### **SERVICE MANUAL**

## OB Procedural Light

From Hill-Rom



**Product No. P7925** 

For Parts Or Technical Assistance USA (800) 445-3720 Canada (800) 267-2337 International: Contact your distributor.

### OB Procedural Light Service Manual

#### **Revisions**

Revision Letter	Pages Affected	Date
Original Issue		June, 1996
A	All	August, 1998

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Second Edition

First Printing 1996

Printed in the USA

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**NOTES:** 

#### **Purpose**

This manual provides requirements for the OB Procedural light normal operation and maintenance. It also includes a parts list (in chapter 5) for ordering replacement components.

#### **Audience**

This manual is intended for use by only facility-authorized maintenance personnel. Failure to observe this restriction can result in severe injury to people and serious damage to equipment.

#### **Organization**

This manual contains seven chapters.

#### Chapter 1: Introduction

In addition to a brief description of this service manual, chapter 1 also provides a product overview.

#### **Chapter 2: Troubleshooting Procedures**

Repair analysis procedures are contained in this chapter. These procedures are used to gather information, identify the maintenance need, and verify the effectiveness of the repair.

#### **Chapter 3: Theory of Operation**

This chapter describes the application of the mechanical and electrical systems employed in this product.

#### Chapter 4: Removal, Replacement, and Adjustment **Procedures**

Chapter 4 contains the detailed maintenance procedures determined necessary in chapter 2.

#### **Chapter 5: Parts List**

This chapter contains Hill-Rom's warranty, part-ordering procedure, and illustrated parts lists.

#### **Chapter 6: General Procedures**

Cleaning, preventive maintenance, and other general procedures are described in this chapter.

#### **Chapter 7: Accessories**

There are no accessories for the OB Procedural light.

#### **Typographical Conventions**

This manual contains different typefaces and icons designed to improve readability and increase understanding of its content. Note the following examples:

- Standard text—used for regular information.
- Boldface text—emphasizes a word or phrase.
- **NOTE:**—sets apart special information or important instruction clarification.
- The symbol below highlights a WARNING or CAUTION:

Figure 1-1. Warning and Caution Symbol



- A WARNING identifies situations or actions that may affect patient or user safety. Disregarding a warning could result in patient or user injury.
- A CAUTION points out special procedures or precautions that personnel must follow to avoid equipment damage.
- The symbol below highlights an electrical shock hazard WARNING:

Figure 1-2. Electrical Shock Hazard Warning



#### Introduction

#### Overview

The OB Procedural light is designed for use with Hill-Rom's Affinity® beds for exam procedures. The OB Procedural light provides shadow-free illumination for examination procedures.

#### **Operating Precautions**

Be sure that you have read and understand in detail the contents of this manual before operating the OB Procedural light. It is important that you read and strictly adhere to the safety information contained in this manual.



#### **WARNING:**

After completing a repair of the OB Procedural light, make sure the unit is in proper operating condition. Also perform an electrical safety check and a leakage current test. Failure to do so could result in personal injury or equipment damage.

After completing a repair of the OB Procedural light, perform the "Performance Checks" on page 6-9 to make sure the unit is in proper operating condition. Also perform an electrical safety check and a leakage current test. Record the results for future reference.

#### On/Off Switch

The On/Off switch is located on the arm near the lamp head.

#### **Operating Procedure**



#### **WARNING:**

Do not open the lamp head assembly with the power connected. An electrical shock hazard exists. Possible equipment damage or personal injury could occur.

- 1. Plug the OB Procedural light into an appropriate power source.
- 2. Adjust the lamp head assembly to the desired position.
- 3. Turn the ON/OFF switch to the *on* position.

4. Aim the light beam to the desired area.

#### **Specifications**

#### **Physical Description**

See table 1-1 on page 1-7 for OB Procedural light specifications.

Table 1-1. Specifications

Feature	Dimension
Overall height (all articulations at lowest point)	60" (152.4 cm)
Overall height (all articulations at highest point)	73" (185.4 cm)
Base	23" (58.4 cm) long x 19" (48.3 cm) wide
Lamp head	9" (22.9 cm) diameter
Reach minimum	32 1/2" (82.5 cm)
Reach maximum	37" (94 cm)
Beam intensity	4100 footcandles at 24" (61 cm) from source
Light color temperature	4300°K at 36" (91.4 cm) from source
Irradiance	>5 microW/cm²/nm at 36" (91.4 cm) from source
Size of beam	3" (7.62 cm) minimum 36" (91.4 cm) from source
Light rating	115 volt, 1 amp, 50/60 Hz, 75 watts (115 volt models only)
	230 volt, 0.5 amp, 50/60 Hz, 75 watts (230 volt models only)
Bulb life	1000 hours
AC leakage current to ground	65 microAmps maximum
Weight	58 lb (26.3 kg)

#### **Electrical Description**

The power supply cord should be plugged into the respective 120V or 230V AC required source. Ensure that the cord is not frayed or damaged.

#### Regulations, Standards, and Codes

The OB Procedural light is a self-contained lighting unit. The light will operate at 115/120V AC, 50/60 Hz, 1 amp (230/240V AC, 50/60 Hz, 0.5 amp for 230 volt models only). The lamp is a 12V AC, 75 watt quartz halogen tubular type. All electrical components of this light are UL and CSA listed or recognized for this application.

#### **Model Identification**

See table 1-2 on page 1-9 for OB Procedural light model identification.

**Table 1-2. Model Identification** 

Model Number	Number Description	
P7925A12001	OB Procedural light, 120V (floor mount)	
P7925A12002	OB Procedural light, 120V (ceiling mount)	
P7925A23001	OB Procedural light, 230V (floor mount)	
P7925A23002	OB Procedural light, 230V (ceiling mount)	

#### **Safety Tips**



#### **WARNING:**

Do not open the lamp head assembly with the power connected. An electrical shock hazard exists. Possible equipment damage or personal injury could occur.



#### **WARNING:**

After completing a repair of the OB Procedural light, make sure the unit is in proper operating condition. Also perform an electrical safety check and a leakage current test. Record the results for future reference. Failure to do so could result in personal injury or equipment damage.



#### **WARNING:**

Only facility-authorized maintenance personnel should troubleshoot the OB Procedural light. Troubleshooting by unauthorized personnel could result in personal injury or equipment damage.



#### **WARNING:**

Unplug the OB Procedural light from its power source. Failure to do so could result in personal injury or equipment damage.



#### **WARNING:**

Use only Hill-Rom approved replacement lamps. Using unapproved lamps will affect the operating specifications of the OB Procedural light. Use of a higher wattage and/or lower voltage lamp may also cause a fire hazard. Failure to comply with this warning may result in personal injury or equipment damage.



#### **WARNING:**

Use a fuse only with the same electrical rating and type as indicated on the fuse replacement label. Failure to do so could result in personal injury and equipment damage.



#### **WARNING:**

Do not use the OB Procedural light if it continues to blow fuses. Contact Hill-Rom Technical Support at (800) 445-3720 immediately. Failure to do so could result in personal injury and equipment damage.



#### **WARNING:**

Allow the OB Procedural light to cool for a minimum of 30 minutes before proceeding with the removal of the lamp assembly. The OB Procedural light operates at a high temperature. Failure to do so could result in personal injury.



#### **WARNING:**

Do not use the OB Procedural light in the presence of flammable anesthetics or other combustible flammables. Possible equipment damage or personal injury could occur.



#### **WARNING:**

The OB Procedural light can cause serious injury. Operate the light only with the lens assembly in place. Follow all safety precautions in this manual.



#### **WARNING:**

To ensure reliable grounding, do not use extension cords or adapters on the OB Procedural light.



#### **WARNING:**

Follow the product manufacturer's instructions. Failure to do so could result in personal injury or equipment damage.



#### **WARNING:**

Unplug the OB Procedural light from its power source. Allow the unit to cool for at least 30 minutes before servicing. The OB Procedural light operates at a high temperature.



#### **WARNING:**

If the unit fails any part of the operational checks, repair the OB Procedural light before use on any patient. Failure to do so could result in personal injury or equipment damage.



#### **WARNING:**

Adhere to the "Infection Control Policies and Procedures" outlined in the Safety Coordinator Reference Guide. Failure to do so could result in the spread of infection.



#### **WARNING:**

Do not pinch the wires during installation. Pinched wires can cause an electrical shock hazard. Possible equipment damage or personal injury could occur.



#### **WARNING:**

Ensure that the wires do not get pinched or cut when lowering the transformer housing into the upright pole. An electrical shock hazard exists if these wires get pinched or cut. Possible equipment damage or personal injury could occur.



#### **WARNING:**

Ensure that the installation is capable of supporting a load of at least 100 pounds (45.4 kg) and an off center moment of 300 ft-lb (407 N·m). Improper fastening of the ceiling casting can cause serious injury and/or property damage.



#### **WARNING:**

The ceiling casting must be properly grounded to maintain proper grounding reliability. Possible equipment damage or personal injury could occur.



#### **WARNING:**

The green wire from the wire harness must be properly fastened to the grounding screw located on the ceiling casting. Make all electrical connections in compliance with electrical codes. Failure to do so could result in personal injury and equipment damage.



#### **WARNING:**

Do not rest articles or liquids on top of the OB Procedural light. Spilled liquids will damage the lamp head and power supply assemblies causing an electrical shock hazard.



#### **CAUTION:**

Do not use silicone-based lubricants. Equipment damage could occur.



#### **CAUTION:**

Be careful not to damage the light head or break items when removing parts from the shipping carton. Thoroughly check each shipping carton for additional parts before discarding. Failure to do so could result in equipment damage.



#### **CAUTION:**

Use only a lens cleaner or a similar, non-residual cleaning agent on the lens. Equipment damage could occur.



#### **CAUTION:**

Do not use harsh cleaners, solvents, or detergents. Equipment damage could occur.



#### **CAUTION:**

Be careful not to touch the small lamp or the inner surface of the reflector around the lamp when installing a new lamp. Body oils may significantly lower the life expectancy of the lamp and cause equipment damage.



#### **CAUTION:**

Do not overtighten the pivot bolt and nut. This will cause damage to the pivot area.



#### **CAUTION:**

Do not overtighten the fine adjustment setting. This can damage the OB Procedural light and may cause it to become inoperable.



#### SHOCK HAZARD:

Do not expose the unit to excessive moisture. Personal injury or equipment damage could occur.



#### **SHOCK HAZARD:**

The potential for electric shock exist with electrical equipment. Establish policies and procedures to train and educate your staff on the risks associated with electrical equipment.



#### **SHOCK HAZARD:**

Unplug the OB Procedural light from its power source. Failure to do so could result in personal injury and equipment damage.



#### **SHOCK HAZARD:**

Do not spill liquids into the OB Procedural light head to help prevent lamp head and power supply assembly damage, which could cause an electrical shock hazard. Personal injury or equipment damage could occur.

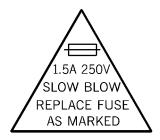
#### **Warning and Caution Labels**

Figure 1-3. Warning and Caution Labels

CAUTION: BEFORE CONNECTING, READ INSTRUCTIONS

WARNING: EXCESSIVE LEAKAGE CURRENT MAY RESULT IF THIS EQUIPMENT IS CONNECTED TO OTHER THAN THE MANUFACTURER'S POWER DISTRIBUTION SYSTEM

AVERTISSMENT: POSSIBILITE DE COURANT EXCESSIF (COURANT DE FUITE) SI CET EQUIPEMENT EST RACCORDE A UN RESEAU D' ALIMENTATION AUTRE QUE CELUI RECOMMANDE PAR LE FABRICANT



CAUTION: TO REDUCE THE RISK OF FIRE, USE ONLY TYPE T4, GY6.35 BASE, 12 VOLT QUARTZ HALOGEN LAMP 75 WATTS MAX.

#### **WARNING**

DANGER: RISK OF EXPLOSION IF USED IN THE PRESENCE OF FLAMMABLE ANESTHETICS

DANGER: RISQUE D' EXPLOSION. NE PAS EMPLOYER EN PRESENCE D' ANESTHESIQUES INFLAMMABLES

CAUTION: TO REDUCE THE RISK OF ELECTRIC SHOCK; DO NOT REMOVE COVER OR BACK. REFER SERVICING TO QUALIFIED PERSONNEL

CAUTION: ACCESSIBLE METAL PARTS
OF THIS FIXTURE HEAD ASSEMBLY
ARE ELECTRICALLY ISOLATED
FROM THE SUPPLY GROUNDING
CONDUCTOR

**WARNING** 

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**NOTES:** 

# Chapter 2 Troubleshooting Procedures

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#### **Getting Started**



#### **WARNING:**

Only facility-authorized maintenance personnel should troubleshoot the OB Procedural light. Troubleshooting by unauthorized personnel could result in personal injury or equipment damage.

Begin each procedure in this chapter with step 1. Follow the sequence outlined (each step assumes the previous step has been completed). In each step, the normal operation of the product can be confirmed by answering **Yes** or **No** to the statement. Your response will lead to another step in the procedure, a repair analysis procedure (RAP), or a component replacement. If more than one component is listed, replace them in the given order.

Start with **Initial Actions** to begin gathering information about the problem.

Perform the **Function Checks** to isolate or identify a problem and to verify the repair after completing each corrective action (replacing or adjusting a part, seating a connector, etc.).

Perform the **Final Actions** after the Function Checks to verify the repair.

If troubleshooting procedures do not isolate the problem, call Hill-Rom Technical Support at (800) 445-3720 for assistance.

#### **Initial Actions**

Use Initial Actions to gather information from operators concerning problems with the OB Procedural light. Note symptoms or other information concerning the problem that the operator describes. This information helps identify the probable cause.

1. Someone who can explain the problem is available.

```
Yes No \rightarrow Go to "Function Checks" on page 2-4.
```

2. Ask that person to demonstrate or explain the problem. The problem can be duplicated.

```
Yes No

→ Go to "Function Checks" on page 2-4.
```

#### Chapter 2: Troubleshooting Procedures

3. The problem is a result of improper operator action.

Yes No 
$$\rightarrow$$
 Go to "Function Checks" on page 2-4.

4. Instruct the operator to refer to the procedures in the *OB Procedural Light User Manual*. Perform the "Function Checks" on page 2-4 to ensure proper operation of the OB Procedural light.

#### **Function Checks**

1. Initial Actions have been performed.

```
Yes No \rightarrow Go to "Initial Actions" on page 2-3.
```

2. Place the switch to the "ON" position. The OB Procedural light works properly.

```
Yes No \rightarrow Go to RAP 2.1.
```

3. Position the arm in different positions. The arm retains its position.

```
Yes No \rightarrow Go to RAP 2.2.
```

4. Go to "Final Actions" on page 2-4.

#### **Final Actions**

- 1. Complete the required preventive maintenance procedures. See "Preventive Maintenance Checklist" on page 6-8.
- 2. Complete all required administration tasks.

#### 2.1 OB Procedural Light Malfunction

The OB Procedural light does not work properly when the power switch is in the "ON" position.

1. The OB Procedural light is plugged into an appropriate power source.

#### Yes N



- → Plug the OB Procedural light into an appropriate power source. If this solves the problem, go to "Final Actions" on page 2-4. Otherwise, go to step 2.
- 2. The power switch is in the "ON" position.

#### Yes No



- → Turn the power switch to the "ON" position. If this solves the problem, go to "Final Actions" on page 2-4. Otherwise, go to step 3.
- 3. Inspect the wall outlet for proper voltage. The wall outlet is the proper voltage.

#### Yes No



- → Have a qualified electrician inspect the problem. If this solves the problem, go to "Final Actions" on page 2-4. Otherwise, go to step 4.
- 4. Inspect the power cord for wear or damage. The power cord is in proper working condition.

#### Yes No



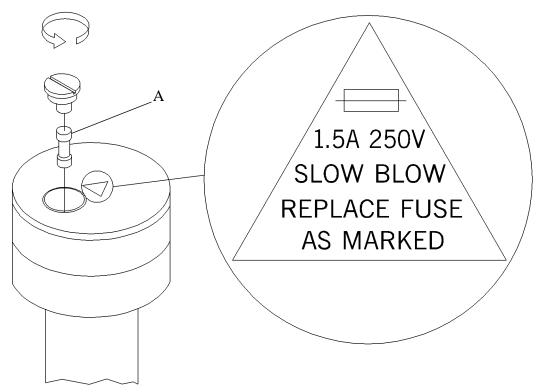
- → Replace the power cord. If this solves the problem, go to "Final Actions" on page 2-4. Otherwise, go to step 5.
- 5. Inspect the lamp for damage or wear. The lamp is in proper working condition.



- → Replace the lamp (refer to procedure 4.3). If this solves the problem, go to "Final Actions" on page 2-4. Otherwise, go to step 6.
- 6. Inspect the fuse (A) for damage and wear (see figure 2-1 on page 2-6). The fuse is the correct rating and is in proper working condition.

#### Chapter 2: Troubleshooting Procedures

Figure 2-1. Fuse Assembly



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#### Yes No

Yes

- → Replace the fuse with the correct type and rating (refer to procedure 4.5). If this solves the problem, go to "Final Actions" on page 2-4. Otherwise, go to step 7.
- 7. Check the connections on the switch housing. All wires are securely connected to the switch housing.

#### Yes No



- → Remove the switch cover, and secure the loose connections (refer to procedure 4.2). If this solves the problem, go to "Final Actions" on page 2-4. Otherwise, go to step 8.
- 8. The socket is in proper working condition.



- → Replace the lamp holder assembly (refer to procedure 4.3). If this solves the problem, go to "Final Actions" on page 2-4. Otherwise, go to step 9.
- 9. Activate the power switch to the "ON" and "OFF" position. The power switch is in proper working condition.

#### Yes No



- → Replace the power switch (refer to procedure 4.2). If this solves the problem, go to "Final Actions" on page 2-4. Otherwise, go to step 10.
- 10. Check the wire connections in the transformer housing. All wire connectors are securely connected.

#### Yes No



- → Remove the transformer housing, and secure the loose connections (refer to procedure 4.4). If this solves the problem, go to "Final Actions" on page 2-4. Otherwise, go to step 11.
- 11. Inspect the transformer for damage. The transformer is in proper working condition.

#### Yes No



- → Replace the transformer (refer to procedure 4.4). If this solves the problem, go to "Final Actions" on page 2-4. Otherwise, go to step 12.
- 12. Inspect the wires for damage. The wires are in proper working condition.



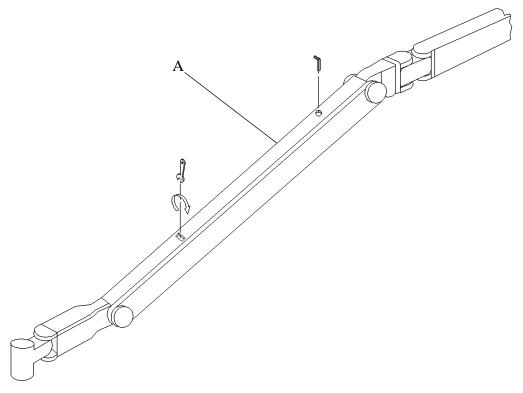
- → Replace the damaged wire. If this solves the problem, go to "Final Actions" on page 2-4. Otherwise, go to step 14.
- 13. Go to "Final Actions" on page 2-4.
- 14. Call Hill-Rom Technical Support at (800) 445-3720.

#### 2.2 Articulation Arm Malfunction

The articulation arm drifts up or down after positioning.

1. Orient the articulation arm (A) to the desired position (see figure 2-2 on page 2-8). The articulation arm drifts after positioning.

Figure 2-2. Articulation Arm Assembly



m125a010

- $\downarrow$   $\rightarrow$  Go to "Final Actions" on page 2-4.
- 2. Adjust the spring tension in the articulation arm (refer to procedure 4.7). If this solves the problem, go to "Final Actions" on page 2-4. Otherwise, go to step 3.
- 3. Call Hill-Rom Technical Support at (800) 445-3720.

### 3

# Chapter 3 Theory of Operation

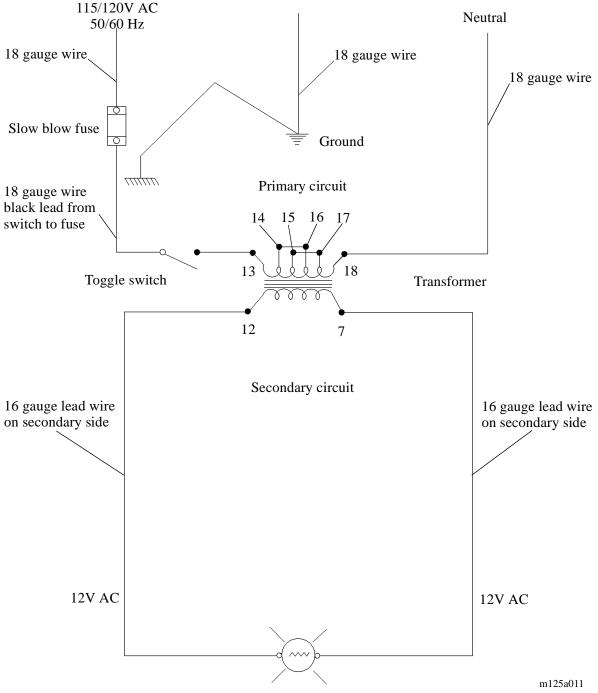
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#### **Electrical System**

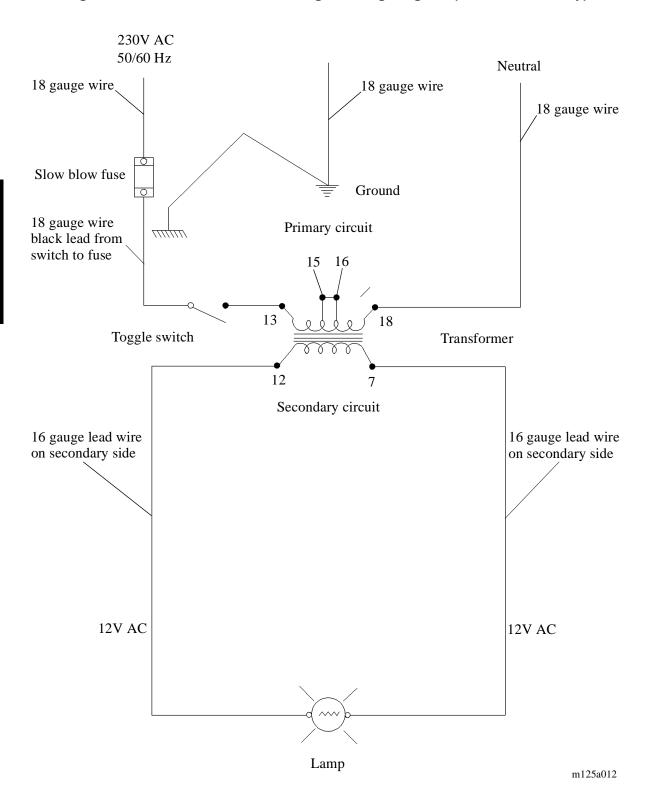
The following wiring diagrams detail the electrical circuits on the OB Procedural light. Use these diagrams as troubleshooting aids.

Figure 3-1. P7925 OB Procedural Light Wiring Diagram (115V Models Only)



Chapter 3: Theory of Operation

Figure 3-2. P7925 OB Procedural Light Wiring Diagram (230V Models Only)



# **Theory of Operation**

A theory of operation is not available for the OB Procedural light.

3

# **Chapter Contents**

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Power Switch Assembly
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Replacement
Adjustment
Fuse Assembly
Removal
Replacement
Adjustment
Head Assembly and Extension Arm Assembly

Chapter 4: Removal, Replacement, and Adjustment Procedures	
Removal	ļ
Replacement	ó

#### 4.1 Handle Assembly

Tools required: None

The handle assembly on the OB Procedural light is removable for sterilization.

#### Removal

Push the button on the handle, and pull the handle away from the unit.

#### **NOTE:**

For sterilization procedures, see "External Cleaning" on page 6-4.

#### Replacement

- 1. Push the button, and slide the handle onto the unit.
- 2. Release the button when the handle is in position.
- 3. Slightly pull on the handle to ensure that it is installed properly.

#### **Adjustment**

No adjustment is required for the OB Procedural light handle assembly.

### 4.2 Power Switch Assembly

Tools required: Phillips head screwdriver

Pliers

#### Removal

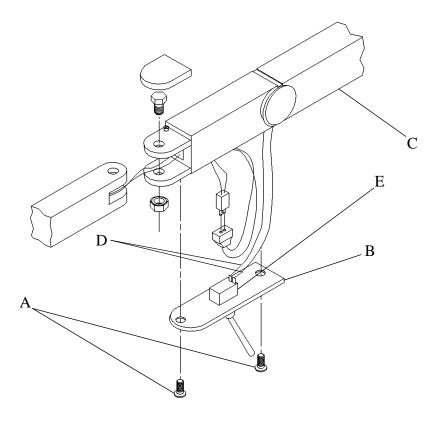


#### **WARNING:**

Unplug the OB Procedural light from its power source. Failure to do so could result in personal injury or equipment damage.

- 1. Unplug the OB Procedural light from its power source.
- 2. Using the phillips head screwdriver, remove the two screws (A) connecting the switch cover (B) to the extension arm assembly (C) (see figure 4-1 on page 4-4).

Figure 4-1. Power Switch Assembly



- 3. Note the orientation of the switch and wires.
- 4. Remove the two wires (D) connected to the switch (E).
- 5. Remove the nut connecting the switch (E) to the switch cover (B).

#### Replacement

- 1. Reverse the removal procedure to install the new replacement switch.
- 2. Complete the "Electrical Safety Inspection" on page 6-10 and the "Operational Checks" on page 6-9 before using the OB Procedural light on a patient.

### **Adjustment**

No adjustment is required for the OB Procedural light power switch assembly.

#### 4.3 Lamp Assembly

Tools required: None

#### Removal



#### **CAUTION:**

Be careful not to touch the small lamp or the inner surface of the reflector around the lamp when installing a new lamp. Body oils may significantly lower the life expectancy of the lamp and cause equipment damage.



#### **WARNING:**

Unplug the OB Procedural light from its power source. Failure to do so could result in personal injury or equipment damage.

1. Unplug the OB Procedural light from its power source.

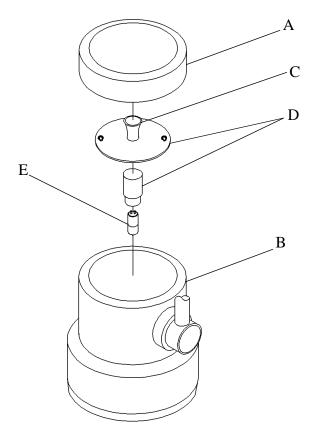


#### **WARNING:**

Allow the OB Procedural light to cool for a minimum of 30 minutes before proceeding with the removal of the lamp assembly. The OB Procedural light operates at a high temperature. Failure to do so could result in personal injury.

- 2. Allow the unit to cool for at least 30 minutes.
- 3. Remove the rear housing cover (A) from the lamp head (B) (see figure 4-2 on page 4-7).





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- 4. Pull the knob (C) on the lamp holder subassembly (D), and remove the lamp holder subassembly from the lamp head (B).
- 5. Carefully pull the lamp (E) from the lamp holder subassembly (D).

#### **NOTE:**

It may help to wiggle the lamp slightly during removal.

#### Replacement



#### **WARNING:**

Use only Hill-Rom approved replacement lamps. Using unapproved lamps will affect the operating specifications of the OB Procedural light. Use of a higher wattage and/or lower voltage lamp may also cause a fire hazard. Failure to comply with this warning may result in personal injury or equipment damage.



#### **CAUTION:**

Be careful not to touch the small lamp or the inner surface of the reflector around the lamp when installing a new lamp. Body oils may significantly lower the life expectancy of the lamp and cause equipment damage.

1. Align the lamp pins with the two small holes in the socket. Insert the lamp into the socket.

#### **NOTE:**

It may help to wiggle the lamp slightly while inserting the lamp into place.

- 2. Perform step 3 and step 4 of the removal procedure in reverse order.
- 3. Ensure the OB Procedural light operates properly.
- 4. Complete the "Electrical Safety Inspection" on page 6-10 and "Operational Checks" on page 6-9 before using the OB Procedural light on a patient.

# **Adjustment**

No adjustment is required for the OB Procedural light lamp assembly.

#### 4.4 Transformer Assembly

Tools required: Phillips head screwdriver

Screwdriver

11/32" nut driver or open end wrench

#### Removal



#### **WARNING:**

Unplug the OB Procedural light from its power source. Failure to do so could result in personal injury or equipment damage.

1. Unplug the OB Procedural light from its power source.



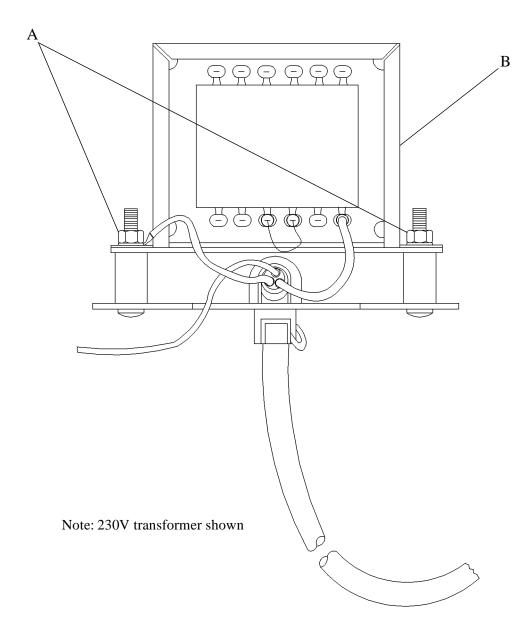
#### **WARNING:**

Allow the OB Procedural light to cool for a minimum of 30 minutes before proceeding with the removal of the light head assembly. The OB Procedural light operates at a high temperature. Failure to do so could result in personal injury.

- 2. Allow the OB Procedural light to cool for a minimum of 30 minutes.
- 3. Remove the head assembly from the extension arm assembly (see "Head Assembly and Extension Arm Assembly" on page 4-14).
- 4. Remove the extension arm from the mount.
- 5. Remove the two screws connecting the transformer cover to the transformer housing.
- 6. Note the orientation of the attached wires.
- 7. Using the 11/32" nut driver or open end wrench, remove the two nuts (A) connecting the transformer (B) to the transformer assembly (see figure 4-3 on page 4-10).

Chapter 4: Removal, Replacement, and Adjustment Procedures

Figure 4-3. Transformer Assembly



- 8. Remove the transformer (B) from the transformer assembly.
- 9. Disconnect the wires from the transformer.

# Replacement

- 1. Reverse the removal procedure to install the replacement transformer assembly.
- 2. Complete the "Electrical Safety Inspection" on page 6-10 and the "Operational Checks" on page 6-9 before using the OB Procedural light on a patient.

# **Adjustment**

No adjustment is required for the OB Procedural light transformer assembly.

### 4.5 Fuse Assembly

Tools required: Screwdriver

#### Removal

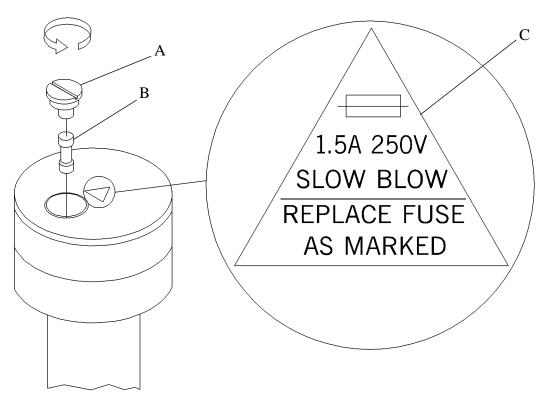


#### **WARNING:**

Unplug the OB Procedural light from its power source. Failure to do so could result in personal injury or equipment damage.

- 1. Unplug the OB Procedural light from its power source.
- 2. Using the screwdriver, turn the spring loaded fuse holder (A) counterclockwise approximately 1/4 turn (see figure 4-4 on page 4-12).

Figure 4-4. Fuse Replacement



- 3. Remove the spring loaded fuse holder (A).
- 4. Remove the fuse (B).

# 4

#### Replacement



#### **WARNING:**

Use a fuse only with the same electrical rating and type as indicated on the fuse replacement label. Failure to do so could result in personal injury and equipment damage.

- 1. Ensure the replacement fuse is 1.5A slow blow fuse **only** and has the same electrical rating and type as indicated on the fuse label (C) of the old fuse (B).
- 2. Install the new fuse.
- 3. Install the spring loaded fuse holder (A), and turn clockwise approximately 1/4 turn.



#### **WARNING:**

Do not use the OB Procedural light if it continues to blow fuses. Contact Hill-Rom Technical Support at (800) 445-3720 immediately. Failure to do so could result in personal injury and equipment damage.

4. Complete the "Electrical Safety Inspection" on page 6-10 and the "Operational Checks" on page 6-9 before using the OB Procedural light on a patient.

# Adjustment

No adjustment is required for the OB Procedural light fuse assembly.

### 4.6 Head Assembly and Extension Arm Assembly

Tools required: Phillips head screwdriver

7/16" wrench Needle nose pliers

Allen wrench (provided)

#### Removal



#### **WARNING:**

Unplug the OB Procedural light from its power source. Failure to do so could result in personal injury or equipment damage.

- 1. Unplug the OB Procedural light from its power source.
- 2. Remove the snap cover (A) located on top of the pivot bolt (B) (see figure 4-5 on page 4-15).

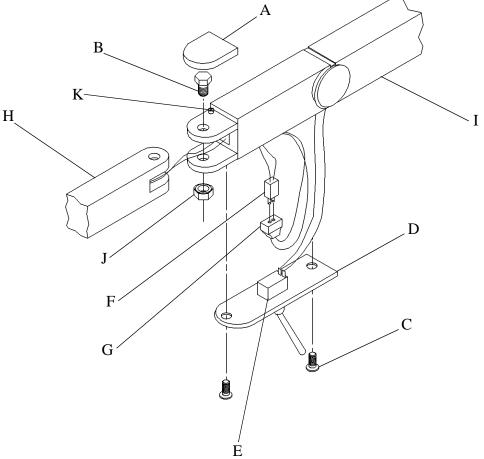


Figure 4-5. Head Assembly and Extension Arm Assembly

- 3. Using the phillips head screwdriver, remove the two screws (C) from the switch cover (D).
- 4. Pull down the switch cover (D) exposing the switch (E) and wire set connectors (F and G).
- 5. Disconnect the wire set connectors (F and G) that connect the yoke/arm connector (H) to the arm/wire junction (I).
- 6. Remove the wire set connector (F) from the yoke/arm connector (H) through the hole in the arm/wire junction (I).
- 7. Using the 7/16" wrench, remove the pivot bolt (B) and pivot nut (J) from the bolt holes between the yoke/arm connector (H) and the arm/wire junction (I).

8. Remove the yoke/arm connector (H) from the arm/wire junction (I).

#### Replacement

- 1. Insert the wire set connector (F) from the yoke/arm connector (H) through the hole in the arm/wire junction (I).
- 2. Align the bolt holes between the yoke/arm connector (H) and the arm/wire junction (I).
- 3. Using the 7/16" wrench, insert the pivot bolt (B), and secure the bolt with the pivot nut (J).



#### **CAUTION:**

Do not overtighten the pivot bolt and nut. This will cause damage to the pivot area.

- 4. Tighten the pivot nut (J) to approximately 20 to 25 ft-lb (27 to 34 N·m). Do not overtighten the pivot bolt and nut.
- 5. Using the phillips head screwdriver, install the anti-rotation screw (K) into the yoke/arm connector (H).
- 6. Connect the wire set connector (F) from the yoke/arm connector (H) to the wire set connector (G) in the arm/wire junction (I).
- 7. Using the phillips head screwdriver, install the two screws (C), and secure the switch cover (D) to the arm/wire junction (I).
- 8. Press and install the snap cover (A) into place on top of the pivot bolt (B).
- 9. Ensure all functions operate properly.

# 4.7 Articulating Arm Spring Tension

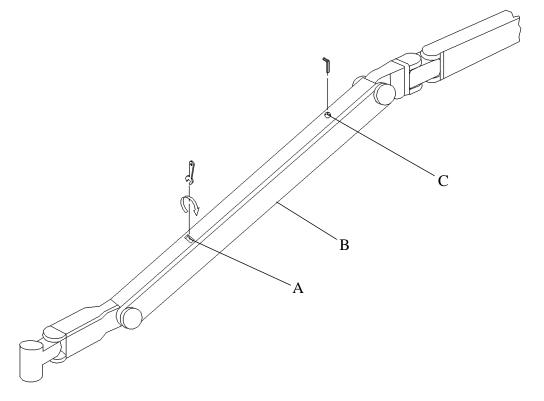
Tools required: 3/32" allen wrench (provided)
Adjustable wrench (provided)

Adjust the spring tension in the articulating arm if the arm does not maintain its position.

#### **Adjustment**

1. Remove the cover over the spring tension adjustment slot (A) (see figure 4-6 on page 4-17).

Figure 4-6. Articulating Arm Spring Tension Adjustment



- 2. Move the arm (B) vertically (up and down) until the adjustment nut is visible in the spring tension adjustment slot (A).
- 3. Using the adjustable wrench, turn the nut clockwise to increase the arm tension. Turn the nut counterclockwise to decrease the tension.

- 4. Adjust the nut until the required adjustment is achieved.
- 5. Replace the spring tension adjustment slot cover.



#### **CAUTION:**

Do not overtighten the fine adjustment setting. This can damage the OB Procedural light and may cause it to become inoperable.

- 6. Using the 3/32" allen wrench provided, insert the allen wrench into the friction adjustment hole (C) for fine adjustment. Do not overtighten the fine adjustment setting.
- 7. Turn the allen wrench slightly until the desired friction is obtained.
- 8. Ensure all functions operate properly.

# 5

# Chapter 5 Parts List

# **Chapter Contents**

Warranty
Service Parts Ordering
Exchange Policy
In-Warranty Exchanges
Out-of-Warranty Exchanges
Recommended Spare Parts
Head Yoke Assembly
Transformer Assembly
Base Assembly

Chapter 5: Parts List

**NOTES:** 

# 5

#### Warranty

# HILL-ROM COMPANY, INC. LIMITED WARRANTY

Hill-Rom Company, Inc. (Hill-Rom) has a long tradition of providing superior products and service to our customer. Our goal is "Total Customer Satisfaction". In that spirit, Hill-Rom is proud to offer the following warranty.

#### GENERAL WARRANTY (APPLICABLE UNLESS A SPECIFIC WARRANTY IS LISTED)

Hill-Rom warrants to the original purchaser that its products and replacement parts shall be free from defects in material and workmanship for a period of one (1) year from date of delivery. Hill-Rom's obligation under this warranty is expressly limited to supplying replacement parts and/or service for, or replacing, at its option, any product which is, in the sole discretion of Hill-Rom, found to be defective. In addition to the foregoing one year warranty, Hill-Rom warrants to the original purchaser that the frame and welds on its products will be free from structural defects for the life of the product. Any product upgrade or modification initiated by Hill-Rom does not affect the original product warranty.

#### SPECIFIC WARRANTIES

#### MATTRESS WARRANTIES

Hill-Rom warrants to the original purchaser that its mattress product shall be free from defects in material and workmanship for a period of two (2) years from date of delivery. However, electro mechanical mattress components (compressors, valves, printed circuit boards, hoses, and couplers) are covered by the general one (1) year warranty.

#### **EXPENDABLES WARRANTIES**

A sixty (60) day limited warranty from date of delivery applies to expendable parts such as cushions, coverlets, software diskettes, locator badge batteries, dome light incandescent bulbs, overhead fluorescent tubes, heating elements, temperature probes, filter sheets, and microspheres. This warranty is limited to replacement of the parts covered.

#### TO OBTAIN PARTS AND SERVICE

In the United States, call Hill-Rom Technical Support Department at (800) 445-3720, Monday through Friday. In Canada, call Hill-Rom Technical Support Department at (800) 267-2337, Monday through Friday. Outside the United States and Canada, call your authorized Hill-Rom Distributor. In order to expedite service, we request you furnish the following information: customer identification number, product model number, serial number, and description of problem. A qualified specialist will provide, via telephone (United States and Canada), or FAX (Outside the United States and Canada), troubleshooting assistance for facility personnel and provide necessary parts to make repairs. If troubleshooting determines the need for onsite technical service, a qualified service representative will be dispatched. Replacement of non-technical items will be the responsibility of the customer. If requested by Hill-Rom, products or parts for which a warranty claim is made shall be returned prepaid to Hill-Rom's factory.

#### **OUT OF WARRANTY EXCHANGE POLICY**

After the expiration of the original warranty, upon request, Hill-Rom will ship as a replacement, components such as selected: motors and printed circuit boards, for like units returned to Hill-Rom by the original purchaser at a substantial savings. Please call Hill-Rom Technical Support Department for current pricing.

#### PARTS AVAILABILITY POLICY

Hill-Rom will offer parts for new and remanufactured products for ten (10) years from date of sale; for communications products for five (5) years from date of sale.

Note: Some original component parts and assemblies may not be available; functional equivalents may be substituted. THE FOREGOING WARRANTIES ARE EXCLUSIVE AND IN LIEU OF ALL OTHER EXPRESS WARRANTIES AND IMPLIED WARRANTIES, INCLUDING BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS OF PURPOSE. HILL-ROM'S OBLIGATION UNDER THESE WARRANTIES SHALL NOT INCLUDE ANY LIABILITY FOR LOSS OF PROFITS, DIRECT, INDIRECT OR CONSEQUENTIAL DAMAGES OR DELAYS. Some states, provinces, or countries do not allow the exclusion or limitation of incidental or consequential damages, so the above exclusion or limitation may not apply. Any improper or negligent use, any alterations or repairs not in accordance with Hill-Rom's manuals or performed by others in such manner as in Hill-Rom's sole judgment affects the product materially and adversely, shall void these warranties. These warranties do not cover failures due to misuse, abuse, neglect, or lack of routine maintenance. No employee or representative of Hill-Rom is authorized to change these warranties in any way or grant any other warranty unless in writing and signed by a Hill-Rom officer. These warranties provide specific legal rights; but, there may be other available rights, which vary from state to state,

Revised April 17, 1997

province to province, or country to country.

Chapter 5: Parts List

NOTES:

# **Service Parts Ordering**

Using the parts lists in this manual, identify the part number(s) you require. Find the product number and serial number on the product identification label (A) (see figure 5-1 on page 5-5).

MANUFACTURED FOR:
HILL-ROM®
A HILL-ROM®
A HILL-ROM®
A HILL-ROM®
BATESVILLE, INDIANA 47006
VOLTS
LISTED
MEDICAL
EQUIPMENT
CHARGE STREET

AMPS
HERTZ

m125a031

Figure 5-1. Product Identification Label Location

Call Hill-Rom Technical Support at (800) 445-3720 with the following information:

- Six-digit customer account number
- Purchase order number
- Product number
- Serial number
- Part number(s)

Chapter 5: Parts List

Hill-Rom also provides a fax number to promptly order parts, request part prices and availability, or follow up on a service order. The fax number is (812) 934-8472.

To order parts, a \$40.00 minimum will prevent a charge for processing your order.

#### Terms:

- Net 30 days
- F.O.B. Batesville, IN
- Prepaid shipping charges added to invoice
- All orders shipped UPS ground unless specified

#### Address all inquiries to:

ATTN TECHNICAL SUPPORT—PARTS HILL-ROM COMPANY 1069 STATE ROUTE 46 E BATESVILLE IN 47006-9167

#### Address all return goods to:

ATTN SERVICE STORES
DISTRIBUTION CENTER DOOR D23
HILL-ROM COMPANY
COUNTY ROAD 300E
BATESVILLE IN 47006-9167

#### **NOTE:**

To eliminate possible delays or incorrect billings, **do not** return any items without a Return Material Authorization (RMA) number. When a return is requested, an RMA packet is included with each order. This packet includes an RMA number, instructions, and a shipping label. If an RMA number is not available, obtain one by phoning Hill-Rom Technical Support at (800) 445-3720.

### **Exchange Policy**

The following are Hill-Rom's policies for in-warranty and out-of-warranty exchanges.

### **In-Warranty Exchanges**

In some cases, Hill-Rom will request that parts/products be returned for inspection. When this occurs, you are expected to return parts/products within 30 days of receipt of the exchange part. If you fail to return the inoperative parts/products within the 30 day period, Hill-Rom will invoice your facility for the full selling price of the parts/products.

#### **NOTE:**

The preceding billing procedure pertains **only** to parts/products that Hill-Rom requests to be returned.

In some cases, the invoice accompanying the parts will show the full selling price (only for Hill-Rom's internal use). Do not confuse this price with your price.

**Do not** return any parts without an RMA number. When parts/products have been requested to be returned, Hill-Rom will include an RMA packet with the parts/products shipment. If an RMA number is not available, obtain one by phoning Hill-Rom Technical Support at (800) 445-3720.

# **Out-of-Warranty Exchanges**

You are expected to return the inoperative parts/products within 30 days of receipt of the exchange part. Hill-Rom will include an RMA packet with the parts/products shipment. If an RMA number is not available, obtain one by phoning Hill-Rom Technical Support at (800) 445-3720. If you fail to return the inoperative parts/products within 30 days, Hill-Rom will invoice your facility for the full selling price of the parts/products. Upon return of the inoperative parts/products, Hill-Rom will issue a credit for the discounted price.

# **Recommended Spare Parts**

See table 5-1 on page 5-8 for a recommended spare parts list to service one unit.

**Table 5-1. Recommended Spare Parts** 

Part Number	Quantity	Description
0001257 (7925)	1	Lamp
0001314 (7925)	1	Fuse (115 volt models only)
0001460 (7925)	2	Fuse (230 volt models only)

**NOTES:** 

# **Head Yoke Assembly**

Figure 5-2. Head Yoke Assembly

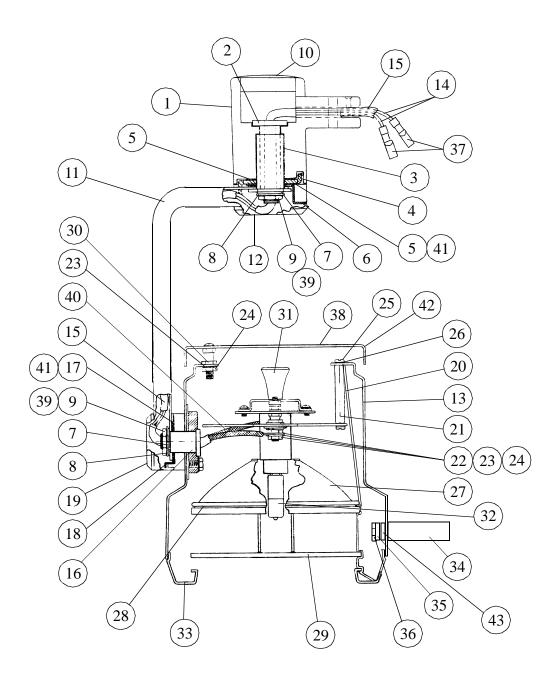


Table 5-2. Head Yoke Assembly

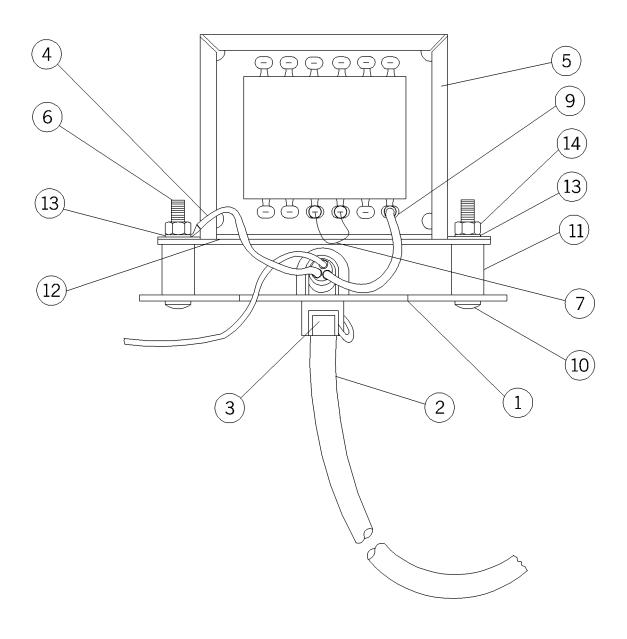
Item Number	Part Number	Quantity	Description
1	1001123 (7925)	1	Yoke arm connector
2	1001124 (7925)	1	Upper yoke pivot
3	1001131 (7925)	1	Upper pivot bushing (small)
4	1001146 (7925)	1	Anti-rotation washer
5	0001266 (7925)	2	Upper yoke bearing washer
6	1001172 (7925)	1	Cap retention washer
7	0001264 (7925)	2	Washer
8	0001268 (7925)	2	Bearing washer
9	0001269 (7925)	2	Nut
10	0001283 (7925)	1	Dome plug
11	1001155 (7925)	1	Yoke (small)
12	1001163 (7925)	1	Cap (medium)
13	1000116 (7925)	1	Housing subassembly
14	0001332 (7925)	1	Wire
15	0001210 (7925)	1	Shrink tube
16	1001156 (7925)	1	Lower pivot yoke
17	0001270 (7925)	1	Bearing washer
18	1001171 (7925)	1	Washer
19	1001149 (7925)	1	Cap (small)
20	1001158 (7925)	3	Clip
21	1000093 (7925)	1	Main support plate subassembly
22	0001181 (7925)	2	Connector
23	0001122 (7925)	5	Lockwasher
24	0001310 (7925)	5	Hex nut
25	0001010 (7925)	3	Screw
26	0001057 (7925)	3	Lockwasher
27	0001120 (7925)	1	Reflector
28	1001210 (7925)	1	Clamping ring
29	1000216 (7925)	1	Lens assembly with cool blue glass
30	0001253 (7925)	3	Banana jack
31	1000088 (7925)	1	Lamp holder subassembly

Item Number	Part Number	Quantity	Description
32	0001257 (7925)	1	Lamp
33	1001151 (7925)	1	Bezel
34	1001162 (7925)	1	Handle
35	0001271 (7925)	2	Lockwasher
36	0001131 (7925)	2	Bolt
37	0001323 (7925)	2	Terminal
38	1003047 (7925)	1	Warning label
39	0001027 (7925)	As required	Adhesive
40	0001012 (7925)	1	Sleeve
41	0001226 (7925)	As required	Lubricant
42	1000124 (7925)	1	Rear cover subassembly
43	1001250 (7925)	2	Handle spacer

**NOTES:** 

# **Transformer Assembly**

Figure 5-3. Transformer Assembly



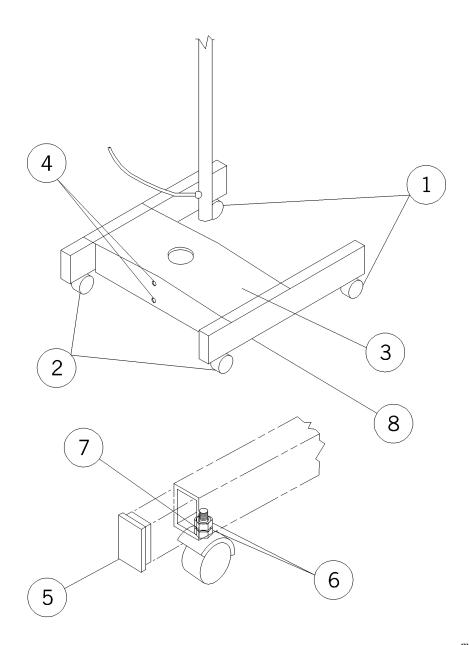
5

**Table 5-3. Transformer Assembly** 

Item Number	Part Number	Quantity	Description
1	1002064 (7925)	1	Transformer mounting plate
2	0001370 (7925)	1	Power cord
3	0001289 (7925)	1	Strain relief
4	0001021 (7925)	1	Ground lug
5	0001250 (7925)	1	Transformer
6	0001448 (7925)	1	Screw
7	0001223 (7925)	1	Wire lead (black)
8	0001224 (7925)	1	Wire lead (white—115 volt model only—not shown for clarity)
9	0001420 (7925)	5	Terminal
10	0001373 (7925)	1	Screw
11	0001308 (7925)	2	Standoff
12	1002023 (7925)	1	Plate, transformer support
13	0001023 (7925)	2	Lockwasher
14	0001159 (7925)	2	Nut

# **Base Assembly**

Figure 5-4. Base Assembly



5

Table 5-4. Base Assembly

Item Number	Part Number	Quantity	Description
1	0001073 (7925)	2	Caster
2	0001363 (7925)	2	Caster with brake
3	1000158 (7925)	1	Base casting subassembly
4	0001128 (7925)	2	Setscrew
5	0001072 (7925)	4	Plastic cap
6	0001074 (7925)	8	Nut
7	0001075 (7925)	4	Washer
8	1001208 (7925)	2	Floor stand leg

Chapter 5: Parts List

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# 6

# Chapter 6 General Procedures

# **Chapter Contents**

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General Cleaning
Steam Cleaning 6 - 4
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External Cleaning
Component Handling
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Preventive Maintenance Schedule
Preventive Maintenance Checklist
Operational Checks
Mechanical Checks
Performance Checks
Electrical Safety Inspection
Leakage Current Test
Floor Mounted Installation
Single Ceiling Mount Installation
Pre-Installation
Installation
Tool and Supply Requirements

Chapter 6: General Procedures

**NOTES:** 

# **Cleaning and Care**



#### **WARNING:**

Follow the product manufacturer's instructions. Failure to do so could result in personal injury or equipment damage.



#### **WARNING:**

Unplug the OB Procedural light from its power source. Allow the unit to cool for at least 30 minutes before servicing. The OB Procedural light operates at a high temperature.



#### **SHOCK HAZARD:**

Unplug the OB Procedural light from its power source. Failure to do so could result in personal injury and equipment damage.



#### **SHOCK HAZARD:**

Do not spill liquids into the OB Procedural lamp head to help prevent lamp head and power supply assembly damage, which could cause an electrical shock hazard. Personal injury or equipment damage could occur.



#### **WARNING:**

Do not expose the unit to excessive moisture. Personal injury or equipment damage could occur.



#### **CAUTION:**

Do not use harsh cleaners, solvents, or detergents. Equipment damage could occur.

# **General Cleaning**

Clean the unit with a lightly dampened cloth and ordinary disinfectants. Do not use excessive liquid.

# **Steam Cleaning**

Do not use any steam cleaning device on the OB Procedural light excluding the handle. Excessive moisture can damage mechanisms in this unit.

# **Hard to Clean Spots**

To remove difficult spots or stains, use standard household cleaners and a soft bristle brush. To loosen heavy, dried-on soil or excreta, you may first need to saturate the spot.

#### Disinfection

Dilute disinfectants and germicides as specified on the manufacturer's label.

# **External Cleaning**



#### **WARNING:**

Unplug the OB Procedural light from its power source, and allow the unit to cool for at least 30 minutes. The OB Procedural light operates at a high temperature.



#### SHOCK HAZARD:

Do not rest articles or liquids on top of the OB Procedural light. Spilled liquids will damage the lamp head and power supply assemblies causing an electrical shock hazard.



#### **CAUTION:**

Use only a lens cleaner or a similar, non-residual cleaning agent on the lens. Failure to do so could result in equipment damage.

Clean plastic and painted metal surfaces with a mild detergent solution. Clean the lens with lens cleaner or a similar, non-residual cleaning agent. Steam sterilize the handle utilizing steam at a minimum of 250°F (121°C) for a minimum of 30 minutes in compliance with AAMI SSSA-1988: Good Hospital Practices, Steam Sterilization and Sterility Assurance, or equivalent method.

Apply the cleaning solution with a clean, damp cloth or sponge. Do not allow the cleaning solution to leak into the OB Procedural light. Liquids will damage the lamp and transformer, resulting in an electrical shock hazard and damage to the unit.

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Dry the exterior surfaces with a clean, soft damp cloth. Be careful not to scratch the lens surface.

Dust the exterior surfaces with a clean, soft cloth which is free of any abrasive material.

# **Component Handling**



#### **CAUTION:**

Be careful not to touch the small lamp or the inner surface of the reflector around the lamp when installing a new lamp. Body oils may significantly lower the life expectancy of the lamp and cause equipment damage.



#### **WARNING:**

Allow the OB Procedural light to cool for a minimum of 30 minutes. The OB Procedural light operates at a high temperature. Failure to do so could result in personal injury.

# **Lubrication Requirements**



#### **WARNING:**

Follow the product manufacturer's instructions. Failure to do so could result in personal injury or equipment damage.



#### **CAUTION:**

Do not use silicone-based lubricants. Equipment damage could occur.

Hill-Rom lubricates all joint and bearing surfaces on the OB Procedural light before each unit leaves the factory. If lubrication is required, use the following lubricant:

P/N SA0646 Teflon® spray lubricant (dry aerosol spray can—use anywhere light needs lubrication)

#### **Preventive Maintenance**



#### **WARNING:**

Only facility-authorized maintenance personnel should perform preventive maintenance on the OB Procedural Light. Preventive maintenance performed by unauthorized personnel could result in personal injury or equipment damage.

The OB Procedural Light requires an effective maintenance program. We recommend that you perform annual preventive maintenance (PM) and testing for Joint Commission on Accreditation of Healthcare Organizations (JCAHO). PM and testing not only meet JCAHO requirements but will ensure a long, operative life for the OB Procedural Light. PM will minimize downtime due to excessive wear.

The following PM schedule guides the technician through a normal PM procedure on the OB Procedural Light. During this PM process, check each item on the schedule, and make the necessary adjustments.

Follow the PM schedule with the corresponding PM checklist. This checklist is designed to keep a running maintenance history and subsequent repair costs for one OB Procedural Light. However, your facility can modify this checklist or design another to fit your needs. Keeping close records and maintaining the OB Procedural Light are two effective ways to reduce downtime and ensure the patient remains comfortable.

# **Preventive Maintenance Schedule**

**Table 6-1. Preventive Maintenance Schedule** 

Function	Procedure
Light bulb	Ensure that the light bulb is seated properly into the socket.
Operational check	Complete the section "Operational Checks" on page 6-9.
Electrical safety	Complete the section "Electrical Safety Inspection" on page 6-10.
Power cord	Check for frayed electrical cord and components. Replace the damaged parts if necessary.
Lens assembly	Check the lens assembly for cracks or breaks. Replace the lens if necessary.
Light maneuverability and stationary positioning	Complete the section "Articulating Arm Spring Tension" on page 4-17.
Ceiling mount	Check the mounting bolts for stability. Replace the mounting bolts if necessary.
Overall appearance	Check the general aesthetics of the OB Procedural light.

# 6

### **Preventive Maintenance Checklist**

**Table 6-2. Preventive Maintenance Checklist** 

Date	e											
												Function
iΗ	M											Light bulb
Hill-Rom Company, Inc.	Manufacturer											Operational check
Con	fac											Electrical safety
1 Co	ture											Power cord
	r											Lens assembly
)an												Light maneuverability
у, І												and stationary position-
nc.												ing
	Mo											Ceiling mount
	Model Number											Overall appearance
	Z											
	uml											
	er											
	Se											
	rial											
	Nu											
	Serial Number											
	er											
10	7											Labor Time:
Inis Pa												
age	Cos											Repair Cost:
0	Total Cost for											
	ĭ											Inspected By:
												Legend L=Lube C=Clean A=Adjust R=Repair or Replace O=Ookay N=Not Applicable Remarks:

# 6.1 Operational Checks



#### **WARNING:**

Perform the operational checks before putting the OB Procedural light into service. Failure to do so could result in personal injury or equipment damage.



#### **WARNING:**

If the unit fails any part of the operational checks, repair the OB Procedural light before use on any patient. Failure to do so could result in personal injury or equipment damage.

#### **Mechanical Checks**

- 1. Check the overall appearance of the OB Procedural light for any signs of damage.
- 2. Check that the OB Procedural light is mounted securely.
- 3. Move the extension arm in all directions. Verify that the arm moves freely and stays in position.
- 4. Rotate and reposition the lamp head assembly. Adjust the arm tension if the arm drifts after positioning. See the section "Articulating Arm Spring Tension" on page 4-17.
- 5. Check that the lens assembly is mounted securely to the lens housing.
- 6. Check the power cord for any visible damage. Replace the power cord if it shows any signs of damage.

#### **Performance Checks**

- 1. Plug the OB Procedural light into an appropriate power source.
- 2. Switch the OB Procedural light to the *on* position.
- 3. Check illumination of the OB Procedural light.



#### **WARNING:**

Do not open the lamp head assembly with the power connected. An electrical shock hazard exists. Possible equipment damage or personal

Chapter 6: General Procedures

injury could occur.

# **Electrical Safety Inspection**

Check the unit for normal appearance and operation as described in section "Operational Checks" on page 6-9. Remove the OB Procedural light from service if the unit fails to perform or does not meet the specifications for the OB Procedural light.

#### **Leakage Current Test**

With the ground wire open, the OB Procedural light must be less than 65 microamperes to continue in service.

#### 6.2 Floor Mounted Installation

Tools required: 7/16" box end or adjustable wrench

Allen wrenches (provided)

Box knife



#### **WARNING:**

Only qualified and authorized service personnel should install the OB Procedural light. Failure to observe this restriction can result in damage to material and/or severe injury to people.



#### **WARNING:**

Do not pinch the wires during installation. Pinched wires can cause an electrical shock hazard. Possible equipment damage or personal injury could occur.

Follow all instructions carefully to ensure proper mounting and safe operation of the OB Procedural light.



#### **CAUTION:**

Be careful not to damage the lamp head or break items when removing parts from the shipping carton. Thoroughly check each shipping carton for additional parts before discarding. Failure to do so could result in equipment damage.

Check to ensure that the following parts are contained in the shipping carton:

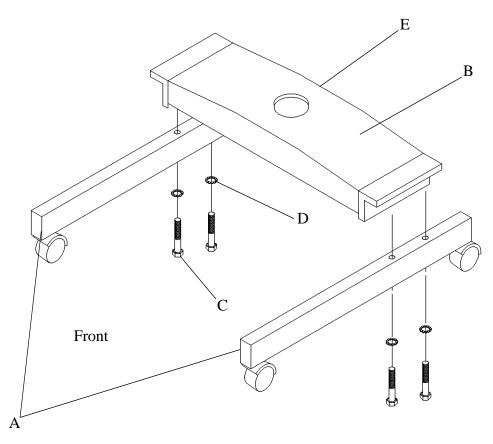
- Base casting
- Two legs with casters
- Upright pole with attached hospital grade plug
- Mounting hardware
- 1. Using the 7/16" box end or adjustable wrench, bolt the assembled legs (A) onto the base casting (B) using the four bolts (C) and lockwashers (D) (see figure 6-1 on page 6-12).

#### **NOTE:**

Position the base casting (B) so that the setscrews (E) in the base are oriented at the rear of the unit.



Figure 6-1. Base Casting Assembly



m125a001

- 2. Insert the upright pole (F) fully into the base casting (B) (see figure 6-2 on page 6-13).
- 3. Ensure the power cord (H) connection on the pole is in line with the setscrews (E) in the base casting.

6

H B Rear

Figure 6-2. Upright Pole Assembly

m125a002

4. Using the allen wrenches provided, tighten both setscrews (E) when the upright pole (F) is properly positioned.



#### **CAUTION:**

Do not install the extension arms with the lamp head attached. Equipment damage could occur.

- 5. See the section "Head Assembly and Extension Arm Assembly" on page 4-14 for installing the lamp head to the arm after the floor mount is assembled and the arm is installed.
- 6. Using the box knife and holding the connector (G) at the top opening of the upright pole (F), cut and discard the cable tie holding the connector (G) to the upright pole (see figure 6-3 on page 6-14).

• •

P G K

Figure 6-3. Arm Assembly to Pole Installation

m125a003

#### **NOTE:**

Do not allow the connector (G) to fall inside the upright pole (F). It may be difficult to retrieve the connector if it falls inside of the upright pole.

7. Have an assistant hold the extension arm (P) above the upright pole (F) while you fasten connectors (G) and (I) together.



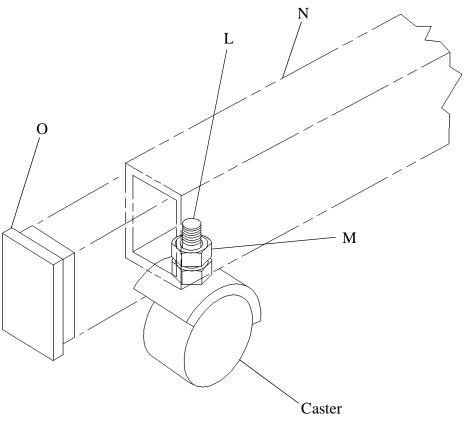
#### **WARNING:**

Ensure that the wires do not get pinched or cut when lowering the transformer housing into the upright pole. An electrical shock hazard exists if these wires get pinched or cut. Possible equipment damage or personal injury could occur.

8. Carefully lower the transformer housing (J) into the upright pole (F).

- 9. Ensure that the connectors (G and I) do not get pinched or cut.
- 10. Using the 7/16" box end or adjustable wrench, secure the transformer housing (J) to the upright pole (F) with the two mounting bolts (K).
- 11. Level the base by adjusting the caster bolts (L) and nuts (M) at the end of each leg (N) (see figure 6-4 on page 6-15).

Figure 6-4. Caster Assembly



- m125a004
- 12. After leveling the base, tighten the nuts securely, -and insert a leg cap (O) in the end of each leg (N).
- 13. Ensure all functions operate properly.
- 14. Complete the "Electrical Safety Inspection" on page 6-10 and the "Operational Checks" on page 6-9 before using the OB Procedural light on a patient.

# 6.3 Single Ceiling Mount Installation

Tools required: 1/2" socket and wrench

Adjustable or 1/2" box end wrench

Phillips head screwdriver Allen wrenches (provided)

Parts required: Wire harness Ceiling cover

Ceiling collar Mounting bolt
Connector Dowel pin
Ceiling casting Setscrew
Bolt cover Bolt cover

Stop bolt Transformer housing

Extension arm

Mounting hardware (not included)

#### **Pre-Installation**



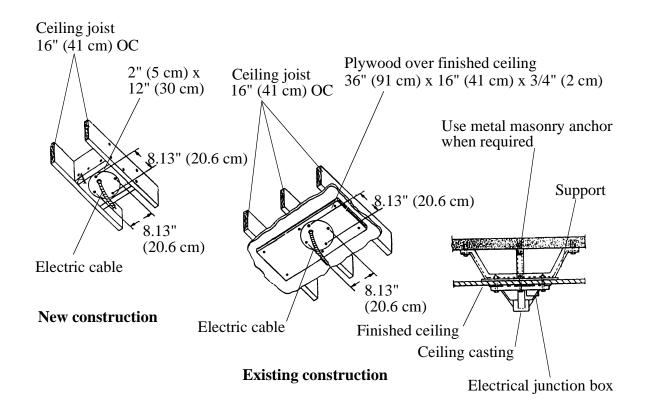
#### **WARNING:**

Installation and repair of the OB Procedural light must be performed by qualified personnel only. Failure to do so could result in personal injury or equipment damage.

Perform the following checks and connections before beginning to install the OB Procedural light.

1. Confirm that the structural ceiling mount meets the specifications of the architectural plan or suggested mounting configuration (see figure 6-5 on page 6-17) and (see figure 6-6 on page 6-18).

Figure 6-5. OB Procedural Light Mounting Specifications



**Suggested suspension** ceiling construction

m125a028

Grounding screw

3/8" (.95 cm) dia. (4 places)
Use 5/16" (.8 cm) dia.
mounting bolts

8 1/8"
(20.6 cm)

Figure 6-6. Ceiling Casting Mount Dimensions

- 2. Confirm that the mounting bolts are grade 5 or better and that they can support a minimum of 100 lb (45.4 kg) each.
- 3. Confirm that the power supply is three wire, single phase, 120V 60 Hz, capable of supplying 100 watts at one amp.
- 4. Confirm that the power supply is routed and wired in compliance with all existing codes.
- 5. Inspect the length of the ceiling rod supplied and ensure that it is the proper length to install and operate the OB Procedural light without interference.

Contact Hill-Rom Technical Support Department at (800) 445-3720 if you require additional assistance.

#### Installation

1. Check to ensure that all parts listed under parts required are contained in the shipping carton.

1 1/2" (3.8 cm) dia.

m125a026

2. Insert the ceiling rod (A) up through the ceiling casting (B) until the hole in the ceiling rod becomes visible (see figure 6-7 on page 6-19).

E —  $\mathcal{C}$ D Mounting hardware < (not included) D - H M K m125a029

Figure 6-7. OB Procedural Light Exploded View—Single Mount

- 3. Insert the dowel pin (C) through the ceiling rod (A).
- 4. Ensure that the dowel pin (C) is seated securely in the indention in the ceiling casting (B).



#### **WARNING:**

Ensure that the installation is capable of supporting a load of at least 100 lb (45.4 kg) and an off center moment of 300 ft-lb (407 N·m). Improper fastening of the ceiling casting can cause serious injury and/or property damage.

6. Using the 1/2" box end or adjustable wrench, secure the ceiling casting (B) to the desired location using four 5/16"-18 x 3" long bolts (minimum length) with washers (hardware not provided).



#### **WARNING:**

The ceiling casting itself must be properly grounded to maintain proper grounding reliability. Possible equipment damage or personal injury could occur.

7. Mount the ceiling casting (B) to a suitable material that will function as a ground conductor, or attach a wire lead to the ground screw on the ceiling casting (B) and route to a proper ground.



#### **WARNING:**

The green wire from the wire harness must be properly fastened to the grounding screw located on the ceiling casting. Make all electrical connections in compliance with electrical codes. Failure to do so could result in personal injury and equipment damage.

- 8. Feed the wire harness (E) through the ceiling rod (A), and route to the junction box.
- 9. Slide the ceiling cover (F) on the ceiling rod (A), and secure it with the ceiling collar (G).
- 10. Slide the bolt cover (H) onto the ceiling rod (A).

6



#### **CAUTION:**

Do not install the extension arm with the lamp head attached. Equipment damage could occur.

- 11. See the section "Head Assembly and Extension Arm Assembly" on page 4-14 for installing the lamp head to the arm.
- 12. Raise the extension arm (I) to the ceiling rod (A), and plug the connectors (J) together.
- 13. Push the wire into the ceiling rod (A), while inserting the transformer housing (K) into the ceiling rod (A).
- 14. Using the 1/2" box end or adjustable wrench and the four bolts (L), secure the transformer housing (K) to the ceiling rod (A).
- 15. Place the stop bolt (M) in one of the lower holes.
- 16. Mount the lamp head onto the extension arm (I). See the section titled "Head Assembly and Extension Arm Assembly" on page 4-14.
- 17. Lower the bolt cover (H) into place.
- 18. Complete the "Electrical Safety Inspection" on page 6-10 and the "Operational Checks" on page 6-9 before using the OB Procedural light on a patient.

# **Tool and Supply Requirements**

The following tools are required to service the OB Procedural light:

- 1/2" box end wrench
- Adjustable wrench
- Phillips head screwdriver
- Allen wrenches (provided)
- 7/16" wrench
- · Needle nose pliers
- 7/16" box end wrench
- Pliers
- Screwdriver
- 11/32" nut driver
- · Open end wrench
- · Box knife
- · Adjustable wrench



# Chapter 7 Accessories

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# **NOTES:**

### **Accessories**

No accessories are available for the OB Procedural light.

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Chapter 7: Accessories

# **NOTES:**