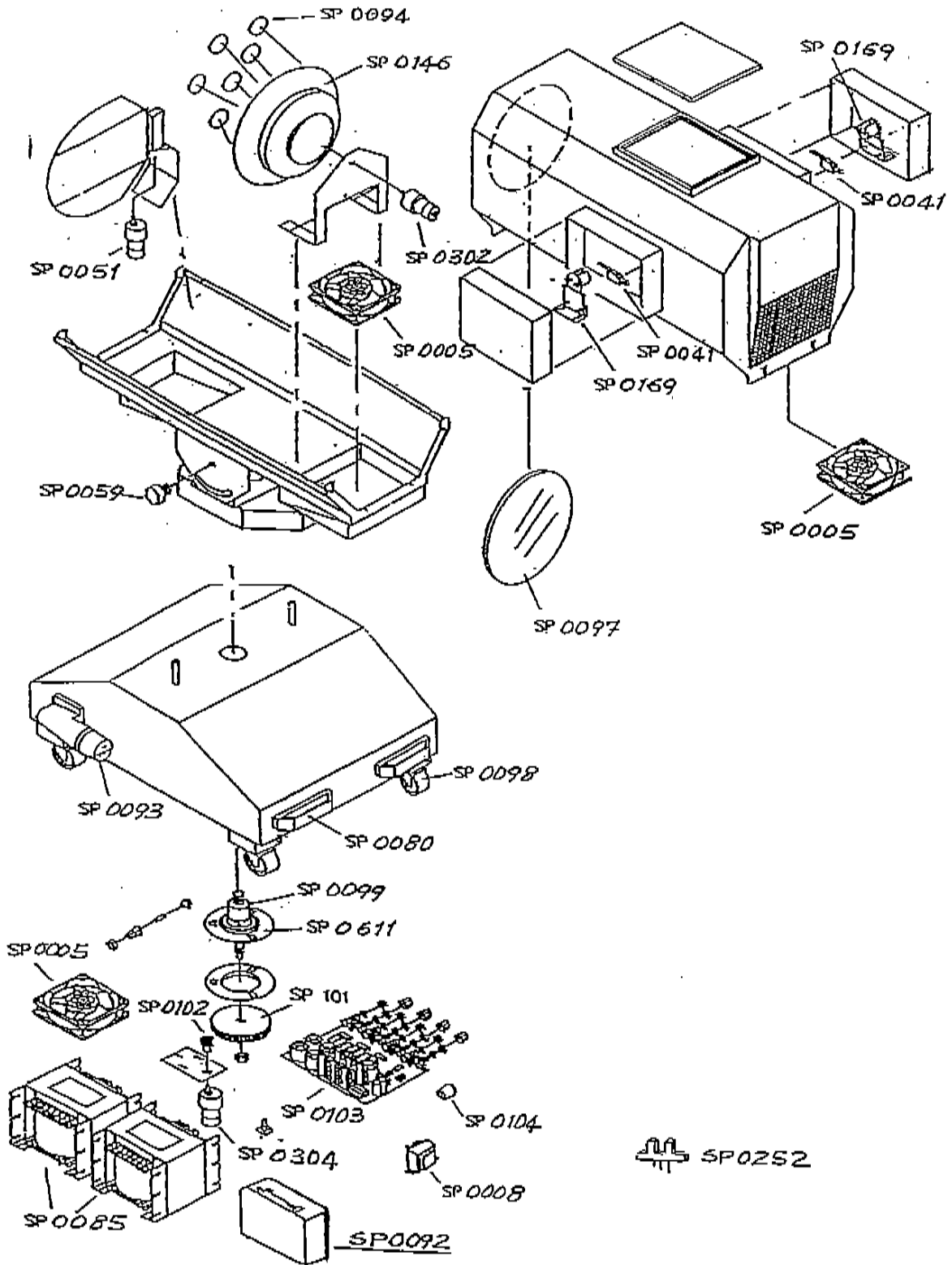
We suggest the following maintenance plan:

- 1) Clean the lenses, mirrors and diroicis every 60 days using a clean rag with any liquid detergent or, even better, with a specific optical lens cleaner.
- 2) Clean the fan and all ventillation apertures of any objects or accumulated dust every 60 days. Do this with a clean brush or a vacuum cleaner, do not use screwdrivers or pointed objects which could damage the fan or other parts.

7.3 EXPLODED VIEW

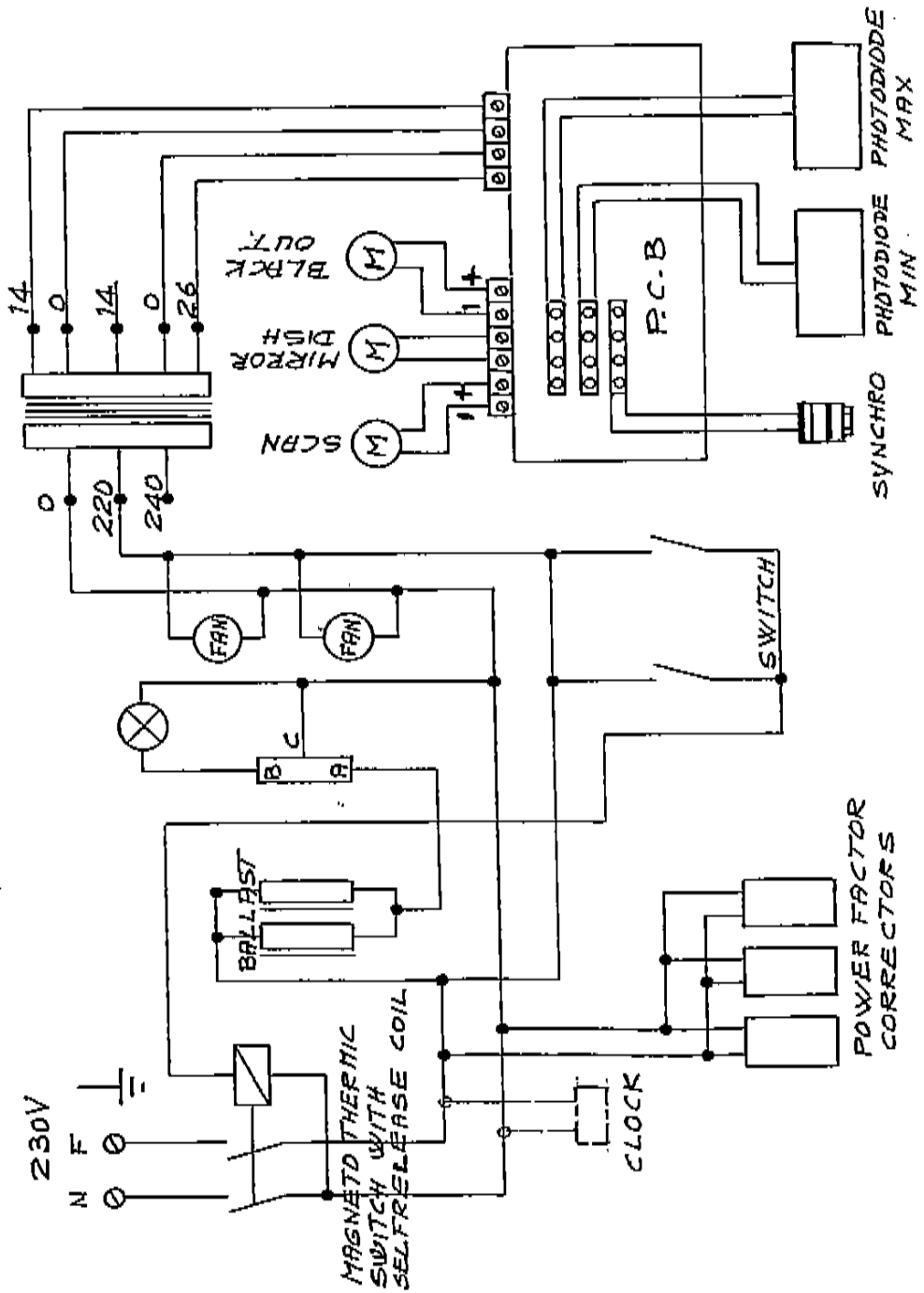


8.3 EXPLODED VIEW

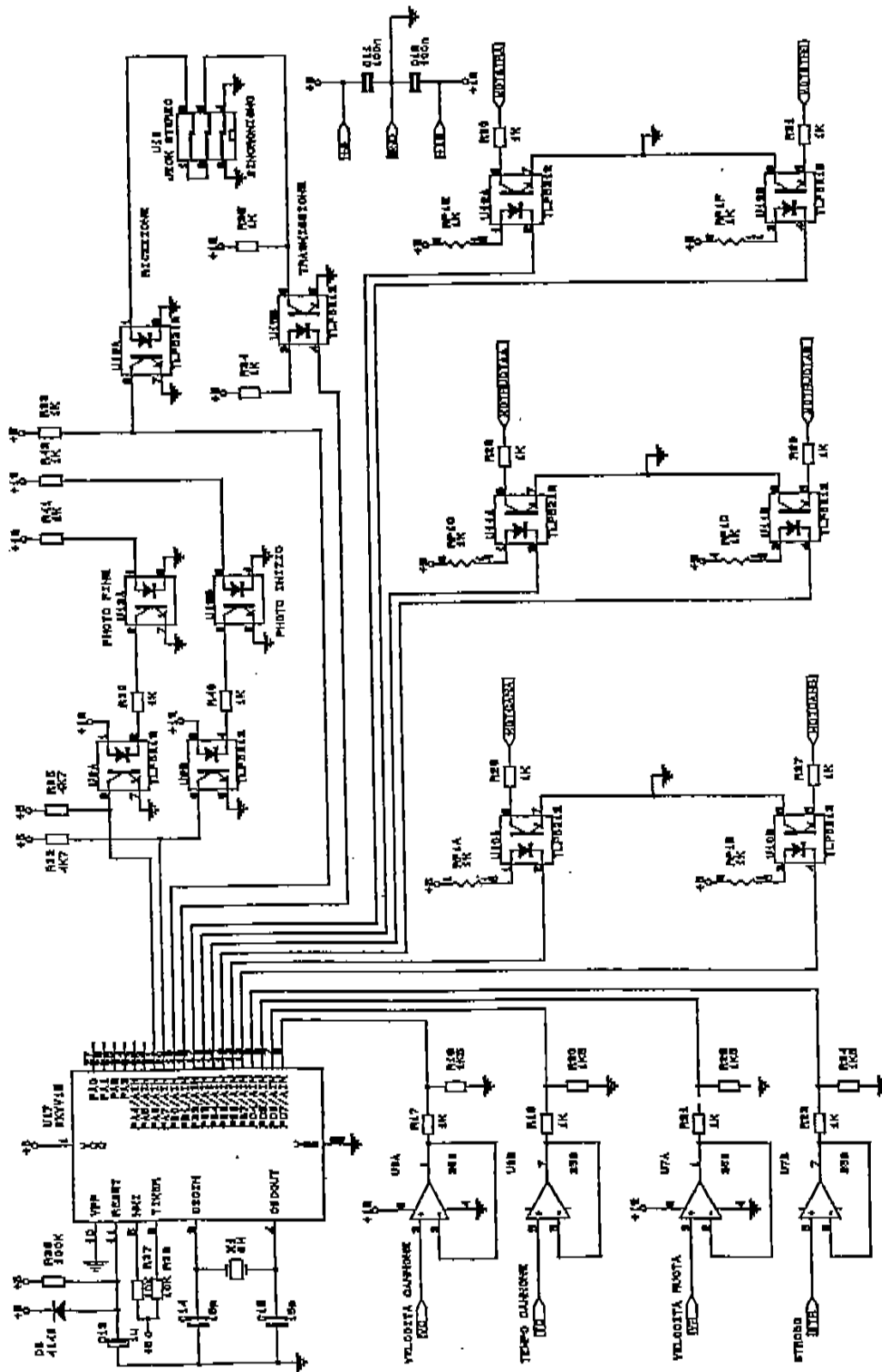


9 ELECTRICAL SCHEMATIC

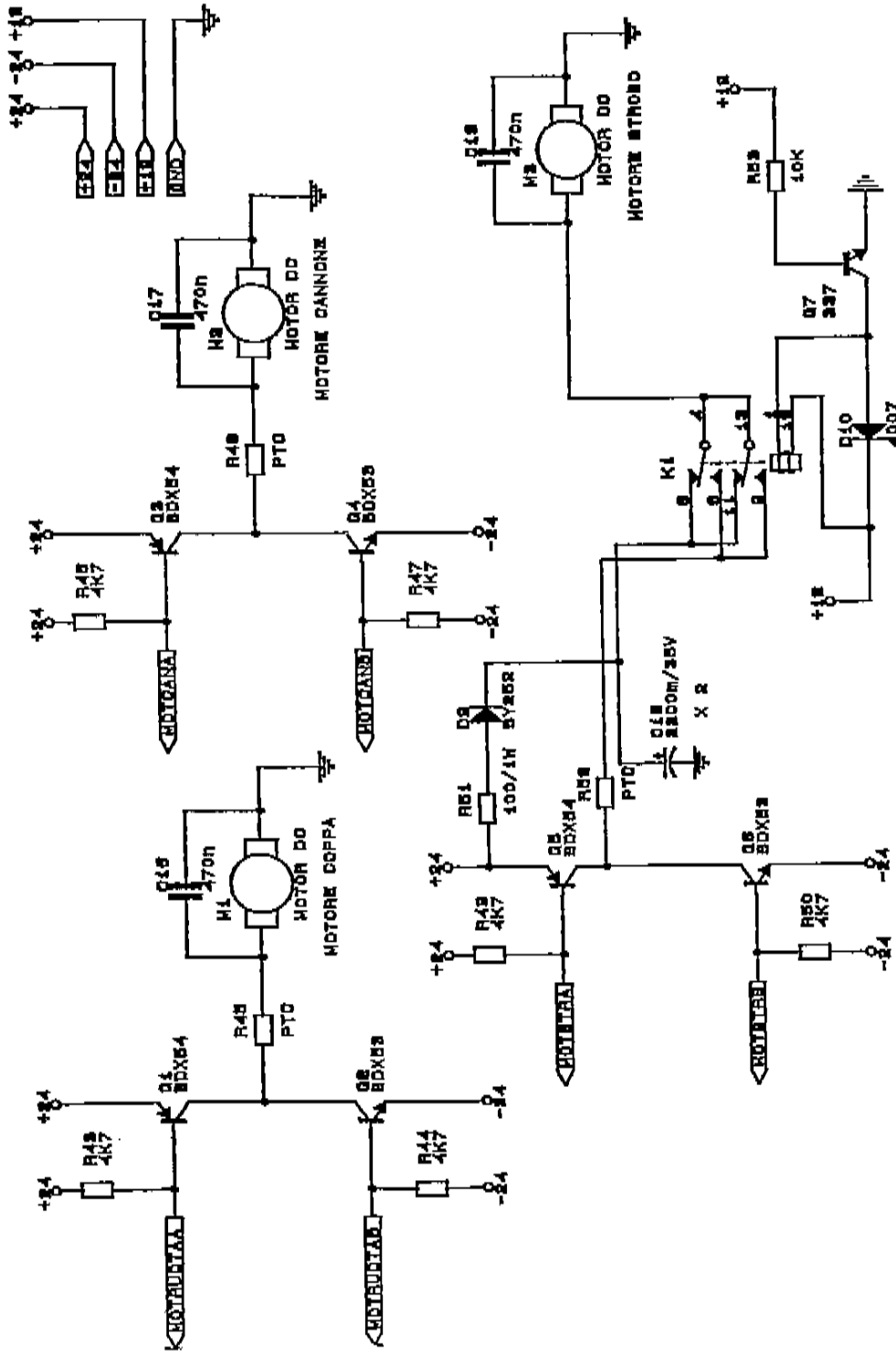
9.1 BASIC ELECTRICAL LAYOUT



9.2 LOGIC



9.2.1 Final Stage



9.2.2 Controls

