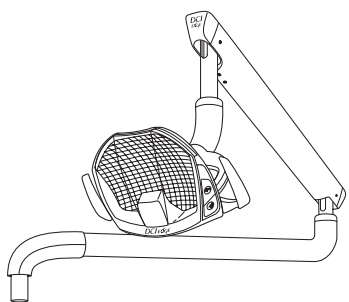
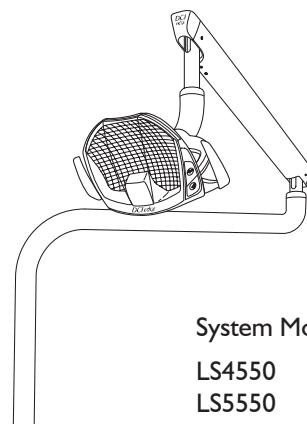


LED OPERATORY LIGHT

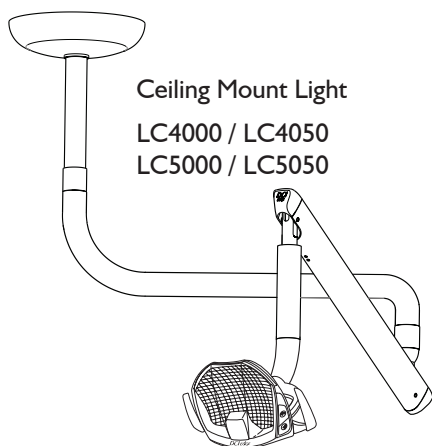
OVERVIEW



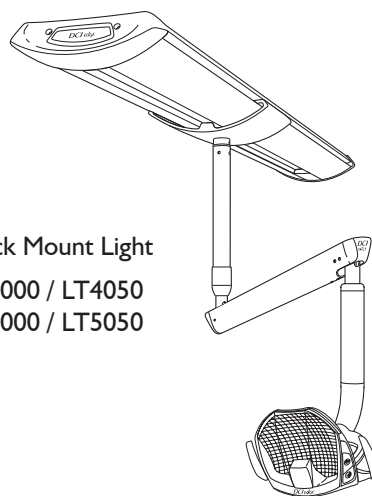
Post Mount Light
LP4000 / LP4050
LP5000 / LP5050



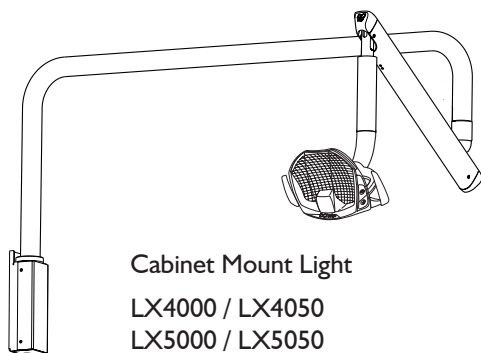
System Mount Light
LS4550
LS5550



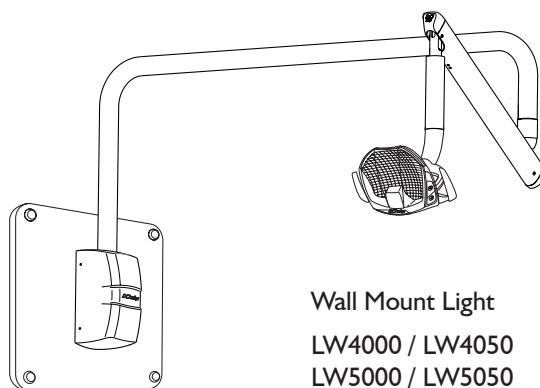
Ceiling Mount Light
LC4000 / LC4050
LC5000 / LC5050



Track Mount Light
LT4000 / LT4050
LT5000 / LT5050



Cabinet Mount Light
LX4000 / LX4050
LX5000 / LX5050



Wall Mount Light
LW4000 / LW4050
LW5000 / LW5050

INTRODUCTION

BEFORE YOU BEGIN

Review the light overview in this manual and layout dimensions. Ensure that the planned location will have the necessary space available for installation.

Open all containers and review the contents. It may be helpful to locate all kits containing components and accessories for installation.

Locate all documentation supplied with the equipment. Manuals and installation information may be found in one or more boxes with their respective components. Set aside the documentation for the end user to review.

Check local and state codes which pertain to the installation of this product and make adequate preparations for proper conformance to all requirements.

SYMBOLS USED IN THIS MANUAL

The following symbols may be used throughout this product manual:



WARNING: Failure to carefully follow the described procedure may result in damage to the equipment or the operator.



CAUTION: Failure to carefully follow the described procedure may result in damage to the equipment.



NOTE: Take note of additional important information. Not a warning or caution.



ELECTRICAL HAZARD: Risk of electrical shock present. Ensure that power is disconnected before attempting procedure.

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REGULATORY INFORMATION

Regulatory information is delivered with DCI Edge dental equipment as mandated by agency requirements and can be found in the accompanying Instructions For Use for this device.



WARNING: Only trained service personnel are permitted to install this equipment.

POST MOUNT LIGHT INSTALLATION

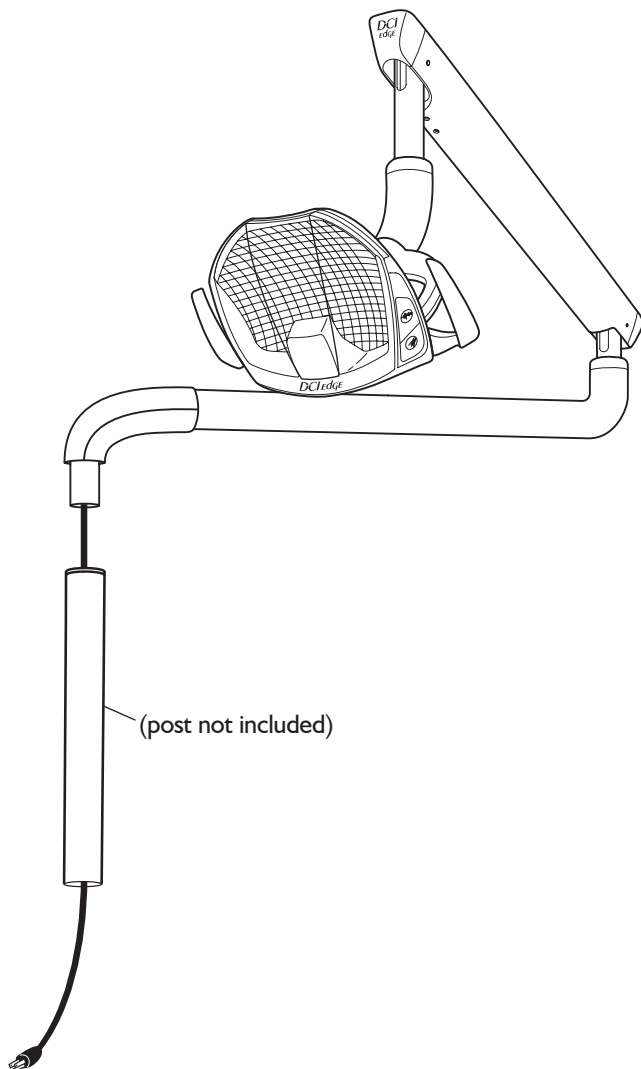
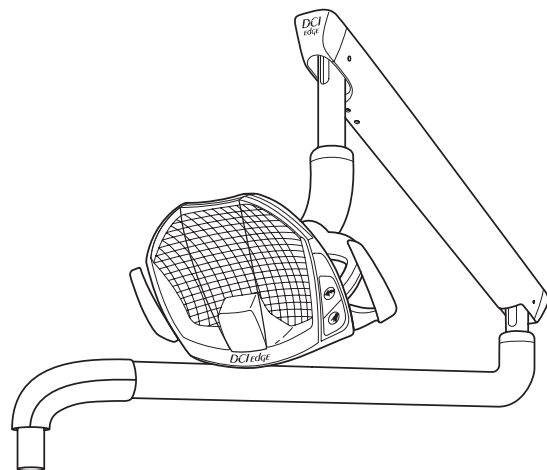
TOOLS NEEDED FOR INSTALLATION

- Post Level
- Allen wrench

ASSEMBLY

The post mount configuration is designed to be assembled to a standard 2" post which is either pre-existing or ordered separately.

- 1** Route the power cable through the top of the pre-mounted post.
- 2** Assemble to the post as shown (right).
- 3** Plug power cord into hospital grade extension cord or power outlet.



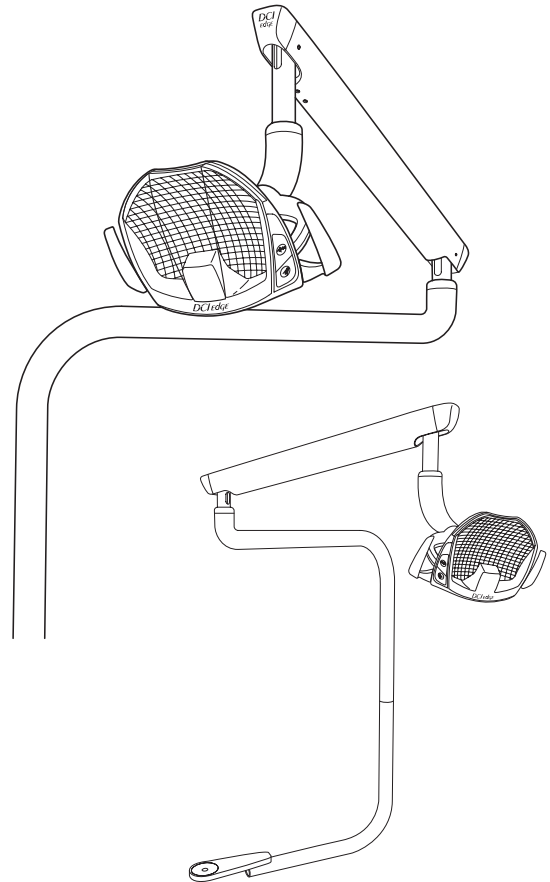
SYSTEM MOUNT LIGHT INSTALLATION

TOOLS NEEDED FOR INSTALLATION

- Socket wrench with 1/2" socket
- Post level

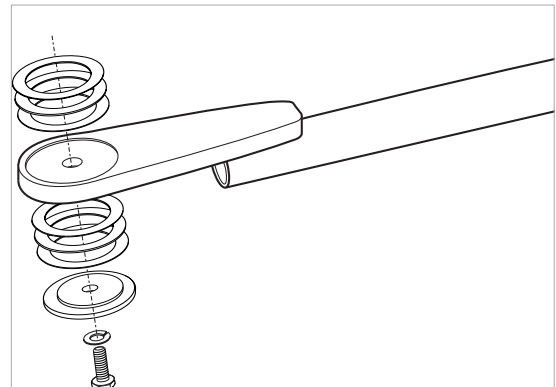
INCLUDED HARDWARE

- Bolt
- Lock washer
- Thrust bearing and washer set



MOUNTING TO CHAIR

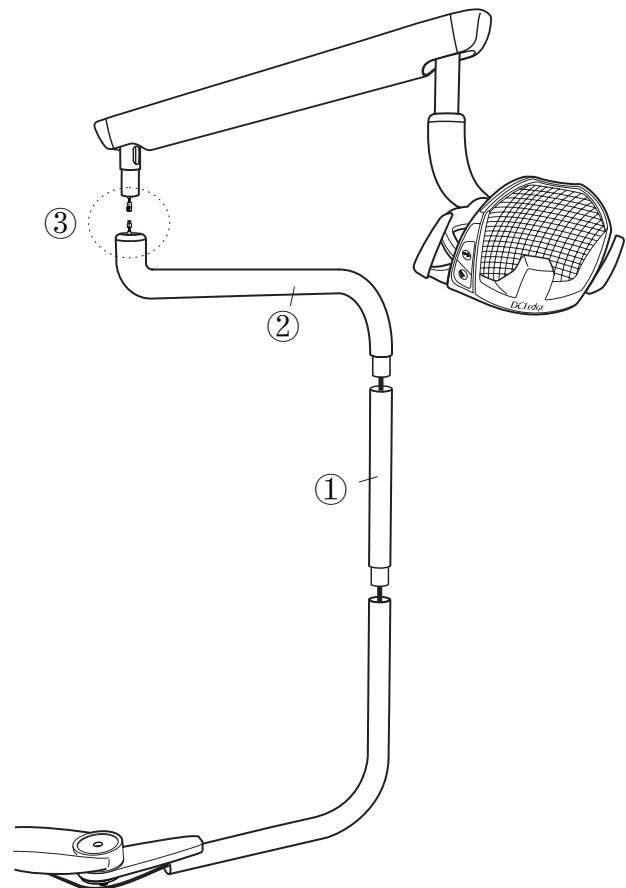
- 1** Position the pole under the adapter extending from the chair.
- 2** Assemble the pole to the chair as shown in the assembly (right) with one bearing stack in the top recess, one bearing stack in the bottom recess, and the large custom washer. Then, use a wrench to tighten the bolt with lock washer into the adapter extending from the chair.



SYSTEM MOUNT LIGHT INSTALLATION

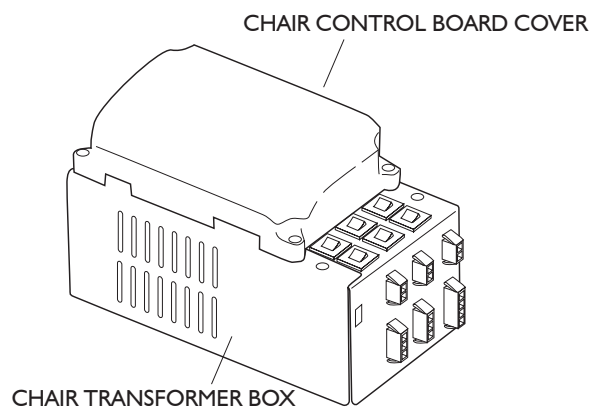
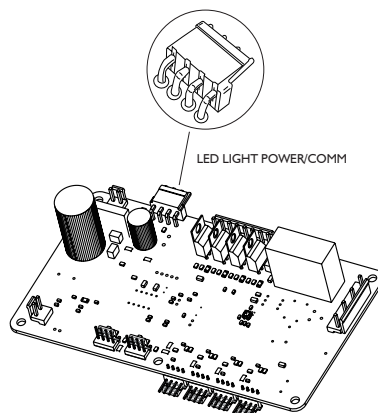
POLE ASSEMBLY

- 1** Assemble the straight post (right, item 1) into the lower swing pole and secure with the 8-32 x 1/2 pan head screw.
- 2** Route the cable which is taped to the upper light pole (item 2) through the poles below it and then insert it into the straight pole (item 1).
- 3** Connect cables at the flex arm and pole junction (item 3) and insert the flex arm knuckle into the top of the upper light pole.
- 4** Route the cable through the hole in the chair adapter, and out the other end.



CHAIR CONNECTION

- 1** Flex to remove the cable cover and the wire hanger on the under side of the chair, and route the cable through this area and replace the hanger and cover.
- 2** Flex the sides of the truss cover and lift to remove it from the chair, and route the cable down to the transformer box in the base of the chair.
- 3** Remove 4 screws which secure the cover over the chair control board, located on top of the transformer box.
- 4** Attach the connector at the end of the cable to the 4-pin connector on the chair control board labeled below and replace the covers.



CEILING MOUNT LIGHT INSTALLATION

TOOLS NEEDED FOR INSTALLATION

- Socket wrench with 1/2" socket
- Electric drill with 3/8" drill bit
- Post level
- 3/32" Allen wrench

INCLUDED HARDWARE

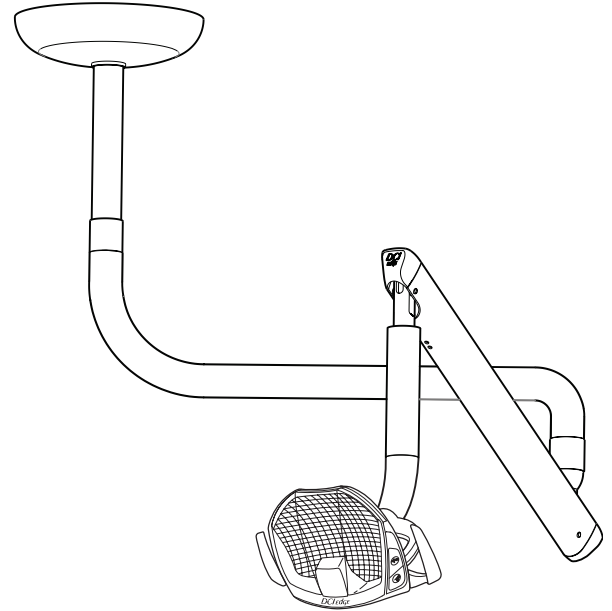
- 5/16"x 4" lag screws, Qty 3
- Set screws
- Split lock washers, Qty 3
- Flat washers, Qty 3
- Button head screws, Qty 3

PREPARATION

1 Determine the position of structural ceiling joists.

2 Locate the ceiling mount template included within the shipping container. Use the template to mark and drill 7/32" pilot holes for the mounting screws and electrical wire.

3 Drill a hole for the electrical power line if the ceiling structure obscures the opening.



WARNING: Ensure that the mounting structure of the ceiling can support a minimum of 200 lbs.



WARNING: If the mounting hole locations do not align with sufficient structural elements in the ceiling, modify the ceiling structure to ensure that all mounting screws are properly and securely attached to the required supportive structure.

CEILING MOUNT LIGHT INSTALLATION

PRE-INSTALLATION ELECTRICAL



NOTE: Electrical wiring must be performed by a licensed electrician and installed according to local building codes.

- 1** Stub out a 1.0 amp., 115 VAC, 60 Hz. electrical supply using wiring rated to 65°C or higher. See position of transformer box. Protect circuit with UL 489 branch circuitry. Properly label breakers associated with each operatory or device.
- 2** Install wall switch between power supply and light power supply transformer. This provides safety and convenience during installation or service.

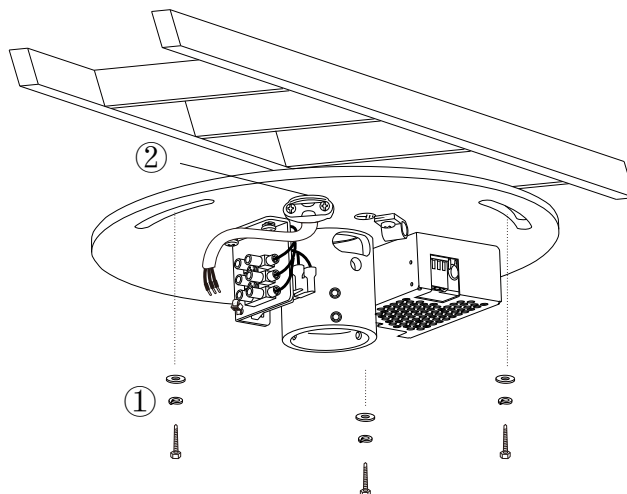
ATTACHING THE CEILING PLATE

- 1** Attach the ceiling plate to the ceiling structure using the 5/16" lag screws and washers (right, item 1) provided.



WARNING: Failure to attach the ceiling plate with the supplied three 5/16" screws as shown could result in serious injury to the patient or operator.

- 2** Extend mains wiring through the ceiling plate hole and use the included strain relief (right, item 2) to secure the cable.



NOTE: The maximum ceiling height for light installation is 10 feet.

CEILING MOUNT LIGHT INSTALLATION

CONNECTING MAINS POWER



NOTE: Electrical wiring must be performed by a licensed electrician and installed according to local building codes.



WARNING: Failure to turn off the power before beginning this procedure can lead to damage to the product and result in injury or death.



ELECTRICAL HAZARD: To avoid the risk of electric shock, this equipment must be connected only to supply mains with protective earth grounding.



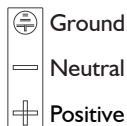
ELECTRICAL HAZARD: Mains power must be supplied using wiring which is rated to 65°C or higher.



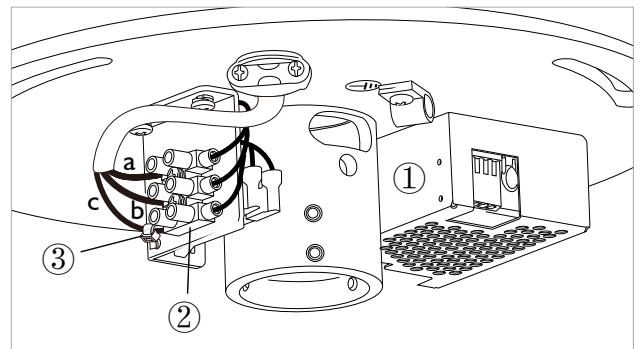
NOTE: To isolate mains power, use the mains supply breaker in the breaker box (right, item 1).

1 Connect mains power to the terminal block (right, item 2).

- Wire “a” goes to Ground.
- Wire “b” goes to Neutral.
- Wire “c” goes to Positive.



2 Secure the black positive wire to the box using the included zip-tie (right, item 3).



ELECTRICAL HAZARD: Failure to secure the positive wire to the box using the included zip-tie as shown in the illustration (right) could result in electrical shock.

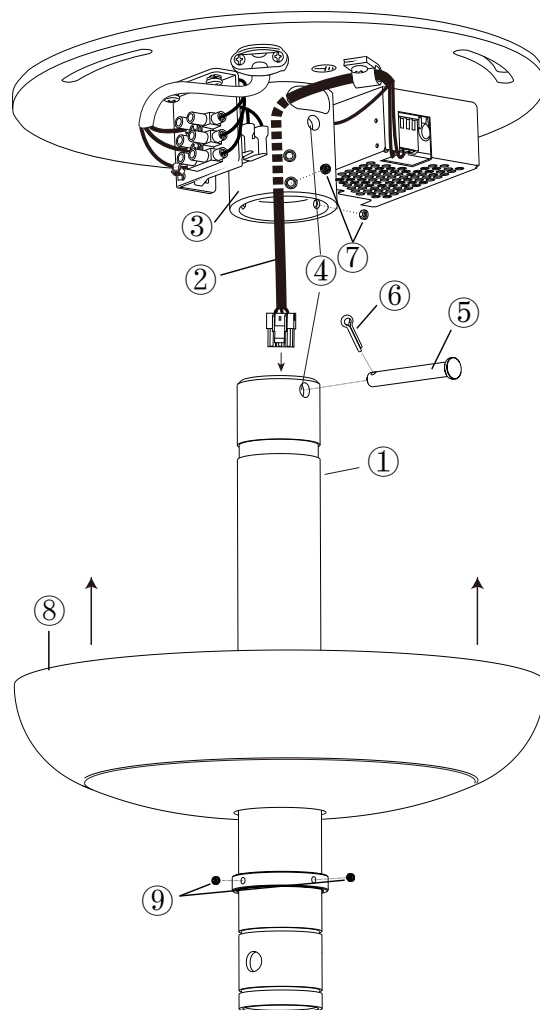
CEILING MOUNT LIGHT INSTALLATION

ATTACHING DROP POST

- 1** Unwind the Extension Cable (right, item 2) that is installed to the ceiling plate, and route the Extension Cable through the Drop Post (right, item 1).
- 2** Connect the Drop Post to the Ceiling Collar (right, item 3) by inserting the post into the hub and aligning the holes (right, item 4).
- 3** Insert the Cross Pin (right, item 5) through the aligned holes of the Ceiling Collar and the Drop Post.
- 4** Insert the Cotter Pin (right, item 6) through the hole on the end of the Cross Pin.
- 5** Tighten the set screws in the ceiling hub (right, item 7) to secure the position of the post. Use a post level to verify the post is plumb.
- 6** Raise the Plastic Cover (right, item 8) into position, and tighten two Set Screws (right, item 9) of the ring to secure the cover tight around the ceiling plate.

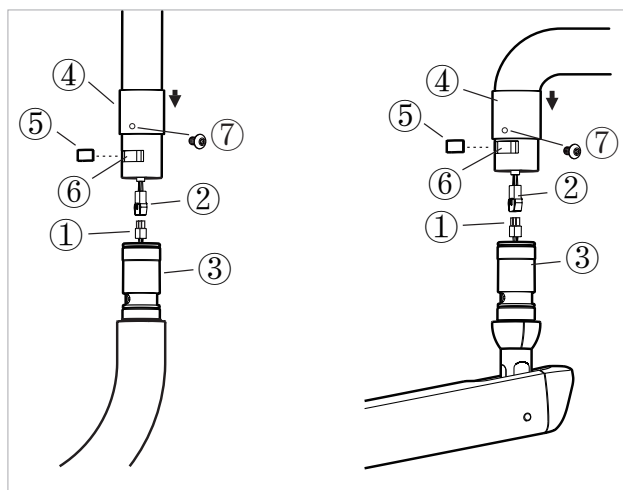


WARNING: Failure to attach the Cross Pin and its corresponding Cotter Pin could result in injury to operator or patient.



ATTACHING CEILING RIGID ARM AND FLEX ARM

- 1** Slide the Outer Sleeve (right, item 4) on to the Drop Post.
- 2** Connect the wire included with the Ceiling Rigid Arm (right, item 1) to the connector exiting the bottom of the Drop Post (right, item 2).
- 3** Engage the Ceiling Rigid Arm Stub (right, item 3) into the Drop Post until the groove of the stub aligns with the Slot (right, item 6) of the Drop Post. Then, insert the Bronze Key (right, item 5) into the slot and groove to lock the arm into position.
- 4** Lower the Outer Sleeve over the key and slot and secure in position with the set screws (right, item 7).
- 5** Repeat this process for connecting the flex arm to the other end of the Ceiling Rigid Arm.



NOTE: Verify that the orientation of the sleeve is correct. When the sleeve is installed upside down, the set screw holes cannot align between the sleeve and the bronze key within the slot of the Ceiling Rigid Arm and/or Flex Arm. Failure to engage the bronze key could result in injury to the operator or patient.

TRACK MOUNT LIGHT INSTALLATION

TOOLS NEEDED FOR INSTALLATION

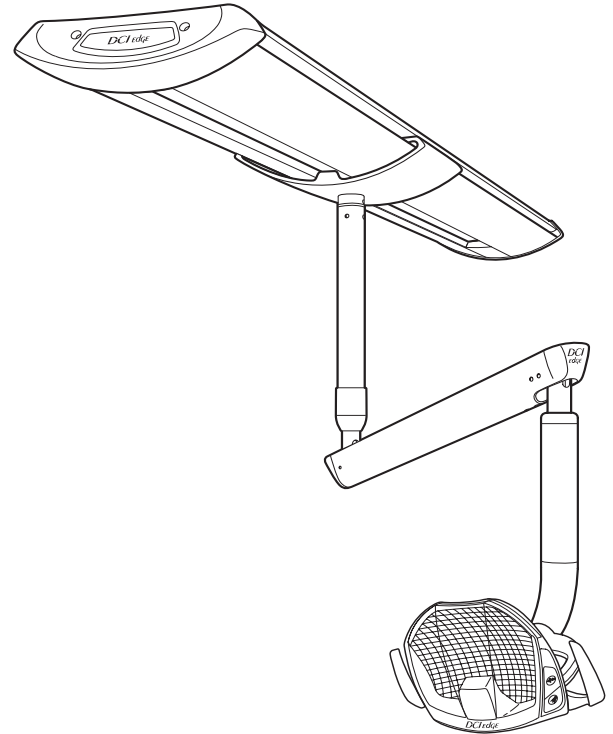
- Phillips head screwdriver
- Utility knife
- Socket wrench with 1/2" socket
- Electric drill with 3/8" drill bit
- Post level
- Tape measure
- 3/32" Allen wrench
- 1/4" Allen wrench

INCLUDED HARDWARE

- 5/16"x 4" lag screws, Qty 4
- Set screws
- Split lock washers, Qty 4
- Flat washers, Qty 4
- Button head screws, Qty 3

PREPARATION

- 1 Determine the position of structural ceiling joists.
- 2 Using the cardboard template printed on the shipping container, mark the drill holes for mounting screws and electrical wire, and drill a 9/64" pilot hole in preparation for the 5/16" lag screws.
- 3 Drill a hole for the electrical power line if the ceiling structure obscures the opening.



NOTE: The maximum ceiling height for light installation is 10 feet.



WARNING: Ensure that the mounting structure of the ceiling can support a minimum of 200 lbs.



WARNING: If the mounting hole locations do not align with sufficient structural elements in the ceiling, modify the ceiling structure to ensure that all mounting screws are properly and securely attached to the required supportive structure.

TRACK MOUNT LIGHT INSTALLATION

PRE-INSTALLATION ELECTRICAL



WARNING: Electrical wiring must be performed by a licensed electrician and installed according to local building codes.

- 1 Stub out a 1.0 amp., 115 VAC, 60 Hz. electrical supply using wiring rated to 65°C or higher. See position of transformer box. Protect circuit with UL 489 branch circuitry. Properly label breakers associated with each operatory or device.
- 2 Install wall switch between power supply and light power supply transformer. This provides for safety and convenience during installation or service.

MOUNTING THE TRACK

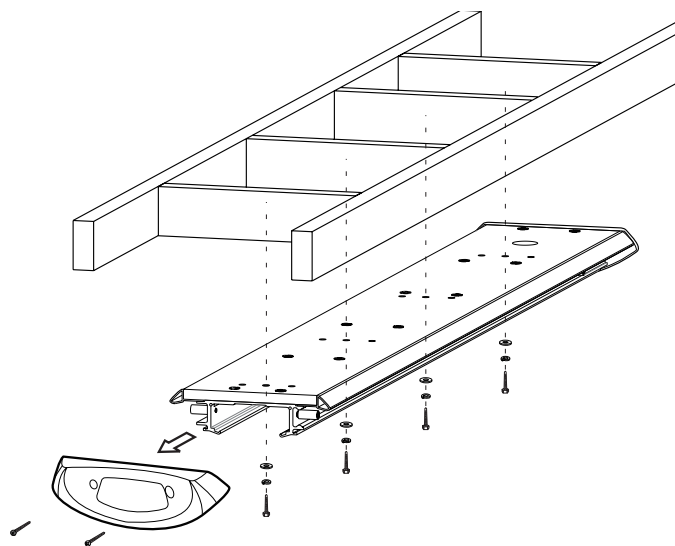


WARNING: To prevent injury, track installation requires two technicians.

- 1 Remove the Front End Cap of the track from the non-transformer end.
- 2 Align the holes in the track to the pre-drilled pilot holes in the ceiling. Route power line through the electrical hole in the track.
- 3 Using the supplied 5/16" lag bolts, washers, and a socket wrench, attach the track to the ceiling sub-structure.



WARNING: Failure to attach the track using the supplied screws as shown could result in serious injury to the patient or operator.



- 4 Using a level, ensure that the mounted track is level side-to-side and front-to-back. Use shims to adjust the level.

TRACK MOUNT LIGHT INSTALLATION

CONNECTING MAINS POWER



WARNING: Electrical junction box wiring must be performed by a licensed electrician and installed according to local building codes.



ELECTRICAL HAZARD: Mains power must be supplied using wiring which is rated to 65°C or higher.



NOTE: To isolate Mains power, use the Mains supply breaker in the breaker box.



ELECTRICAL HAZARD: Failure to turn off the power before beginning this procedure can lead to damage to the product and result in injury or death.



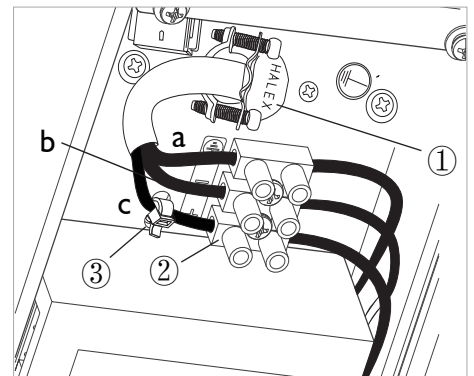
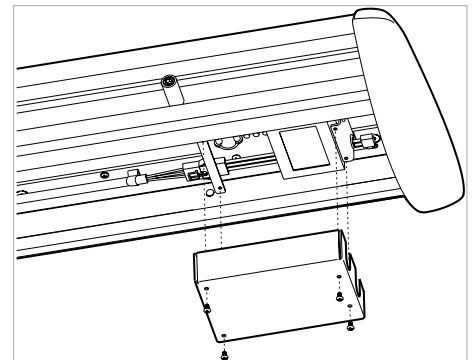
ELECTRICAL HAZARD: To avoid the risk of electric shock, this equipment must be connected only to supply mains with protective earth grounding.

- 1** Remove the cover of the transformer box on the track assembly.
- 2** Clamp wire as it passes into the transformer box using the strain relief (bottom right figure, item 1) provided.
- 3** Connect Mains power to the terminal block (bottom right figure, item 2) inside of the transformer box.
 - Wire “a” goes to Ground. Ground
 - Wire “b” goes to Neutral. Neutral
 - Wire “c” goes to Positive. Positive
- 4** Secure the black Positive wire to the box using the included zip-tie as shown in the illustration (bottom right figure, item 3).



ELECTRICAL HAZARD: Failure to secure the positive wire to the box using the included zip-tie as shown in the illustration (right) could result in electrical shock.

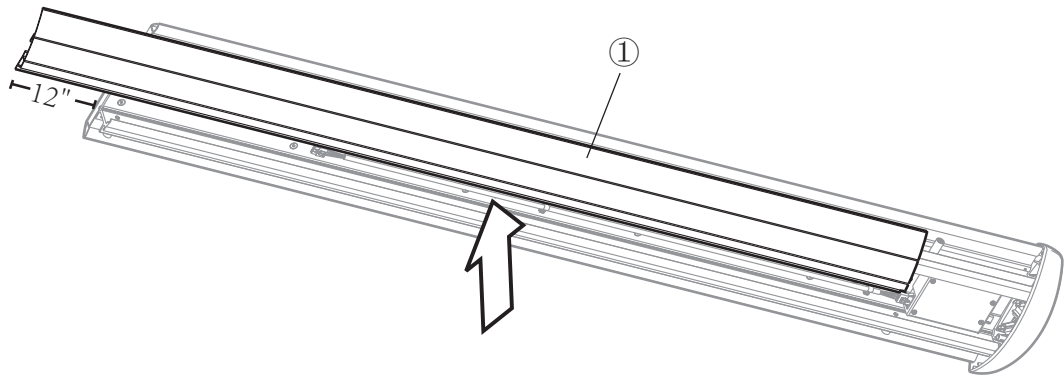
- 5** Replace the cover on the transformer box by attaching with four Phillips head screws.



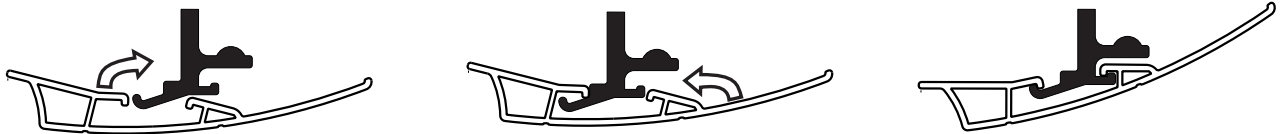
TRACK MOUNT LIGHT INSTALLATION

ASSEMBLING COVERS

- 1** Raise and align one dress panel (figure below, item 1) to one side of the track just past the transformer box, so that approximately 12" of the dress panel extends beyond the track at the other end.

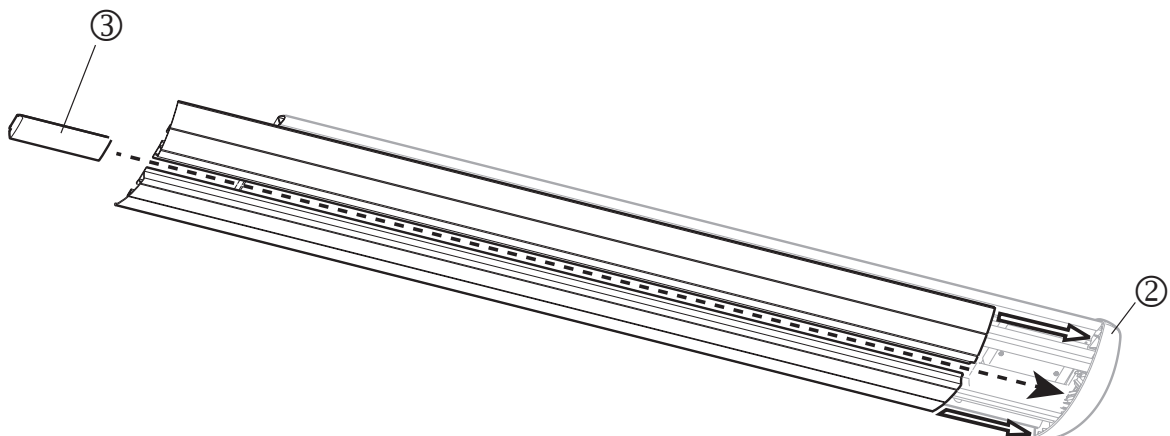


- 2** Attach the dress panel to the track, first engaging the mating hook features closest to the middle of the track and then the outer hook features as demonstrated below.



- 3** Repeat for the second dress panel.

- 4** Slide the installed dress panels into the mating Rear End Cap (figure below, item 2) at the transformer end of the track. Assemble the Longer Filler Block (figure below, item 3) to the cover of the transformer box by sliding it down the track.

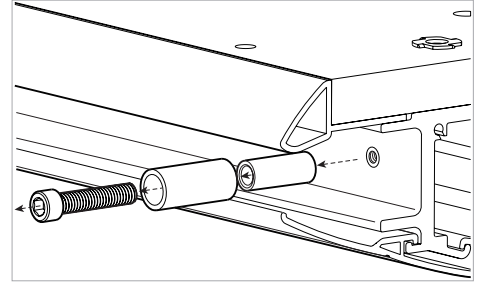


TRACK MOUNT LIGHT INSTALLATION

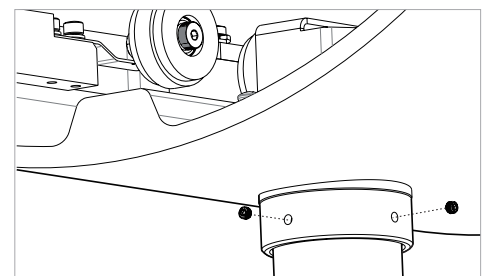
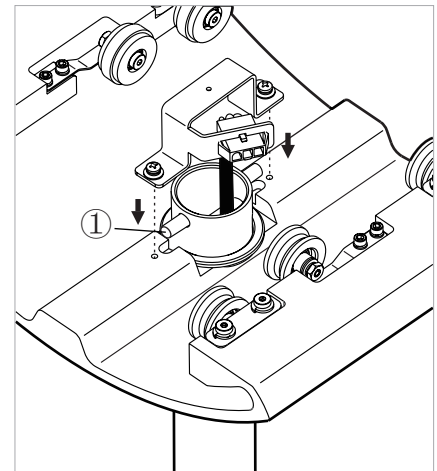
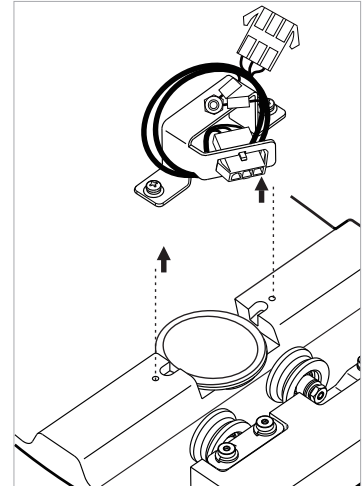
ATTACHING THE TROLLEY



NOTE: The technician should remove the trolley stops (right) at the non-transformer end before attaching the trolley.



- 1** Remove the bracket with the extension cable.
- 2** Install the drop post to the trolley.
 - a. Insert the drop post into the sleeve on the trolley until the holes of the drop post are visible inside the trolley.
 - b. Insert the cross pin (right, item 1) through the post, leaving an equal length of the pin extending to each side of the post.
 - c. Drop the post and pin assembly down until the cross pin is seated in the mating groove of the trolley as shown (right).
- 3** Route the cable down through the rectangular opening in the trolley (right) and continue to route the wire through the supplied drop post.
- 4** Attach the cable bracket to the trolley using the supplied 8-32 and 1/4-20 fastener.
- 5** Tighten the set screws on the trolley as shown to secure the position of the extension post. Use a post level to verify the post is plumb.

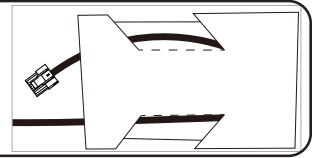


TRACK MOUNT LIGHT INSTALLATION

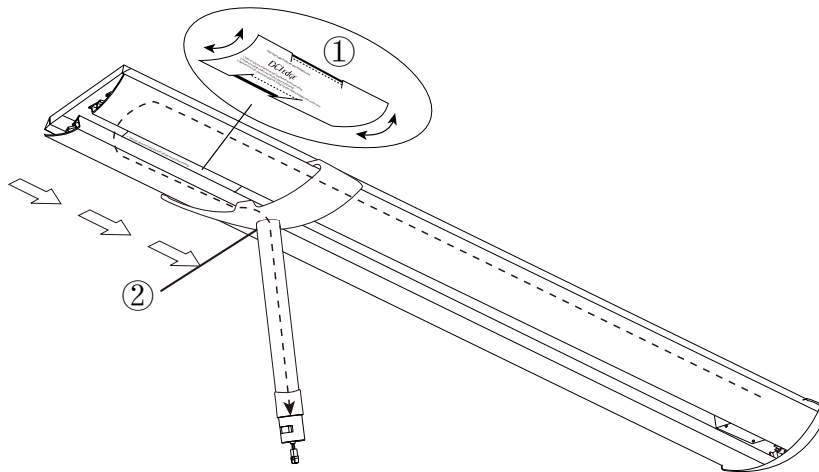
- 6** Connect the wire harness which is attached to the track to the trolley.



NOTE: During product packaging, a cardboard placard is inserted into the track to secure the wire harness (right) and to prevent cable fall-out or cable damage. Follow the instructions on the cardboard placard to install the trolley harness:



- Slide out placard to bend line and fold placard up toward ceiling (below, item 1).
- Prepare and slide trolley into rails past placard and stop the trolley here (below, item 2), with the connector facing opposite the transformer.



- Remove the wire from the placard and plug into trolley harness without adding a twist to the wire.

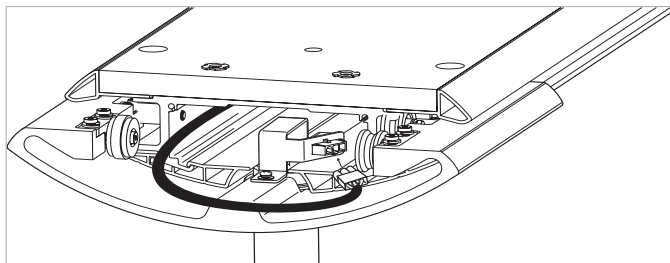


NOTE: Discard the placard after removing the wire from it.

- Verify that the cable forms a loop around the end of the trolley as shown (below).



NOTE: Adding a twist to the trolley wire will directly impact performance of the trolley and the light assembly.

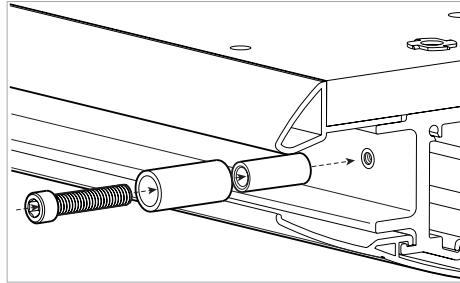


TRACK MOUNT LIGHT INSTALLATION

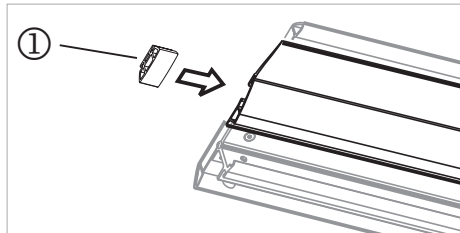
- 7** Attach trolley stops using the cap screw, the sleeve, and the rubber tube on both sides of the track (below).



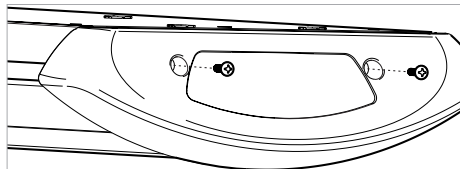
WARNING: Failure to install the trolley stops after installing the trolley could result in serious injury to operator or patient.



- 8** Install the Shorter Filler Block (below, item 1) to the open end of the track.



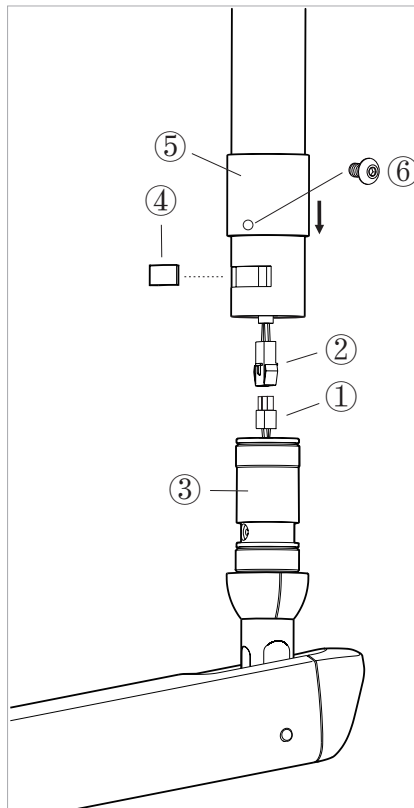
- 9** Attach the plastic Front End Cap at the end of the track using the previously removed 8-32 Phillips head screws (below).



NOTE: Verify that the filler block fit should be flush with the end cap.

TRACK MOUNT LIGHT INSTALLATION

ATTACHING FLEX ARM AND LIGHT HEAD



- 1** Slide the Outer Sleeve (above, item 5) on to the Drop Post.
- 2** Connect the Power Cable (above, item 1) of the flex arm to the Extension Cable (above 5, item 2) from the Drop Post.
- 3** Insert the Vertical Pin (above, item 3) of the flex arm into the post until it bottoms out.
- 4** Insert the Bronze Key (above, item 4) into the slot at the bottom of the drop post and ensure that it seats into the groove of the flex arm pin to lock the arm into position.
- 5** Lower the Outer Sleeve over the key and slot. Secure into position with the provided set screw (above, item 6).



NOTE: Verify that the orientation of the sleeve is correct. When the sleeve is installed upside down, the set screw holes cannot align between the sleeve and the bronze key within the slot of the Flex Arm. Failure to engage the bronze key could result in injury to the operator or patient.

WALL MOUNT LIGHT INSTALLATION

TOOLS NEEDED FOR INSTALLATION

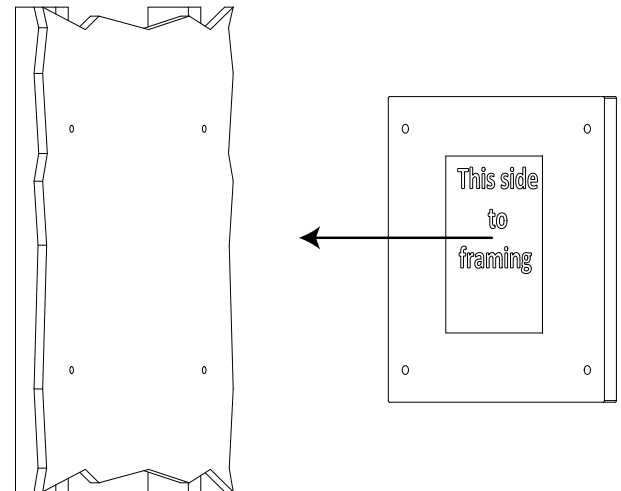
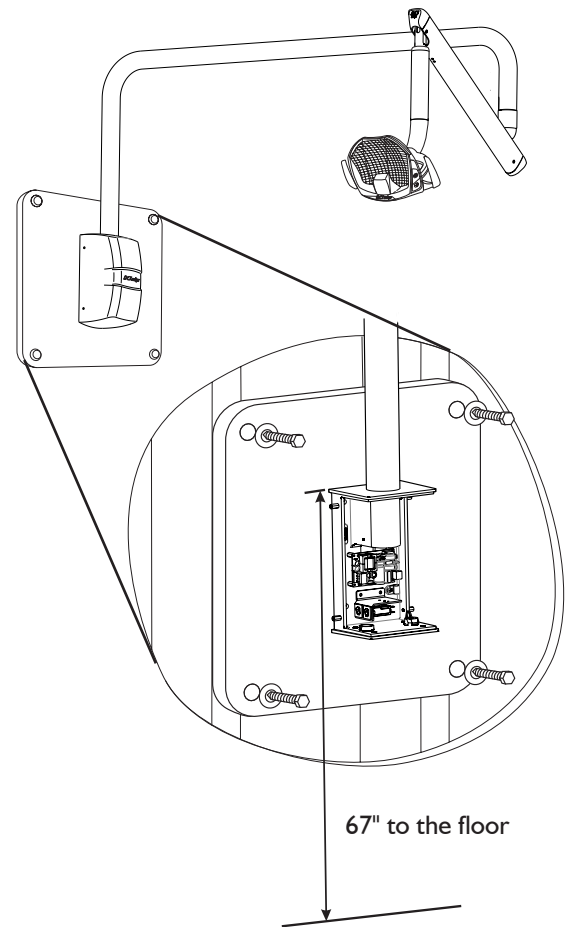
- Phillips head screwdriver
- Utility knife
- Socket wrench with 1/2" socket
- Electric Drill with 3/8" drill bit
- Post Level
- Tape Measure

INCLUDED HARDWARE

1/2"x 4" lag screws, Qty 4

MOUNTING THE WALL BOARD

- 1 Identify the wall studs best suited for use to attach the wall board. Ensure that the studs are 16 inches apart from center-to-center.
- 2 Use the template provided to mark the hole centers on your wall, ensuring that your mains power cord is also aligned with the 1 inch hole.
- 3 Using the supplied lag bolts and a socket wrench, attach the wall board to the wall at the recommended height shown with the sticker side facing the wall.
- 4 Using a level, ensure that the mounted wall board is level side-to-side and front-to-back. Use shims to adjust the level.

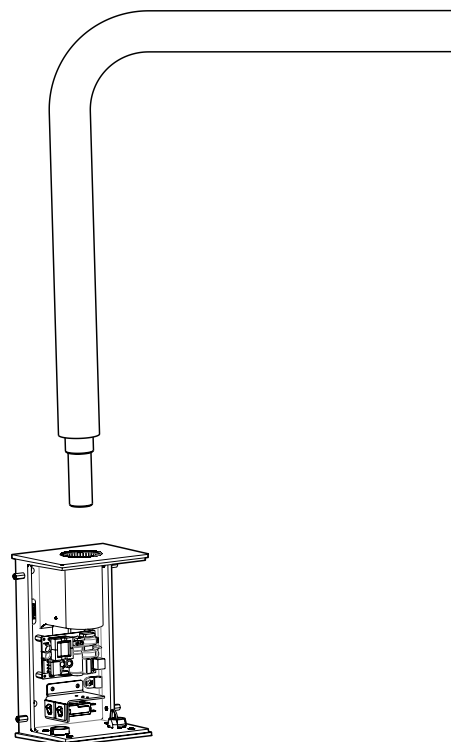


WARNING: Failure to attach the wall board using the supplied lag screws and with the correct (sticker side) facing the wall as shown could result in serious injury to the patient or operator.

WALL MOUNT LIGHT INSTALLATION

ATTACHING EXTENSION POLE

- 1 Feed the wire harness from the pole through the top of the mounting structure.
- 2 Attach the extension pole to the wall casting as shown.

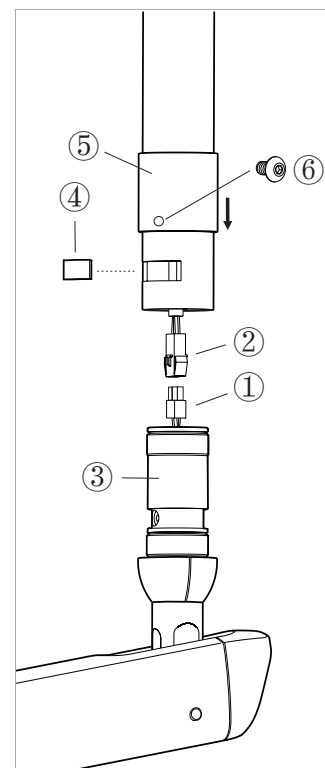


ATTACHING FLEX ARM AND LIGHT HEAD

- 1 Slide the Outer Sleeve (right, item 5) on to the Drop Post.
- 2 Connect the Power Cable (right, item 1) of the flex arm to the Extension Cable (right 5, item 2) from the Drop Post.
- 3 Insert the Vertical Pin (right, item 3) of the flex arm into the post until it bottoms out.
- 4 Insert the Bronze Key (right, item 4) into the slot at the bottom of the drop post and ensure that it seats into the groove of the flex arm pin to lock the arm into position.
- 5 Lower the Outer Sleeve over the key and slot. Secure into position with the provided set screw (right, item 6).



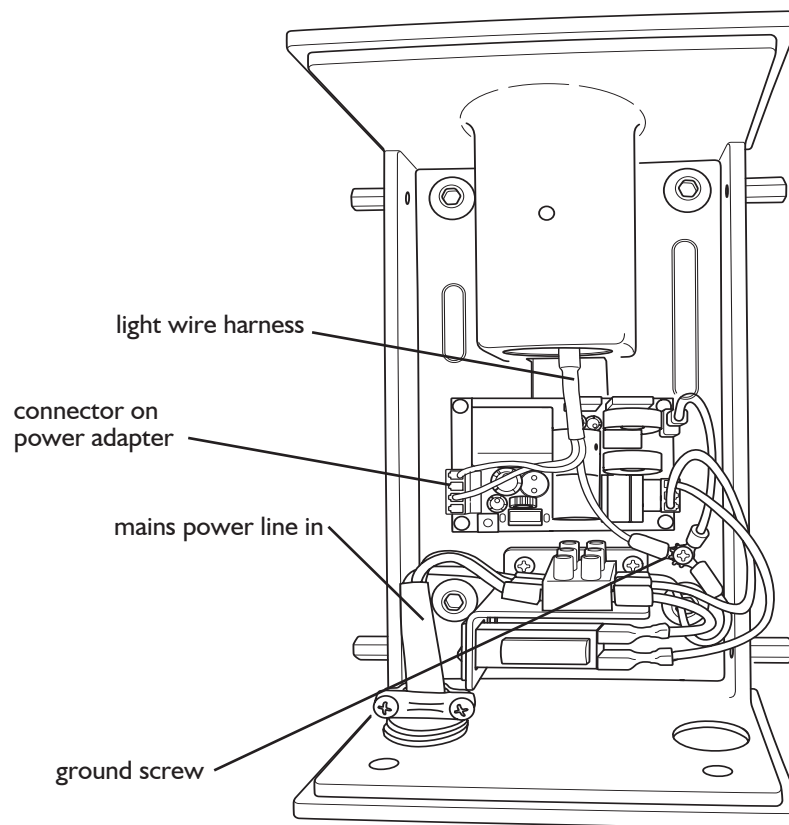
NOTE: Verify that the orientation of the sleeve is correct. When the sleeve is installed upside down, the set screw holes cannot align between the sleeve and the bronze key within the slot of the Flex Arm. Failure to engage the bronze key could result in injury to the operator or patient.



WALL MOUNT LIGHT INSTALLATION

MAKING ELECTRICAL CONNECTIONS

- 1** Route mains power through the 1 inch hole in the wall board.
- 2** Secure the mains power cord using the wire clamp provided.
- 3** Cut to length and strip all three wires and connect to the terminal strip as shown.
- 4** Connect the wire harness from the pole to the connector on the power adapter.
- 5** Add the ground wire from the light wire harness to the ground location by removing the ground screw, sliding the ring terminal of the ground wire onto the ground screw, and re-attaching the ground screw to the grounding location. Be sure to retain the other ground wires on the ground screw.
- 6** Assemble the plastic cover using the 4 6-32 Phillips head screws.



WARNING: Failure to make the proper electrical connections as shown could result in serious injury to the patient or operator.

CABINET MOUNT LIGHT INSTALLATION

TOOLS NEEDED FOR INSTALLATION

- Phillips head screwdriver
- Utility knife
- Socket wrench with 1/2" socket
- Electric Drill with 3/8" drill bit
- Post Level
- Tape Measure

INCLUDED HARDWARE

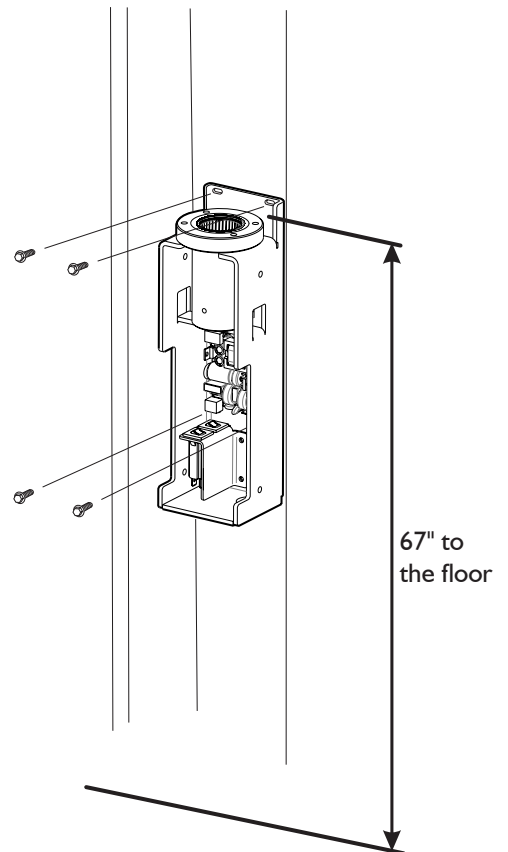
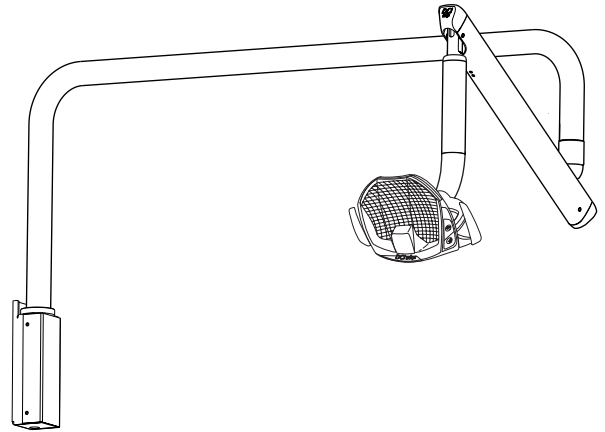
- 1/4"-20 Bolts, Qty 4
- Split washers, Qty 4

MOUNTING THE BRACKET

- 1** Identify the location for the bracket on the sheet metal structure of the cabinet. Ensure that the structure can support the load of 200 lbs.
- 2** Drill 4 clearance holes for the 1/4"-20 bolts provided using the drill template provided.
- 3** Assemble the bracket to the cabinet structure using the supplied 1/4"-20 bolts, washers, and nuts as shown.
- 4** Using a level, ensure that the mounted wall board is level side-to-side and front-to-back. Use shims to adjust the level.



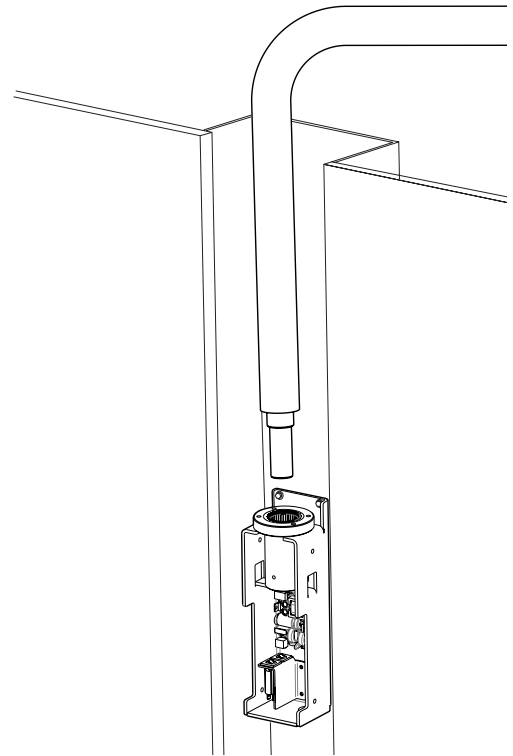
WARNING: Failure to attach the bracket using the supplied screws as shown could result in serious injury to the patient or operator.



CABINET MOUNT LIGHT INSTALLATION

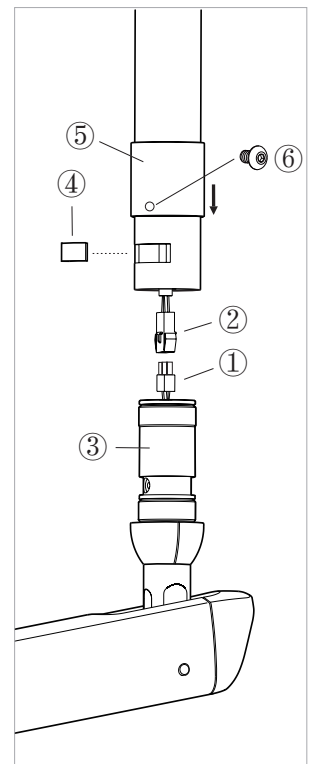
ATTACHING EXTENSION POLE

- 1 Feed the wire harness from the pole through the top of the mounting structure.
- 2 Attach the extension pole to the wall casting as shown.



ATTACHING FLEX ARM AND LIGHT HEAD

- 1 Slide the Outer Sleeve (right, item 5) on to the Drop Post.
- 2 Connect the Power Cable (right, item 1) of the flex arm to the Extension Cable (right 5, item 2) from the Drop Post.
- 3 Insert the Vertical Pin (right, item 3) of the flex arm into the post until it bottoms out.
- 4 Insert the Bronze Key (right, item 4) into the slot at the bottom of the drop post and ensure that it seats into the groove of the flex arm pin to lock the arm into position.
- 5 Lower the Outer Sleeve over the key and slot. Secure into position with the provided set screw (right, item 6).



NOTE: Verify that the orientation of the sleeve is correct. When the sleeve is installed upside down, the set screw holes cannot align between the sleeve and the bronze key within the slot of the Flex Arm. Failure to engage the bronze key could result in injury to the operator or patient.

CABINET MOUNT LIGHT INSTALLATION

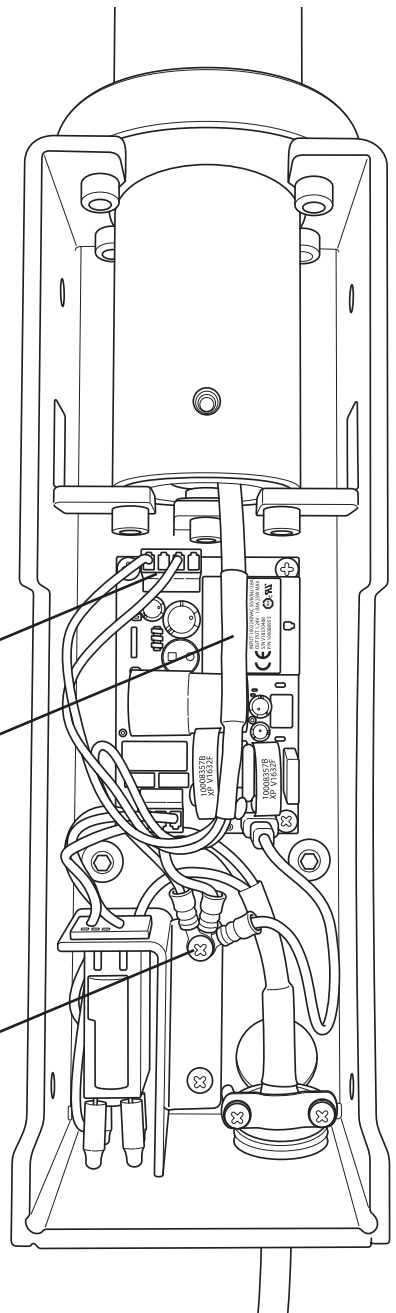
MAKING ELECTRICAL CONNECTIONS

- 1** Remove grounding screw and install the third grounding leg from the light wire harness onto the screw. Reinstall the grounding screw and tighten.
- 2** Install the connector from the light wire harness to the power supply as shown.
- 3** Plug the light power cord into a hospital grade electrical outlet.
- 4** Attach front cover using the supplied 8-32 screws.

connection to power supply board

light wire harness

ground screw



WARNING: Failure to make the proper electrical connections as shown could result in serious injury to the patient or operator.

