



A-dec® 372L Dental Light on Cascade®/Decade® Dental Chair

INSTALLATION GUIDE

Contents

Before You Begin	2
Uninstall the Current Equipment	3
Install the Rigid Arm	6
Install the Light Components	10
Route the Tubing and Wiring	11
Connect the Wires and Data Line	17
Prepare and Adjust the Light	19
Test the Light	24
Reinstall the Driver Housing Cover	26
Regulatory Information and Warranty	28



A-dec 372L Dental Light and A-dec 333 Delivery System on a Cascade Dental Chair

Product Models and Versions Covered in this Document

Model	Versions	Description
Cascade/Decade	A	Dental Chair
372L	A	Dental Light

Before You Begin



NOTE Information that is critical to a successful installation is shaded like this note throughout the guide.



WARNING Shock hazard. When you remove or replace the covers, take care not to damage any wiring or tubing. Verify that the covers are secure after you replace them.



NOTE The installation instructions for installing a monitor mount rigid arm are the same for installing a light rigid arm.

Recommended Tools

- 15/16" socket and ratchet (2)
- Diagonal cutters
- Phillips head screwdriver
- 1/2" combination wrench
- Hex key set
- Anti-static wrist strap

Uninstall the Current Equipment



NOTE The same pieces of equipment need to be uninstalled on both the Cascade and Decade chairs.

Recommended Tools

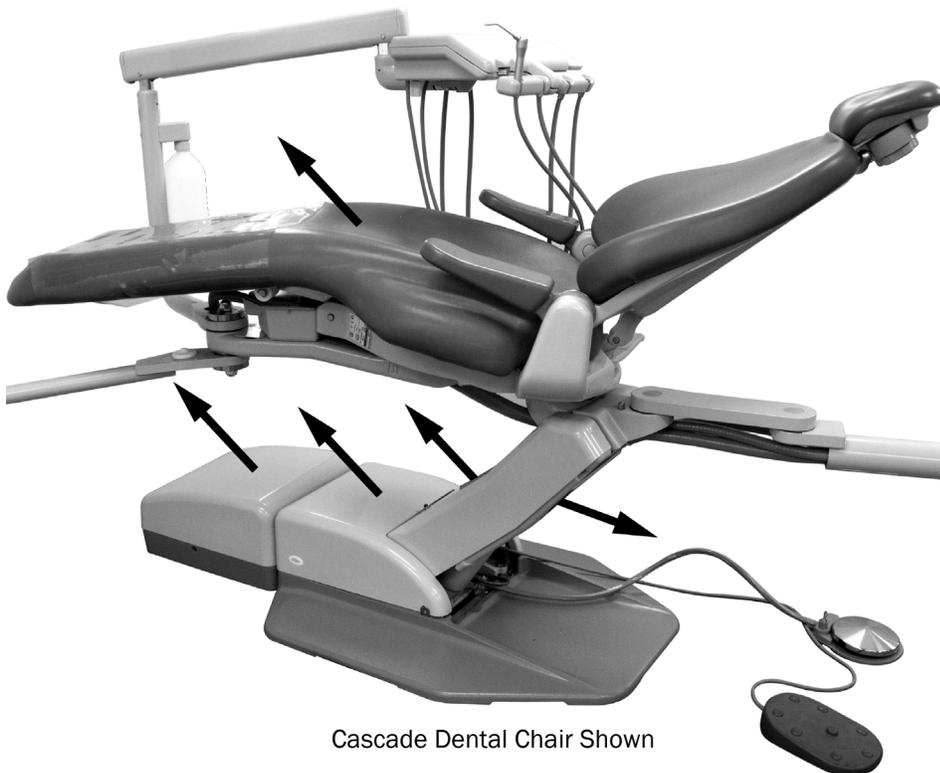
- 3/16" hex key
- 15/16" socket and ratchet

1 Fully raise the chair.



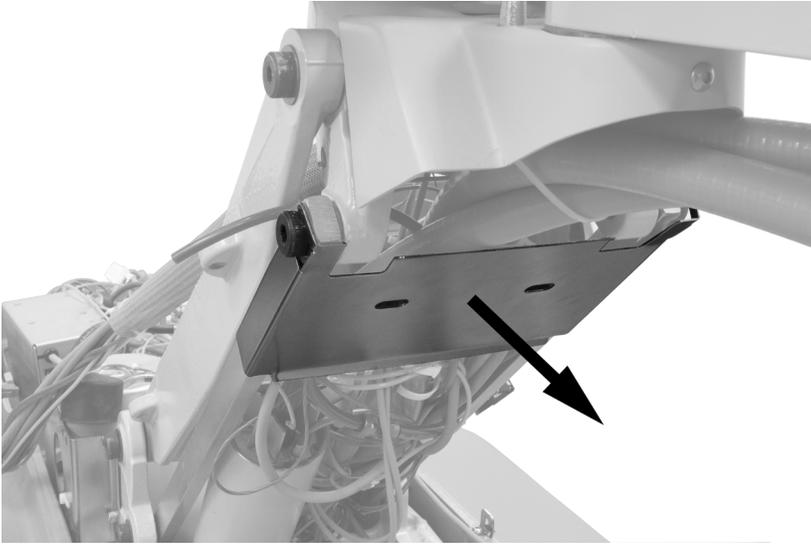
CAUTION Failure to turn off or disconnect the power before you begin this procedure can lead to electrical shock.

2 Turn off the power and air.



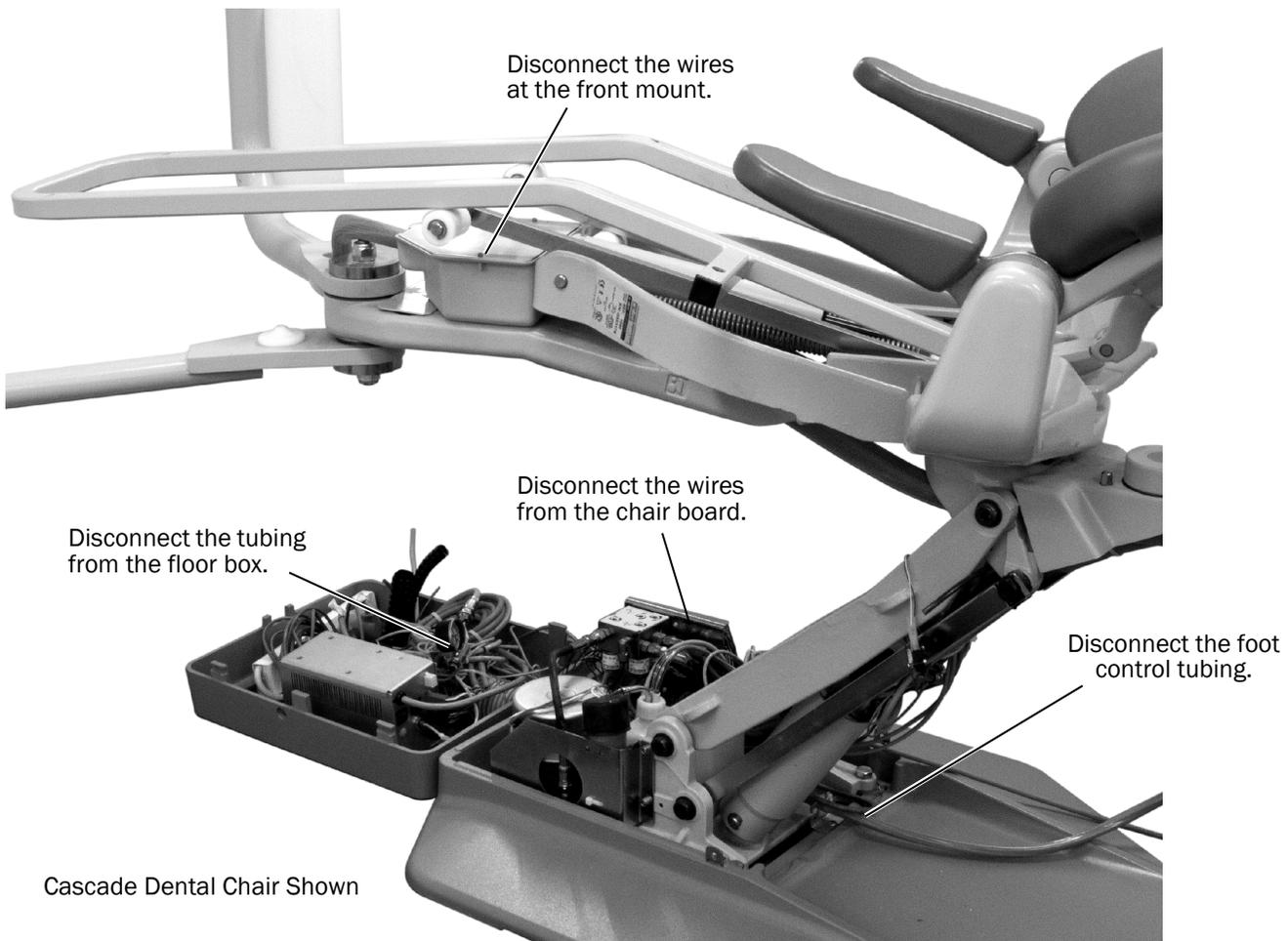
Cascade Dental Chair Shown

3 Remove the seat upholstery. Remove the floor box, pump, and lift arm covers. The upholstery and covers are all secured with fasteners, except for the floor box cover. To remove the lift arm covers, disconnect the light on the front and the two limit switches on the back.



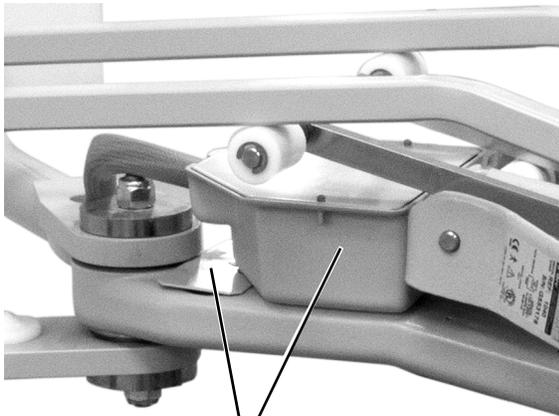
4 Pry the metal plate off from the back of the lift arm.

5 Disconnect the tubing and wires.



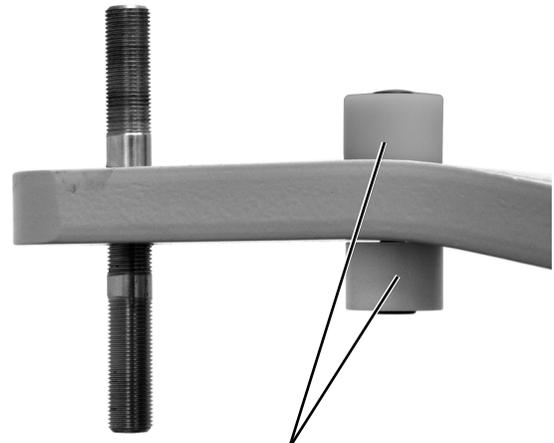
6 Uninstall the following according to the type of chair.

Cascade Dental Chair



Remove the metal plate, hex standoff under the plate, and junction box from the front mount.

Decade Dental Chair



Remove the white stops and mounting hardware from the front mount.

7 Use a 15/16" socket and ratchet to remove the delivery system and dental light modules and rigid arms.



CAUTION Failure to use red Loctite® when reinstalling a pivot stud could result in the rigid arm falling off of the front mount.

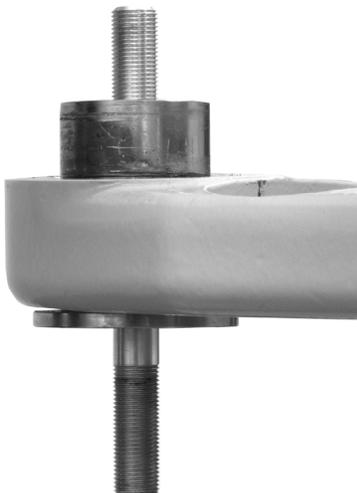


NOTE If the pivot stud comes out of the front mount and is stuck to the nut, there are replacement studs in the kit. Apply red Loctite to the end of the replacement stud with less threads and install that end into the front mount.



When everything is uninstalled the front mounts should look like the following.

Cascade Front Mount
Ready for Installation



Decade Front Mount
Ready for Installation



Install the Rigid Arm



READ THIS! Light only configurations are not supported on Cascade/Decade dental chairs. Install the delivery system rigid arm before installing the light. For instructions on installing delivery system rigid arm, see the installation guide that ships with the delivery system.

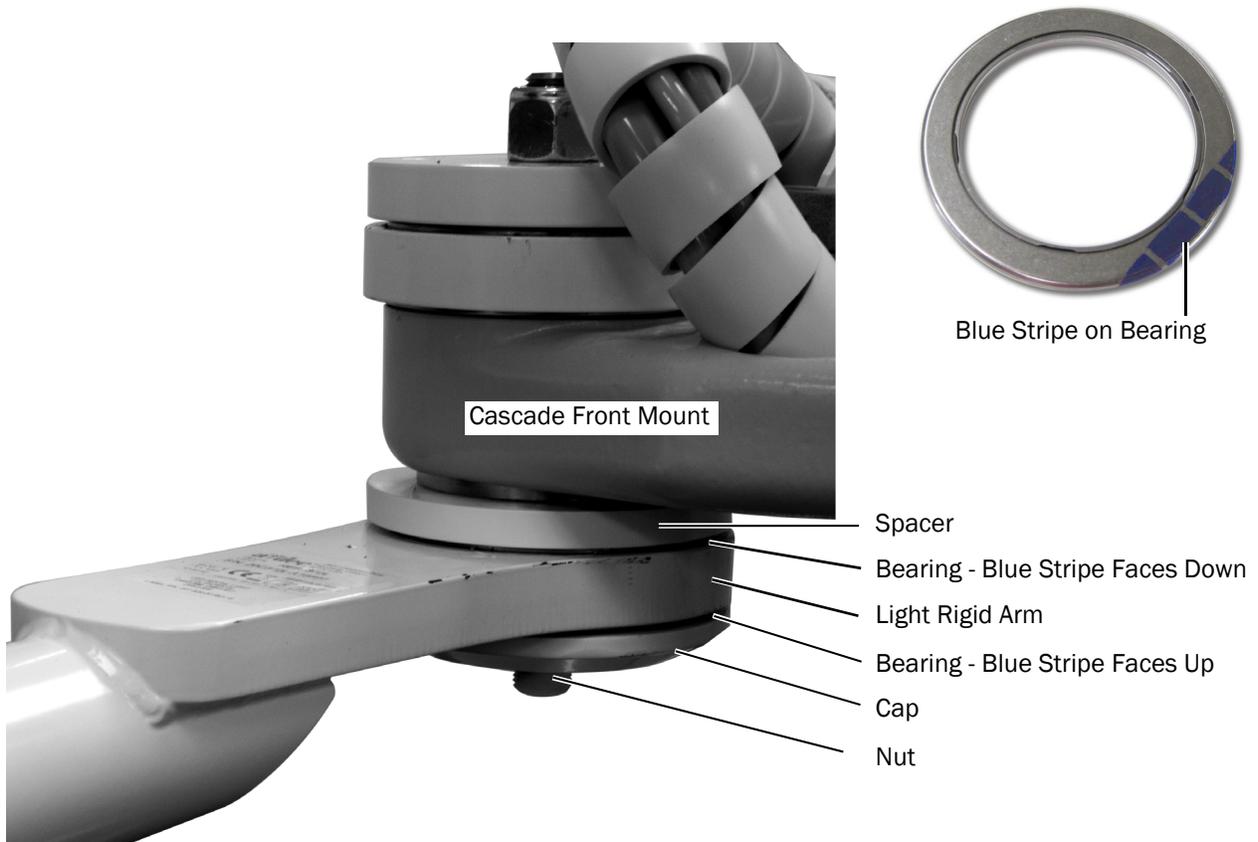
Complete the instructions for the model of the chair the dental light is installed on.

- Install the Light Rigid Arm on a Cascade Dental Chair 7**
- Install the Light Rigid Arm on a Decade Dental Chair 9**

Install the Light Rigid Arm on a Cascade Dental Chair

Recommended Tools

- 3/16" hex key
- 15/16" socket and ratchet



- 1** On the bolt below the front mount, install the spacer, bearings, rigid arm, cap, and nut.

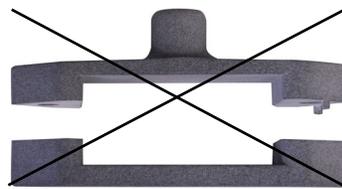


CAUTION For the arm to rotate properly, the bearings must be fully seated in the grooves in the arm with the blue stripe in the correct position. Proceed with care to ensure that the bearings do not shift out of position during tightening.

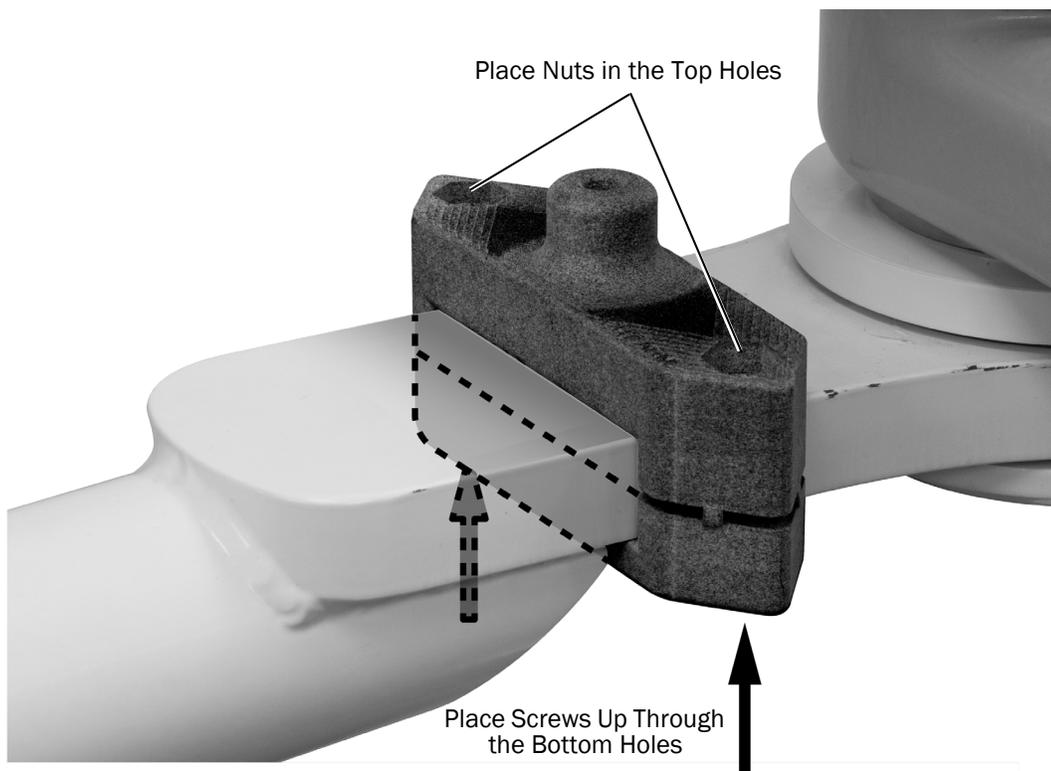
- 2** Use a 15/16" socket and ratchet to secure the stack to the front mount.



Use the thick rotation stop.



Do not use the thin rotation stop.



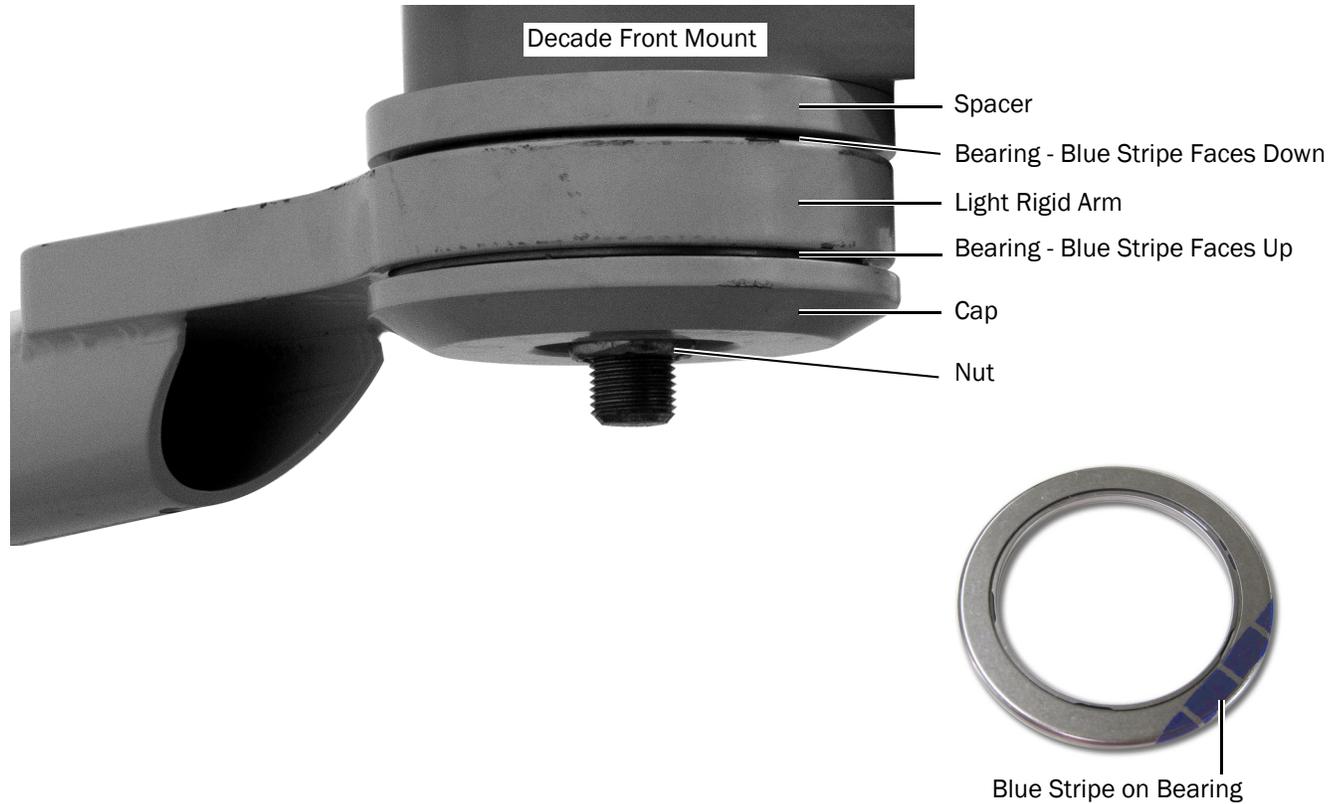
- 3** Place the two pieces of the thick rotation stop around the flat part of the rigid arm, up against the round pipe and with the knob of the stop on top.
- 4** Place a nut in each of the holes in the top piece of the rotation stop.
- 5** From the bottom of the stop, use a 3/16" hex key and two screws to secure the stop to the rigid arm.

Next Step See "Install the Light Components" on page 10.

Install the Light Rigid Arm on a Decade Dental Chair

Recommended Tool

- 15/16" socket and ratchet



- 1** On the bolt below the front mount, install the spacer, bearings, rigid arm, cap, and nut.



CAUTION For the arm to rotate properly, the bearings must be fully seated in the grooves in the arm with the blue stripe in the correct position. Proceed with care to ensure that the bearings do not shift out of position during tightening.

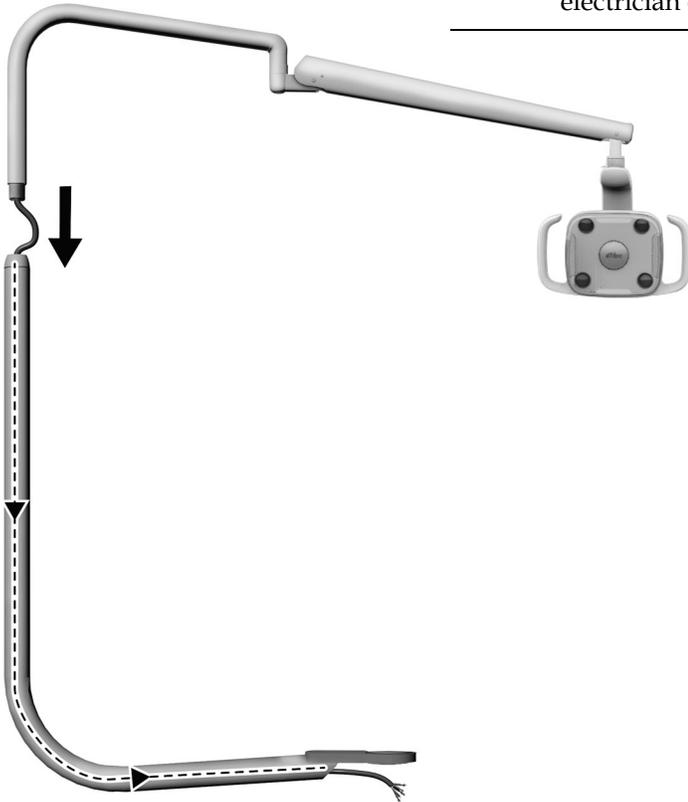
- 2** Use a 15/16" socket and ratchet to secure the stack to the front mount.

Install the Light Components

Task 1.



ATTENTION Circuit boards are sensitive to static electricity. Electrostatic Discharge (ESD) precautions are required when touching a circuit board or making connections to or from the circuit board. Circuit boards should be installed only by an electrician or qualified service person.



- 1** Fully lower the chair base.
- 2** Lubricate the end of the upper rigid arm.
- 3** Route the light cable through the lower rigid arm.
- 4** Insert the upper rigid arm into the lower rigid arm until fully seated.
- 5** Raise the chair.

Route the Tubing and Wiring

Complete the instructions for the system's configuration.

Route the Tubing and Wiring on a Cascade Dental Chair 11

Route the Tubing and Wiring on a Decade Dental Chair 14

Route the Tubing and Wiring on a Cascade Dental Chair

Task 1.

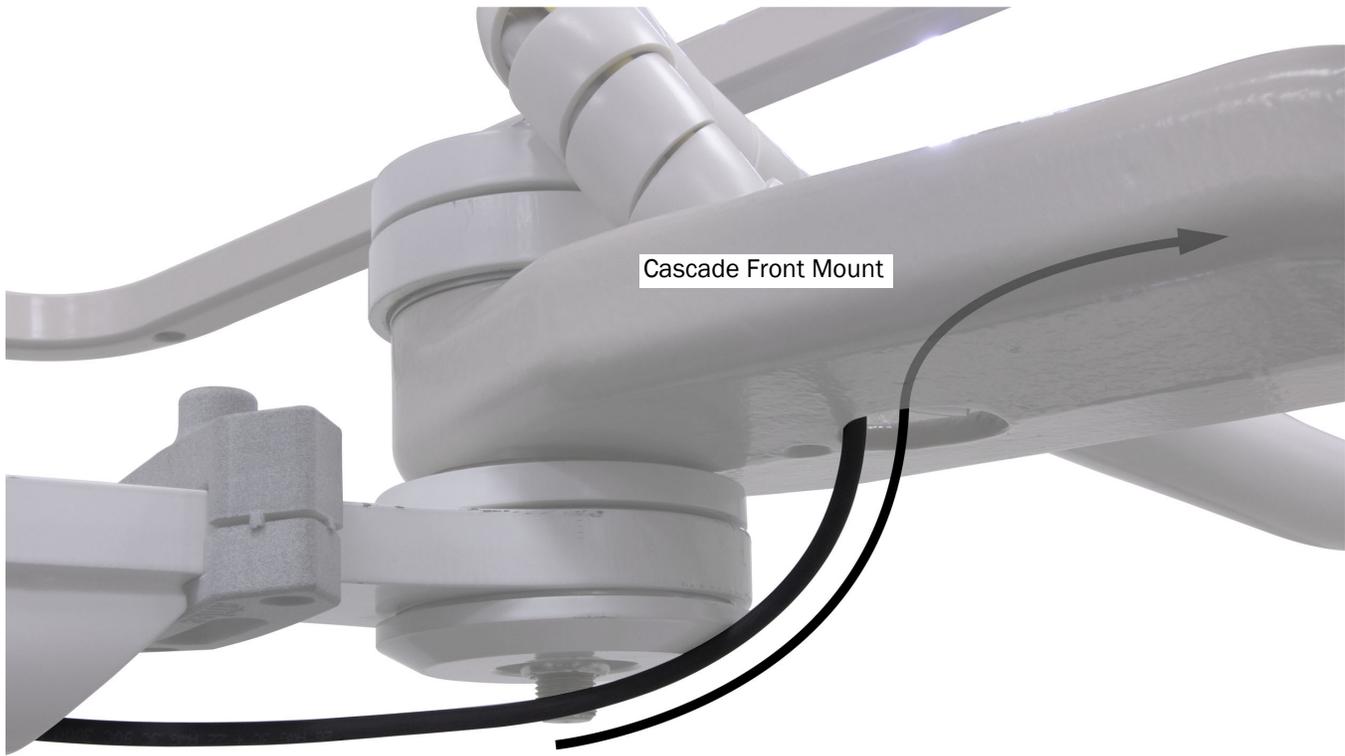
- 1** Make sure the chair back and base are fully raised.



WARNING Failure to turn off or disconnect the power before you begin this procedure can lead to product damage and result in serious injury or death.

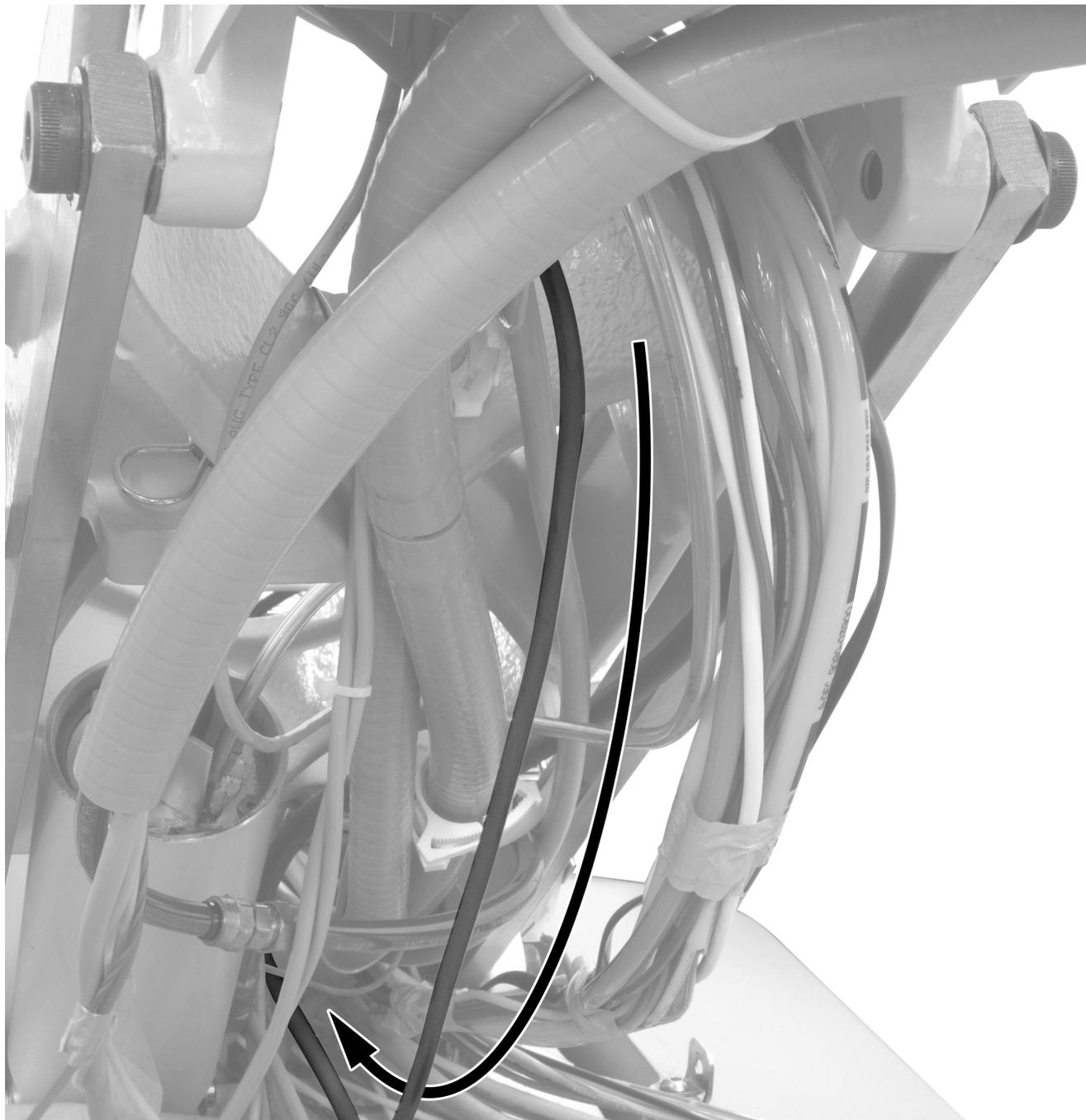
- 2** Turn off power to the chair.

Task 2.



- 1** Route the umbilical through the front mount to the lift arm.

Task 3.



1 Route the umbilical to the back of the lift arm, then down to the bottom and into the pump area.

Next Step See “Connect the Wires and Data Line” on page 17.

Route the Tubing and Wiring on a Decade Dental Chair

Recommended Tools

- Diagonal cutters

Task 1.

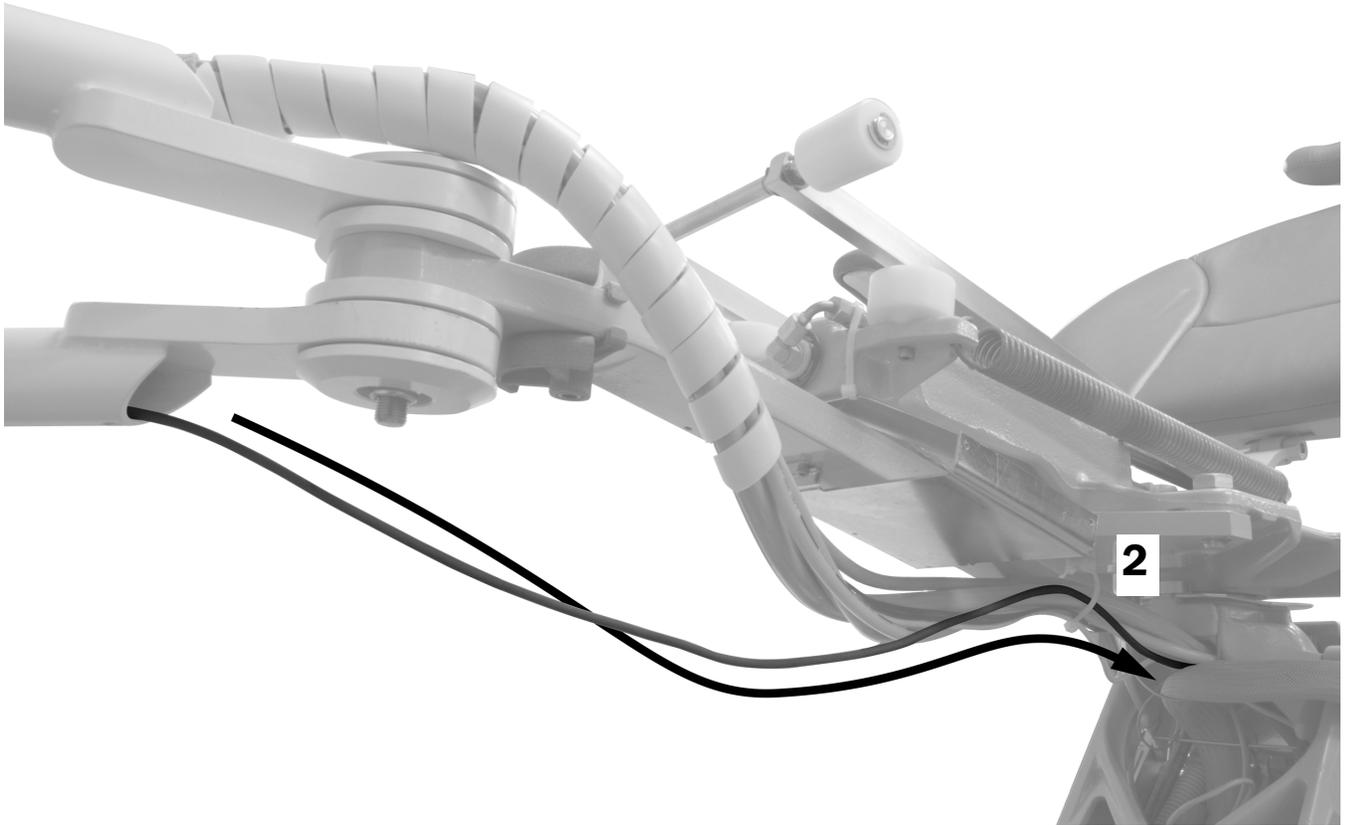
- 1** Make sure the chair back and base are fully raised.



WARNING Failure to turn off or disconnect the power before you begin this procedure can lead to product damage and result in serious injury or death.

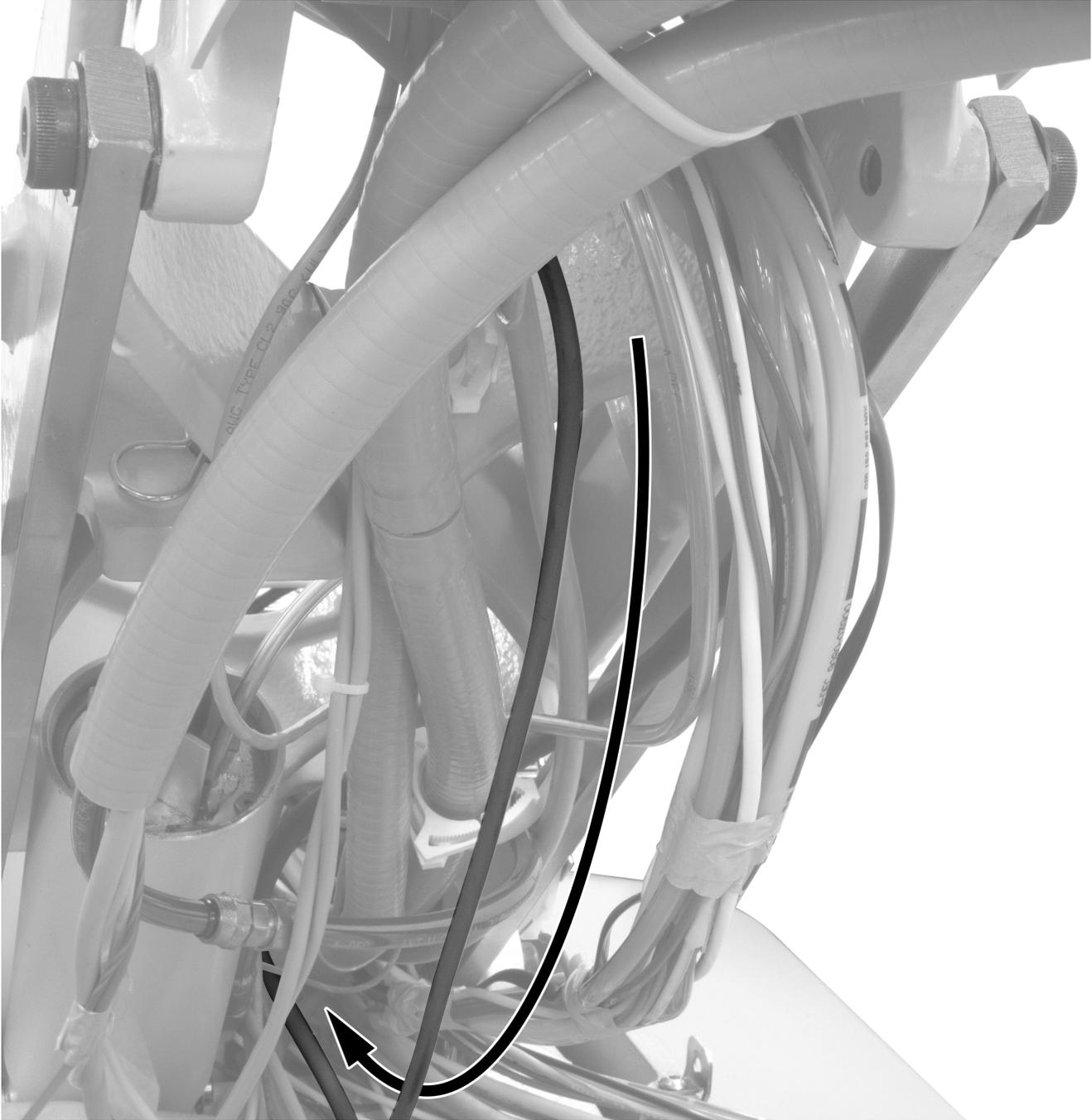
- 2** Turn off power to the chair.

Task 2.



- 1** Route the light cable under the front mount to the lift arm.
- 2** Secure the umbilical to the loop with a cable tie.

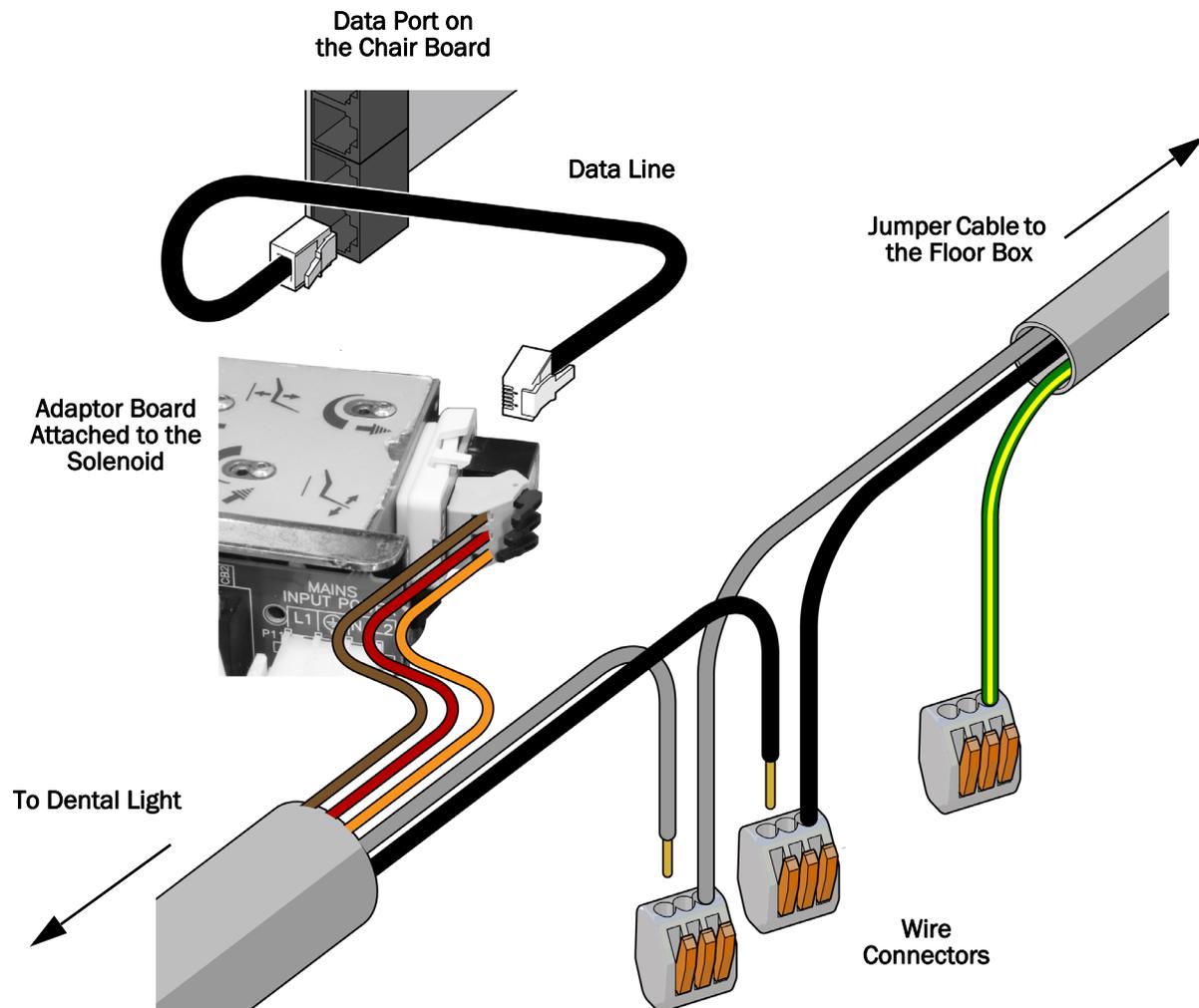
Task 3.



- 1** Route the umbilical to the back of the lift arm, then down to the bottom and into the pump area.

Connect the Wires and Data Line

Task 1.



- 1 Peel off the protective paper from the adaptor board. Attach the adaptor board to the side of the solenoid.

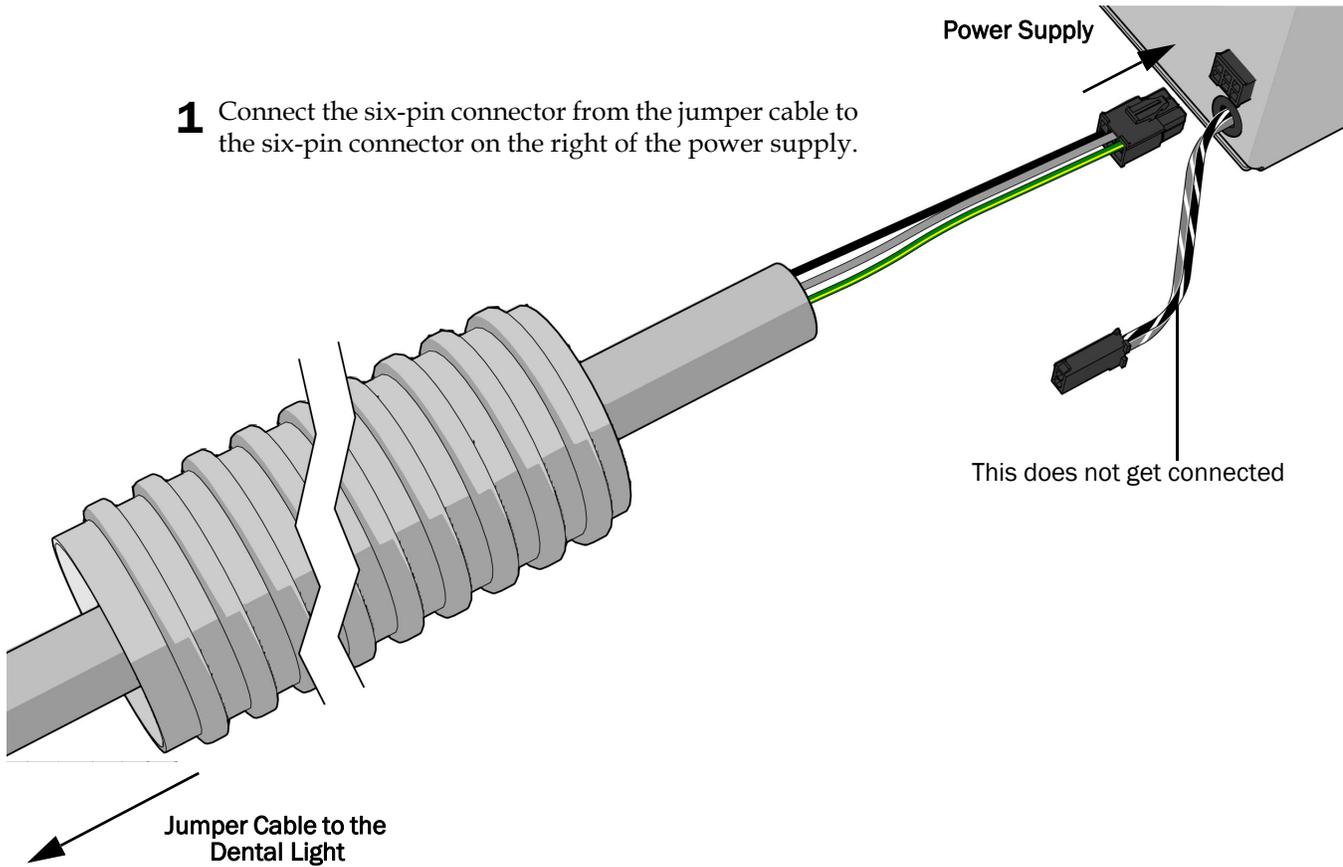


NOTE If there is already a translator board for a delivery system attached to the solenoid, attach the adaptor board next to it.

- 2 Connect the wires to the positions on the adaptor board as labeled; brown to BRN, red to RED, and orange to ORN.
- 3 Connect the data line from the adaptor board to any data port on the chair board.
- 4 Connect the gray and black wires from the light to the wire connectors from the jumper cable, matching gray to gray and black to black. The light does not connect to the wire connector with the green/yellow wire.

Task 2.

- 1** Connect the six-pin connector from the jumper cable to the six-pin connector on the right of the power supply.



Prepare and Adjust the Light

Adjust the Dental Light Flexarm Counterbalance

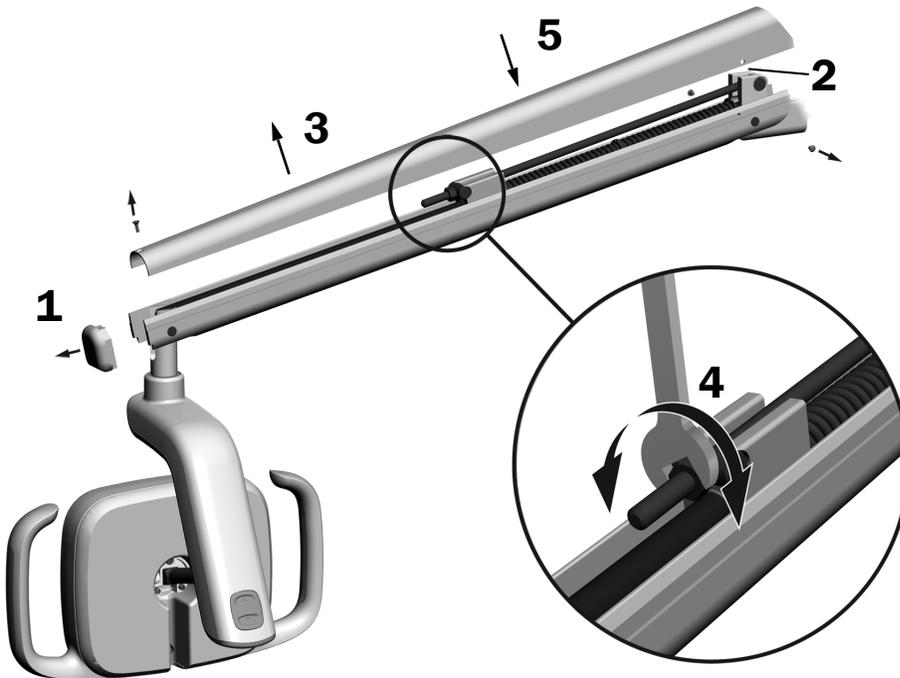
Recommended Tools

- Phillips head screwdriver
- 5/64" hex key
- 1/2" combination wrench



NOTE Complete this procedure to minimize the amount of unintentional dental light flexarm movement when adjusting the position of the light.

1. Remove the end cap on the flexarm.
2. Remove the two screws that secure the cover.
3. Remove the cover.
4. Adjust the nut on the end of the spring.
If the dental light drifts up, turn the nut counterclockwise.
If the dental light drifts down, turn the nut clockwise.
5. Set the cover back onto the flexarm (but do not reattach it yet). Check for drift.
6. Repeat steps 4 and 5 until drift is eliminated.
7. Reinstall the screws that secure the cover and reinstall the end cap.



NOTE An optional travel stop limit kit (p/n 90.1044.00) can be installed to limit the upward and downward motion of the flexarm.

Adjust the Rigid Arm Tension

Recommended Tools

- 15/16" socket and ratchets (2)



NOTE Complete this procedure to minimize the amount of unintentional dental light rigid arm movement when adjusting the position of the light.

1 Place the dental light in working position.

2 Tighten the lower nut.



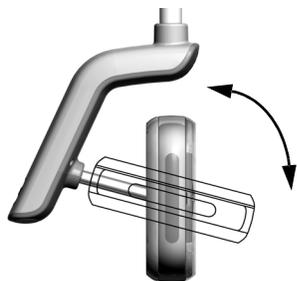
Adjust the Rotation Tension Settings

Recommended Tool

- 7/64" hex key

Test the rotation tension of the light head. If it needs to be adjusted, follow the directions for the type of tension that you will adjust.

Adjust the Vertical Tension



- 1** To adjust the tension, turn the screw. Clockwise increases the tension.

Adjust the Horizontal and Diagonal Tension

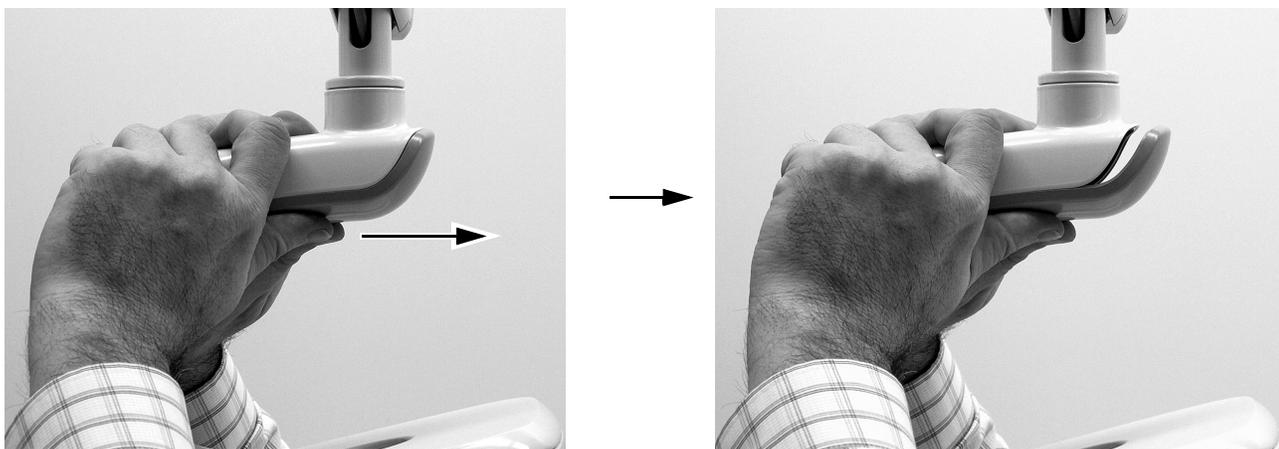
Task 1.

- 1 Remove the two screws securing the driver housing cover.



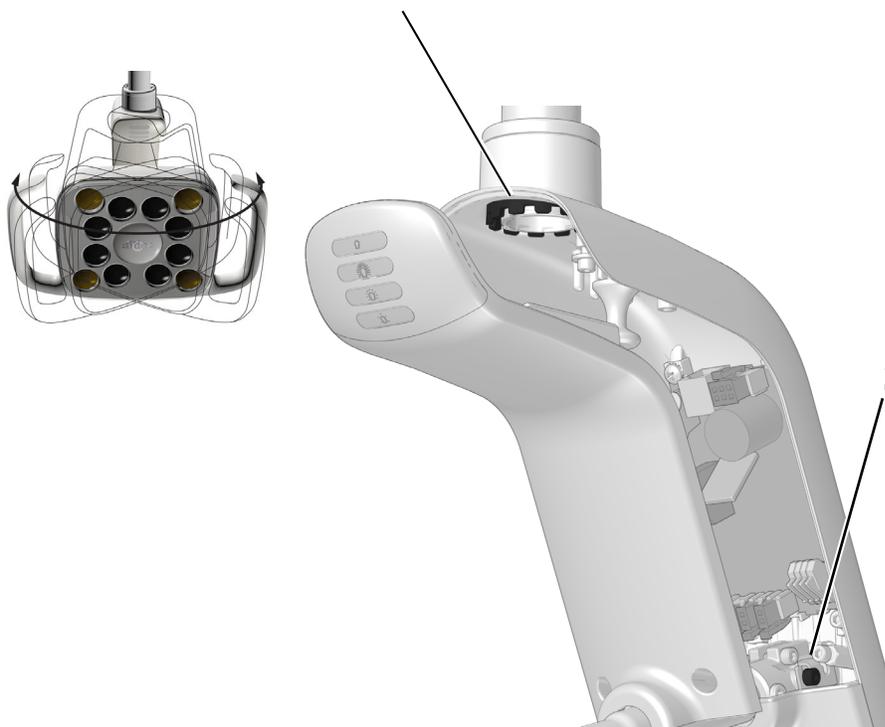
Task 2.

- 1 Grasp the driver housing and use your thumbs to push the driver housing cover away from the driver housing.

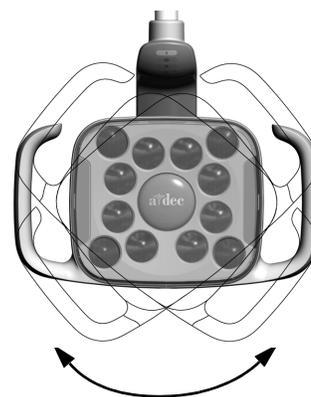


Task 3.

- 1** To adjust horizontal tension, rotate the friction adjustment.
Clockwise increases the tension.



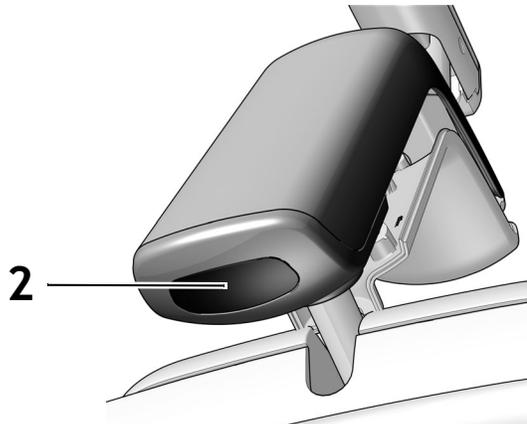
- 2** To adjust diagonal tension, turn the setscrew.
Clockwise increases the tension.



Test the Light

Test from the Light

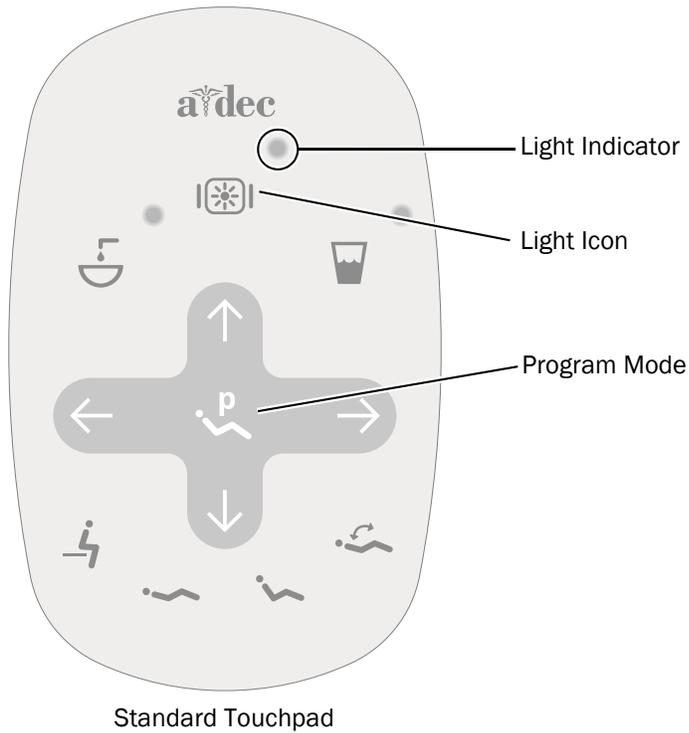
1. Turn on the power to the system.
2. Test the light:
 - **Lights with touch control functionality** – Move your hand within 3" (76 mm) of the touchless on/off sensor several times to verify the light switches between off and on.
 - **Lights without touch control functionality** – Move your hand within 3" (76 mm) of the touchless on/off sensor and verify that the light cycles through high-low-off.
3. If it doesn't work properly, check the wiring connections.



Test the Light From the Touchpad



NOTE Touch control symbols and icons are proprietary to A-dec, Inc.



- 1** Turn on the power to the system.
- 2** Press and hold  to verify the light turns on and toggles between the high and composite/low mode.



NOTE When the 372L is in the composite/low mode, the light indicator on the touchpad flashes.

- 3** Press and hold  to turn off the light.
- 4** Press and hold  and  at the same time until the system beeps to disable or enable the auto on/off function.
 - **One beep** indicates this function is off.
 - **Three beeps** indicate this function is on.

Reinstall the Driver Housing Cover



WARNING Shock hazard. When you remove or replace the covers, take care not to damage any wiring or tubing. Verify that the covers are secure after you replace them.

- 1** Position the driver housing cover so the keyhole fits around the post; then push the driver housing cover into position with your palm.



- 2** Use two screws to secure the cover.

Regulatory Information and Warranty

For required regulatory information and the A-dec warranty, see the *Regulatory Information, Specifications, and Warranty* document (p/n 86.0221.00) available in the Resource Center at www.a-dec.com.



For quick access to this document online, scan, tap, or click this QR code, which points to a-dec.com/regulatory-guide.

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2601 Crestview Drive
Newberg, OR 97132 USA
Tel: 1.800.547.1883 Within USA/CAN
Tel: +1.503.538.7478 Outside USA/CAN
www.a-dec.com

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