

AMSCO Maintenance Manual



**EXAMINER 10
EXAMINATION LIGHTING FIXTURE
SINGLE AND DUAL**

(1/89)

P-764285-001

Examiner 10 Lighting Fixture

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SAFETY PRECAUTIONS

The following are personnel (WARNINGS) and equipment (CAUTIONS) **safety precautions** to be observed when operating or servicing this unit. This is a listing of all safety precautions appearing in the text. Carefully read them before proceeding to use or service the unit. Observance of these safety precautions will minimize the risk of personal injury or the possible use of improper maintenance methods which may damage the unit or render it unsafe. It is important to understand that these precautions are not exhaustive. AMSCO could not possibly know, evaluate and advise maintenance departments of all conceivable ways in which maintenance might be done or the possible hazardous consequences of each way.

The operation and maintenance procedures recommended by AMSCO are described in this manual. Only these recommended maintenance procedures should be followed.

WARNING:

I. THIS LIGHT SHOULD NEVER BE OPERATED IF THE DIFFUSER IS DAMAGED OR BROKEN. USE OF THE FIXTURE WITHOUT THE DIFFUSER OR WITH A DAMAGED DIFFUSER COULD CAUSE PERSONAL INJURY.

II. BE SURE POWER TO LIGHTHEAD IS OFF BEFORE CLEANING, RELAMPING, MAKING ADJUSTMENTS OR REPLACING COMPONENTS. BE SURE INNER REFLECTOR CASTING, REFLECTOR OUTER COVER, LAMP HOLDER AND FRONT GLASS ARE COOL BEFORE TOUCHING.

III. DO NOT USE BEZEL-MOUNTED HANDLE TO MOVE MOBILE UNIT. USING THE HANDLE TO PUSH OR PULL THE UNIT MAY CAUSE IT TO TIP, AND MAY RESULT IN INJURY TO PERSONNEL.

IV. BEFORE REMOVING SPRING(S) FROM ARM, BE SURE THAT ARM IS SECURELY HELD IN THE FULL "UP" POSITION.

V. SUSPENSION ARM SPRING TUBES MUST BE SECURED TO PREVENT SPRING BACK WHEN WEIGHT IS REMOVED DURING REPLACEMENT OF DIFFUSER LENS.

VI. BE SURE POWER TO CEILING-MOUNTED JUNCTION BOX IS OFF BEFORE REMOVING LIGHT FIXTURE.

VII. TURN OFF POWER TO EXAMINATION LIGHTING FIXTURE BEFORE ADJUSTING YOKE PIVOT.

VIII. TURN OFF POWER TO EXAMINATION LIGHTING FIXTURE BEFORE ADJUSTING LIGHTHEAD PIVOT.

IX. TURN OFF POWER TO EXAMINATION LIGHTING FIXTURE BEFORE REPLACING DIFFUSER LENS.

X. ALWAYS WEAR CLOTH GLOVES OR WRAP LAMP IN PROTECTIVE CLOTH WHEN REMOVING LAMP FROM LAMP HOLDER.

XI. BE SURE POWER TO JUNCTION BOX IS OFF AND LIGHTHEAD IS COOL WHEN INSTALLING NEW BRACKET AND INSERT ASSEMBLY.

XII. LIGHTHEAD AND SUSPENSION BRACKET ASSEMBLY MAY FALL IF A GAP, EXPOSING THE THREADED CONNECTOR, APPEARS BETWEEN THE VERTICAL SUSPENSION TUBE AND LIGHTHEAD BRACKET. PERIODICALLY CHECK FOR THE APPEARANCE OF EXPOSED THREADS AND, IF PRESENT, CONTACT YOUR AMSCO REPRESENTATIVE.

CAUTION:

I. To prevent damaging equipment, do not use abrasive pads or cleansers for cleaning. Do not spray cleaner or disinfectant directly on equipment. Take care to prevent leakage of water into interior of lighthouse. Do not attempt to clean the internal glassware as degradation may result.

II. Do not touch glass portion of lamp with bare fingers while relamping. Skin oils on glass are detrimental to lamp life. If lamp is touched, dampen a soft white cloth with alcohol and wipe lamp. Wipe dry with a clean, dry soft cloth.

III. Do not touch inside surfaces of parabolic reflector. Skin oils are detrimental to the coating on the glass reflector.

IV. To prolong lamp life, avoid rough treatment of lighthouse while lamp is lighted.

V. Excessive brake friction will increase wear and can cause noisy operation. Proper friction is defined as that amount of friction that is just enough to prevent drifting when lighthouse is placed in selected position.

VI. Use only recommended lubricant. Oil will cause loss of friction. Do not grease sides of arms, plates, or friction washers.

VII. Always wear cloth gloves when handling replacement diffuser lens.

SECTION 1**GENERAL INFORMATION****1-1. APPLICATION AND DESIGN**

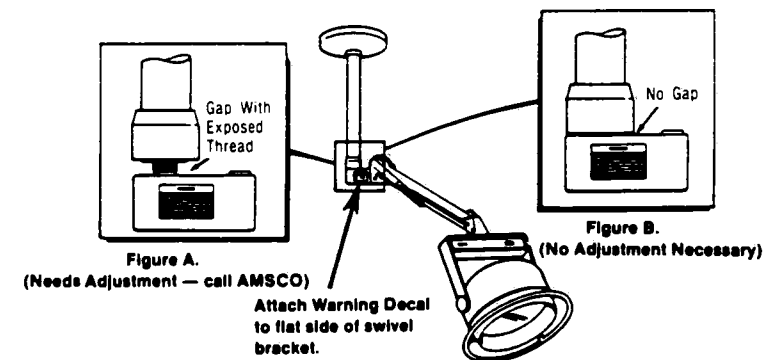
The product literature included in this section contains technical data relating to the principal descriptive and identifying characteristics of AMSCO's Examiner 10 Examination Lighting Fixtures. It describes and illustrates general concepts of the equipment, its purpose, capabilities, limitations, and technical specifications.

SAFETY NOTICE

Units shipped prior to March 1986 (serial numbers 0405686013 and earlier) may unscrew and fall, particularly if excessive force has been applied against rotational stops. Inspect light fixture for exposed threads (see Figures A and B) or proper appearance of suspension tube connection.

Attach warning decal (P-150824-296) to each light fixture as indicated. Warning decal states:

WARNING: LIGHTHEAD AND SUSPENSION BRACKET ASSEMBLY MAY FALL IF A GAP, EXPOSING THE THREADED CONNECTOR, APPEARS BETWEEN THE VERTICAL SUSPENSION TUBE AND LIGHT-HEAD BRACKET. PERIODICALLY CHECK FOR THE APPEARANCE OF EXPOSED THREADS AND, IF PRESENT, CONTACT YOUR AMSCO REPRESENTATIVE.



NOTE: Warning decal requires periodically checking light fixture for exposed thread condition and contacting AMSCO if repairs are necessary. This condition will be corrected at AMSCO's expense.


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AN EMPLOYEE OWNED COMPANY

Examination Lighting

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APPLICATION

This fixture provides cool, color-corrected light for examination, treatment and emergency areas.

MOUNTING CONFIGURATIONS

Fixtures are available for mounting on the wall or ceiling, or attached to a floor stand.

DESIGN AND CONSTRUCTION

General. Each fixture includes all components necessary to obtain a complete working unit, ready for (but not including) installation and connection to the building electric service lines. The fixture is listed by Underwriters Laboratories, Incorporated.

Lighthouse includes:

- **state-of-the-art design** ... 150-watt, quartz-halogen lamp (rated at 500 hours) and dichroic, coated, parabolic reflector. The reflector has a color-correcting cold mirror which reflects a controlled portion of the visible light onto a Pyrex® (Corning Glass Co.) diffuser. The diffuser smooths, blends and directs the light to the examination site. The cold mirror passes a majority of the heat (from the lamp) up through the vented lighthouse cover ... away from the examination site.
- **glare-reducing construction.** Glare is blocked by a retroreflector positioned so as not to interfere with the light pattern.
- **easy lamp replacement.** No tools are required. One extra lamp is furnished with each fixture.

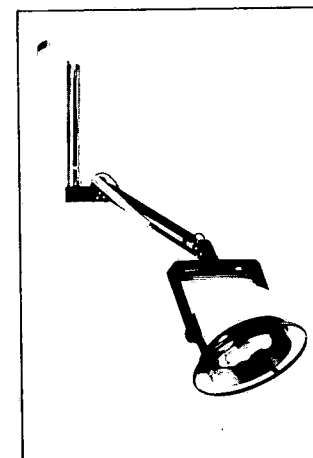
EXAMINER 10 LIGHTING FIXTURE 10" (254 mm) Lighthouse

- ceiling mounted
- wall mounted
- mobile floor stand

TECH DATA

- **smooth, exact positioning** without drifting, accomplished by using positioning ring on the lighthouse outer cover. The lighthouse is mounted in a movable yoke attached by a swivel to a spring-balanced suspension arm assembly. The swivel allows the yoke to be maneuvered through a wide range of positions. The power ON/OFF switch is on the yoke; the power cord and positioning spring are enclosed in the suspension arm.

An optional 14-inch (356-mm) long extension for the suspension arm is available for either wall- or ceiling-mount (single and dual) fixtures. The additional length provides more area coverage and more versatility.



Typical only — some details may vary.
(Single Ceiling-Mounted Fixture
Without Extension Arm Shown.)

THE SELECTIONS CHECKED BELOW APPLY TO THIS EQUIPMENT

Model

- ☐ Ceiling Mounted
 - ☐ Single
 - ☐ Dual
- ☐ Wall Mounted
- ☐ Mobile Floor Stand Fixture
 - ☐ 28" (711 mm) Base, 55" (1397 mm) Stand
 - ☐ 34" (864 mm) Base, 55" (1397 mm) Stand
 - ☐ 34" (864 mm) Base, 67" (1702 mm) Stand

Option

- ☐ Extension Arm (Only For Wall- or Ceiling-mounted Fixtures)
- ☐ Sterile Handle Kit (One Required for Each Lighthouse)

Item No. _____

Location(s) _____

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MOUNTING

Ceiling-mounted fixtures are suspended on a seamless, vertical chromium-plated steel tube (cut to size by others). The lighthead suspension arm slips into a casting on the lower end of the vertical tube and is secured by a close-fitting hinge pin. The upper end of the vertical tube is welded to a steel ceiling plate. A brushed aluminum cover is furnished to conceal the plate.

The vertical tube may be cut to length to suit various ceiling heights. AMSCO recommends a minimum ceiling height of 8'0" (2438.4 mm) to a maximum ceiling height of 10'0" (3048 mm).

Wall-mounted fixtures are furnished with a predrilled mounting bracket assembly. With this type of mounting, the lighthead may be extended, or, when not in use, the lighthead folds close to the wall.

Mobile floor stand fixtures are provided with a vertical stand. The stand supports the lighthead suspension arm. The stand is affixed to a sturdy metal base having ball-bearing casters with rubber tires. The base is either 28 inches (711 mm) or 34 inches (864 mm) wide, as specified. The

stand is 55 inches (1397 mm) high for the 28-inch (711-mm) base. A 55-inch (1397-mm) or 67-inch (1702-mm) high stand is available for the 34-inch (864-mm) base. See SELECTIONS.

FINISH

Exterior parts of the lighthead are made from Lexan® (General Electric Co.). Painted surfaces consist of sprayed-on baked enamel.

PERFORMANCE CAPABILITIES

Maneuverability. The fixture can move freely throughout its range of maneuverability without drifting when positioned at any point. With the lighthead in the horizontal plane, it is possible to raise or lower the lighthead in a 28 inch (711 mm) vertical sweep.

Light Color. The color of the light beam shall be approximately 4400° Kelvin (±400° K) as measured on a Commission International de l'Eclairage chromaticity diagram.

Beam Intensity. The beam intensity in a test field 42" (1066 mm) below the reflector rim shall measure 3200 foot-candles (34,444 lumens/m²), nominal.

Beam Temperature. The radiant heat energy in the light beam 42" (1066 mm) below the reflector rim, shall not exceed 18,600 microwatts/cm², when measured by a thermopile based upon readings taken with the lighthead at 3200 fc (34,444 lumens/m²).

Area of coverage. When in the horizontal plane, a ceiling-mounted lighthead will rotate 360° around the ceiling rod; a wall-mounted lighthead, 180° about the suspension arm support pin. The maximum radius of this imaginary circle (measured from the center line of the vertical support member to the outermost edge of the reflector rim) is:

- 34 inches (863 mm) for a ceiling-mounted lighthead;
- 48 inches (1219 mm) for a ceiling-mounted lighthead with optional extension for suspension arm;
- 31 inches (787 mm) for a wall-mounted lighthead;
- 45 inches (1143 mm) for a wall-mounted lighthead with optional extension for suspension arm; and
- 31 inches (787 mm) for lighthead on mobile floor stand.

MOBILE FIXTURE

SINGLE CEILING-MOUNTED FIXTURE*

WALL-MOUNTED FIXTURE

DUAL CEILING-MOUNTED FIXTURE*

-A- Tube Height	-B- Base Size	Approximate Total Weight lbs (Kg)
55 (1397)	27 (711)	55 (25)
55 (1397)	34 (864)	41 (18.6)
67 (1702)	34 (864)	51 (23.2)

*8'0" (2438.4 mm) minimum ceiling height to 10'0" (3048 mm) maximum ceiling height

Mounting Arrangement	Mounted Weight* lbs (Kg)	Moment Force lb-ft (m-Kg)
Wall	18 (8.2)	72 (10 0)
Wall w/extension	20 (9 1)	116 (16 0)
Single ceiling	24 (10 9)	101 (13 9)
Single ceiling w/extension	27 (12 2)	146 (20 2)
Dual ceiling	40 (18 2)	300 (41 4)
Dual ceiling w/extension	45 (20 5)	365 (50 5)

*Includes weight of lighthead(s)

DIMENSIONS ARE INCHES (MILLIMETERS) — DRAWING IS NOT TO SCALE

SEE NEXT PAGE FOR MOUNTING PLATE DETAILS AND NOTES PERTAINING TO EACH MOUNTING ARRANGEMENT.

This print is for guidance when planning space and utility services. Actual installation prints may be obtained from any AMSCO office or representative.

SECTION 2

OPERATING INSTRUCTIONS

2-1. GENERAL

The following instructions are intended to guide the serviceman (1) when instructing operators in techniques designed to ensure optimum equipment performance; and (2) when verifying validity of operator complaints. See Section 3. TROUBLESHOOTING, if fixture is not operating properly. Refer to Section 1, GENERAL INFORMATION, for capabilities of the equipment.

WARNING: THIS LIGHT SHOULD NEVER BE OPERATED IF THE DIFFUSER IS DAMAGED OR BROKEN. USE OF THE FIXTURE WITHOUT THE DIFFUSER OR WITH A DAMAGED DIFFUSER COULD CAUSE PERSONAL INJURY.

2-2. CEILING-MOUNTED FIXTURE

1. **Positioning Lighthead** — The following movements can be made by using the bezel-mounted handle:

(1) Rotate 180 degrees around vertical suspension arm; (2) rotate clockwise or counterclockwise about horizontal suspension arm (within limits of stops); (3) tilt forward or backward in yoke; and (4) move up or down by pivoting at horizontal suspension arm mounting point.

When examination light is not in use, raise suspension arm above the horizontal position. This relieves some tension and prolongs the life of the springs.

2. Operating Light —

a. Be sure electrical power (110-120 Volt A.C.) is supplied to ceiling junction box.

b. Use the rocker-type ON-OFF switch on the yoke to switch the light on. When not using the examination light, be sure to switch the light off. This will save energy and prolong life of lamp.

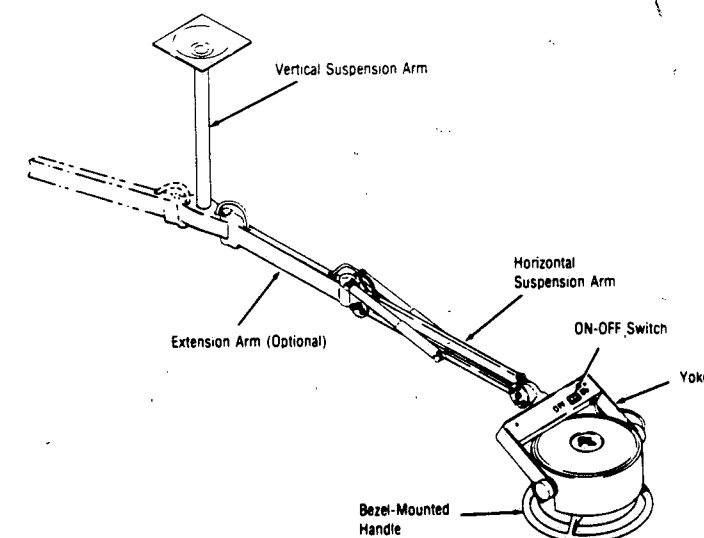
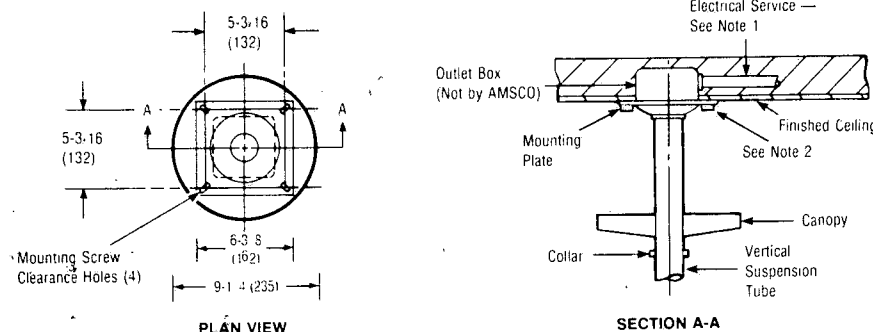


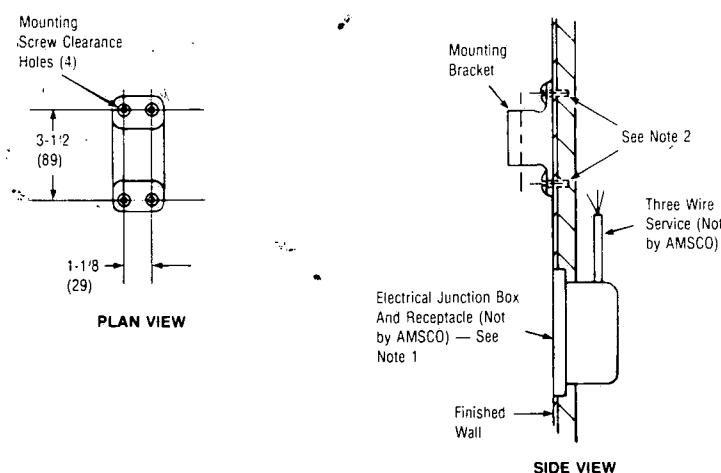
Figure 2-1. CEILING-MOUNTED LIGHthead.

2-1

Rev. 4/84



CEILING-MOUNTED FIXTURE



WALL-MOUNTED FIXTURE

DIMENSIONS ARE INCHES (MILLIMETERS) — DRAWING IS NOT TO SCALE

NOTES:

1. Provide 120-volt, 50/60 Hz (1.5 amps, one lighthead; 3 amps, two lightheads) electric service. The lighting fixture must be grounded.
2. Ceiling or wall structure must adequately support lighting fixture. See weights and moments listed in chart on previous page. Structure must be able to support an additional maximum 15 pound (6.8 Kg) force for manual adjustment of each lighthead.
3. Mounting plate must be level.
4. Four fasteners are required for each mounting configuration. Use No. 14 wood screws for installation of wall-mounted fixture on wood framing; 1/4-inch bolts or lag screws for structural installation of wall- or ceiling-mounted fixture. Fasteners for single lightheads must withstand 515 pounds (233.6 Kg) of tension; for dual lightheads — 435 pounds (198 Kg) of tension. (Screws, bolts or lag screws not by AMSCO.)

CHECK LOCAL CODES

This print is for guidance when planning space and utility services. Actual installation prints may be obtained from any AMSCO office or representative.

2-3. WALL-MOUNTED FIXTURE

1. **Positioning Lighthead** — The following movements can be made by using the bezel-mounted handle:

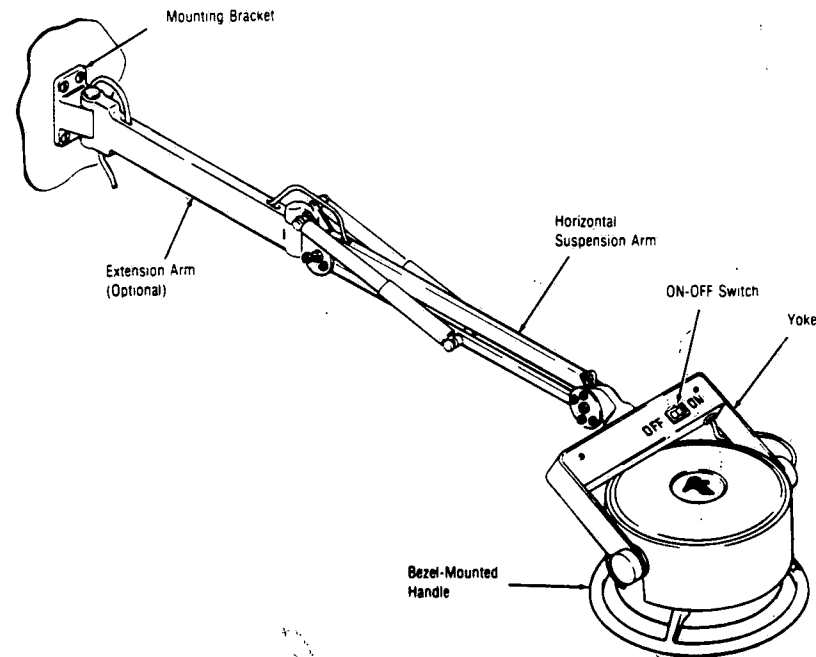
(1) Rotate 180 degrees around wall-mounted bracket; (2) rotate clockwise or counterclockwise about horizontal suspension arm (within limits of stops); (3) tilt forward or backward in yoke; and (4) move up or down by pivoting at horizontal suspension arm mounting point.

When examination light is not in use, raise suspension arm above the horizontal position. This relieves some tension and prolongs the life of the springs.

2. Operating Light —

- Be sure three-prong plug of lighthead is plugged into 110-120 Volt A.C. receptacle.
- Be sure electrical power is supplied to the receptacle.
- Use the rocker-type ON-OFF switch on the yoke to switch the light on.

When not using the examination light, be sure to switch the light off. This will save energy and prolong life of the lamp.

**Figure 2-2. WALL-MOUNTED LIGHTHEAD.**

2-2

2-4. MOBILE (FLOOR-STAND) FIXTURE

WARNING: DO NOT USE BEZEL-MOUNTED HANDLE TO MOVE MOBILE UNIT. USING THE HANDLE TO PUSH OR PULL THE UNIT MAY CAUSE IT TO TIP AND MAY RESULT IN INJURY TO PERSONNEL.

1. Positioning Floor Stand —

- Remove the three-prong plug from receptacle.
- Using the vertical support tube, move the floor stand to the desired location.

2. **Positioning Lighthead** — The following movements can be made by using the bezel-mounted handle:

- Rotate 360 degrees around support tube;
- rotate clockwise or counterclockwise about horizontal suspension arm (within limits of stops);

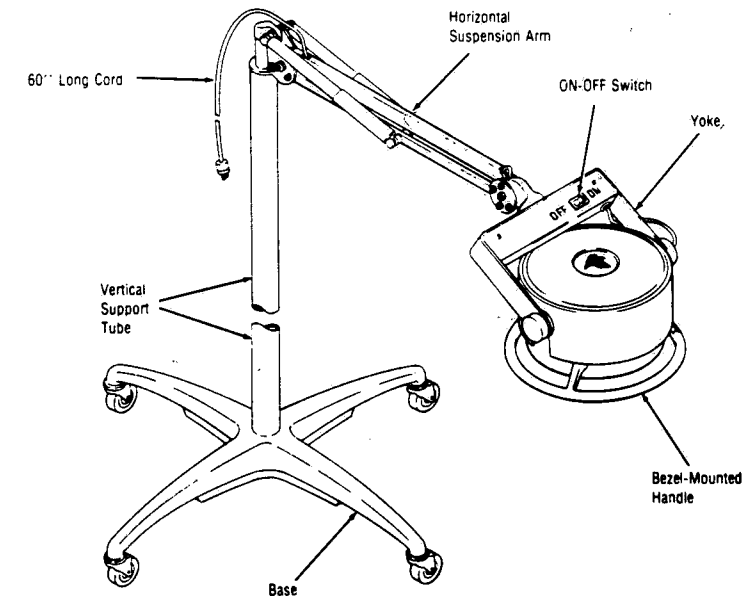
- tilt forward or backward in yoke;
- move up or down by pivoting at horizontal suspension arm mounting point.

When examination light is not in use, raise suspension arm above the horizontal position. This relieves some tension and prolongs the life of the springs.

3. Operating Light —

- Be sure three-prong plug of lighthead is plugged into 110-120 Volt A.C. receptacle.
- Be sure electrical power is supplied to the receptacle.
- Use the rocker-type ON-OFF switch on the yoke to switch the light on.

When not using the examination light, be sure to switch the light off. This will save energy and prolong life of the lamp.

**Figure 2-3. FLOOR-STAND-MOUNTED LIGHTHEAD.**

2-3

2-5. CLEANING INSTRUCTIONS

Cleaning The Lamp

WARNING: BE SURE POWER TO LIGHTHEAD IS OFF BEFORE CLEANING. ALSO BE SURE LAMP HOLDER AND DIFFUSER LENS ARE COOL BEFORE TOUCHING.

Cleaning Implements

- Small Basin and/or Container with Trigger Spray (1 each for clear water, detergent solution, and disinfectant solution)
- Soft lint-free cloths
- Rubber gloves
- Mild detergent solution (e.g., Joy, Ivory)
- Quarternary ammonium compound (e.g., Zephrian) at concentration and contact time recommended by the manufacturer.

CAUTION: To prevent damaging equipment, do not use abrasive pads or cleansers. Do not spray cleaner or disinfectant directly on equipment. Take care to prevent leakage of water into interior of lighthead. Do not attempt to clean the internal glassware as degradation may result.

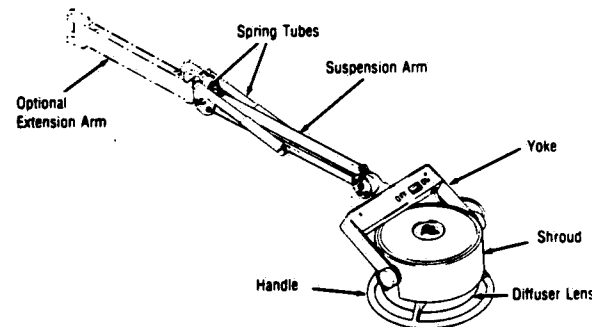


Figure 2-4. AREAS TO BE CLEANED.

Areas To Be Cleaned (Fig. 2-4)

The cleaning and disinfecting procedures described subsequently apply to each of the following areas:

Suspension Arm — Wipe the entire suspension arm including the spring tubes and yoke.

Lighthead — Wipe the shroud, handle with bezel, and diffuser lens.

Optional Extension Arm — Wipe entire arm.

Cleaning Procedure

1. Disconnect electrical power.
2. Wear rubber gloves.
3. Dampen a soft cloth with a mild detergent and water solution. Wring excess solution from cloth before wiping.
4. Dampen a clean soft cloth with clear water. Wring excess water from cloth and wipe all surfaces.
5. Wipe all surfaces dry with a clean, dry soft cloth.

Disinfecting Procedure

1. Disconnect electrical power.
2. Wear rubber gloves.
3. Dampen a soft cloth with disinfectant solution. Wring excess solution from cloth before wiping.
4. Wipe all surfaces dry with a clean, dry soft cloth.

SECTION 3

INSPECTION AND MAINTENANCE

3-1. GENERAL

The maintenance described in paragraphs 3-2 and 3-3 should be performed at intervals best determined by usage of the equipment. Should a problem occur when operating the unit, refer to paragraph 3-4, TROUBLESHOOTING. Figure 3-1, pp. 3-3 and 3-4 is a sample maintenance record which we suggest the Maintenance Department keep. Such a record would prove helpful in assuring regular maintenance.

3-2. ROUTINE INSPECTION

1. Inspect entire installation for any signs of damage or misaligned parts. Check for gap with exposed threads as noted on page 1-1.
2. Be sure ceiling or wall fasteners are tight and fixture is properly supported.

NOTE: Position lighthead so reflector rim is either parallel or perpendicular to the floor. The lighthead should not drift.

Position support arm in any position. The arm should not drift.

3. Check lighthead movement (para. 2-2) using bezel-mounted handle. Be sure each movement is smooth and there is no binding, drifting, or alien noises.

4. Check electrical components for loose wires, improper connections, and other obvious defects.

NOTE: Proper lamp type and wattage are necessary to provide correct pattern and intensity of the Examination Lighting Fixture. Use only approved replacement lamps.

5. Refer to paragraph 4-2 and remove lamp. Check it for proper wattage and type.

3-3. PREVENTIVE MAINTENANCE

1. Thoroughly inspect (para. 3-2) and clean (para. 2-5) the fixture.

3-4. TROUBLESHOOTING

1. Use operating instructions presented in Section 2 to verify trouble symptoms.
2. After symptom has been verified, refer to Table 3-1. From the table, select example that is most appropriate to your problem. Follow recommended correction.
3. Refer to Section 4, COMPONENT REPAIR AND REPLACEMENT, for guidance when attempting repairs.

TABLE 3-1. TROUBLESHOOTING CHART

PROBLEM	SUGGESTED CORRECTION
1. Lighthead does not function.	<ol style="list-style-type: none"> a. Be sure power is on at electric panel. Check condition of fuse or position of circuit breaker. Check wall outlet for power. b. Check lamp; replace if necessary (paragraph 4-2). c. Check plug for broken or loose wires.
2. Light flickers.	<ol style="list-style-type: none"> a. Examine all connections; tighten or repair as necessary. b. Check lamp for broken filament or other damage; replace if necessary (paragraph 4-2). c. Check lamp socket for burned contacts.

TABLE 3-1: CONTINUED

PROBLEM	SUGGESTED CORRECTION
3. Light intensity or beam pattern is poor.	a. Clean diffuser lens. b. Be sure lamp is of proper wattage, type, and voltage; replace if necessary (paragraph 4-2). c. Check input power for proper voltage. d. Check that focus adjust lock screws have not been tampered with. Replace entire lighthouse assembly, if necessary.
4. Lighthouse and suspension arm drifts up or down.	a. Tighten suspension arm friction adjustment nuts (paragraph 4-6). b. Disassemble arm and clean to remove all oil from pivots.
5. Yoke does not rotate smoothly or drifts.	a. Adjust yoke pivot locknut (paragraph 4-7) until desired movement is obtained.
6. Lighthouse does not rotate smoothly or drifts.	a. Adjust lighthouse pivot pins and locknuts (paragraph 4-8) until desired friction is obtained.
7. Suspension arm squeaks.	a. Lubricate pivot points and spring pivots (paragraph 3-5).
8. Wall-mounted suspension/extension arm drifts to one side or toward center.	a. Adjust wall bracket (paragraph 4-12).
9. Ceiling mounted lights bind at lateral pivot point with extension arm (units before 1982).	a. Replace pivot with new bracket and insert assembly P-755715-240 (paragraph 4-15).
10. Light intensity produced at surgical field is too hot.	a. Refocus light (paragraph 4-16).

CAUTION: Use only recommended lubricant. Oil will cause loss of friction. Do not grease sides of arms, plates, or friction washers.

3-5. LUBRICATION

NOTE: Do not disassemble suspension arm to lubricate. Use only enough grease to eliminate squeaking.

1. Using a toothpick or other small implement, apply a minute amount of grease such as Neptune-7*, or equivalent, to pivot points.

2. Work grease into pivot points from inside of tubes by moving arm up and down before applying any additional grease.

3. Apply a small amount of grease*, to spring pivots.

4. Apply a small amount of grease on lateral pivot clevis pin(s).

*Available by ordering AMSCO part P-764315-995.

PREVENTIVE MAINTENANCE RECORD Page 1 of 2

CUSTOMER _____

City _____ State _____

Department _____

This form to be utilized for preventive maintenance record only and is not to be used as a guide to perform maintenance.

(Circle "X" in Column When Service Is Performed)

	1ST INSPECTION	2ND INSPECTION	3RD INSPECTION	4TH INSPECTION	5TH INSPECTION	6TH INSPECTION
1. Discuss operation with department personnel.	X	X	X	X	X	X
2. Lighthouse Reflector Assembly:						
A. Inspect drift of lighthouse within yoke.	X	X	X	X	X	X
B. Inspect cord for deterioration. Replace if necessary.	X	X	X	X	X	X
C. Tighten all screws as required.	X		X		X	
D. Check for drift of yoke. Adjust if required.	X	X	X	X	X	X
NOTE: Do not touch lamp glass with bare fingers. Skin oils and grease are detrimental to lamp life.						
E. Check that lamp is operating properly and is of proper wattage.		X		X		X
3. Horizontal Suspension Arm Assembly:						
A. Inspect for drift of arm assembly.	X	X	X	X	X	X
B. Lubricate pivot points and spring pivots with Neptune-7 Grease (Ore-Lube Corp.) as required.	X	X	X	X	X	X
C. Verify suspension arm pivot pin is secured with groove pin.	X	X	X	X	X	X
4. Clean diffuser lens.		X		X		X
5. Check all electrical connections and wire routing for fraying or loose terminals.	X		X		X	
6. Mounting:						
A. Lubricate pivot pin points.	X		X		X	
B. Lubricate casters (if applicable).		X		X		X

EQUIPMENT Examiner 10 Light

Serial No.

Figure 3-1. SAMPLE PREVENTIVE MAINTENANCE RECORD (Sheet 1 of 2).

PREVENTIVE MAINTENANCE RECORD Page 2 of 2

CUSTOMER _____
City _____ State _____
Department _____

This form to be utilized for preventive maintenance record only and is not to be used as a guide to perform maintenance.
(Circle "X" In Column When Service Is Performed)

	1ST INSPECTION	2ND INSPECTION	3RD INSPECTION	4TH INSPECTION	5TH INSPECTION	6TH INSPECTION	
7. Verify unit complies with National Electric Code current leakage: 500μ Amps (general patient) or 100μ Amps (critical care).	X	X	X	X	X	X	EQUIPMENT Examiner 10 Light Serial No.
8. Ensure ground resistance is less than 0.1 ohm.	X	X	X	X	X	X	
9. Final Test:							
A. Operate light through all positions.	X	X	X	X	X	X	
B. Police work area to assure removal of all materials used during inspection.	X	X	X	X	X	X	

INSPECTOR: Sign For Each Inspection and Fill In Date:

_____	Date								
_____	Date								
_____	Date								
_____	Date								
_____	Date								

Figure 3-1. SAMPLE PREVENTIVE MAINTENANCE RECORD (Sheet 2 of 2).

SECTION 4
COMPONENT ADJUSTMENT, REPAIR AND REPLACEMENT

4-1. GENERAL

This section includes instructions for the adjustment, disassembly, repair, and replacement of selected components. Illustrations showing the various parts and assemblies referred to in this section are in Section 5.

WARNING: TURN OFF POWER TO LAMP BEFORE RELAMPING. LAMP HOLDER WILL REMAIN HOT AFTER LIGHT IS OFF. BE SURE REFLECTOR OUTER COVER IS COOL BEFORE TOUCHING.

4-2. LAMP REPLACEMENT (Fig. 4-1)

1. Be sure power to fixture is off and lighthead is cool.
2. Loosen shroud retaining thumb screw until shroud assembly is loose on lighthead.

NOTE: Thumb screw is a captive screw; it is not removable.

3. Tilt lighthead forward in yoke so diffuser lens is toward suspension arm. Remove shroud assembly from lighthead.

4. Loosen two thumb screws on lamp holder. Rotate lamp holder counterclockwise and pull it gently from back of lighthead.

WARNING: WEAR CLOTH GLOVES OR WRAP LAMP IN PROTECTIVE CLOTH WHEN REMOVING LAMP FROM LAMP HOLDER.

5. To remove old lamp, push lamp base into lamp holder and rotate it counterclockwise.

CAUTION: Do not touch glass portion of lamp with bare fingers while relamping. Skin oils on glass are detrimental to lamp life. If lamp is touched, dampen a soft white cloth with alcohol and wipe lamp. Wipe dry with a clean, dry soft cloth.

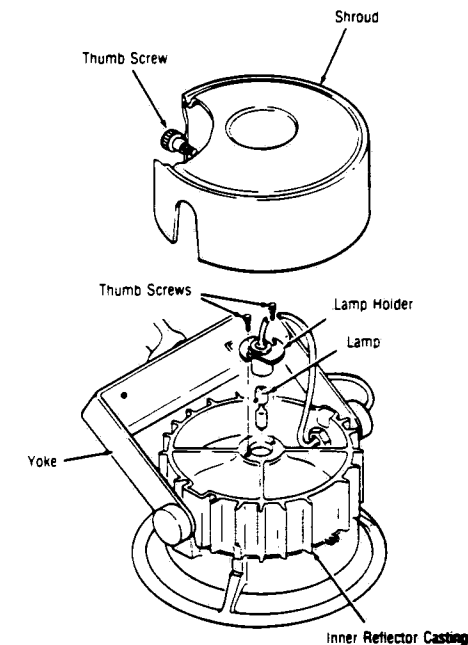


Figure 4-1. REPLACING LAMP.

6. Grasp new lamp by its base (do not remove protective wrapper from lamp) and insert it into lamp holder. Rotate lamp clockwise until it locks in position.

7. Remove protective wrapper from lamp. Do not touch lamp glass.

8. Place lamp holder into back of lighthead. Position thumb screws in slots of lamp holder, engage threads, and tighten.

9. Reinstall shroud assembly on lighthead and securely tighten thumb screw.

4-3. CEILING MOUNT FIXTURE REPLACEMENT (Single or Dual) Figure 5-3

Removal from Mounting (Single or Dual)

WARNING: BE SURE POWER TO CEILING MOUNTED JUNCTION BOX IS OFF BEFORE PROCEEDING.

1. Refer to Figure 5-3 and remove cover (14) single, (21) dual from suspension arm bracket.

2. Loosen setscrew (6) on collar (5) and slide collar and canopy (4) down to provide access to ceiling wiring. Secure collar and canopy to suspension tube with tape.

3. Disconnect power cord from ceiling junction box and splice a length of #14 or #16 wire to the end of the power cord. (This is needed to pull power cord when reassembling light.)

4. Gently pull power cord through suspension tube and out of suspension arm bracket. Pull just far enough so that splice is accessible at suspension arm bracket.

5. Loosen wires spliced in step 4 above.

WARNING: SUSPENSION ARM SPRING TUBES MUST BE SECURED TO PREVENT SPRING BACK WHEN WEIGHT IS REMOVED.

6. Place the lighthead assembly in the full "down" position. Wrap several layers of strong tape around suspension arm spring tubes.

7. Lift lighthead and suspension arm assembly out of suspension arm bracket. Weight of each arm is approximately 12 lbs.

NOTE: For dual light, repeat procedure on opposite side.

8. For light fixture with an extension arm, proceed as follows: (See Figure 4-4 and 5-5 (28)).

a. Pull power cord toward lighthead and out of extension arm.

b. Lift lighthead and suspension arm assembly out of extension arm.

c. Remove clevis pin (29) from extension arm and suspension arm bracket, remove extension arm.

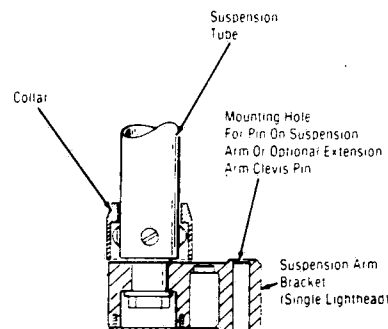


Figure 4-2. SINGLE SUSPENSION ARM BRACKET.

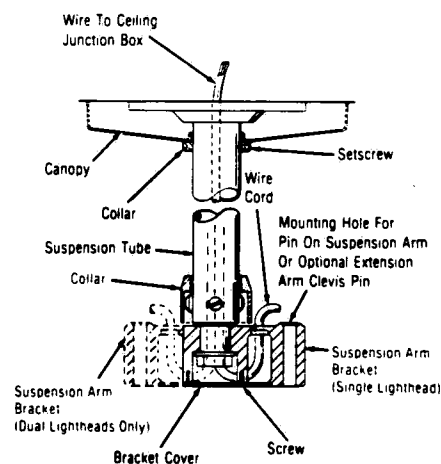


Figure 4-3. DUAL CEILING MOUNTED FIXTURE WIRING.

9. Remove screws (8) and washers (for units shipped before 5/82) holding suspension arm bracket and insert assembly. On models after 3/83, remove protective collar over suspension tube screws.

10. Slide bracket and insert assembly out of vertical suspension tube. Be careful not to disturb wire that is still inside vertical suspension tube.

11. Remove canopy and collar.

12. Remove screws holding vertical suspension tube.

13. Replace with new unit. Reverse above procedure being careful to maintain wire through new vertical suspension tube. Attach wire to new power cord and pull new wire through to ceiling mount.

14. Rewire ceiling junction box.

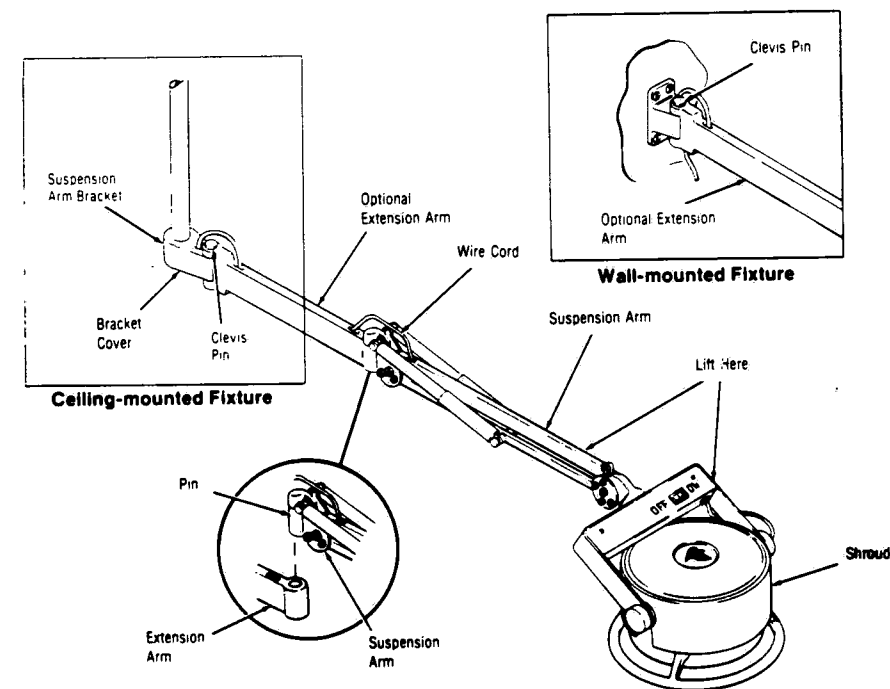


Figure 4-4. REMOVING/INSTALLING SUSPENSION ARM AND OPTIONAL EXTENSION ARM

4-4. WALL- OR MOBILE FLOOR-STAND-MOUNTED FIXTURE REPLACEMENT (Fig. 5-4)

Removal

1. Be sure power to light fixture is off and lighthead is cool.
2. Adequately support the lighthead assembly (weight is approximately 12 pounds [5.4 kilograms]).

3. Remove lighting fixture plug from power source receptacle. Lift lighthead and suspension arm assembly from support tube insert (Fig. 5-4, 2) or wall bracket (1). For wall-mounted lighting fixtures with optional extension arm, remove clevis pin from extension arm and wall bracket; remove lighthead and suspension arm assembly with extension arm from wall bracket.

NOTE: Mobile floor-stand fixtures do not use extension arms.

4. Reassemble items in reverse order.

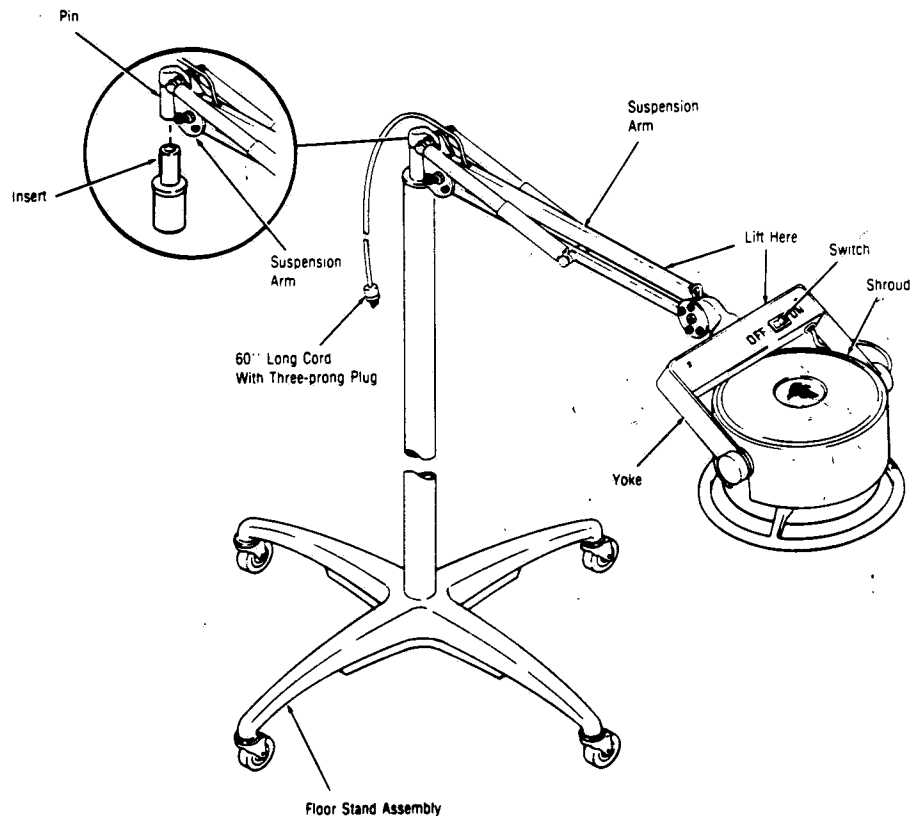


Figure 4-5. FLOOR-STAND FIXTURE.

4-4

4-5 OPTIONAL EXTENSION ARM REPLACEMENT (Fig. 5-5)

1. Remove lighthead and suspension arm assembly with extension arm from wall bracket.
2. Disconnect all three wires from lighting fixture plug. Remove plug from power cord.
3. Pull power cord toward lighthead and out of extension arm. Lift suspension arm pivot pin (Fig. 5-5, 1) out of extension arm (Fig. 5-5, 2).
4. Reassemble items in reverse order. Be sure green wire of power cord is connected to terminal plug marked GR.

NOTE: If extension arm binds when laterally moved, install a Bracket and Insert Kit (Fig. 5-5). Follow procedure outlined in paragraphs 4.3.1 to 4.3.9 for disassembly. Continue as follows:

5. Remove screws and washers holding suspension arm bracket and insert assembly.
6. Slide bracket insert assembly out of vertical suspension tube. Be careful not to disturb pulling wire that is still inside vertical suspension tube.
7. Remove bottom cover from new bracket and insert assembly and feed pulling wire through.
8. Position assembly in vertical suspension tube and secure with nylon washers and round-head screws shipped in Kit (Fig. 5.5). Apply Locktite 222 (part R-5300-545) to screws.
9. Replace lighthead/suspension arm assembly in suspension arm bracket.
10. Apply a small amount of Alvania EP-2 grease to clevis pin and secure lighthead/suspension arm assembly to new bracket and insert assembly.
11. Splice power cord to pulling wire and pull cord back up to ceiling junction box.
12. Reconnect wires in junction box.
13. Slide canopy and collar back into position and tighten collar setscrew.
14. Replace bottom cover on bracket and insert assembly.
15. Discard used bracket and insert assembly and associated hardware.

16. Turn ON power to ceiling junction box.

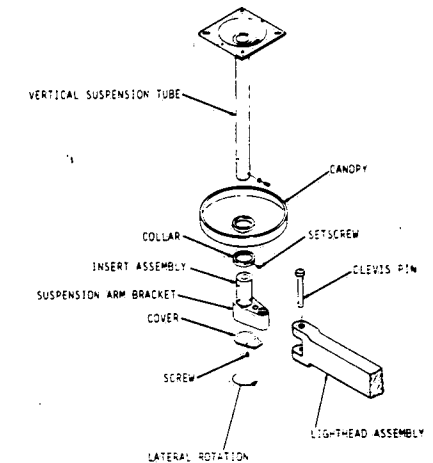


Figure 4-6. INSTALLING BRACKET AND INSERT KIT.

4-6 COUNTERBALANCE ADJUSTMENT

CAUTION: Excessive friction will increase wear and can cause noisy operation. Proper friction is that amount which prevents drift when lighthead is placed in selected position.

1. Hold locknut (Fig. 5-5, 12) with a 3/8-inch wrench and tighten adjusting screw (11) with a 1/8-inch Allen wrench. Tighten all four screws, two on each end of suspension arm assembly, until proper friction is obtained.

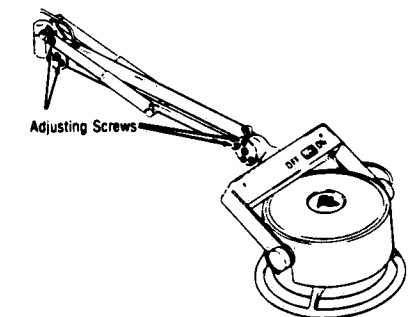


Figure 4-7. COUNTERBALANCE ADJUSTMENT.

4-5

4-7. YOKE PIVOT ADJUSTMENT (Fig. 5-2)

WARNING: TURN OFF POWER TO EXAMINATION LIGHTING FIXTURE BEFORE ADJUSTING YOKE PIVOT.

1. Be sure power to light fixture is off and lighthouse is cool.
2. Remove switch box (Fig. 5-2, 18) by removing two screws (5) from back of yoke (6).
3. Using a 3/4-inch open end wrench, adjust locknut (9) on suspension arm mount until proper friction is obtained.

CAUTION: Excessive friction will increase wear and can cause noisy operation. Proper friction is that amount which prevents drift when lighthouse is placed in selected position.

4. Reinstall switch box with the two screws.

4-8. LIGHTHEAD PIVOT ADJUSTMENT (Fig. 5-2)

WARNING: TURN OFF POWER TO EXAMINATION LIGHTING FIXTURE BEFORE ADJUSTING LIGHTHEAD PIVOT.

1. Be sure power to light fixture is off and lighthouse is cool.

2. Loosen shroud assembly thumb screw (Fig. 5-2, 22) until shroud (23) is loose on lighthouse.

NOTE: Thumb screw (22) is a captive screw; it is not removable.

3. Tilt lighthouse forward in yoke so diffuser lens (34) is toward suspension arm. Remove shroud assembly from lighthouse.

4. Use a metal disc 3/32-inch thick by 1-1/4 to 1-1/2 inches diameter (the size of a U.S. half dollar coin) to prevent pivot pin (10) from turning. Adjust locknut (14) with a 3/4-inch open end wrench until proper friction is obtained. Adjust both pivot pins (10) and locknuts (14) to equalize friction on sides of lighthouse.

CAUTION: Excessive friction will increase wear and can cause noisy operation. Proper friction is that amount which prevents drift when lighthouse is placed in selected position.

5. Reassemble items in reverse order.

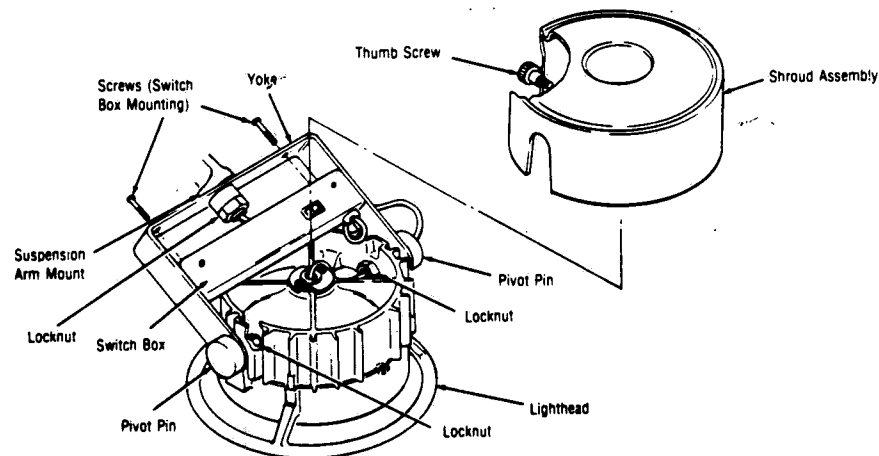


Figure 4-8. ADJUSTMENTS OF PIVOTS.

4-9. LIGHTHEAD (Fig. 5-2)**Diffuser Lens Replacement**

WARNING: TURN OFF POWER TO EXAMINATION LIGHTING FIXTURE BEFORE REPLACING DIFFUSER LENS.

1. Be sure power to light fixture is off and lighthouse is cool.
2. Loosen shroud assembly thumb screw (Fig. 5-2, 22) until shroud (23) is loose on lighthouse.

NOTE: Thumb screw (22) is a captive screw; it is not removable.

3. Tilt lighthouse forward in yoke so diffuser lens (34) is toward suspension arm. Remove shroud assembly from lighthouse.

4. Place lighthouse in full "down" position with bezel handle (38) resting on a flat surface. Wrap several layers of strong tape around suspension arm spring tubes.

WARNING: SUSPENSION ARM SPRING TUBES MUST BE SECURED TO PREVENT SPRING BACK WHEN WEIGHT IS REMOVED.

5. Remove three socket head cap screws (32) which secure bezel and handle (38) to reflector (30). Carefully lift lighthouse and suspension arm assembly away from bezel and handle (38).

CAUTION: Do not touch inside surfaces of parabolic reflector (31). Skin oils are detrimental to the coating on the glass reflector.

6. Tilt lighthouse until diffuser lens is up.
7. Remove three round head screws (37), lockwashers (36), and clips (35) which secure diffuser lens (34); remove diffuser lens.
8. Reassemble items in reverse order. Do not over-tighten screws (37) holding clips (35) and diffuser lens (34) in place.

CAUTION: Always wear cloth gloves when handling replacement diffuser lens.

4-10. DICHROIC MIRROR REPLACEMENT

To replace the dichroic mirror, the entire lighthouse must be replaced.

WARNING: BEFORE REMOVING SPRING(S) FROM ARM, BE SURE THAT ARM IS SECURELY HELD IN THE FULL "UP" POSITION.

4-11. SPRING REPLACEMENT (Fig. 5-5)

1. Using several layers of strong tape, secure arm in full "up" position.
2. Remove old spring (Fig. 5-5, 16) completely.
3. Slip new spring into spring tubes (15 and 17).
4. Slip spring loop, at end of spring that is protruding from smallest diameter spring tube (15), onto spring retainer (3 or 6) nearest mounting bracket.
5. Remove screw (18) from spring retainers (3 and 6) in center of arm.
6. Hook both spring retainers (3 and 6) in free ends of springs.
7. Slip screw (18) through non-threaded spring retainer (3), stretching spring until screw enters hole in arm.
8. When screw is completely through the arm, apply Loc-tite #222 or equivalent to threads.

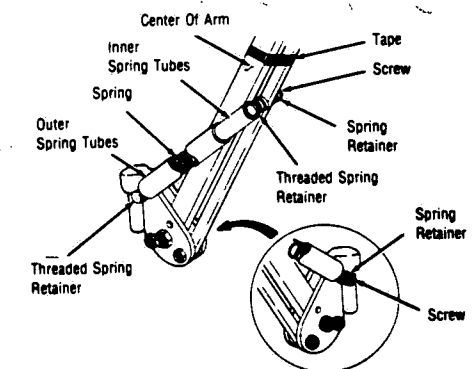


Figure 4-9. REPLACING SPRINGS.

9. Carefully insert an Allen wrench or small screw driver blade into outside of threaded spring retainer (6).

10. Stretch spring until retainer engages screw.

11. Tighten retaining screw (18).

12. Wipe excess Loc-tite from exposed surfaces.

13. Remove tape used to secure arm in "up" position.

4-12. WALL BRACKET TEST

1. With arm in horizontal position, rotate the arm in wall bracket and ensure that it does not drift when positioning force is removed. If the arm swings by itself, wall bracket may be adjusted by loosening the screws. The drift condition of arm may also be caused by tilting of the bracket front to back which may be corrected by placing appropriate shims (not supplied by AMSCO) behind the bracket.

4-13. SWITCH REPLACEMENT

WARNING: TURN OFF POWER TO LIGHTING FIXTURE BEFORE REPLACING SWITCH.

1. Be sure power is off and lighthead is cool.

2. Disassemble switch box by removing two mounting screws from back of yoke.

3. Cut wires at butt connectors.

4. Remove defective switch.

5. Install replacement switch by pushing into hole in switch box.

6. Strip wires and reconnect with butt connectors as shown.

7. Reassemble switch box by replacing the two screws previously removed.

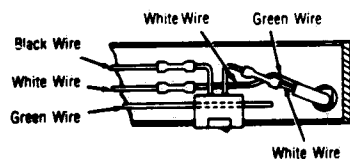


Figure 4-10. SWITCH WIRING.

4-14. LAMP SOCKET REPLACEMENT

1. Be sure power to fixture is off and lighthead is cool.

2. Loosen shroud retaining thumb screw until shroud assembly is loose on lighthead.

NOTE: Thumb screw is a captive screw; it is not removable.

3. Tilt lighthead forward in yoke so diffuser lens is toward suspension arm. Remove shroud assembly from lighthead.

4. Loosen two thumb screws on lamp holder. Rotate lamp holder counterclockwise and pull it gently from back of lighthead.

WARNING: WEAR CLOTH GLOVES OR WRAP LAMP IN PROTECTIVE CLOTH WHEN REMOVING LAMP FROM LAMP HOLDER.

5. To remove old lamp, push lamp base into lamp holder and rotate it counterclockwise.

6. Disconnect lamp holder wires by cutting butt connectors.

7. Loosen two set screws (Fig. 5-2, 24) holding socket in housing and remove socket. **Do not loosen Focus Adjust set screws.**

8. Install replacement socket, making sure that it is bottomed in retainer (Fig. 5-2, 25), and tighten set screws.

9. Strip wires and reconnect with butt connectors.

10. Refer to paragraph 4-2, instructions 6 thru 9 to install lamp.

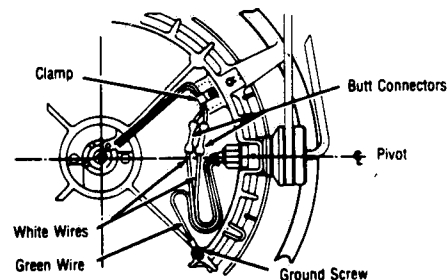


Figure 4-11. LAMP SOCKET WIRE ROUTING.

4-15. BRACKET AND INSERT ASSEMBLY INSTALLATION

WARNING: BE SURE POWER TO JUNCTION BOX IS OFF AND LIGHTHEAD IS COOL.

1. Adequately support the lighthead and suspension arm assembly. Weight is approximately 12 pounds.

2. Refer to Figure 4-12 and remove cover from suspension arm bracket.

3. Loosen setscrew on collar and slide collar and canopy down. Secure collar and canopy to suspension tube with tape.

4. Disconnect power cord from ceiling junction box and splice a length of #14 or #16 wire to the end of the power cord. (This is needed to pull power cord when reassembling light.)

5. Gently pull power cord through suspension tube and out of suspension arm bracket. Pull just far enough so that splice is accessible at suspension arm bracket.

6. Loosen spliced wires.

7. Remove clevis pin holding lighthead/suspension arm assembly and lift lighthead/suspension arm assembly out of suspension arm bracket.

8. Remove screws and washers* holding suspension arm bracket and insert assembly.

9. Slide bracket and insert assembly out of vertical suspension tube. Be careful not to disturb pulling wire that is still inside vertical suspension tube.

10. Remove bottom cover from new bracket and insert assembly and feed pulling wire through.

11. **On units shipped prior to 7/83,** position assembly in vertical suspension tube and secure with nylon washers and round-head screws. **On units shipped after 7/83,** position assembly in vertical suspension tube and secure with round-head screws with nylon inserts. Apply Loctite 222 (R-5300-545) to screws.

12. Replace lighthead/suspension arm assembly in suspension arm bracket.

*Nylon washers used on units shipped prior to 7/83 only.

13. Apply a small amount of Alvania EP-2 grease to clevis pin and secure lighthead/suspension arm assembly to new bracket and insert assembly.

14. Splice power cord to pulling wire and pull power cord back up to ceiling junction box.

15. Reconnect wires in junction box.

16. Slide canopy and collar back into position and tighten collar setscrew.

17. Replace bottom cover on bracket and insert assembly.

18. Discard used bracket and insert assembly and associated hardware.

19. Turn ON power to ceiling junction box.

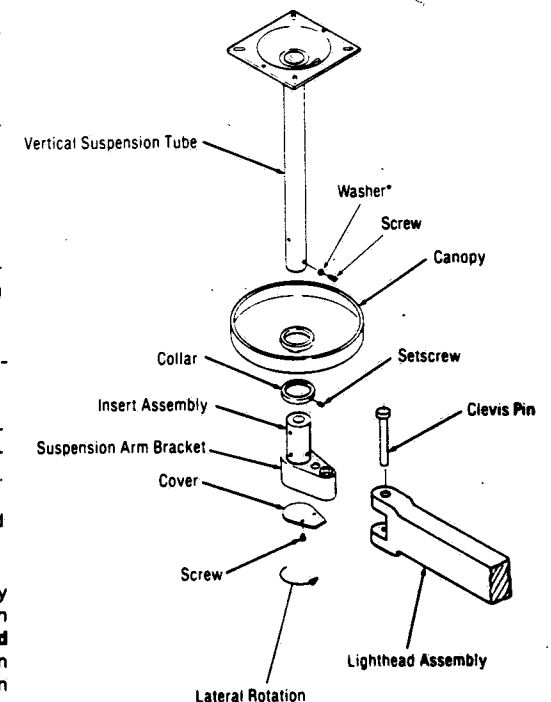


Figure 4-12. CEILING MOUNT ASSEMBLY.

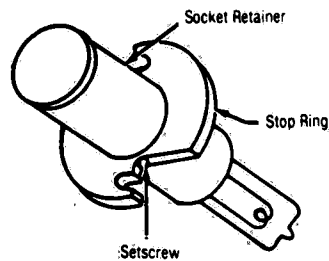


Figure 4-13. LAMPHOLDER ASSEMBLY.

4-16. LIGHT REFOCUS PROCEDURE

CAUTION: Ensure power switch is OFF before performing following procedure.

1. Turn Power Switch to OFF.
2. Loosen thumbscrew on back of shroud and lift shroud off.
3. Loosen two thumbscrews on lampholder assembly and remove assembly.
4. Loosen two setscrews on stop ring (see Figure 4-13).
5. Slide socket retainer 1/2 inch into light. Tighten setscrews, reassemble lighthead and check intensity, using GE214 light meter.
6. Verify intensity of light pattern is 2500 to 4200 FCDS at 42 inches, or is at intensity acceptable to customer.

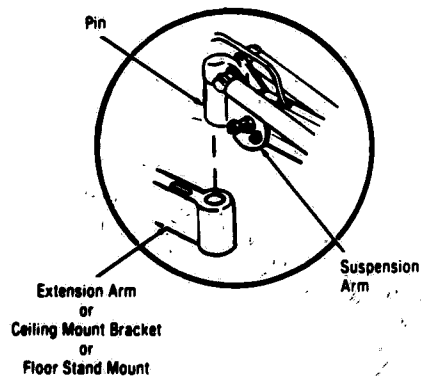


Figure 4-14. REMOVING SUSPENSION ARM.

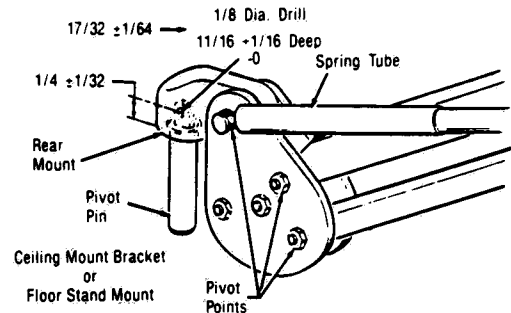


Figure 4-15. SECURING PIVOT PIN.

4-17. SECURING PIVOT PIN

Install groove pin (P-31704-061) to secure pivot pin to rear mount as follows:

WARNING: ENSURE POWER IS DISCONNECTED AND LIGHT ASSEMBLY IS COOL TO TOUCH BEFORE PROCEEDING WITH THIS PROCEDURE.

1. Prepare Unit:

- a. Floor or wall mounted light; disconnect power cord by removing plug from wall socket.
- b. Ceiling mounted light (see Figure 4-3):
 - 1) Disconnect wires at junction box.
 - 2) Remove cover from suspension arm bracket.
 - 3) Loosen setscrew on canopy collar and slide both collar and canopy down. Secure collar and canopy to suspension tube with tape.
 - 4) Splice a length of #14 or #16 wire to end of power cord. (This is needed to pull power cord when reassembling light.)
 - 5) Gently pull power cord through suspension tube and out of suspension arm bracket. Pull just far enough so that splice is accessible at suspension arm bracket.

6) Loosen spliced wires.

2. Procedure:

- a. Floor, ceiling or wall mounted lights (see Figure 4-14):

- 1) Remove suspension arm and lighthead, as one assembly, from suspension arm bracket by lifting assembly out of bracket.

NOTE: On ceiling mounted lights ensure **not** to disturb "pulling wire" still inside vertical suspension tube.

- a) For lights with extension arm (see Figure 4-4) remove clevis pin holding lighthead/suspension arm assembly and lift assembly out of suspension arm bracket.

- 2) Secure pivot pin to rear mount using grooved pin (P-31704-061) as follows (see Figure 4-15):

- a) Using a 1/8-inch diameter drill bit, drill a 11/16 (+1/16, -0) inch hole in rear mount. Ensure proper hole size is maintained.

NOTE: Prevent metal shavings from entering spring tubes and pivot areas of suspension arm assembly.

- b) Clean all metal shavings from pivot pin and rear mount area.

- c) Insert grooved pin so that top end is flush with surface.

- 3) Apply light coat of Alvania EP-2 grease to pivot pin.

- 4) Replace lighthead/suspension arm assembly in suspension arm bracket.

3. Conclusion:

- a. Floor or wall mounted light:

- 1) Reconnect plug.
- 2) Turn power ON and check for proper functioning and positioning of lighthead.

- b. Ceiling mounted light (see Figure 4-3):

- 1) Splice power cord to pulling wire and pull power cord to ceiling junction box.

- 2) Reconnect wires in junction box.

- 3) Slide canopy and collar into position and tighten collar setscrew.

- 4) Replace bottom cover on bracket and insert assembly.

- 5) Turn power ON and check for proper functioning and positioning of lighthead.

- c. Lights with extension arm (see Figure 4-4): apply light coat of Alvania EP-2 grease to clevis pin and secure lighthead/suspension arm assembly to bracket. Insert assembly.

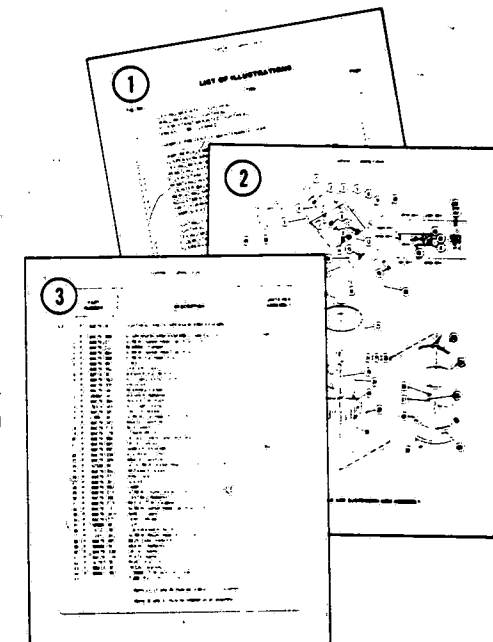
SECTION 5

EXPLODED VIEWS AND PARTS LISTS

Assemblies and components of the Examination Lighting Fixture are illustrated and identified on the following pages. The part number, the description and the quantity required for each usage is given. Each indentation in the description represents the assembly level. The UNITS PER ASSEMBLY column is specific for the given assembly or subassembly level.

How To Use The Illustrated Parts Breakdown

- ① Determine the function and application of the part required. Turn to the List of Illustrations and select the most appropriate title. Note the illustration page number.
- ② Turn to the page indicated and locate the desired part on the illustration.
- ③ From the illustration, obtain the index number assigned to the part desired. Refer to the accompanying description for specific information regarding the part.



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TYPICAL INDENTATION EXAMPLE

No indentation —
part of top assembly

One indentation —
(first subassembly)
part of above item
with no indentation

BRACE, Switch Box
BOX, Switch
STRAIN RELIEF
DECAL, Control Panel (With Warning)
DECAL, Shroud
SHROUD ASSEMBLY
• SCREW, Thumb

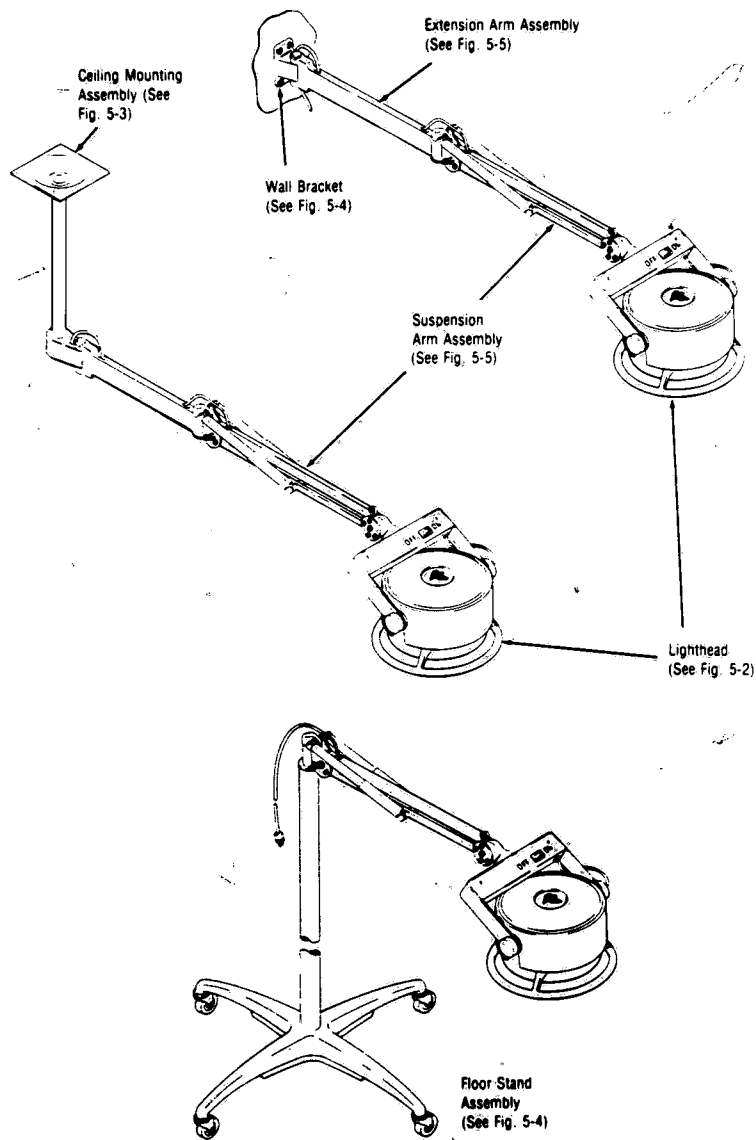


Figure 5-1. LIGHTING FIXTURE ASSEMBLY.

5-2

C- 5

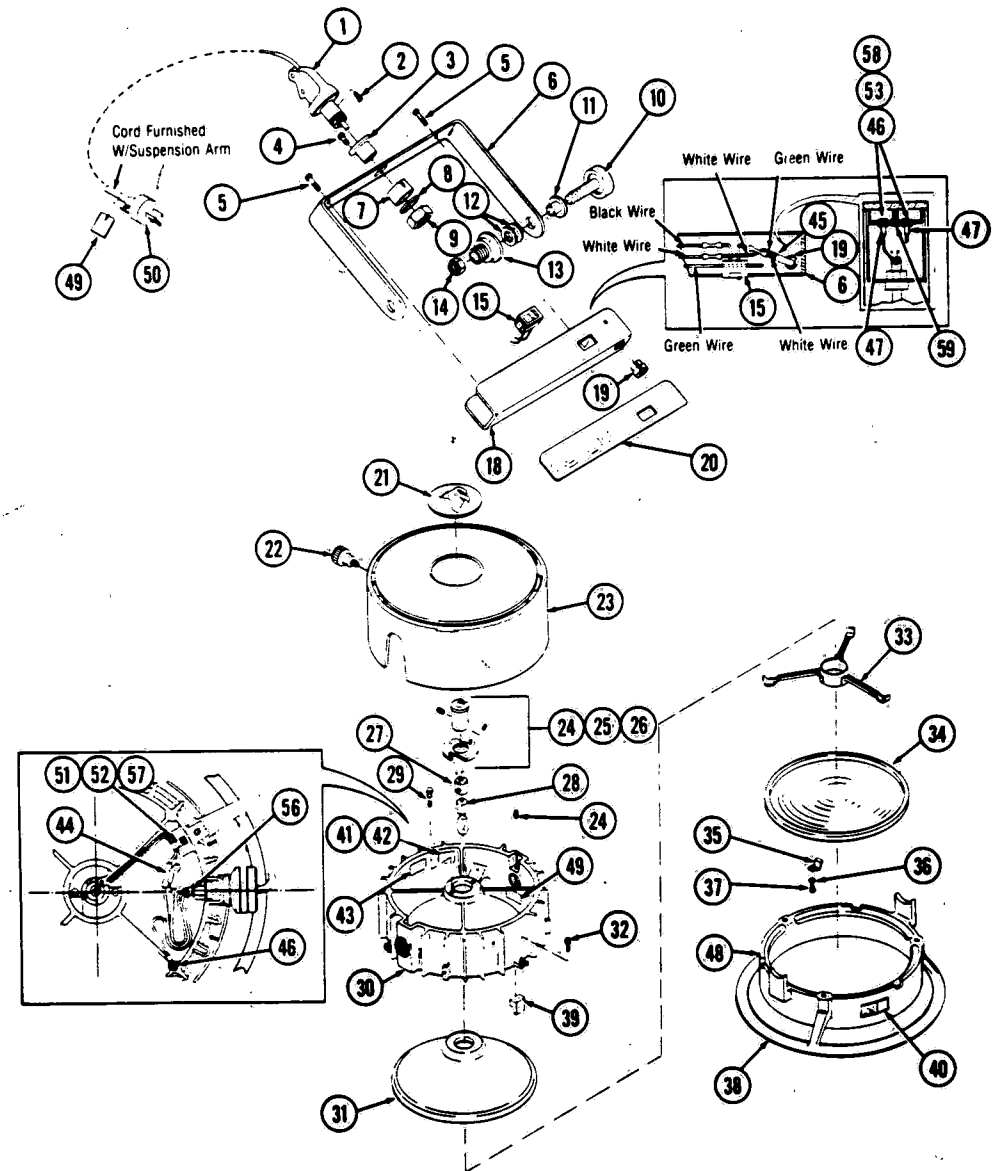


Figure 5-2. LIGHTHEAD AND SUSPENSION ARM ASSEMBLY.

5-3

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FIG. & INDEX NO.	PART NUMBER	SVC	DESCRIPTION	UNITS PER ASSEMBLY
5-2-	P 84079 001	**	LIGHTHEAD AND SUSPENSION ARM ASSEMBLY	X
1	P 84079 009		SUSPENSION ARM ASSEMBLY (See Fig. 5-5)	Ref.
2	P 84079 072		SCREW, Socket Head Cap (6-32 x 1/4)	1
3	P 84079 017		BEARING, Flanged	1
4	P 84079 064		SCREW, Socket Head Cap (6-32 x 1/2)	1
5	P 84079 008		SCREW, Flat Head (6-32 x 1)	2
6	P 84079 097		YOKE	1
7	P 84079 053		SPACER, Yoke	1
8	P 82016 001		WASHER, Flat, Bronze	1
9	P 84079 063		NUT, Self Locking, 3/4-16	1
10	P 84079 035		PIN, Pivot	2
11	P 84079 040		BEARING, Flanged	2
12	P 26565 041		WASHER, Belleville	4
13	P 84079 034		INSULATOR, Pivot	2
14	P 78314 045		NUT, Self Locking, 1/2-20	2
15	P 84079 020		SWITCH, Rocker	1
16	P		NOT USED	
17	P		NOT USED	
18	P 84079 018		BOX, Switch	1
19	P 84079 078		STRAIN RELIEF	1
20	P 56938 141		DECAL, Control Panel (With Warning)	1
21	P 84079 025		DECAL, Shroud	1
	P 764319 504		SHROUD ASSEMBLY	Ref.
22	P 84079 039		• SCREW, Thumb	1
23	P 134470 147		• SHROUD	1
*24	P 52336 061		SETSCREW, Socket Head (Cup Point) (6-32 x 1/8)	6
*25	P 84079 032		RETAINER, Socket	1
*26	P 84079 077		RING, Stop	1
27	P 84079 031		SOCKET	1
28	P 84079 033		LAMP	1
29	P 84079 014		SCREW, Thumb, #4-40 x 3/8	2
*30	P 84079 030		CASTING, Reflector	1
*31	P 84079 013		REFLECTOR, Parabolic	1
32	P 150824 138		SCREW, Socket Head Cap (6-32 x 3/4)	3
33	P 84079 047		SHIELD, Glare	1
34	P 84079 070		LENS, Diffuser	1
35	P 150506 001		CLIP	3
36	P 18131 091		LOCKWASHER (No. 6)	3
37	P 12451 041		SCREW, Round Head (6-32 x 1/4)	3
38	P 84079 022		BEZEL AND HANDLE	1
39	P 92899 001		MOUNT, Reflector	3
40	P 150824 261		DECAL, Name	1
41	P 84079 124		PLATE, Name	1
42	P 150797 001		RIVET, Pop, 1/8	1
43	P 83613 001		DECAL, Warning	1
44	P 80981 091		CONNECTOR, Butt, 18-22 AWG	5
45			TUBE, PVC-1051-2-2, .263 x 12	1

*Items 24, 25 and 26 must be ordered as an assembly.

*Items 30 and 31 must be ordered as an assembly.

**Sales Item

FIG. & INDEX NO.	PART NUMBER	SVC	DESCRIPTION	UNITS PER ASSEMBLY
5-2- 46	P 82675 001		SCREW, Green Ground, #10-32 x 3/8	3
47	P 19522 091		TERMINAL, Ring #10 Stud x 16-22 AWG	3
48	P 84079 037		DECAL, Corporate Logo	1
49	P 84079 125		TAG, Caution	1
50	P 84498 001		PLUG (2P3W NEMA 5-15P)	1
51	P 150824 240		CLAMP, Cable	1
52	P 17659 041		SCREW, Round Head, #4-40 x 1/4	1
53	P 124361 013		LOCKWASHER, External Tooth, #10	3
54	P 84079 080		DECAL, Notice (Not Shown)	1
55	P 150824 002		PLATE, Name, C.S.A. (Not Shown)	1
56	P 77299 091		WIRE TIE	1
57	P 150824 001		WASHER, Flat	1
58	P 150475 630		NUT, Hex Head, Machine, #10-32-2B	2
59	P 124443 001		SPEED NUT, #6-32, "U" Type	2

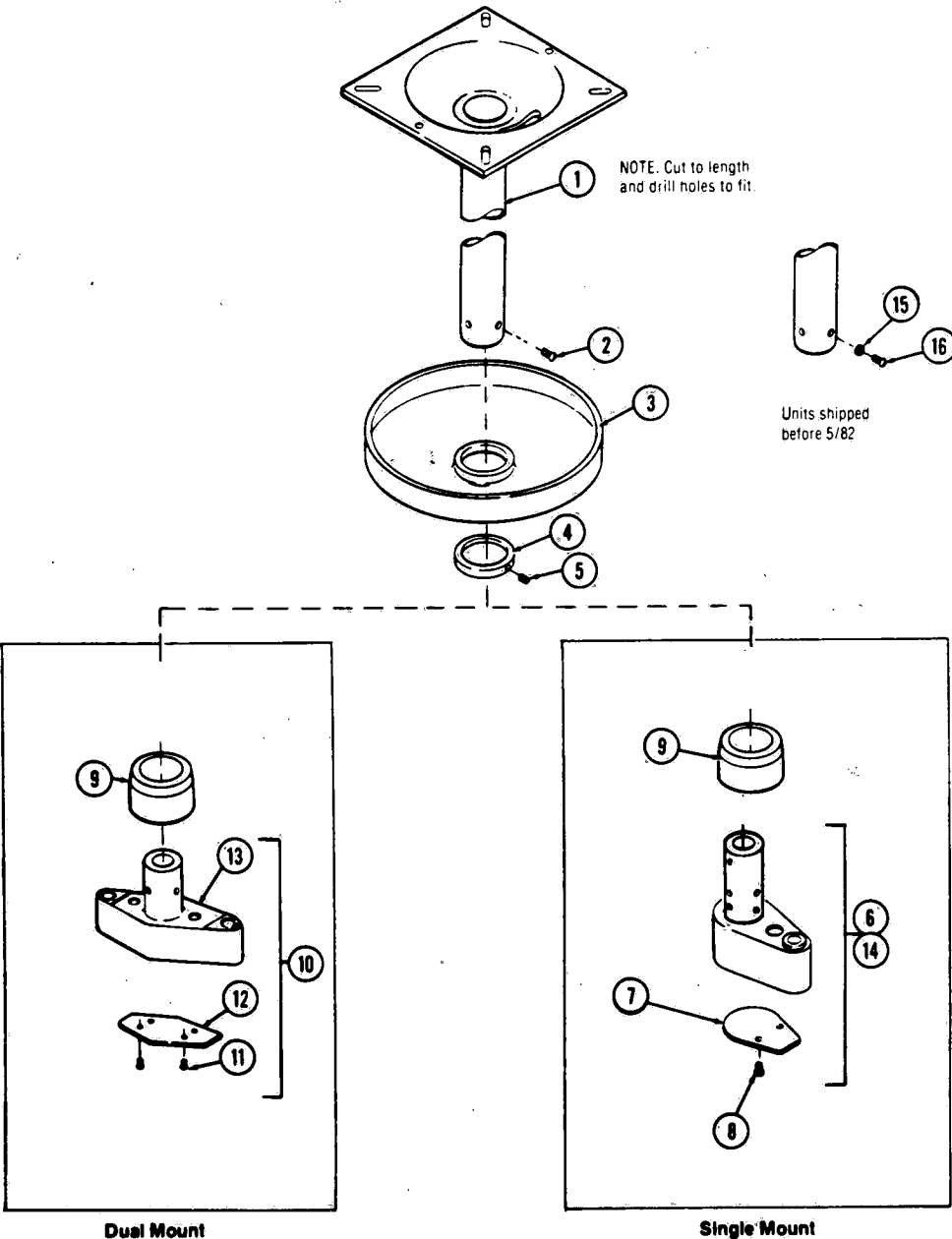


Figure 5-3. CEILING MOUNT ASSEMBLY.

FIG. & INDEX NO.	PART NUMBER	SVC	DESCRIPTION	UNITS PER ASSEMBLY	
5-3-			SINGLE MOUNT LIGHTING FIXTURE	X	
			DUAL MOUNT LIGHTING FIXTURE		X
1	P 56938	102	TUBE, Suspension (See Note Fig. 5-3)	1	1
2	P 78915	061	SCREW, Rd. Hd., 1/4-20 x 3/8 Lg. (Nylon Insert)	4	4
3	P 84079	050	CANOPY, Aluminum	1	1
4	P 84079	051	COLLAR, CRS	1	1
5	P 35139	061	SCREW, Set. Socket Head, #6-32 x 1/4	1	1
6	P 56938	100	BRACKET, Suspension Assembly (Single), For Units Shipped After 5/82	1	
7	P 84079	102	• COVER, Aluminum	1	
8	P 45176	044	• SCREW, Flat Head, Brass, #4-40 x 1/4 Lg.	2	
9	P 150824	160	COLLAR	1	1
10	P 56938	101	BRACKET, Suspension Assembly (Dual)		1
11	P 118477	045	• SCREW, Flat Head, Brass, #4-40 x 3/16 Lg.		4
12	P 150824	157	• COVER, Bracket		1
13	P 134470	091	• BRACKET, Suspension		1
(FOR UNITS SHIPPED BEFORE 5/82)					
14	P 755715	240	†BRACKET AND INSERT KIT ASSEMBLY	X	
15	P 48781	091	WASHER, Nylon	4	
16	P 3952	041	SCREW, Round Head, 1/4-20 x 1/2		4
†See Paragraph 4-15 for Installation Instructions.					

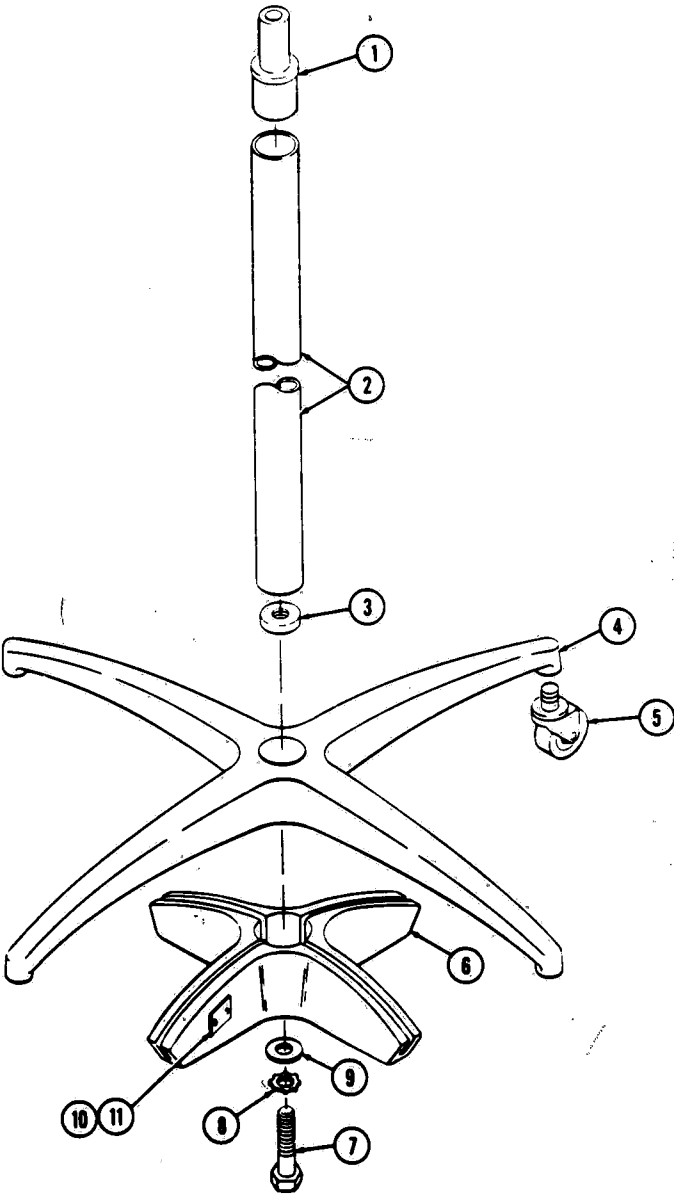


Figure 5-4. FLOOR STAND ASSEMBLY.

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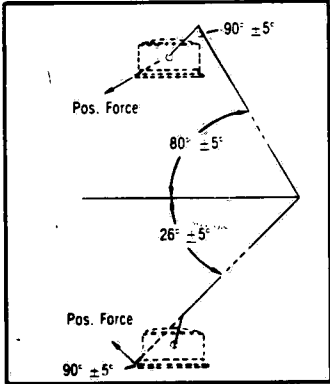
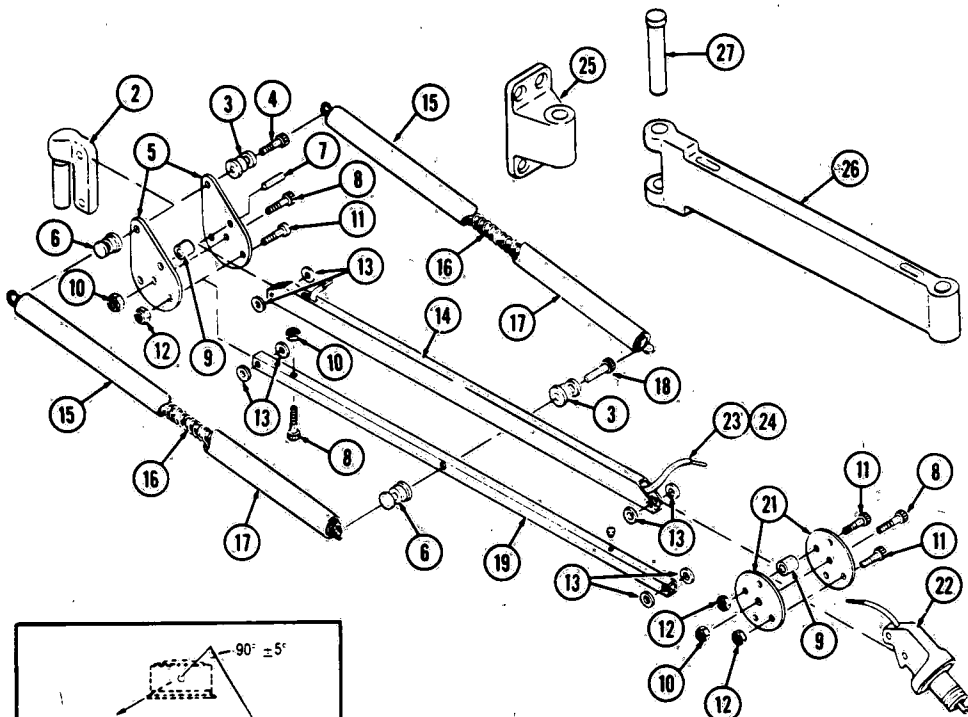
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FIG. & INDEX NO.	PART NUMBER			S V C	DESCRIPTION	UNITS PER ASSEMBLY			
5-4-	P	84079	055	•	FLOOR STAND ASSEMBLY: 34 BASE, 55 HIGH	X			
	P	84079	056	•	FLOOR STAND ASSEMBLY: 34 BASE, 67 HIGH		X		
	P	84079	135	•	FLOOR STAND ASSEMBLY: 28 BASE, 55 HIGH			X	
1	P	84079	062		INSERT, Aluminum	1	1	1	
2	P	84079	060		TUBE, Support, 1-3/4 x 49	1		1	
	P	84079	131		TUBE, Support, 1-3/4 x 60		1		
3	P	84079	061		BLOCK, Tap	1			
	P	84079	132		INSERT		1	1	
4	P	84079	057		BASE	1	1		
	P	84079	133		BASE			1	
5	P	84079	059		CASTER	4	4	4	
6	P	84079	058		WEIGHT	1	1		
	P	84079	134		WEIGHT			1	
7	P	4613	051		CAPSCREW, Hex Head, 1/2-13 x 3	1	1	1	
8	P	3517	091		LOCKWASHER, Shakeproof	1	1	1	
9	P	79511	045		WASHER, Flat	1	1	1	
10	P	84079	123		NAMEPLATE, U/L	1	1	1	
11	P	9645	061		SCREW, Drive, #4 x 3/16	2	2	2	
*Sales Item									

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Rev. 12/82

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VIEW A

NOTES:

- 1. Torque screws (items 4 and 18) to 25/30 in. lbs. Secure retainers (item 22) with Loctite 271.
- 2. Tighten nuts (12) uniformly (25-30 in/lbs.) to obtain break away positioning force of 9-12 lbs from extreme top & bottom arm positions as shown in view A. The positioning force should be verified after manually articulating the arm 10 cycles. Readjust the nuts evenly, as required, to obtain the specified positioning force. Do not exceed 35 in/lbs on any nut. Check arm for drift by moving the arm gradually downward from the top to bottom position. The arm should not drift and should remain in a set position anywhere between full up and full down.

Figure 5-5. SUSPENSION ARM ASSEMBLY.

FIG. & INDEX NO.	PART NUMBER	SVC	DESCRIPTION	UNITS PER ASSEMBLY
5-5-	P 84079 009		SUSPENSION ARM ASSEMBLY	X
1	NLA		PIN, Mount (Now a part of Item 2)	
2	P 84079 099		MOUNT, Rear, Suspension Arm	1
3	P 84079 210		RETAINER, Spring	2
4	P 84079 212		SCREW, Socket Head Cap, #10-24 x 2	1
5	P 84079 202		PLATE, Rear	2
6	P 84079 211		RETAINER, Spring, Threaded	2
7	P 84079 203		PIN, Knurled	1
8	P 84079 222		SCREW, Socket Head Cap, 1/4-20 x 1-1/4	3
9	P 84079 081		SPACER	2
10	P 118443 045		LOCKNUT, 1/4-20	3
11	P 84079 219		SCREW, Shoulder, 1/4 x 3/4	6
12	P 118441 045		LOCKNUT, #10-24	6
13	P 84079 216		WASHER, Stainless Steel	8
14	P 84079 214		TUBING, Upper Arm	1
15	P 150824 299		TUBE, Inner Telescoping	2
16	P 84079 207		SPRING	2
17	P 150824 298		TUBE, Outer Telescoping	2
18	P 84079 213		SCREW, Socket Head Cap, #10-24 x 1-3/4	1
19	P 84079 204		TUBING, Lower Arm	1
20			NOT USED	1
21	P 84079 201		PLATE, Front	2
22	P 84079 096		MOUNT, Front Suspension Arm	1
23	R 4018 305		CORD, #18-3 x 102	1
24	R 3500 507		SLEEVE PVC, .294 ID x .28 (2.334 Ft.)	1
25	P 84079 126		WALL BRACKET (Optional)	1
26	P 84079 113		EXTENSION ARM (Optional)	1
27	P 84079 066		● PIN, Clevis	1
28	P 755715 240		KIT, Bracket and Insert (Not Shown)	1

*Sales Item



**AMSCO
SERVICE**

**EXAMINER 10
EXAMINATION LIGHTING FIXTURE
P-764285-002**

1/89

1 of 1

