

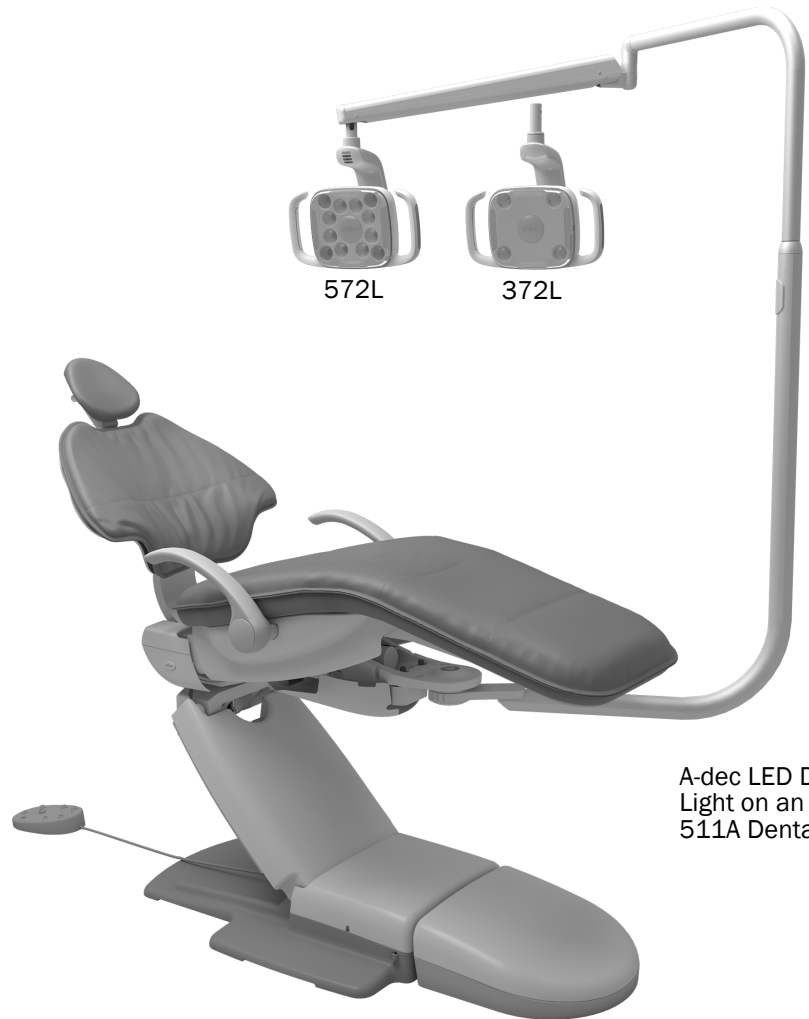


# A-dec® 372L/572L Dental Light on A-dec 311ft and A-dec 311/411/511 Dental Chair

## INSTALLATION GUIDE

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A-dec LED Dental Light on an A-dec 511A Dental Chair

### Product Models and Versions Covered in this Document\*

Model	Versions	Description
311ft	n/a	Dental Chair
311	B	Dental Chair
411/511	A	Dental Chair
372L/572L	A	Dental Light

\*Some product models, versions, and options in this document may not be available in certain regions.

## Before You Begin

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**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.



**NOTE** The instructions in this installation guide apply to both the A-dec 372L and 572L dental lights, except where noted.

## Recommended Tools

- 5/8", 3/4", and 15/16" socket and ratchet (2)
- 1/2" combination wrench
- Torque wrench with 5/8" and 3/4" open-end adaptors
- Wood block
- Diagonal cutters
- Hex key set
- Phillips head screwdriver
- Anti-static wrist strap

## Install the Front Mount (A-dec 511A only)

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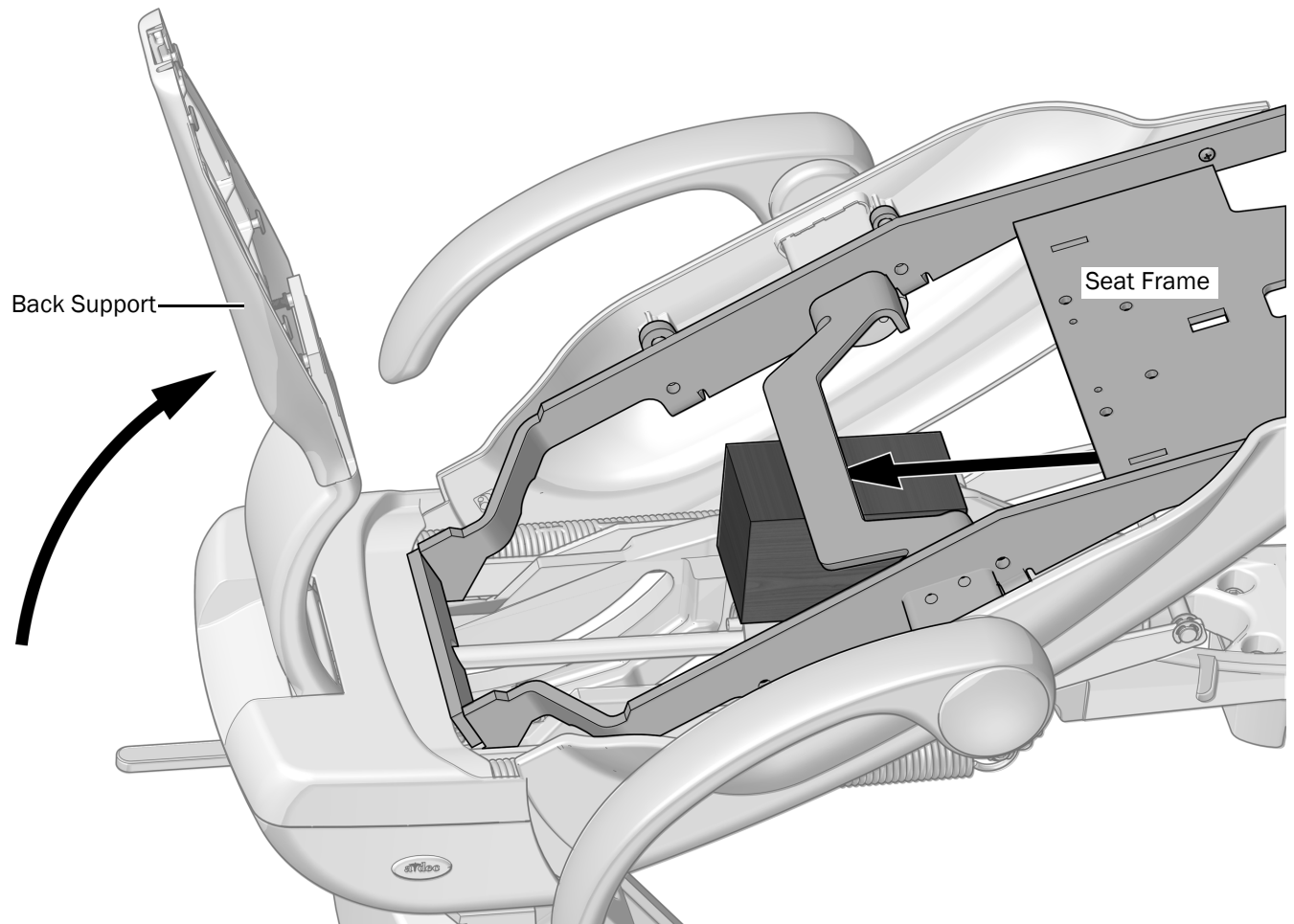
### Recommended Tools

- Wood block
- 1/4" and 3/8" hex keys
- 5/8" combination wrench
- Torque wrench with a 5/8" open-end adaptor
- Torque wrench with a 3/4" open-end adaptor

## Task 1.



**READ THIS!** If the system includes equipment mounted to a front mount, the modules and the front mount need to be uninstalled before completing this procedure.



**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.

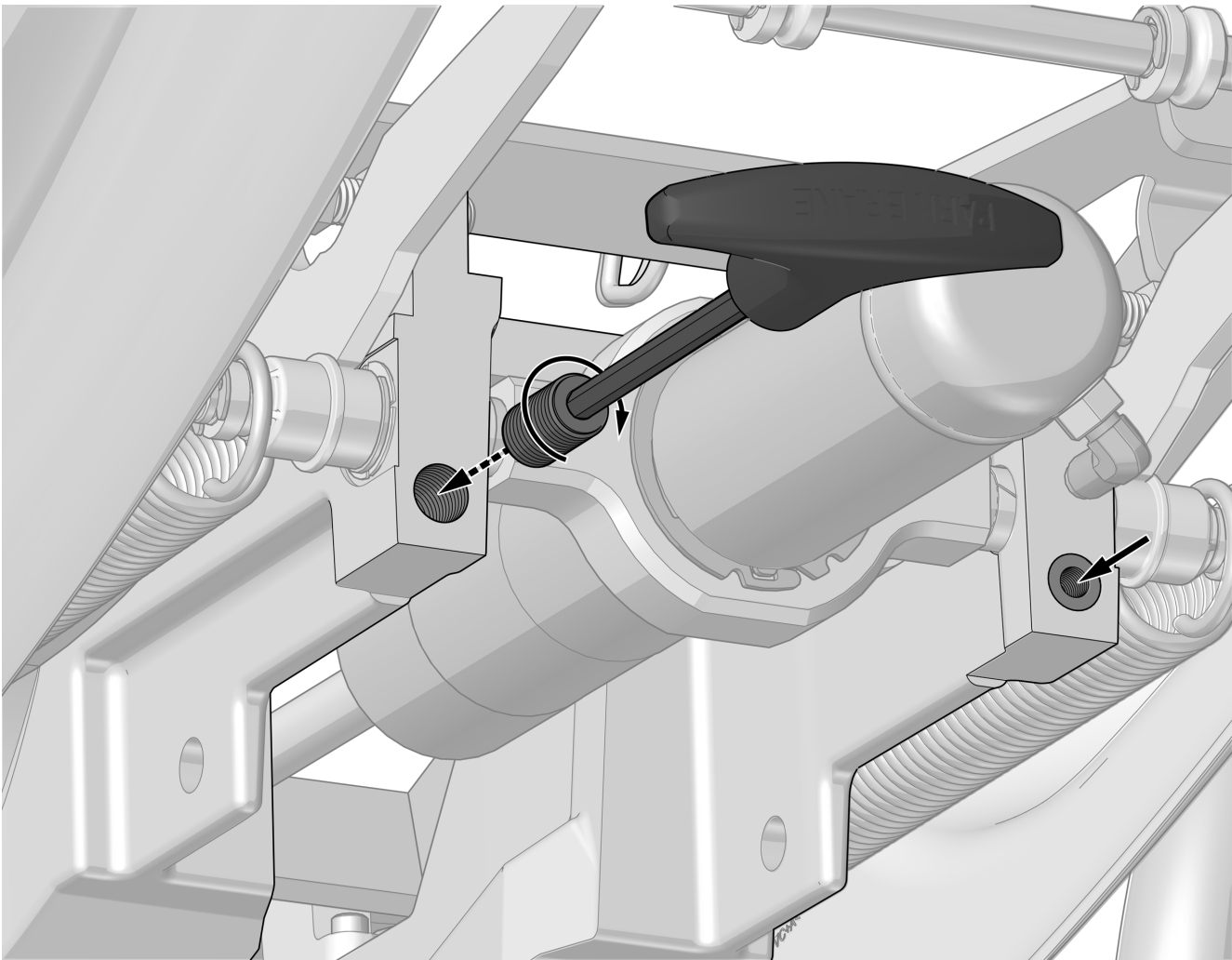
- 1** Turn on power to the chair.
- 2** Fully raise the back support.
- 3** Lift the seat frame and place a wood block between the seat frame and the upper structure. This provides better access to the front of the upper structure for attaching the rigid arms.

## Task 2.

- 1 Use a 1/4" hex key to screw two adaptors into the holes in the upper structure until the adaptors are flush with the surface of the upper structure.

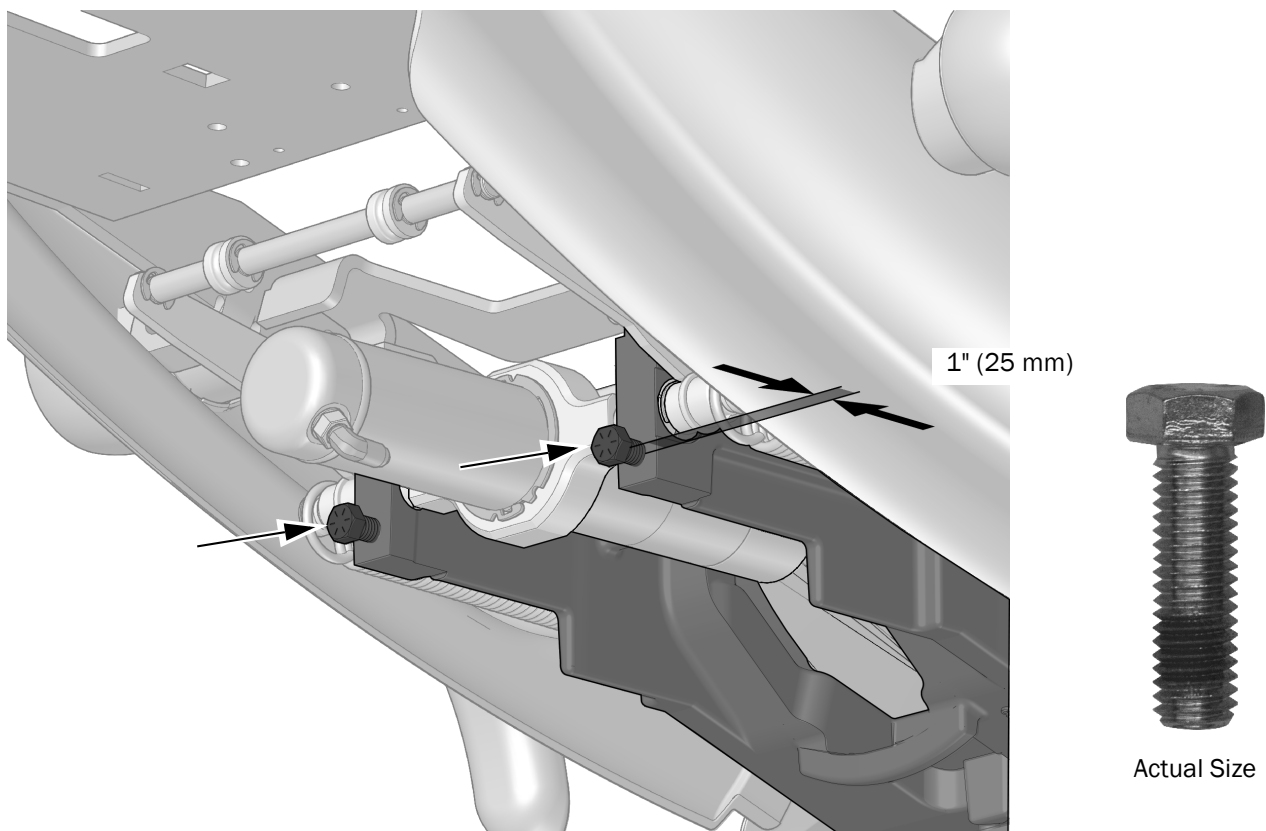


**NOTE** Insert the hex key through the open end of the adaptor to engage the hex interface at the back of the adaptor.

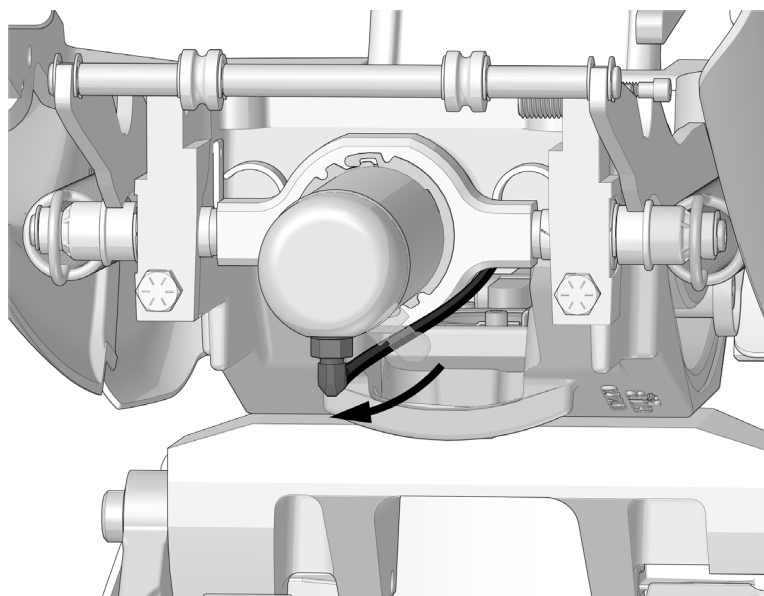


### Task 3.

- 1 Screw two 7/16-14 x 1-1/2" bolts into the adaptors until the head of the bolts are approximately 1" (25 mm) from the upper structure.



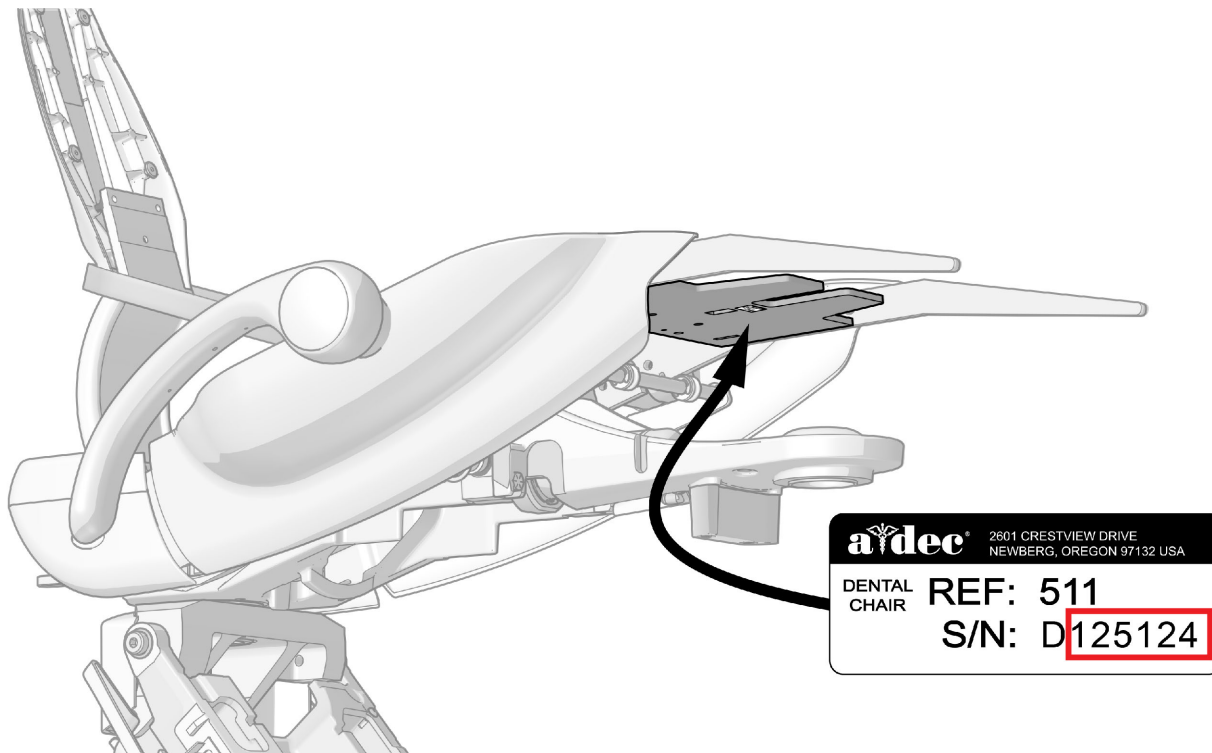
- 2 Rotate the hydraulic cylinder so the hydraulic fitting is at the 6 o'clock position.



#### Task 4.

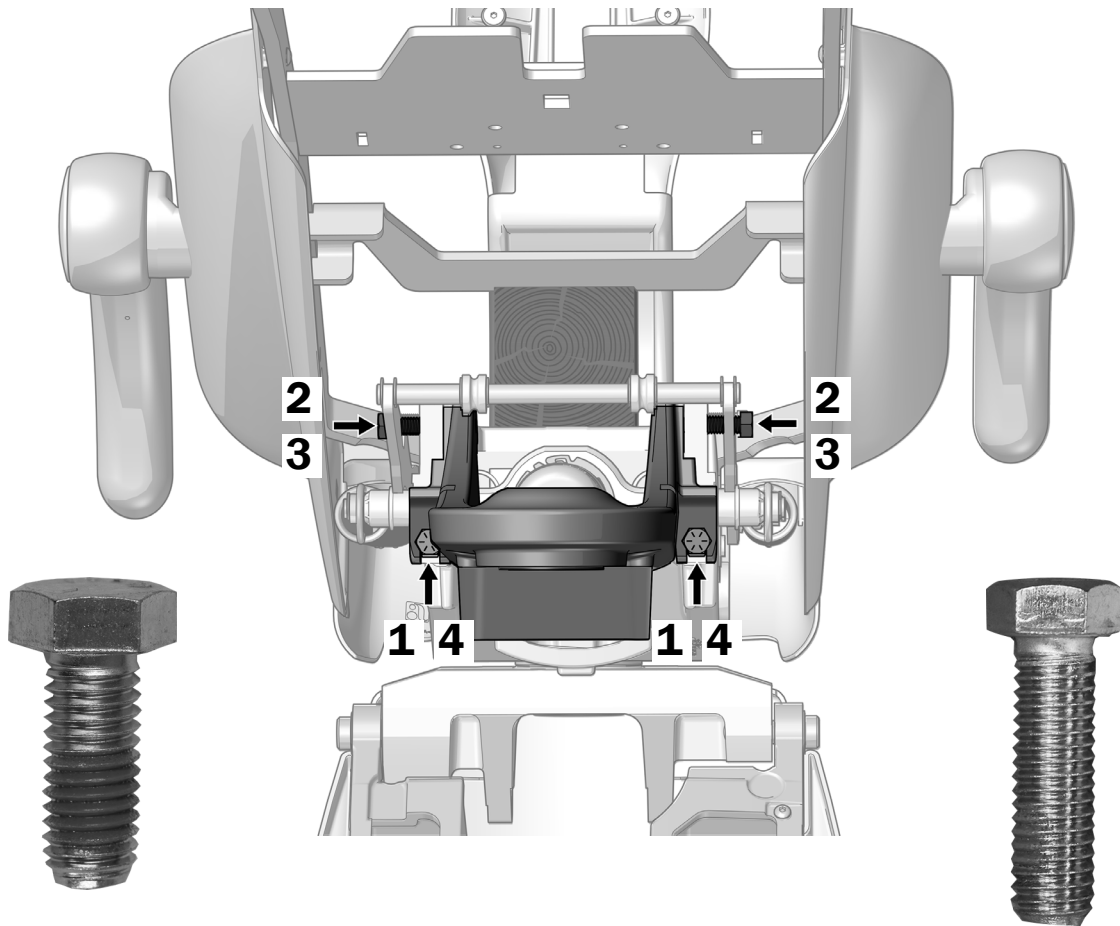
When completing steps 2 and 3 in the following instructions, install the top bolt according to when the chair was manufactured.

To tell when the chair was manufactured, look at the serial number on the underside of the seat frame.



Serial number D125124 is the cutoff for chairs manufactured after April 2011.

- **April 2011 and Before Chairs** - The numerical part of the serial number is equal to or less than **125124**.
- **After April 2011 Chairs** - The numerical part of the serial number is higher than **125124** or has more than 7 digits.



Chairs Manufactured  
in April 2011 or Before  
1/2-13 x 1-1/4"  
Actual Size

Chairs Manufactured  
after April 2011  
7/16-14 x 1-1/2"  
Actual Size

- 1** Set the front mount assembly onto the two bolts in the front of the upper structure.
- 2** Align the holes in the top of the front mount with the holes in the upper structure and do one of the following:  
**Chairs Manufactured in April 2011 or Before** - Use a 3/4" socket and ratchet to install two 1/2-13 x 1-1/4" bolts through the holes.  
**Chairs Manufactured After April 2011** - Use a 5/8" socket and ratchet to install two 7/16-14 x 1-1/2" bolts through the holes.
- 3** Do one of the following:  
**Chairs Manufactured in April 2011 or Before** - Use a torque wrench with a 3/4" open-end adaptor to securely tighten the two top bolts to 50 ft-lbs (68 Nm).  
**Chairs Manufactured After April 2011** - Use a torque wrench with a 5/8" open-end adaptor to securely tighten the two top bolts to 50 ft-lbs (68 Nm).
- 4** Use a torque wrench with a 5/8" open-end adaptor to securely tighten the two bottom bolts to 50 ft-lbs (68 Nm).
- 5** Rotate the hydraulic cylinder back to its original position.

## Install the Rigid Arm

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**NOTE** The instructions in this section apply to the A-dec 311/411/511A dental chairs, except where noted.

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**READ THIS!**

- If the system includes a 332/333/336 delivery system, do not use the instructions in this section for installing the rigid arm. See the installation guide that came with your delivery system for instructions on how to install dual rigid arms.
- If the system does not include a 332/333/336 delivery system and includes a support center, do not use the instructions in this section for installing the rigid arm. You will need a special kit, p/n 90.1422.00, which includes the correct instructions for that configuration.

After installing the rigid arm, return to this guide and see “Install the Dental Light Components” on page 11.

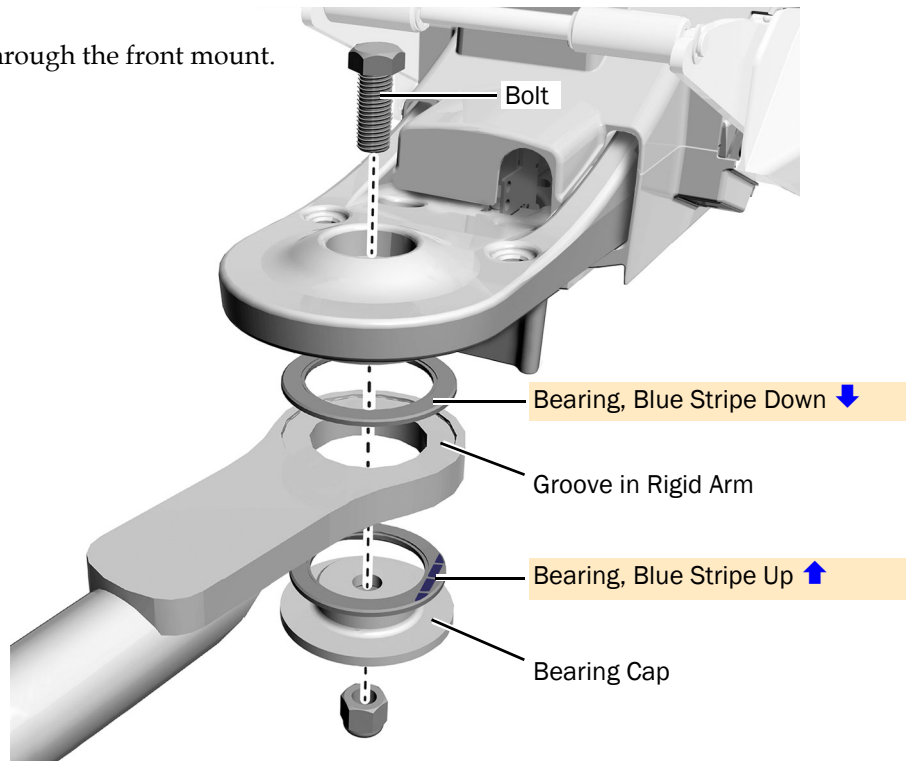


## Recommended Tools

- 15/16" socket and ratchet (2)

### Task 1.

- 1 Insert the bolt down through the front mount.

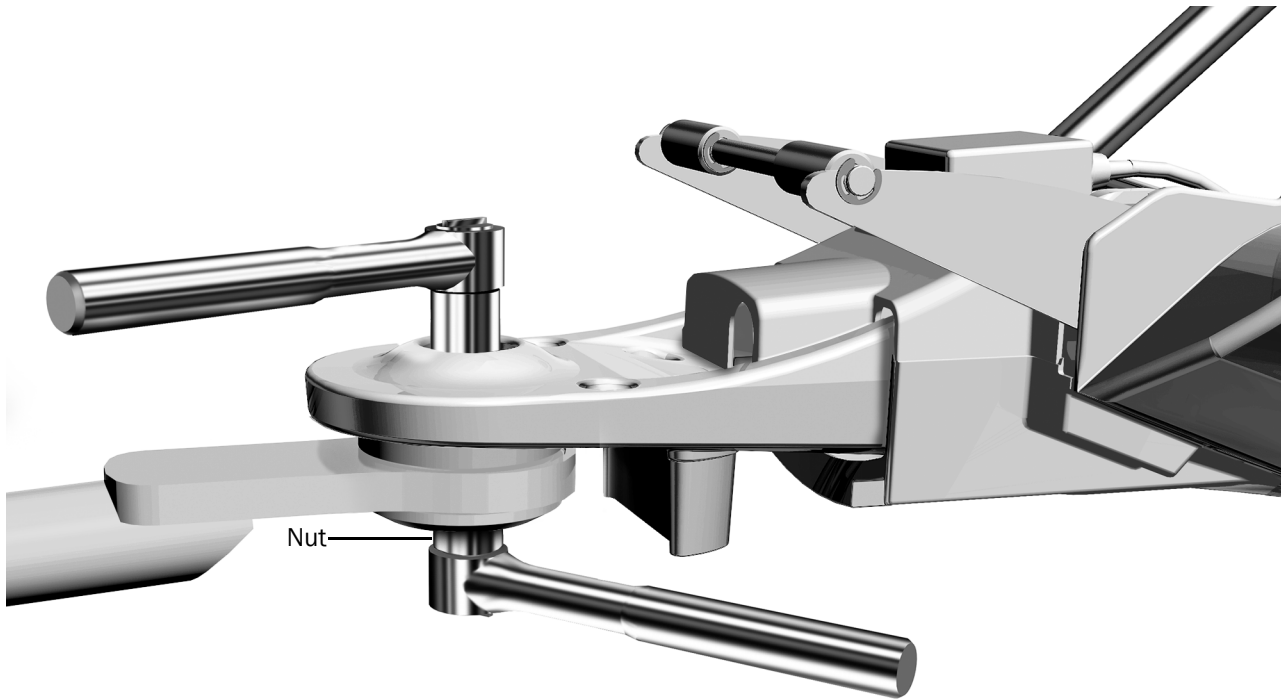


**CAUTION** For the arm to rotate properly the bearings must be fully seated in the grooves in the arm, with the blue stripe in the correct position. Proceed with care; the bearings may shift during tightening

- 2 Install the bearings, rigid arm, and bearing cap onto the bolt.



## Task 2.



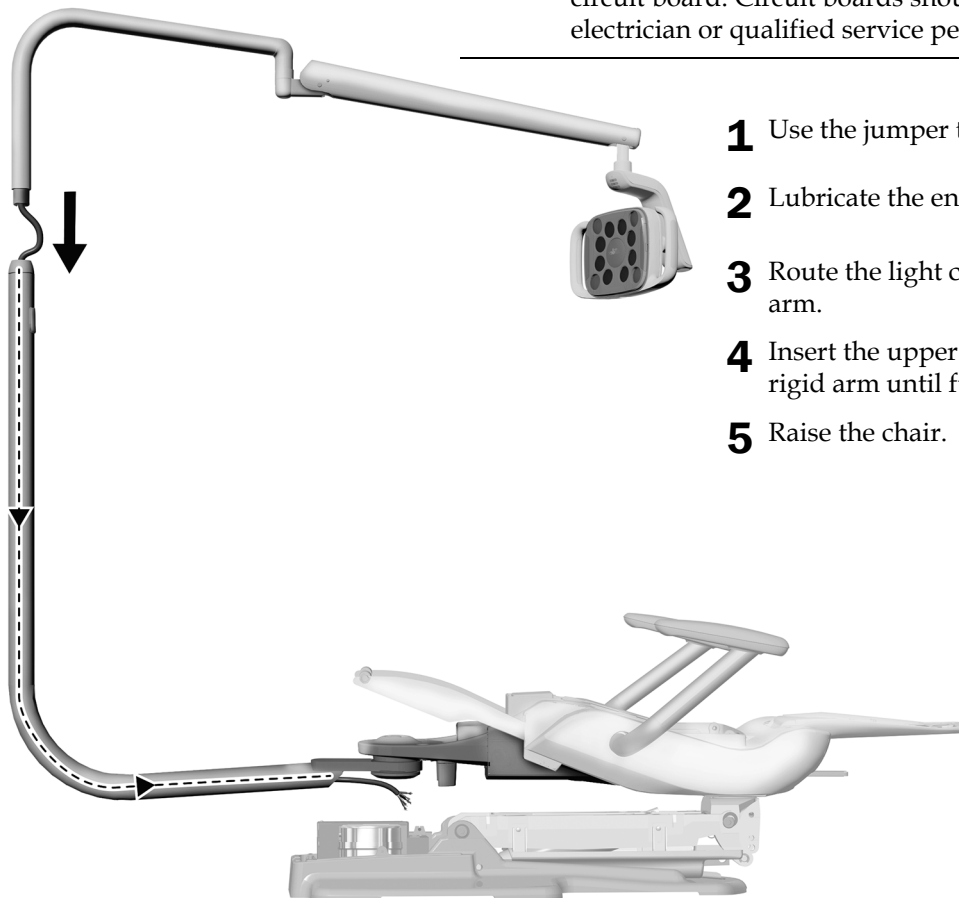
- 1** Tighten the nut until the arm can move smoothly but does not drift.

## Install the Dental 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** Use the jumper to 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.

A-dec 411 Dental Chair Shown

## Route the Wires and Data Line

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**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.

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1. Turn off the power to the system.

Complete the section for the system's type of chair.

<b>A-dec 311 Chair</b> .....	<b>page 12</b>
<b>A-dec 411 Chair</b> .....	<b>page 14</b>
<b>A-dec 511A Chair</b> .....	<b>page 16</b>

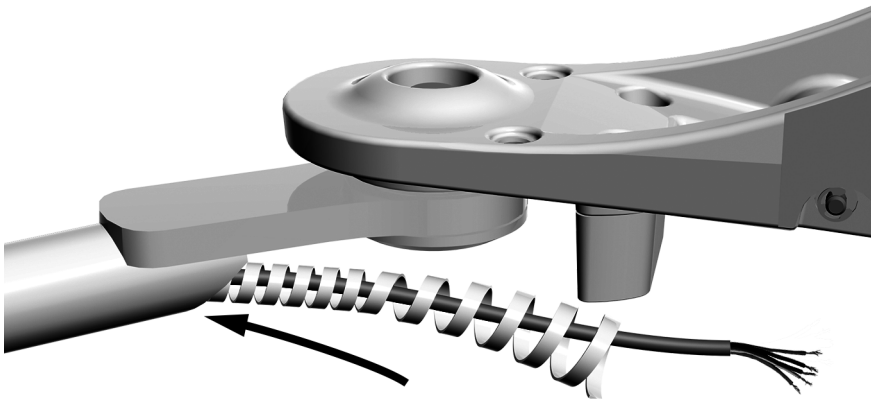
### Route the Wires and Data Line on an A-dec 311 Chair

#### Recommended Tool

- Diagonal cutters

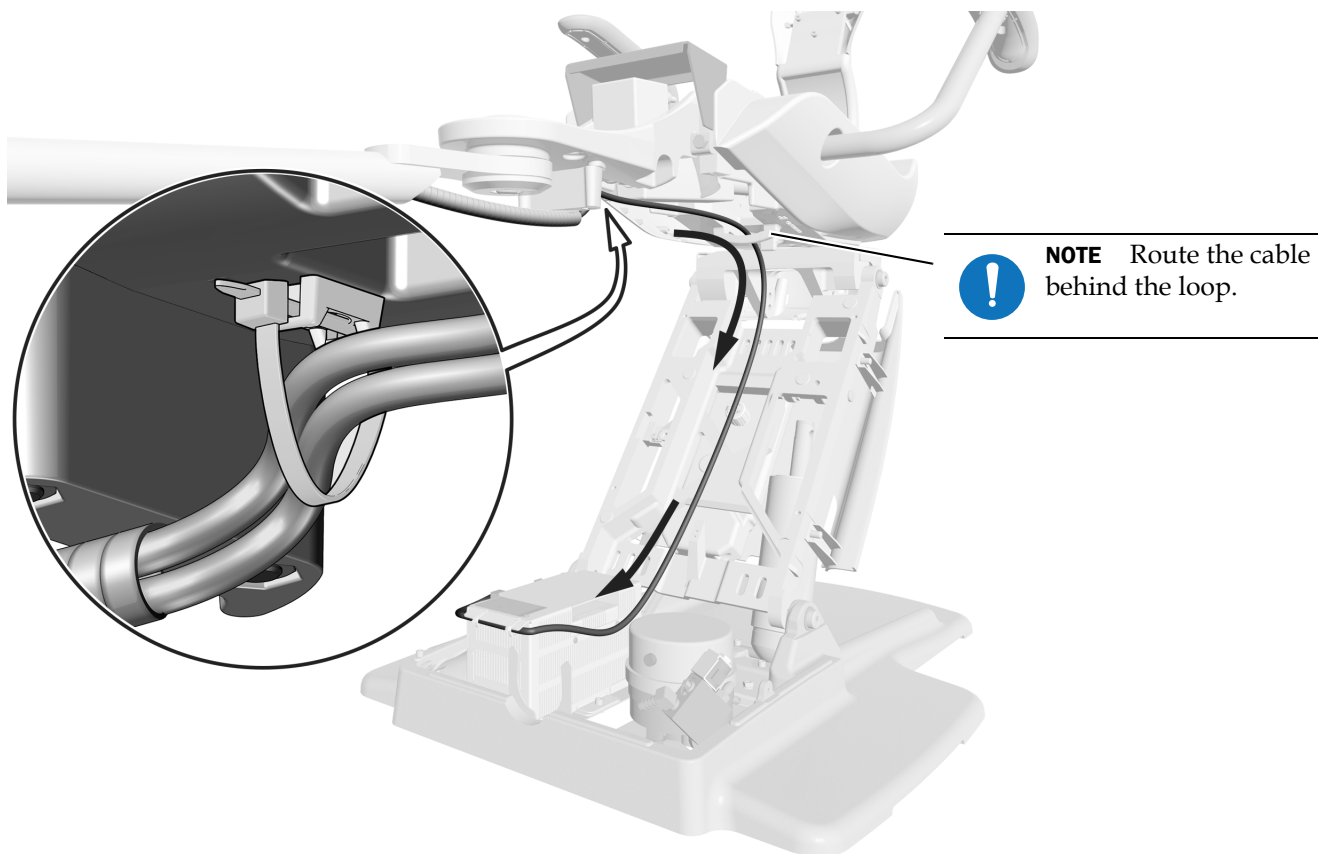
#### Task 1.

- 1** Install the wrap around the cable.



## Task 2.

- 1 Route the cable up and across the chair frame and down the lift arm.



- 2 Use a cable tie to secure the cable to the mounting bracket under the front mount.

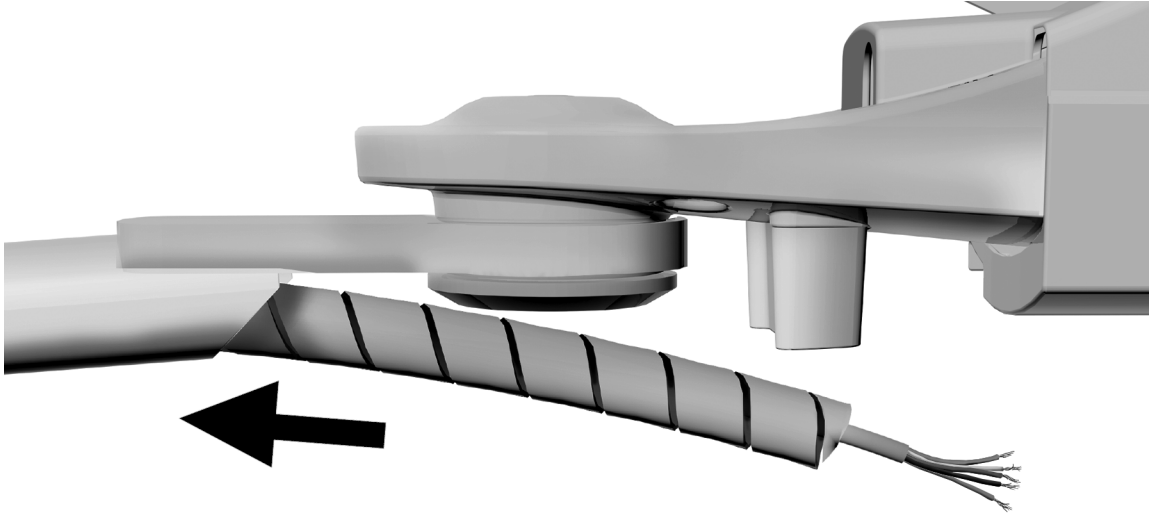
**Next Step** See "Connect the Wires and Data Line" on page 17.

## Route the Wires and Data Line on an A-dec 411 Chair

### Recommended Tool

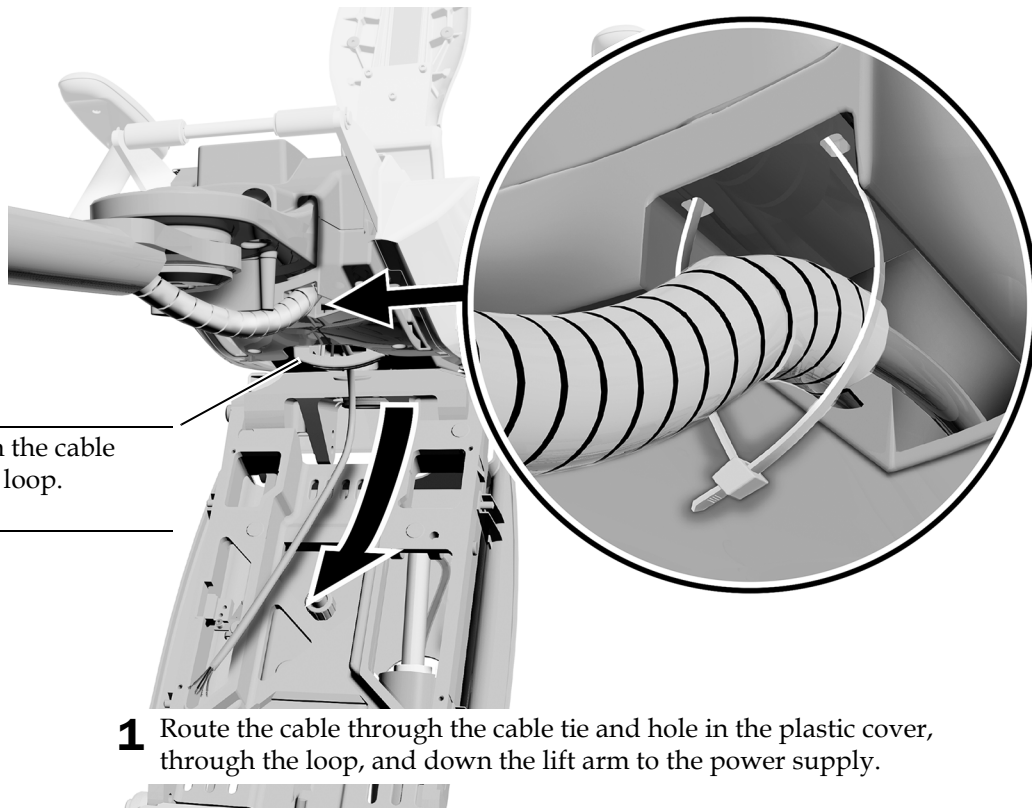
- Diagonal cutters

### Task 1.



- 1 Install the wrap around the cable.

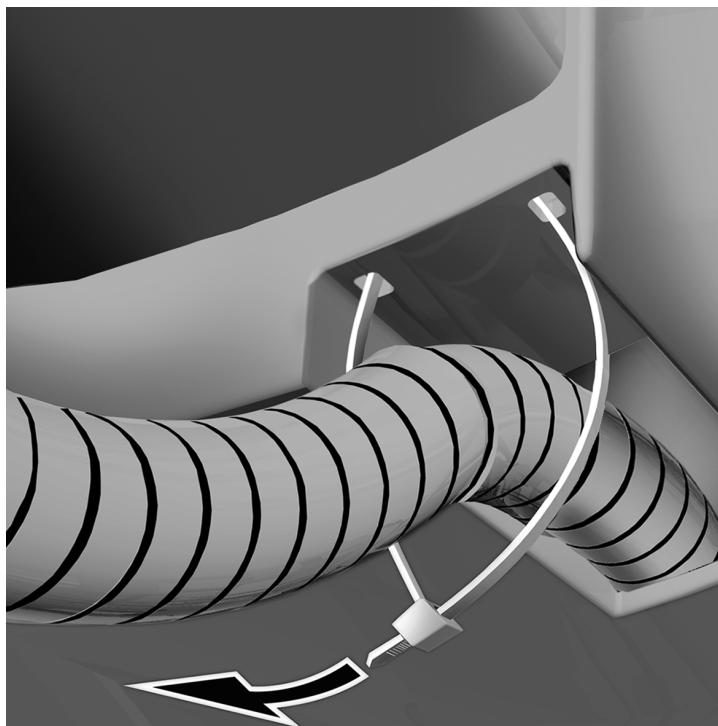
### Task 2.



**NOTE** Run the cable behind the loop.

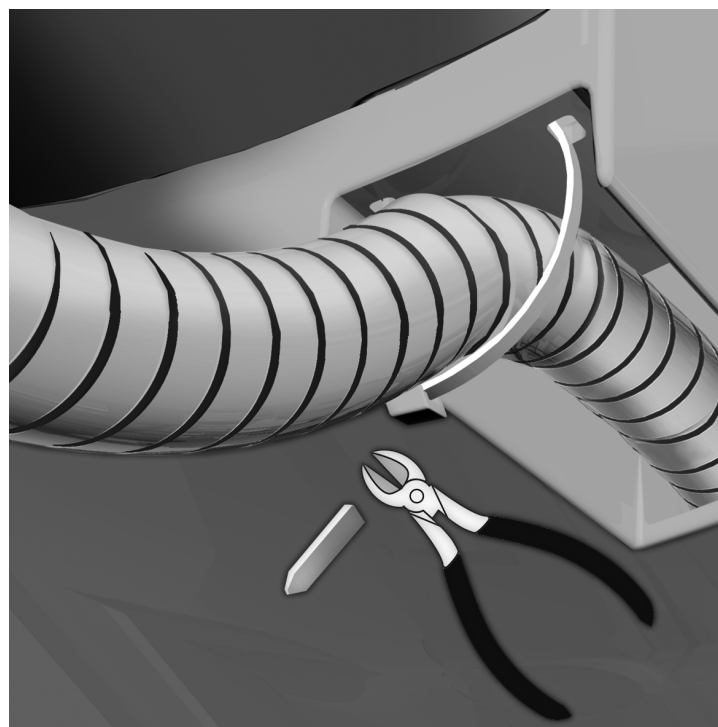
- 1 Route the cable through the cable tie and hole in the plastic cover, through the loop, and down the lift arm to the power supply.

### Task 3.



- 1** Position the wrap so it is an inch inside the hole in the plastic cover.
- 2** Secure the wrap with the cable tie.

### Task 4.

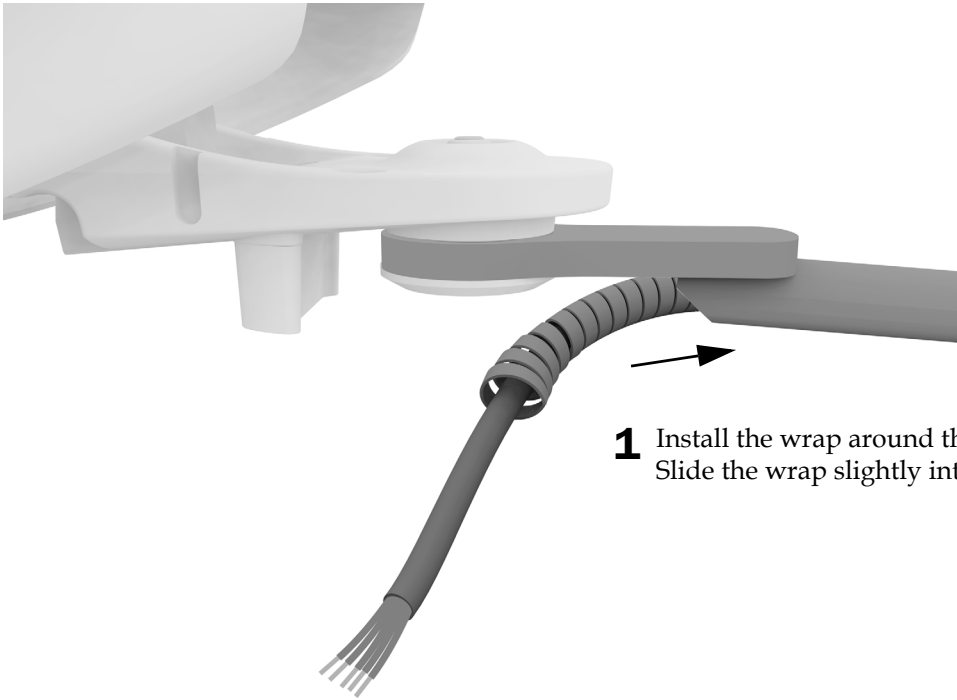


- 1** Rotate the cable tie connector toward the middle of the chair.
- 2** Trim the excess cable tie.

**Next Step** See "Connect the Wires and Data Line" on page 17.

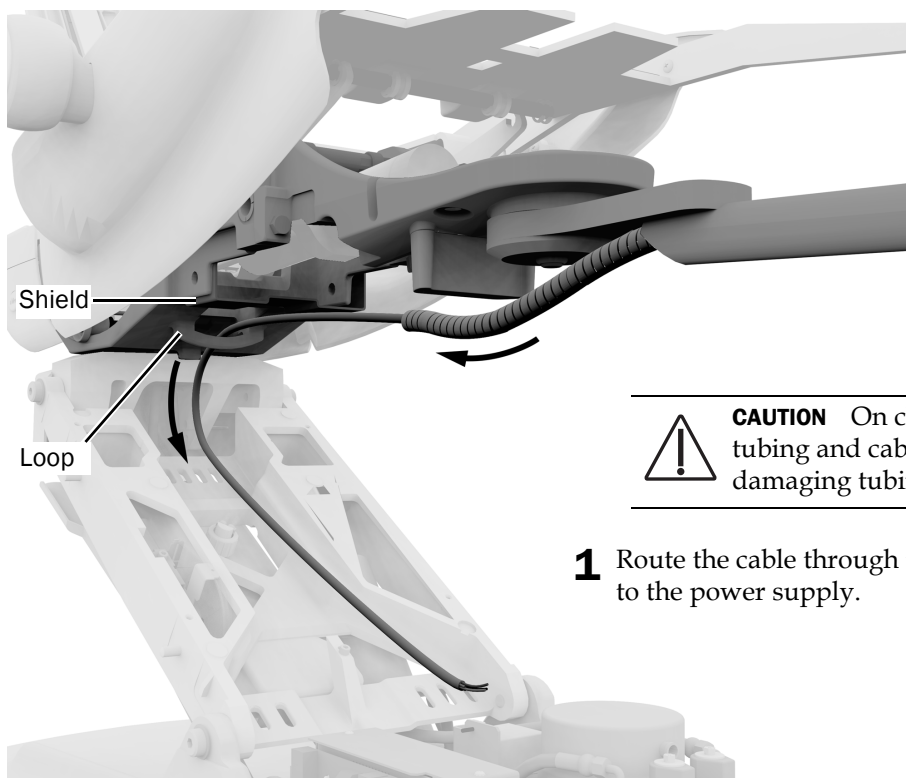
## Route the Wires and Data Line on an A-dec 511A Chair

### Task 1.



- 1 Install the wrap around the cable.  
Slide the wrap slightly into the rigid arm.

### Task 2.



**CAUTION** On chairs with a shield, route all tubing and cables below the shield to avoid damaging tubing and cables.

- 1 Route the cable through the loop and down the lift arm to the power supply.

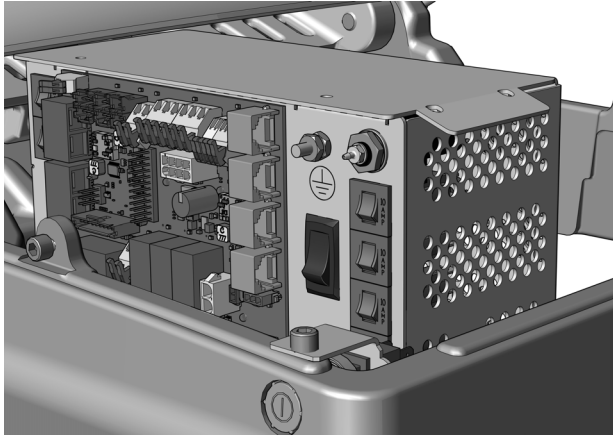


## Connect the Wires and Data Line

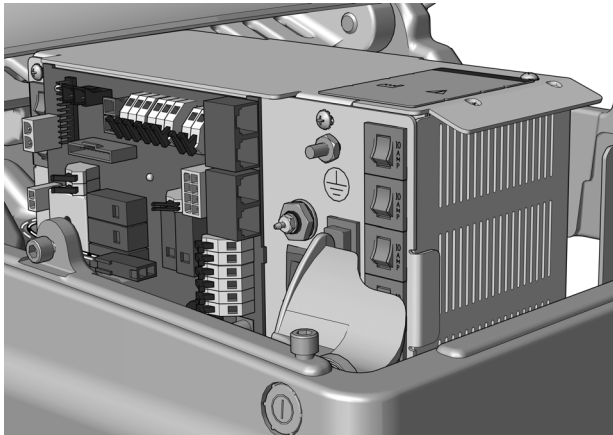


**CAUTION** To avoid damaging or disconnecting wires and tubing, don't connect anything until all of the system's modules are installed.

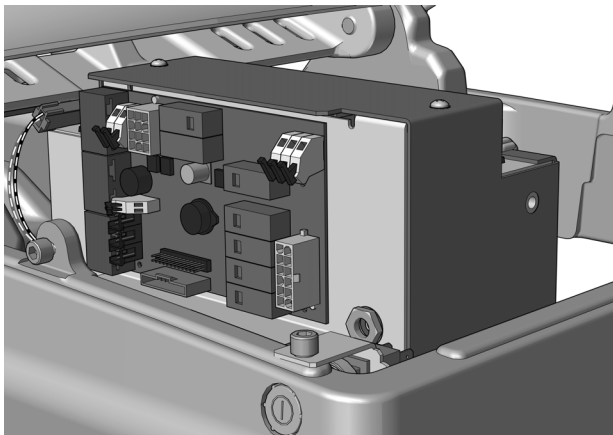
Complete the following section according to which power supply the system includes.



**Connect the Wires to an A-dec Universal Power Supply  
Manufactured After June 2023 . . . . . 18**



**Connect the Wires and Data Line to an A-dec 311/411  
Chair Manufactured Before June 2023 . . . . . 19**



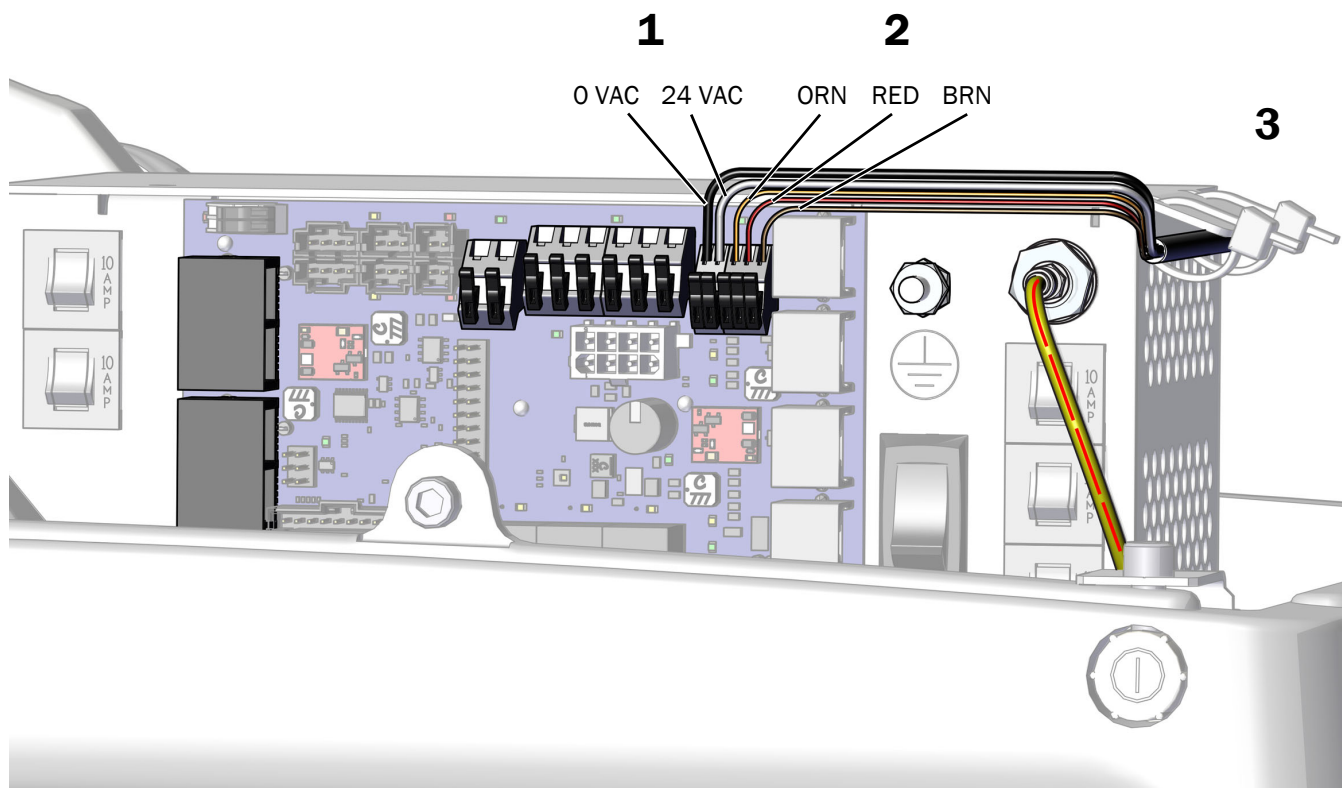
**Connect the Wires and Data Line to an A-dec 511 Power  
Supply Manufactured Before June 2023 . . . . . 21**

## Connect the Wires to an A-dec Universal Power Supply Manufactured After June 2023

### Recommended Tool

- Diagonal cutters

1. Connect the black wire to 0 VAC and the gray wire to 24 VAC.
2. Connect the orange wire to ORN, the red wire to RED, and the brown wire to BRN.
3. When all modules have been connected to the power supply, secure the wires under the lip on the power supply.



### Next Step

See "Prepare and Adjust the Light" on page 22.

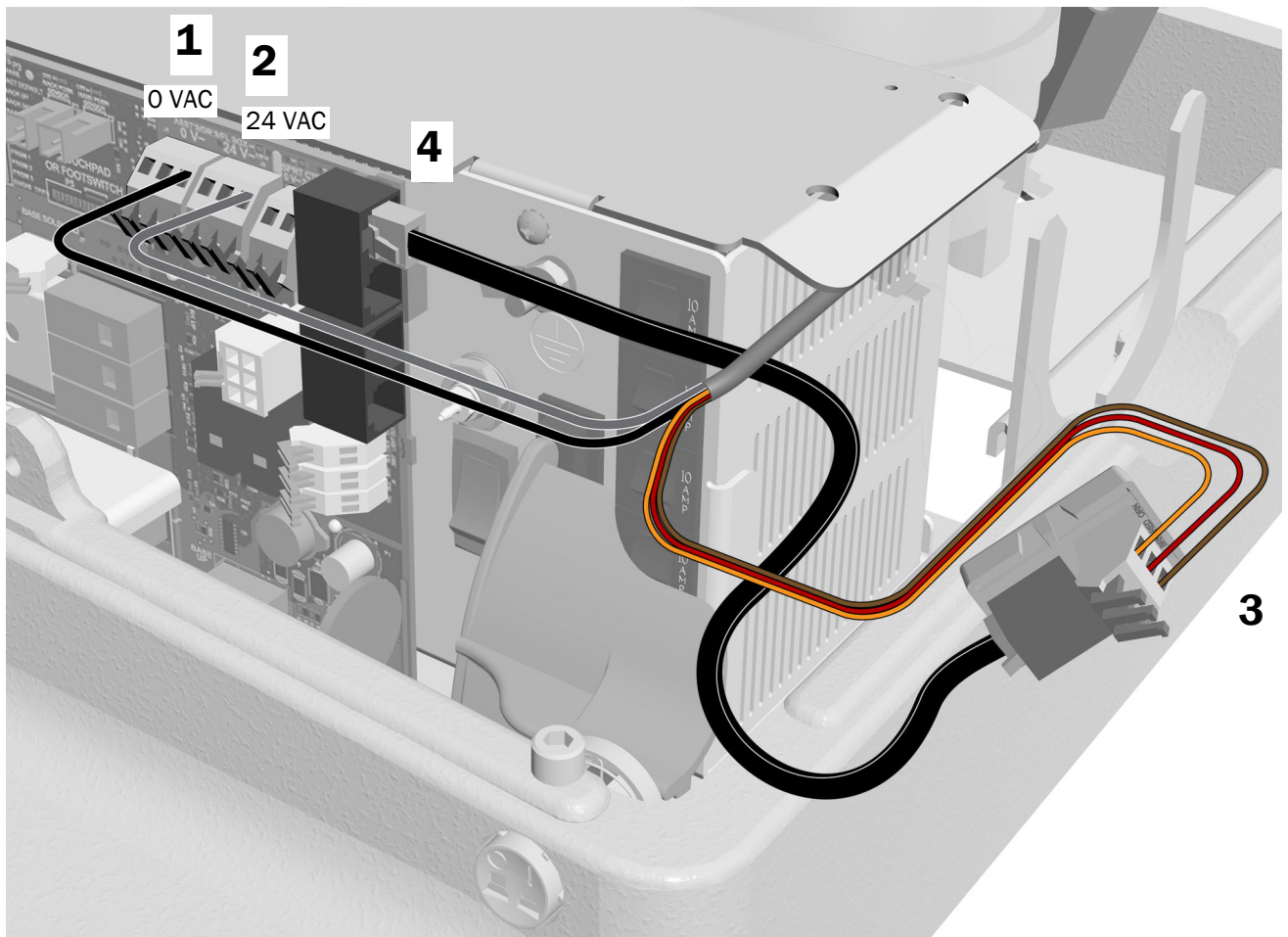
## Connect the Wires and Data Line to an A-dec 311/411 Chair Manufactured Before June 2023

### Recommended Tool

- Diagonal cutters

### Task 1.

1. Connect the black wire to 0 VAC.
2. Connect the gray wire to 24 VAC.
3. Connect the wires to the positions on the adaptor board as labeled; brown to BRN, red to RED, and orange to ORN.
4. Connect the data line from the adaptor board to a data port.



## Task 2.

1. Peel off the protective paper from the adaptor board.



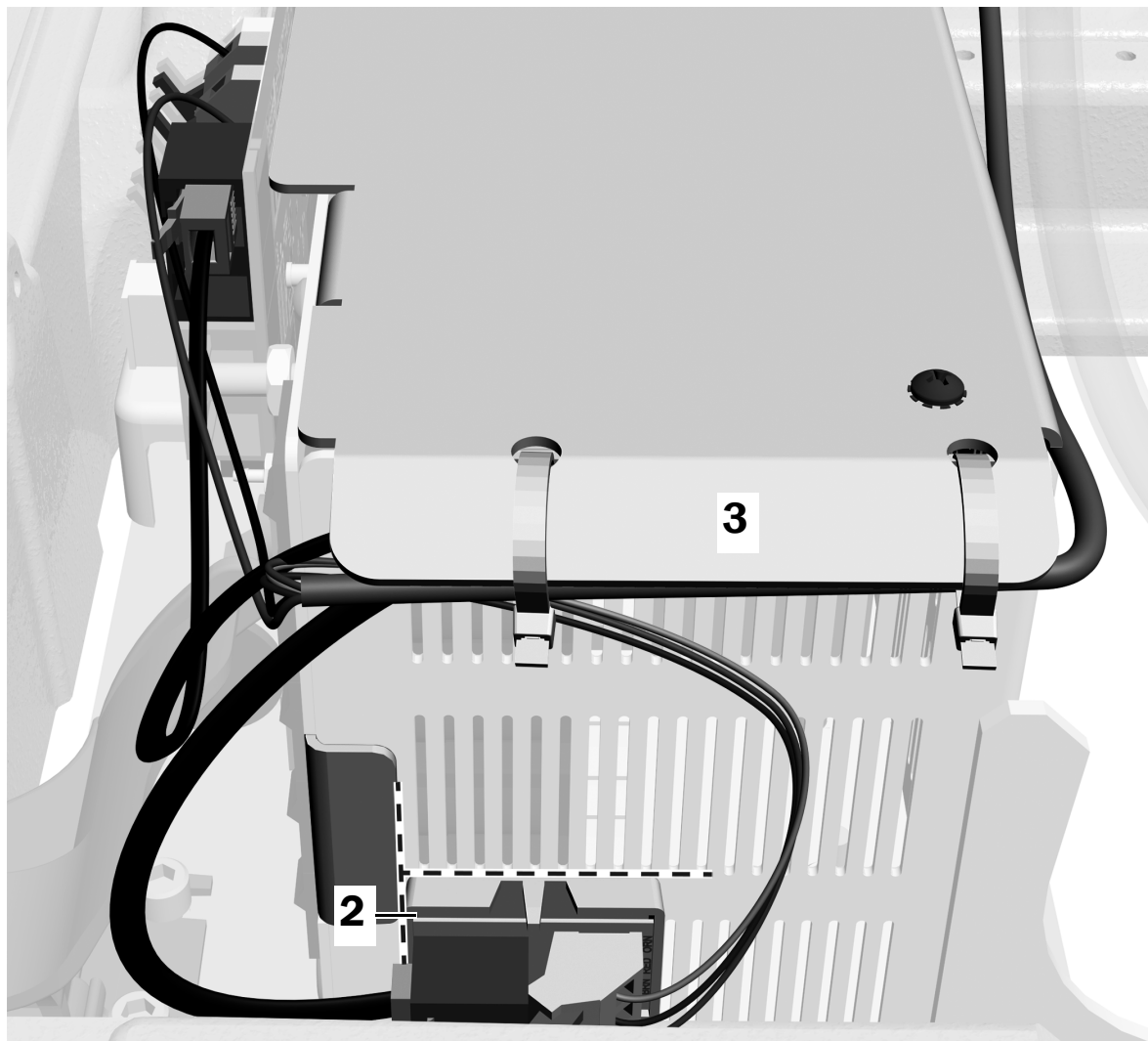
**CAUTION** The adaptor board must be attached in this position to prevent damage or interference with other equipment.

2. Attach the adaptor board to the side of the power supply toward the toe of the chair. Align it with the stub and the bottom of the middle vents.



**NOTE** If there is already a translator board for a delivery system attached to the power supply, stack the adaptor board above it.

3. When all modules have been connected to the power supply, secure the wires under the lip on the power supply.



**Next Step** See "Prepare and Adjust the Light" on page 22.

## Connect the Wires and Data Line to an A-dec 511 Power Supply Manufactured Before June 2023

### Recommended Tool

- Diagonal cutters



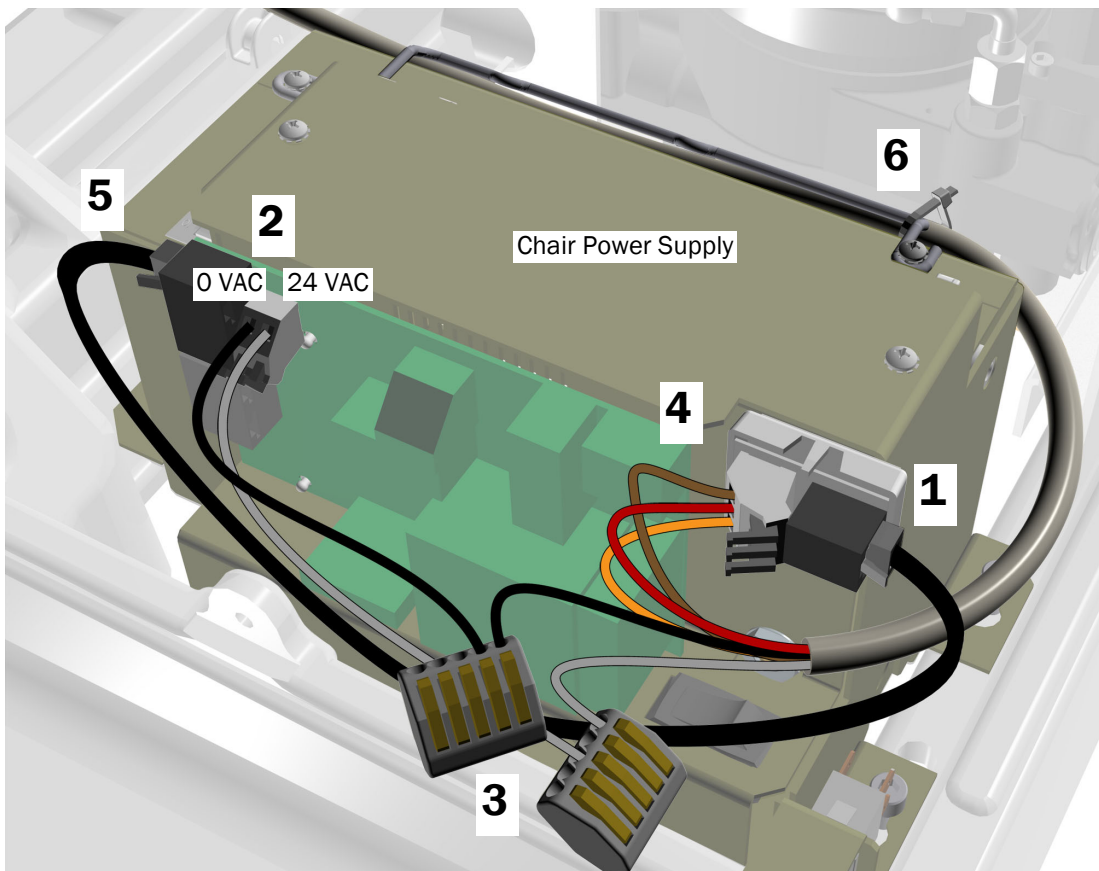
**CAUTION** Do not attach the adaptor board to the top of the power supply chassis. The pump cover will not fit.

1. Peel off the protective paper from the adaptor board. Attach the adaptor board to the front of the power supply in the upper right corner.



**NOTE** If there is already a translator board for a delivery system attached to the power supply, stack the adaptor board below it.

2. Connect the black jumper wire from the kit to 0 VAC. Connect the gray jumper wire from the kit to 24 VAC.
3. Use a wire connector to connect the black jumper wire to the black wire from the cable and the gray jumper wire to the gray wire from the cable.
4. Connect the wires to the positions on the adaptor board as labeled; brown to BRN, red to RED, and orange to ORN.
5. Connect the data line from the adaptor board to a data port.
6. Secure the cable to the bail with a cable tie.



## Prepare and Adjust the Light

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### Adjust the Dental Light Flexarm Counterbalance

#### Recommended Tools

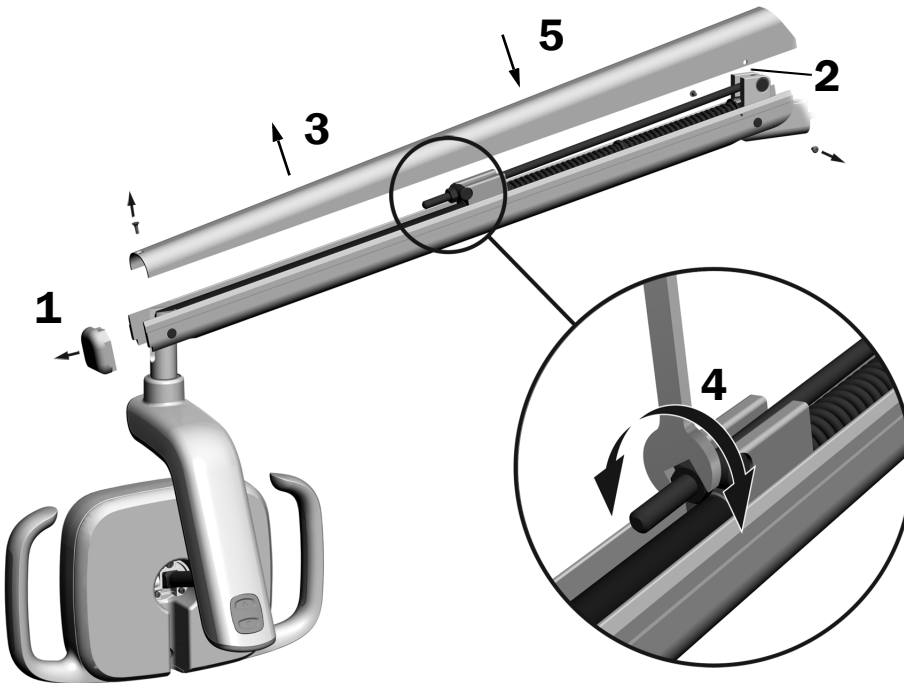
- Phillips head screwdriver
- 5/64" hex key
- 1/2" combination wrench



**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.

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## 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.



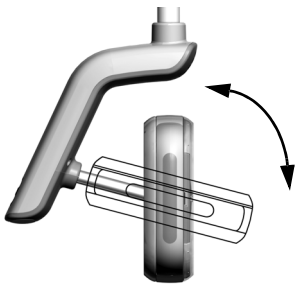
## Adjust the Rotation Tension Settings

### 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

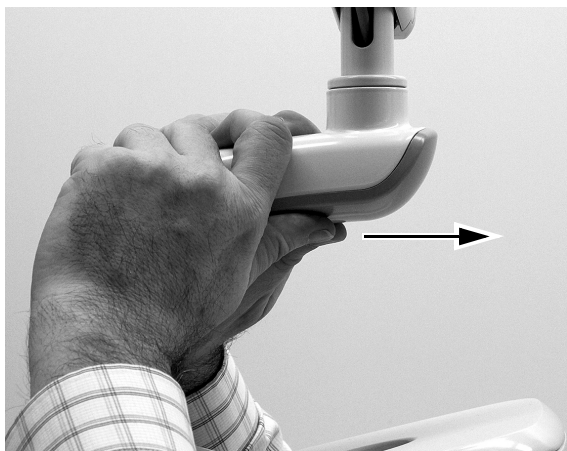
### Task 1.

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



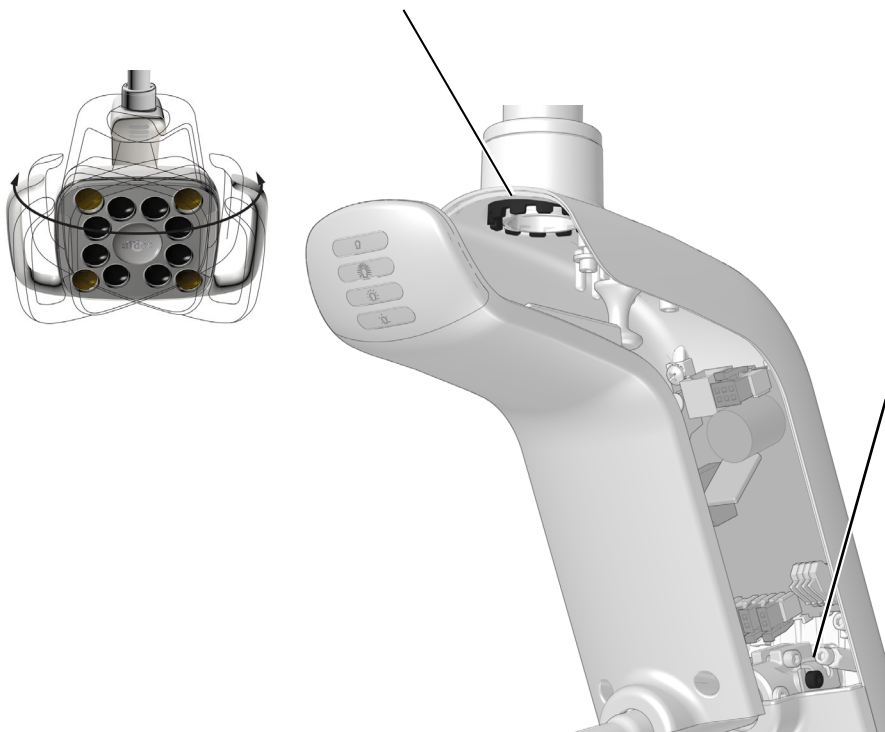
### Task 2.

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

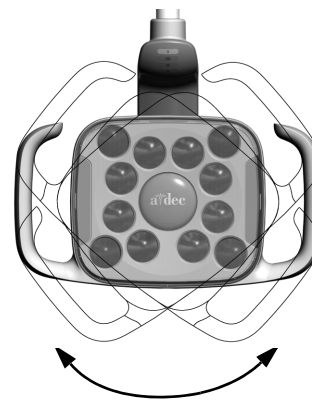


### Task 3.

- 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.



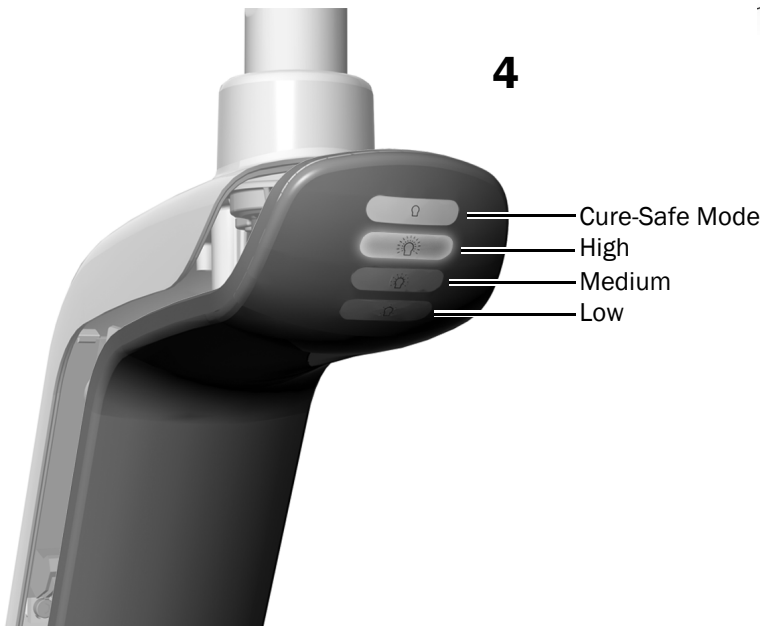
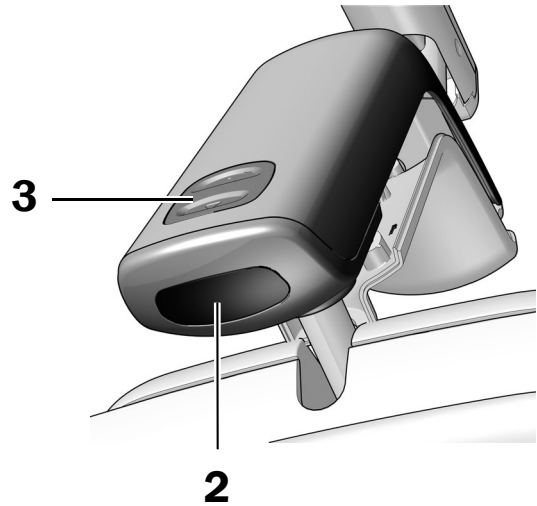
# Test the Light

Complete the procedure for the system's configuration.

**Test From the A-dec 572L** ..... page 27  
**Test From the A-dec 372L** ..... page 28  
**Test the Light From the Touch Controls** ..... page 29

## Test From the A-dec 572L

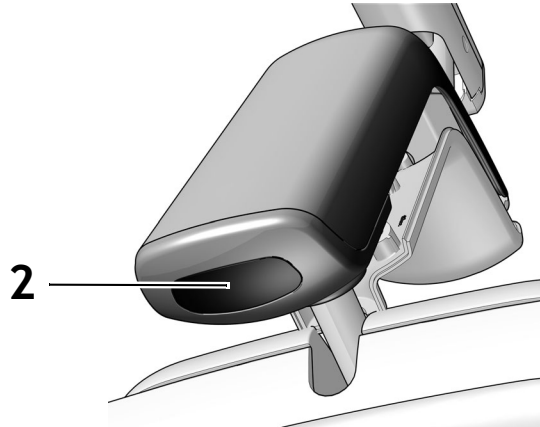
1. Turn on the power to the system.
2. Move your hand within 3" (76 mm) of the touchless on/off sensor to turn on the light.
3. Press the mode button to test the light in each mode.
4. For each mode, verify that the correct light on the driver housing cover is illuminated.
5. If it doesn't work properly, check the wire connections.



**Next Step** See "Test From the Touch Controls" on page 29.

## Test From the A-dec 372L

1. Turn on the power to the system.
2. Test the light:
  - **Lights with touchpad 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 touchpad 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.



**Next Step** See "Test From the Touch Controls" on page 29.

## Test From the Touch Controls

See the section for the type of control interface on your system.



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

### DS7/CP5i/CP5 Touch Controls



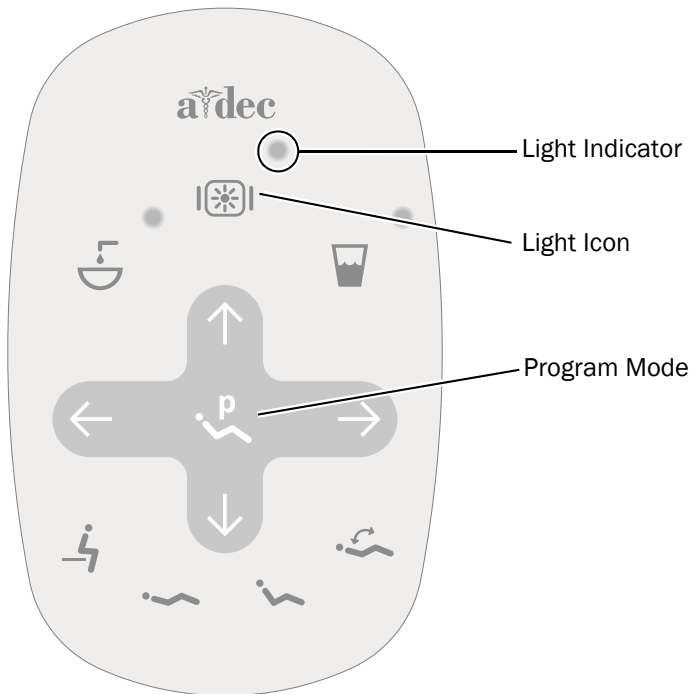
For touchscreen and control pad use, see the *A-dec DS7/CP5i/CP5 Touch Controls Instructions for Use* (p/n 86.0857.00) at [a-dec.com/touchscreen-manual](http://a-dec.com/touchscreen-manual).




For configuring connectivity features, see the *A-dec+™ Software Platform Instructions for Use* (p/n 86.1030.00) at [a-dec.com/connectivity-manual](http://a-dec.com/connectivity-manual).



## Standard Touchpad






Standard Touchpad

- 1 Turn on the power to the system.
- 2 Press and hold  to verify the light turns on and toggles between the intensity modes: high, medium, low, and cure-safe mode (572L) or high and composite/low mode (372L).



**NOTE** When the 372L is in the composite/low mode or the 572L is in cure-safe 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

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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](http://www.a-dec.com).



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