

# SECTION 6.7

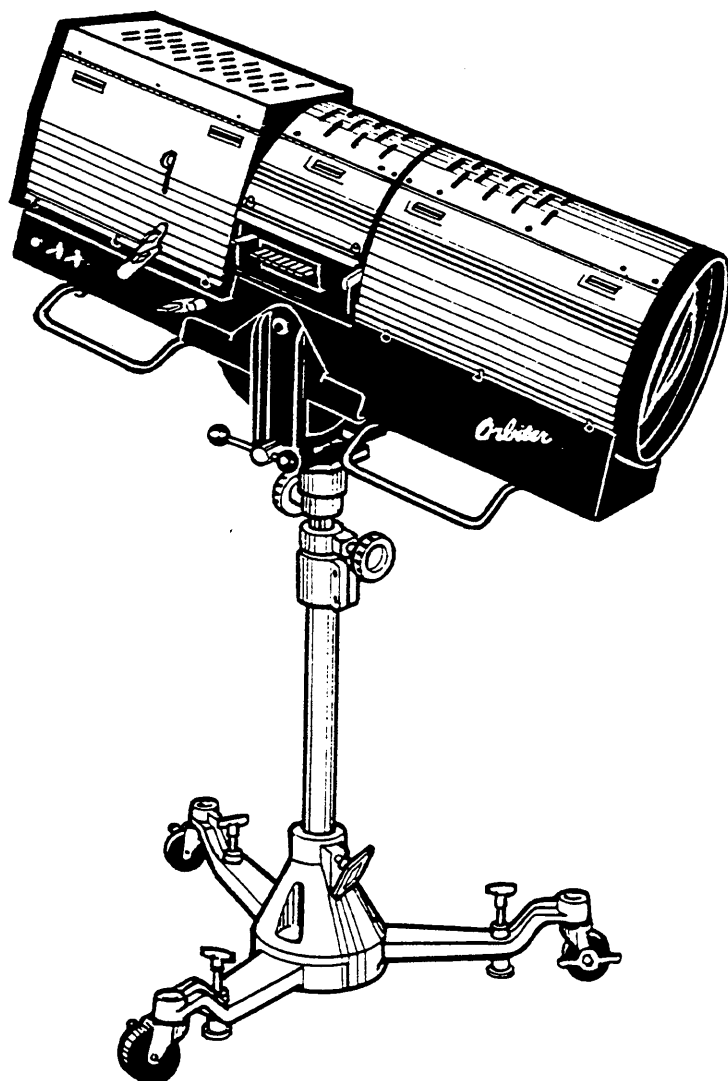
## ORBITER FOLLOWSPOT

Catalog Number	Description	Section
Document	Orbiter Information Page	Section 6.7
Document	Orbiter Operation & Maintenance Manual (6 pages) Orbiter Retrofit Kit	

**Orbiter Followspot no longer in production.**

PARASOL

# operation and maintenance manual



**ALTMAN STAGE LIGHTING CO., INC.**

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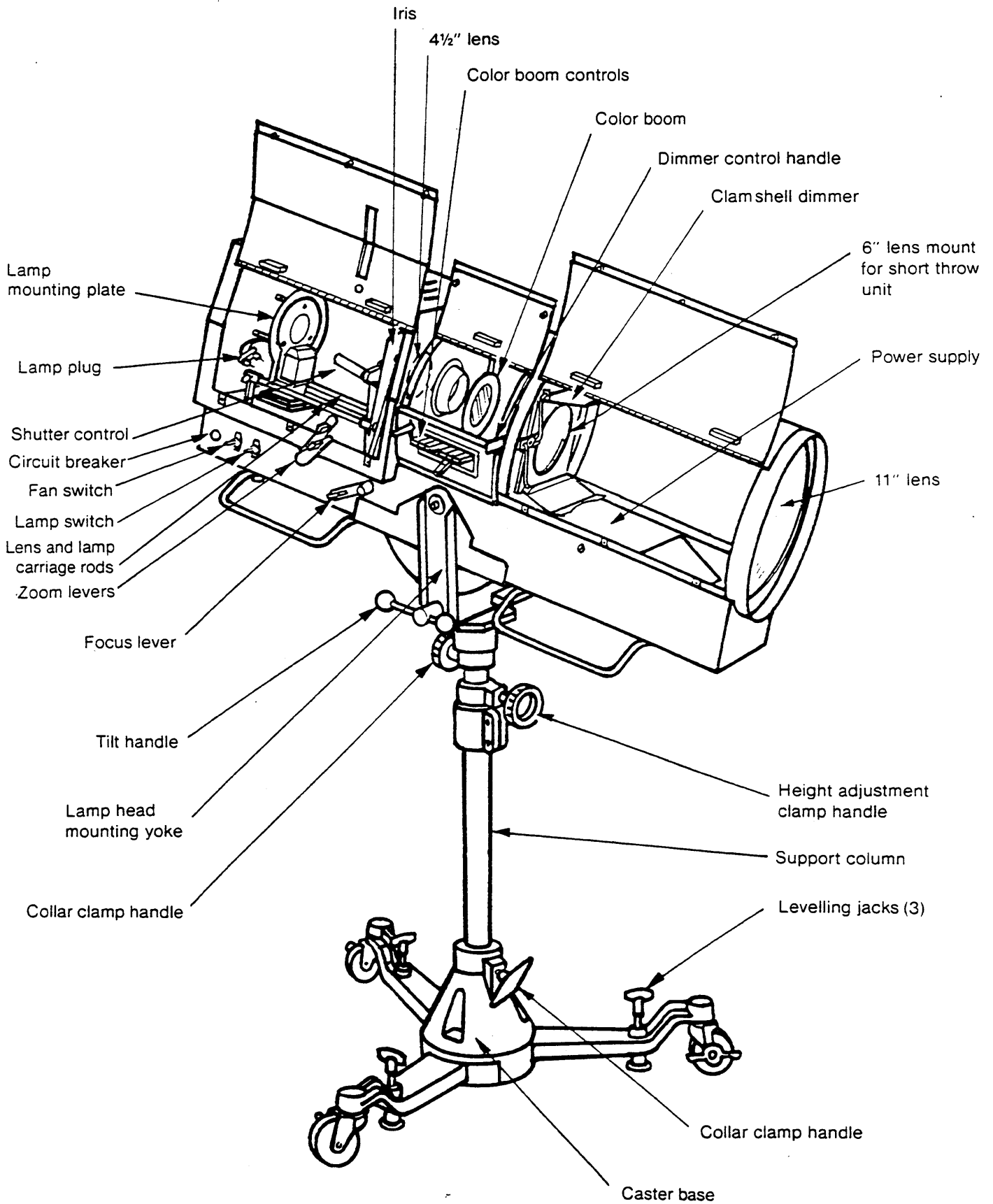


Figure 1.

# OPERATION

## Set up

Unpack the stand and lamphouse from their shipping cases and check for any concealed damage.

**Stand assembly:** The stand is shipped in three (3) parts. They are the caster base, the support column and the yoke. They are assembled by placing the support column into the base and securing it by tightening the collar clamp handle. (see fig. 1). The yoke is then mounted on top of the column with the fan cutout forward and secured by tightening its collar clamp handle. The height of the column can be adjusted by loosening the center column clamp handle, raising the center column to the desired height and then re-tightening the clamp. Place the yoke in a level position and lock in place.

**Lamphouse assembly:** Place the lamphouse into the yoke, aligning the captive mounting bolts in the yoke with the threaded studs in the lamphouse (see fig. 1). Tighten the four mounting bolts to secure the lamphouse onto the yoke. This must be done with care, so as not to damage the fan lead on bottom of lamphouse. Place the spotlight at its operating position and lock the casters, then raise the stand off the casters by turning the leveling jacks to prevent unwanted movement. Check the height of the lamphouse to insure that it clears any obstacles during its operation and if necessary again adjust the height of the mounting column. Check to insure that a GE MARC 350 lamp is installed in the lamp holder and plugged into its plug (see fig. 2).

Connect the power cord by inserting the twist-lock connector into the receptacle at the left rear of the lamphouse. Plug the power cord into any 60 hertz, 120 Volt, parallel blade U-ground receptacle which can supply the required 7 amps of current.

NOTE: There is a power supply in the lamphouse which will operate the lamp from an input range of 105-to-130 volts.

**DO NOT OPERATE THIS UNIT ON A DIMMABLE CIRCUIT.**

## Lamp Start-up

There are two (2) switches used to operate the GE MARC 350 arc lamp used in this spotlight (see fig. 1). The rear switch turns on the fans used to cool the lamp and color filters. These fans must be operating in order for the lamp to be operated. The forward switch turns on the lamp and about (1) minute of warm-up time is required for the lamp to reach full output. If the power line is interrupted or either switch is turned off, the lamp will extinguish and must cool before it will re-start. To accomplish this the lamp switch should be turned off, but the fan switch should be on, to speed lamp cooling. After about one (1) minute, the lamp switch can be turned

on to once again start the lamp. If the lamp fails to start, but the fans are operating, turn off the lamp switch for approximately 10-15 seconds, with the fans still operating and again, turn on the lamp switch. (see MAINTENANCE SECTION for lamp trouble if the lamp still fails to start).

Unlock the tilt handle, and the spotlight is ready for operation.

## Beam Spread and Focusing

The Orbiter spotlight can produce two (2) different beam patterns. The unit is shipped with an eleven (11") inch lens mounted in the front casting and a four and one half (4½") inch lens located between the iris and color boom (see fig. 1). Removing the eleven (11") inch lens from the front casting and installing the six (6") inch lens, also supplied with each unit in the casting behind the clamshell dimmer and in front of the color boom, changes the beam pattern.

With the eleven (11") inch lens in place, the unit is more of a long throw followspot, that is capable of producing a very small spot. With the six (6") inch lens in place, the unit is capable of focusing at a shorter throw distance with a much larger spot and flood diameter.

To determine which beam pattern you require, first operate the spotlight with the eleven (11") inch lens installed and adjust the unit through its focusing range. If the beam pattern is too intense or too small for your needs, then remove the eleven (11") inch lens and install the six (6") inch lens, and again check the intensity and beam size. When replacing the eleven inch lens:

- Remove the (4) screws and clips
- Check that rubber edging is seated and CAREFULLY place lens in casting.
- Replace the (4) screws and clips.

NOTE: ALL LENSES ARE MOUNTED WITH CURVED SURFACE FORWARD.

## Focusing:

Focusing of the spotlight is accomplished by moving the zoom levers located to the right rear of the spotlight (see fig. 1). With the zoom levers adjusted to the desired beam size and intensity, the focusing lever is adjusted to the desired degree of focus (hard or soft edge). Note there is independent adjustment of the iris to change the beamed diameter as well as lamp position to change beam intensity. A lamp position, however, must be chosen to provide light over the total iris opening. The zoom levers are easily operated with one hand to change lamp position as well as open and close the iris to achieve maximum beam performance for any spot size or beam intensity.

### Shutter

The shutter control lever is located on the right side of the spotlight above the zoom and focus levers (see fig. 1). This shutter is used to square off the top and bottom of the beam and is used primarily in the flood position to limit the height of a beam as its width is expanded.

### Dimmer Control

A dimmer control handle is located on the right side of the spotlight in front of the color boom (see fig. 1). As this lever is lowered, the clamshell dimmer closes and reduces the intensity of the spotlight. This change in intensity does not affect beam diameter.

NOTE: If dimmer does not fade evenly or stripes appear in the spot, then throw distance is too short.

### Color Boom

The color boom is located in the center of the right side of the spotlight (see fig. 1). It is supplied with six (6) heat resisting color filters and a black-out dowser.

Push the desired handle down to lift a color filter into the beam and this will automatically remove any other color filter from the beam. The upper white handle, when pushed down, removes all color from the beam.

### Lens Cleaning

During normal use of the ALTMAN ORBITER SPOTLIGHT, the lenses will collect a dirty film and should be cleaned. Cleaning can best be accomplished with soap and water or other glass cleaning solutions. CARE should be taken that the cleaning process does not leave a film on the lens (especially the 4½" rear focusing lens) since the heat of the beam will bond this film onto the surface. The lens cleaning can be accomplished with the lenses mounted in the spotlight or they can be removed for ease of cleaning. All lenses should be mounted in the unit with their curved surface forward.

Should you have any further questions, or require technical information or need a replacement part, please contact your AUTHORIZED DEALER or contact ALTMAN STAGE LIGHTING direct.

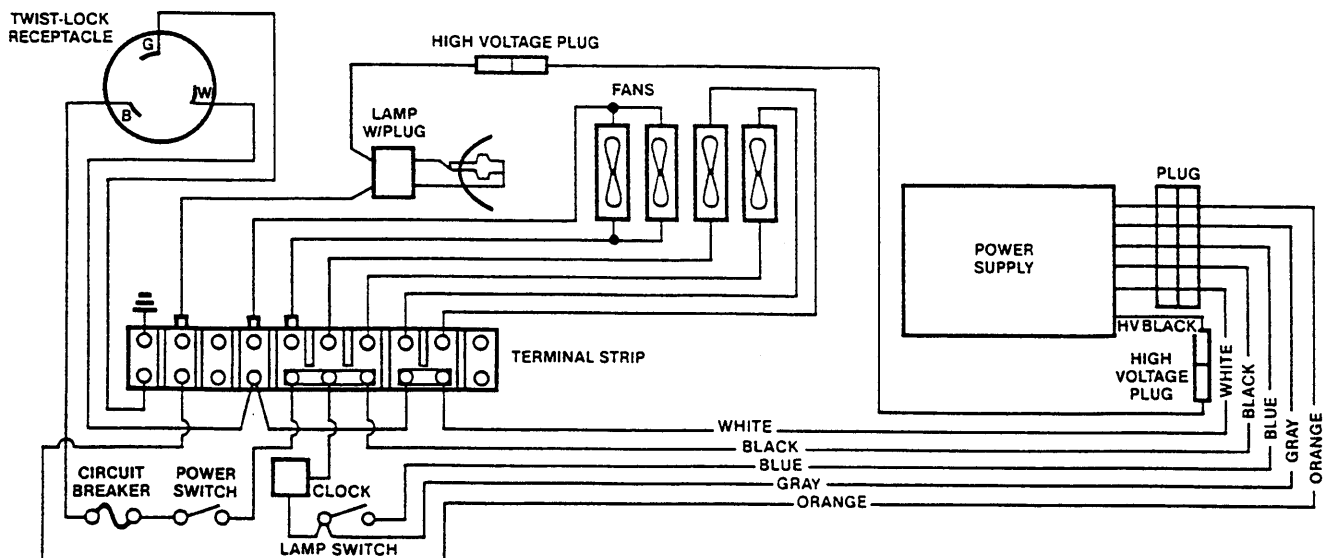


Figure 3  
WIRING DIAGRAM

# MAINTENANCE

## Lubrication

The ALTMAN ORBITER is a relatively maintenance-free device. Like any other precision made system, the best maintenance recommendation is to keep the spotlight clean both inside, and out. The lens and lamp carriage rods should occasionally be wiped clean and lightly oiled (see fig. 1). Likewise, the pivot points of all mechanical linkages, especially the iris, zoom and focus levers, should be lightly oiled. **CAUTION:**— do not oil the leaves of the iris. If lubrication is required, sparingly apply graphite or "ARC LUBE" only.

## Color Boom

The Orbiter is supplied with six (6) heat resistant color filters. During normal operation this color will gradually fade, and must be replaced with a similar color filter

available from your authorized ALTMAN DEALER. To remove the color boom turn the two (2) cover door fasteners a  $\frac{1}{4}$  turn counter-clockwise and open the door. The color boom is then free to lift up and out of the spotlight. To remove the color filters, lift the brass staples and remove the color filter retaining ring. The ring can be used as a template to cut the new filter. When installing the new color filter make sure that the brass staples are bent over and lay flat against the holder to eliminate them from catching on adjacent filter holders. When re-installing the color boom into the spotlight make sure that it is fully seated into the spotlight allowing the cover door to close. The boom is installed with the white cancelling handle towards the rear of the spotlight. The boom is locked into place when the cover door is closed and the two (2) fasteners are engaged and turned a  $\frac{1}{4}$  turn clockwise.

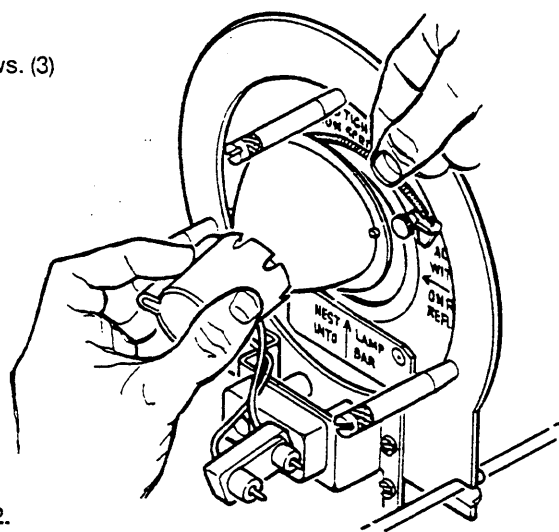
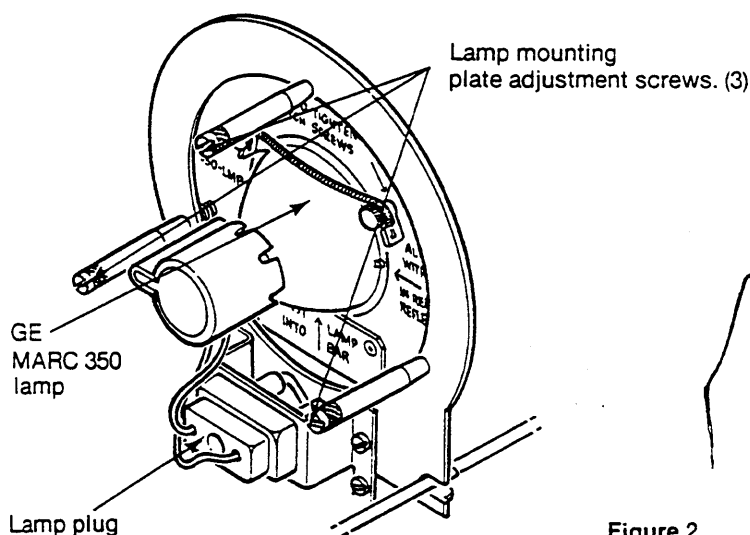


Figure 2.  
LAMP REPLACEMENT

## Lamp Replacement

Access to the GE MARC 350 lamp is obtained by opening the rear access cover door and moving the zoom focus lever to its rear position (see fig. 1). The rear door is fastened by a captive thumb screw which is unfastened by rotating counter-clockwise.

**CAUTION: ALL POWER SHOULD BE TURNED OFF**

before this door is opened to gain access for lamp removal. The lamp plug should first be removed from its socket and then the two ears which hold the glass reflector onto the mounting plate should be opened. The lamp is then free to be removed from the housing. A new lamp should then be installed and fastened onto the plate by the two mounting ears and then the lamp should be plugged into the receptacle. The lamp plug should be CAREFULLY inserted into the socket. **DO NOT FORCE PLUG INTO SOCKET OR IT MAY DAMAGE THE PINS.** After closing the rear door, the fan switch, then the lamp switch should be turned on to insure that the lamp operates.

After installing a new lamp, its beam pattern should be inspected. With the zoom lever positioned at about its MID POINT, note whether the highest intensity of the beam is in the center of the pattern. If it is not centered, the back door should be carefully opened and a long handled screwdriver used to adjust the lamp mounting plate (see fig. 2). This adjustment can be done BEFORE the lamp warms up, as it will be easy to see the HOTSPOT. If the beam cannot be centered or if the beam pattern is not satisfactory throughout the zoom focus range, remove the lamp and return it to the supplier for replacement.

Where pairs of spotlights are used and their color should match, both lamps will probably need to be replaced simultaneously since lamp color changes with life. The lamp that has not burned out can be kept to use to replace an early lamp failure from any future pair of lamps. If a perfect match is needed, several lamps may have to be tested to find a matched pair, since minor variations occur between all lamps. A time clock is located at the rear of the unit to indicate the hours of lamp operation. Record this time when installing a new lamp.

# TROUBLESHOOTING

## Lamp Failure

If the lamp fails to start, check the exterior power connections and the forward switch to see if it is in the on position. If the power is connected, and the fan switch is on, fan noise and air movement is easily detected. This means you have voltage. This does

not mean you have 120V., as the fans will operate on 50V., but at a much slower speed. Always check for proper AC input voltage. If power is available, the following problems may account for lamp's failure to operate.

Symptom	Causes	Remedies
A) Lamp will not start/ but pulse is present in lamp	<ol style="list-style-type: none"> <li>1 - Lamp plug not seated in socket</li> <li>2 - Defective lamp</li> <li>3 - Bad connection in wiring or short</li> <li>4 - Power supply failure</li> <li>5 - Unit not getting proper AC input volage</li> </ol>	<ol style="list-style-type: none"> <li>1 - Seat plug in socket</li> <li>2 - Replace lamp</li> <li>3 - Repair connection or replace wiring</li> <li>4 - Replace power supply</li> <li>5 - Check input voltage</li> </ol>
B) Lamp will not start and no starting pulse in lamp	<ol style="list-style-type: none"> <li>1 - Circuit breaker tripped</li> <li>2 - Lamp plug not seated in socket</li> <li>3 - Bad connection/short</li> <li>4 - Defective lamp switch</li> <li>5 - Power supply failure</li> <li>6 - Defective lamp</li> <li>7 - Not getting proper input</li> </ol>	<ol style="list-style-type: none"> <li>1 - Reset circuit breaker, if breaker trips again, locate cause</li> <li>2 - Seat plug in socket</li> <li>3 - Repair connections or replace wiring</li> <li>4 - Replace switch (SPST)</li> <li>5 - Replace power supply</li> <li>6 - Replace lamp</li> <li>7 - Check AC input</li> </ol>
C) Lamp light output is low	<ol style="list-style-type: none"> <li>1 - Defective lamp</li> <li>2 - Power supply failure</li> </ol>	<ol style="list-style-type: none"> <li>1 - Replace lamp</li> <li>2 - Replace power supply</li> </ol>
D) Visible flicker	<ol style="list-style-type: none"> <li>1 - Defective lamp</li> <li>2 - Power supply failure</li> </ol>	<ol style="list-style-type: none"> <li>1 - Replace lamp</li> <li>2 - Replace power supply</li> </ol>

We recommend that a damaged power supply be returned to your supplier for replacement. **DO NOT ATTEMPT TO REPAIR THE POWER SUPPLY.** When replacing power supply, disconnect five conductor and high voltage plugs at front of power supply. Remove the power supply cover by unfastening two machine screws, one on either side of the lens tube at the center of the cover, and move the cover forward and up to expose the 8 mounting studs and cover support spacers. There are four supports in the front and four at the rear of the power supply and they have a screwdriver slot on top for ease of removal.

### CAUTION

**DO NOT OPERATE WITHOUT THE POWER SUPPLY COVER IN PLACE**

A 15,000 Volt starting pulse and 70 volts at 7.7 amperes DC operate the MRC 350 lamp. Only qualified personnel should be allowed to troubleshoot the power supply. **LAMPS SHOULD NEVER BE CHANGED WITH THE POWER ON.** Do not let the lamp pulse for an extended period of time, as it takes away lamp life, and can possibly damage the lamp.



## ALTMAN STAGE LIGHTING CO., INC.

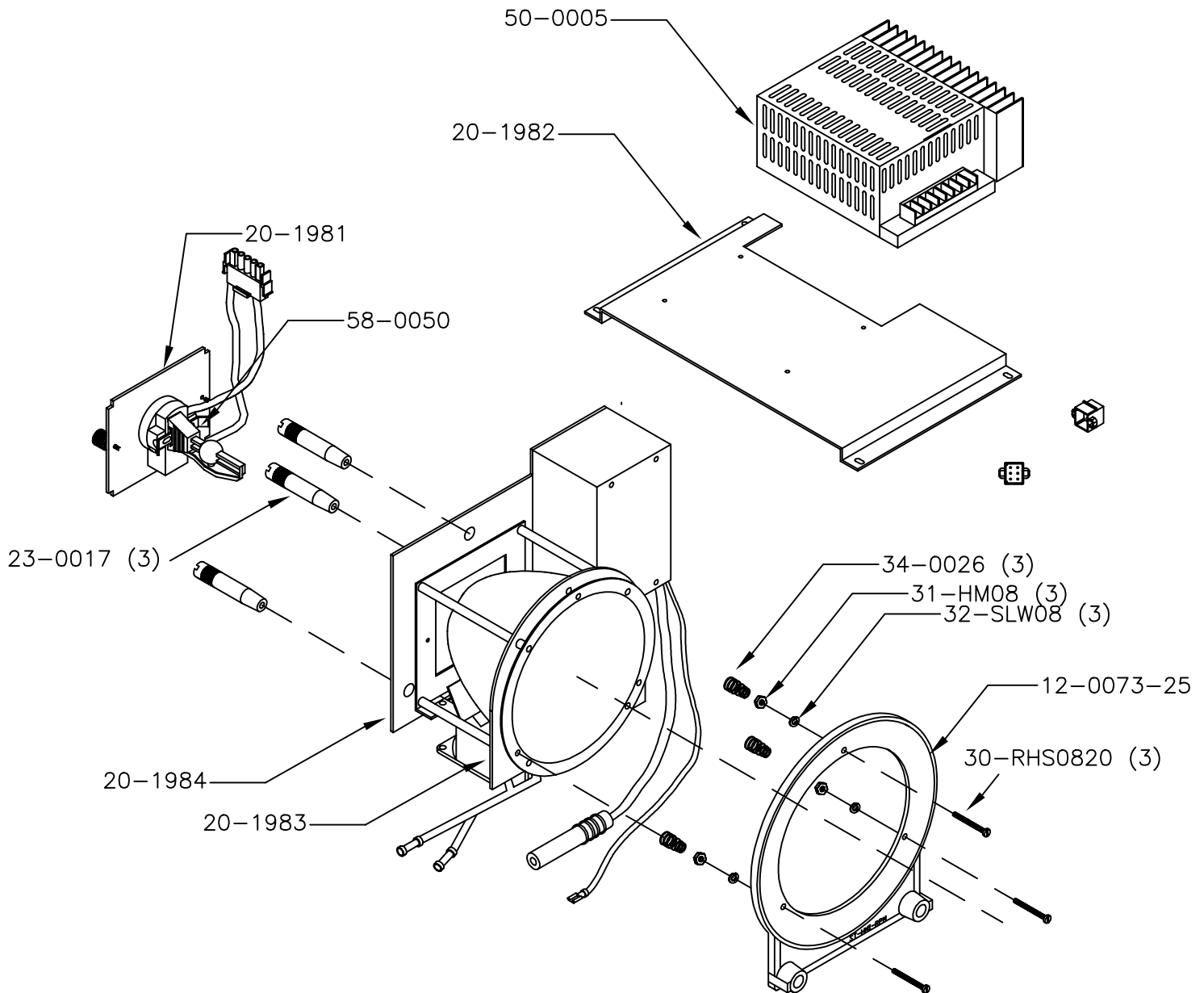
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# ORBITER RETROFIT KIT

Catalog No:	Assy No:	Description:	Drawing No:	Rev:	Drawing Name:	Date:
ORB-KIT		ORBITER RETROFIT KIT		A	ORBKIT	02/15/00

**Notes:** ORBITER RETROFIT KIT-DRAWING NOT COMPLETE



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