SERVICE MANUAL

Integris®
Patient Light
From Hill-Rom
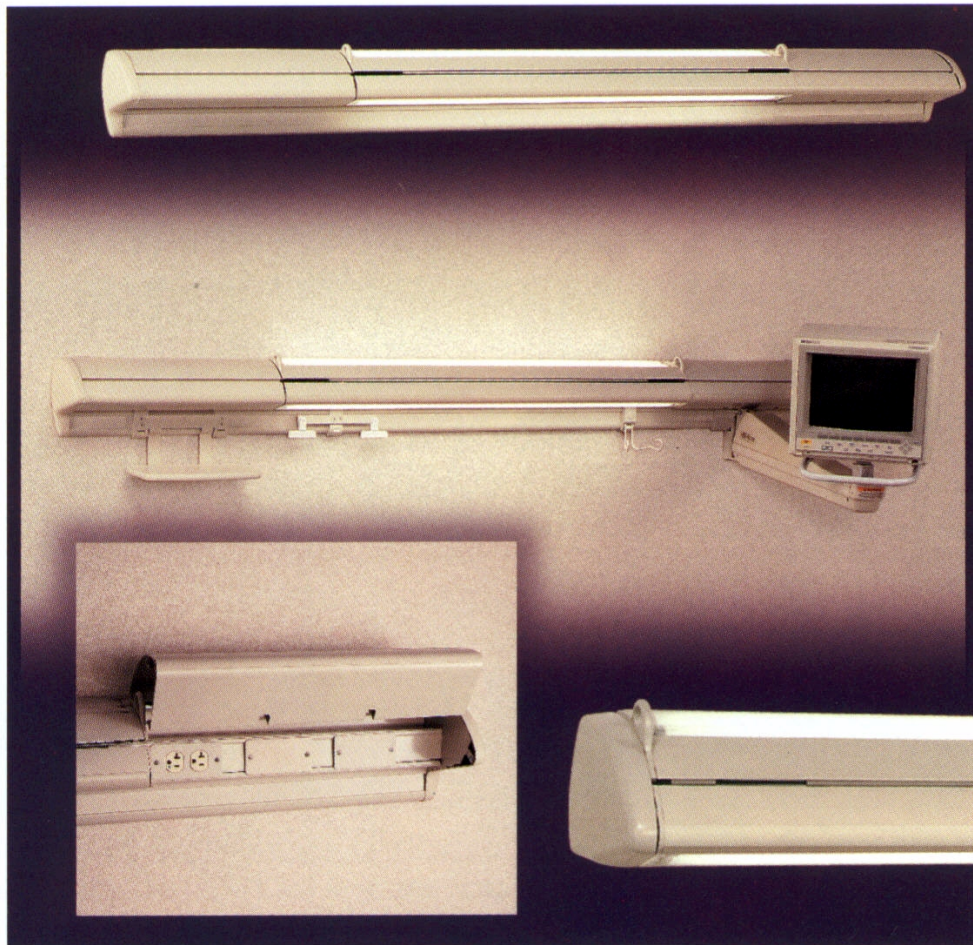
Product No. P696

Integris® Patient Light Service Manual

Revisions

Revision Letter	Pages Affected	Date
Original Issue		September, 1997
A	All	July, 1998
B	All	May, 2000

man139rb

Third Edition

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Additional copies of this manual can be obtained from Hill-Rom.

To order additional copies of this manual, call (800) 445-3720, and place a parts order for part number man139rb.

Table of Contents

NOTES:

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Chapter 1
Introduction

Chapter Contents

Purpose

This manual provides requirements for the Integris® Patient Light normal operation and maintenance. It also includes parts lists (in chapter 5) for ordering replacement components.

Audience

This manual is intended for use by only facility-authorized 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, electrical, and major subsystems 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 the 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

This edition of the *Integris® Patient Light Service Manual* does not contain accessory information.

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

- 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 a CAUGHT HAZARD WARNING:

Figure 1-2. Caught Hazard Warning

- The symbol below highlights a CHEMICAL HAZARD WARNING:

Figure 1-3. Chemical Hazard Warning

- The symbol below highlights an ELECTRICAL SHOCK HAZARD WARNING:

Figure 1-4. Electrical Shock Hazard Warning

Introduction

General Information

Figure 1-5. Integris® Patient Light

Fill cover

End cap

Indirect/exam light

Fill cover

End cap

Read light

Integris® B Lite Rail

m139b074

Fill cover

End cap

Indirect/exam light

Fill cover

Read light

End cap

Integris® 2000 Patient Light

End cap

Indirect/exam light

End cap
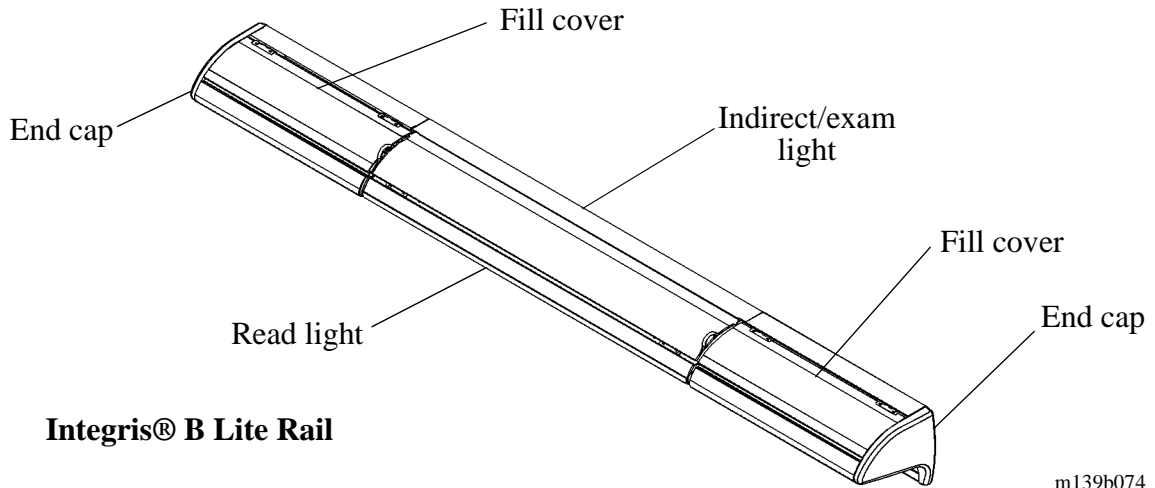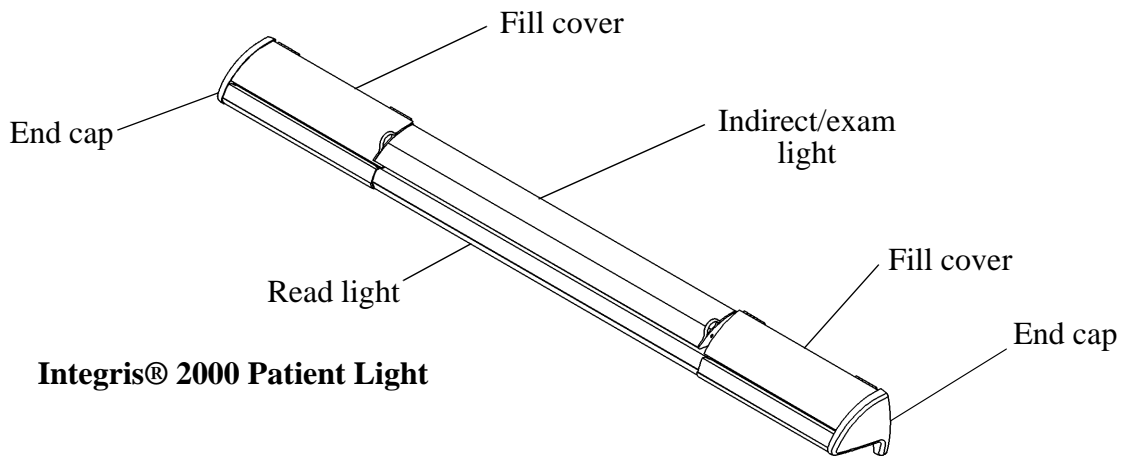
Read light
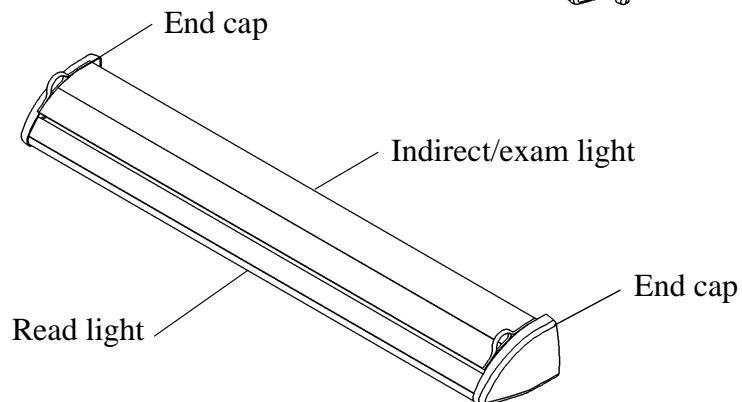
Integris® 1000 Patient Light

m139_003

Figure 1-6. Integris® Patient Light

End cap

Indirect light

End cap

Read light
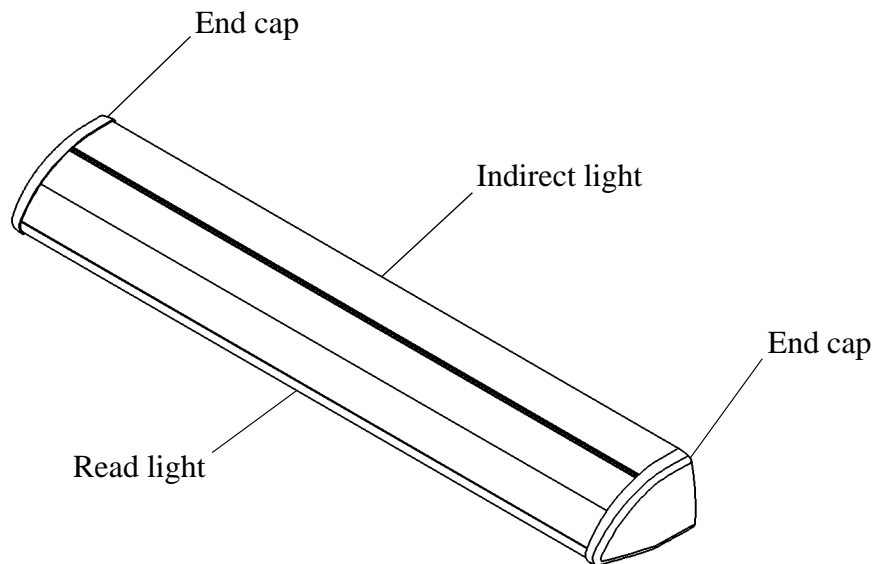
Integris® 500 Patient Light

m139b076

Today, with improvements in technology and changes in the way healthcare is delivered, Hill-Rom is designing products to continuously meet the changing needs of the healthcare industry.

The Integris® Patient Light offers solutions for multiple lighting needs. The 2000 and 1000 models provide direct read lighting, indirect room lighting, and additional exam lighting. The 2000 and 1000 have a unique pull-down feature. The indirect light assembly rotates, so the light shines in a downward direction. This doubles the light available for patient examinations.

All of the Integris® Patient Light models have optionally available duplex receptacle(s), making the Integris® Patient Light a complete stand-alone light.

All models include safety interconnect switches. This feature turns off the power to the bed receptacle when auxiliary hospital equipment accidentally touches the bottom of the patient light. Moving the hospital equipment away from the light restores power to the bed receptacle.

Features

The Integris® Patient Light has the following features:

- Stand-alone functionality
- System functionality when paired with headwall systems
- Indirect lighting
- Read lighting
- Patient examination lighting on the 2000 and 1000 models
- Optional low voltage switching
- Optional duplex receptacle(s) on all models
- Safety interlock circuit on all models

Specifications

Physical Description

For Integris® Patient Light specifications, see table 1-1 on page 1-9.

Table 1-1. Integris® Patient Light Specifications

Feature	Dimension
Integris® B Lite Rail—depth	11" (27.9 cm)
Integris® 2000 Patient Light—depth	8.036" (20.411 cm)
Integris® 1000 Patient Light—depth	8.036" (20.411 cm)
Integris® 500 Patient Light—depth	8.036" (20.411 cm)
Integris® B Lite Rail—width	78" (198.12 cm) to 114" (289.56 cm)
Integris® 2000 Patient Light—width	75.5" to 111.5" (191.770 cm to 283.210 cm)
Integris® 1000 Patient Light—width	51.563" (130.970 cm)
Integris® 500 Patient Light—width	51.563" (130.970 cm)
Integris® B Lite Rail—height	9.5" (24.1 cm)
Integris® 2000 Patient Light—height	8.113" (20.607 cm)
Integris® 1000 Patient Light—height	5.435" (13.805 cm)
Integris® 500 Patient Light—height	5.435" (13.805 cm)
Integris® B Lite Rail—shipping weight	210.0 lb (95.3 kg)
Integris® 2000 Patient Light—shipping weight	75.0 lb (34.0 kg) for 90" (229 cm) light
Integris® Patient Light—shipping weight	44.0 lb (19.9 kg)
Integris® 500 Patient Light—shipping weight	44.0 lb (19.9 kg)

Electrical Description

For Integris® Patient Light electrical specifications, see table 1-2 on page 1-9.

Table 1-2. Electrical Specifications

Description	Specification
Ballast voltage	120/277V AC at 60Hz
Low voltage controller	120/240/277V AC

Description	Specification
Lamp wire	18 American Wire Gauge (AWG)
Safety circuit wire	12 AWG
Pull chain switch	4 position, rotary action

For Integris® Patient Light receptacle specifications, see table 1-3 on page 1-10.

Table 1-3. Receptacle Specifications

Description	Specification
Hospital-grade receptacle	National Electrical Manufacturers Association (NEMA) 5-15R or 5-20R Hospital-grade is indicated by a green dot on the face of the receptacle.
Single phase	2 wires plus ground
Voltage	125V AC
Amperage	15 or 20 amp
Receptacle color	Ivory = standard power duplex Red = emergency power (critical branch) Orange = isolated ground

Regulations, Standards, and Codes

Integris® 2000/2003B Patient Light

Sections and Units

Category guide designation = QQXX

Isolated Power Wall Modules

Category guide designation = KEXS

Integris® 1000/500 Patient Light

Medical and Dental Fixtures

Category guide designation = IFDT

Model Identification

For Integris® Patient Light model identification, see table 1-4 on page 1-11.

Table 1-4. Model Identification

Model Number	Description
P696IL01, P696IL02	Integris® B Lite Rail
P696EF, EF01, EF02	Integris® 2000 Patient Light
P696IL, IL01, IL02	Integris® 1000 Patient Light
P696LE, LE01	Integris® 500 Patient Light

Safety Tips

SHOCK HAZARD:
To minimize the risk of electrical shock or damage to equipment, disconnect all electrical power to the system before working on it. Failure to do so could result in personal injury or equipment damage.

SHOCK HAZARD:
Use care when checking live voltages. Do not touch live terminals, wires, and ground. Failure to use caution will cause serious electrical shock injury.

WARNING:
Only facility-authorized personnel should troubleshoot the Integris® Patient Light. Troubleshooting by unauthorized personnel could result in personal injury or equipment damage.

WARNING:
Adhere to the *Infection Control Policies and Procedures* from Hill-Rom. Failure to do so could result in the spread of infection.

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

Warning and Caution Labels

Figure 1-7. Warning and Caution Labels

WARNING: THIS DEVICE IS NOT TO BE USED, DIRECTLY OR INDIRECTLY, WITH LIFE SUPPORT APPARATUS OR ASSOCIATED CIRCUITRY.

m139_050

MAXIMUM LOAD

200 LBS /91 KG

m139_051

NOTES:

Chapter 2
Troubleshooting Procedures

2

Chapter Contents

NOTES:

Getting Started

⚠️ **WARNING:**
Only facility-authorized personnel should troubleshoot the Integris®
Patient 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.

To begin gathering information about the problem, start with **Initial Actions**.

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 **Function Checks**.

To verify the repair, perform the **Final Actions** after the Function Checks.

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

Initial Actions

To gather information from operators concerning problems with the Integris®
Patient Light, use Initial Actions. 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
    ↓   → 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.

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

    Yes   No
    ↓   → Go to "Function Checks" on page 2-4.

4. Instruct the operator to refer to the procedures in the *Integris® Patient Light User Manual*. To ensure proper operation of the Advance® Series Bed, perform the "Function Checks" on page 2-4.

Function Checks

1. Initial actions have been performed.

    Yes   No
    ↓   → Go to "Initial Actions" on page 2-3.

2. Auxiliary hospital equipment is plugged into an appropriate power source, and the switch is turned on.

    Yes   No
    ↓   → Plug the unit into an appropriate power source, and turn on the switch.

3. The standard/emergency duplex electrical receptacle is operative.

    Yes   No
    ↓   → Go to RAP 2.1.

4. Indirect and read light with low voltage control operates correctly.

    Yes   No
    ↓   → Go to RAP 2.2.

5. Indirect and read light without low voltage control operates correctly.

    Yes   No
    ↓   → Go to RAP 2.3.

6. The limit switch in the safety circuit operates correctly.

    Yes   No
    ↓   → Go to RAP 2.4.

7. Go to "Final Actions" on page 2-5.

Final Actions

1. Complete the required preventive maintenance procedures. See "Preventive Maintenance Schedule" on page 6-5.

2. Complete all required administrative tasks.

2

2.1 Duplex Electrical Receptacle—Standard or Emergency—Is Inoperative

SHOCK HAZARD:
Use care when checking live voltages. Do not touch live terminals, wires, and ground. Failure to use caution will cause serious electrical shock injury.

1. The building circuit breaker (A) is in the ON position (see figure 2-1 on page 2-6).

   Yes   No
   ↓   → Reset the circuit breaker to the ON position.

Figure 2-1. Standard/Emergency Circuit Breaker Box

A
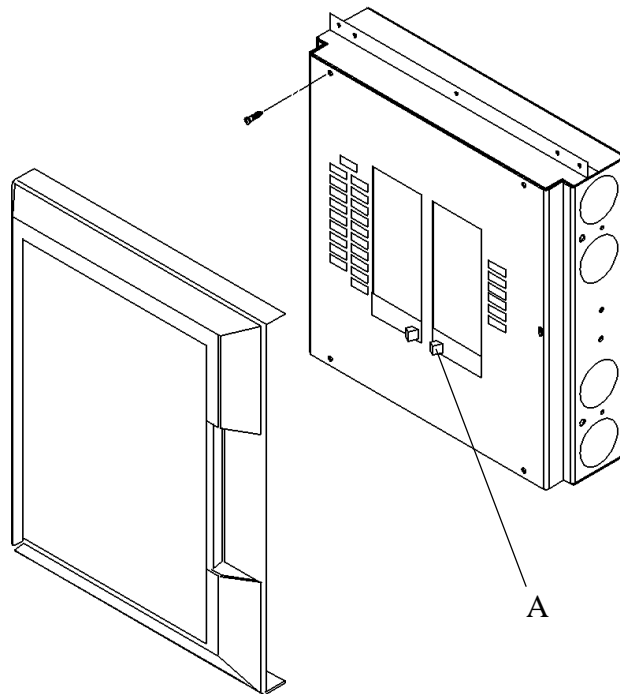
m139_004

2. Testing shows 109 to 125V AC between the terminal and the lug of the circuit breaker.

   Yes   No
   ↓   → Replace the circuit breaker according the manufacturer's instructions.

3. Testing shows 109 to 125V AC between the terminals on the receptacle.

    Yes   No

    ↓   → Repair or replace the wires between the circuit breaker and the
            receptacle.

4. Measure the voltage between the following points:

    •   The short slot and the long slot of the receptacle.

    •   The short slot and the ground on the receptacle.

    The voltage is between 108 and 125 V AC.

    Yes   No

    ↓   → Replace the receptacle. See "Duplex Receptacle—Integris®
            2000 Patient Light" on page 4-3, "Duplex Receptacle—
            Integris® 1000 Patient Light" on page 4-8, or "Duplex
            Receptacle—Integris® 500 Patient Light" on page 4-11.

5. Go to "Final Actions" on page 2-5.

2.2   Indirect/Read Light With Low Voltage Control Does Not Operate

SHOCK HAZARD:
Use care when checking live voltages. Do not touch live terminals, wires, and ground. Failure to use caution will cause serious electrical shock injury.

1. The involved building circuit breaker is in the ON position (see figure 2-1 on page 2-6).

    Yes   No
    ↓   → Reset the circuit breaker to the ON position.

2. Momentarily press the indirect light switch. The indirect light turns on.

    Yes   No
    ↓   → Check for corroded or loose lampholders. Install the new fluorescent lamps (refer to procedure 4.5), and then go to step 4.

3. Momentarily press the read light switch. The read light turns on.

    Yes   No
    ↓   → Check for corroded or loose lampholders. Install the new fluorescent lamps (refer to procedure 4.5), and then go to step 4.

4. The indirect and the read lights operate correctly.

    Yes   No
    ↓   → Go to step 6.

5. Go to "Final Actions" on page 2-5.

6. The input voltage measures 109 to 125V AC between the black wire and the white wire of the low voltage controller (see figure 2-2 on page 2-10).

    Yes   No
    ↓   → Replace the circuit breaker and, if needed, the wiring between the circuit breaker and the low voltage controller.

7. Use a digital multimeter to measure the voltage on the low voltage controller between the following leads:

    • The blue, positive, control lead (C) and the brown, control lead (A)

    • The red, positive lead (B) and the common, brown lead (A)

    The voltage measures between 10 and 14V DC.

    Yes   No
    ↓   → Replace the low voltage controller. See "Low Voltage Controller—Integris® 2000 Patient Light" on page 4-20, "Low

2.2 Indirect/Read Light With Low Voltage Control Does Not Operate

Chapter 2: Troubleshooting Procedures

Voltage Controller—Integris® 1000 Patient Light" on page 4-27, or "Low Voltage Controller—Integris® 500 Patient Light" on page 4-34. If this solves the problem, go to "Final Actions" on page 2-5. Otherwise, go to step 8.

8. The voltage reading at the blue lead (C) or the red lead (B) drops to zero when the read or indirect light switch is pressed momentarily.

   Yes   No
   ↓   → Replace the low voltage switch. See the applicable headwall system service manual.

9. The low voltage controller output leads (pink and yellow) both read 120/240/277V AC.

   Yes   No
   ↓   → Replace the low voltage controller. See "Low Voltage Controller—Integris® 2000 Patient Light" on page 4-20, "Low Voltage Controller—Integris® 1000 Patient Light" on page 4-27, or "Low Voltage Controller—Integris® 500 Patient Light" on page 4-34.

10. Using a clamp-on milliammeter around the yellow leads, measure the current in the yellow wires to the indirect lamps (see figure 2-3 on page 2-12). The current measures at least 0.265 milliamps.

   Yes   No
   ↓   → Replace the indirect ballast. See "Ballast—Integris® 2000 Patient Light" on page 4-16, "Ballast—Integris® 1000 Patient Light" on page 4-24, or "Ballast—Integris® 500 Patient Light" on page 4-31. If this solves the problem, go to "Final Actions" on page 2-5. Otherwise, call Hill-Rom Technical Support at (800) 445-3720.

11. Go to "Final Actions" on page 2-5.

2

Integris® Patient Light Service Manual (man139rb)   *Page 2 - 9*

Figure 2-2. Low Voltage Controller Wiring Diagram
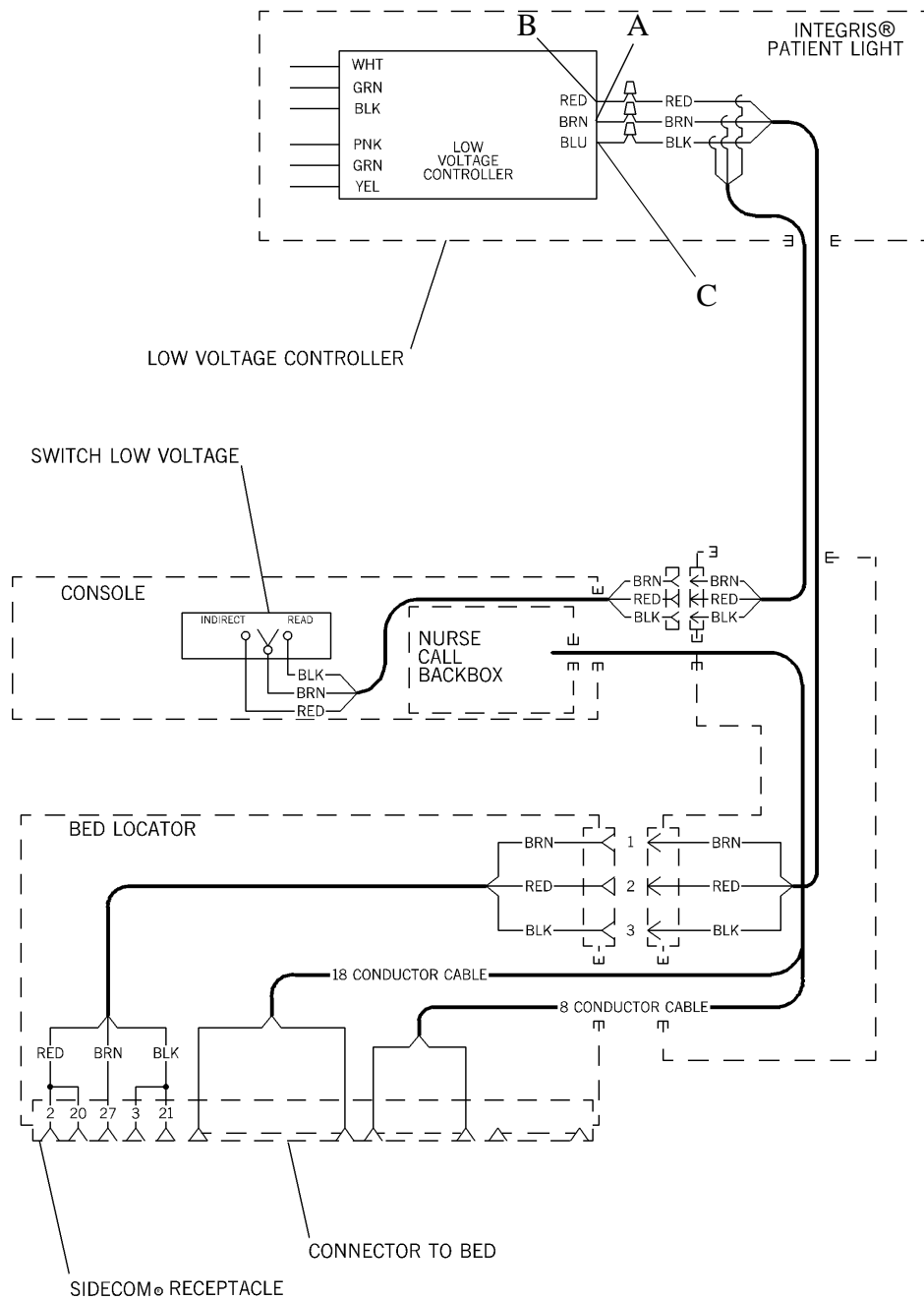
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2.3 Indirect/Read Light Without Low Voltage Control Does Not Operate

2

✋ **SHOCK HAZARD:**
Use care when checking live voltages. Do not touch live terminals, wires, and ground. Failure to use caution will cause serious electrical shock injury.

1. The involved building circuit breaker is in the ON position (see figure 2-1 on page 2-6).

    Yes   No
    ↓   → Reset the circuit breaker to the ON position.

2. Set the indirect light switch to the ON position. The indirect light turns on.

    Yes   No
    ↓   → Check for loose or corroded lampholders. Install the new fluorescent lamps (refer to procedure 4.5), and then go to step 4.

3. Set the read light switch to the ON position. The read light turns on.

    Yes   No
    ↓   → Check for loose or corroded lampholders. Install the new fluorescent lamps (refer to procedure 4.5), and then go to step 4.

4. The indirect and the read lights operate correctly.

    Yes   No
    ↓   → Go to step 6.

5. Go to "Final Actions" on page 2-5.

6. The input voltage reads from 109 to 125V AC between the black wire and the white wire at the indirect lamp switch.

    Yes   No
    ↓   → Replace the circuit breaker. If this solves the problem, go to step 7. Otherwise, replace the wiring between the circuit breaker and the indirect lamp switch.

SHOCK HAZARD:
To minimize the risk of electrical shock or damage to equipment,
disconnect all electrical power to the system before working on it.
Failure to do so could result in personal injury or equipment damage.

7. Perform the following:

   • Locate the involved building standard/emergency circuit breaker
     panel.

   • Set the involved circuit breaker (A) to OFF (see figure 2-1 on page
     2-6).

   • Lock out and tag out the breaker.

   • Continuity is indicated between the terminals on the indirect lamp
     switch with the switch in the ON position.

   Yes   No
   ↓   → Replace the indirect lamp switch.

Figure 2-3. Standard Ballast Wiring Diagram

STANDARD BALLAST (FOR 120/277 VOLT UNIT ONLY)
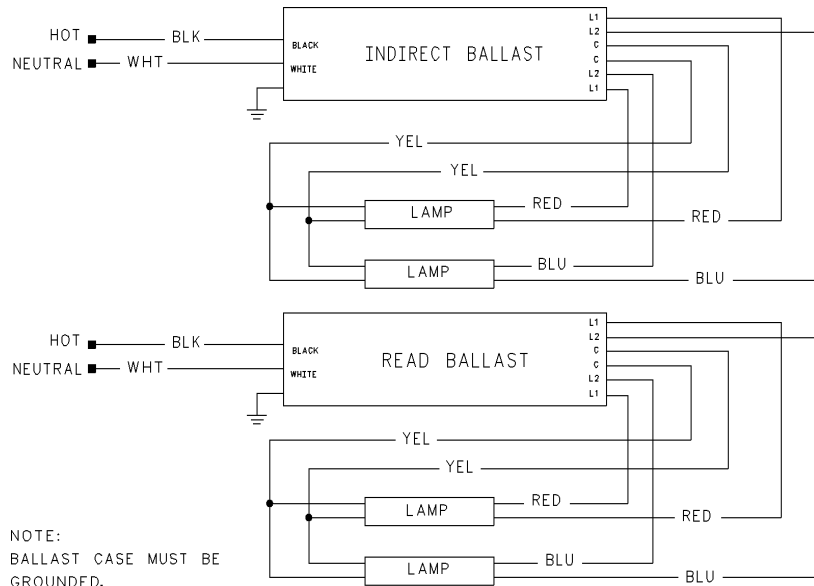
8. The input voltage measures from 109 to 125V AC between the black and
   the white wire at the indirect ballast (see figure 2-3 on page 2-12).

   Yes   No
   ↓   → Repair or replace the wires between the switch and the ballast.

2

9. The indirect light operates properly.

    Yes   No
    ↓   → Replace the indirect ballast. See "Ballast—Integris® 2000
              Patient Light" on page 4-16, "Ballast—Integris® 1000 Patient
              Light" on page 4-24, or "Ballast—Integris® 500 Patient Light"
              on page 4-31. If this solves the problem, go to "Final Actions"
              on page 2-5. Otherwise, go to step 11.

10. Go to "Final Actions" on page 2-5.

11. The input voltage measures from 109 to 125V AC between the black wire
    and the white wire of the read lamp switch.

    Yes   No
    ↓   → Replace the circuit breaker. If this solves the problem, go to
              "Final Actions" on page 2-5. Otherwise, go to step 13.

12. Go to step 14.

13. The input voltage measures from 109 to 125V AC between the black wire
    and the white wire of the read lamp switch.

    Yes   No
    ↓   → Replace the wiring between the circuit breaker and the read lamp
              switch. If this solves the problem, go to "Final Actions" on page
              2-5. Otherwise, call Hill-Rom Technical Support at (800) 445-
              3720.

SHOCK HAZARD:
To minimize the risk of electrical shock or damage to equipment,
disconnect all electrical power to the System before working on it.
Failure to do so could result in personal injury or equipment damage.

14. Perform the following:

    • Locate the involved building standard/emergency circuit breaker
      panel.

    • Set the involved circuit breaker (A) to OFF (see figure 2-1 on page
      2-6).

    • Lock out and tag out the breaker.

    • Continuity is indicated between the terminals on the read lamp switch
      with the switch in the ON position.

    Yes   No
    ↓   → Replace the read lamp switch.

15. The input voltage measures from 109 to 125V AC between the black wire and the white wire of the read ballast.

    Yes   No

    ↓   → Repair or replace the wires between the switch and the ballast.

16. The read light operates properly.

    Yes   No

    ↓   → Replace the indirect ballast. See "Ballast—Integris® 2000 Patient Light" on page 4-16, "Ballast—Integris® 1000 Patient Light" on page 4-24, or "Ballast—Integris® 500 Patient Light" on page 4-31. If this solves the problem, go to "Final Actions" on page 2-5. Otherwise, call Hill-Rom Technical Support at (800) 445-3720.

17. Go to "Final Actions" on page 2-5.

2.4   The Limit Switch in the Safety Circuit is Inoperative

2

SHOCK HAZARD:
Use care when checking live voltages. Do not touch live terminals, wires, and ground. Failure to use caution will cause serious electrical shock injury.

1. The building circuit breaker is in the ON position (see figure 2-1 on page 2-6).

    Yes   No
    ↓   → Reset the circuit breaker to the ON position.

2. Testing shows 109 to 125V AC between the terminal and the lug of the circuit breaker.

    Yes   No
    ↓   → Replace the circuit breaker according to the manufacturer's instructions.

3. Testing shows 109 to 125V AC between the terminals on the bed receptacle.

    Yes   No
    ↓   → Repair or replace the wires between the circuit breaker and the bed receptacle.

4. Measure the voltage between the following points:

    •   The short slot and the long slot of the bed receptacle.

    •   The short slot and the ground on the bed receptacle.

    The voltage is between 109 and 125 V AC.

    Yes   No
    ↓   → Replace the bed receptacle. See the applicable headwall system service manual.

5. The bed receptacle indicator light is on.

    Yes   No
    ↓   → Replace the bed receptacle indicator. See the applicable headwall system service manual.

6. Applying upward pressure to the read light turns the voltage off at the bed receptacle, and releasing the upward pressure restores the voltage at the bed receptacle.

    Yes   No
    ↓   → Replace the inoperative limit switches. See "Limit Switch—Integris® 2000 Patient Light" on page 4-37, "Limit Switch—Integris® 1000 Patient Light" on page 4-40, or "Limit Switch—Integris® 500 Patient Light" on page 4-44. If this solves the problem, go to "Final Actions" on page 2-5. Otherwise, call Hill-Rom Technical Support at (800) 445-3720.

7. Go to "Final Actions" on page 2-5.

Chapter 3
Theory of Operation

Chapter Contents

3

NOTES:

Wiring Diagrams for all Models of the Integris® Patient Light

Figure 3-1. Legend

```
           LINE VOLTAGE CONNECTIONS

                                          INTERNATIONAL
   WIRE
   COLOR       FUNCTION                        COLOR


   GREEN       GROUND                        GRN/YEL



   BLACK       POWER TO LIGHT AND/OR          BROWN
               TO BED POWER SAFETY SWITCHES
               AND/OR OPTIONAL RECEPTACLE



   WHITE       NEUTRAL                         BLUE



   PURPLE      POWER TO BED RECEPTACLE FROM
               BED POWER SAFETY SWITCHES
```

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Figure 3-2. SideCom® Communication System Option
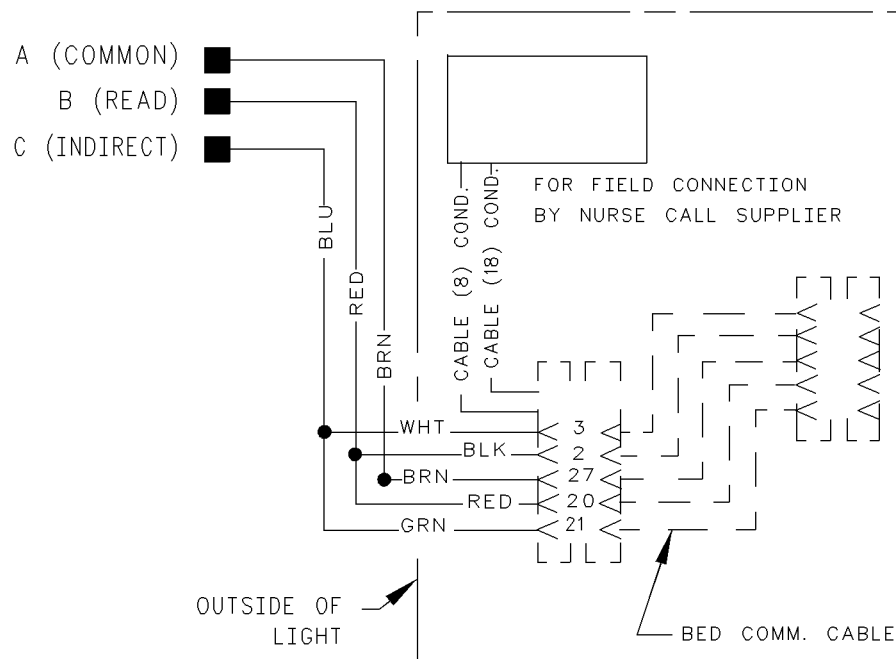
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Figure 3-3. Standard Ballast

STANDARD BALLAST (FOR 120/277 VOLT UNIT ONLY)
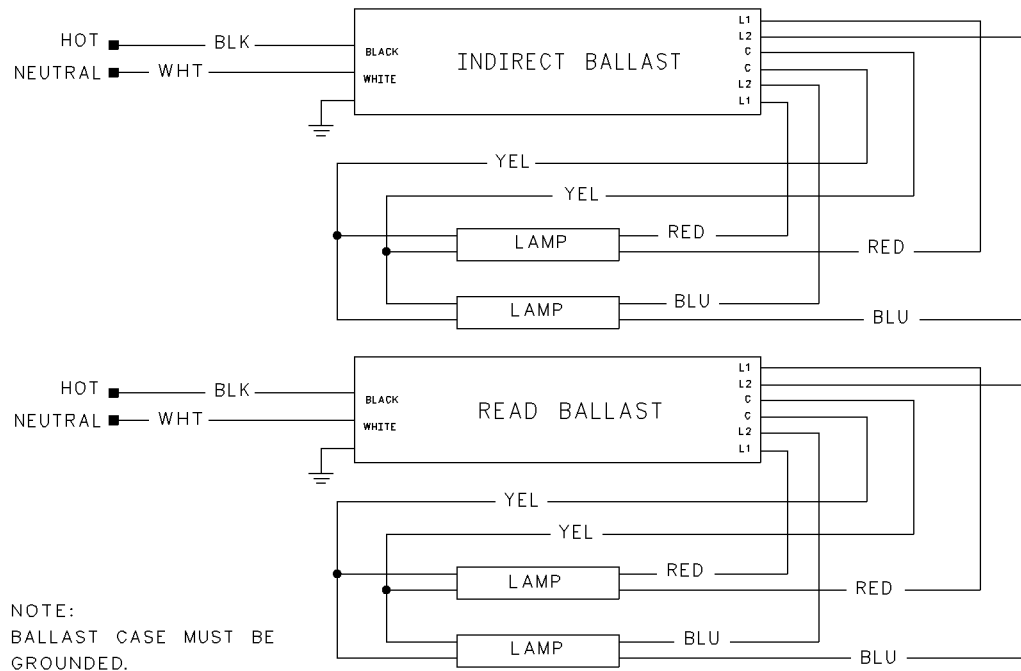
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Figure 3-4. Pull Chain Switch Option
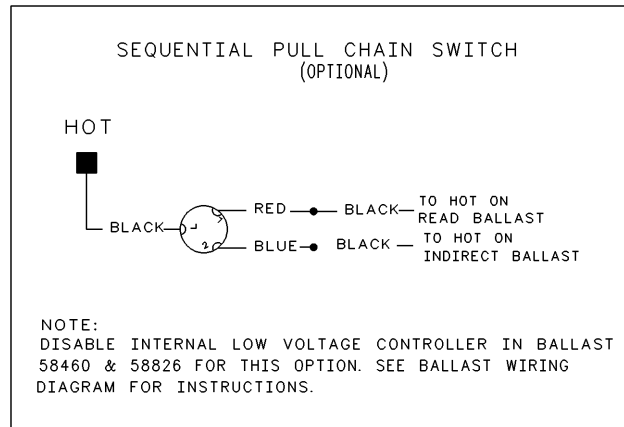
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Figure 3-5. Duplex Receptacle Option

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3
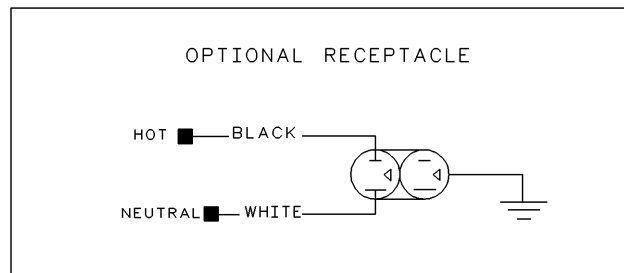
Figure 3-6. Wiring Diagrams—Integris® 2000 Patient Light
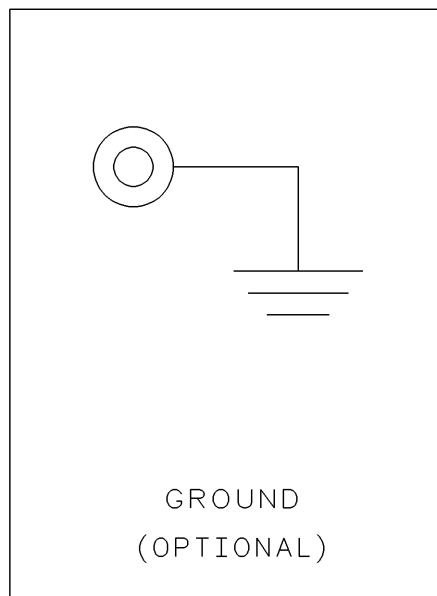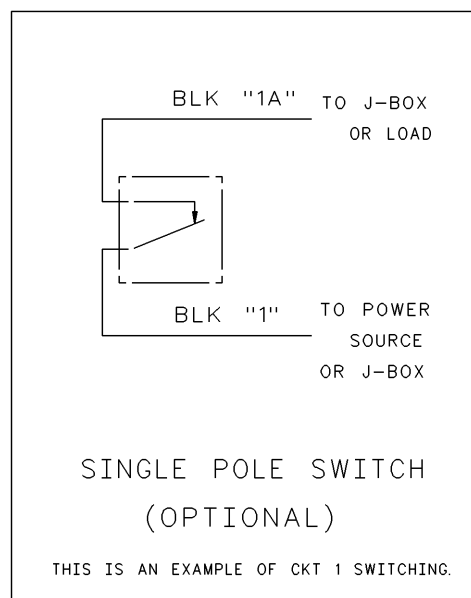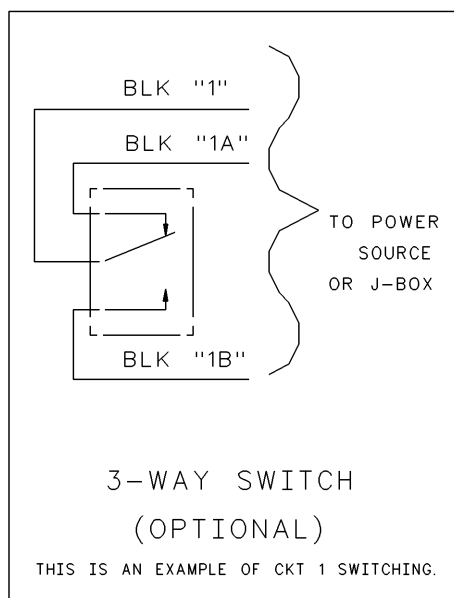
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Figure 3-7. Low Voltage Controller Wiring Diagram
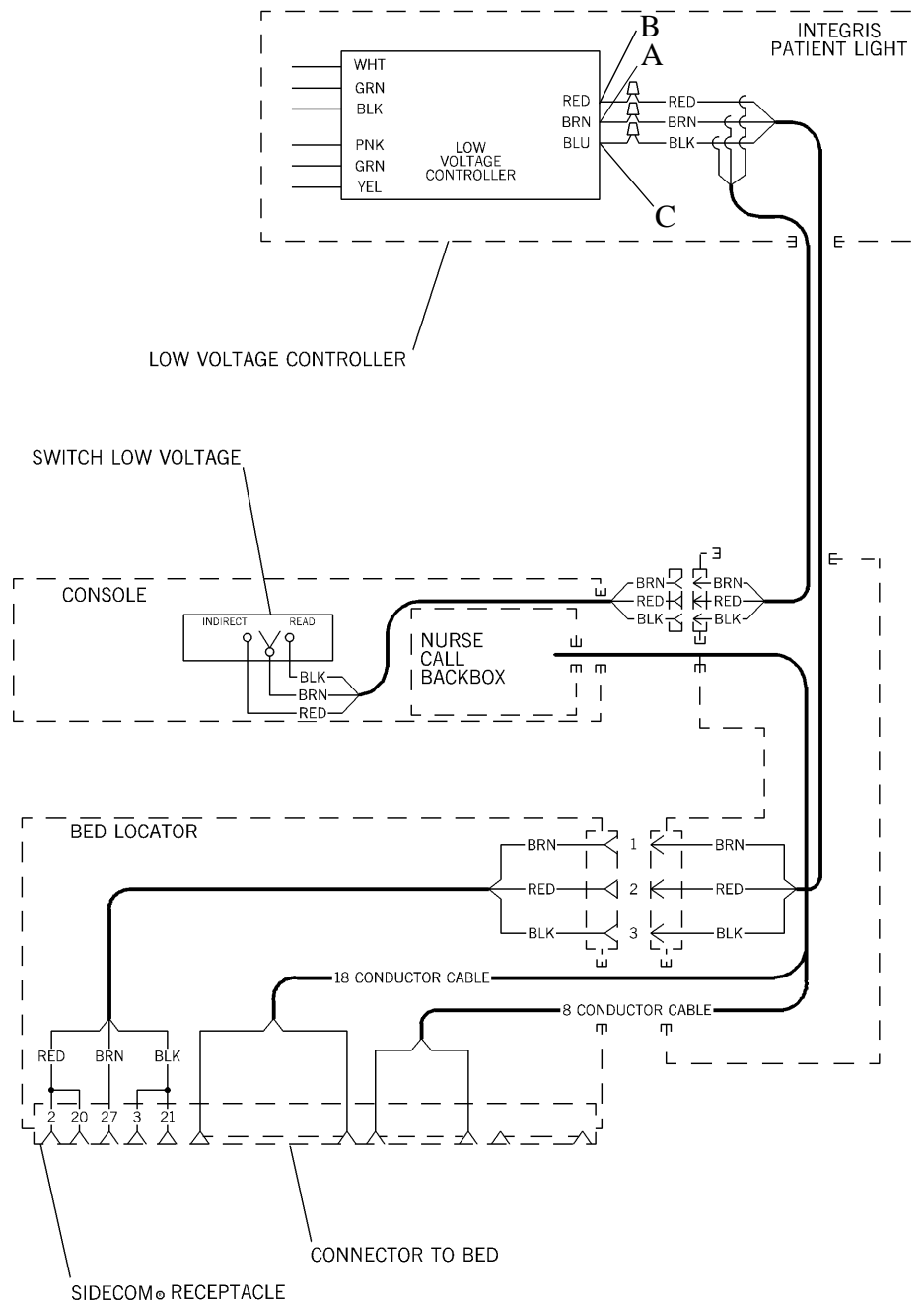
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Figure 3-8. Safety Circuit Diagram

2-Switch Configuration
Integris® 2000

3-Switch Configuration
Integris® 500/1000

4-Switch Configuration
Integris® 1000

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Figure 3-9. Integris® B Lite Rail—Stat Clock With Rem-Open Power

m139b060

Figure 3-10. Integris® B Lite Rail—Stat Clock Without Rem-Box Power
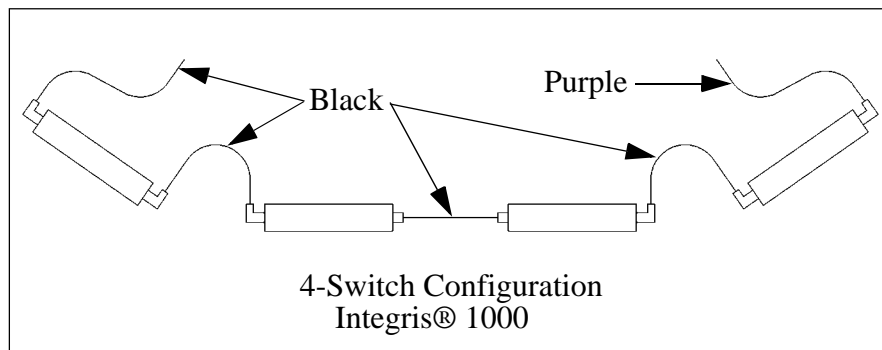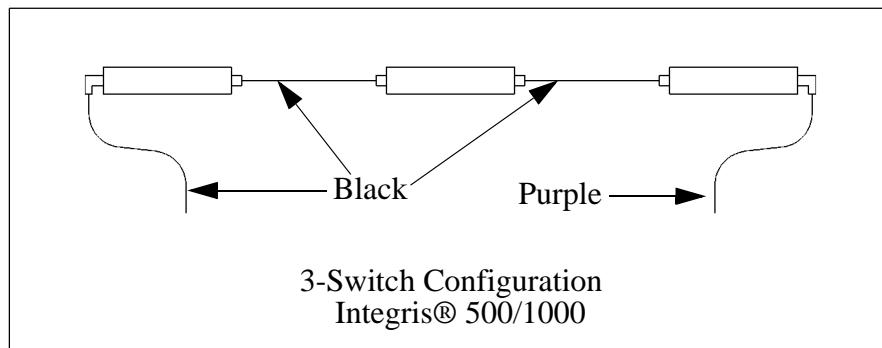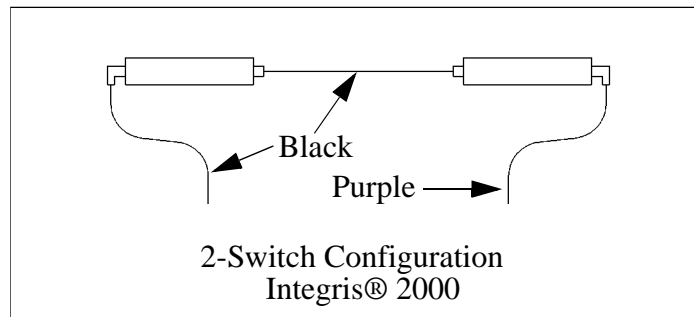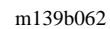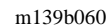
m139b062

Figure 3-11. Integris® B Lite Rail—Stat Clock Without Rem-Open Power

WIRING DIAGRAM
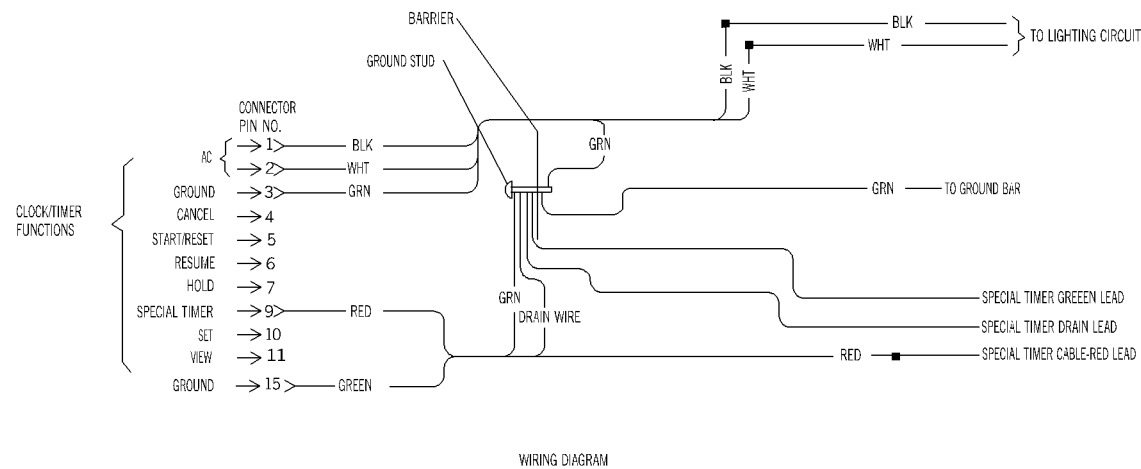
m139b061

Theory of Operation

AC Voltage

The supply current to the Integris® Patient Light is standard 120/277V AC, or 220V AC. The ballast varies with the voltage requirement of the light. An indirect ballast unit controls voltage to the indirect lamps. A read ballast controls voltage to the read lamps.

Low Voltage

The safety code requires low voltage controls on beds. Siderail switches controlling hospital patient room lighting must use low voltage. The code mandates the use of 30 volts or less.

Low voltage switching is controlled by a low voltage controller. The voltage controller is located in the Integris® Patient Light housing. Pressing the low voltage switch once and releasing it turns the light from OFF to ON when the switch is wired for independent light control. Pressing the switch a second time turns off the light. The sequentially wired low voltage switch controls the read and the indirect lights. The read light function is at the top of the faceplate in vertical installations.

The sequentially wired Integris® 2000 Patient Light low voltage switch has the sequence of operation shown in table 3-1 on page 3-11.

Table 3-1. Integris® 2000 Patient Light Switching

After Power Up	Read Light OFF	Indirect or Exam Light OFF
Switch closure first time	ON	OFF
Switch closure second time	OFF	ON
Switch closure third time	ON	ON
Switch closure fourth time	OFF	OFF

The low voltage switch is located in the raceway on Horizon®, UniFlex®, or Integris® Headwall Systems. For stand-alone Integris® Patient Light installations, the low voltage switch mounts on the hospital wall.

The optional SideCom® Communication System-controlled Integris® Patient Light has the same sequence of operation. The low voltage switches are on the siderails of the bed.

Safety Circuit

The Integris® 2000 Patient Light has two interlock switches mounted on the support plate. The Integris® 1000/500 Patient Lights have three or four interlock switches mounted on the center housing weldment. If hospital equipment pushes up on the lower lens (A) of the Integris® Patient Light, it cuts off power to the bed (see figure 3-12 on page 3-12). IV rods (B) or traction equipment could activate the interlocks. Removing the pressure automatically restores the power to the bed. This can eliminate damaged lenses and fixtures. It leads to increased patient safety and reduced maintenance costs.

Figure 3-12. Patient Light Safety Circuit
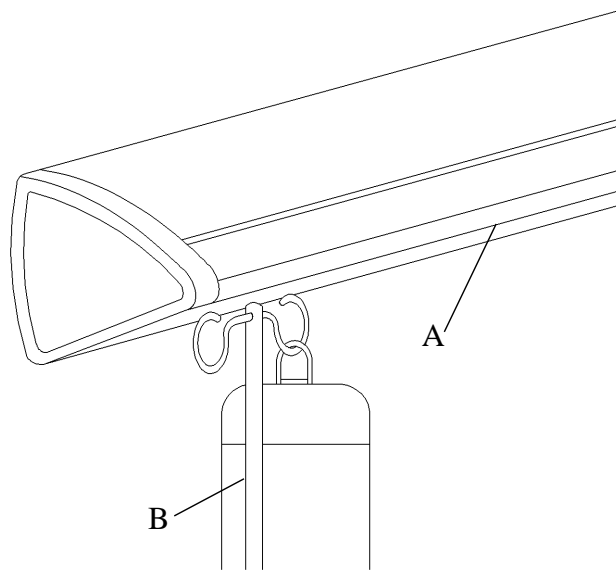
m139_010

Chapter 4
Removal, Replacement, and Adjustment Procedures

Chapter Contents

4

4.1   Duplex Receptacle—Integris® 2000 Patient Light

Tools required: Phillips head screwdriver

Removal

SHOCK HAZARD:
To minimize the risk of electrical shock or damage to equipment, disconnect all electrical power to the system before working on it. Failure to do so could result in personal injury or equipment damage.

1. Locate the involved building standard/emergency circuit breaker panel (see figure 4-1 on page 4-3).

Figure 4-1. Standard/Emergency Circuit Breaker Box
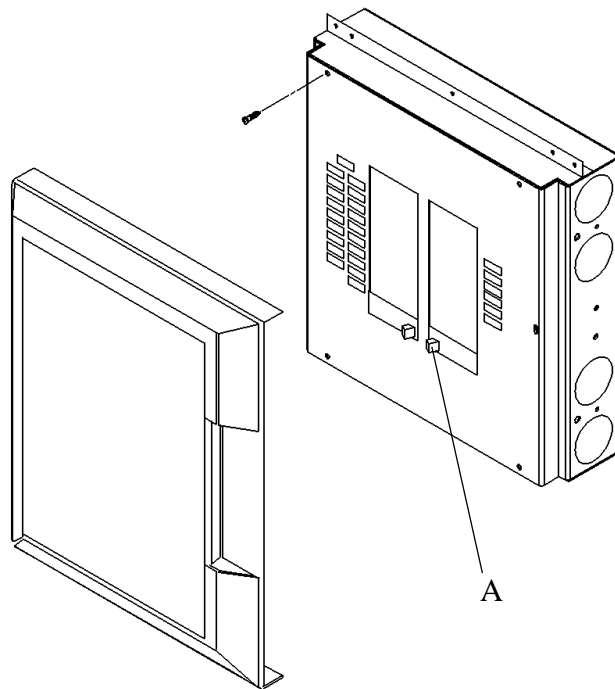
m139_004

2. Set the involved circuit breaker (A) to OFF.

3. Lock out and tag out the breaker.

4. Using the phillips head screwdriver, remove the screws (B) from the duplex receptacle faceplate (C) (see figure 4-2 on page 4-4).

Figure 4-2. Duplex Receptacle Removal
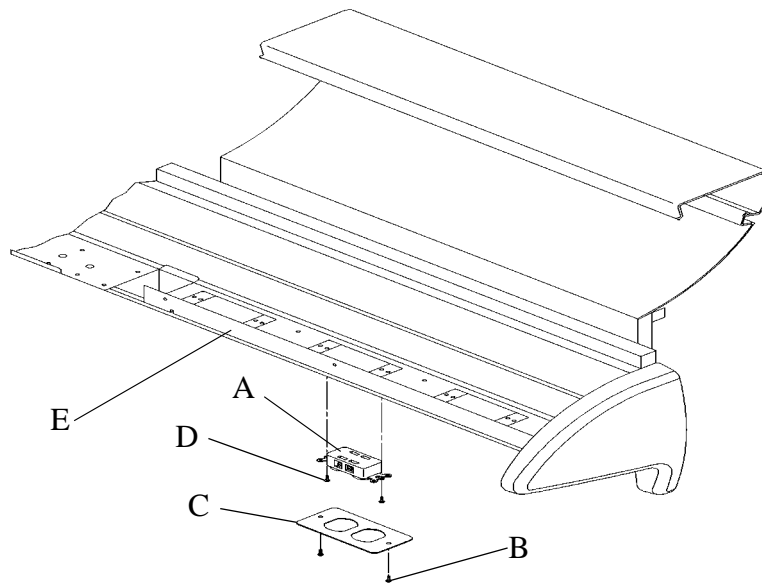
m139_012

5.   Remove the faceplate (C).

6.   Remove the duplex receptacle attaching screws (D).

7.   Pull the receptacle (A) out of the opening in the device plate (E).

8.   Loosen the screws holding the wires.

9.   Note the colors of the wires and their location.

10. Remove the wires from the terminals.

Replacement

1.   Replace the color-coded wires at their original terminals.

2.   Tighten the terminal screws.

3.   Push the receptacle (A) into the device plate.

4.   Install the duplex receptacle attaching screws (D).

5.   Tighten the screws (D).

6.   Install the faceplate (C) onto the device plate (E), and tighten the screws (B).

7. Remove the lockout and out-of-service tags.

8. Turn the circuit breaker on.

9. Test the receptacle for availability of power. See "Duplex Electrical Receptacle—Standard or Emergency—Is Inoperative" on page 2-6.

4

4.2   Ground Jack Receptacle—Integris® 2000 Patient Light

Tools required: Screwdriver   Phillips head screwdriver

Removal

✋ **SHOCK HAZARD:**
Use care when checking live voltages. Do not touch live terminals, wires, and ground. Failure to use caution will cause serious electrical shock injury.

1. Using the phillips head screwdriver, remove the screws (C) and the faceplate (B) from the ground jack receptacle device plate (see figure 4-3 on page 4-6).

Figure 4-3. Ground Jack Receptacle Removal
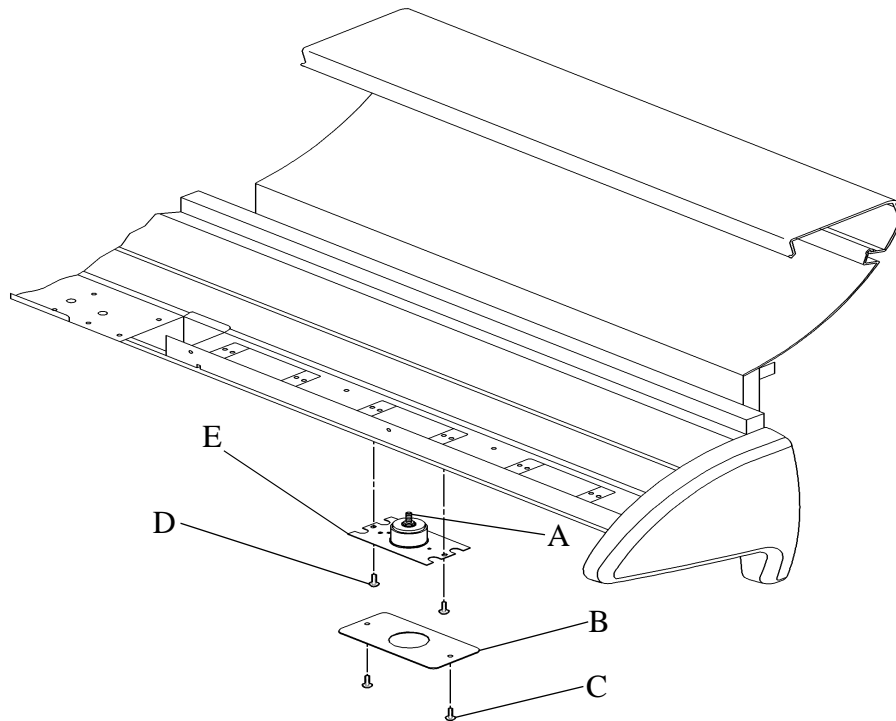
m139_033

2. Using the screwdriver, loosen the ground mounting plate screws (D) until the mounting plate (E) will lift away from the device plate.

3. Unscrew the ground wire fastener just enough to remove the ground wire from the receptacle (A).

4. Remove the attaching screws, and lift the ground receptacle (A) from the ground mounting plate (E).

Replacement

1. Install the ground receptacle (A) into the ground mounting plate (E).

2. Place the ground wire on the terminal, and tighten the fastener to hold it in place.

3. Align the ground mounting plate screws (D) with the holes in the device plate, and install the mounting plate (E) on the device plate.

4. Install the faceplate (B) and screws (C) on the device plate.

5. Test for availability of ground at the ground receptacle.

4

4.3   Duplex Receptacle—Integris® 1000 Patient Light

Tools required: Phillips head screwdriver

Removal

SHOCK HAZARD:
To minimize the risk of electrical shock or damage to equipment, disconnect all electrical power to the system before working on it. Failure to do so could result in personal injury or equipment damage.

1. Locate the involved building standard/emergency circuit breaker panel.

2. Set the involved circuit breaker to OFF. Refer to step 1 through step 3 in the section titled "Duplex Receptacle—Integris® 2000 Patient Light" on page 4-3.

3. Rotate the indirect/exam light (A) to the exam position, as indicated by the white arrows (B) (see figure 4-4 on page 4-9).

Figure 4-4. Electrical Receptacle Removal
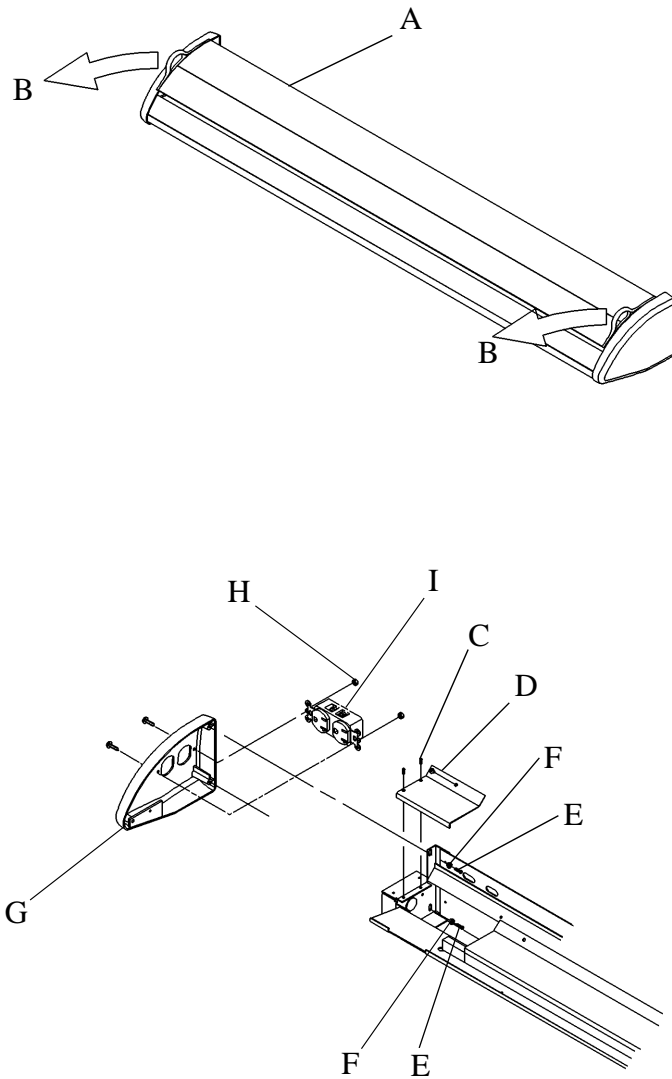
m139_013

4. Using the phillips head screwdriver, remove the raceway cover retaining screws (C), and lift off the raceway cover (D).

5. Snap out the read light lens.

6. Remove the three left hand end cap retaining screws (E) and the insulators (F).

7. Lift the left end cap (G) away from the light.

8. Remove the receptacle retaining screws and nuts (H).

9. Remove the receptacle (I) from the end cap (G).

10. Note the position of the color-coded wires, loosen the wire retaining screws, and remove the wires from the receptacle (I).

Replacement

1. Install the color-coded wires on the receptacle (I) as previously noted.

2. Tighten the wire retaining screws.

3. Place the receptacle (I) on the end cap (G), and install the receptacle retaining screws and nuts (H).

4. Place the end cap (G) on the light, and install the insulators (F) and three screws (E).

5. Set the raceway cover (D) on the light, and install the retaining screws (C).

6. Rotate the indirect and exam light (A) to the indirect position.

7. Remove the lockout and out-of-service tags.

8. Turn on the circuit breaker.

9. Test the receptacle for proper operation (see "Duplex Electrical Receptacle—Standard or Emergency—Is Inoperative" on page 2-6).

4.4   Duplex Receptacle—Integris® 500 Patient Light

Tools required: Phillips head screwdriver

Removal

SHOCK HAZARD:
To minimize the risk of electrical shock or damage to equipment, disconnect all electrical power to the system before working on it. Failure to do so could result in personal injury or equipment damage.

1.   Locate the involved building standard/emergency circuit breaker panel.

2.   Set the involved circuit breaker to OFF. Refer to step 1 through step 3 in the section titled "Duplex Receptacle—Integris® 2000 Patient Light" on page 4-3.

3.   Snap out the indirect lamp lens (A) (see figure 4-5 on page 4-11).

Figure 4-5. Electrical Receptacle Removal
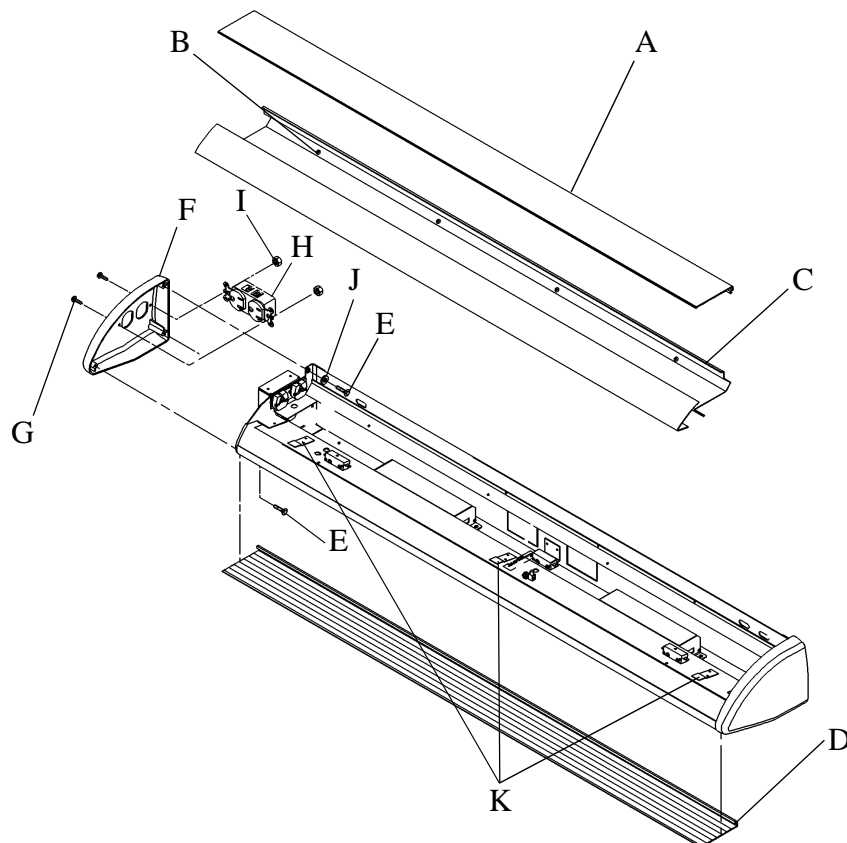
m139_014

4

4. Remove the fluorescent tubes from the indirect light assembly as follows:

   a. Rotate the tube to the loose position.

   b. Pull straight up on the ends of the tubes.

5. Using the phillips head screwdriver, remove the top cap attaching screws (B), and slide the top cap (C) from under the retaining tabs (K).

6. Snap out the read lamp lens (D).

7. Using the phillips head screwdriver, remove the end cap retaining screws (E) and the insulators (J), and lift off the end cap (F).

8. Remove the receptacle retaining screws (G) and nuts (I).

9. Remove the receptacle (H) from the end cap (F).

10. Notice the position of the color coded wires, loosen the attaching screws, and remove the wires from the receptacle (H).

Replacement

1. Install the wires on the receptacle (H) as noted at removal, and tighten the wire retaining screws.

2. Install the receptacle (H) with retaining screws (G) and nuts (I) on the end cap (F).

3. Place the end cap (F) on the light, and install the insulators (J) and the end cap retaining screws (E).

4. Snap the read light lens (D) back into the read lamp assembly.

5. Place the top cap (C) under the retaining tabs (K), and install the attaching screws (B).

6. Install the fluorescent tubes in the indirect light assembly.

7. Snap the indirect light lens (A) into place.

8. Test the receptacle for proper operation (see "Duplex Electrical Receptacle—Standard or Emergency—Is Inoperative" on page 2-6).

## 4.5   Lamp—Typical of all Models

Tools required: None

Removal

SHOCK HAZARD:
To minimize the risk of electrical shock or damage to equipment, disconnect all electrical power to the system before working on it. Failure to do so could result in personal injury or equipment damage.

1. Locate the involved building standard/emergency circuit breaker panel (see figure 4-1 on page 4-3).

2. Set the involved circuit breaker to OFF. Refer to step 1 through step 3 in the section titled "Duplex Receptacle—Integris® 2000 Patient Light" on page 4-3.

3. Snap the lens (A) out of the light assembly (B) (see figure 4-6 on page 4-14).

4

Figure 4-6. Lamp Replacement
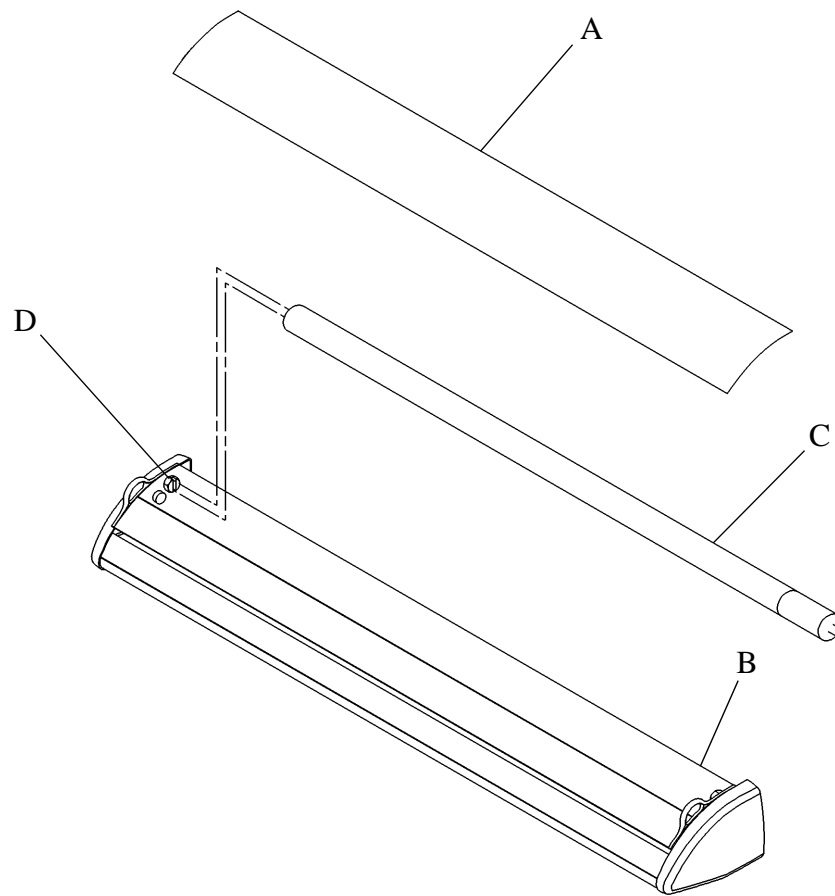
m139_015

4. Remove the fluorescent tube (C) from the indirect light assembly (B) as follows:

   a. Rotate the tube to the loose position.

   b. Pull straight up on the ends of the tubes.

Replacement

1. Push the fluorescent tube (C) straight into the fixture (D) at both ends of the light assembly (B).

2. Seat the tube by rotating it.

3. Snap the lens (A) into place on the light assembly (B).

4. Remove the lockout and out-of-service tags.

5. Set the circuit breaker to the ON position.

6. Test the operation of the light.

4

4.6   Ballast—Integris® 2000 Patient Light

Tools required: Phillips head screwdriver
                              Side cutters with insulated handles

Removal

SHOCK HAZARD:
To minimize the risk of electrical shock or damage to equipment, disconnect all electrical power to the system before working on it. Failure to do so could result in personal injury or equipment damage.

1. Locate the involved building standard/emergency circuit breaker panel (see figure 4-1 on page 4-3).

2. Set the involved circuit breaker to OFF. Refer to step 1 through step 3 in the section titled "Duplex Receptacle—Integris® 2000 Patient Light" on page 4-3.

3. Rotate the indirect read light (A) to the exam light position (see figure 4-7 on page 4-17). (The light shines downward.)

Figure 4-7. Ballast—Integris® 2000 Patient Light
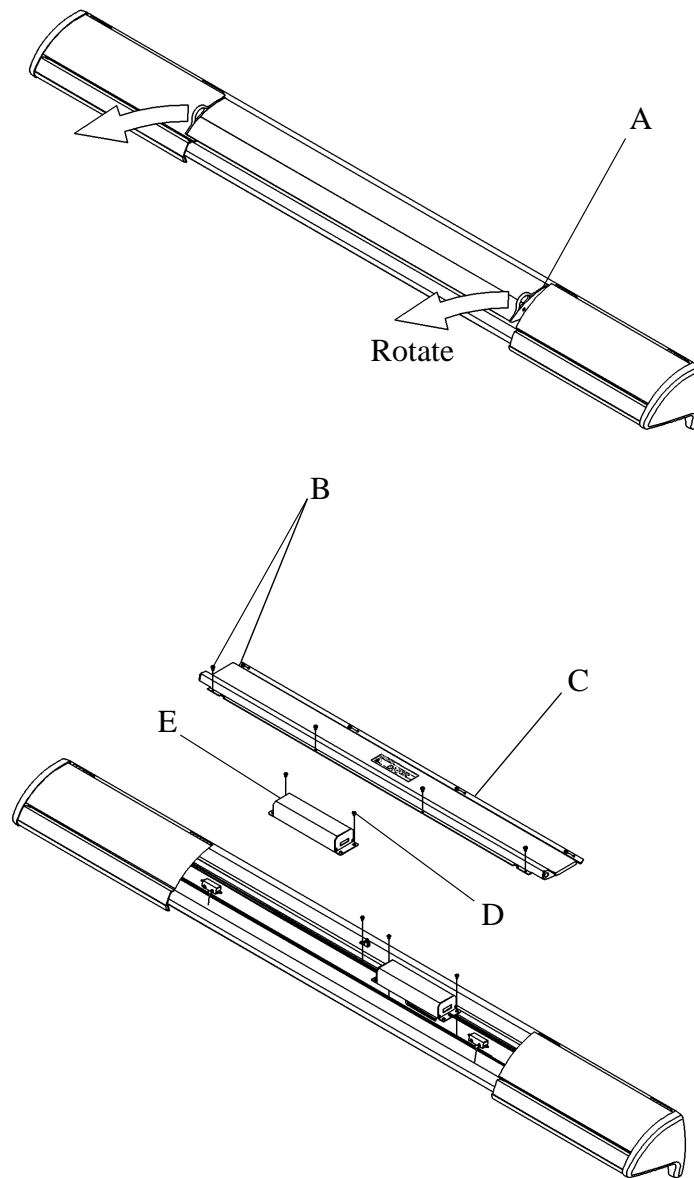
m139_016

4. Using the phillips head screwdriver, remove the limit switch cover attaching screws (B), and lift the limit switch cover (C) from the light assembly.

5. Notice the color and position of all of the wires on both ends of the ballast (E).

6. Using a pair of side cutters with insulated handles, reach into the light assembly, and cut all of the wires attached to both ends of the ballast (E) as close to the ballast (E) as possible.

7. Remove the ballast retaining screws (D), and lift the ballast (E) from the light assembly.

Replacement

1. Install the ballast (E) and retaining screws (D) on the light assembly.

2. Strip the cut wires back 3/8" (9.65 mm) from the end (see figure 4-8 on page 4-18).

Figure 4-8. Strip the Insulation Back on the Ballast Wires.

3/8" (9.65 mm)
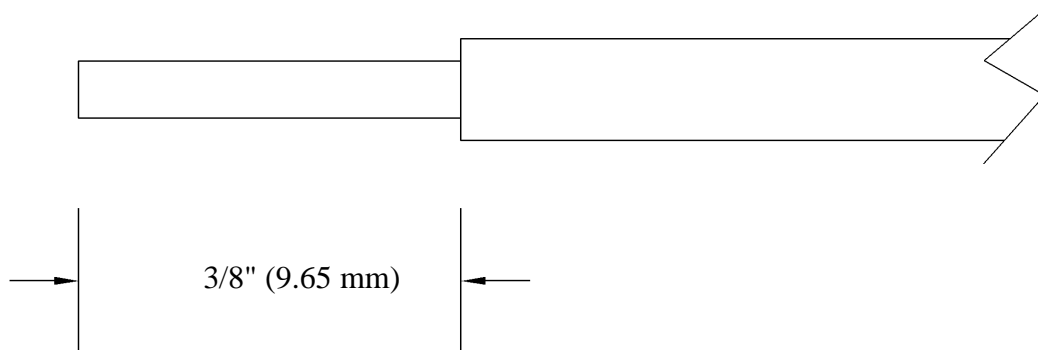
m139_031

3. Install the six wires on the voltage supply and control side of the ballast. If necessary, refer to the wiring diagram on the ballast cover, or see figure 3-3 on page 3-4. Insert the wires into the correct location, and the connector will snap closed on the wire.

4. Install the six wires on the lamp side of the ballast.

    a. If needed, refer to the wiring diagram on the ballast, or see figure 3-3 on page 3-4.

    b. If you insert the wires into the correct location, the connector will snap closed on the wire.

5. Place the limit switch cover (C) on the light assembly, and install the retaining screws (B) (see figure 4-7 on page 4-17).

6. Rotate the indirect light assembly (A) back to the indirect position.

7. Remove the lockout and out-of-service tags from the circuit breaker.

8. Set the circuit breaker to the ON position.

9. Test the operation of the light. If needed, see "Indirect/Read Light With Low Voltage Control Does Not Operate" on page 2-8.

4

4.7   Low Voltage Controller—Integris® 2000 Patient Light

Tools required: Side cutters with insulated handles

Removal

SHOCK HAZARD:
To minimize the risk of electrical shock or damage to equipment,
disconnect all electrical power to the system before working on it.
Failure to do so could result in personal injury or equipment damage.

1. Locate the involved building standard/emergency circuit breaker panel (see figure 4-1 on page 4-3).

2. Set the involved circuit breaker to OFF. Refer to step 1 through step 3 in the section titled "Duplex Receptacle—Integris® 2000 Patient Light" on page 4-3.

3. Rotate the indirect read light (A) to the exam light position (see figure 4-9 on page 4-21). (The light shines in a downward direction.)

Figure 4-9. Low Voltage Controller—Integris® 2000 Patient Light
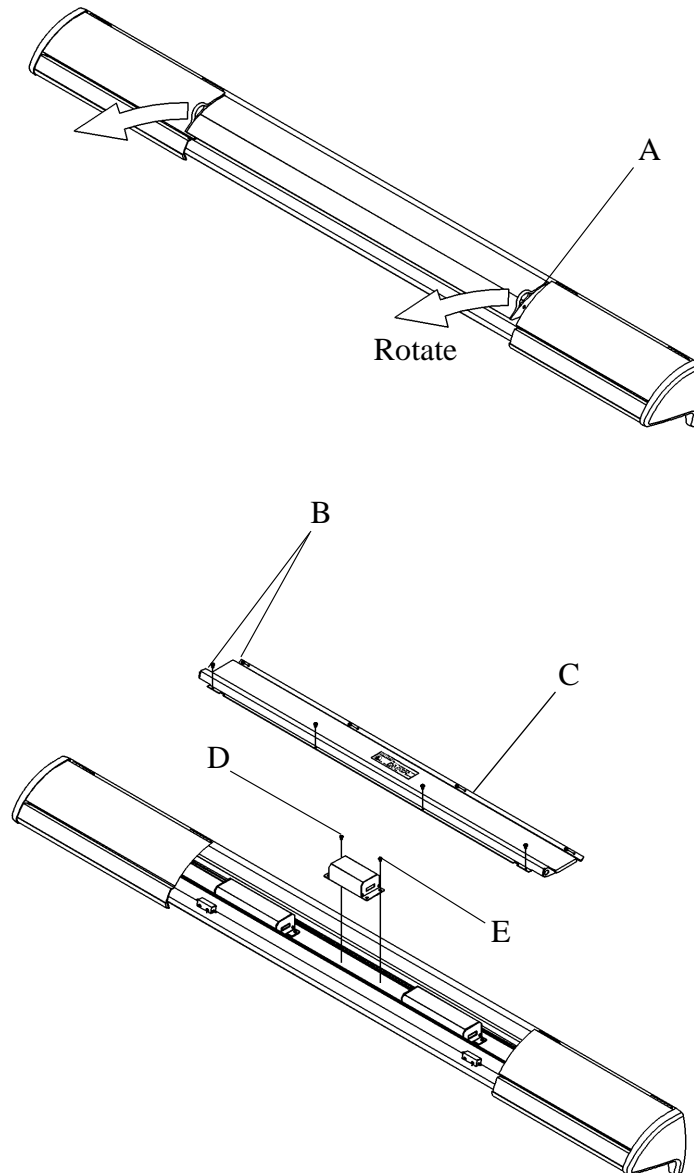
m139_045

4. Remove the limit switch cover attaching screws (B), and lift the limit switch cover (C) from the light assembly.

5. Notice the color and position of the wires on both ends of the low voltage controller (E).

6. Using a pair of side cutters with insulated handles, reach into the light assembly, and cut off all the wires attached to both ends of the low voltage controller (E) as close to the low voltage controller (E) as possible.

7. Remove the low voltage controller retaining screws (D), and lift the low voltage controller (E) from the light assembly.

Replacement

1. Install the low voltage controller (E) and retaining screws (D) on the light assembly.

2. Strip 3/8" (9.65 mm) of the insulation off of the end of the cut wires (see figure 4-10 on page 4-22).

Figure 4-10. Strip the Insulation Back on the Ballast Wires.
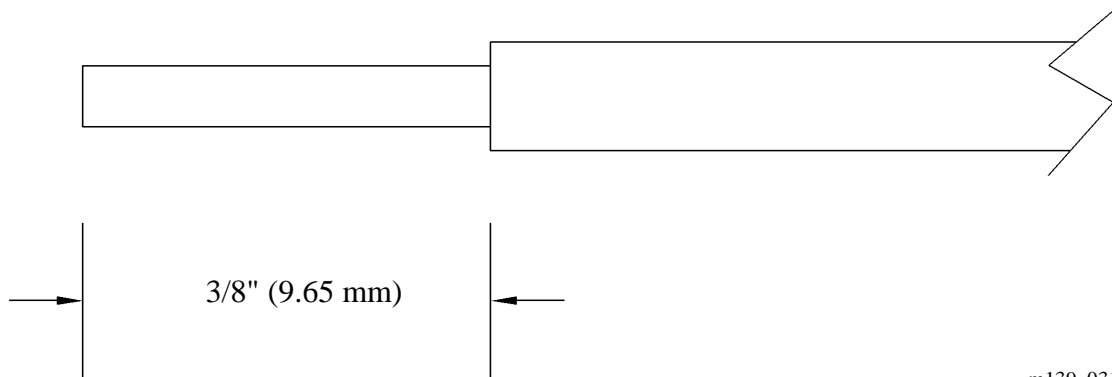
3. Connect the black and white wires to the voltage supply wires with wire nuts.

4. Connect the two green wires to the ground stud in the patient light.

5. With wire nuts, connect the low voltage red, brown, and blue wires to the correspondingly colored wires for the low voltage switch and the bed locator connector.

6. Connect the pink wire to the read light ballast and the yellow wire to the indirect light ballast.

7. Insert the wires into the correct locations, and snap the connectors closed.

8. Place the limit switch cover (C) on the light assembly, and install the retaining screws (B) (see figure 4-9 on page 4-21).

9. Rotate the indirect light assembly (A) back to the indirect position.

10. Remove the lockout and out-of-service tags from the circuit breaker.

11. Set the circuit breaker to the ON position.

12. Test the operation of the light. If needed, see "Indirect/Read Light With Low Voltage Control Does Not Operate" on page 2-8.

4

4.8   Ballast—Integris® 1000 Patient Light

Tools required: Phillips head screwdriver
Side cutters with insulated handles

Removal

SHOCK HAZARD:
To minimize the risk of electrical shock or damage to equipment, disconnect all electrical power to the System before working on it. Failure to do so could result in personal injury or equipment damage.

1. Locate the involved building standard/emergency circuit breaker panel (see figure 4-1 on page 4-3).

2. Set the involved circuit breaker to OFF. Refer to step 1 through step 3 in the section titled "Duplex Receptacle—Integris® 2000 Patient Light" on page 4-3.

3. Rotate the indirect light (A) to the exam position (see figure 4-11 on page 4-25). (The light shines downward.)

Figure 4-11. Ballast—Integris® 1000 Patient Light

m139_017

4. Remove the center switch cover retaining screws (B), and lift the center switch cover (C) from the light assembly.

5. Notice the color and position of all the wires on both ends of the ballast (E).

6. Using a pair of side cutters with insulated handles, cut all of the wires attached to the ballast (E) as close as possible to the ballast (E).

7. Remove the ballast retaining screws (D), and lift the ballast (E) from the light assembly.

Replacement

1. Place the ballast (E) into the light assembly, and install the retaining screws (D).

2. Strip 3/8" (9.65 mm) of the insulation off of the end of the cut wires (see figure 4-12 on page 4-26).

Figure 4-12. Strip the Insulation Back on the Ballast Wires.
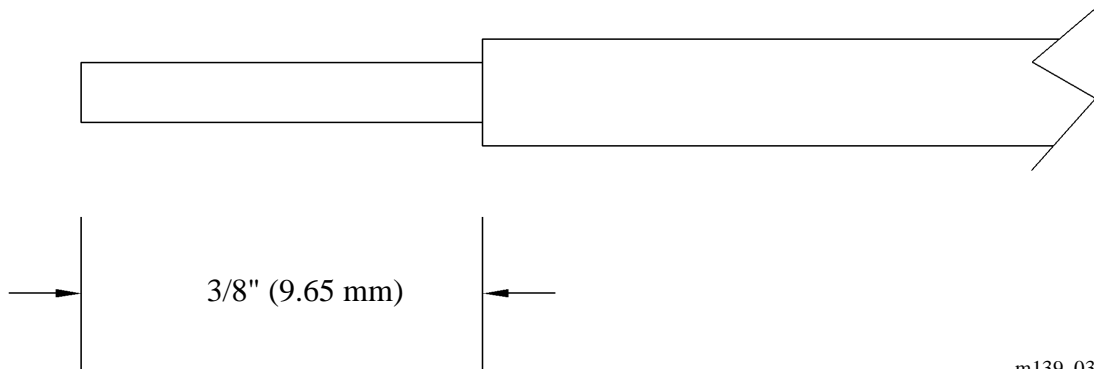
3/8" (9.65 mm)

m139_031

3. Insert all of the wires into the correct slots in the ballast, and the connector will snap closed on the wire. If necessary, refer to the wiring diagram on the ballast, or see figure 3-3 on page 3-4.

4. Place the center switch cover (C) on the light assembly, and install the retaining screws (B) (see figure 4-11 on page 4-25).

5. Remove the lockout and out-of-service tags.

6. Set the circuit breaker to the ON position.

7. Check the light for proper operation.

4.9 Low Voltage Controller—Integris® 1000 Patient Light

Tools required: Side cutters with insulated handles

Removal

SHOCK HAZARD:
To minimize the risk of electrical shock or damage to equipment, disconnect all electrical power to the System before working on it. Failure to do so could result in personal injury or equipment damage.

1. Locate the involved building standard/emergency circuit breaker panel (see figure 4-1 on page 4-3).

2. Set the involved circuit breaker to OFF. Refer to step 1 through step 3 in the section titled "Duplex Receptacle—Integris® 2000 Patient Light" on page 4-3.

3. Rotate the indirect read light (A) to the exam light position (see figure 4-13 on page 4-28). (The light shines in a downward direction.)

4

Figure 4-13. Low Voltage Controller—Integris® 1000 Patient Light
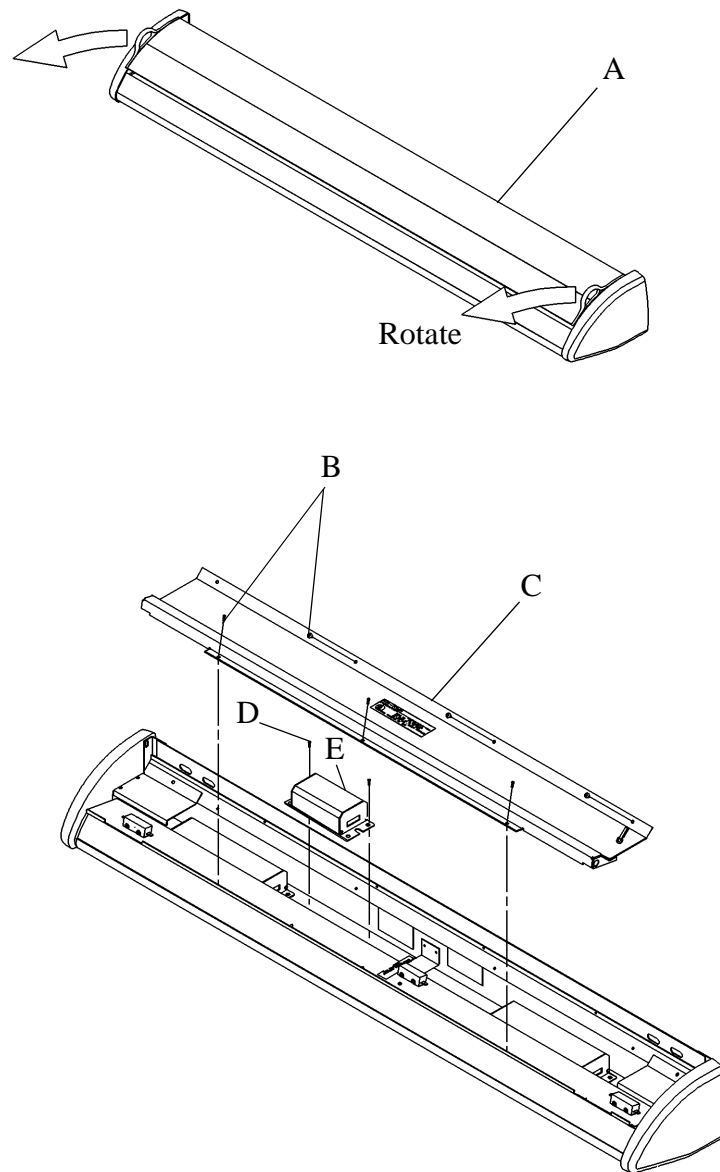
m139_046

4. Remove the limit switch cover attaching screws (B), and lift the limit switch cover (C) from the light assembly.

5. Notice the color and position of the wires on both ends of the low voltage controller.

6. Using a pair of side cutters with insulated handles, reach into the light assembly, and cut off all the wires attached to both ends of the low voltage controller (E) as close to the low voltage controller (E) as possible.

7. Remove the low voltage controller retaining screws (D), and lift the low voltage controller (E) from the light assembly.

Replacement

1. Install the low voltage controller (E) and retaining screws (D) on the light assembly.

2. Strip 3/8" (9.65 mm) of the insulation off of the end of the cut wires (see figure 4-14 on page 4-29).

Figure 4-14. Strip the Insulation Back on the Low Voltage Controller Wires.
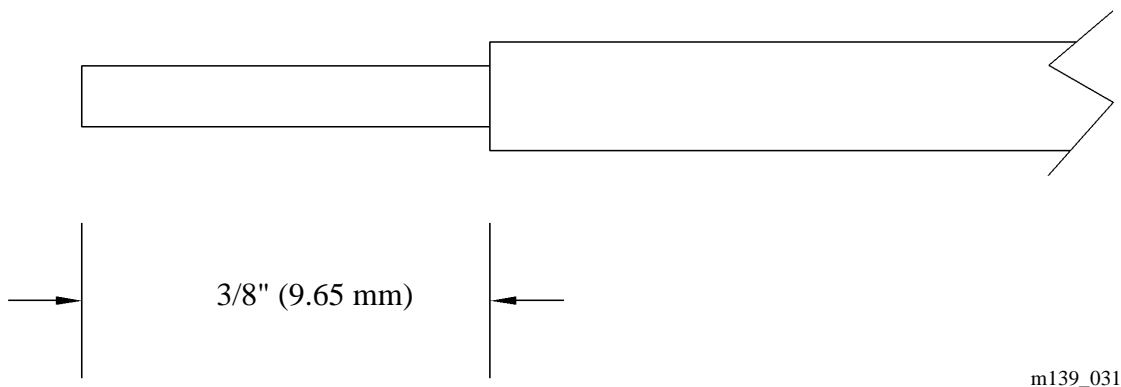
3/8" (9.65 mm)

m139_031

4

3. Connect the black and white wires to the voltage supply wires with wire nuts.

4. Connect the two green wires to the ground stud in the patient light.

5. With wire nuts, connect the low voltage red, brown, and blue wires to the correspondingly colored wires for the low voltage switch and the bed locator connector.

6. Connect the pink wire to the read light ballast and the yellow wire to the indirect light ballast.

7. Insert the wires into the correct locations, and snap the connectors closed.

8. Place the limit switch cover (C) on the light assembly, and install the retaining screws (B) (see figure 4-13 on page 4-28).

9. Rotate the indirect light assembly (A) back to the indirect position.

10. Remove the lockout and out-of-service tags from the circuit breaker.

11. Set the circuit breaker to the ON position.

12. Test the operation of the light. If needed, see "Indirect/Read Light With Low Voltage Control Does Not Operate" on page 2-8.

4.10 Ballast—Integris® 500 Patient Light

Tools required: Side cutters with insulated handles

Removal

SHOCK HAZARD:
To minimize the risk of electrical shock or damage to equipment, disconnect all electrical power to the system before working on it. Failure to do so could result in personal injury or equipment damage.

1. Locate the involved building standard/emergency circuit breaker panel (see figure 4-1 on page 4-3).

2. Set the involved circuit breaker to OFF. Refer to step 1 through step 3 in the section titled "Duplex Receptacle—Integris® 2000 Patient Light" on page 4-3.

3. Snap out the indirect lamp lens (A) (see figure 4-15 on page 4-31).

Figure 4-15. Ballast—Integris® 500 Patient Light
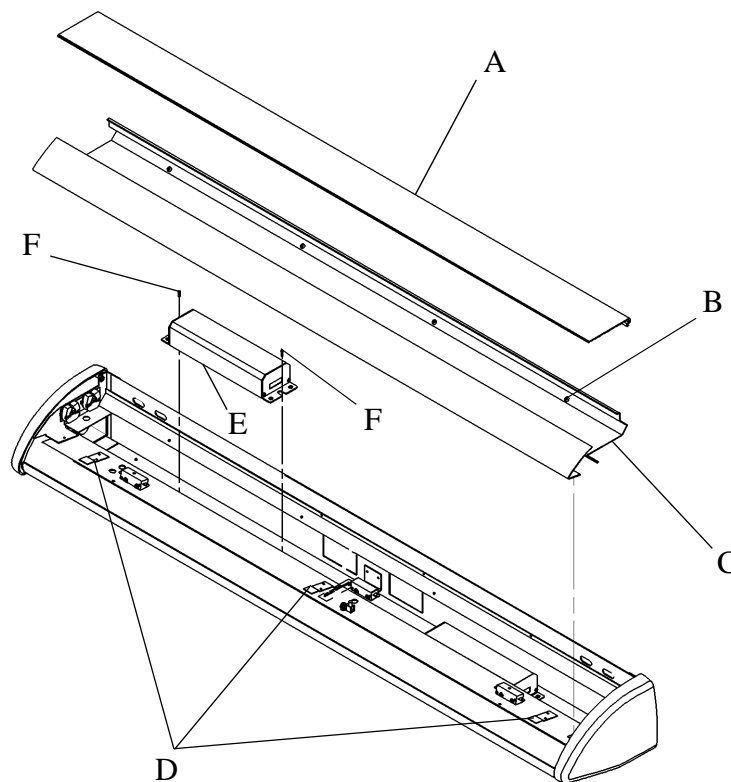
m139_018

4. Remove the fluorescent tubes from the indirect light assembly as follows:

      a.   Rotate the tube to the loose position.

      b.   Pull straight up on the ends of the tubes.

5. Remove the top cap attaching screws (B), and slide the top cap (C) from under the retaining tabs (D).

6. Notice the position and color of all of the wires on both ends of the ballast (E).

7. Using a pair of side cutters with insulated handles, cut all of the wires attached to the ballast (E) as close as possible to the ballast (E).

8. Remove the ballast retaining screws (F), and lift the ballast (E) out of the light assembly.

Replacement

1. Place the ballast (E) into the light assembly, and install the retaining screws (F).

2. Strip 3/8" (9.65 mm) of the insulation off of the end of the cut wires (see figure 4-16 on page 4-32).

Figure 4-16. Strip the Insulation Back on the Ballast Wires.
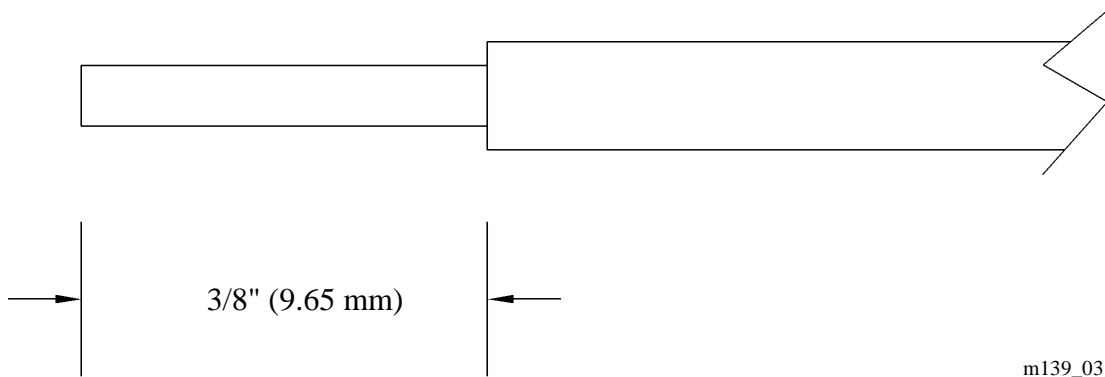
3/8" (9.65 mm)

m139_031

3. Insert all of the wires into the correct slots in the ballast, and the connector will snap closed on the wire. If necessary, refer to the wiring diagram on the ballast or figure 3-3 on page 3-4.

4. Place the top cap (C) under the retaining tabs (D), and install the retaining screws (B) (see figure 4-15 on page 4-31).

5. Install the fluorescent tubes in the indirect light assembly.

6. Snap the indirect light lens (A) into place.

7. Remove the lockout and out-of-service tags from the circuit breaker.

8. Set the circuit breaker to the ON position.

9. Check for proper operation of the light.

4

4.11 Low Voltage Controller—Integris® 500 Patient Light

Tools required: Phillips head screwdriver
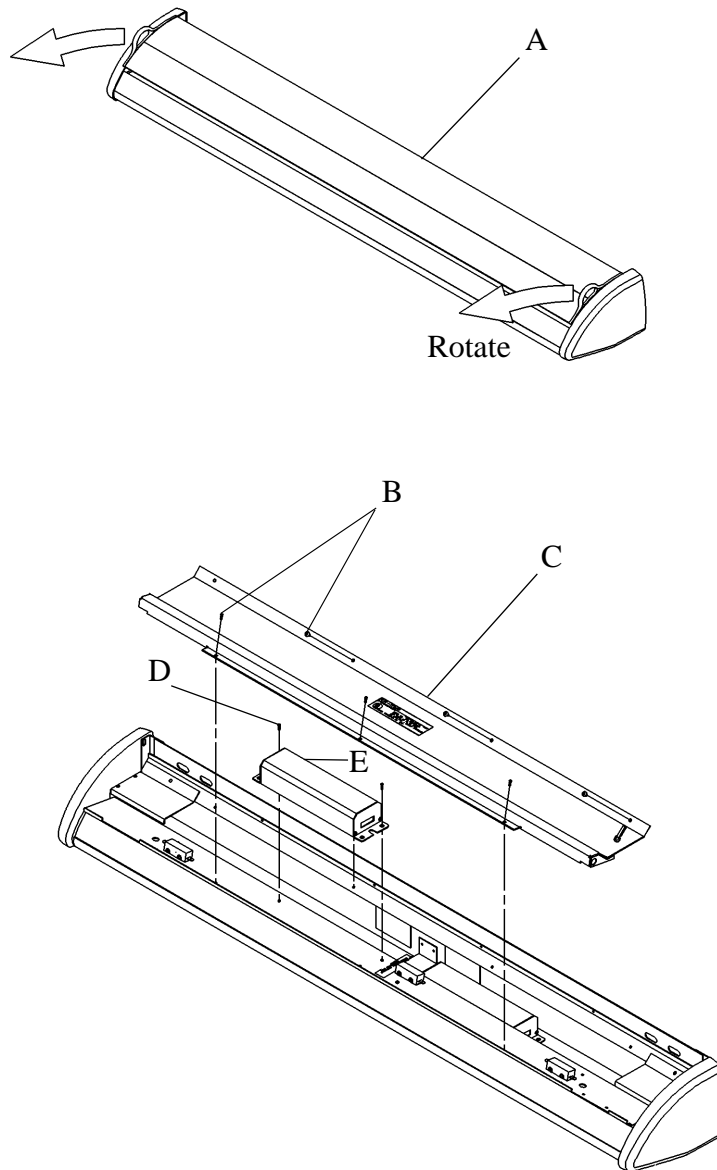   Side cutters with insulated handles

Removal

SHOCK HAZARD:
To minimize the risk of electrical shock or damage to equipment, disconnect all electrical power to the system before working on it. Failure to do so could result in personal injury or equipment damage.

1. Locate the involved building standard/emergency circuit breaker panel (see figure 4-1 on page 4-3).

2. Set the involved circuit breaker to OFF. Refer to step 1 through step 3 in the section titled "Duplex Receptacle—Integris® 2000 Patient Light" on page 4-3.

3. Snap out the indirect lamp lens (A) (see figure 4-17 on page 4-34).

Figure 4-17. Low Voltage Controller—Integris® 500 Patient Light
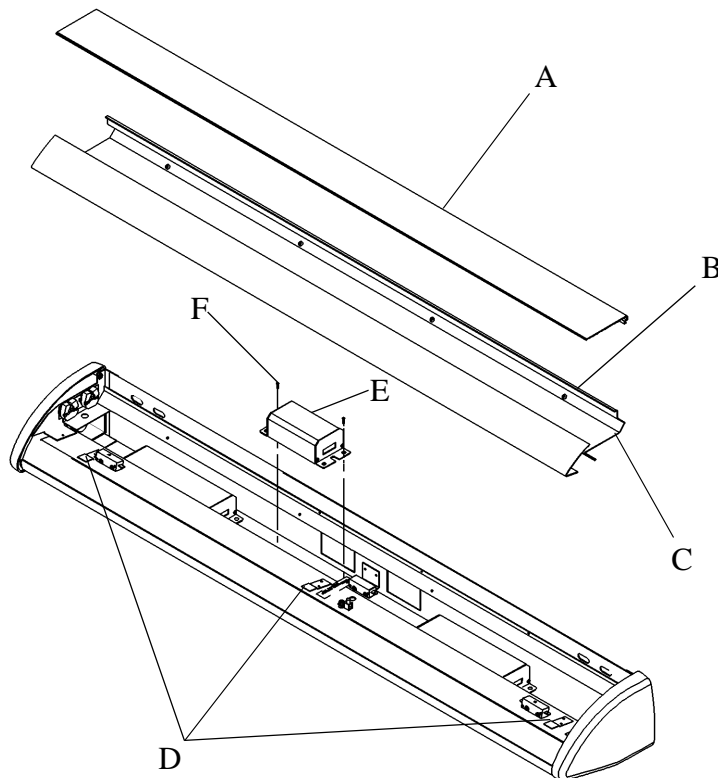
m139_047

4. Remove the fluorescent tubes from the indirect light assembly as follows:

   a. Rotate the tube to the loose position.

   b. Pull straight up on the ends of the tubes.

5. Remove the top cap attaching screws (B), and slide the top cap (C) from under the retaining tabs (D).

6. Notice the position and color of all of the wires on both ends of the low voltage controller (E).

7. Using a pair of side cutters with insulated handles, reach into the light assembly, and cut off all the wires attached to both ends of the low voltage controller (E) as close to the low voltage controller (E) as possible.

8. Remove the low voltage controller (E) retaining screws (F), and lift the low voltage controller (E) from the light assembly.

Replacement

1. Install the low voltage controller (E) and retaining screws (F) on the light assembly.

2. Strip 3/8" (9.65 mm) of the insulation off of the end of the cut wires (see figure 4-18 on page 4-35).

Figure 4-18. Strip the Insulation Back on the Low Voltage Controller Wires.

3/8" (9.65 mm)
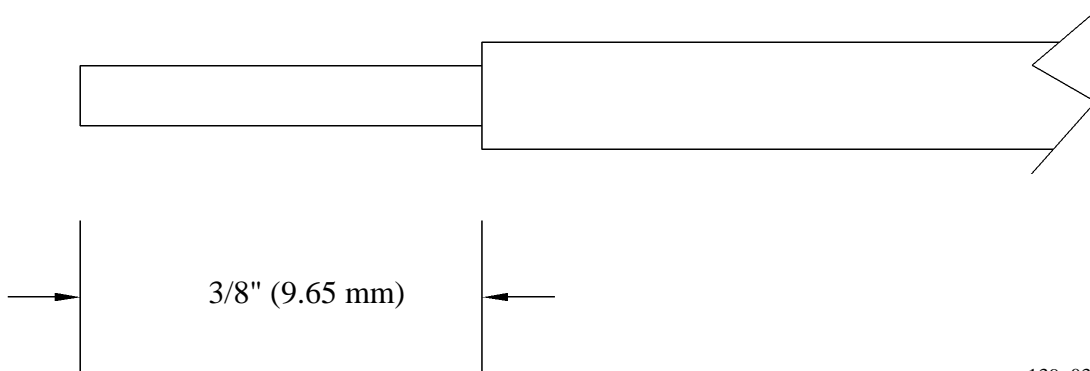
m139_031

3. Connect the black and white wires to voltage supply wires with wire nuts.

4. Connect the two green wires to the ground stud in the patient light.

5.   With wire nuts, connect the low voltage red, brown, and blue wires to the correspondingly colored wires for the low voltage switch and the bed locator connector.

6.   Connect the pink wire to the read light ballast and the yellow wire to the indirect light ballast.

7.   Insert the wires into the correct locations, and snap the connectors closed.

8.   Place the top cap (C) under the tabs (D), and install the retaining screws (B) (see figure 4-17 on page 4-34).

9.   Install the fluorescent tubes in the indirect light assembly.

10. Snap the indirect light lens (A) into place.

11. Remove the lockout and out-of-service tags from the circuit breaker.

12. Set the circuit breaker to the ON position.

13. Test the operation of the light.

4.12 Limit Switch—Integris® 2000 Patient Light

Tools required: Phillips head screwdriver

Removal

SHOCK HAZARD:
To minimize the risk of electrical shock or damage to equipment,
disconnect all electrical power to the system before working on it.
Failure to do so could result in personal injury or equipment damage.

1. Locate the involved building standard/emergency circuit breaker panel (see figure 4-1 on page 4-3).

2. Set the involved circuit breaker to OFF. Refer to step 1 through step 3 in the section titled "Duplex Receptacle—Integris® 2000 Patient Light" on page 4-3.

3. Rotate the indirect read light (A) to the exam light position (see figure 4-19 on page 4-38). (The light shines downward.)

4

Figure 4-19. Limit Switch—Integris® 2000 Patient Light

4. Using the phillips head screwdriver, remove the light switch cover attaching screws (B), and lift the limit switch cover (C) from the light assembly.

5. Note the color and position of all of the wires on both ends of the limit switch (D).

6. Disconnect the wires from the limit switch (D).

7. Snap the read light lens (E) out of the bottom of the read light assembly (F).

8. Remove the fluorescent tubes from the indirect light assembly (F) as follows:

    a. Rotate the tube to the loose position.

    b. Pull straight up on the ends of the tubes.

9. Remove the read light attaching bolts (G), and support the read light assembly (F) so the weight of the assembly does not pull on the attached wires.

10. Remove the limit switch retaining nut (H), and lift the limit switch (D) from the light assembly.

Replacement

1. Install the limit switch (D) and retaining nut (H).

2. Connect the wires to the correct terminal on the limit switch (D).

3. Place the read light assembly (F) into position on the light support center (I).

4. Install the read light attaching bolts (G).

5. Install the fluorescent tubes into the read light assembly (F).

6. Snap the read light lens (E) into the read light assembly (F).

7. Place the limit switch cover (C) on the light assembly, and install the retaining screws (B).

8. Rotate the indirect light assembly (A) to the indirect position so that the light shines upward.

9. Remove the lockout and out-of-service tags from the circuit breaker.

10. Set the circuit breaker to the ON position.

11. Test the operation of the indirect light. If necessary, see "The Limit Switch in the Safety Circuit is Inoperative" on page 2-15.

4

4.13 Limit Switch—Integris® 1000 Patient Light

Tools required: Phillips head screwdriver

Removal

SHOCK HAZARD:
To minimize the risk of electrical shock or damage to equipment, disconnect all electrical power to the system before working on it. Failure to do so could result in personal injury or equipment damage.

1. Locate the involved building standard/emergency circuit breaker panel (see figure 4-1 on page 4-3).

2. Set the involved circuit breaker to OFF. Refer to step 1 through step 3 in the section titled "Duplex Receptacle—Integris® 2000 Patient Light" on page 4-3.

3. Rotate the indirect read light (A) to the exam light position (see figure 4-20 on page 4-41). (The light shines downward.)

Figure 4-20. Limit Switch—Integris® 1000 Patient Light
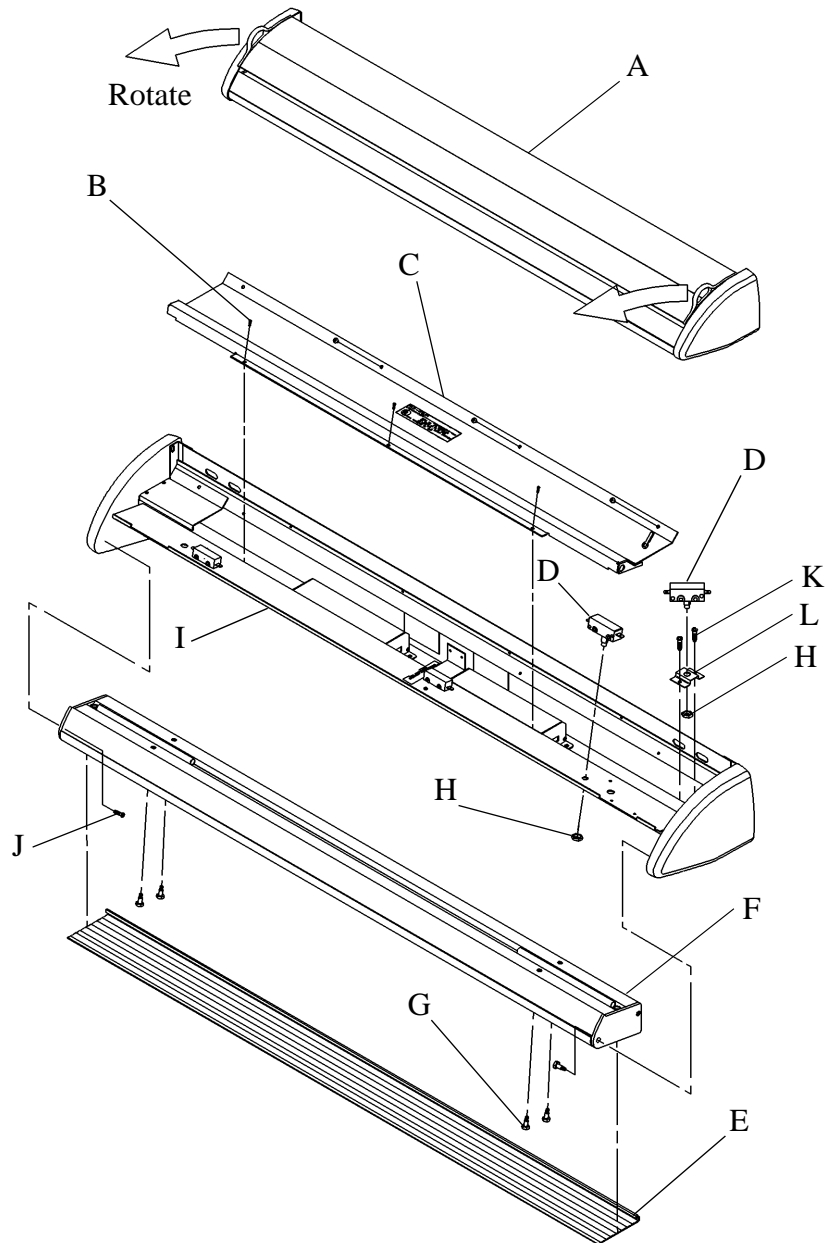
m139_020

4. Using the phillips head screwdriver, remove the center switch cover attaching screws (B), and lift the center switch cover (C) from the light assembly.

5. Notice the color and position of all of the wires on both ends of the limit switch (D).

6. Disconnect the wires from the limit switch (D).

7. For outboard switches on the four-switch configuration, go to step 13.

8. Snap the read light lens (E) out of the bottom of the read light assembly (F).

9. Remove the fluorescent tubes from the indirect light assembly (F) as follows:

    a. Rotate the tube to the loose position.

    b. Pull straight up on the ends of the tubes.

10. Remove the screws (J) that attach the read light to the end cap.

11. Remove the read light attaching bolts (G), and support the read light assembly (F) so the weight of the assembly does not pull on the attached wires.

12. Remove the limit switch retaining nut (H), and lift the limit switch (D) from the light assembly.

13. Remove the bracket attaching screws (K).

14. Lift the bracket (L) and switch (D) from the light assembly.

15. Remove the limit switch retaining nut (H), and remove the switch bracket (L) from the switch.

16. Retain the bracket and screws.

Replacement

1. Install the limit switch (D) and retaining nut (H).

2. Connect the wires to the correct terminal on the limit switch (D).

3. For outboard switches on the four-switch configuration, install the switch (D) on bracket (L) with the limit switch retaining nut (H).

4. Install the switch bracket (L) on the light assembly with screws (K).

5. Go to step 12.

6. Place the read light assembly (F) into position on the center housing weldment (I).

7. Install the read light attaching bolts (G) and screws (J).

8. Install the fluorescent tubes into the read light assembly (F).

9. Snap the read light lens (E) into the read light assembly (F).

10. Place the limit switch cover (C) on the light assembly, and install the retaining screws (B).

11. Rotate the indirect light assembly (A) to the indirect position so that the light shines upward.

12. Remove the lockout and out-of-service tags from the circuit breaker.

13. Set the circuit breaker to the ON position.

14. Test the operation of the indirect light. If necessary, see "The Limit Switch in the Safety Circuit is Inoperative" on page 2-15.

4

4.14 Limit Switch—Integris® 500 Patient Light

Tools required: Phillips head screwdriver   Adjustable wrench

Removal

SHOCK HAZARD:
To minimize the risk of electrical shock or damage to equipment, disconnect all electrical power to the system before working on it. Failure to do so could result in personal injury or equipment damage.

1. Locate the involved building standard/emergency circuit breaker panel (see figure 4-1 on page 4-3).

2. Set the involved circuit breaker to OFF. Refer to step 1 through step 3 in the section titled "Duplex Receptacle—Integris® 2000 Patient Light" on page 4-3.

3. Snap out the indirect light lens (A) (see figure 4-21 on page 4-45).

Figure 4-21. Limit Switch—Integris® 500 Patient Light
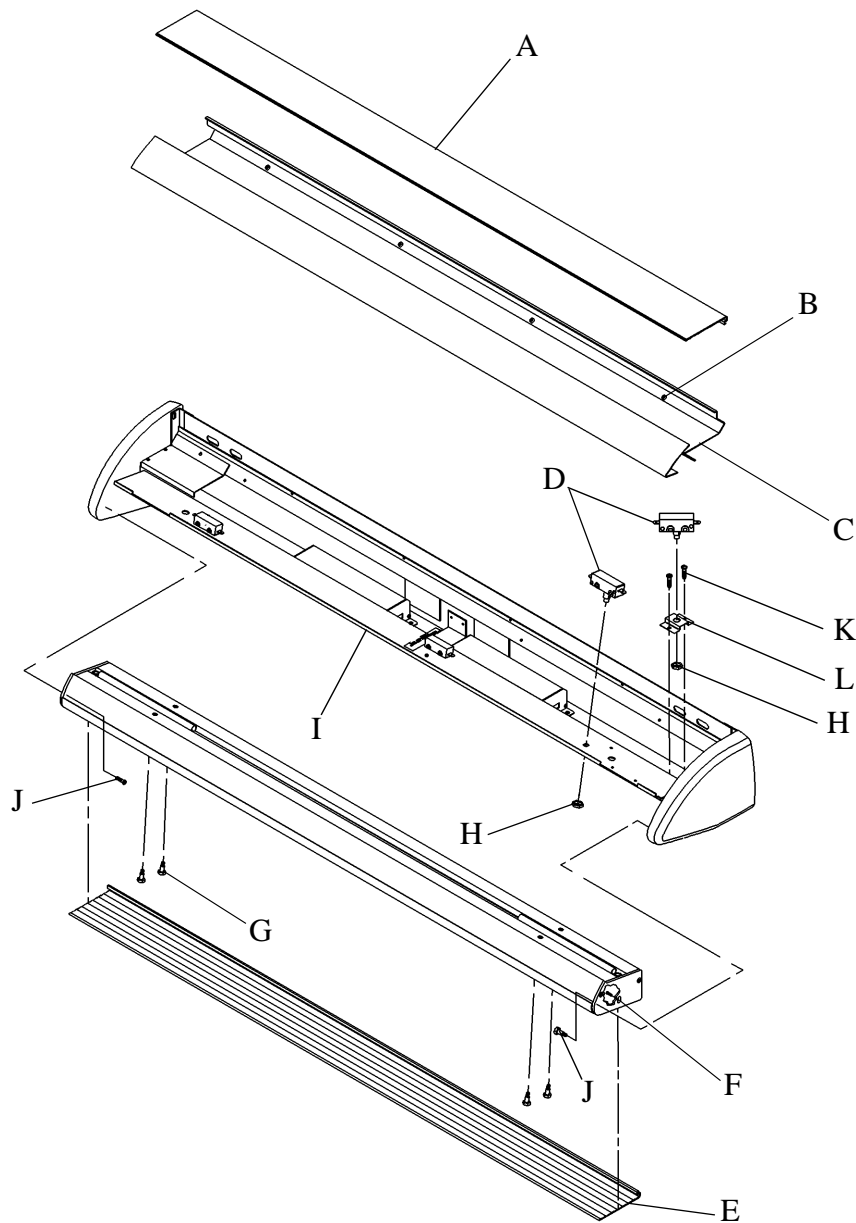
m139_021

4. Remove the fluorescent tubes from the indirect light assembly as follows:

   a. Rotate the tube to the loose position.

   b. Pull straight up on the ends of the tubes.

5. Remove the top cap weldment retaining screws (B), and lift the top cap weldment (C) from the light assembly.

6. Notice the color and position of all of the wires on both ends of the limit switch (D).

7. Disconnect the wires from the limit switch (D).

8. For outboard switches on the four-switch configuration, skip to step 14.

9. Snap the read light lens (E) out of the bottom of the read light assembly (F).

10. Remove the fluorescent tubes from the read light assembly (F) as follows:

   a. Rotate the tube to the loose position.

   b. Pull straight up on the ends of the tubes.

11. Remove the screws (J) that attach the read light to the end cap.

12. Remove the read light attaching bolts (G), and support the read light assembly (F) so the weight of the assembly does not pull on the attached wires.

13. Remove the limit switch retaining nut (H), and lift the limit switch (D) from the center housing weldment (I).

14. Remove the switch bracket screws (K), and lift the bracket (L) and limit switch (D) from the light assembly.

15. Remove the limit switch retaining nut (H), and remove the switch bracket (L) from the switch (D).

16. Retain the bracket (L) and screws (K).

Replacement

1. Install the limit switch (D) and retaining nut (H).

2. Connect the wires to the correct terminal on the limit switch (D).

3. For outboard switches on the four-switch configuration, install the switch (D) on the bracket (L) with the limit switch retaining nut (H).

4. Install the switch bracket (L) on the light assembly with screws (K).

5. Go to step 11.

6. Place the read light assembly (F) into position on the center housing weldment (I), and install the read light attaching bolts (G) and screws (J).

7. Install the fluorescent tubes onto the read light assembly (F) as follows:

       a.   Push straight up on the ends of the tubes.

       b.   Rotate the tube to the tight position.

8.   Snap the read light lens (E) into the read light assembly (F).

9.   Place the top cap weldment (C) on the light assembly, and install the retaining screws (B).

10. Install the fluorescent tubes and indirect light lens (A).

11. Remove the lockout and out-of-service tags from the circuit breaker.

12. Set the circuit breaker to the ON position.

13. Test the operation of the indirect light. If necessary, see "The Limit Switch in the Safety Circuit is Inoperative" on page 2-15.

4

NOTES:

Chapter 5
Parts List

Chapter Contents

5

Warranty

HILL-ROM, INC.
LIMITED WARRANTY

Hill-Rom, 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 on-site 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, province to province, or country to country.

Revised October 20, 1998

Hill-Rom, Inc., 1069 State Route 46 E, Batesville, IN 47006-9167

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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).

Figure 5-1. Product Identification Label Location

A

Raceway cover

Integris® B Lite Rail

m139b077

A

Raceway cover

Integris® 2000 Patient Light

5

A

Raceway cover

Integris® 1000 Patient Light
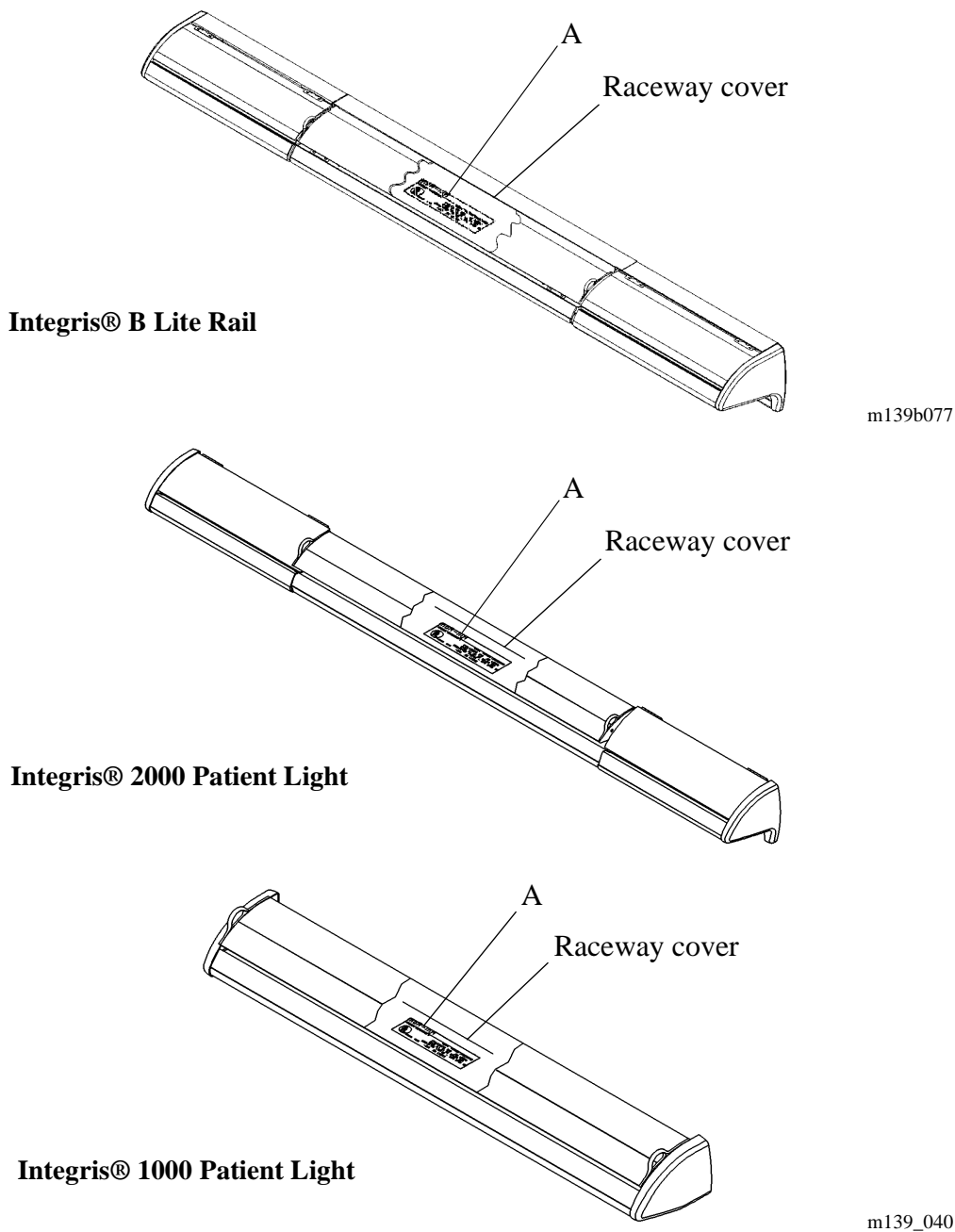
m139_040

Figure 5-2. Product Identification Label Location
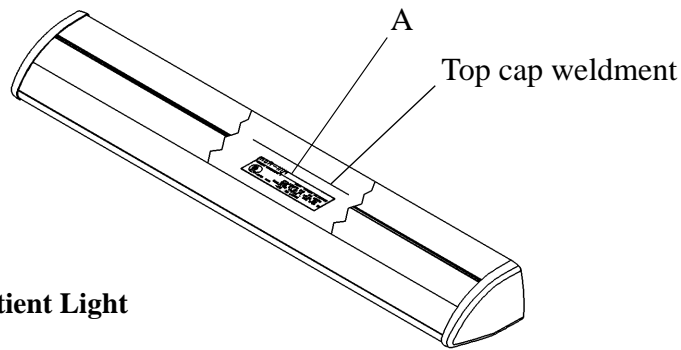
Integris® 500 Patient Light

m139_040

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)

To promptly order parts, request part prices and availability, or follow up on a service order, use the following Hill-Rom fax number:

(812) 934-8472

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, INC.
1069 STATE ROUTE 46 E
BATESVILLE IN 47006-9167

Address all return goods to:

> ATTN SERVICE STORES
> DISTRIBUTION CENTER DOOR D23
> HILL-ROM COMPANY, INC.
> 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.

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Exchange Policy

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

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 internal use at Hill-Rom). 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. 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 to your facility for **the difference between the exchange price and the full selling price of the parts/products**.

Recommended Spare Parts

There are no recommended spare parts for the Integris® Patient Light.

NOTES:

Integris® 2000 Patient Light Assembly—Model 696-EF

Figure 5-3. Integris® 2000 Patient Light Assembly—Model 696-EF

m139_022
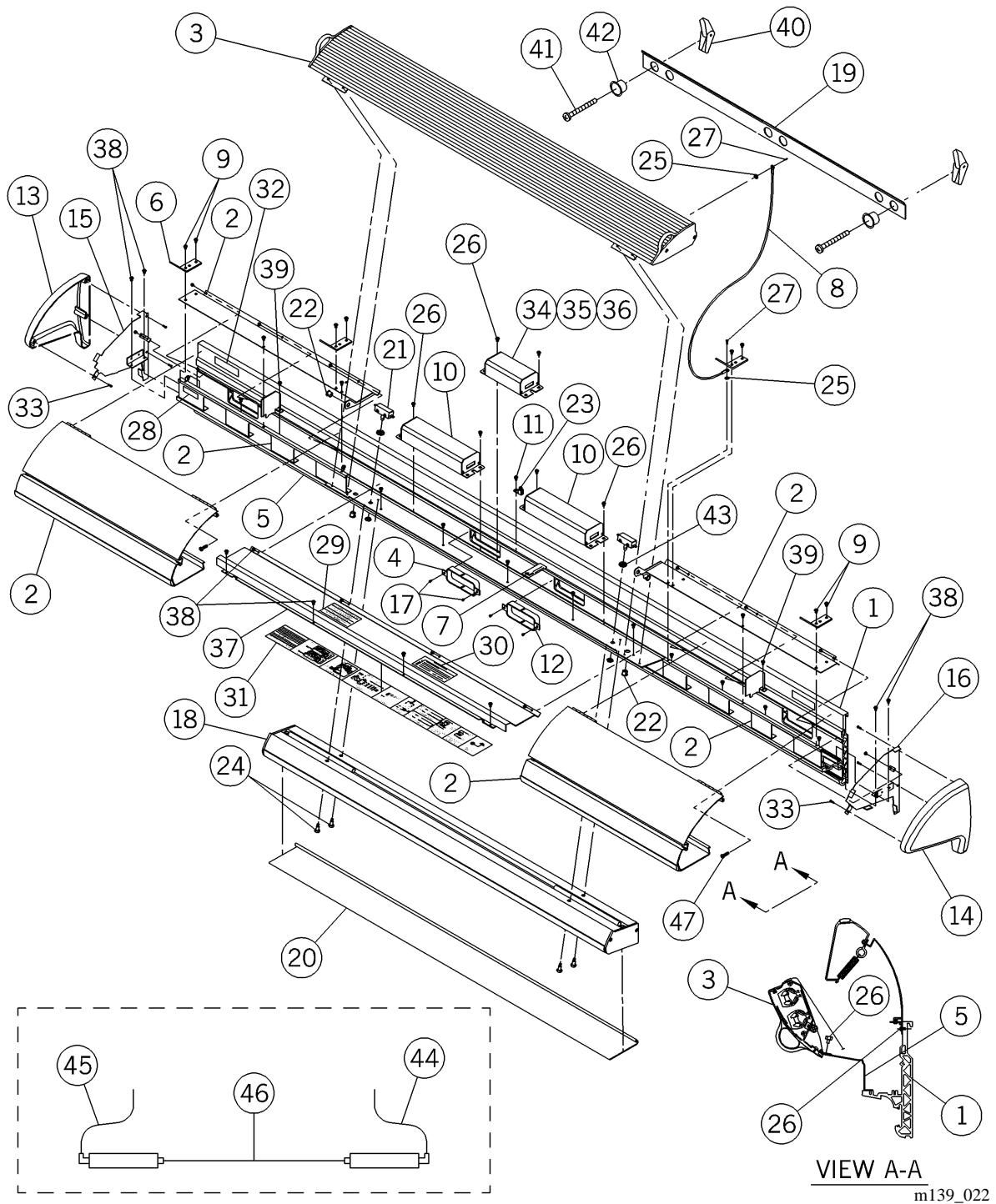
Table 5-1. Integris® 2000 Patient Light Assembly—Model 696-EF

Item Number	Part Number	Quantity	Description
1	SP468 (696)§	1	Support plate, machined
2	58698 (696)§	2	Upper and lower filler assembly
3	58461 (696)§	1	Upper channel assembly
4	5975801 (696)§	1	Sleeve, lh
5	5862039 (696)	1	Light support center
6	59563 (696)	4	End filler, support
7	50555 (696)	1	Label—information
8	26450 (696)	3	Cable
9	52555-03 (696)	9	Screw
10	58460 (696)	2	Ballast, 120 volt
11	53125-02 (696)	1	Screw (#8 truss head)
12	5975802 (696)	1	Sleeve, rh
13	5845802 (696)§	1	End cap, lh
14	5845801 (696)§	1	End cap, rh
15	585770139 (696)	1	End plate weldment, lh
16	585770239 (696)	1	End plate weldment, rh
17	393 (696)	4	Screw
18	58449 (696)§	1	Lower channel assembly
19	5858239 (696)	1	Hanger
20	58439 (696)	1	Lens, 48″ smooth
21	34069 (696)	2	Switch
22	9610 (696)	4	Snap bushing
23	14383 (696)	1	Ground lug
24	53078 (696)	4	Shoulder bolt
25	34084 (696)	6	Lockwasher, external tooth
26	393 (696)	26	Screw
27	57018-04 (696)	4	Screw (#8-32 x 3/8 pan head)
28	59206 (696)	1	Label, 200 lb max load

§   Specify paint color.

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Item Number	Part Number	Quantity	Description
29	58877 (696)	1	Label, information
30	32252 (696)	1	Label, torque
31	58932 (696)	1	Label, wiring diagram
32	59635 (696)	4	Label, light assembly mounting
33	55138 (696)	8	Screw, pan head
34	P533A-120 (696)	1	Low voltage control assembly
35	P533A-240 (696)	1	Low voltage control assembly
36	P533A-277 (696)	1	Low voltage control assembly
37	5874739 (696)	1	Limit switch cover
38	52945-03 (696)	8	Screw, truss
39	584560239 (696)	1	Raceway divider, low voltage
40	21046 (696)	4	Toggle, wing
41	21045 (696)	4	Toggle, bolt
42	29325 (696)	4	Stud, guide
43	55419 (696)	2	Lockwasher, 3/8″ screw
44	58898 (696)	1	Wire lead, purple, 24″ long
45	58897 (696)	1	Wire lead, black, 24″ long
46	50519 (696)	1	NR wire lead, black
47	52555-04 (696)	8	Screw

NOTES:

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Integris® 2000 Patient Light Assembly—Model 696-EF01/EF02

Figure 5-4. Integris® 2000 Patient Light Assembly—Model 696-EF01/EF02
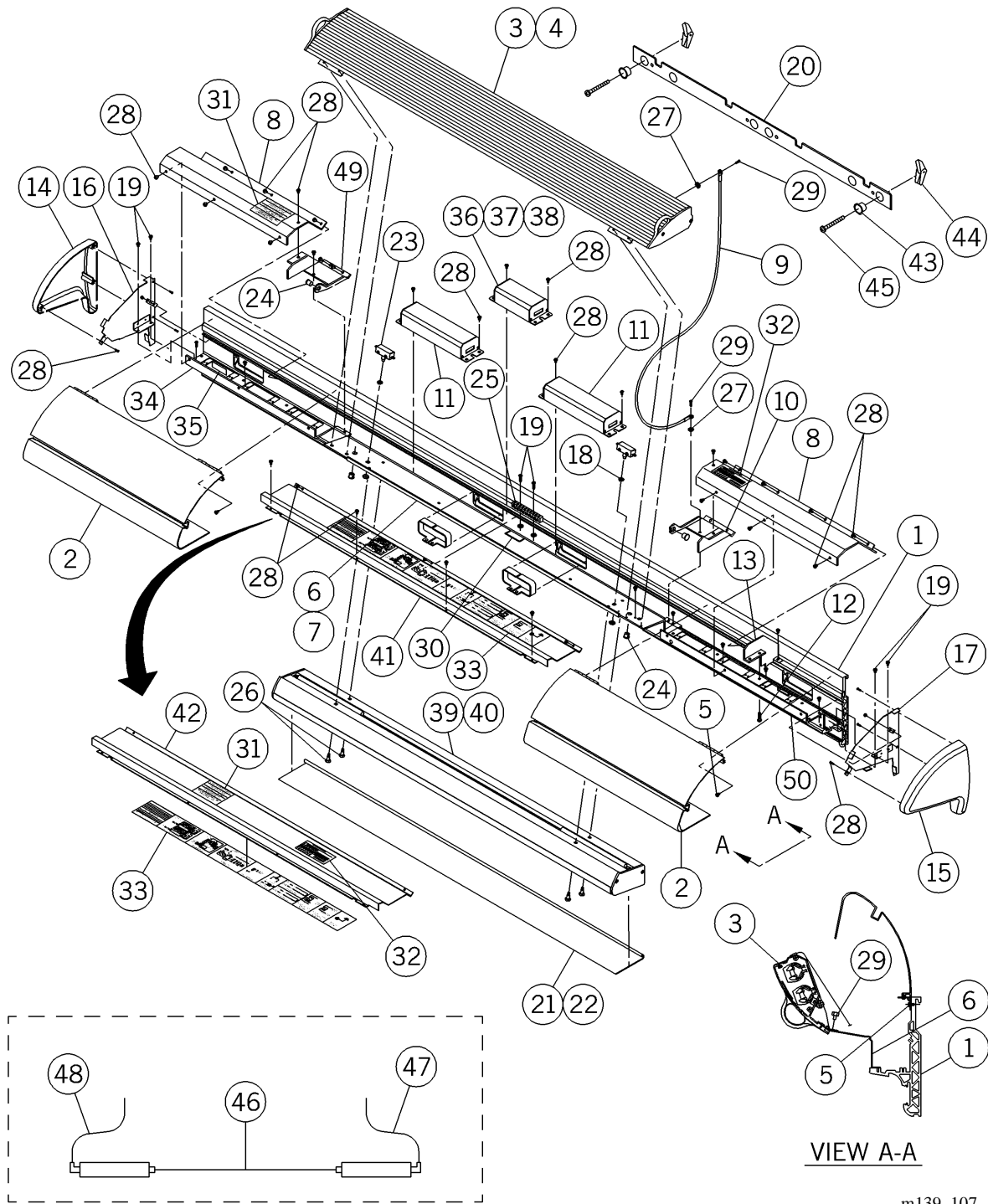
m139_107

Table 5-2. Integris 2000 Patient Light Assembly—Model 696-EF01/EF02

Item Number	Part Number	Quantity	Description
1	SP468 (696)§	1	Support plate, machined
2	59370 (696)§	2	End filler assembly
3	58461 (696)§	1	Upper light channel assembly
4	59706 (696)§	1	Upper light channel assembly
5	52555-04 (696)	8	Screw
6	5862039 (696)	1	Light support center
7	5969339 (696)	1	Light support center
8	SP50701 (696) or SP50702 (696)	2	Device, cover
9	26450 (696)	3	Cable
10	5938001 (696)	2	Intermediate cover AS
11	58460 (696)	2	Ballast, 120 volt
12	5294501 (696)	2	Screw
13	59305 (696)	1	Raceway divider, low voltage
14	5845801 (696)§	1	End cap, lh
15	5845802 (696)§	1	End cap, rh
16	585770139 (696)§	1	End plate weldment, lh
17	585770239 (696)§	1	End plate weldment, rh
18	55419 (696)	2	Lockwasher, 3/8"
19	50891-08 (696)	2	Screw, #6-20 truss head
20	5858239 (696)	1	Hanger
21	58439 (696)	1	Lens, 48″
22	59687 (696)	1	Lens, 36″
23	34069 (696)	2	Switch
24	9610 (696)	4	Snap bushing
25	56551 (696)	1	Ground bar
26	53078 (696)	4	Shoulder bolt
27	34084 (696)	6	Lockwasher, external tooth
28	393 (696)	24	Screw

§   Specify paint color.

5

Item Number	Part Number	Quantity	Description
29	57018-04 (696)	4	Screw (#8-32 x 3/8 pan head)
30	50555 (696)	1	Label—information
31	58877 (696)	1	Label, information
32	32252 (696)	1	Label, torque
33	58932 (696)	1	Label, wiring diagram
34	SP50601 (696)	1	Device housing, lh
35	59206 (696)	1	Label, 200 lb max. load
36	P533A-120 (696)	1	Low voltage control assembly
37	P533A-240 (696)	1	Low voltage control assembly
38	P533A-277 (696)	1	Low voltage control assembly
39	59369 (696)§	1	Lower light channel assembly
40	59707 (696)§	1	Lower light channel assembly
41	5874739 (696)	1	Limit switch cover
42	5969239 (696)	1	Limit switch cover
43	29325 (696)	4	Stud guide
44	21046 (696)	4	Toggle wing
45	21045 (696)	4	Toggle bolt
46	50519 (696)	1	NR wire lead, black
47	58898 (696)	1	Wire lead, purple, 24" long
48	58897 (696)	1	Wire lead, black, 24" long
49	5938002 (696)	1	Intermediate cover OP
50	SP50602 (696)	1	Device housing, rh

§   Specify paint color.

NOTES:

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Integris® B Lite Rail—Transition Area Option

Figure 5-5. Integris® B Lite Rail—Transition Area Option
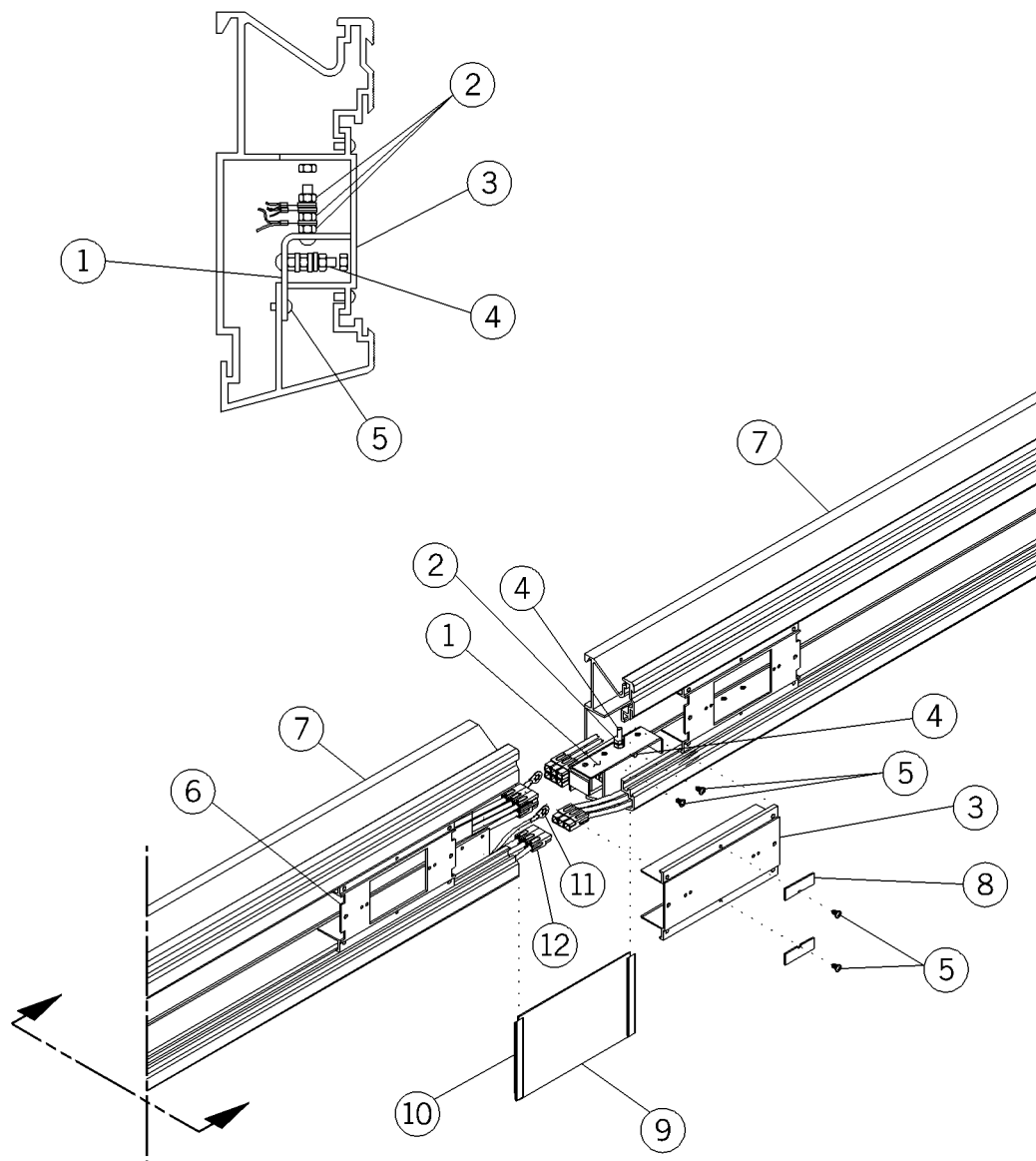
m139b052

Table 5-3. Integris® B Lite Rail—Transition Area Option

Item Number	Part Number	Quantity	Description
1	204276-02 (696)	1	Transition barrier, stud support, rh
2	15250 (696)	6	Locknut
3	204282 (696)	1	Device plate, notched
4	52243-07 (696)	2	Screw
5	50891-02 (696)	4	Pan head screw
6	52105 (696)	1	Raceway cover
7	SP567 (696)	1	Lite rail
8	52112 (696)	2	Lock plate
9	204279 (696)	1	Transition fascia cover
10	204280 (696)	2	Cover trim
11	51259-00 (696)	2	Wire lead, green
12	51517-01 (696)	12	Housing contact
13	204284 (696)‡	1	Bag assembly

‡   Items is not shown in figure 5-5.

5

Integris® B Lite Rail—Stat Clock With Rem-Open Power

Figure 5-6. Integris® B Lite Rail—Stat Clock With Rem-Open Power

Table 5-4. Integris® B Lite Rail—Stat Clock With Rem-Open Power

Item Number	Part Number	Quantity	Description
1	59151 (696)	1	Timer cable assembly
2	50590 (696)	2	Screw, faceplate
3	58943 (696)	1	Cable, faceplate
4	16115 (696)	2	Screw
5	58944 (696)	1	Cable plate
6	52553 (696)	1	Wire tie
7	59299 (696)	1	Strain relief
8	50891-02 (696)	1	Screw
9	52122 (696)	2	Lock, device plate
10	59720 (696)	1	Device plate, notch
11	50891-08 (696)	3	Screw
12	34084 (696)	6	Lockwasher
13	309 (696)	3	Nut
14	31047 (696)	As required	Bushing, 1 1/8"
15	17281 (696)	As required	Bushing, 7/8"
16	59739 (696)	1	Backbox assembly, B
17	52311-08 (696)	1	Wire lead
18	58946 (696)	1	Strain relief
19	15107 (696)	3	Wire joint
20	15408 (696)	5	Wire joint

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Integris® B Lite Rail—Stat Clock Without Rem-Open Power

Figure 5-7. Integris® B Lite Rail—Stat Clock Without Rem-Open Power
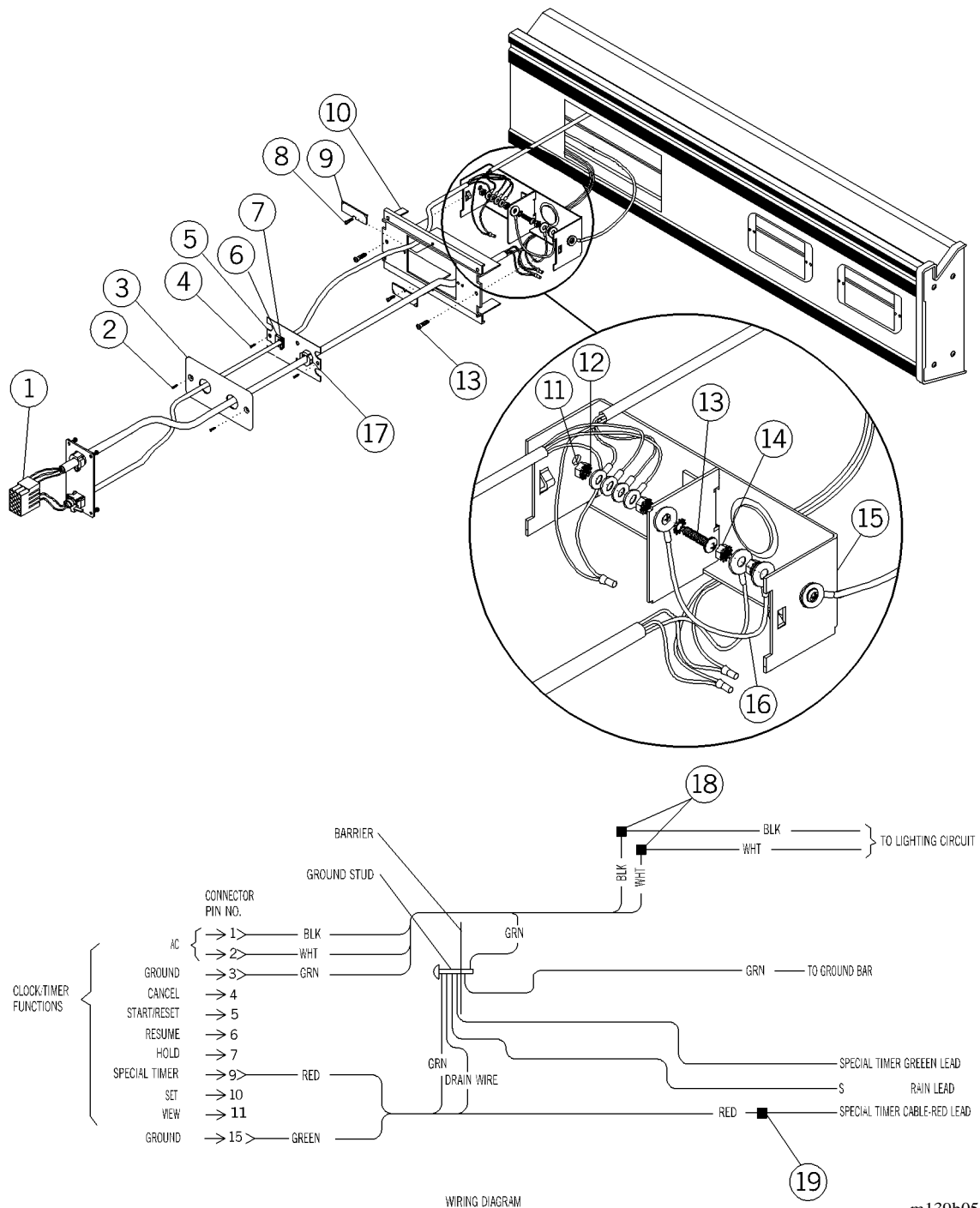
Table 5-5. Integris® B Lite Rail—Stat Clock Without Rem-Open Power

Item Number	Part Number	Quantity	Description
1	58947 (696)	1	Timer cable assembly
2	50590 (696)	2	Screw, faceplate
3	58943 (696)	1	Faceplate cable
4	16115 (696)	2	Screw
5	58944 (696)	1	Plate, cable
6	52553 (696)	1	Wire tie
7	59299 (696)	1	Strain relief
8	50891-02 (696)	1	Screw
9	52122 (696)	2	Lock, device plate
10	59720 (696)	1	Device plate, notch
11	309 (696)	3	Nut
12	17281 (696)	As required	Bushing, 7/8"
13	50891-08 (696)	3	Screw
14	15250 (696)	1	Nut
15	59739 (696)	1	Backbox assembly, B
16	52311-08 (696)	1	Wire lead
17	58946 (696)	1	Strain relief
18	15107 (696)	2	Wire joint
19	15408 (696)	1	Wire joint

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Integris® B Lite Rail—Stat Clock Without Rem-Box Power

Figure 5-8. Integris® B Lite Rail—Stat Clock Without Rem-Box Power
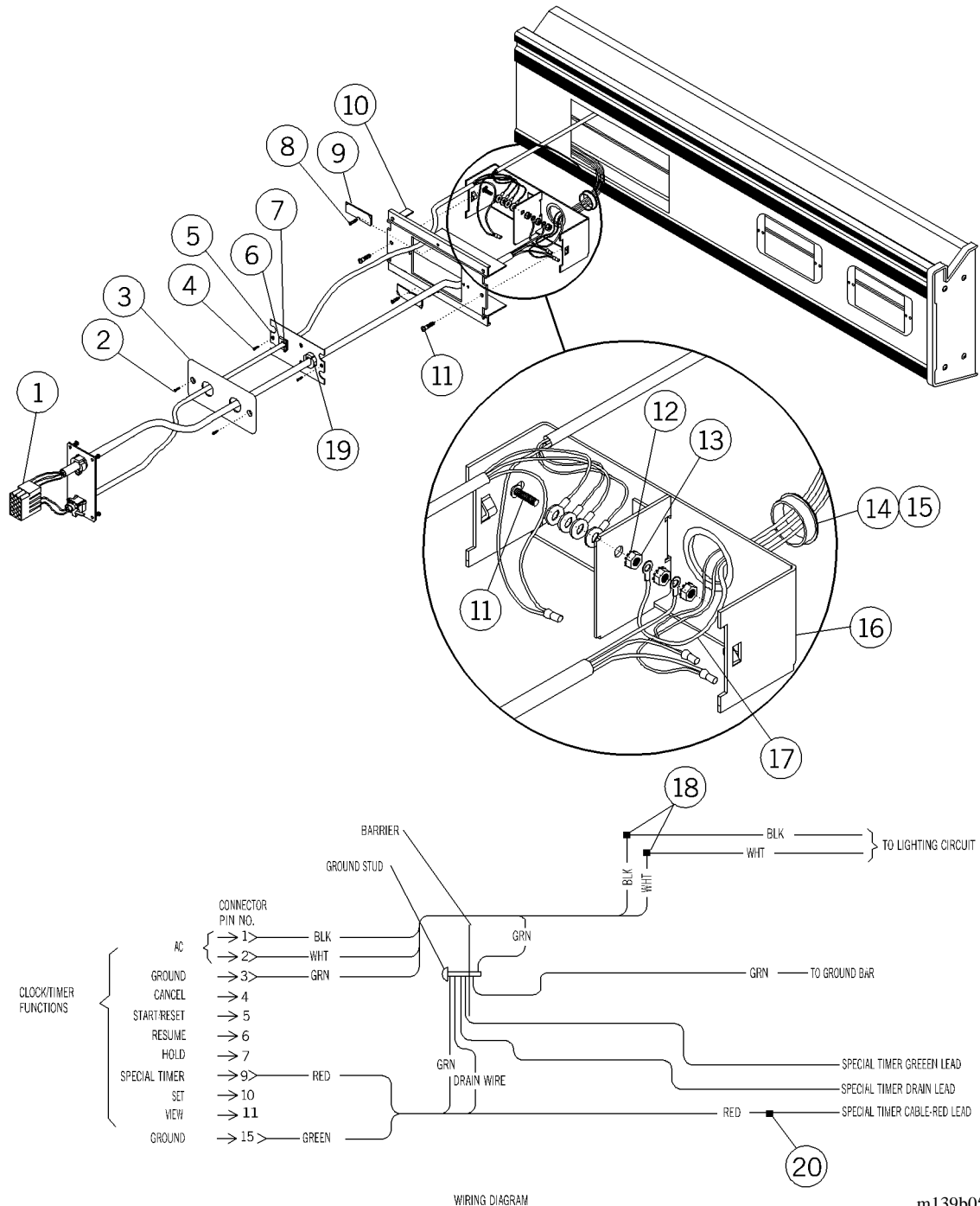
m139b054

Table 5-6. Integris® B Lite Rail—Stat Clock Without Rem-Box Power

Item Number	Part Number	Quantity	Description
1	58947 (696)	1	Timer cable assembly
2	50590 (696)	2	Screw, faceplate
3	58943 (696)	1	Faceplate cable
4	16115 (696)	2	Screw
5	58944 (696)	1	Cable plate
6	52553 (696)	1	Wire tie
7	59299 (696)	1	Strain relief
8	50891-02 (696)	2	Screw
9	52122 (696)	2	Lock, device plate
10	53105 (696)	1	Device plate, notch
11	50891-08 (696)	3	Screw
12	34084 (696)	6	Lockwasher
13	309 (696)	3	Nut
14	17281 (696)	As required	Bushing, 7/8"
15	31047 (696)	As required	Bushing, 1 1/8"
16	59103 (696)	1	Backbox assembly, B
17	52311-08 (696)	1	Wire lead
18	15107 (696)	2	Wire joint
19	58946 (696)	1	Strain relief
20	15408 (696)	1	Wire joint

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Integris® B Lite Rail—Chaseless J-Box

Figure 5-9. Integris® B Lite Rail—Chaseless J-Box
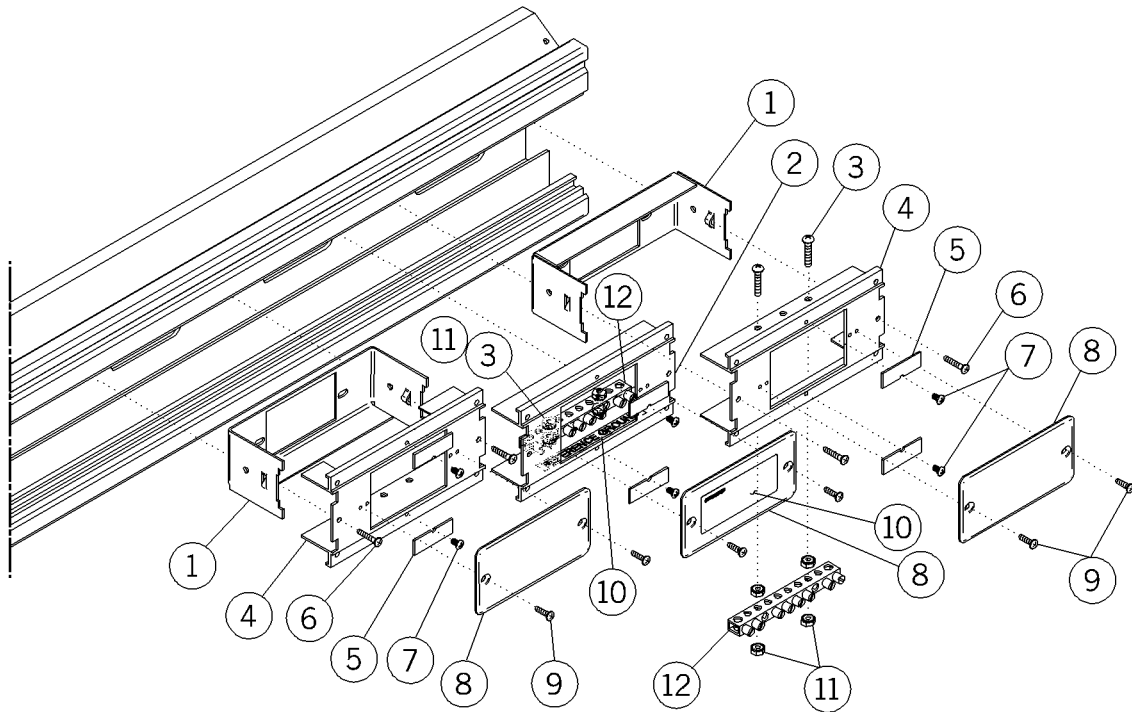
m139b056

Table 5-7. Integris® B Lite Rail—Chaseless J-Box

Item Number	Part Number	Quantity	Description
1	204275 (696)	2	J-box barrier
2	52105 (696)	1	Device plate, plain
3	52243-07 (696)	4	Screw
4	52145 (696)	2	Device plate, notched
5	52122 (696)	6	Lock, device plate
6	50891-08 (696)	4	Screw
7	50891-02 (696)	4	Screw
8	50593 (696)	3	Faceplate, blank 1 gang
9	50590 (696)	6	Screw
10	203557 (696)	1	Label set
11	15250 (696)	8	Locknut
12	56551 (696)	2	Ground bar
13	51259-12 (696)‡	1	Wire lead green
14	204319 (696)‡	1	Wire lead, ground, 6" long
15	32112 (696)‡	1	Label, reference ground

‡   Items is not shown in figure 5-9.

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Integris® B Lite Rail Option

Figure 5-10. Integris® B Lite Rail Option
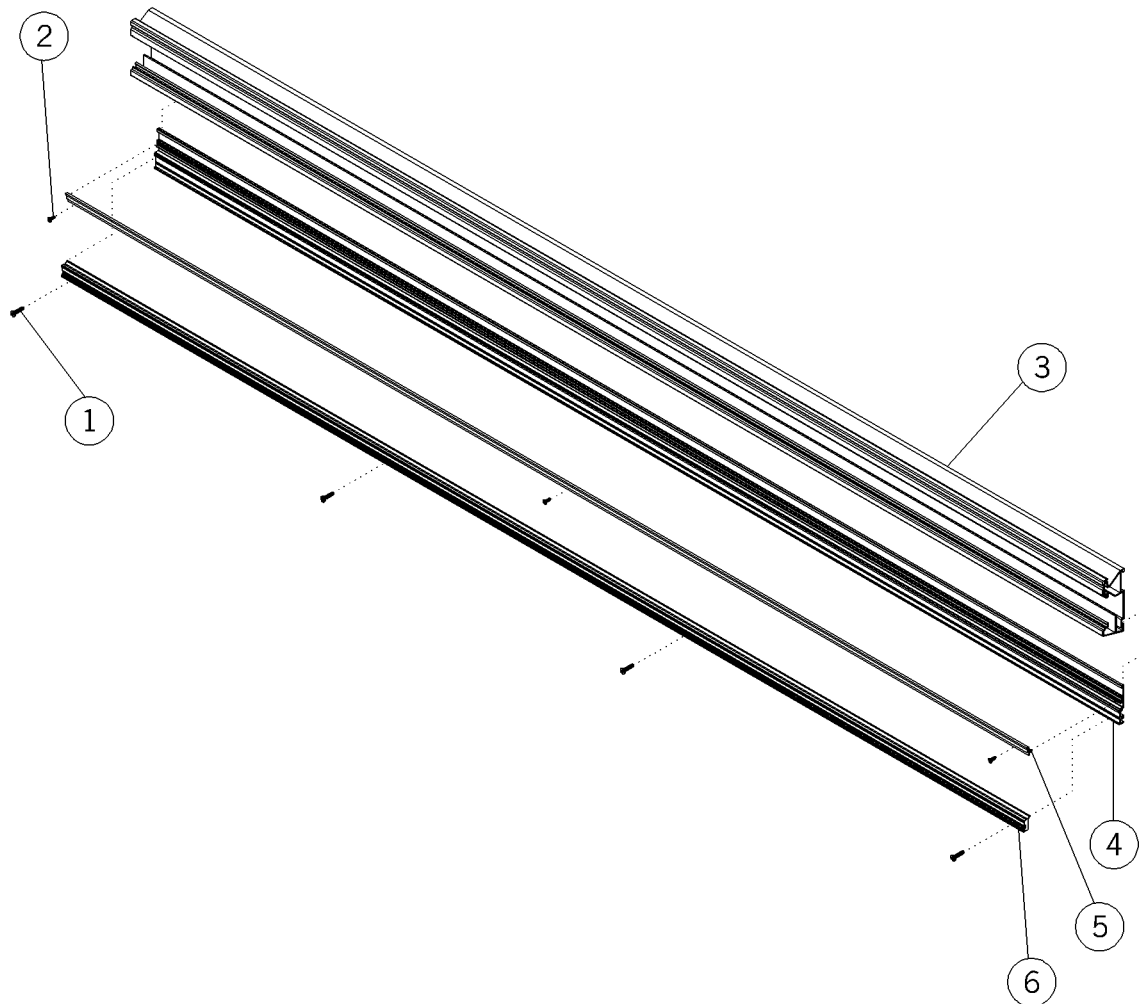
m139b063

Table 5-8. Integris® B Lite Rail Option

Item Number	Part Number	Quantity	Description
1	52945-03 (696)‡	As required	Screw, truss
2	52555-05 (696)‡‡	As required	Screw, pan head
3	SP567-01 (696) or SP567-30 (696)	1	Light rail machined, 114" (M204137-01 only) Light rail machined, 30" (M204137-30 only)
4	SP570-01 (696) or SP570-30 (696)	1	Rail hanger machined, 114" (M204137-01 only) Rail hanger machined, 30" (M204137-30 only)
5	SP571-01 (696) or SP571-30 (696)	1	Hanger latched machined, 114" (M204137-01 only) Hanger latched machined, 30" (M204137-30 only)
6	SP559-01 (696) or SP559-30 (696)	1	Accessory rail machined, 114" (M204137-01 only) Accessory rail machined, 30" (M204137-30 only)

‡   Use a quantity of 10 on assembly -01, and use a quantity of 4 on assembly -30.
‡‡   Use a quantity of 7 on assembly -01, and use a quantity of 3 on assembly -30.

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Integris® B Lite Rail—Raceway and Accessory Rail Fascia Option

Figure 5-11. Integris® B Lite Rail—Raceway and Accessory Rail Fascia Option
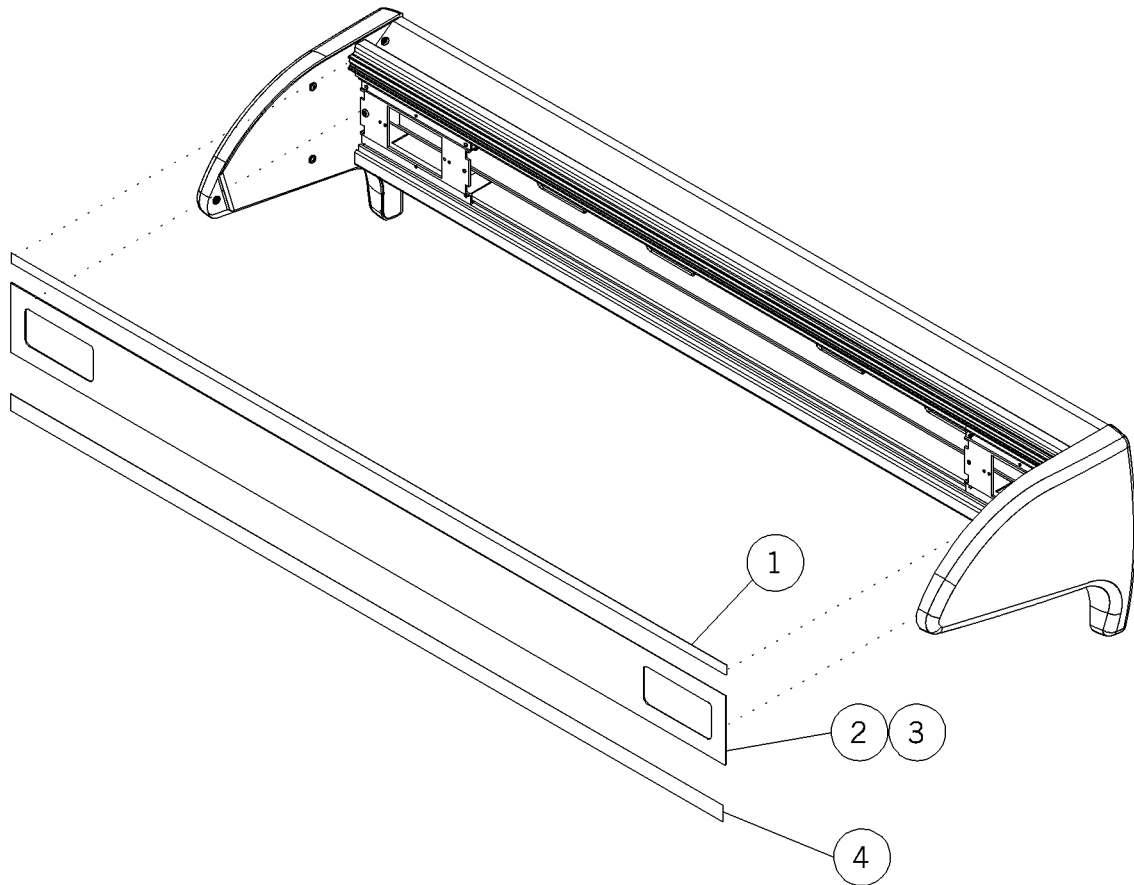
m139b058

Table 5-9. Integris® B Lite Rail—Raceway and Accessory Rail Fascia Option

Item Number	Part Number	Quantity	Description
1	SP561 (696)	1	Fascia, upper accessory rail
2	SP569-01 (696)	1	Raceway fascia punched, 114" (M204138-01 only)
3	SP569-30 (696)	1	Raceway fascia punched, 30" (M204138-30 only)
4	SP566 (696)	1	Fascia, accessory rail

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Integris® B Lite Rail—End Cap Option

Figure 5-12. Integris® B Lite Rail—End Cap Option
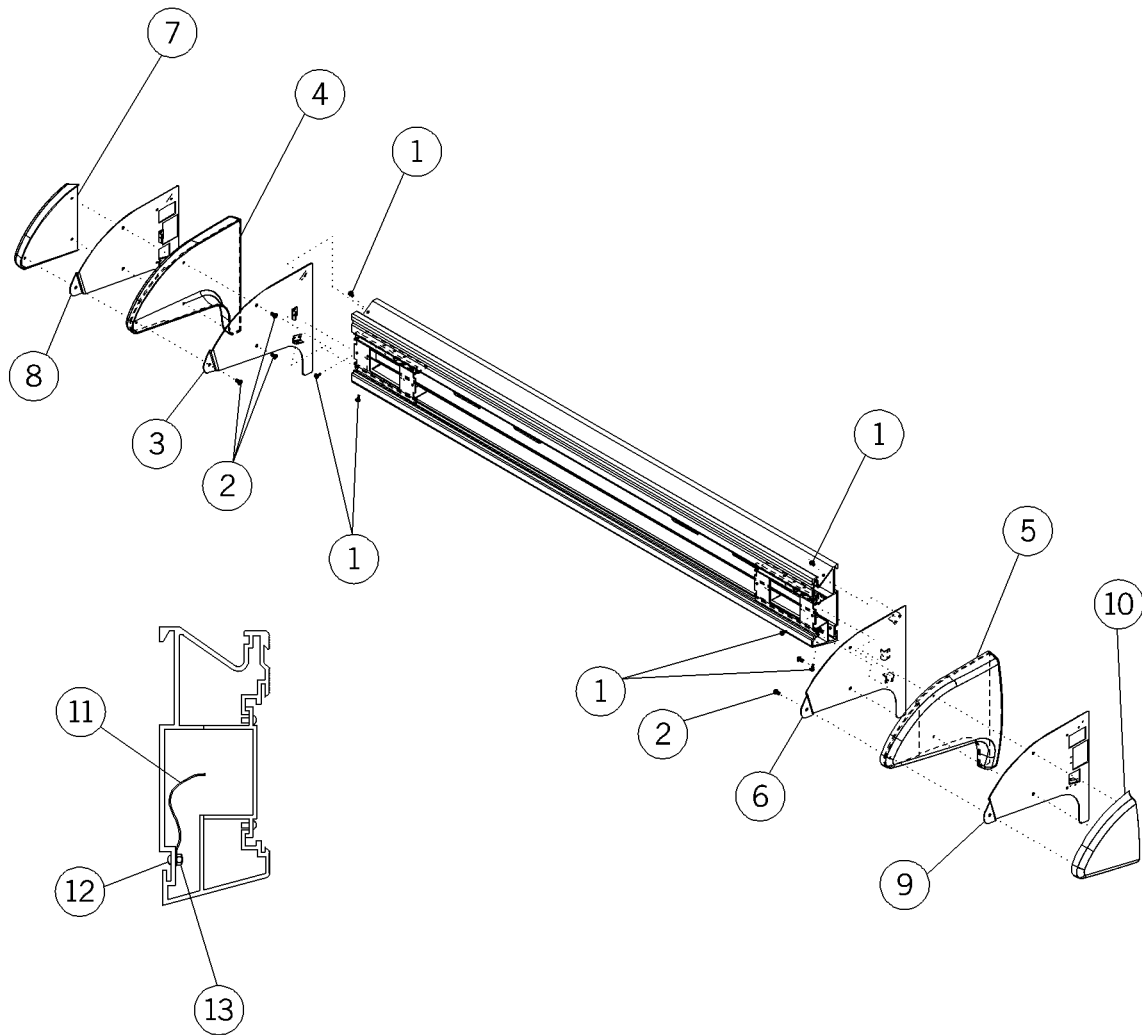
m139b059

Table 5-10. Integris® B Lite Rail—End Cap Option

Item Number	Part Number	Quantity	Description
1	52945-02 (696)	3	Truss head screw
2	52555-03 (696)	3	Pan head screw
3	204252-02 (696)◆	1	End cap mounting plate, weldment, rh
4	204238-02 (696)‡‡‡ or 204238-02 (696)§§§‡‡‡‡	1	End cap, rh
5	204238-01 (696)‡ or 204238-01 (696)§§§‡‡	1	End cap, lh
6	204252-01 (696)◆◆	1	End cap mounting plate, weldment, lh
7	204116-02 (696)†† or 204116-02 (696)§§§††††	1	End cap, chase, rh
8	204381-02 (696)◆◆◆	1	End cap mounting plate, weldment, chase, rh

§§§   Specify paint color.

◆   Used on assemblies -02 and -04 only.
◆◆   Used on assemblies -01 and -03 only.
◆◆◆   Used on assemblies -04 and -08 only.

‡   Used on assembly -01.
‡‡   Used on assembly -03.
‡‡‡   Used on assembly -02.
‡‡‡‡   Used on assembly -04.
†   Used on assembly -05.
††   Used on assembly -06.
†††   Used on assembly -07.
††††   Used on assembly -08.

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Item Number	Part Number	Quantity	Description
9	204381-01 (696)♦♦♦♦	1	End cap mounting plate, weldment, chase, lh
10	204116-01 (696)† or 204116-01 (696)§§§†††	1	End cap, chase, lh
11	51259-24 (696)	1	Wire lead, green
12	52243-01 (696)	1	Pan head screw
13	15250 (696)	2	Locknut

§§§   Specify paint color.

♦   Used on assemblies -02 and -04 only.
♦♦   Used on assemblies -01 and -03 only.
♦♦♦   Used on assemblies -04 and -08 only.
♦♦♦♦   Used on assemblies -04 and -08 only.

‡   Used on assembly -01.
‡‡   Used on assembly -03.
‡‡‡   Used on assembly -02.
‡‡‡‡   Used on assembly -04.
†   Used on assembly -05.
††   Used on assembly -06.
†††   Used on assembly -07.
††††   Used on assembly -08.

NOTES:

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Integris® B Lite Rail—IL Light Provision Option, Open Power (M204140-01)

Figure 5-13. Integris® B Lite Rail—IL Light Provision Option, Open Power (M204140-01)
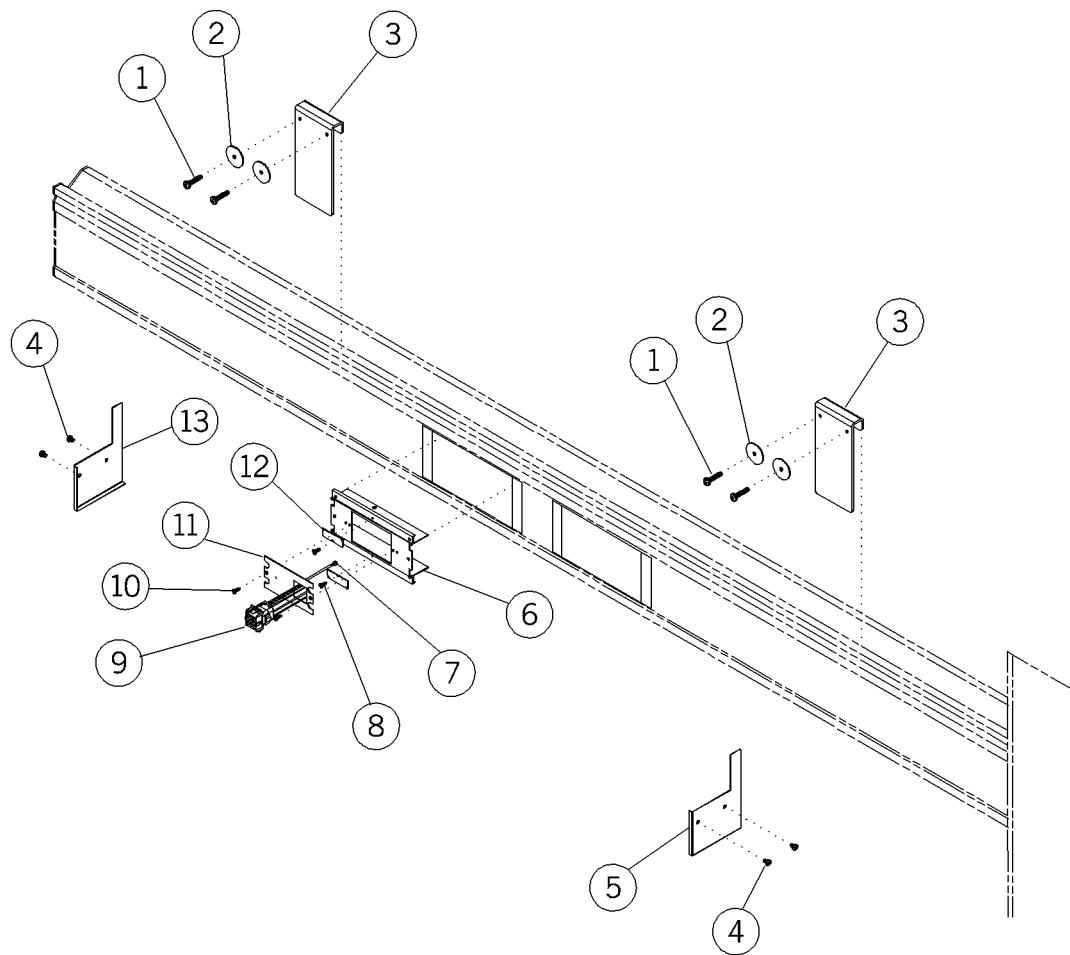
m139b064

Table 5-11. Integris® B Lite Rail—IL Light Provision Option, Open Power (M204140-01)

Item Number	Part Number	Quantity	Description
1	53258-01 (696)	4	Pan head screw
2	15359 (696)	4	Washer
3	203875 (696)	2	Light hanging bracket
4	393 (696)	4	Screw
5	204277-01 (696)	2	Light, end plate pat, lh
6	52105 (696)	1	Device plate, plain
7	29685 (696)	1	Ring terminal, ground wire
8	50891-02 (696)	2	Trilob pan head screw
9	204525 (696)	1	Light pigtail
10	16115 (696)	2	Flat head screw
11	204526 (696)	1	Integris® light blank
12	52122 (696)	2	Lock-device plate
13	204277-02 (696)	2	Light, end plate pat, rh

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Integris® B Lite Rail—IL Light Provision Option, Boxed Power (M204140-02)

Figure 5-14. Integris® B Lite Rail—IL Light Provision Option, Boxed Power (M204140-02)
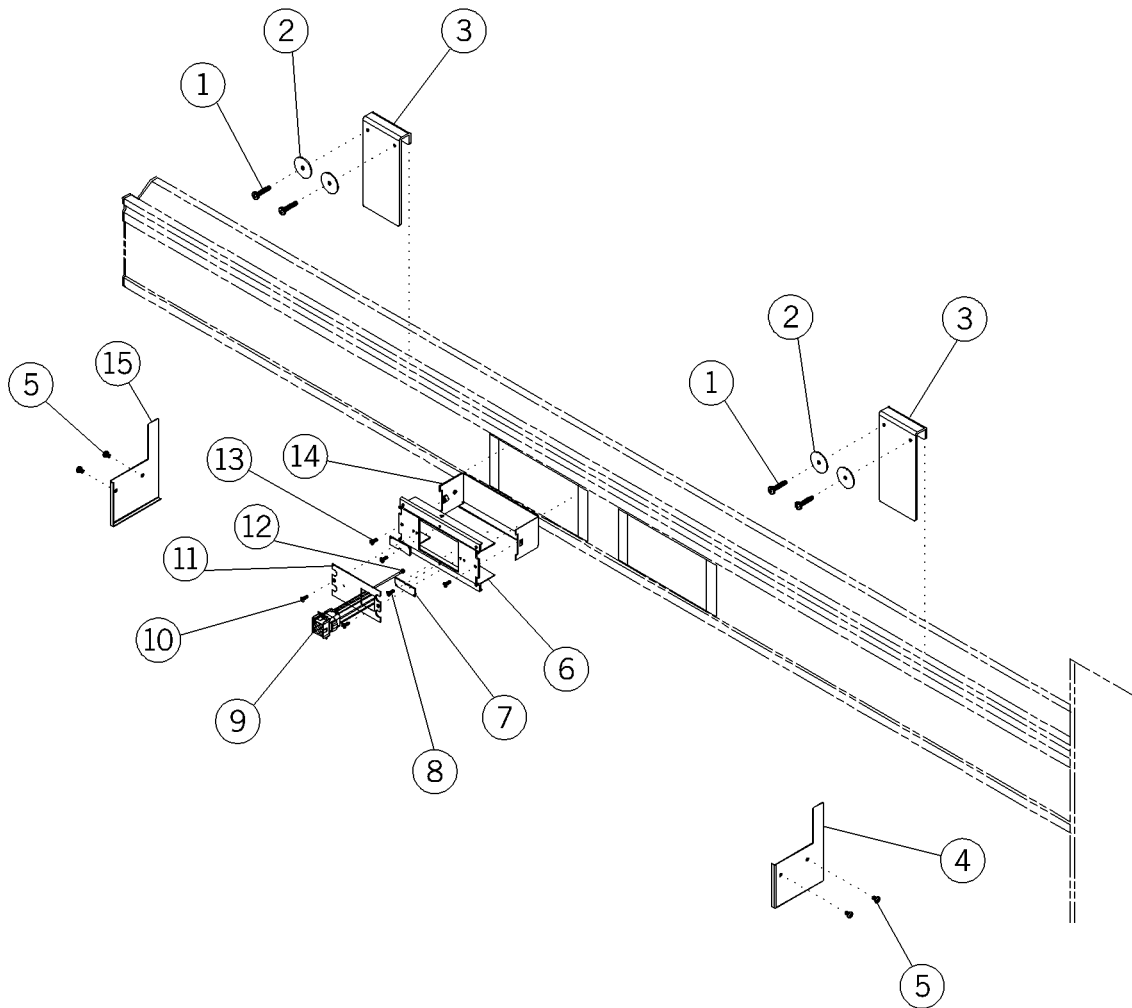
m139b065

Table 5-12. Integris® B Lite Rail—IL Light Provision Option, Boxed Power (M204140-02)

Item Number	Part Number	Quantity	Description
1	53258-01 (696)	4	Pan head screw
2	15359 (696)	4	Washer
3	203875 (696)	2	Light hanging bracket
4	204277-01 (696)	2	Light, end plate pat, lh
5	393 (696)	4	Screw
6	52145 (696)	1	Device plate, notched
7	52122 (696)	2	Lock-device plate
8	50891-02 (696)	2	Trilob pan head screw
9	204525 (696)	1	Light pigtail
10	16115 (696)	2	Flat head screw
11	204526 (696)	1	Integris® light blank
12	29685 (696)	1	Ring terminal, ground wire
13	50891-08 (696)	2	Trilob pan head screw
14	51029 (696)	1	Backbox, device
15	204277-02 (696)	2	Light, end plate pat, rh

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Integris® 1000 Patient Light Assembly—Model 696-IL

Figure 5-15. Integris® 1000 Patient Light Assembly—Model 696-IL
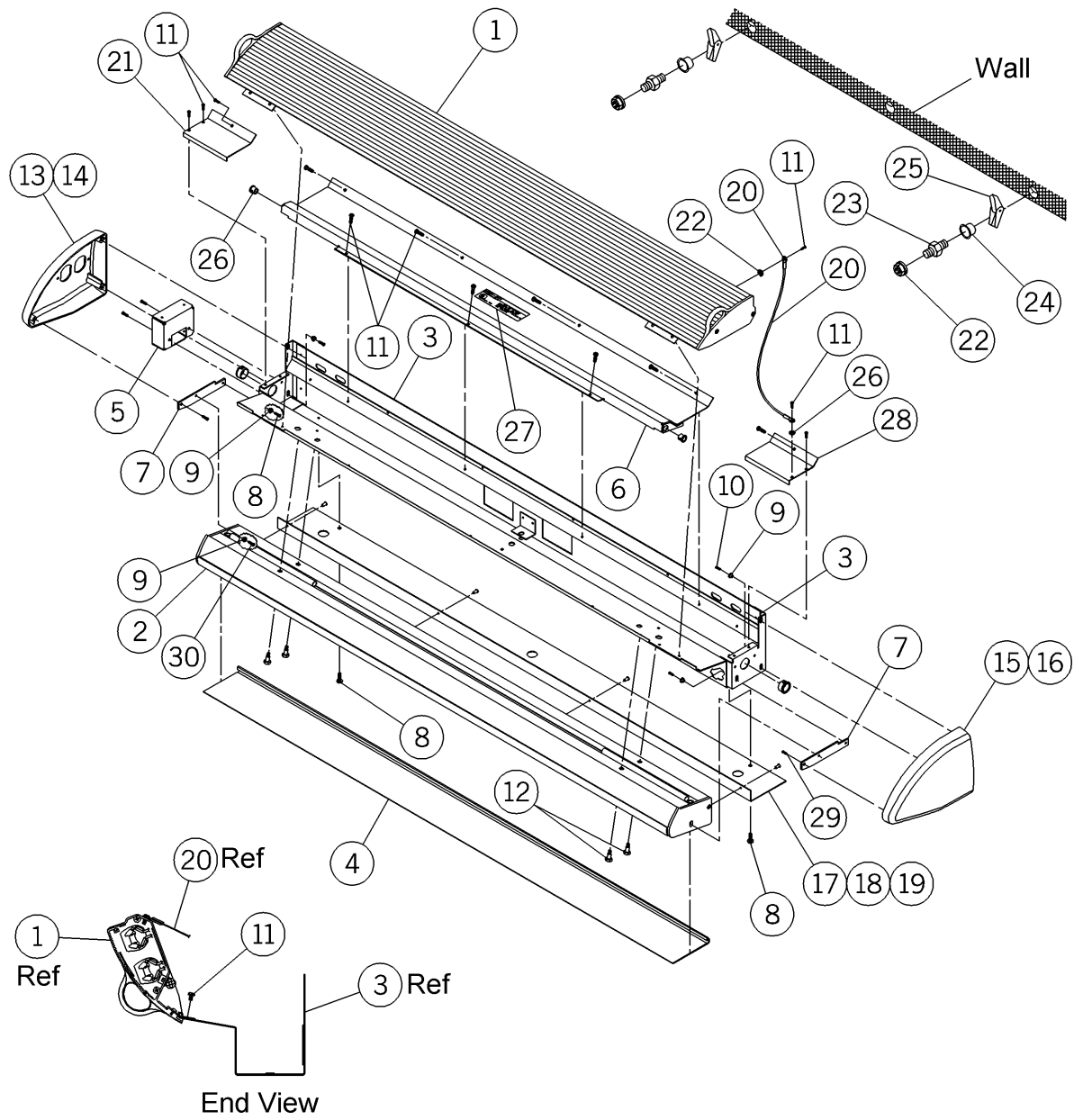
m139_023

Table 5-13. Integris® 1000 Patient Light Assembly—Model 696-IL

Item Number	Part Number	Quantity	Description
1	58461 (696)§	1	Upper channel assembly
2	58449 (696)§	1	Lower channel assembly
3	5868339 (696)	1	Center housing weldment
4	58439 (696)	1	Lens, 48"
5	5876439 (696)	1	Receptacle box
6	5864339 (696)	1	Center switch cover
7	58757PL (696)	2	Mounting strap, end cap
8	5701806 (696)	6	Screw
9	58773 (696)	6	Screw insulator
10	50854-03 (696)	4	Pan head screw
11	393 (696)	10	Screw
12	53078 (696)	4	Shoulder bolt
13	5860301 (696)§	1	End cap, lh
14	5877201 (696)§	1	End cap with receptacle, lh
15	5860302 (696)§	1	End cap, rh
16	5877202 (696)§	1	End cap with receptacle, rh
17	5868401 (696)§	1	Finish plate, center, pull chain
18	5868402 (696)§	1	Finish plate, rh, pull chain
19	5868403 (696)§	1	Finish plate, lh, pull chain
20	26450 (696)	3	Cable
21	587690239 (696)	1	Raceway cover
22	50815 (696)	2	Nut
23	26557 (696)	2	Stud
24	29325 (696)	2	Stud guide
25	21046 (696)	2	Toggle wing
26	9610 (696)	4	Snap bushing
27	58877 (696)	1	Label—information
28	587690139 (696)	1	Raceway cover

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§   Specify paint color.

Item Number	Part Number	Quantity	Description
29	55315 (696)	2	Screw, flathead
30	5255506 (696)	2	Screw, type B pan

NOTES:

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Integris® 1000 Patient Light Assembly—Model 696-IL Center Housing Weldment P/N 58683-39

Figure 5-16. Integris® 1000 Patient Light Assembly—Model 696-IL Center Housing Weldment P/N 58683-39
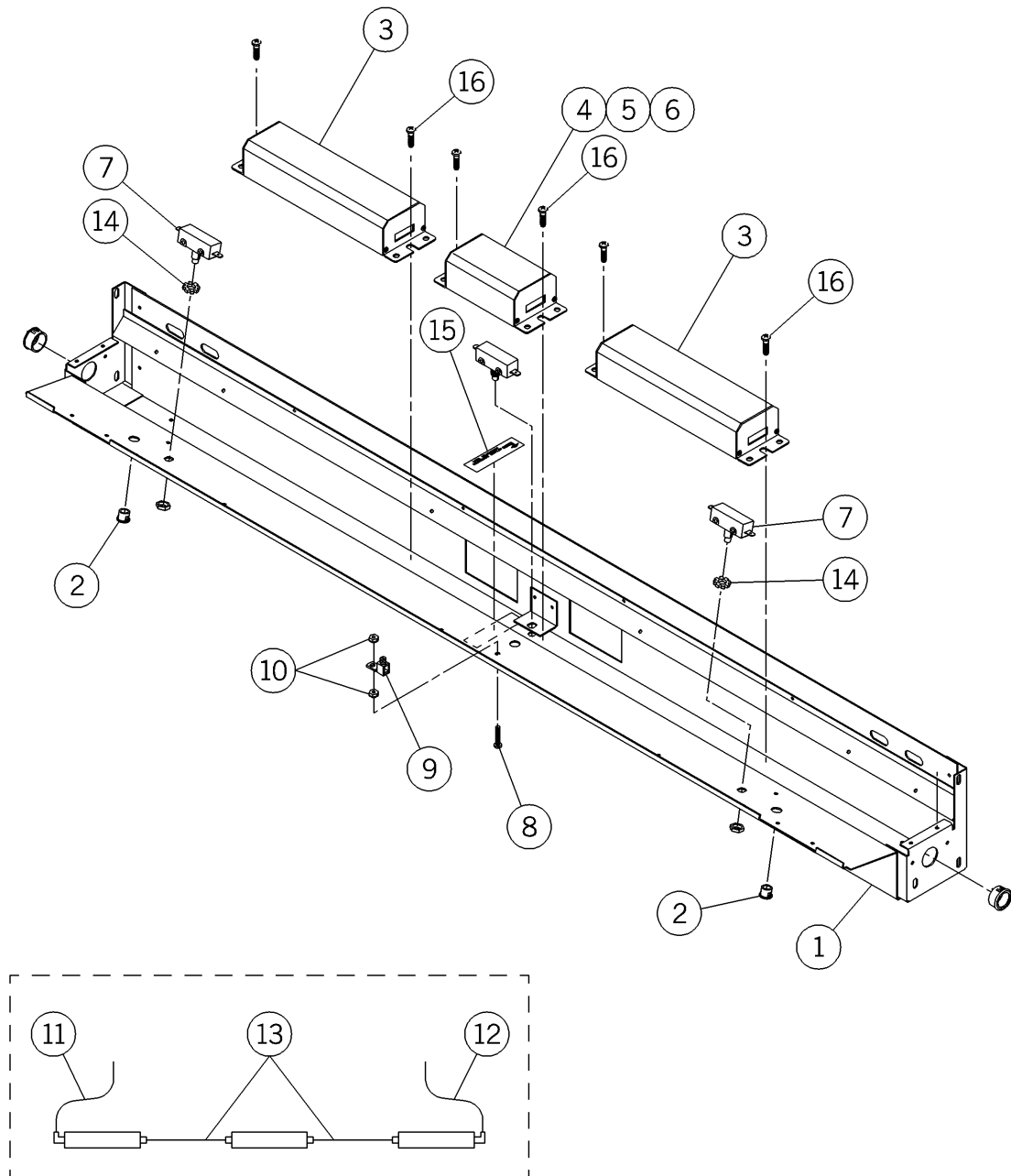
m139_105

**Table 5-14. Integris® 1000 Patient Light Assembly—Model 696-IL
Center Housing Weldment P/N 58683-39**

Item Number	Part Number	Quantity	Description
1	5868339 (696)	1	Center housing, weldment
2	9610 (696)	4	Snap bushing
3	58759 (696)	2	Ballast, 120 volt
4	P533A-120 (696)	1	Low voltage control assembly
5	P533A-240 (696)	1	Low voltage control assembly
6	P533A-277 (696)	1	Low voltage control assembly
7	34069 (696)	3	Limit switch
8	52243-07 (696)	1	Screw, #8-32 pan head
9	14383 (696)	1	Ground lug
10	15250 (696)	2	Locknut, washer base
11	58897 (696)	1	Wire lead, black, 24" long
12	58898 (696)	1	Wire lead, purple, 24" long
13	58896 (696)	2	Wire lead, black, 18" long
14	55419 (696)	2	Lockwasher, 3/8" screw
15	50555 (696)	1	Label—information
16	393 (696)	6	Screw, #8-18 pan head

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Integris® 1000 Patient Light Assembly—Models 696-IL01 (48") and 696-IL02 (36")

Figure 5-17. Integris® 1000 Patient Light Assembly—Models 696-IL01 (48") and 696-IL02 (36")
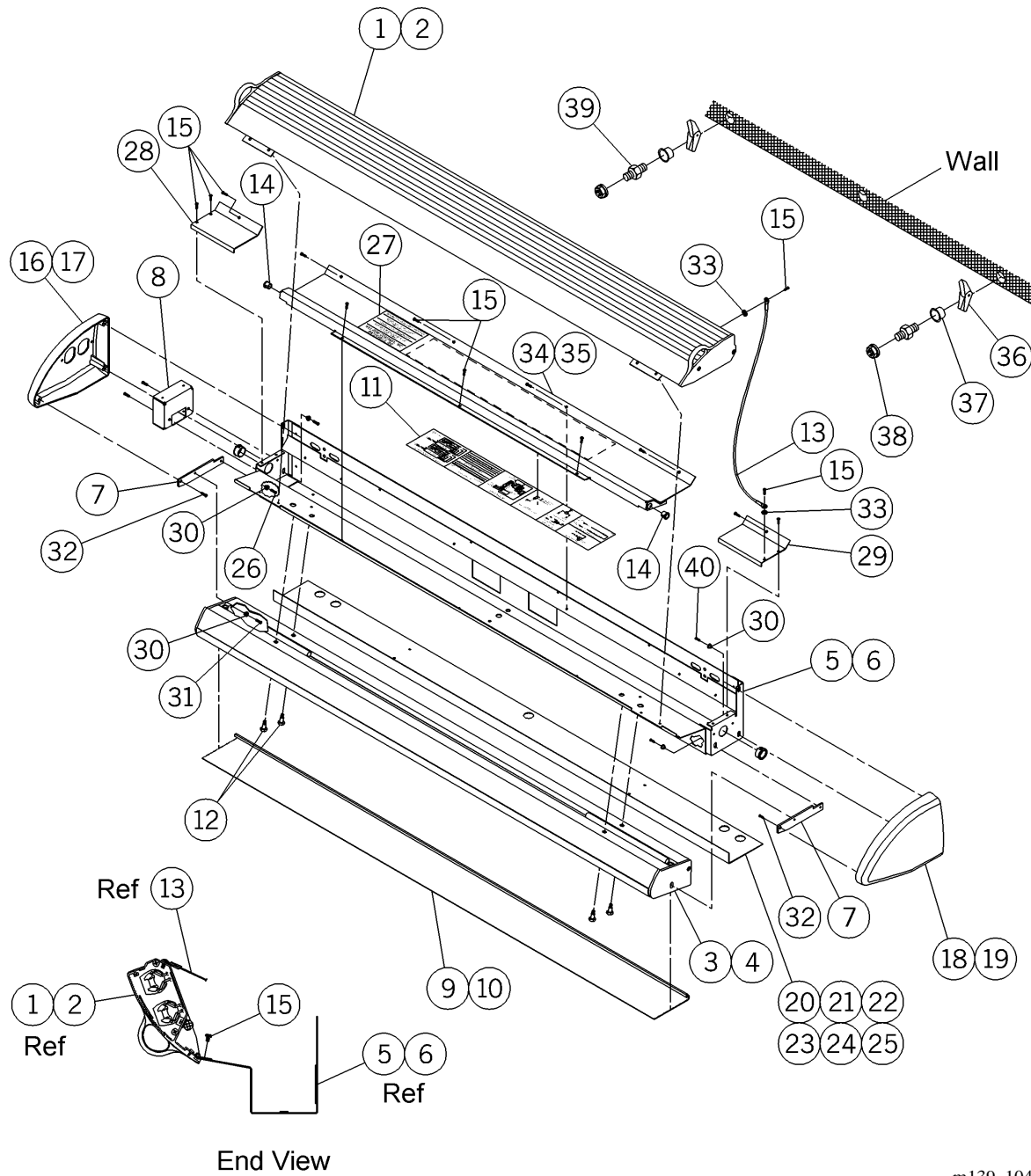
m139_104

Table 5-15. Integris® 1000 Patient Light Assembly—Models 696-IL01 (48") and 696-IL02 (36")

Item Number	Part Number	Quantity	Description
1	58461 (696)§	1	Upper channel assembly
2	59706 (696)§	1	Upper channel assembly
3	59369 (696)§	1	Lower channel assembly
4	59707 (696)§	1	Lower channel assembly
5	5962139 (696)	1	Center housing weldment
6	5971539 (696)	1	Center housing weldment
7	58757PL (696)	2	Mounting strap, end cap
8	5876439 (696)	1	Receptacle box
9	58439 (696)	1	Lens 48"
10	59687 (696)	1	Lens 36"
11	58836 (696)	1	Label, wiring diagram
12	53078 (696)	4	Shoulder bolt
13	26450 (696)	3	Cable
14	9610 (696)	4	Snap bushing
15	393 (696)	16	Screw
16	5860301 (696)§	1	End cap, lh
17	5877201 (696)§	1	End cap with receptacle, lh
18	5860302 (696)§	1	End cap, rh
19	5877202 (696)§	1	End cap with receptacle, rh
20	5868403 (696)§	1	Finish plate, lh, pull chain
21	5971903 (696)§	1	Finish plate, lh, pull chain
22	5868401 (696)§	1	Finish plate, center, pull chain
23	5971901 (696)§	1	Finish plate, center, pull chain
24	5868402 (696)§	1	Finish plate, rh, pull chain
25	5971902 (696)§	1	Finish plate, rh, pull chain
26	5701806 (696)	2	Screw, 8-18 trilobulor pan head
27	58877 (696)	1	Label—information
28	587690239 (696)	1	Raceway cover

§   Specify paint color.

Item Number	Part Number	Quantity	Description
29	587690139 (696)	1	Raceway cover rh
30	58773 (696)	6	Screw insulator
31	5255506 (696)	2	Screw type B, #8 type B pan
32	55315 (696)	2	Screw—flathead
33	34084 (696)	6	Lockwasher, external tooth
34	5864339 (696)	1	Center switch cover
35	5971839 (696)	1	Center switch cover
36	21046 (696)	2	Toggle wing
37	29325 (696)	2	Stud guide
38	50815 (696)	2	Nut
39	26557 (696)	2	Stud
40	50854-03 (696)	4	Screw 8-18, type AB

NOTES:

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Integris® 1000 Patient Light Assembly—Models 696-IL01 and 696-IL02 Center Housing Weldment P/N 59621-39 and 59715-39

Figure 5-18. Integris® 1000 Patient Light Assembly—Models 696-IL01 and 696-IL02 Center Housing Weldment P/N 59621-39 and 59715-39

m139_106

Table 5-16. Integris® 1000 Patient Light Assembly—Models 696-IL01 and 696-IL02 Center Housing Weldment P/N 59621-39 and 59715-39

Item Number	Part Number	Quantity	Description
1	5962139 (696)	1	Center housing weldment
2	5971539 (696)	1	Center housing weldment
3	55419 (696)	2	Lockwasher, 3/8" external tooth
4	9610 (696)	4	Snap bushing
5	5959301 (696)	1	Switch bracket, as shown
6	58773 (696)	4	Screw insulator, #8
7	50854-03 (696)	4	Screw, $8 \times 5/8$ pan
8	5701806 (696)	2	Screw, 8-32 pan
9	5959302 (696)	1	Switch bracket, opposite
10	34069 (696)	3	Switch
11	14383 (696)	1	Ground lug
12	15250 (696)	2	Locknut washer base
13	52243-07 (696)	1	Screw
14	12483 (696)	4	Washer
15	50555 (696)	1	Label—information
16	393 (696)	6	Screw, #8-18 pan head
17	58898 (696)	1	Wire lead, purple 24" long
18	59632 (696)	2	Wire lead, black
19	50519 (696)	1	NR wire lead, black
20	58897 (696)	1	Wire lead, black 24" long
21	58759 (696)	2	Ballast, 120 volt
22	P533A-120 (696)	1	Low voltage control assembly, 120V AC
23	P533A-240 (696)	1	Low voltage control assembly, 240V AC
24	P533A-277 (696)	1	Low voltage control assembly, 277V AC

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Integris® 500 Patient Light Assembly—Model 696-LE

Figure 5-19. Integris® 500 Patient Light Assembly—Model 696-LE
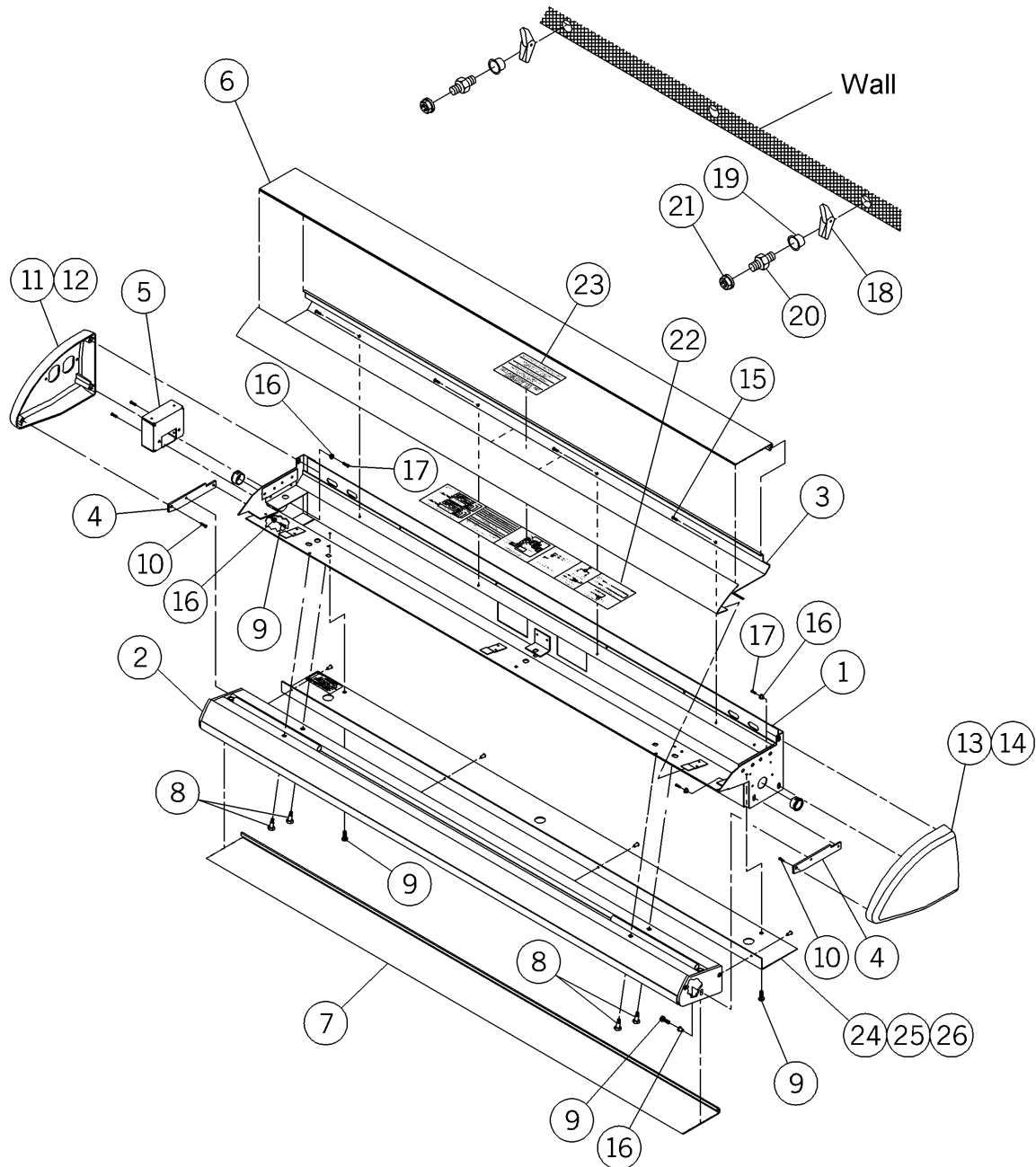
m139_024

Table 5-17. Integris® 500 Patient Light Assembly—Model 696-LE

Item Number	Part Number	Quantity	Description
1	5848539 (696)	1	Center housing weldment
2	59369 (696)§	1	Lower light channel assembly
3	58502 (696)§	1	Top cap weldment
4	58757PL (696)	2	Mounting strap, end cap
5	5876439 (696)	1	Receptacle box
6	58693 (696)	1	Lens, 48" smooth
7	58439 (696)	1	Lens, 48"
8	53078 (696)	4	Shoulder bolt
9	5701806 (696)	6	Screw, 8-18 trilobulor pan head
10	55315 (696)	2	Screw, #8-18 type AB flat head
11	5860301 (696)§	1	End cap, lh
12	5877101 (696)§	1	End plate pipe, cover, lh
13	5860302 (696)§	1	End cap, rh
14	5877202 (696)§	1	End cap with receptacle, rh
15	393 (696)	4	Screw, #8-18 pan head
16	58773 (696)	6	Screw insulator
17	50854-03 (696)	4	8 x 5/8 panhead screw
18	21046 (696)	2	Toggle wing
19	29325 (696)	2	Stud guide
20	26557 (696)	2	Stud
21	50815 (696)	2	Nut
22	58836 (696)	1	Label, wiring diagram
23	58877 (696)	1	Label, information
24	5868402 (696)§	1	Finish plate, rh pull chain
25	5868403 (696)§	1	Finish plate, lh pull chain
26	5868401 (696)§	1	Finish plate, center pull chain

§   Specify paint color.

Integris® 500 Patient Light Assembly—Model 696-LE Center Housing Weldment P/N 58485-39

Figure 5-20. Integris® 500 Patient Light Assembly—Model 696-LE Center Housing Weldment P/N 58485-39
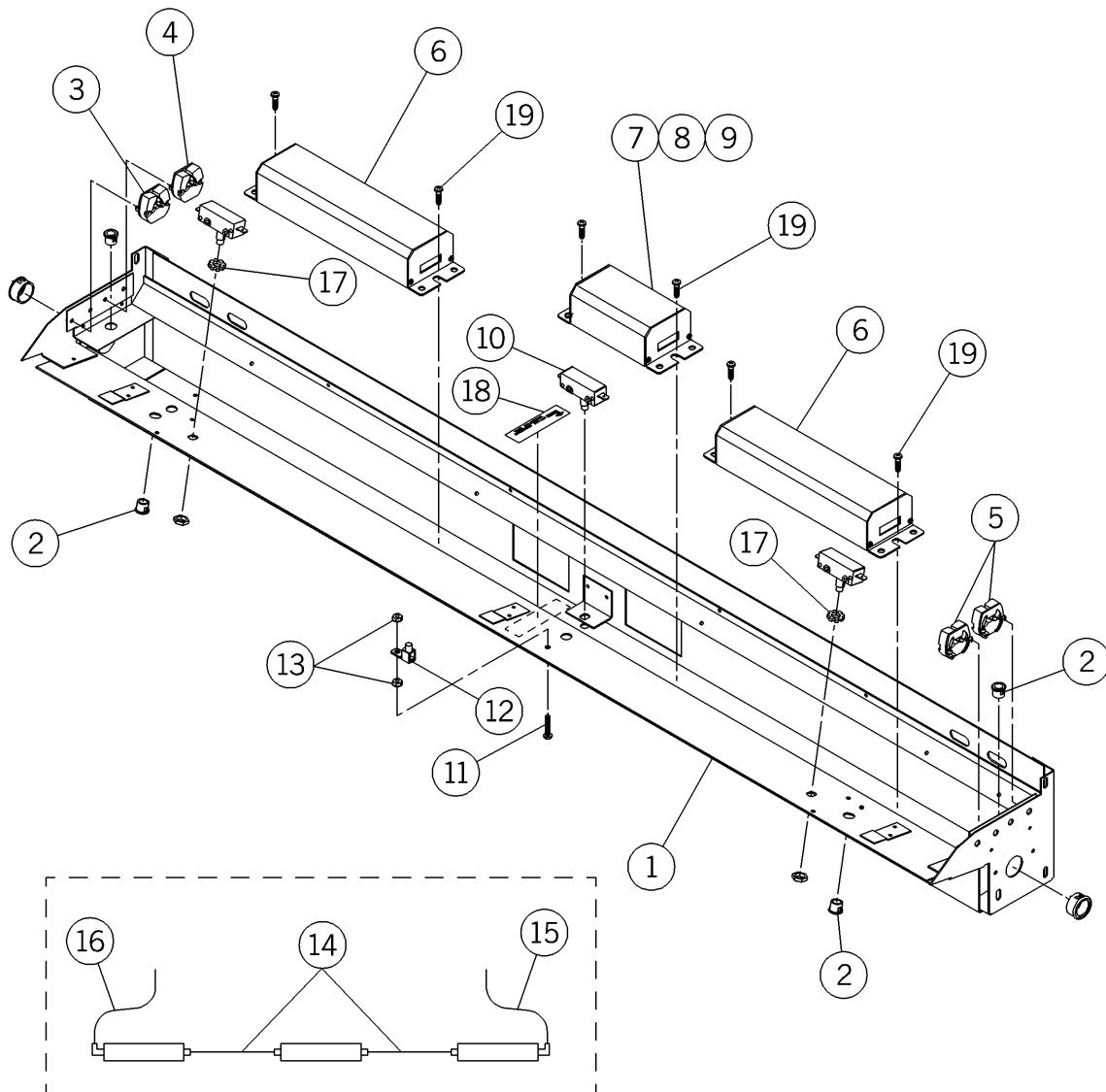
m139_102

Table 5-18. Integris® 500 Patient Light Assembly—Model 696-LE Center Housing Weldment P/N 58485-39

Item Number	Part Number	Quantity	Description
1	5848539 (696)	1	Center housing weldment
2	9610 (696)	4	Snap bushing
3	58872 (696)	1	Fluorescent holder red wire
4	58871 (696)	1	Fluorescent holder blue wire
5	58873 (696)	1	Fluorescent holder yellow wire
6	58759 (696)	2	Ballast, 120 volt
7	P533A-120 (696)	1	Low voltage control assembly
8	P533A-240 (696)	1	Low voltage control assembly
9	P533A-277 (696)	1	Low voltage control assembly
10	34069 (696)	3	Switch assembly
11	52243-07 (696)	1	Screw
12	14383 (696)	1	Ground lug
13	15250 (696)	2	Locknut washer base
14	58897 (696)	2	Wire lead, black 24" long
15	58898 (696)	1	Wire lead, purple 24" long
16	58896 (696)	1	Wire lead, black 18" long
17	55419 (696)	2	Lockwasher, 3/8" external tooth
18	50555 (696)	1	Label—information
19	393 (696)	6	Screw (#8-18 pan head)

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Integris® 2000 Patient Light—Upper Channel Assembly—P/N 58461 and 59706

Figure 5-21. Integris® 2000 Patient Light—Upper Channel Assembly—P/N 58461 and 59706
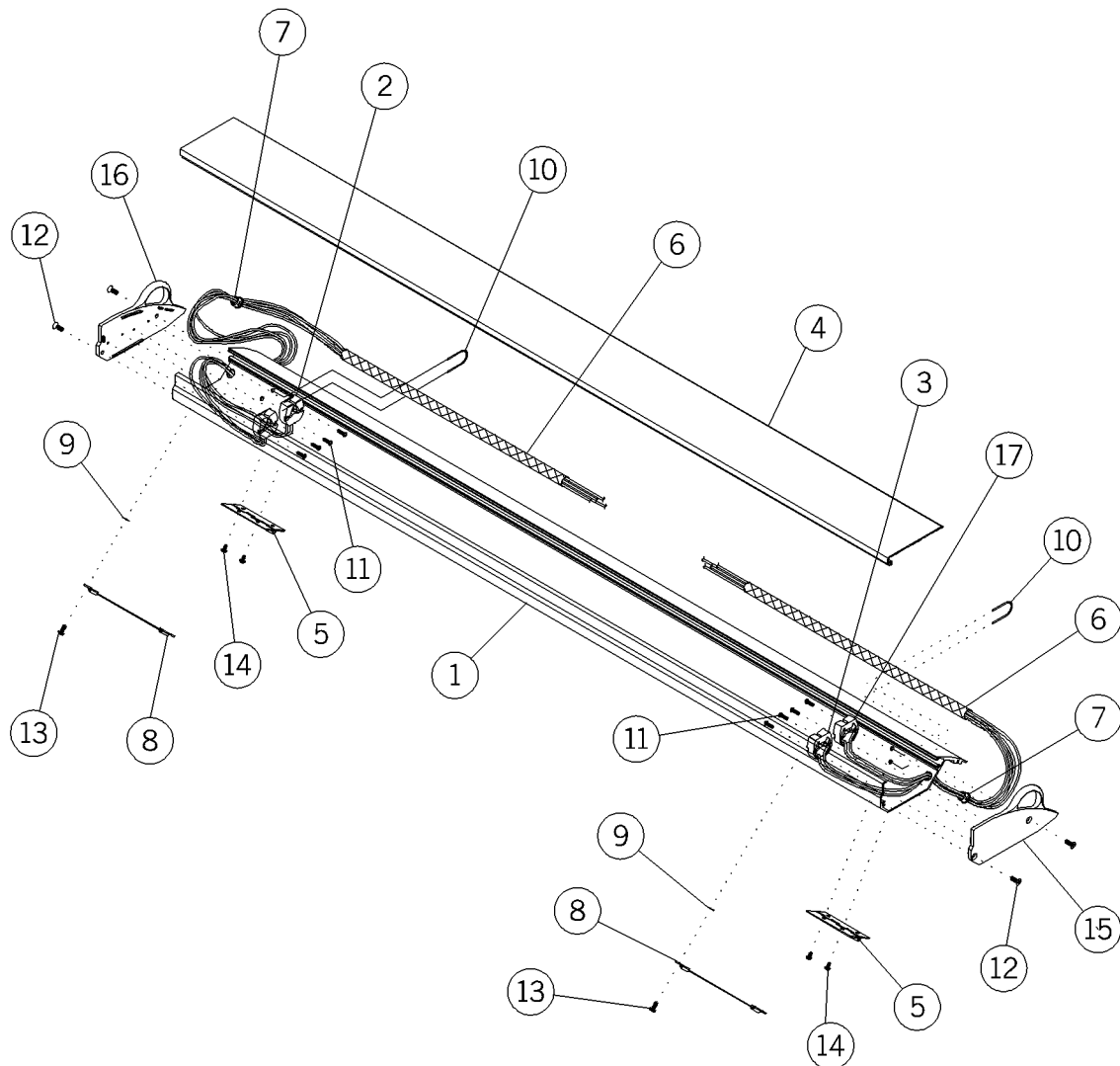
m139_025

**Table 5-19. Integris® 2000 Patient Light—Upper Channel Assembly—
P/N 58461 and 59706**

Item Number	Part Number	Quantity	Description
1	58462 (696)§	1	Upper light channel
2	59688 (696)§	1	Upper light channel
3	58872 (696)	1	Fluorescent holder red wire
4	58692 (696)	1	Lens, 48" smooth
5	59687 (696)	1	Lens 36"
6	55407 (696)	2	Sleeving
7	9610 (696)	2	Snap bushing
8	26450 (696)	3	Cable
9	34084 (696)	6	Lockwasher—external tooth
10	52553 (696)	2	Wire tie
11	5377405 (696)	8	Screw, pan head
12	55315 (696)	4	Screw—flathead
13	57018-04 (696)	4	Screw
14	52945-03 (696)	4	Screw, truss
15	5836701 (696)§	1	Exam light end cap, rh
16	5836702 (696)§	1	Exam light end cap, lh
17	58871 (696)	1	Fluorescent holder blue wire
18	58873 (696)	1	Fluorescent holder yellow wire
19	58463 (696)	2	Hinge

§   Specify paint color.

5

Integris® 2000 Patient Light—Lower Channel Assembly—P/N 59707 and 59369

Figure 5-22. Integris® 2000 Patient Light—Lower Channel Assembly—P/N 59707 and 59369
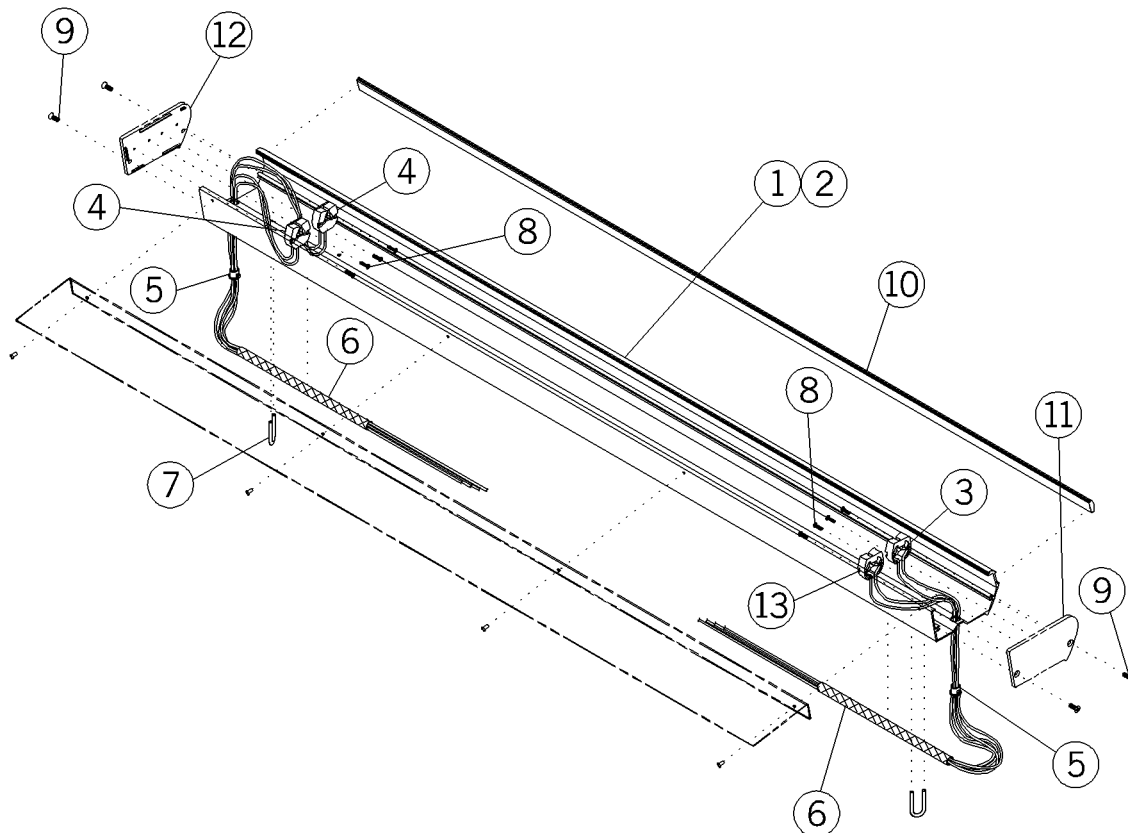
m139_026

Table 5-20. Integris® 2000 Patient Light—Lower Channel Assembly—
P/N 59707 and 59369

Item Number	Part Number	Quantity	Description
1	58450 (696)§ or	1	Lower light channel (with bumper)
	59210 (696)§	1	Lower light channel (without bumper)
2	59690 (696)§	1	Lower light channel
3	58872 (696)	1	Fluorescent holder red wire
4	58873 (696)	1	Fluorescent holder yellow wire
5	9610 (696)	2	Snap bushing
6	55407 (696)	2	Sleeving
7	52553 (696)	2	Wire tie
8	5377405 (696)	8	Screw, pan head
9	55315 (696)	4	Screw—flathead
10	58436 (696)	1	Bumper profile
11	5881901 (696)§	1	Reading light, end cap (rh)
12	5881902 (696)§	1	Reading light, end cap (lh)
13	58871 (696)	1	Fluorescent holder blue wire

§   Specify paint color.

5

Upper and Lower Device Cover Assembly—P/N 58698 and 59370 (M204332-01/02)

Figure 5-23. Upper and Lower Device Cover Assembly—P/N 58698 and 59370 (M204332-01/02)

Ref. Hole location for item 7

Ref. Item 1

Ref. Item 2

View A-A
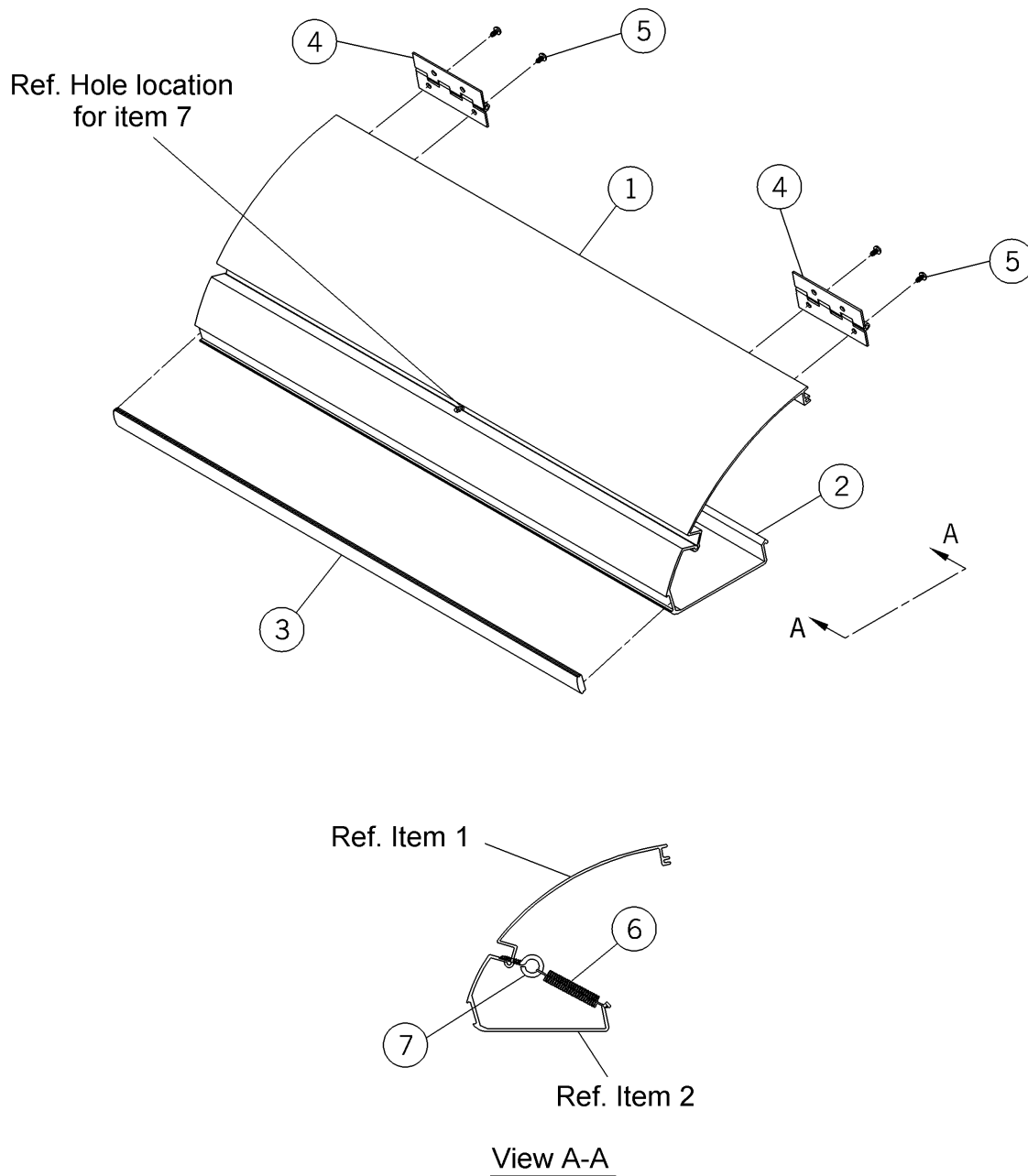
m139_027

Table 5-21. Upper and Lower Device Cover Assembly—P/N 58698 and 59370 (M204332-01/02)

Item Number	Part Number	Quantity	Description
1	SP465 (696) or	1	Upper end filler (with bumper)
	SP503 (696)	1	Upper end filler (without bumper)
2	SP464 (696)	1	Lower end filler
3	SP463 (696)	1	Bumper
4	58463 (696)	2	Hinge
5	52945-03 (696)	4	Screw, truss
6	58783 (696)	1	Extension spring
7	58781 (696)	1	Screw eye

5

Integris® B Lite Rail—Device Cover Option

Figure 5-24. Integris® B Lite Rail—Device Cover Option
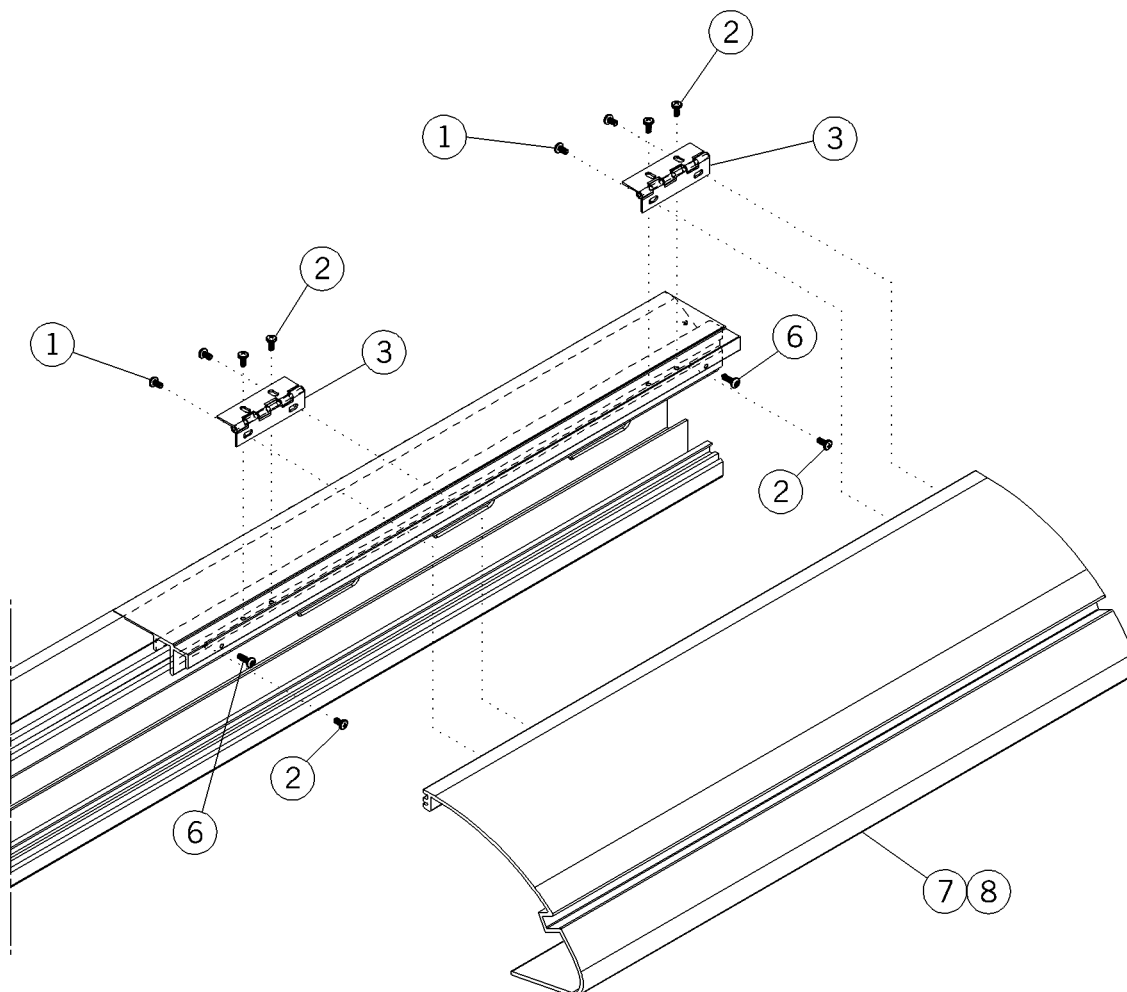
m139b073

Table 5-22. Integris® B Lite Rail—Device Cover Option

Item Number	Part Number	Quantity	Description
1	52555-02 (696)	8	Pan head screw
2	52555-03 (696)	12	Pan head screw
3	58463 (696)	4	Hinge
4	SP572-01 (696)	2	Device cover support
5	SP572-02 (696)	2	Device cover support
6	52555-04 (696)	4	Pan head screw
7	SP568-01 (696)	2	Device cover
8	SP568-02 (696)	2	Device cover

5

Integris® B Lite Rail—Device Cover Support Bracket

Figure 5-25. Integris® B Lite Rail—Device Cover Support Bracket

m139b080

Table 5-23. Integris® B Lite Rail—Device Cover Support Bracket

Item Number	Part Number	Quantity	Description
1	203836 (696)	1	Bumper
2	52243-10 (696)	1	Screw with external washer
3	15250 (696)	2	Locknut
4	204263 (696)	1	Device cover support bracket
5	52243-01 (696)	2	Screw with external washer
6	SP568 (696)	1	Device cover

5

Duplex Outlet Receptacle

Figure 5-26. Duplex Outlet Receptacle
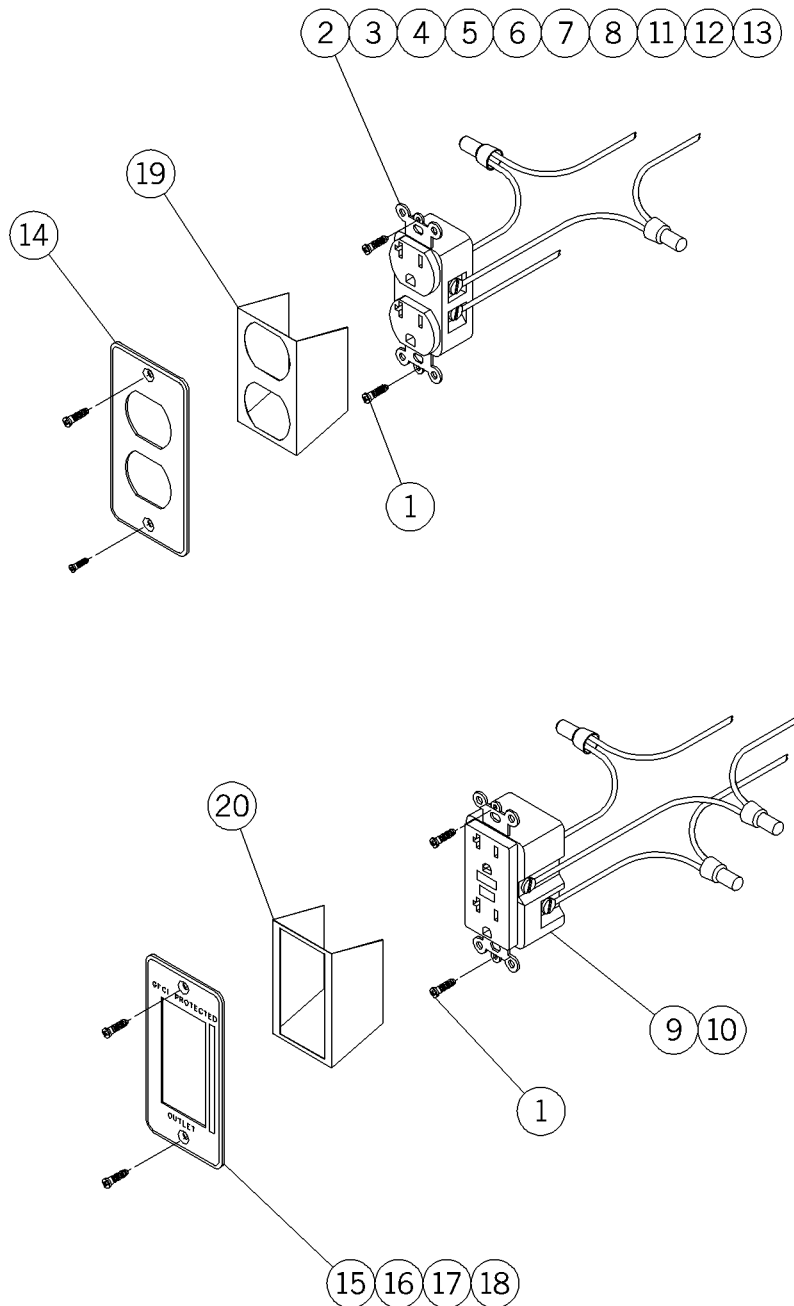
m139_028

Table 5-24. Duplex Outlet Receptacle

Item Number	Part Number	Quantity	Description
1	16115 (696)	2	Screw
2	28439 (696)	1	Outlet, duplex 20A (ivory)
3	51129 (696)	1	Outlet—duplex—15A—ivory
4	28436 (696)	1	Outlet, duplex 20A (red)
5	51130 (696)	1	Outlet—duplex—15A—red
6	33798 (696)	1	Outlet—pediatric, 15A (ivory)
7	33799 (696)	1	Outlet—pediatric, 15A (red)
8	52412 (696)	1	Outlet—duplex, 15A—isolated power
9	51036 (696)	1	Outlet—GFR—20A (ivory)
10	54743 (696)	1	Outlet GFCI duplex, 20A red
11	55147 (696)	1	Light neutral duplex 20A
12	52414 (696)	1	Outlet duplex, 20A ivory lighted
13	52413 (696)	1	Outlet duplex, 15A ivory lighted
14	52227 (696)	1	Duplex faceplate—almond
15	55207 (696)	1	Label—GFCI warning
16	55166 (696)	1	Faceplate, engraved GFCI
17	55167 (696)	1	Faceplate, engraved GFCI
18	55168 (696)	1	Faceplate, engraved GFCI
19	56598 (696)	1	Insulator, duplex (optional)
20	56878 (696)	1	Insulator, decorative style (optional)

5

Ground Receptacles

Figure 5-27. Ground Receptacles
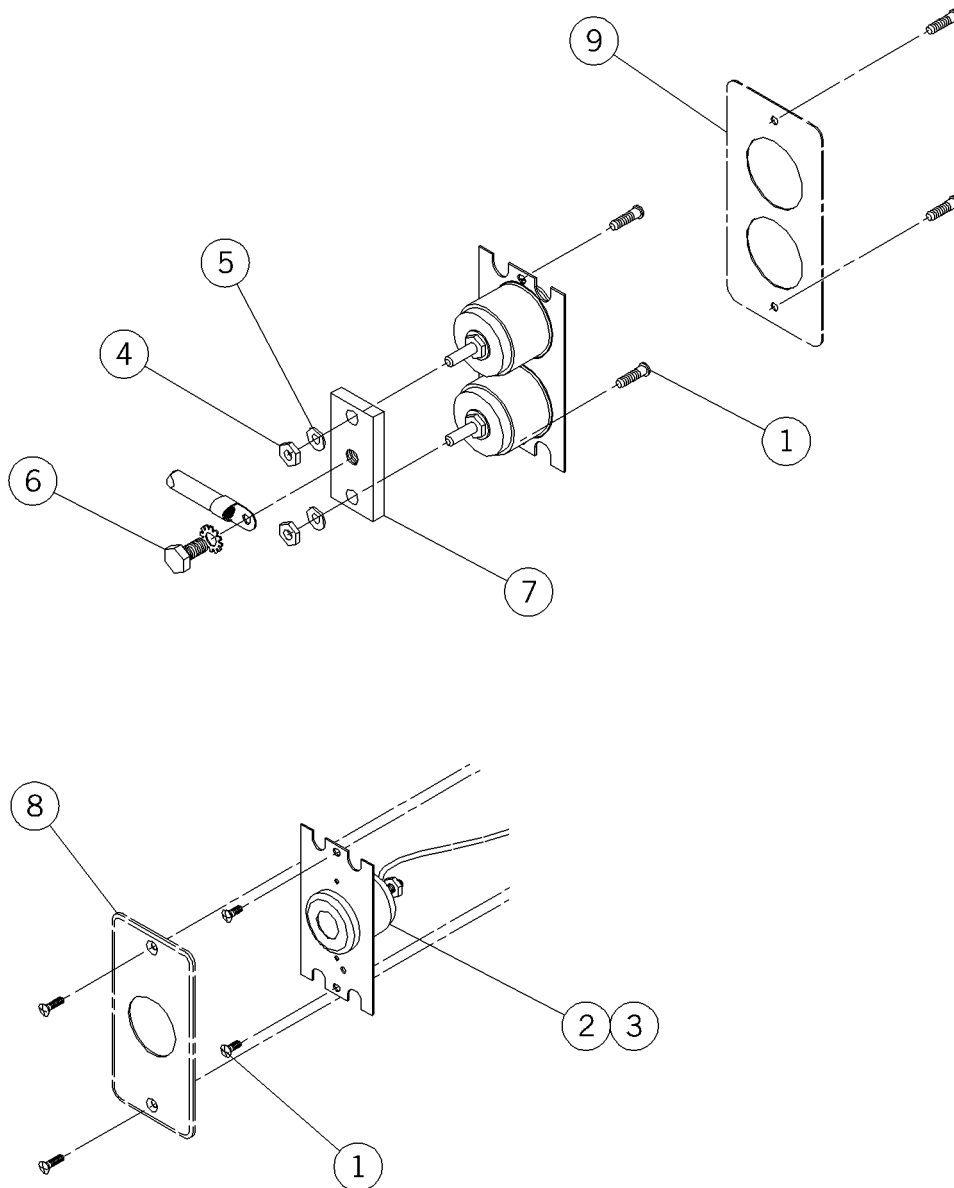
m139_030

Table 5-25. Ground Receptacles

Item Number	Part Number	Quantity	Description
1	16115 (696)	As required	Screw
2	17111 (696)	1	Ground receptacle
3	56694 (696)	1	Ground receptacle, non-locking
4	56827 (696)	1	Spacer, ground receptacle
5	56825 (696)	1	Lockwasher
6	50798 (696)	1	Screw
7	56906 (696)	1	Tie bar dual ground (1) gang
8	52230 (696)	1	Faceplate—ground, receptacle—almond
9	56903 (696)	1	Faceplate dual ground

5

Pull Chain Switch and Finish Plate

Figure 5-28. Pull Chain Switch and Finish Plate
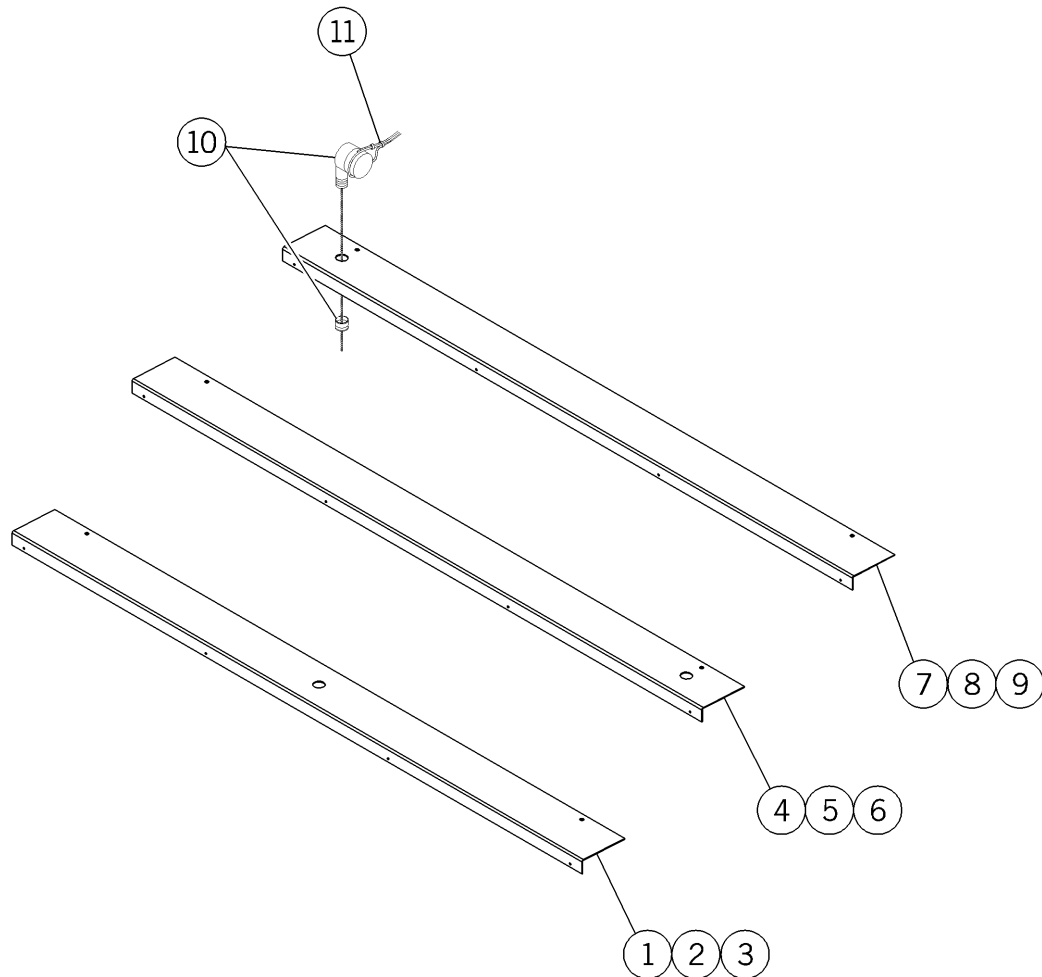
m139_029

Table 5-26. Pull Chain Switch and Finish Plate

Item Number	Part Number	Quantity	Description
1	5868401 (696)§	1	Finish plate, center, pull chain
2	5971901 (696)§	1	Finish plate, center pull chain
3	5958901 (696)§	1	Finish plate, center pull chain
4	5868402 (696)§	1	Finish plate, rh, pull chain
5	5971902 (696)§	1	Finish plate, rh, pull chain
6	5958902 (696)§	1	Finish plate, rh, pull chain
7	5868403 (696)§	1	Finish plate, lh, pull chain
8	5971903 (696)§	1	Finish plate, lh, pull chain
9	5958903 (696)§	1	Finish plate, lh, pull chain
10	50549 (696)	1	Switch assembly
11	52553 (696)	1	Wire tie

§   Specify paint color.

5

IV/Ambu Hanger Assembly (P170010-01)

Figure 5-29. IV/Ambu Hanger Assembly (P170010-01)
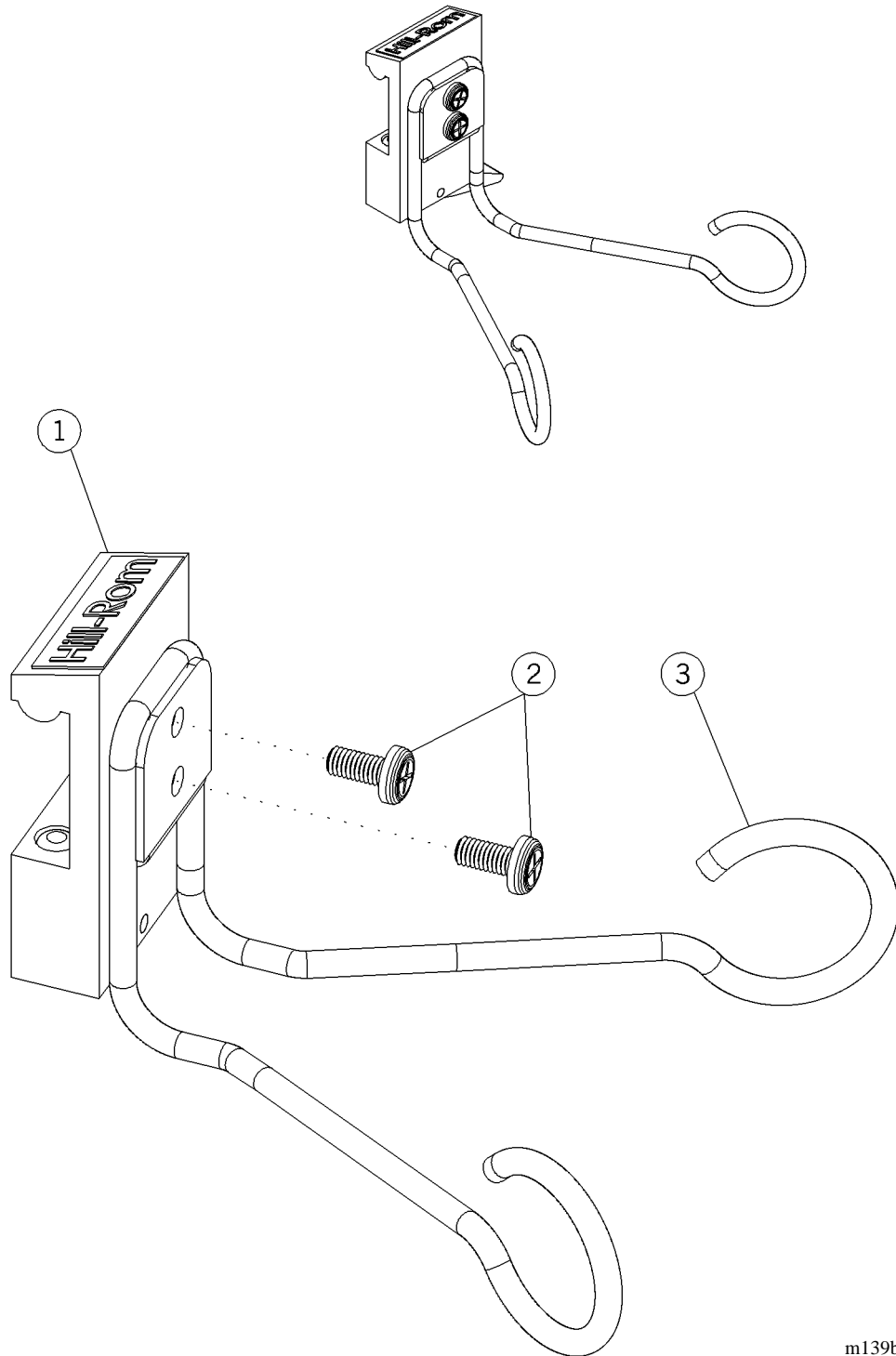
m139b066

Table 5-27. IV/Ambu Hanger Assembly (P170010-01)

Item Number	Part Number	Quantity	Description
1	5110-3002-000 (696)	1	Adapter
2	5890-0064-00 (696)	2	Screw
3	5310-2100-013 (696)	1	Weldment, IV hanger

5

Utility Shelf Assembly—Small (P170205-01)

Figure 5-30. Utility Shelf Assembly—Small (P170205-01)
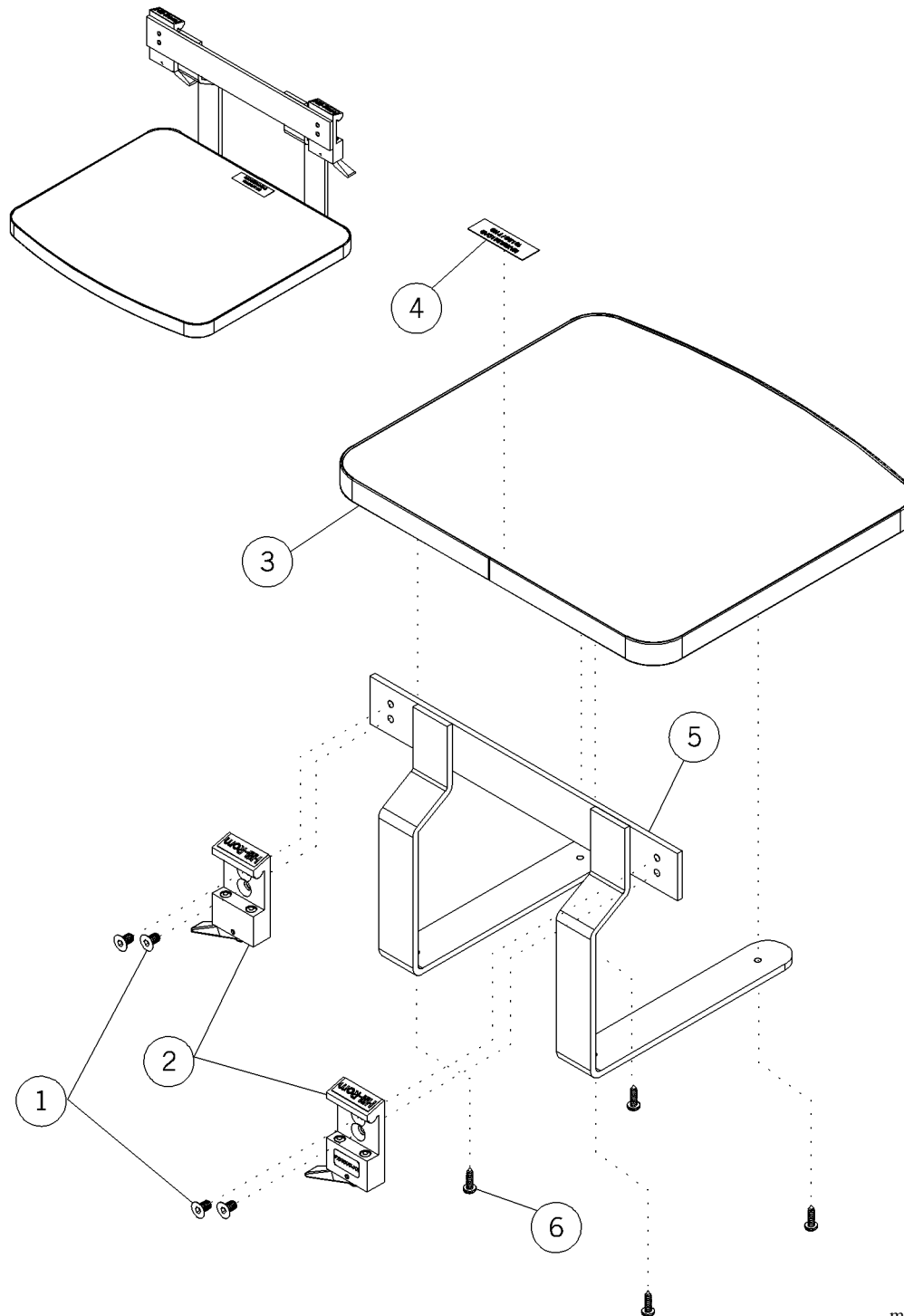
m139b067

Table 5-28. Utility Shelf Assembly—Small (P170205-01)

Item Number	Part Number	Quantity	Description
1	5890-1007-000 (696)	4	Screw
2	5110-3001-000 (696)	2	Adapter
3	5310-2100-019 (696)	2	Assembly, small utility shelf, top
4	5310-0100-003 (696)	1	Label
5	5310-2100-017 (696)	1	Weldment, utility shelf
6	5890-3007-000 (696)	4	Screw

5

Exam Plus Light Assembly (P170301-01)

Figure 5-31. Exam Plus Light Assembly (P170301-01)
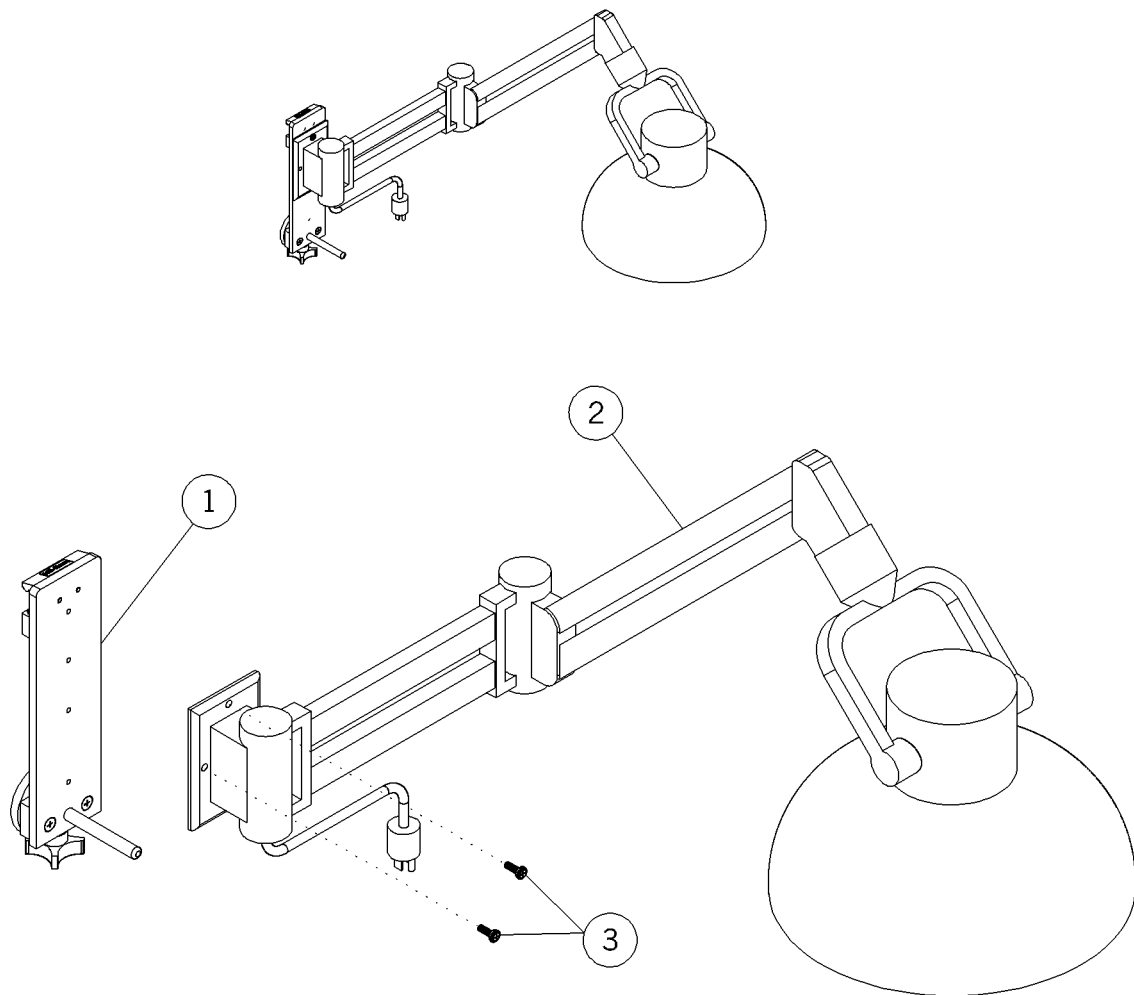
m139b068

Table 5-29. Exam Plus Light Assembly (P170301-01)

Item Number	Part Number	Quantity	Description
1	5333-0012-000 (696)	1	Holder, light
2	5310-2000-120 (696)	1	Light, exam plus, white
3	5890-1074-000 (696)	2	Screw

5

Exam Plus Mount (P170302-01)

Figure 5-32. Exam Plus Mount (P170302-01)
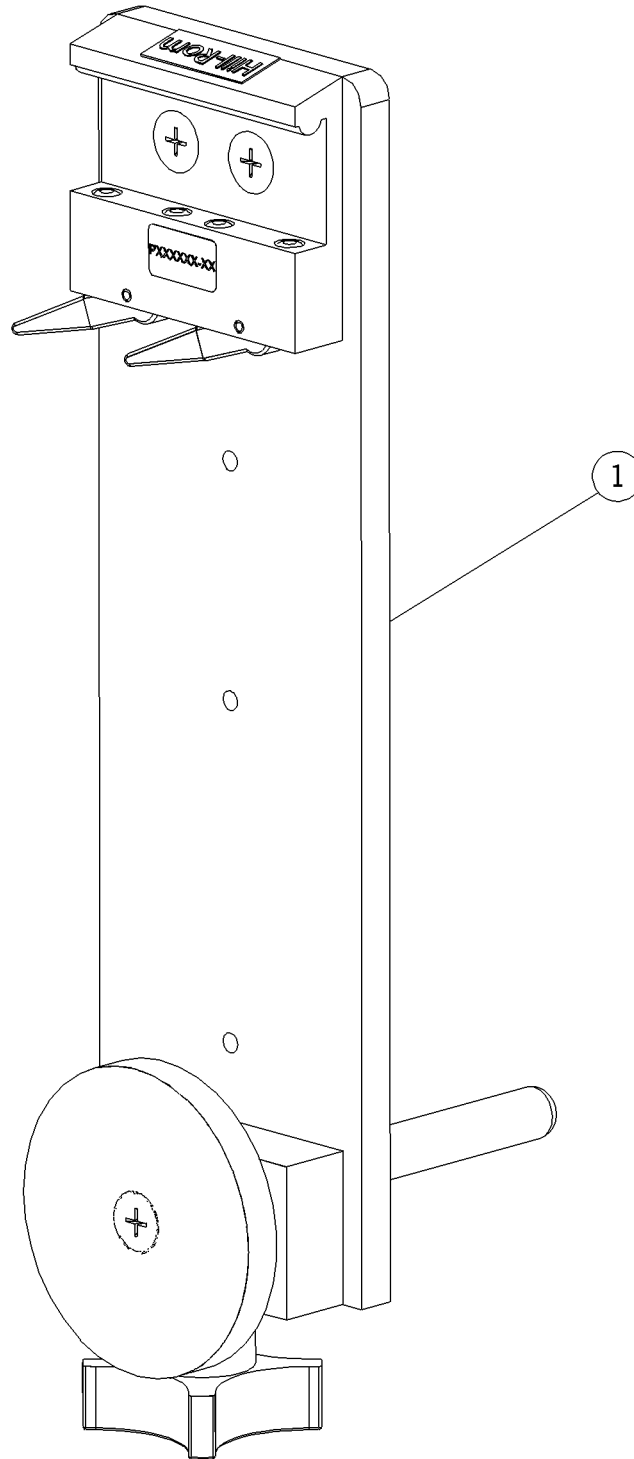
m139b068

Table 5-30. Exam Plus Mount (P170302-01)

Item Number	Part Number	Quantity	Description
1	5333-0012-000 (696)	1	Exam plus mount

5

Dual Clip Assembly (P170710-01)

Figure 5-33. Dual Clip Assembly (P170710-01)

m139b071
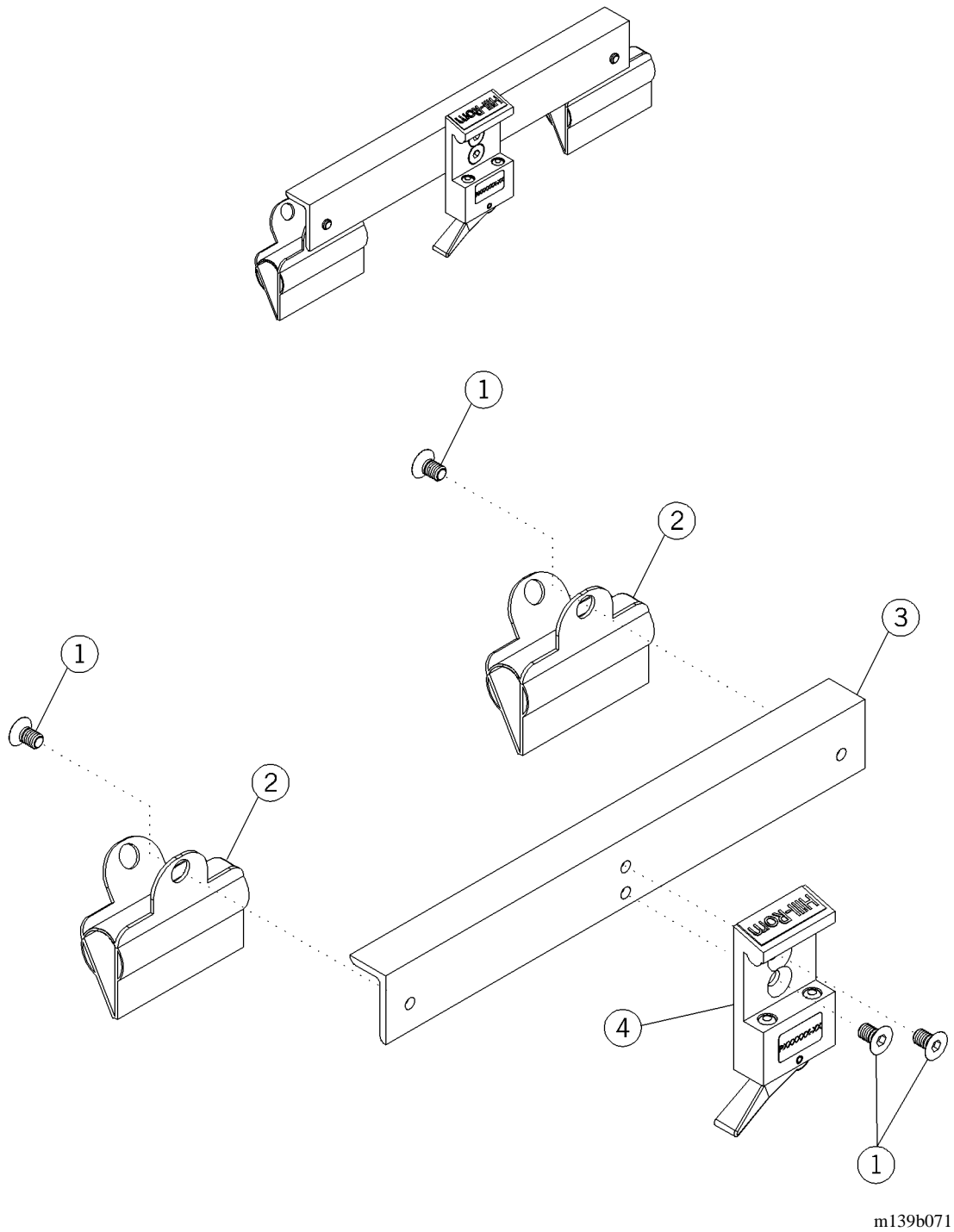
Table 5-31. Dual Clip Assembly (P170710-01)

Item Number	Part Number	Quantity	Description
1	5890-1007-000 (696)	4	Screw
2	5310-2000-057 (696)	2	Bulldog clip
3	5310-2000-002 (696)	1	Bracket, clip assembly
4	5110-3001-000 (696)	1	Adapter

5

Cord Wrap—Horizontal (P170730-01)

Figure 5-34. Cord Wrap—Horizontal (P170730-01)
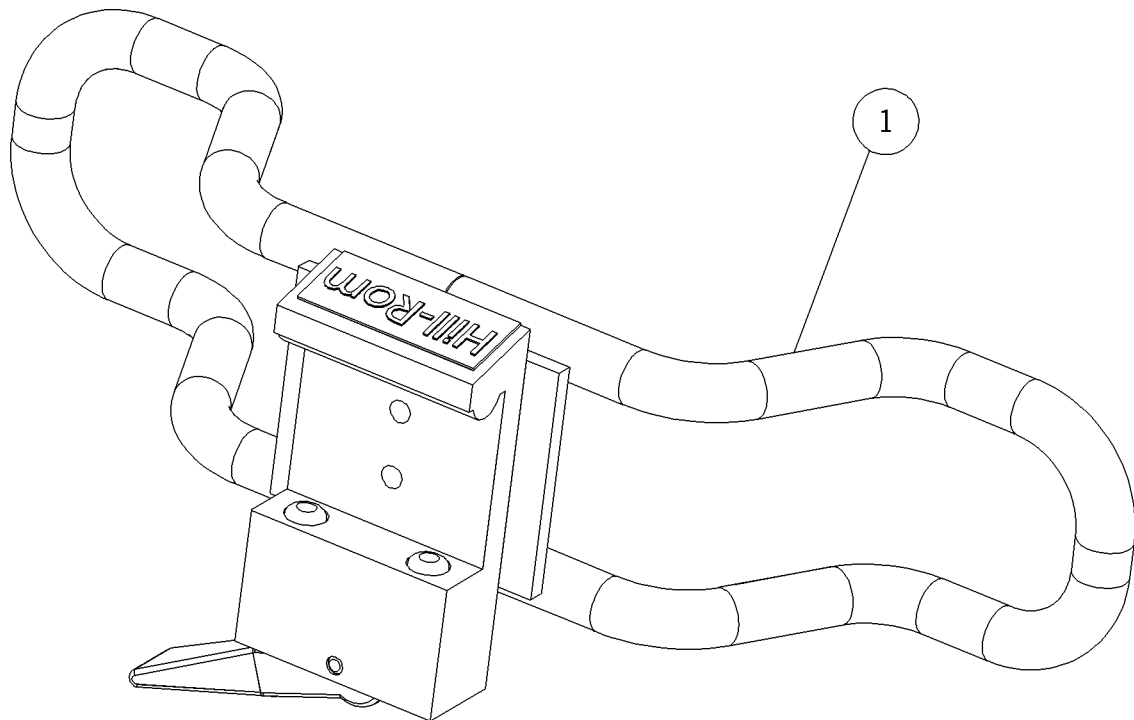
m139b070

Table 5-32. Cord Wrap—Horizontal (P170730-01)

Item Number	Part Number	Quantity	Description
1	5331-1068-000 (696)	1	Cord wrap—horizontal

5

Stat Clock Assembly (P170440-01)

Figure 5-35. Stat Clock Assembly (P170440-01)
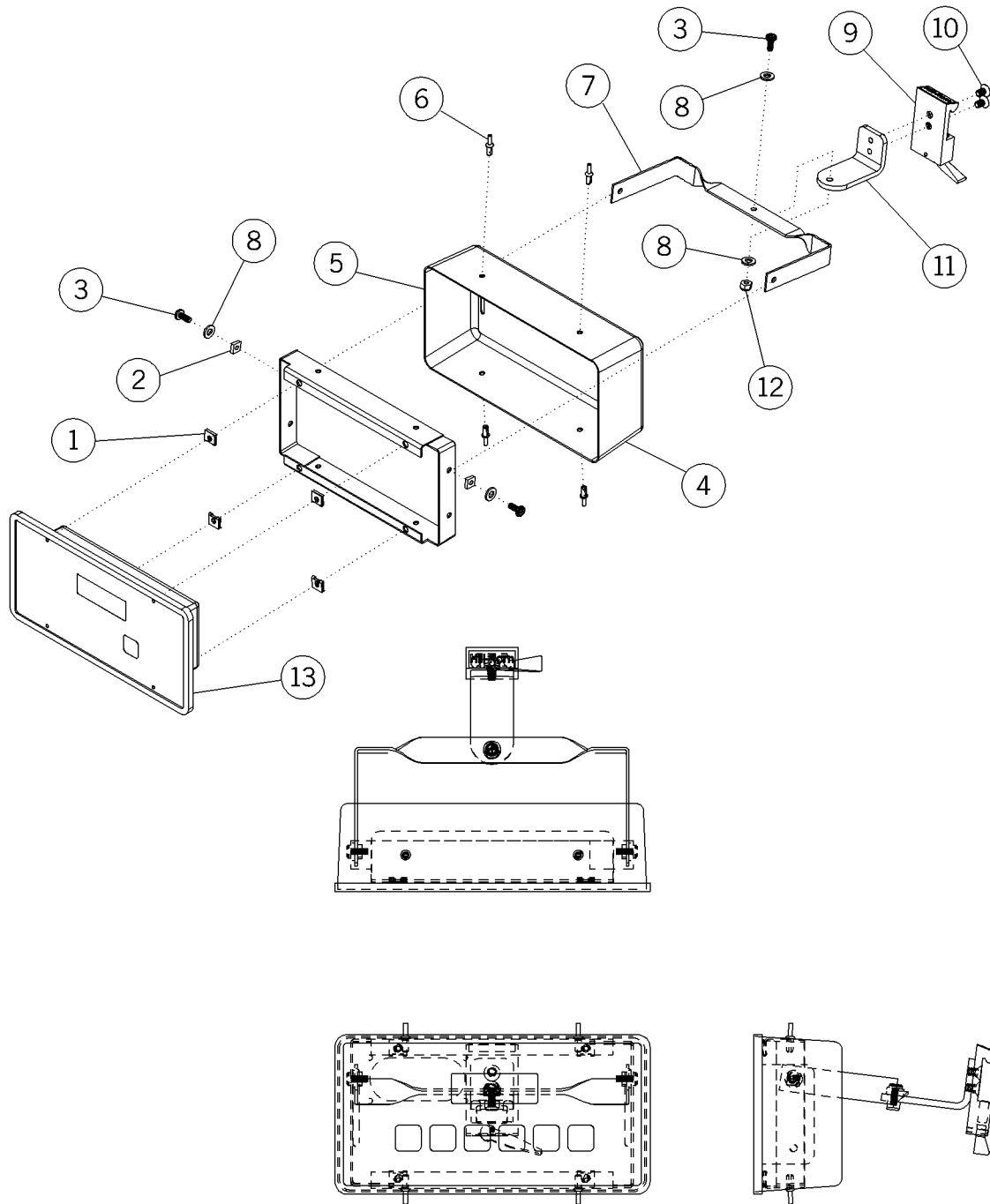
m139b072

Table 5-33. Stat Clock Assembly (P170440-01)

Item Number	Part Number	Quantity	Description
1	5891-0022-000 (696)	4	Nylon nut
2	5891-0023-000 (696)	2	Square nut
3	5890-0068-000 (696)	3	Pan head screw
4	5310-2000-084 (696)	1	Stat clock, clock pod cover
5	5310-2100-046 (696)	1	Weldment, stat clock pivot frame
6	5980-3007-000 (696)	4	Rivet
7	5310-2000-081 (696)	1	Stat clock, bail
8	5891-0104-000 (696)	4	Washer
9	5110-3001-000 (696)	1	Adapter
10	5890-1007-000 (696)	2	Screw
11	5310-2000-083 (696)	1	Stat clock, mounting arm
12	5891-0001-000 (696)	1	Nut
13	5310-2000-080 (696)	1	Stat clock, clock pod

5

NOTES:

Chapter 6
General Procedures

Chapter Contents

6

NOTES:

Cleaning and Care

⚠️ **WARNING:**
When following these procedures adhere to the *Infection Control Policies and Procedures* from Hill-Rom. Failure to do so could result in the spread of infection.

🖐️ **SHOCK HAZARD:**
To minimize the risk of electrical shock or damage to equipment, disconnect all electrical power to the system before working on it. Failure to do so could result in personal injury or equipment damage.

1. Locate the involved building standard/emergency circuit breaker panel (see figure 4-1 on page 4-3).

2. Set the involved circuit breaker (A) to OFF.

3. Lock out and tag out the breaker.

General Cleaning

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

Use neutral soap suds and lukewarm water to remove soil or stains. Then rinse with clean water, and dry.

⚠️ **CAUTION:**
Do not use harsh cleaners, solvents, or detergents. Equipment damage could occur.

Steam Cleaning

Do not use any steam cleaning device on the Integris® Patient Light. The excessive moisture can damage electrical components in the Integris® Patient Light.

Disinfecting

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

6

Preventive Maintenance

![warning triangle] **WARNING:**
Only facility-authorized personnel should perform preventive maintenance on the Integris® Patient Light. Preventive maintenance performed by unauthorized personnel could result in personal injury or equipment damage.

The Integris® Patient 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 help ensure a long, operative life for the Integris® Patient Light. PM will minimize downtime due to excessive wear.

The following PM schedule guides you through a normal PM procedure on the Integris® Patient 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 Integris® Patient Light. However, your facility can modify this checklist or design another to fit your needs. Two effective ways to reduce downtime and ensure the patient remains comfortable are keeping close records and maintaining the Integris® Patient Light.

Pay particular attention to the safety features regarding the Integris® Patient Light:

- Mounting configuration
- Electrical receptacles
- Interlock circuits

Preventive Maintenance Schedule

Table 6-1. Preventive Maintenance Schedule

Function	Procedure
Power cables	Inspect all cables for good condition and possible cracking, cuts, or pinches in insulating coverings.
Electrical receptacles	Check all receptacles for proper ground conductor extractive force. The extraction force should be four ounces with a 0.184" (4.67 mm) diameter pin.
Electrical connections	Check all electrical connections for tightness, and tighten as needed.
Interlock circuits and switches	Check the functionality of the interlock switches by pressing up on the lower lens panel of the read light. The bed receptacle power should shut off. Releasing the pressure on the lens should cause the power to the bed receptacle to come back on.
Wall support	Make sure the wall mounts are tight.

6

Preventive Maintenance Checklist

Table 6-2. Preventive Maintenance Checklist

Date																												Function
Hill-Rom	Manufacturer																											
																												Power cables
																												Electrical receptacles
																												Electrical connections
																												Interlock circuits and switches
																												Wall support
	Model Number																											
	Serial Number																											
	Total Cost for this Page																											**Labor Time:**
																												Repair Cost:
																												Inspected by:

Legend
L=Lube
C=Clean
A=Adjust
R=Repair or Replace
O=Okay
N=Not Applicable
Remarks:

6.1 Routine Maintenance

⚠️ **WARNING:**
Adhere to the *Infection Control Policies and Procedures* from Hill-Rom.
Failure to do so could result in the spread of infection.

At the caregiver's request, perform the Routine Maintenance (RM) procedure.

1. Obtain the *Service Request Form*.

2. To advise of your expected arrival time, contact the customer. Ask that the customer arrange to remove the patient from the unit during the service time (approximately 15 minutes).

3. Follow the steps on the form, filling it out as you perform the rm.

    a. Wear the appropriate Personal Protective Equipment (PPE) as explained in the Hill-Rom *Infection Control Policies and Procedures*.

    b. Wipe down the unit with the Hill-Rom-approved disinfectant, or one approved by the facility.

4. After you complete all the steps, follow the service location policy to record completion of the RM procedure including:

    a. Complete and sign the form.

    b. Call the completion of the RM into the Customer Care Center.

5. File the *Service Request Form* in the Equipment Master File.

6

Tool and Supply Requirements

To service the Integris® Patient Light, the following tools and supplies are required:

- Screwdriver

- Phillips head screwdriver

- Pliers

- Sidecutters (insulated handles)

- Adjustable wrench

- Clamp-on ammeter

- Digital multimeter

- Teflon®[1] tape

Installation and Post-Installation Inspection

- Hill-Rom will supply the hanger bracket consisting of a steel wall plate. Purchase additional structural support bracketing and hardware if required.

- Complete installation instructions are supplied with every Integris® Patient Light. These instructions reflect the variations in each system as ordered.

- In seismic code areas, contact Hill-Rom for additional information concerning installation. (Refer to OSHPAD file number R-0393.)

- The electrical contractor shall furnish and install conduit to the hanger bracket knockout plate with wiring. The contractor will make the connection of building services to the pre-wired junction box as shown in the electrical drawings in the installation instructions.

- After installation, the electrical contractor shall be responsible for checking the entire system for proper operation.

- Upon request, a Hill-Rom representative may periodically check with the contractor during initial installation and assist the contractor in final check to make certain the installation is in operating condition. (The final certification shall be the responsibility of the electrical and mechanical contractors for their portions of the installation.)

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1. Teflon® is a registered trademark of E. I. du Pont de Nemours and Company.

Chapter 7
Accessories

Chapter Contents

7

NOTES:

Accessories

See table 7-1 on page 7-3 for Integris® B Lite Rail accessories.

Table 7-1. Accessories List

Product Number	Description
P170010-01	IV/ambu hanger assembly
P170205-01	Utility shelf assembly—small, 12" (30 cm) width x 10" (25 cm) depth
P170301-01	Exam plus light assembly, extends 44" (112 cm) (includes mount)
P170302-01	Exam plus mount
P170440-01	Stat clock assembly
P170710-01	Dual clip assembly
P170730-01	Cord wrap, vertical

7

7.1   Standard Accessory Mounting Adapter Assembly

Introduction

The standard accessory mounting adapter assembly is used on the accessories available for the Integris® B Lite Rail. This installation procedure describes how to install the new accessories onto the headwall system.

Installation

1. Decide on the best position to install the accessory that you will be mounting onto the lite rail.

2. Ensure that the white latch (A) on the accessory mounting adapter assembly (B) is in the open position (see figure 7-1 on page 7-4).

NOTE:
The accessory mounting adapter assembly is in the open position when the two white lock tabs are recessed into the mounting block, or the blue latch is positioned to the right.

Figure 7-1. Standard Accessory Mounting Adapter Assembly Installation
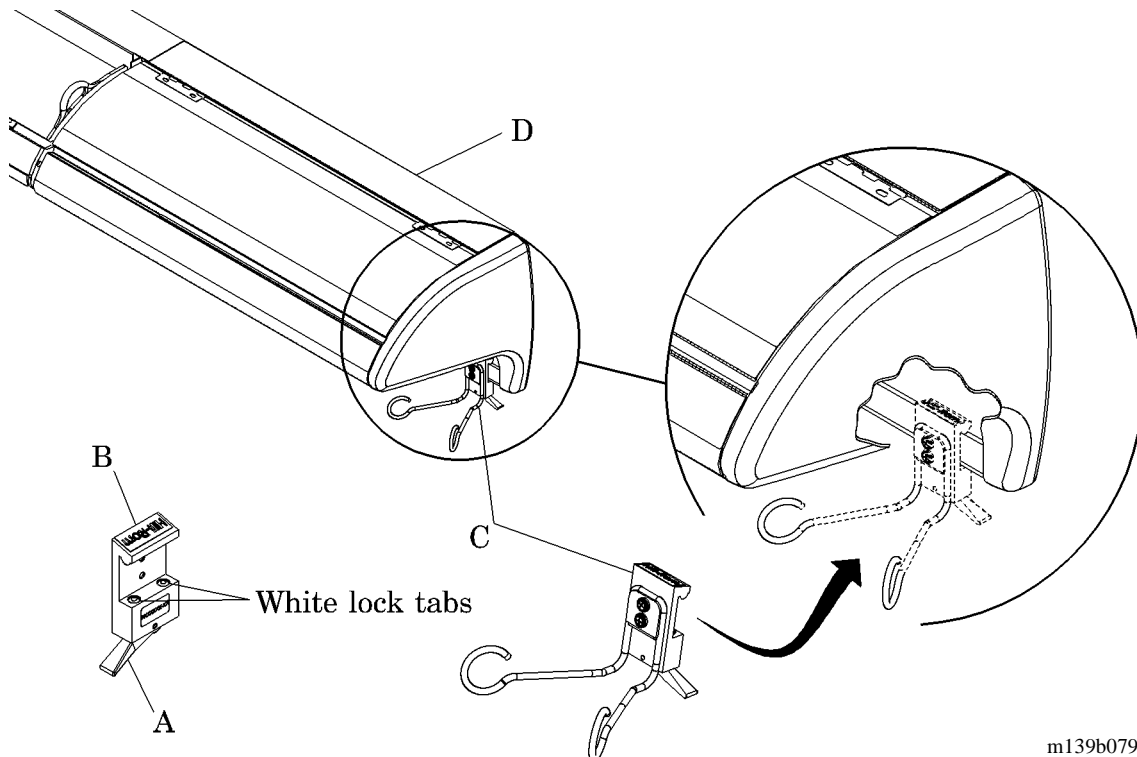
3. Tilt the accessory (C) that you are installing 10° toward the Integris® B Lite accessory rail (D).

4. Install the accessory (C) onto the accessory rail (D).

5. Tilt the accessory (C) downward, and ensure the mounting adapter assembly (B) is seated properly onto the accessory rail (D).

6. Switch the white latch (A) from the right position to the left position and lock the mounting adapter assembly (B) in place on the accessory rail (D).

⚠ **WARNING:**
Ensure the accessory is installed properly onto the Integris® B Lite Rail. Failure to do so could result in personal injury or equipment damage.

7. Give the accessory (C) a small tug outward to ensure that the mounting adapter assembly (B) is properly installed onto the accessory rail (D).

Removal

To remove the mounting adapter assembly (B) from the lite accessory rail, reverse the installation procedure.

7

NOTES: