



# A-dec® 376L/576L Dental Light on Ceiling Mount

## INSTALLATION GUIDE



### Product Models and Versions Covered in this Document

Models	Versions	Description
376L/576L	A	Dental Light

## Prepare the Ceiling

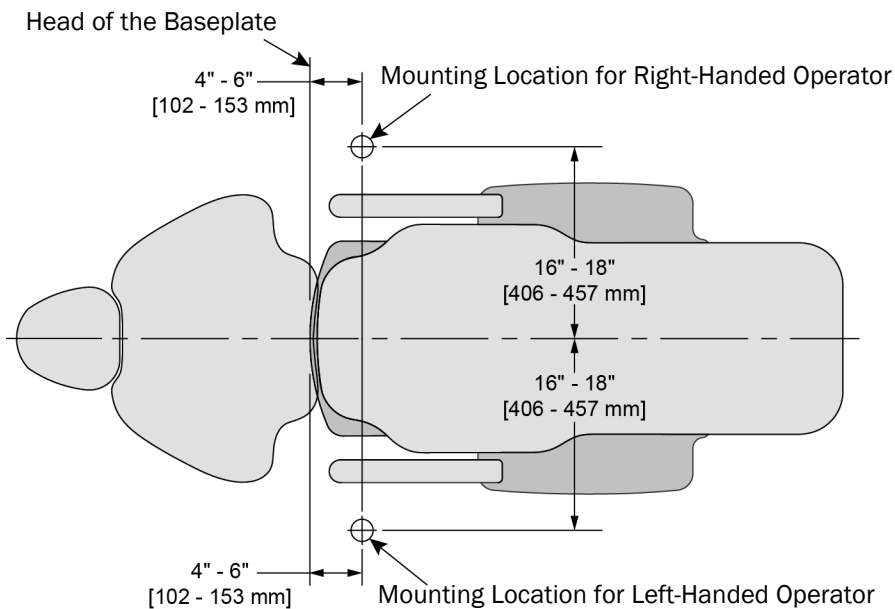


**WARNING** Mounting structures must be designed to support a minimum static load of 70 lb (31.5 kg) and a minimum moment of 150 ft-lb (203 Nm). Consult a licensed professional, i.e. structural or architectural engineer as needed. Ensure that all installations conform to local code requirements.



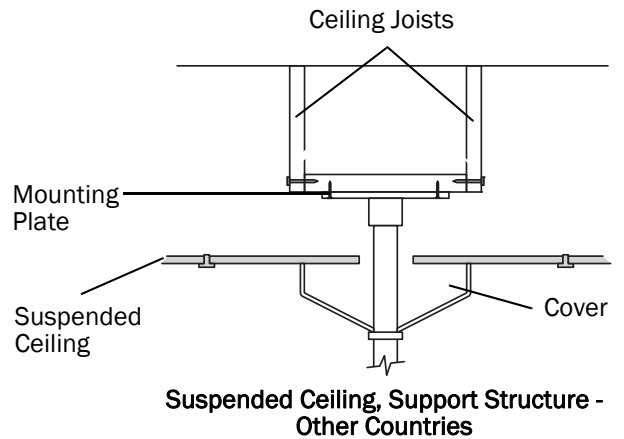
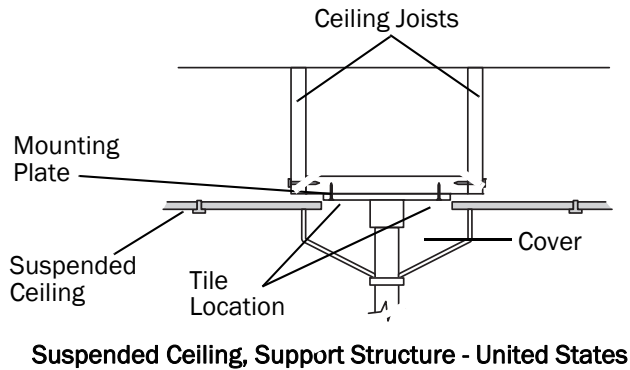
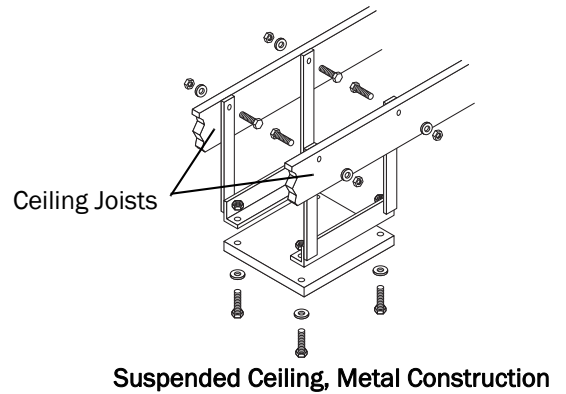
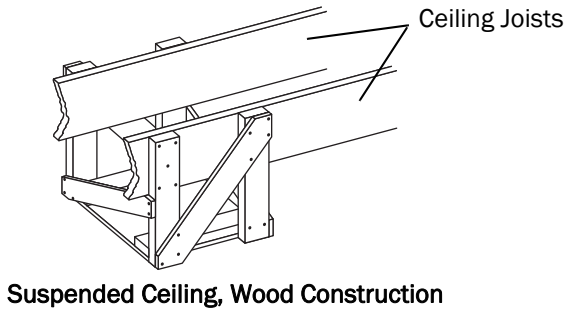
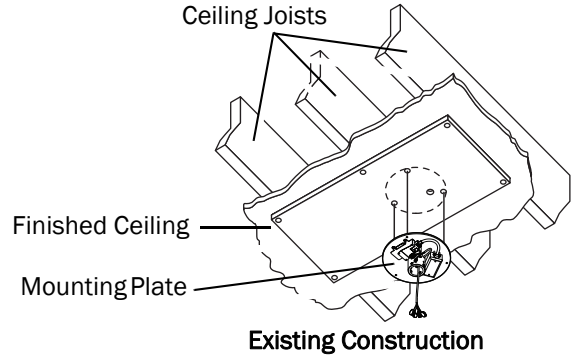
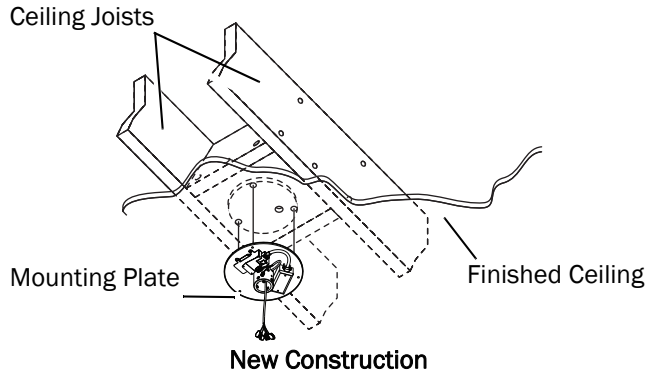
**NOTE** A data line has been included with the dental light for use with A-dec products that can operate the light through the touchpad. These products include the A-dec 500, A-dec 400, A-dec 300, A-dec 200, and Performer® (version B), as well as Decade®, Cascade®, and Performer (version A) dental chairs that have upgraded chair circuit boards and delivery system touchpads. The data line should never be plugged into a telephone jack. If the system does not include a touchpad, disregard the instructions for the data line.

## Determine the Installation Location



## Determine Ceiling and Bracing Type

Complete the required modifications for the type of ceiling structure.



**NOTE** In the United States, the LED dental light support structure must be built at a ceiling tile height that allows installation of the mounting plate below the ceiling tile or the ceiling tile must be modified so the mounting plate is visible and can be installed between the support structure and ceiling tile. The space between the tile and mounting plate should be 1/2" (13 mm) or less.

## Install the Ceiling Mounting Plate

### Recommended Tools

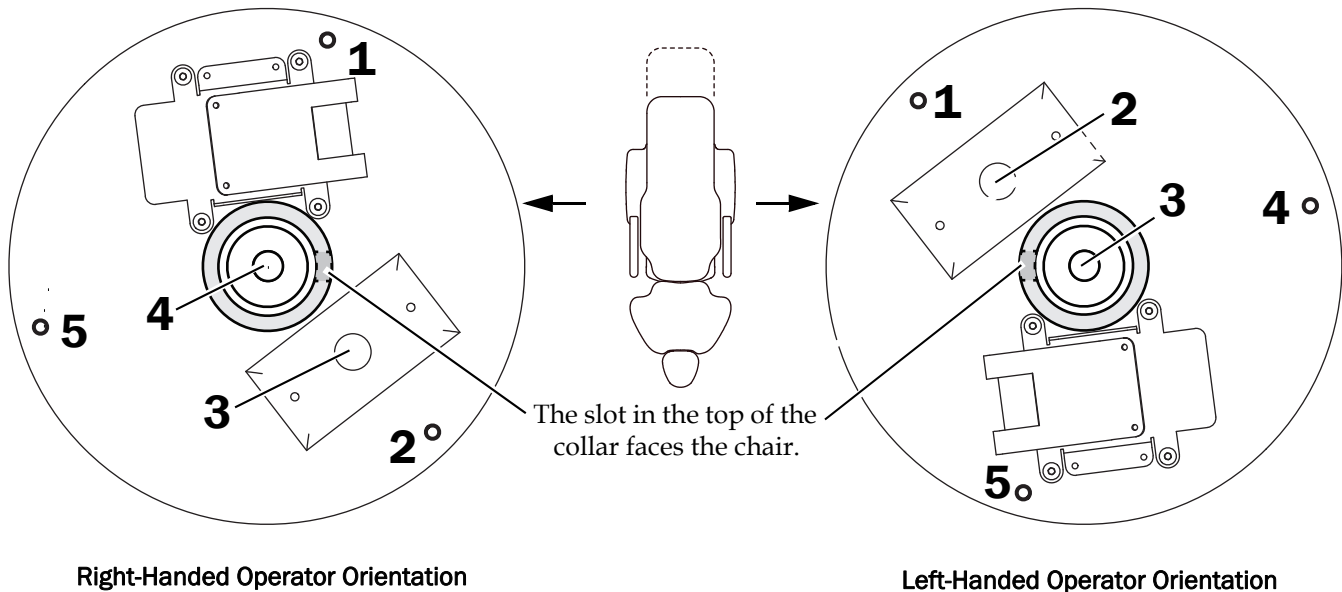
- Drill and bits
- 7/16" socket and ratchet

### Task 1.



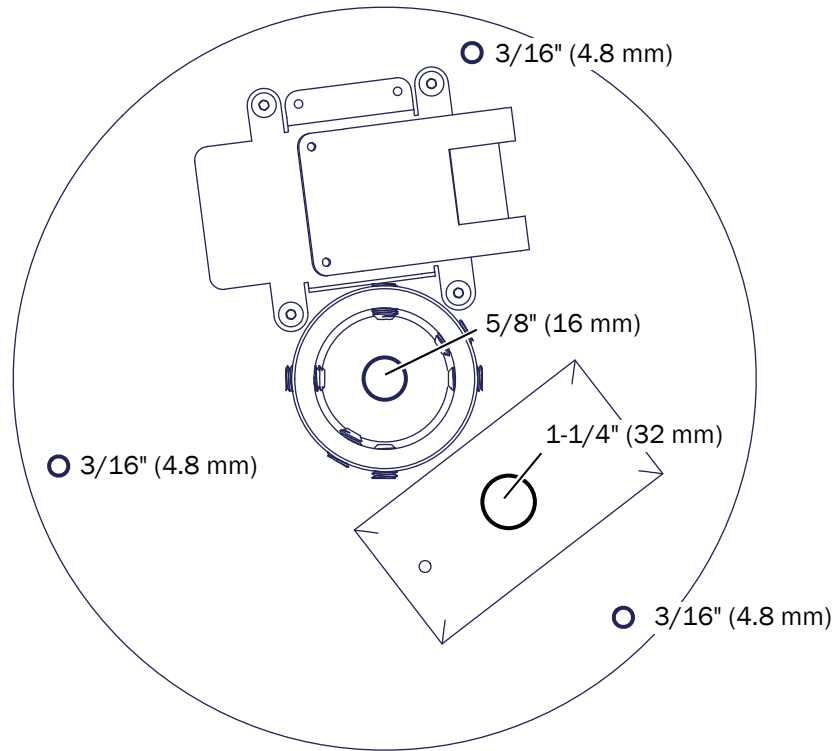
**NOTE** The template is shown as it looks when held up to the ceiling.

- 1** Position the mounting template (included in the kit) on the ceiling and mark the five holes for the mounting screws, power cable, and data line.

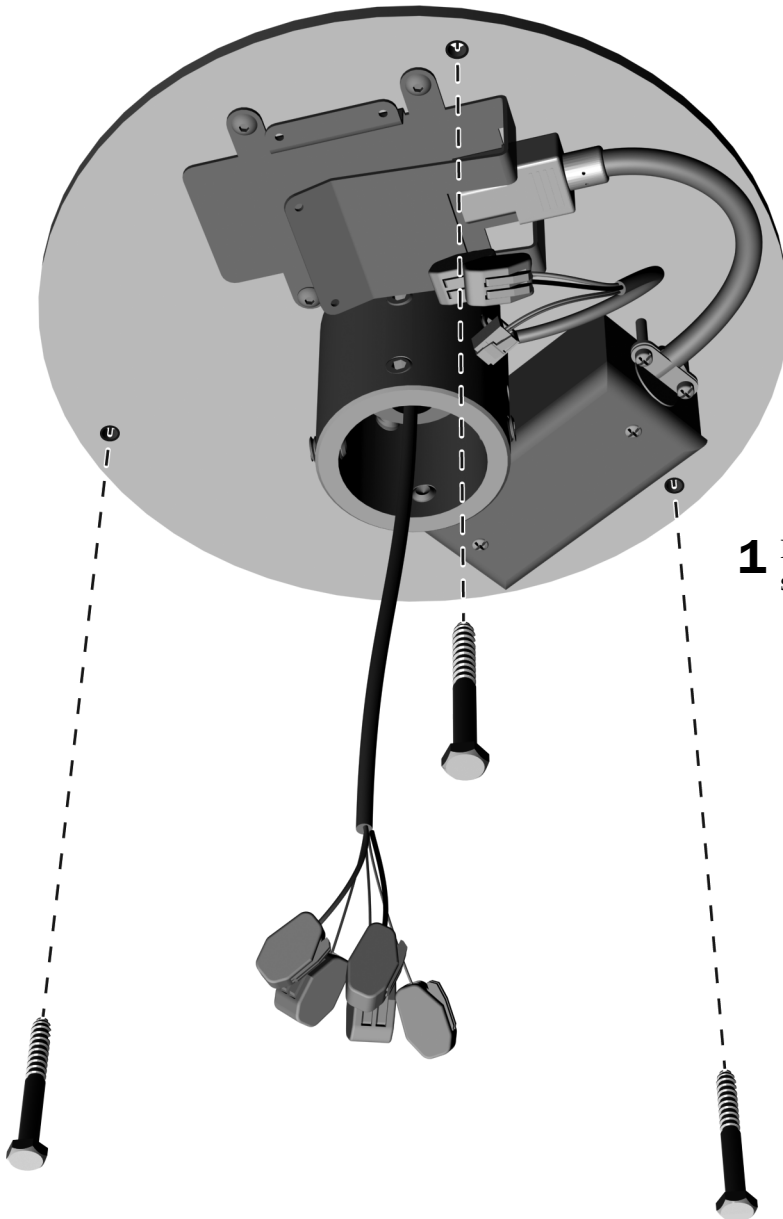


**Task 2.**

**1** Drill the holes.



**Task 3.**



**1** Mount the plate to the ceiling with the lag screws from the kit.

## Install the Post

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### Recommended Tools

- 7/16" socket and ratchet
- 3/16" and 1/16" hex keys
- Level
- Masking tape

### Before You Begin



**CAUTION** Electrical mains wiring (100 – 240 VAC) must be installed by a licensed electrician or other qualified personnel according to local codes and regulations.

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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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**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.

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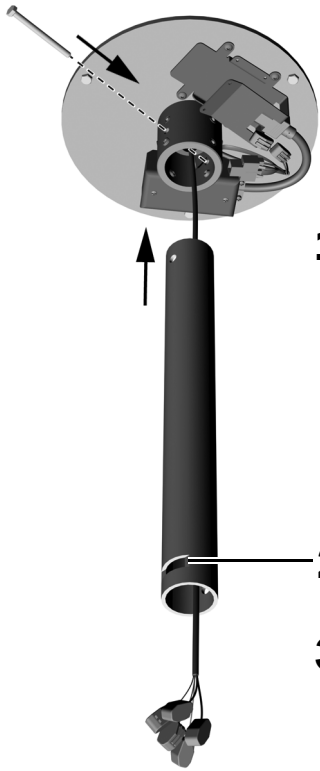
1. Turn off the power to the system before you begin the installation.

### Task 1.

- 1** Route the data line through the ceiling and collar.



**Task 2.**



**1** Route the light cable through the post.

**2** Position the slot away from the chair. Insert the post into the collar.

**3** Install the bolt through the collar and post. Firmly tighten the bolt.

**Task 3.**



**1** Place a level vertically on the post aligned with a set of leveling screws.

**2** Adjust the leveling screws.

**3** Move the alignment of the level from one set of screws to the other.

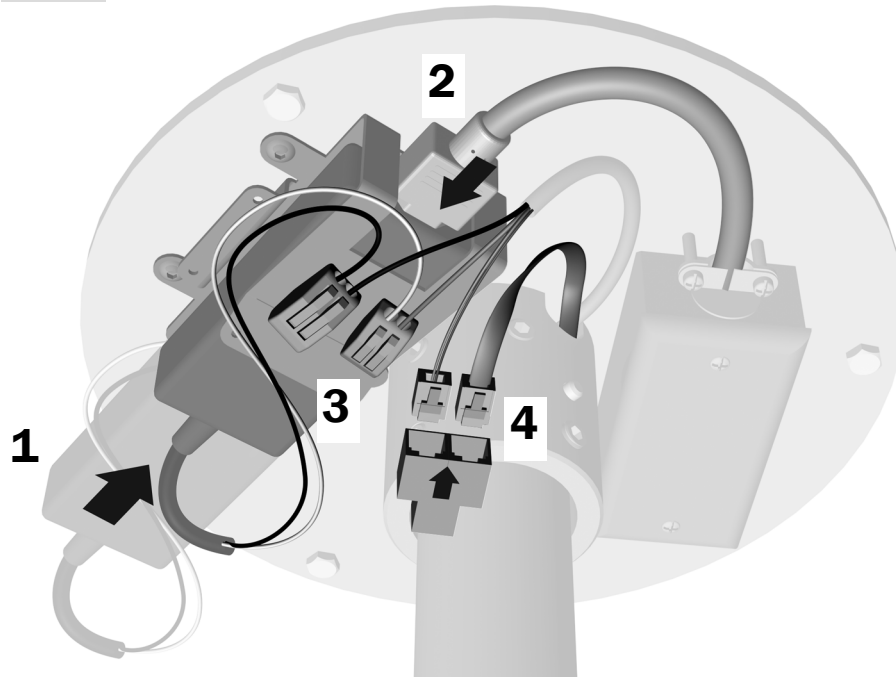
**4** Adjust the leveling screws.

**5** Repeat adjusting each set of leveling screws until the post is in a true vertical position.

**6** Once the post is level, securely tighten the leveling screws.

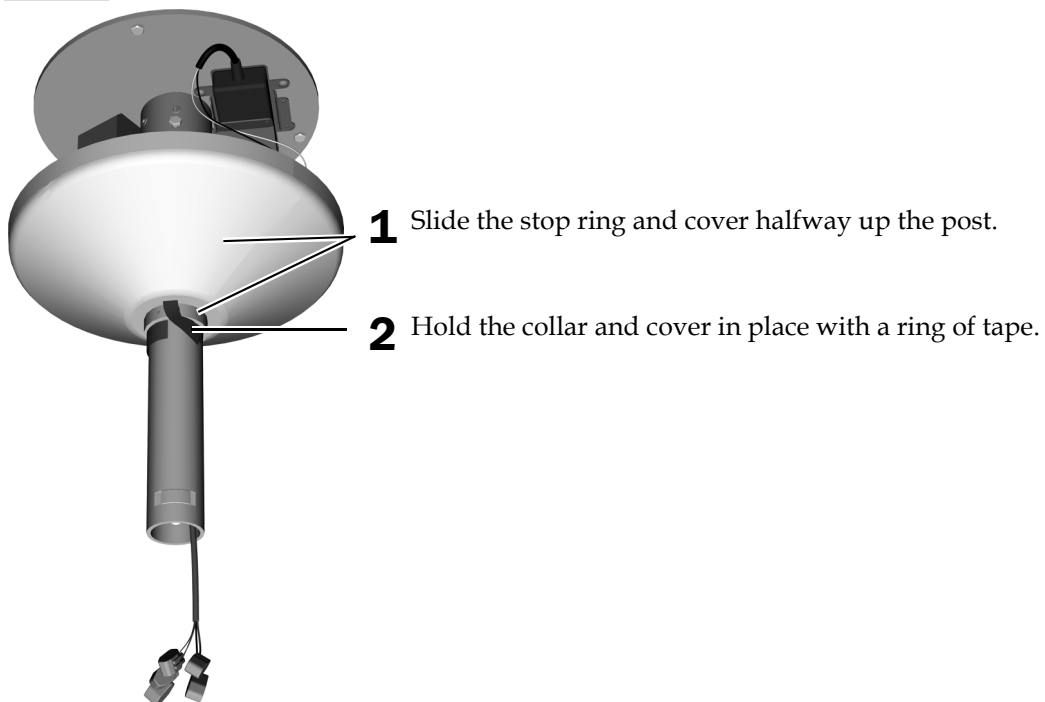


**Task 4.**



1. Slide the power supply into the bracket.
2. Plug in the power supply.
3. Attach the white wire to the wire connector with the gray wire. Attach the black wire to the wire connector with the black wire.
4. Plug the data lines into the Y connector.

**Task 5.**



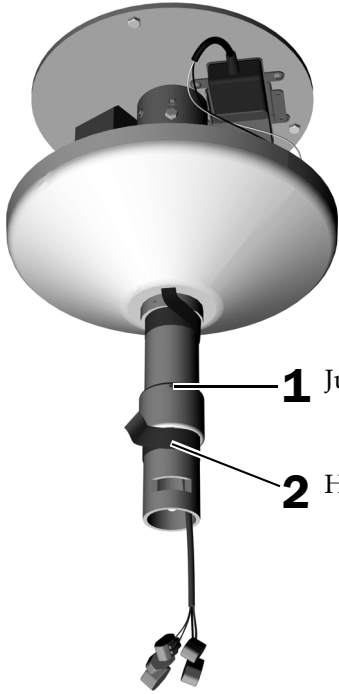
# Install the Dental Light

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## Recommended Tools

- 5/32" and 1/16" hex keys
- Masking tape

### Task 1.

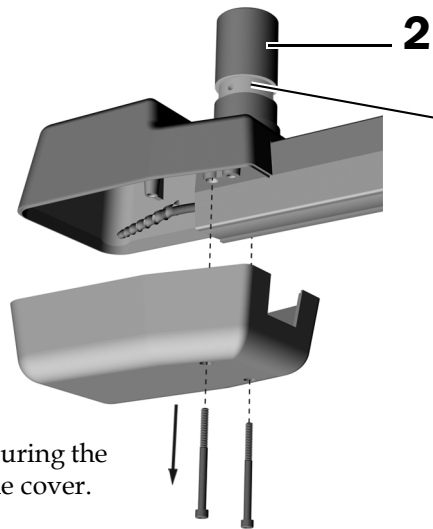


**WARNING** Shock hazard. When you remove or replace the covers, take care not to damage any wiring or tubing. Verify that the covers are secure after you replace them.

**1** Just above the key slot, position the post collar with its setscrew toward the top.

**2** Hold the collar in place with a ring of tape.

### Task 2.



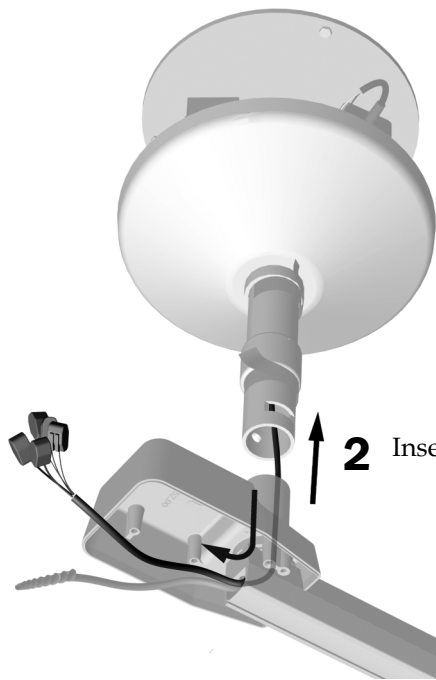
**2** Lightly lubricate the hub of the flexarm assembly.

Do not lubricate the groove where the key sits.

**1** Remove the two screws securing the lower cover and remove the cover.

**Task 3.**

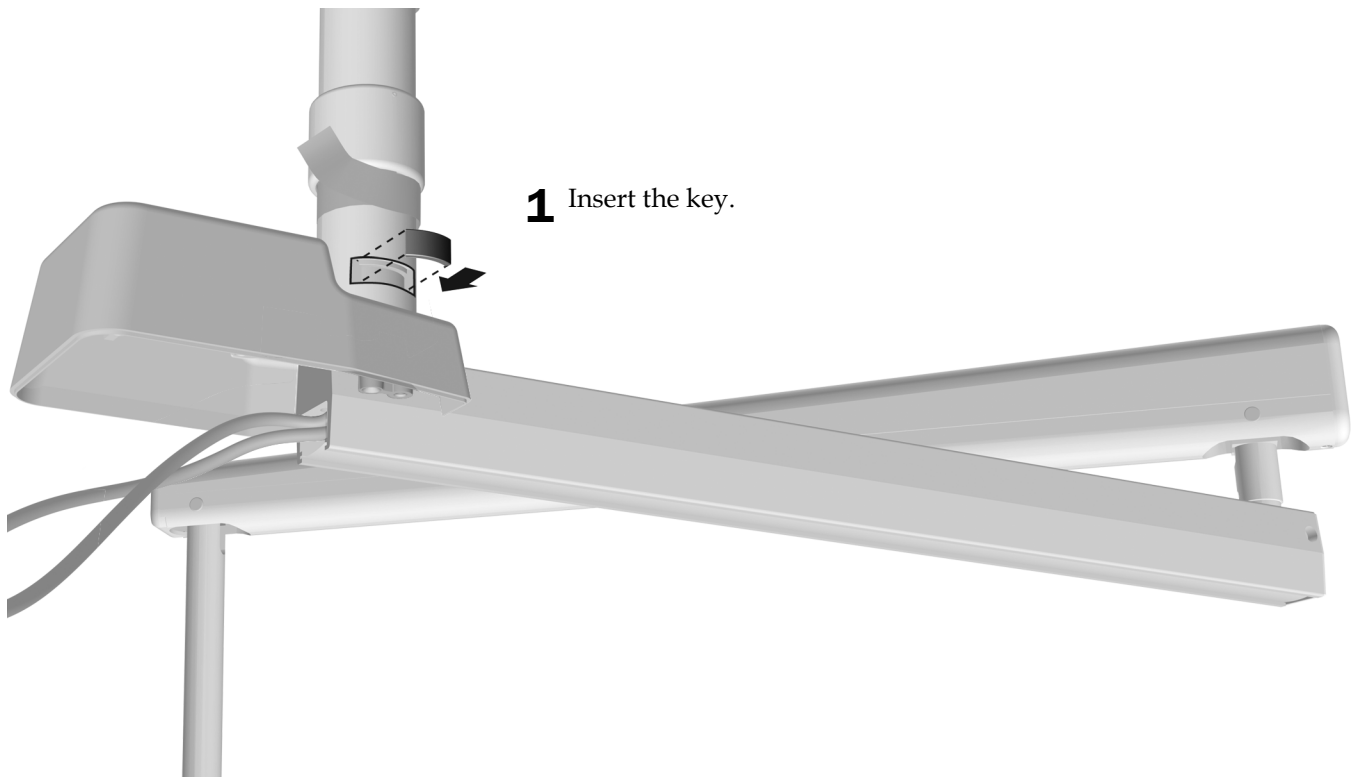
**1** Route the cable through the rigid arm housing.



**2** Insert the flexarm into the post.

**Task 4.**

**1** Insert the key.



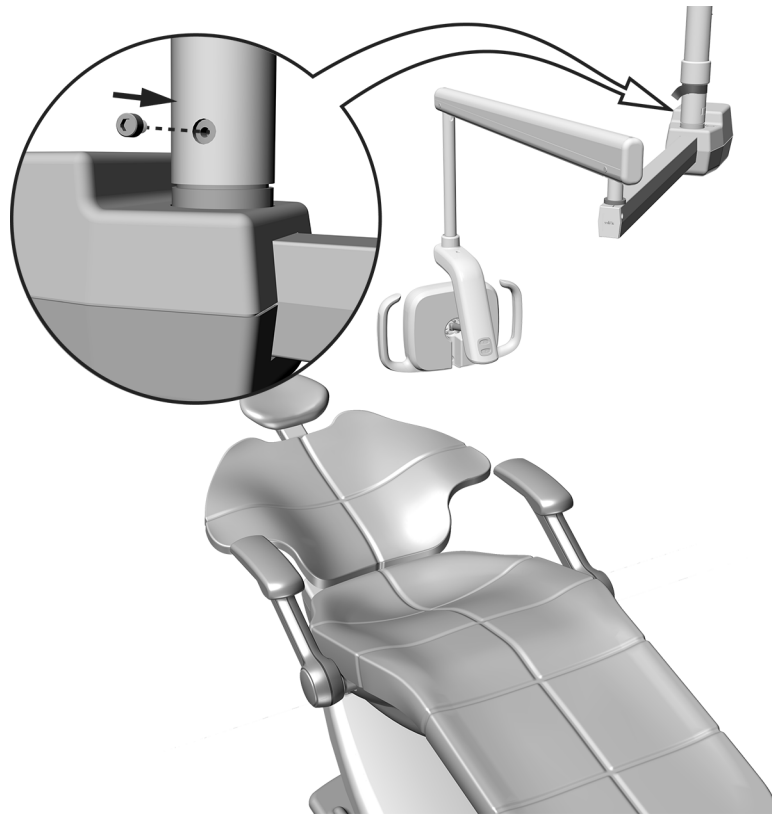
### Task 5.

- 1 Place the light in working position.



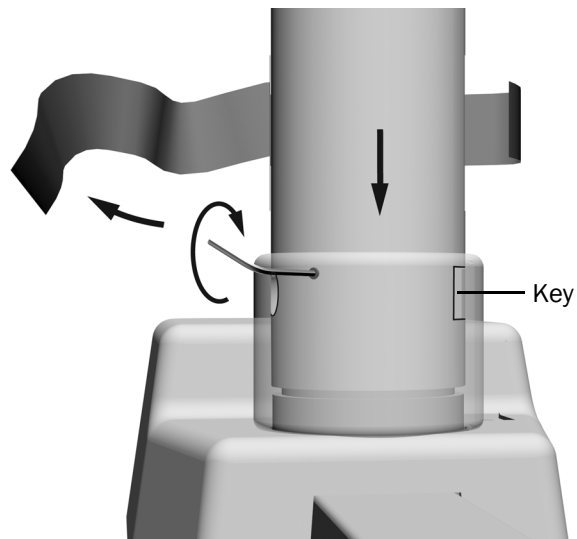
**CAUTION** Keep the key in the slot during this procedure to prevent the flexarm from falling.

- 2 Install the 10-32 x 3/8" (10 mm) rotation stop into the threaded hole.
- 3 Test the range of rotation. If you want to change it, remove the rotation stop, rotate the light, and re-install the rotation stop in one of the other two threaded holes.



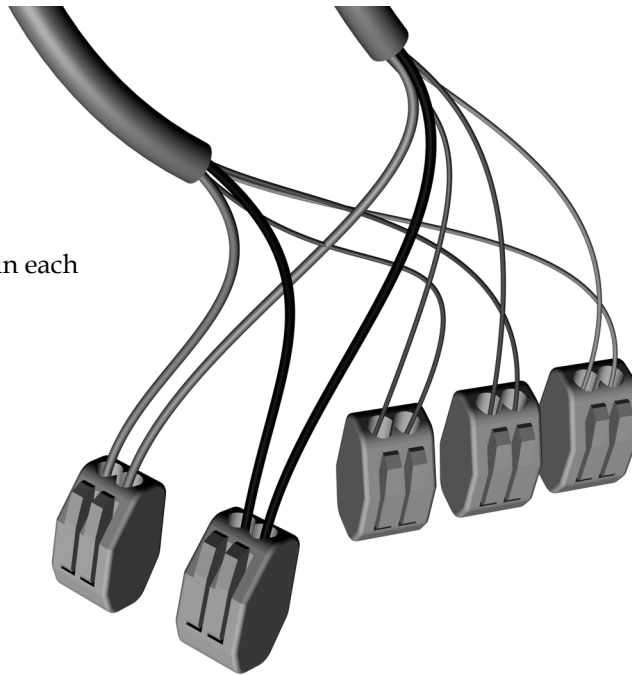
### Task 6.

- 1 Remove the tape. Lower the collar over the slot so that the setscrew is not over the key.
- 2 Firmly tighten the setscrew.



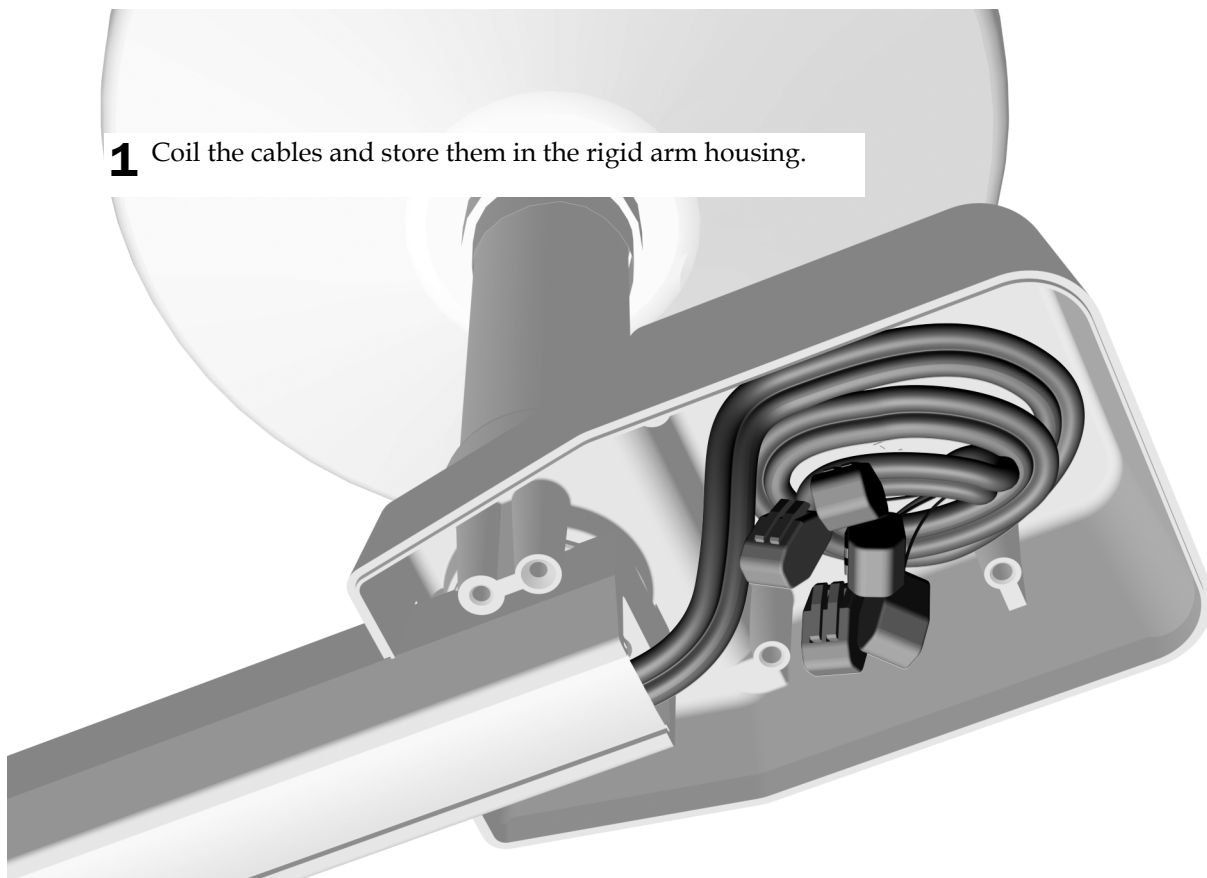
**Task 7.**

- 1** Attach matching colored wires in each wire connector.



**Task 8.**

- 1** Coil the cables and store them in the rigid arm housing.



## Prepare and Adjust the Light

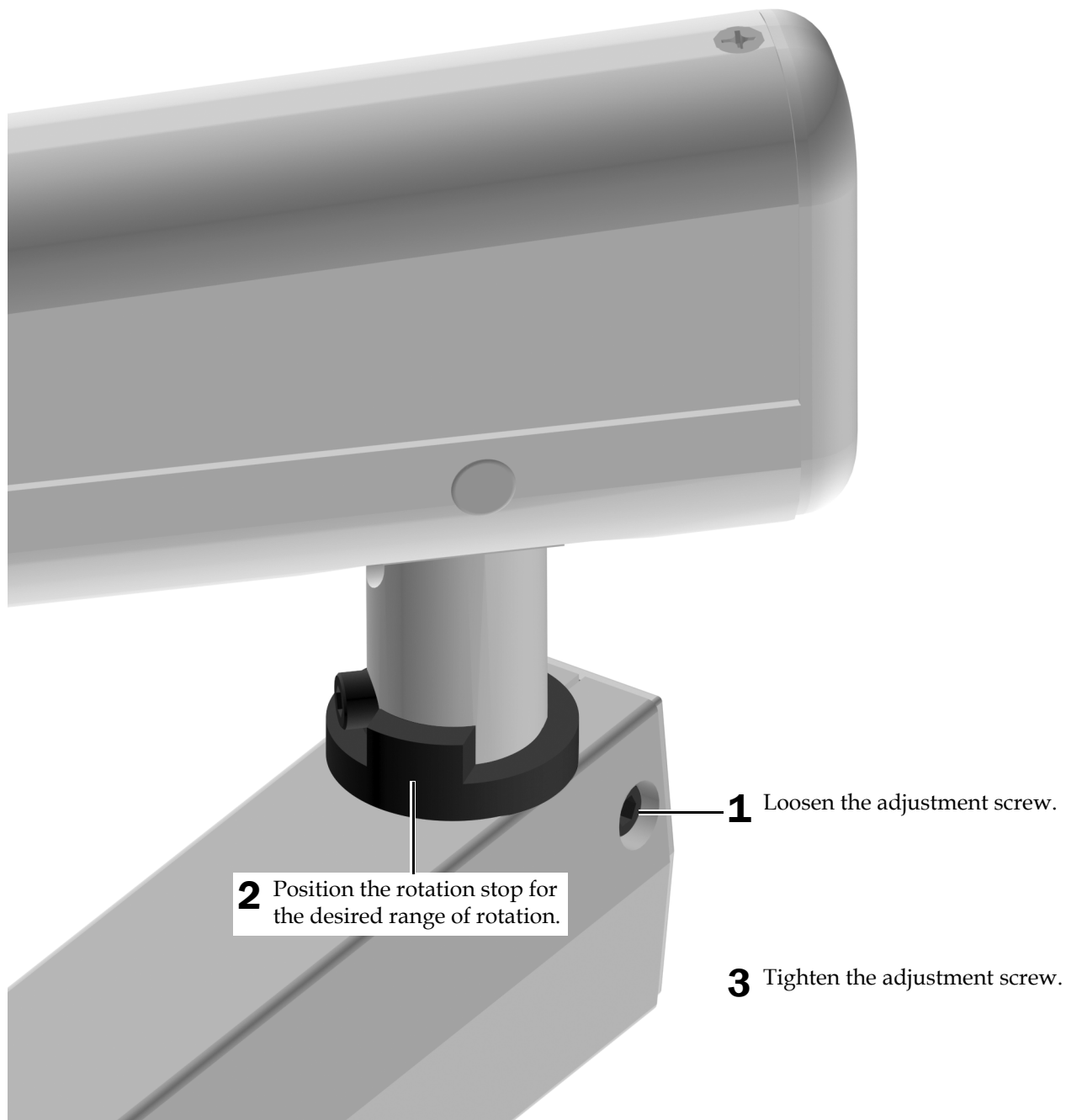
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### Adjust the Flexarm Rotation

#### Recommended Tool

- 3/16" hex key

#### Task 1.



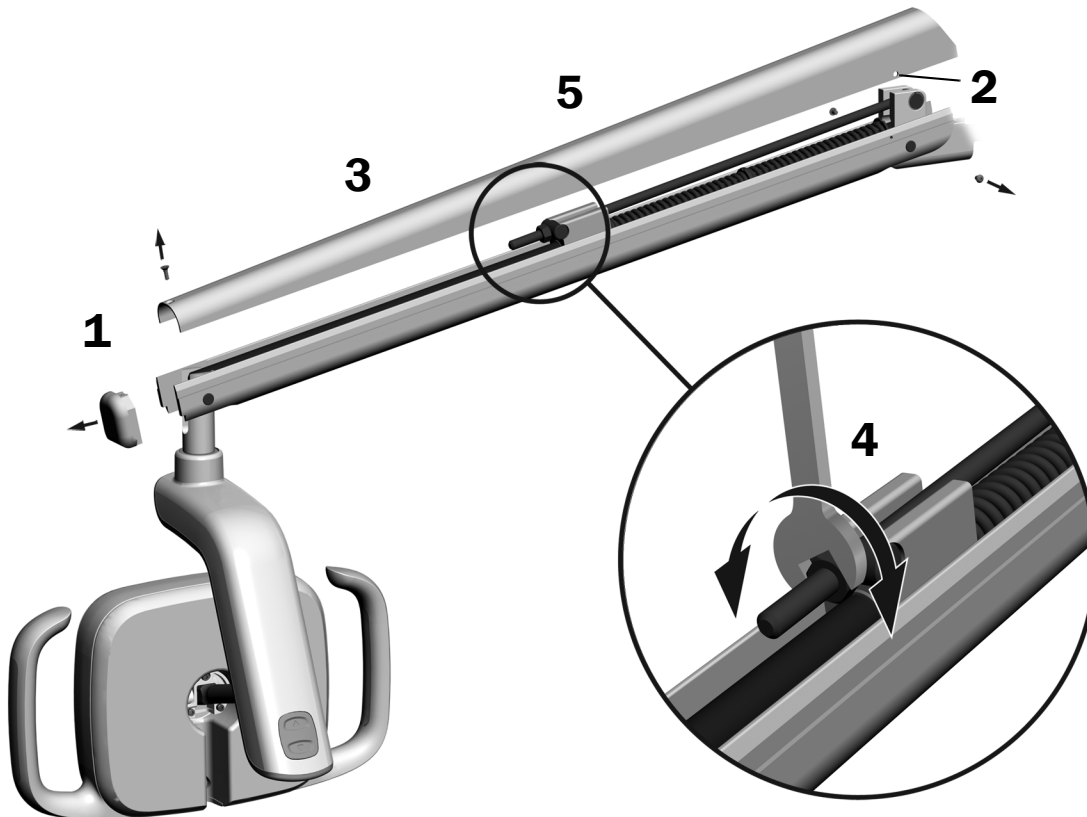
## Adjust the Dental Light Flexarm Counterbalance

Check the dental light flexarm for drift. If the dental light drifts, complete the following steps to adjust the flexarm counterbalance.

### Recommended Tools

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

1. Remove the end cap.
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 3, 4 and 5 until the drift is eliminated.
7. Use the two screws to secure the cover after the drift is eliminated.



**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.

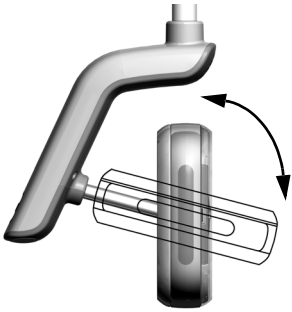
## Adjust the Rotation Tension

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.

### Recommended Tool

- 7/64" hex key

### Adjust the Vertical Tension



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



### Adjust the Horizontal and Diagonal Tension

#### Task 1.



**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.

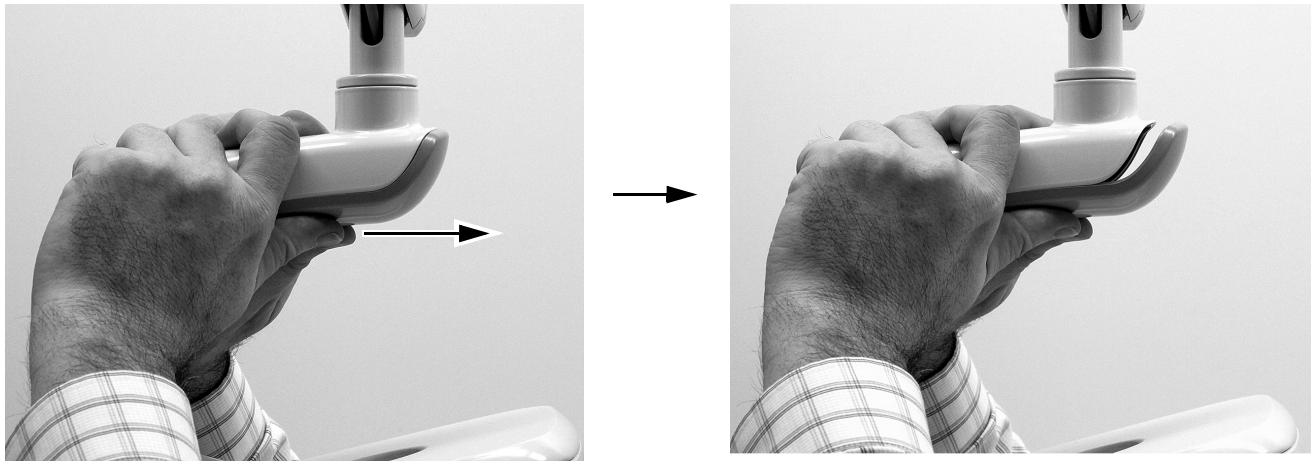
- 1** Remove the two screws securing the driver housing cover.





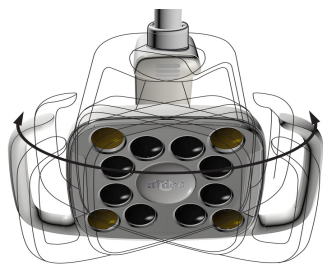
### Task 2.

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

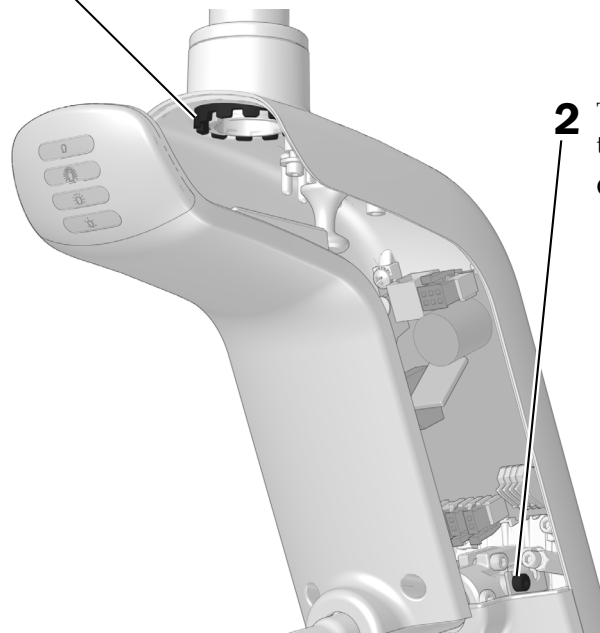


### Task 3.

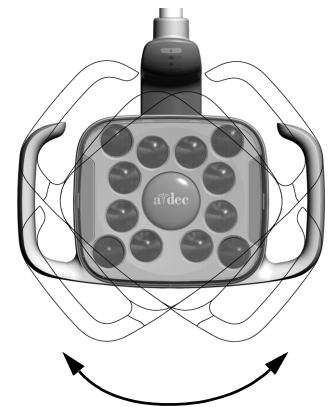
- 1 To adjust horizontal tension, rotate the friction adjustment. Clockwise increases the tension.



576L Shown



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



## Test the Light

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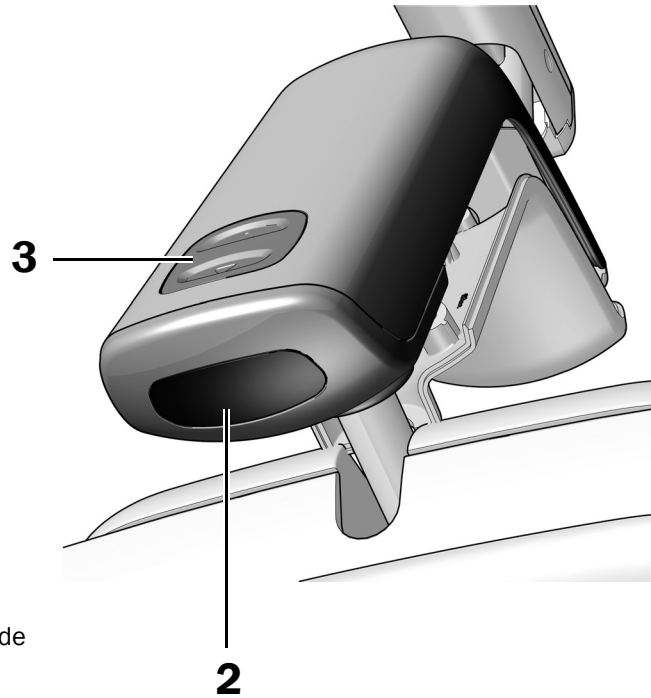
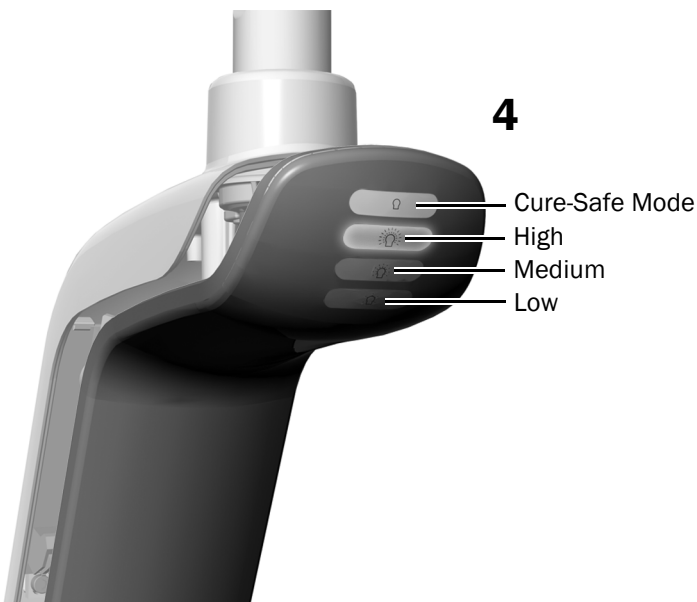
Perform the procedures appropriate to your light:

<b>Test the Light From the A-dec 576L Light Head</b> .....	<b>18</b>
<b>Test the Light from the A-dec 376L Light Head</b> .....	<b>19</b>
<b>Test the Light From the Touch Control</b> .....	<b>20</b>

### Test the Light From the A-dec 576L Light Head

#### Task 1.

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

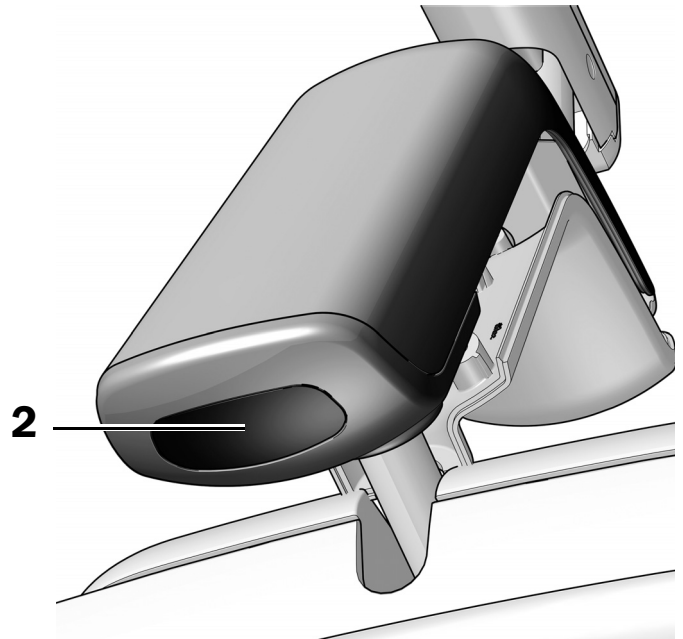


**Next Step** See "Test the Light From the Touch Control" on page 20.

## Test the Light from the A-dec 376L Light Head

### Task 1.

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 Touch Control

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, and CP5 Touch Controls



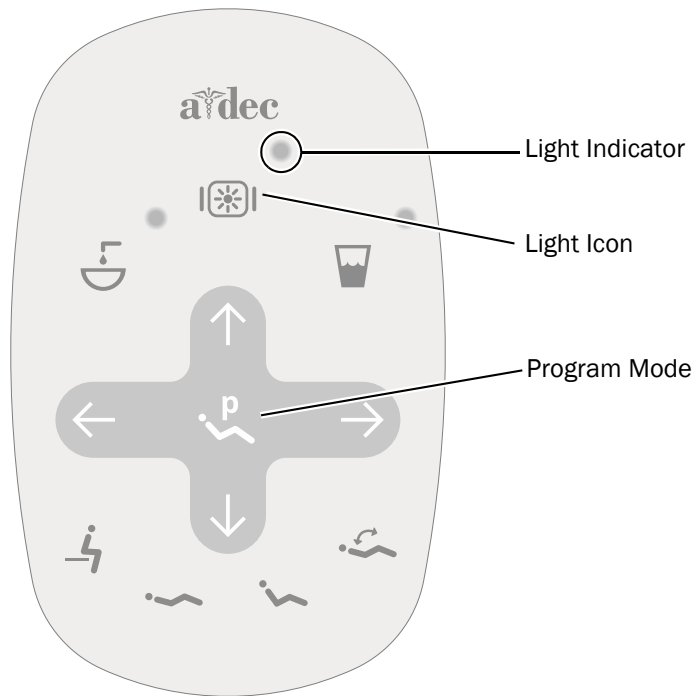
For touchscreen and control pad use, see the *A-dec Touchscreens and Control Pads Instructions for Use* (p/n 86.0857.00) at [a-dec.com/touchscreen-manual](http://a-dec.com/touchscreen-manual).




For configuring connectivity features, see the *A-dec+™ and A-dec+ Gateway Installation Guide/Instructions for Use* (p/n 86.0924.00) at [a-dec.com/connectivity-manual](http://a-dec.com/connectivity-manual).






## Standard Touchpad



- 1** Turn on the power to the system.
- 2** Repeatedly press and release  to verify the light turns on and toggles between the intensity modes: high, medium, low, and cure-safe mode (576L) or high and composite/low mode (376L).



**NOTE** When the 376L is in the composite/low mode or the 576L is in cure-safe mode, the light indicator on the touchpad flashes.

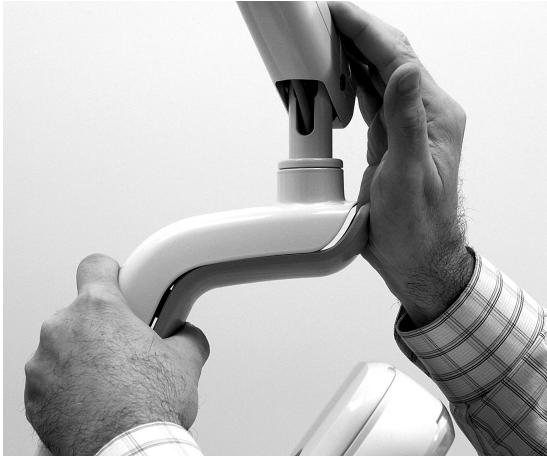
- 3** Press and hold  to turn off the light.
- 4** Press and hold  and  at the same time until the system beeps to disable or enable the auto on/off function.
  - **One beep** indicates this function is off.
  - **Three beeps** indicate this function is on.

## 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.

### Task 1.



- 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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