



AIM HI LED

Floor Stand, Wall & Ceiling Versions

Instructions for Use & Maintenance

Introduction

Congratulations on your purchase of the **AIM HI LED** medical light!

The **AIM HI LED** is designed to give the professional health care market superior performance, reliability and value. The lights contain advanced optical and mechanical solutions intended to offer you an optimal working environment for efficient and comfortable procedures. Built in features of the AIM's include intensity control, color correction, shadow reduction, light distribution, spot appearance, maneuverability and focus. The AIM's solid and durable construction ensures trouble-free professional lighting and is supported by a five (5) year service life and warranty.

Intended Use:

The **AIM HI LED** exam light is an easy to use medical lighting fixture that can be utilized in a variety of spaces, including hospitals, doctor offices, and other healthcare environments requiring examination lighting. This fixture shall not be used in healthcare environments that are adjacent to residential dwellings. This fixture is also excluded for use in areas near active HF SURGICAL EQUIPMENT and the RF shielded room of an ME SYSTEM for magnetic resonance imaging, where the intensity of EM DISTURBANCES is high. This product is not intended for use in operating and emergency rooms.

Effective working distance between patient and light head is from 24-39" (0.6 -1.0 m). A removable and autoclavable handle (which also serves as bulb-focus control) accepts pre-sterilized covers.

This manual contains guidance on how to use & maintain the **AIM HI LED** light(s).

Burton Medical is a leading manufacturer of medical lighting. The product lines encompass lights for procedure and examinations. You are welcome to find out more on our web site at www.burtonmedical.com.

| Part Number Configuration | | | | |
|---------------------------|---|--|---|---------------------------|
| BASE MODEL 100-240VAC | ILLUMINANCE | MOUNT | OPTION ¹ | COUNTRY CODE ² |
| ALED | 070 (70k LUX) 100 (100K LUX) | FL (floor) | 00: NEMA 5-15P 01: CEE 7/7 02: AS/NZS 3112 03: BS 1363 | 25 ² |
| | | W (wall) SC (single ceiling) DC (double ceiling) | Not Applicable | |



1. Applies to ALEDXXXFL models only. All Power Cords terminate with C60320C13 Plug at the opposite end of the cord.
2. Applies to Spain Only. Add the appropriate country code to the end of the model number. Use "25" for Spain. Models ordered for Spain have Spanish Language Manuals.

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1.0 Safety Instructions

Please keep these operating instructions in a secured place near the device. This ensures easy access to safety instructions and important information should the need arise. Please note that certain duties must be carried out by people with the appropriate corresponding qualifications:

- These operating instructions become applicable only after proper installation and assembly in accordance with the assembly instructions provided.
- Only persons with proper training are permitted to operate the equipment.
- Only trained personnel are permitted to clean the equipment.
- Please read these operating instructions carefully before using the floor stand. It will help protect you and others from potential injuries that may occur.
- If problems are encountered that have not been addressed in these operating instructions, please contact your supplier in the interest of your own safety.
- These operating instructions only apply to the product listed here and should not be used for any other products.
- The maintenance work and troubleshooting, as described in Section 3 and 4, should only be done by trained service technicians.
- The maintenance work, as described in Section 3, should only be carried out by a hospital technician or someone with similar qualifications.
- This equipment has been built accordingly and is operationally safe. Nonetheless, it may still present some danger, especially if not used according to the operating instructions as specified in Section 2.
- Modifications are never to be made for any reason. This is to ensure safety for all persons involved. If modifications are made to the system the warranty is then void.
- The contents of the operating instructions are subjected to changes without further notice.
- There are no known exposed hazardous materials use on this product that may constitute a safety hazard to the user or patient.

1.1 Symbols

In these operating instructions and on the device, important points have been marked with symbols. The symbols have the following meanings:



General Warning



Caution Symbol



General mandatory action



Refer to instructions manual



Single use item, do not reuse product.

1.1 Symbols contd.



Operating instructions



Ground connection, bonding



Protective ground connection



Hot surface



Alternating current



European conformance mark



On / Off (power connection/disconnection to the mains)



Standby Power



Dangerous voltage



Indicates separate collection for electrical and electronic equipment.



Warning, electricity

1.2 Safety Warnings and Precautions



WARNING: Retainer clip must be installed properly to avoid safety hazard.



WARNING: To avoid the risk of electric shock, this equipment must be connected to a supply mains with a protective earth ground.



WARNING: Do not modify this equipment without authorization from the manufacturer.



WARNING: Do not look directly into the light.



WARNING: Do not use the fixture if, for any reason, it does not appear to work properly. Instead, alert your Maintenance Department, or Burton Medical, of observed deficiencies and have them corrected before continuing to use the light.

1.2 Safety Warnings and Precautions Contd.



WARNING: The do not position the floor model base such that the power cord disconnect is blocked from access.



WARNING: ELECTRIC SHOCK Ceiling and Wall models require connection to provided quick disconnect connectors. The quick disconnect allows for both line and neutral to be broken at the same time for maintenance to provide isolation of equipment from unexpected power on the lines. Wires shall be at minimum 18AWG solid or recommended by manufacturer (Solid 12-18AWG, stranded 12-14AWG (19 conductors or less), or stranded and tinned (14AWG (19 strand or less), 16AWG (26 strand or less), or 18 AWG (16 strand or less)).



WARNING: The spring arm is under very high spring tension. ALWAYS position the spring arm in the most upright position when installing or removing the end device. If the spring arm is not in the most upright position the arm will spring upwards and may cause serious injury!



WARNING: To prevent compatibility issues, use only original Burton approved parts for replacement.



WARNING: To avoid damage to the equipment due to falling, do not try and force the spring arm past the maximum swivel points stops. Avoid collisions with other equipment.



WARNING: Fixtures should be connected to line circuit less than 30A.

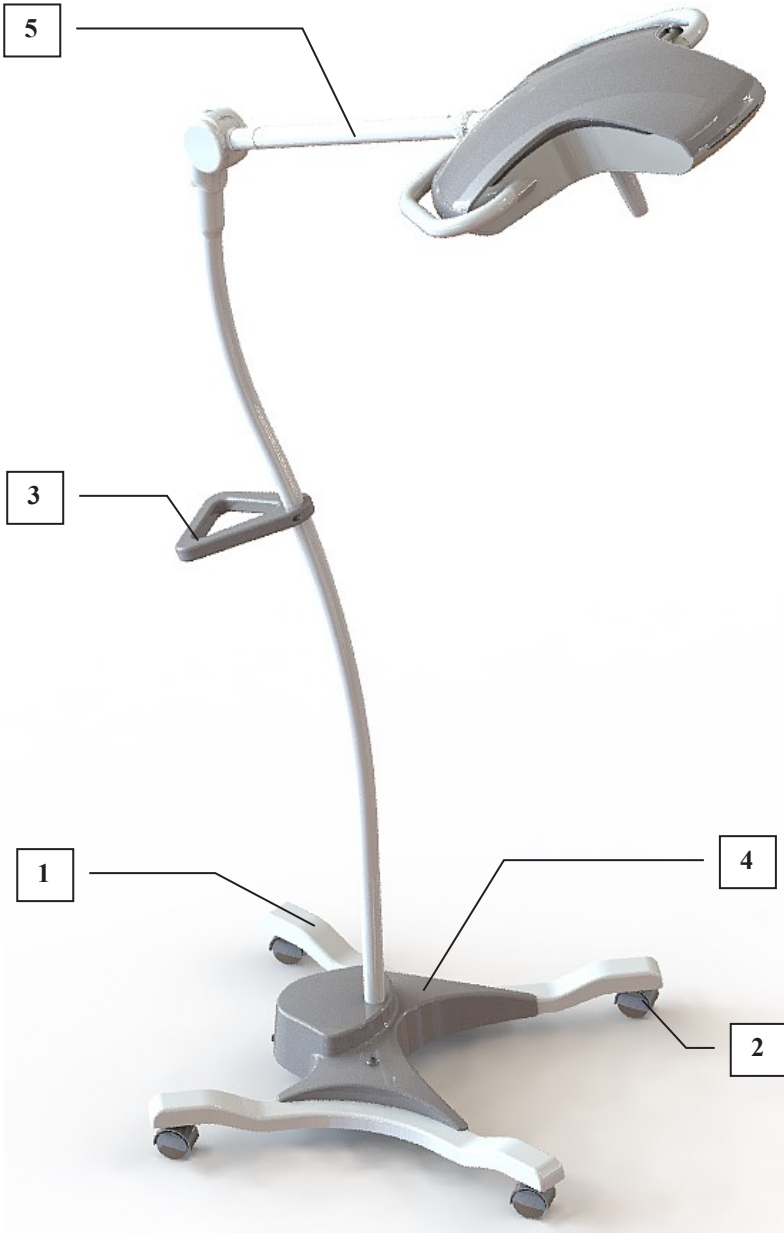
1.3 Proper System Location and Setup Requirements:

- This product is not intended for use in surgical operating and emergency rooms.
- This product is not suitable for operation in areas with explosion hazards.
- For ceiling and wall models, a standard wall switch or other switch is required to disconnect power from the product when not in use. The wall switch shall be provided by the installer and wired per local codes. The switch should be placed on a wall in close proximity to the product such that when maintenance occurs, the switch status is visible.
- Quick disconnect connectors are provided for ease of assembly. Follow instructions from manufacturer on how to correctly connect wires. For reference see Ideal 102 series quick disconnect connectors.

2.0 Operating the Spring Arm System

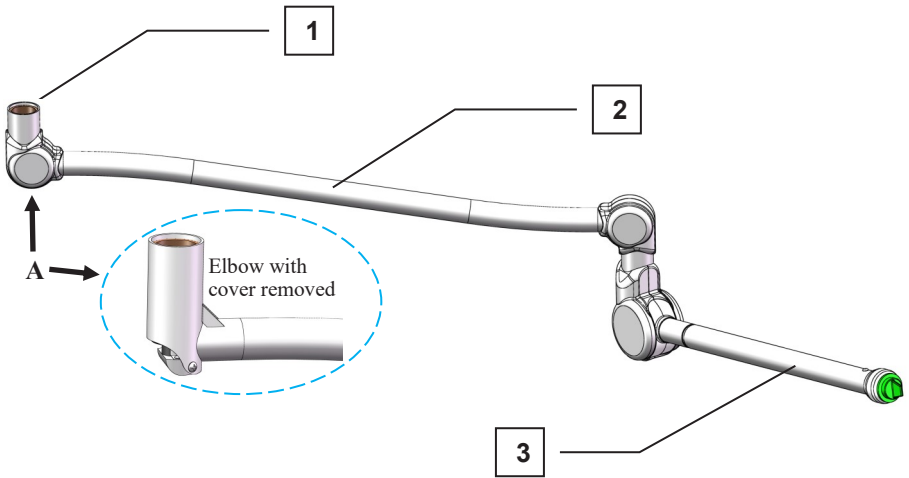
2.1 Floor Stand Components:

The base (1) rests on the floor and can be moved around via 4 rolling wheels equipped with a locking mechanism. The handle (3) attached to the vertical post for easy movement of the system. The base cover (4) covers the electrical components of the base. The base cover is only to be removed by trained personnel. The spring arm (5) can be rotated 55° horizontally and can be moved vertically up 45° or down 45°.



2.2 Wall/Ceiling Mounted Arms

1. **Wall/Ceiling Mount:** Provides a secure mounting location for the device and allows the unit to swivel freely within the mount. (See Technical Data).
2. **Extension Arm:** The extension arm attaches to the wall/ceiling mount and increases the range/positions of the spring arm, giving the unit increased versatility.
3. **Spring Arm:** The spring arm can be rotated 360° (single ceiling only) around the extension arm and can be moved vertically up 45° or down 45°.



2.3 Operation

2.3.1 Electrical Connection Floor Stand Only

- After installation by qualified personnel, take some precaution and ensure the connections are correct by:
- Checking the power cord for signs of damage
- Ensure the proper fuses are installed.
- Ensure plug itself is plugged in.

2.3.2 Positioning the Spring Arm System

- The spring arm (5) is designed to be easily positioned and come to rest at any desired position within the range stated in Section 2.1.
- The whole spring arm system is easily moved around via the rollers attached to the base. Care must be taken so that the stand does not roll over any objects or the power cord.



WARNING: DO NOT try to move the system around when the locks are engaged on the rollers. Always check this before trying to move the system around. Also make sure your work station is within the range of the power cord.



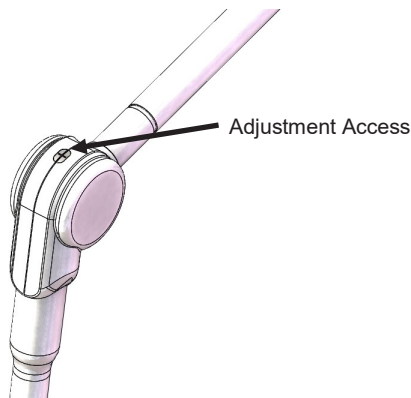
WARNING: The spring arm, with head attached, should always be in its lower most position during transport. Failure to do so could lead to a hazard.

2.4 Adjusting the Spring Arm System



WARNING: Spring adjust shall be done by qualified personnel.

- The spring arm is subject to normal wear and reduces its ability to hold over time. As a result, the spring force needs to be adjusted over time. An opening on top of the arm allows access to make the adjustment.
- Make sure the spring arm with the end device is in the bottom position.
- Insert Allen wrench (4mm) into the adjustment access slot.
- If the spring arm has a tendency to fall down, the spring is too loose. Rotate the allen wrench in the counter-clockwise direction.
- If the spring arm has a tendency to spring up, the spring is too tight. Rotate the allen wrench in the clockwise direction.



2.5 Range of Motion

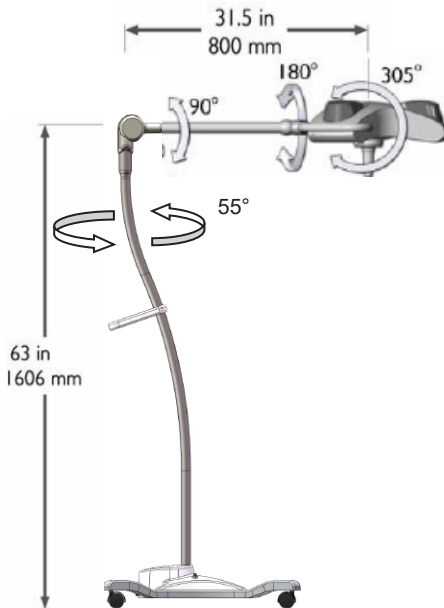
2.5.1 Floor Stand Version

A representation of a complete floor stand is seen below. The light consists of one AIM light head attached to a mobile suspension system.

The suspension system consists of the following:

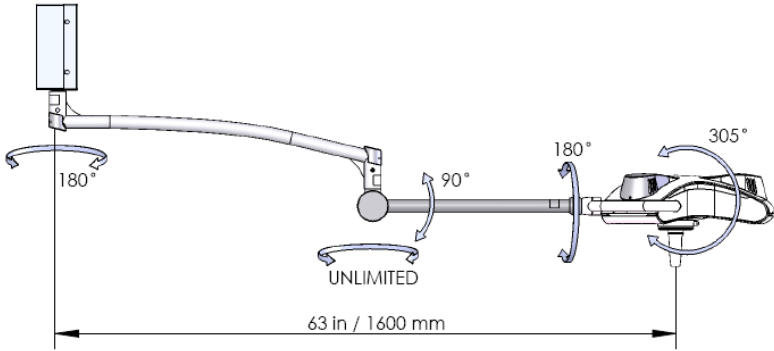
- A mobile stand with an upright pole. The stand has castors to facilitate movement.
- A spring arm between the upright pole and the light head.
- A dual-sided yoke between the spring arm and the light head.

The upright to spring arm connection can rotate 55 degrees. The arm pivot up and down is 90 degrees. The yoke to arm rotates 180 degrees and the head to yoke can rotate 305 degrees.



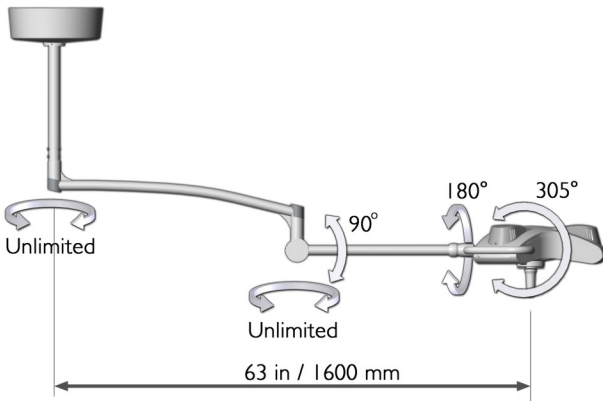
2.5.2 Wall Mount Version

Light consists of one AIM light head attached to a suspension system. The suspension system is attached to a wall mount, secured to the wall.



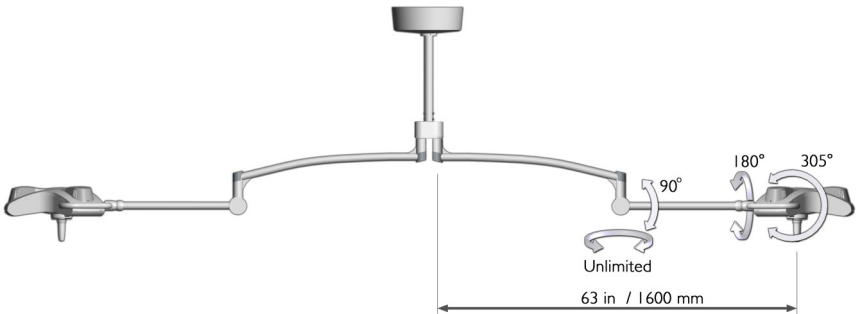
2.5.3 Single Ceiling Version

Light consists of one AIM light head attached to a suspension system.

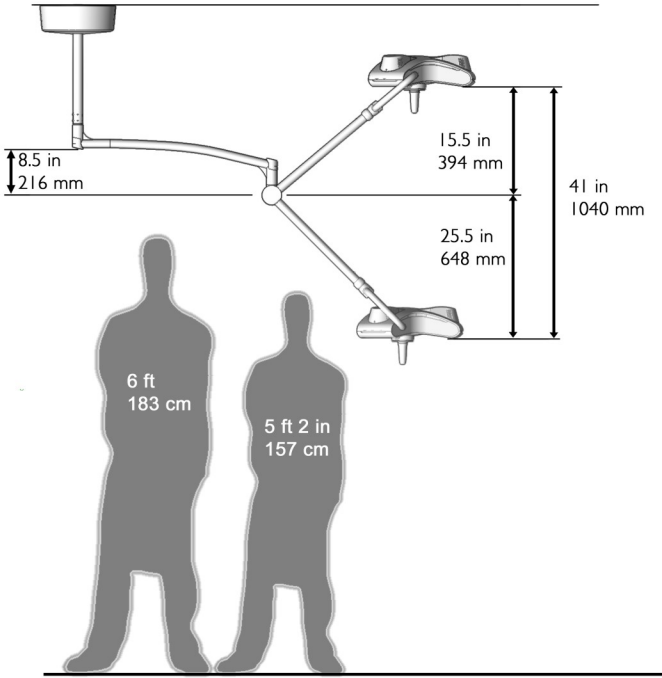


2.5.4 Double Ceiling Version

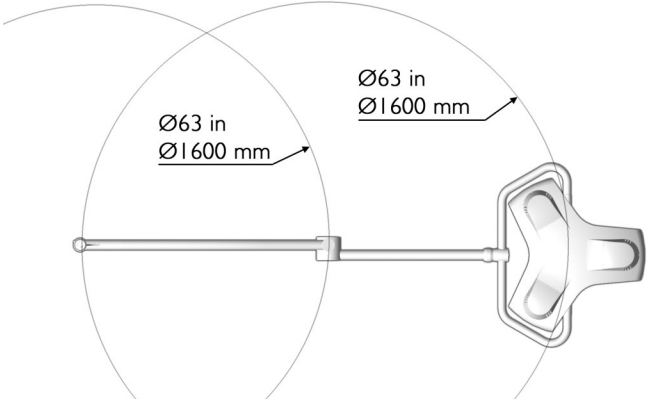
Light consists of two AIM light head attached to separate arms, with a common downtube secured to the structural ceiling.



2.5.5 Vertical Range of Motion—Ceiling Version



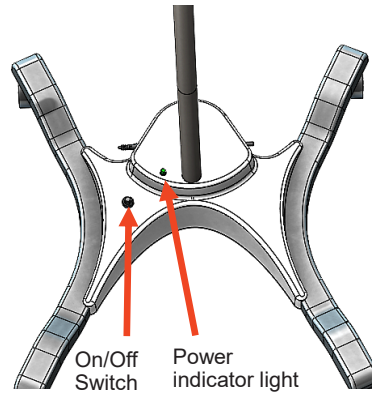
2.5.6 Horizontal Range of Motion—Ceiling Version



2.6 Applying Power

For the wall and ceiling versions, the main power on/off switch is located on the wall plate (provided by installer).

For the floor stand version, the main power on/off switch is located on the floor stand base. It is operated by lightly stepping on it. The power indicator light will light green if power is present.



2.7 Maneuvering the Light Head

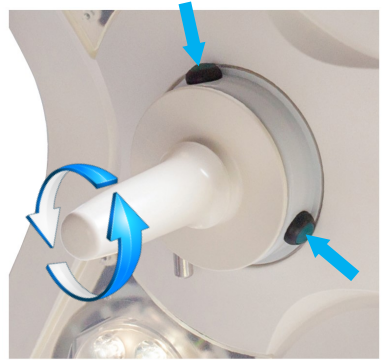
The AIM HI LED arm system and light head attachment were designed so the light head could be positioned at any location within its range of motion using only the handle.

2.8 Adjusting the Light Pattern and dimming

The light head consists of three special light assemblies. The housing is designed to facilitate the proper cooling of the LED modules, while maintaining a low surface temperature.

A slight twist of the handle will adjust the beam pattern so that the individual light beams from the three LED modules can be merged at the work surface.

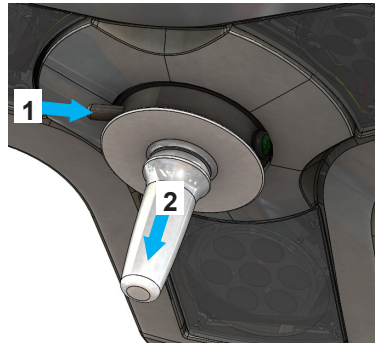
To get the maximum intensity, the light beams should be merged completely. However, in many cases it is preferred to have the light beams slightly offset to achieve a larger spot. Additionally the light intensity can be controlled by either of the switches located near the light head handle. Press and release button to increase or reduce light intensity in three steps 100% → 75% → 50% → 75% → 100%. Press and hold to turn ON or OFF the light. **Note:** use wall switch to completely power off the fixture.



2.9 Attaching / Detaching the Handle



The handle can be removed for cleaning and sterilization by pushing the plunger (1) located between the handle flange and housing and pulling the handle down (2). The force needed to push the plunger is between 1-2 Nm when the head is horizontal and the handle should fall out.

NOTE: To reinsert, push the handle into the hole and make sure it 'clicks' into position.



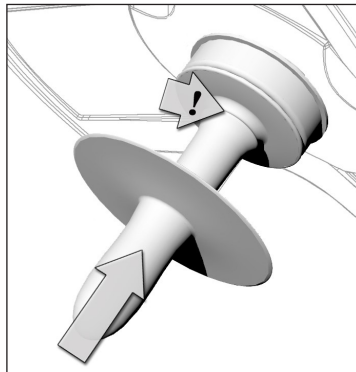
2.10 Handle Sterilization

The AIM handle assembly is made from high-temperature resistant Noryl™ plastic. It should normally withstand multiple sterilization cycles according to the procedure below, without deterioration. If the plastic handle starts cracking or peeling it should be replaced. The most important factor for keeping the handle from wearing out is not to exceed the temperature limit mentioned in the autoclave procedure. See more replacement information in the section entitled Replacement Parts. If there is any foreign matter on the handle it should be cleaned thoroughly prior to sterilization.

| | |
|---|---|
|  | <ol style="list-style-type: none">1. Place the handle in the autoclave.2. Set the autoclave cycle for 270°F (132°C), pre-vacuumed cycle.3. Set the autoclave cycle time for 3-minutes, turn the sterilizer on and wait for the process to be completed.4. Remove the handle and place it in use, or transport and store it in a sterile environment pending use. |
|  | <p>WARNING: DO NOT AUTOCLAVE FOR MORE THAN 3 MINUTES. THIS WILL CAUSE HANDLE TO BECOME BRITTLE AND WILL SHORTEN THE LIFE OF THE HANDLE.</p> |

2.11 Using Sterile Disposable Handle Covers

The handle is designed to fit sterile disposable covers (Burton part #4000420). To attach the cover to the handle, simply slip it on to the handle and make sure it engages with the small flange (illustration below) on the handle.



3.0 Maintenance



WARNING: The proposed maintenance schedule is a recommendation. Depending on the use of the product and the operating environment, the required maintenance may not be limited to this. It is the responsibility of the user to service and maintain the product as needed. Failure to do so may present risk of serious or fatal injury.



WARNING: If the equipment is not functioning properly, do not attempt “quick fixes” with tape, wires etc. If the solution cannot be found in this Manual Burton Medical should be contacted for a permanent fix.



WARNING: The owner/operator of this product should check for damage to paint, cracks and hips to components, deformation of components and any abnormalities every 6 months.



WARNING: During installation of this product, the installer shall provide and install a wall switch . US/CAN Applications: Leviton 5602-2W Double Pole, Single Throw Switch 120/277VAC, 15A or equivalent. Other applications: Curva CCA022 Double Pole, Single Throw Switch 240VAC, 20A or equivalent.



WARNING: During installation and or maintenance of ceiling and wall fixtures the installer and or approved technician is required to separate the quick disconnect inside the wall mount or ceiling mount. Re-Attach when task is complete.

3.1 Maintenance Schedule

Weekly

- Check that the light is easy to move in its range of movement, and that it holds its position without drifting

Every 1300 hrs¹
of use or 12 months

- Check that all components appear secure
- Remove top housing; clean accessible parts
- Check and, if needed, adjust friction between light head and yoke shaft

Every 1800 hrs²
of use or 24 months

- Check and, if needed, adjust spring arm tension
- Clean optics
- Check and tighten bolts in ceiling / wall

¹ Equals ~3.5 hours use per day for one year. (Or ~7 hours use per day for 6 months)

² Equals ~2.5 hours use per day for two years. (Or ~7 hours use per day for 9 months)

4.0 Troubleshooting Guide

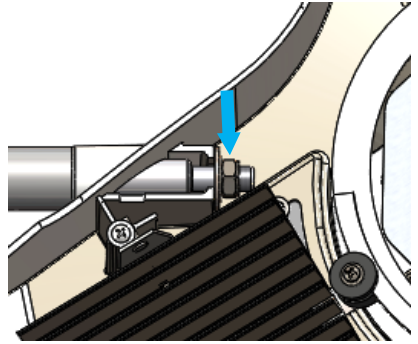
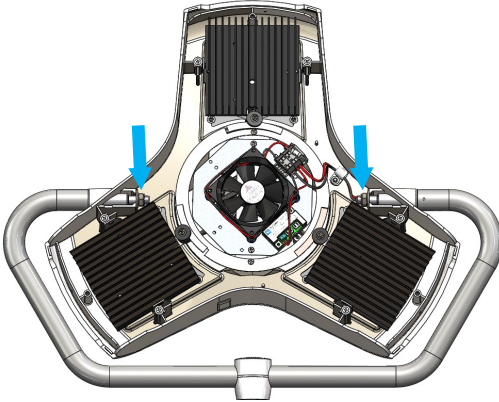
| Symptom | Check | Corrective Action |
|-------------------------------------|--|--|
| No light output | Power on? | Turn power switch on at wall (ceiling / wall mount versions). Turn power on at floor stand base (Floor stand version). Turn on switch on light head. |
| | Fuse (s) | Visually inspect fuses, check continuity with meter. |
| | Continuity of wiring from power supply to light head | With power disconnected, use ohmmeter to check continuity from power supply secondary to light bulbs. Check integrity of each connection point. |
| | Voltage into power supply | Verify correct mains voltage and proper power supply wiring connections |
| | Voltage out of power supply | Verify correct secondary voltage. |
| Electro-magnetic Interference (EMI) | N/A | Generally, EMI is not an issue with this type of product (LED lighting fixture with electronic power supply). However, if you suspect this product is causing interference, please contact Burton Medical. |
| Not focused | Output pattern | Contact Burton Medical for adjustment. |
| Arm drifts up or down | Arm balance | Follow instructions under the section entitled Adjusting Arm Tension. |
| Arm drifts sideways | Level Surface | Move to a level surface. |

4.1 Adjusting Light Head Rotating Friction

If the light head doesn't hold its position when it is rotated around the two shafts going into the housing, an adjustment inside the head is required. This is done by first removing the pods to get access to the 3 screws holding the top and bottom housing together. Remove the screws and lift the top housing off. A nut on each shaft will be accessible. Use a wrench to tighten the nuts. Rotate the light



Do not over tighten! This may cause the housing to break. Very little tightening is required to get enough friction.



4.2 Fuse Replacement

Always disconnect the power supply when installing or removing the fuses. Failure to do so may result in electric shock.



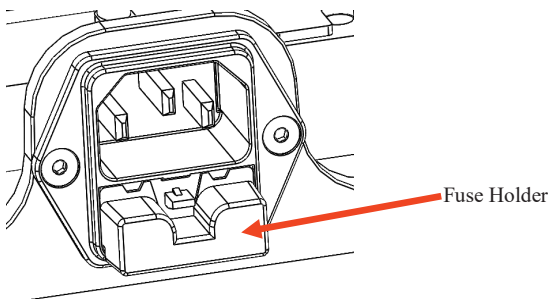
Do not over tighten! This may cause the housing to break. Very little tightening is required to get enough friction.



WARNING: Replace only with correct fuse rating. For 100V-240V version: T 2 AL, 250V

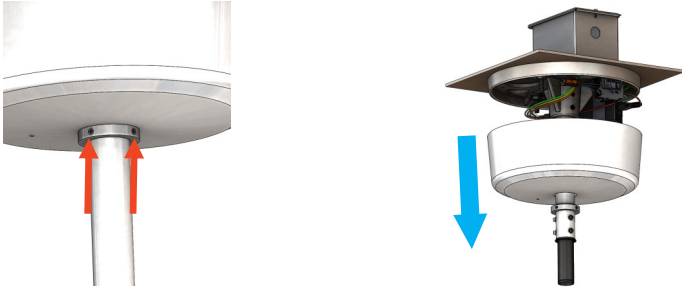
4.2.1 Floor Stand Version

The fuse holder is located on the back of the base, at the bottom of the power outlet. Replace damaged fuses with new fuses. Install the fuse holder back into the power outlet by clipping it into place.



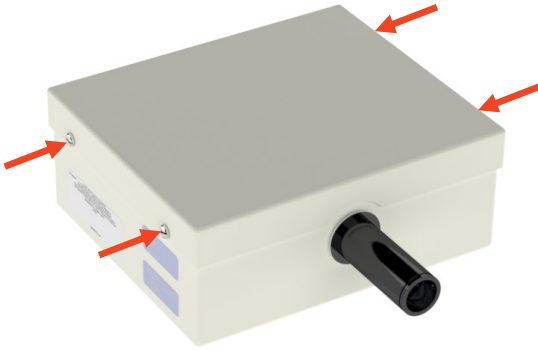
4.2.2 Ceiling Versions

The fuse holder is located within the terminal block. To access the ceiling mount terminal block, the ceiling dome must be removed. This is done by loosening the two set screws on the locking ring (indicated by the arrow). Replace the fuse and re-assemble in the opposite order.



4.2.3 Wall Versions

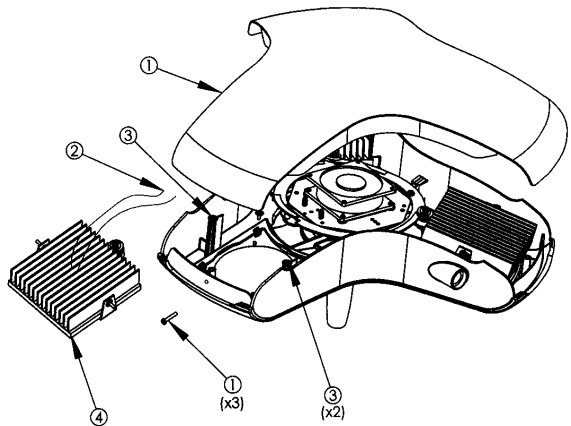
The fuse holder is located within the terminal block. To access the wall mount terminal block, the wall mount cover must be removed. This is done by loosening the four screws that secure the cover on mount (indicated by the arrow). Replace the fuse and re-assemble in the opposite order.



4.2.4 LED Module Replacement


WARNING: Make sure power is removed before performing any maintenance. Refer to the circled numbers in the illustration:

- Remove the three screws and the top lid.
- Disconnect the wires for the LED module from the terminal block next to the cooling fan in the center.
- Loosen the two pivot crews.
- Remove module assembly
- Remove LED module screws and remove bad module. Remove LED Cable and set aside.
- Place new LED board and route cable thru heatsink, if no cable provide, used cable set aside. Replace LED board screws
- Reverse bullet points 3, 2, 1.



5.0 Technical Data¹

| Type of Data | |
|---|---|
| Classifications | |
| Type of Protection Against Electric Shock | Class I |
| FDA Classification | FDA Class I, Examination Light |
| CISPR II Classification | Class A |
| Allowable Earth Leakage Current | Does not exceed 500 μ a |
| Allowable Touch Leakage Current | Does not exceed 100 μ a |
| Reliability of Earth Protection | Does not exceed 0.1 ohm |
| Mode of Operation | Continuous |
| Protection Against Explosion Hazards | Not to be used in the presence of flammable anesthetics |
| Protection Against Hazardous Parts and Ingress of Liquids | IPXO. Not protected against the ingress of fluids. |
| Degree of Mobility | Ceiling and wall mount versions: permanently installed. Floor stand version: mobile. |
| Approvals | IEC 60601-1, IEC60601-2-41, IEC 60601-1-2 |

| | |
|---|--|
|  | <p>WARNING: Use of this equipment adjacent to or stacked with other equipment should be avoided because it could result in improper operation. If such use is necessary, this equipment and the other equipment should be observed to verify that they are operating normally.</p> <p>WARNING: Use of accessories, transducers and cables other than those specified or provided by the manufacturer of this equipment could result in increased electromagnetic emissions or decreased electromagnetic immunity of this equipment and result in improper operation.</p> <p>WARNING: Portable RF communications equipment (including peripherals such as antenna cables and external antennas) should be used no closer than 30 cm (12 inches) to any part of the AIM HI LED Fixture, including cables specified by the manufacturer. Otherwise, degradation of the performance of this equipment could result.”</p> <p>WARNING: This equipment/system is intended for use by healthcare professionals only. This equipment/ system may cause radio interference or may disrupt the operation of nearby equipment. It may be necessary to take mitigation measures, such as reorienting or relocating the equipment or shielding the location.</p> |
| EU Conformance² | |
| CE Classification | Class I |

¹All specifications are subject to change without notice.

²The CE mark on this product (230V, 240V version) indicates it has been tested to and conforms to the provisions noted within the 93/42/EEC Medical Device Directive.

5.0 TECHNICAL DATA CONTINUED


Medical electrical equipment needs special precautions regarding EMC and needs to be installed and put into service according to the EMC information provided. Portable and mobile RF communications equipment can affect medical electrical equipment.

| Emissions Test | Compliance | EM Environment Guidance |
|--|--------------------|--|
| RF Emissions CISPR 11 | Group 1 Class A | The AIM HI LED uses RF energy only for its internal function. Therefore, its RF emissions are very low and are not likely to cause any interference in nearby electronic equipment. |
| Harmonic Emissions IEC61000-3-2 | Class C | The AIM HI LED is suitable for use in all establishments other than domestic and those directly connected to the public low-voltage power supply network that supplies buildings used for domestic purposes. |
| Voltage Fluctuations/ Flicker IEC61000-3-3 | Complies | |

The AIM HI LED is intended for use in the electromagnetic environment specified below. The customer or the user of the AIM HI LED should assure that it is used in such an environment.

| Immunity Test | IEC60601 Test Level | EM Environment Guidance |
|-------------------------------|---|---|
| ESD IEC61000-4-2 | ±8kV contact ±2kV, ±4kV, ±6kV, ±8kV, ±15kV air | Floors should be wood, concrete or ceramic tile. If floors are covered with synthetic material, the relative humidity should be at least 30%. |
| EFT IEC61000-4-4 | ±0.5kV, ±1.0kV, ±2kV, 100kHz Repetitive, 60s, pos/neg polarity | Mains power quality should be that of a typical commercial or hospital environment. |
| Surge IEC61000-4-5 | ±0.5kV, ±1kV, ±2kV, Common Mode ±0.5kV, ±1kV Diff. Mode 0, 90, 180, 270 Degrees 60s, 5 Surges | |
| Power Freq. IEC61000-4-8 | 30 A/m, 50/60 Hz X, Y, Z Axis | Power frequency magnetic fields should be at levels characteristic of a typical location in a typical commercial or hospital environment. |
| Voltage Dips IEC61000-4-11 | 0% Ut; 0.5 cycle at 0, 45, 90, 135, 180, 225, 270, 315 degrees, 0% Ut; 1 cycle and 70% Ut; 25/30 cycles, single phase; at 0 degrees | Mains power quality should be that of a typical commercial or hospital environment. If the user of the AIM HI LED requires continued operation during power mains interruptions, it is recommended that the AIM HI LED be powered from an uninterruptible power supply or battery. Note: Ut is the AC mains voltage prior to application of the test level. |
| Voltage Interruptions | 0% Ut; 250/300 cycle | |

5.0 TECHNICAL DATA CONTINUED

| | | |
|--------------------------------------|---|--|
| <p>Conducted RF IEC61000-4-6</p> | <p>3Vrms, 6Vrms (ISM Band) 150kHz to 80MHZ AM 80%, 1kHz, 1%, 3sec dwell</p> | <p>Portable and mobile RF communications equipment should be used no closer to any part of the AIM HI LED, including cables, than the recommended separation distance calculated from the equation applicable to the frequency of the transmitter. Recommended separation distance: $d = 1.167 * \sqrt{P}$</p> |
| <p>Radiated RF IEC61000-4-3</p> | <p>3 V/m 80 MHz – 2.7 GHz 80 % AM at 1 kHz 1%, 3 sec dwell</p> | <p>$d = 1.167 * \sqrt{P}$ 80MHz to 800MHz $d = 2.33 * \sqrt{P}$ 800MHz to 2.5GHz</p> <p>Where P is the maximum output power rating of the transmitter in watts (W) according to the transmitter manufacturer and d is the recommended separation distance in meters (m).</p> <p>Field strengths from fixed RF transmitters, as determined by an EM site survey, should be less than the compliance level in each frequency range.^a</p> <p>Interference may occur in the vicinity of equipment marked with the following symbol.</p> <div style="text-align: center;">  </div> <p>^a Over the frequency range 150kHz to 80MHz, field strengths should be less than 3 V/m.</p> |

The AIM HI LED is intended for use in an electromagnetic environment in which radiated RF disturbances are controlled. The customer or the user of the AIM HI LED can help prevent EMC interference by maintaining a minimum distance between portable and mobile RF communications equipment (transmitters) and the AIM HI LED as recommended below, according to the maximum output power of the communications equipment.

| | Separation distance according to frequency of transmitter (m) | | |
|---|---|---|---|
| Rated maximum output P of transmitter (W) | 150kHz to 80MHz $d = 1.167 * \sqrt{P}$ | 80MHz to 800MHz $d = 1.167 * \sqrt{P}$ | 800MHz to 2.5GHz $d = 2.33 * \sqrt{P}$ |
| 0.01 | 0.12 | 0.12 | 0.23 |
| 0.1 | 0.37 | 0.37 | 0.74 |
| 1 | 1.17 | 1.17 | 2.33 |
| 10 | 3.69 | 3.69 | 7.37 |
| 100 | 11.67 | 11.67 | 23.30 |

For transmitters rated at a maximum output power not listed above meters (m) can be estimated using the equation applicable to the frequency of the transmitter, where P is the maximum output power rating of the transmitter in watts (W) according to the transmitter manufacturer.

NOTE 1 At 80 MHz and 800 MHz

NOTE 2 These guidelines may not apply in all situations. Electromagnetic propagation is affected by absorption and reflection from structures, objects or people.

| Electrical | |
|---|---|
| Supply Connections | 100V – 240V AC, 50/60 Hz |
| Power Consumption | 56 VA |
| Bulb Types | LED Modules |
| LED Module Life ³ | 50,000+ hrs ³ |
| Fusing | 100V - 240V versions: T2 A L, 250V, 5x20 mm The T indicates Time delay (i.e. slow blow fuses). There are 2 fuses in the floor stand and the double ceiling versions. There is 1 fuse in the single ceiling and the wall versions. |
| Power Cord (Floor Stand Version) | 8ft. ALED070/100FL, NEMA 5-15P 8ft. ALED070/100FL01, CEE 7/7 8ft. ALED070/100FL02, AS/NZS 3112 8ft. ALED070/100FL03, BS 1363. |
| Transport and Storage Conditions | |
| Ambient Temperature | 0°-70° C (32°-158° F) |
| Relative Humidity | 10-75% (no condensation) |
| Atmospheric Pressure | 500 - 1060 hPa |
| Operation Conditions | |
| Ambient Temperature | 10° - 40°C (50°-104°F) |
| Relative Humidity | 30 - 75% |
| Atmospheric Pressure | 700 - 1060 hPa |
| Weights and Dimensions | |
| Single Ceiling Version | 44 lbs (19.96 kg) |
| Double Ceiling Version | 78 lbs (35.38 kg) |
| Wall Mount Version | 40 lbs (18.14 kg) |
| Floor Stand Version | 43 lbs (19.50 kg) |
| Light Head, Including Yoke | 13 lbs (5.90 kg) |
| Light Head Diameter | 20 in (51 cm) |
| Range of Motion | See Section 2.5 of this manual |

³Average lifetime for bulbs running continuously.

| Optical Performance / Operating Characteristics⁴ | |
|--|---|
| Central Illumination at 1 m (39.4"), Ec | ALED070 70,000 lux ALED100 100,000 lux |
| Light Field Diameter, d10 ⁵ | N/A |
| Light Field Diameter, d50 ⁵ | N/A |
| Light Distribution Ratio d50/d10 | N/A |
| Total Irradiance, Ee | 145 W/m ² |
| Depth of Illumination | 43 in (1.1 m) |
| Color Temperature | 4300 K |
| CRI (Color Rendering Index), Ra | >90 |
| R9 ⁶ | >90 |
| Focus Range | 24 in (0.61 m) to 39 in (1 m) |
| Remaining Illuminance with Two Masks | N/A |
| Remaining Illuminance with One Tube and Two Masks | N/A |
| Remaining Illuminance with One Mask | N/A |
| Remaining Illuminance with Tube (Deep Cavity) | N/A |
| Remaining Illuminance with One Tube and One Mask | N/A |
| Cavity Shadow Ratio | N/A |

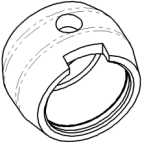
| | |
|-----------------------------------|--|
| Ecological Characteristics | Burton Medical cares about the ecological environment, and in the design and manufacturing of our lights we strive to minimize the ecological impact. |
| Materials | No hazardous materials are used in the production of the AIM Series lights. |
| Plastic | The plastic parts are made from an ECO-compliant grade of plastics. This means that no brominated or chlorinated substances are used in the production of the raw material. |
| Recycling | The plastic parts are marked with the material type to accommodate easy sorting for recycling. |
| Disposal | Although no hazardous materials are used in this product, public laws may contain special specifications with regard to disposal. To avoid damage to the environment and health, relevant authorities should be consulted before disposing of the product. |

⁴The optical data are nominal values (unless specified otherwise) based on measurements done according to the IEC 60601-2-41 standard on the rated voltage. Do not substitute. Use only Burton Medical supplied replacement LED module. Failure to do so will affect performance and invalidate the warranty status.

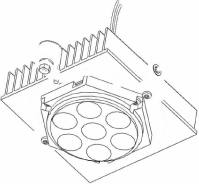
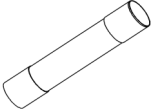
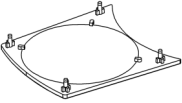
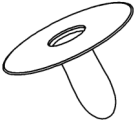

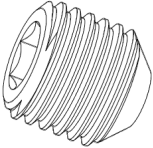
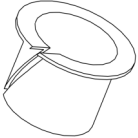
⁵Light Field Diameters are given for a light beam that is merged for maximum central illuminance. Since the light beam is adjustable, the Light Field Diameter can be increased by offsetting the merging of the beams. See more about this in the section entitled "Adjusting the Light Pattern".

⁶R9 = Color rendering of a strong red color that is important for medical purposes.



6.0 Replacement Parts

| Picture | Description | Part Number |
|--|--|-------------|
|  | Shaft accessory package | 6000186 |
|  | Collar | 4000126 |
|  | Post Handle (2 pieces for each handle) | 4000125 |
|  | Caster with brake | 1009717 |
|  | Caster without brake | 0002803 |
|  | Power Supply Assembly | 4000398 |

Replacement Parts (cont'd.)

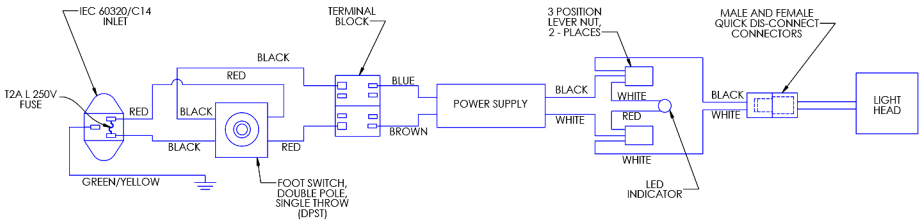
| Picture | Description | Part Number |
|---|---|----------------------|
|  | <p>ALED 070 MODELS: LED Board with Optic, Heat Sink, and Connector</p> | 6000318 |
| | <p>ALED 100 MODELS: LED Board with Optic, Heat Sink, and Connector</p> | 6000380 |
|  | <p>100V- 240V Version: Fuse T2 AL, 250V, 5x20mm</p> | 4000118 |
|  | Window | 5000181 |
|  | Disposable Cover | 4000420 (25 pack) |
|  | Handle | 1017040 |
|  | Brake Screw | 4000127 |
|  | Bushing (yoke) | 1017206 |

7.0 Cleaning

| | |
|---|--|
| | <p>WARNING: Electrical shock. For all cleaning work, power off the equipment and secure it from being switched on again. Make sure that no cleaning fluid runs into the equipment.</p> |
|  | <p>WARNING: Damage to equipment. Apart from mild detergents and isopropyl alcohol, no other cleaning agents or chemicals should be used on the product.</p> |
|  | <p>WARNING: The responsible organization shall follow national requirements for hygiene and disinfection.</p> |

- A soft cloth dampened with a mild detergent solution may be used for basic cleaning of all surfaces on the AIM luminaries. In some cases, a soft cloth soaked in isopropyl alcohol may be used for stubborn stains.
- Use a soft cloth to wipe the corners and surfaces hidden when the parts are assembled. Be careful not to bend any components inside the light head. Damaging parts may affect the operation and light output.
- For more thorough cleaning of the light head, the top housing should be removed. This is done by first removing the pods to get access to the 3 screws holding the top and bottom housing together. (See module replacement). Remove the screws and lift the top housing off.

8.0 Wiring Diagrams



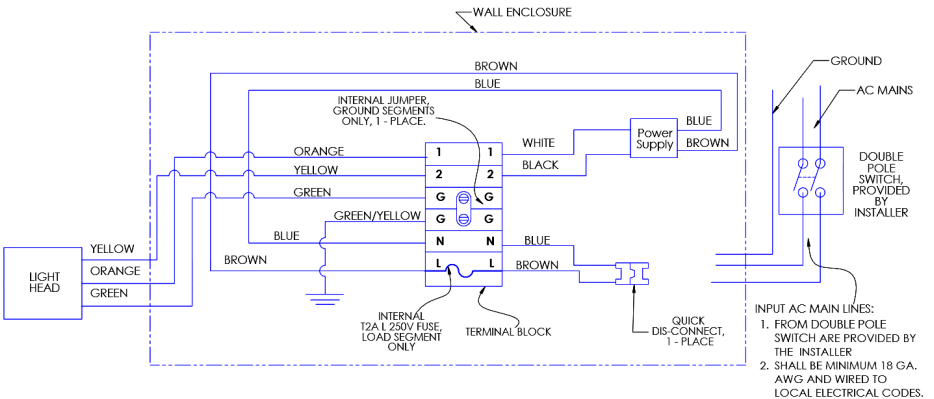
FLOOR WIRING DIAGRAM



WARNING: During installation of this product, the installer shall provide and install a wall switch that is visible from location of installation. US/CAN Applications: Leviton 5602-2W Double Pole, Single Throw Switch 120/277VAC, 15A or equivalent. Other applications: Curva CCA022 Double Pole, Single Throw Switch 240VAC, 20A or equivalent.



WARNING: To prevent electrical shock, disconnect the quick disconnect before servicing.



WALL WIRING DIAGRAM

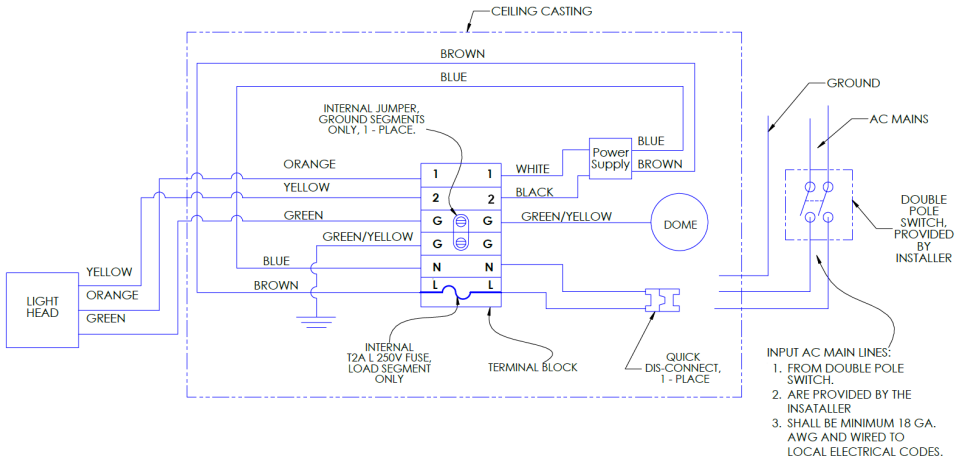
8.0 Wiring Diagrams (cont'd.)



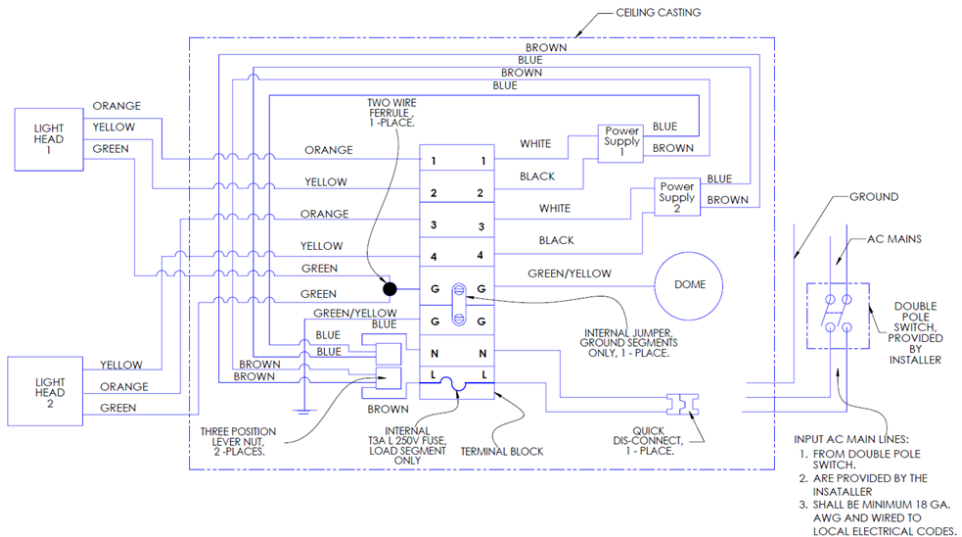
WARNING: During installation of this product, the installer shall provide and install a wall switch that is visible from location of installation. US/CAN Applications: Leviton 5602-2W Double Pole, Single Throw Switch 120/277VAC, 15A or equivalent. Other applications: Curva CCA022 Double Pole, Single Throw Switch 240VAC, 20A or equivalent.



WARNING: To prevent electrical shock, disconnect the quick disconnect before servicing.



SINGLE CEILING WIRING DIAGRAM



DUAL CEILING WIRING DIAGRAM

For complete, detailed information on your specific product's warranty coverage, please visit:
<http://www.burtonmedical.com/wp-content/themes/burtonmedical/literature/warranty.pdf>

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