

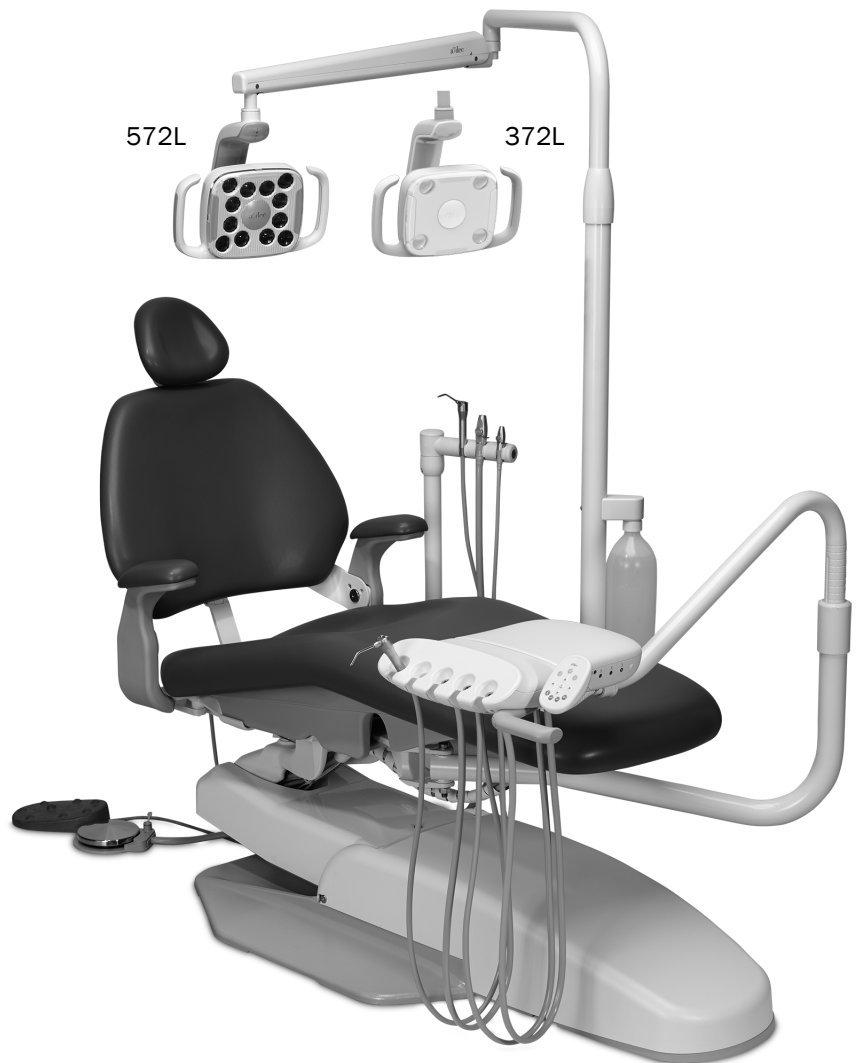


A-dec 372L/572L Dental Light on an A-dec Performer Dental Chair

INSTALLATION GUIDE

Contents

| | |
|---|-----------|
| Before You Begin | 2 |
| Remove the Covers | 2 |
| Choose the Procedure | 3 |
| Install the Rigid Arm | 4 |
| Remove the Halogen Dental Light | 10 |
| Install the LED Dental Light on the Back Mount | 13 |
| Install the LED Dental Light on the Front Mount | 16 |
| Connect the LED Dental Light to the Power Supply | 20 |
| Prepare and Adjust the Dental Light | 22 |
| Test the Dental Light | 29 |
| Reinstall the Covers | 33 |
| Regulatory Information | 36 |



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

Before You Begin



IMPORTANT This installation guide explains how to install a 372L or 572L dental light on a new A-dec Performer dental chair and how to replace a previously installed halogen dental light with a new LED dental light.



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



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.

Recommended Tools

- 15/16" socket and ratchet (2)
- Diagonal cutters
- Hex key set
- 1/2", 5/8", 3/4" and 15/16" combination wrenches
- Phillips head screwdriver
- Antistatic wrist strap

Remove the Covers



CAUTION When removing or replacing covers, take care not to damage any wiring or tubing. Verify that the covers are secure after replacing them.

1. Plug the chair into the mains supply.
2. Raise the chair to the full base up position.



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.

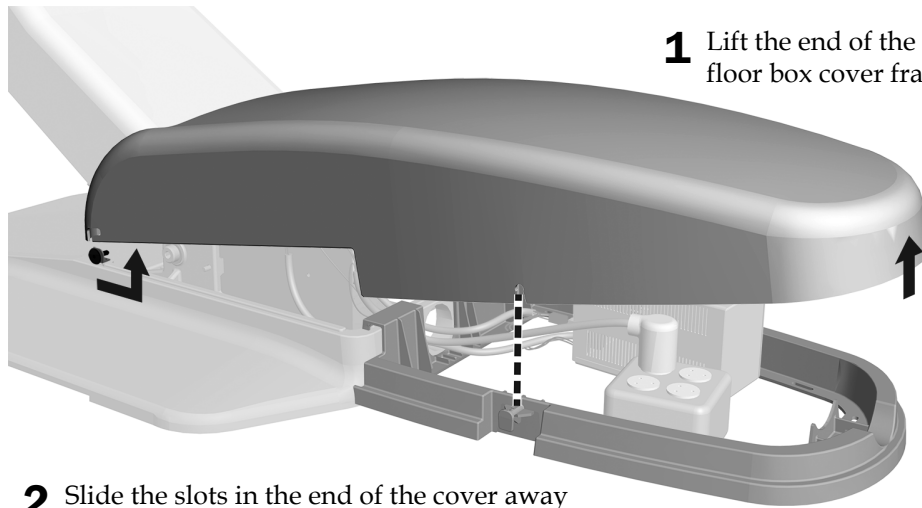
3. Unplug the chair from the mains supply.

Remove the Stop Plate



- 1** Press on one side of the stop plate and pull it away from the lift arm.

Remove the Single Piece Floor Box Cover



- 1** Lift the end of the cover up over the pins on the floor box cover frame.

- 2** Slide the slots in the end of the cover away from the chair and up over the pins.

Choose the Procedure

If you are installing a dental light on a new chair, continue with “Install the Rigid Arm” on page 4.

If you are replacing a halogen light with a new LED dental light, continue with the “Remove the Halogen Dental Light” on page 10.

Install the Rigid Arm

Perform the procedure appropriate to your installation:

Install the Rigid Arm on the Back Mount 4

Install the Rigid Arm on the Front Mount 8

Install the Rigid Arm on the Back Mount

Perform this step if you are installing a dental light on a new A-dec Performer chair.

Recommended Tools

- 1/4" hex key
- 3/4" socket and ratchet

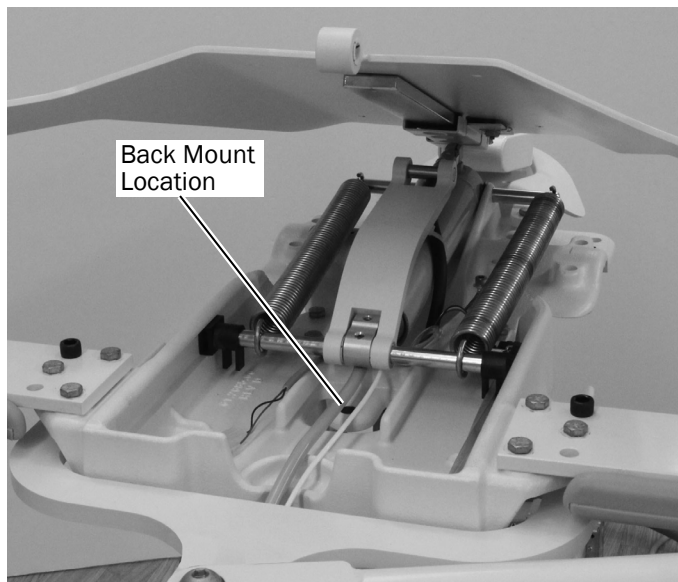
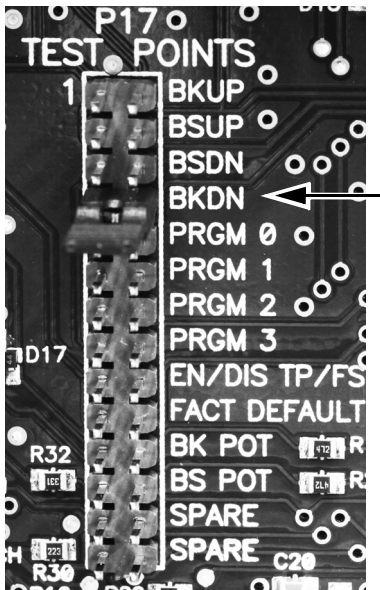
Task 1.

1 Plug in the chair.



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.

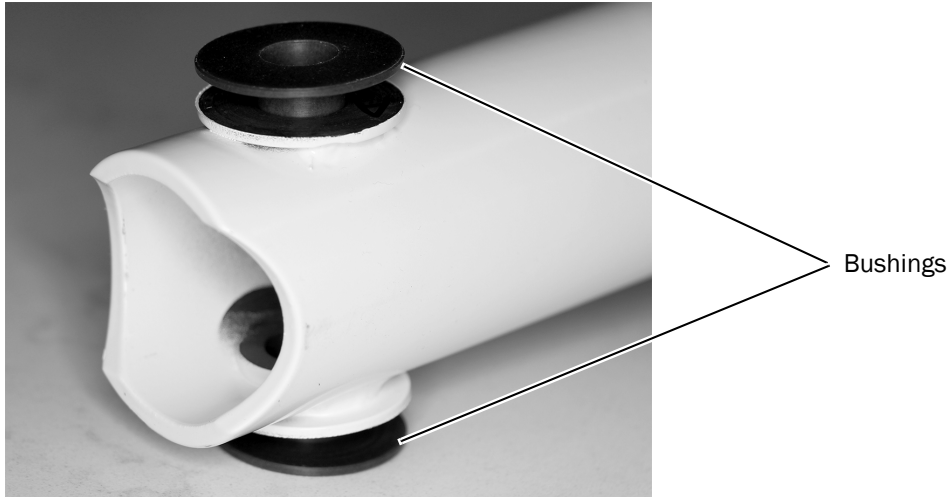
2 To provide access to the back mount, use the jumper to move the chair back down (BKDN).



3 Unplug the chair.

Task 2.

- 1 Remove the rigid arm from the dental light box.
- 2 Insert the two bushings into the end of the rigid arm.



Task 3.

- 1 Remove the tubing from the end of the pivot bolt.



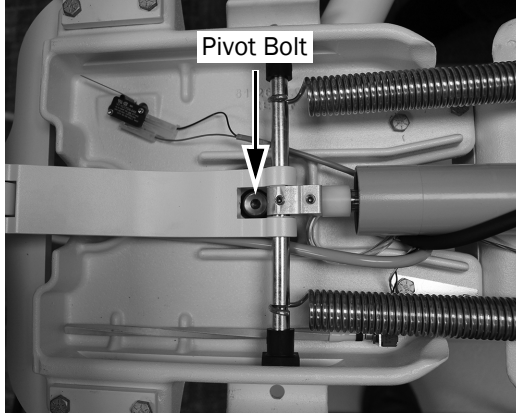
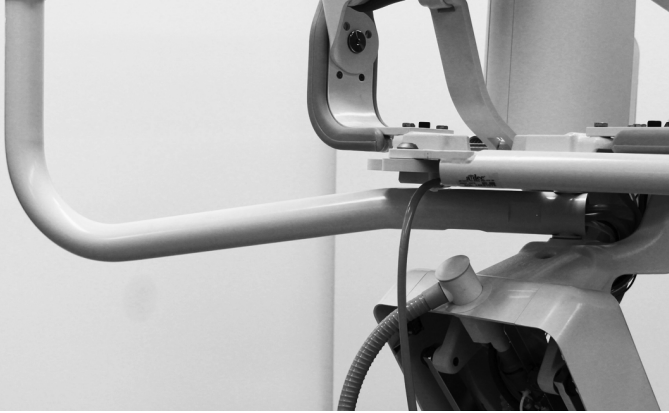
- 2 Install a Nord-Lock® washer onto the pivot bolt.



NOTE The Nord-Lock washer consists of two pieces glued together. Do not separate the two pieces.

Task 4.

- 1** Place the lower post into position and insert the pivot bolt.

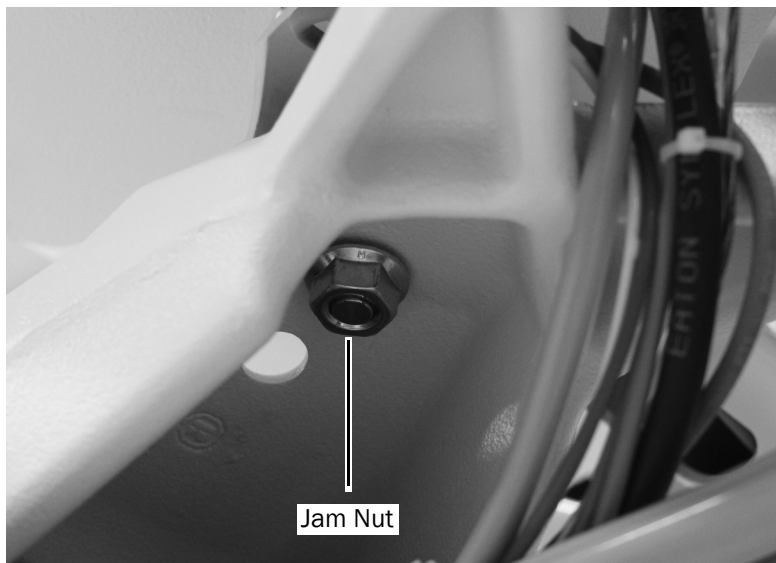


- 2** Tighten the pivot bolt until the arm is secured firmly in place and does not rotate easily.



Task 5.

- 1** On the bottom of the pivot bolt, install and securely tighten the jam nut.



Next Step Continue with “Install the LED Dental Light on the Back Mount” on page 13.

Install the Rigid Arm on the Front Mount

Perform this step if you are installing a dental light on a Performer dental chair for the first time.

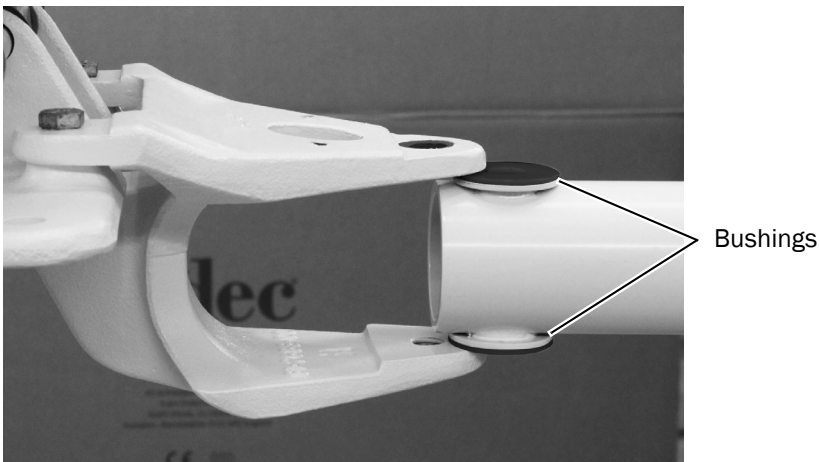
Recommended Tools

- 1/4" hex key
- 3/4" socket and ratchet

Task 1.

1 Remove the rigid arm from the delivery system/light box.

2 Insert the two bushings into the end of the rigid arm.



Task 2.

1 Remove the tubing from the end of the pivot bolt.

2 Install a Nord-Lock® washer onto the pivot bolt.



NOTE The Nord-Lock washer consists of two pieces glued together. Do not separate the two pieces.

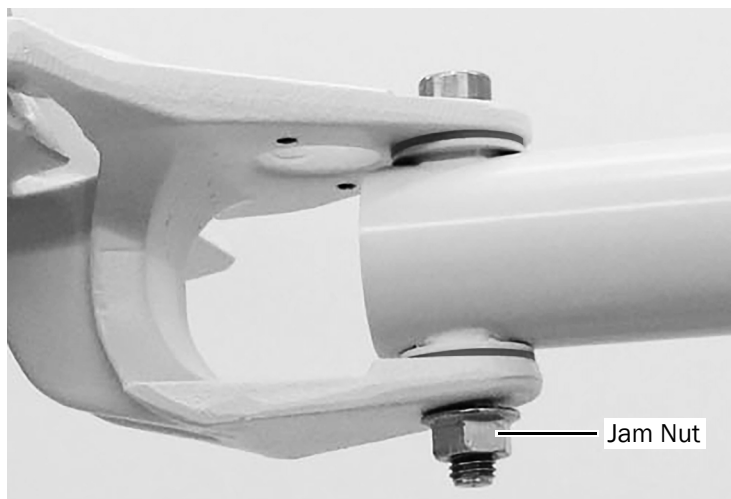
Task 3.

- 1 Place the lower post into position and start the pivot bolt.
- 2 Tighten the bolt until the arm is secured firmly in place and does not rotate easily.



Task 4.

- 1 On the bottom of the pivot bolt, install and securely tighten the jam nut.



Next Step Continue with “Install the LED Dental Light on the Front Mount” on page 16.

Remove the Halogen Dental Light

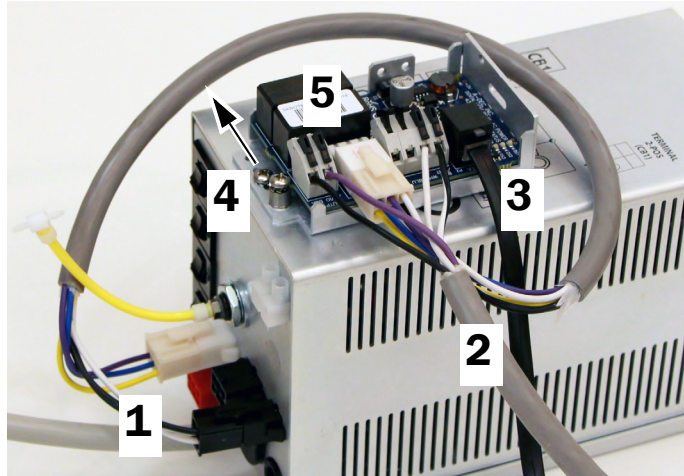
Recommended Tools

- Phillips head screwdriver
- Diagonal cutters

Disconnect an A-dec Performer Dental Light from the Power Supply

Task 1.

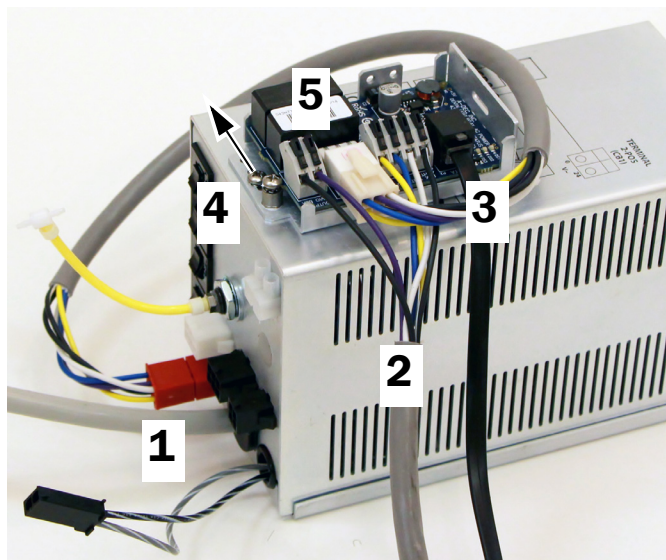
- 1** Disconnect the dental light circuit board from the power supply by removing the two cable adaptors.
- 2** Disconnect the dental light wires from the terminal strips on the dental light circuit board.
- 3** Disconnect the data line from the dental light relay circuit board and from the data line connector on the chair circuit board.
- 4** Use a Phillips head screwdriver to remove the screw that secures the dental light relay circuit board to the power supply.
- 5** Remove the dental light relay circuit board from the power supply.



Disconnect an A-dec 572 Dental Light from the Power Supply

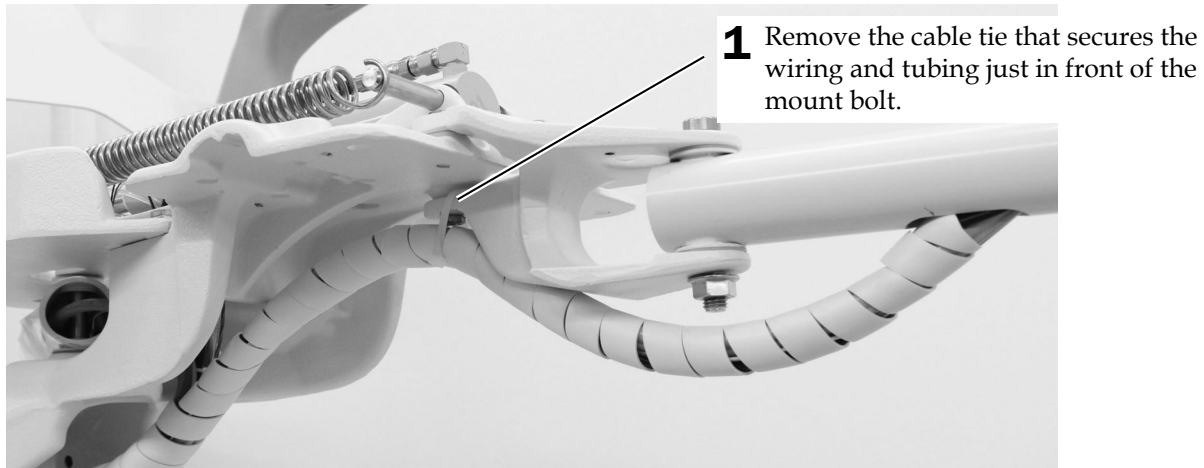
Task 1.

- 1** Disconnect the power supply from the dental light relay circuit board by removing the red cable adaptor from the power supply.
- 2** Disconnect the dental light wires from the dental light relay circuit board.
- 3** Disconnect the data line from the data line connector on the dental light relay circuit board.
- 4** Use a Phillips head screwdriver to remove the screw that secures the dental light relay circuit board to the power supply.
- 5** Remove the dental light relay circuit board from the power supply.

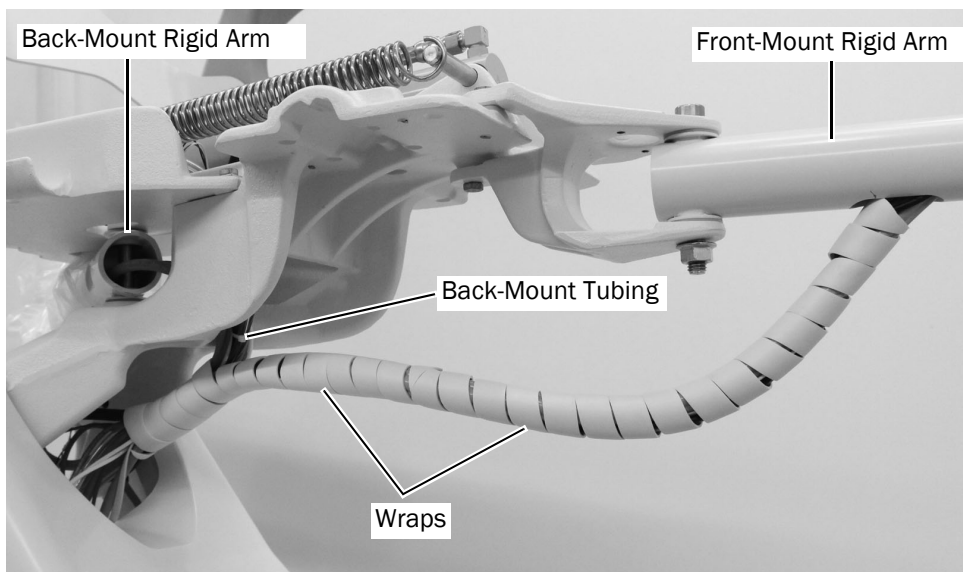


Remove the Halogen Dental Light Wiring

Task 1.

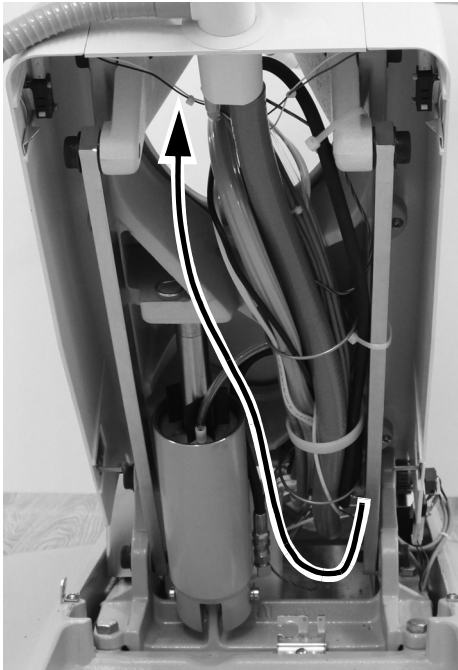


Task 2.



- 1** If you are installing the LED dental light on the front-mount rigid arm, remove the two wraps that surround the halogen light wiring and tubing that comes out of the rigid arm.
- 2** If you are installing the LED dental light on the back-mount rigid arm:
 - (1) Remove the wrap that surrounds the halogen light wiring and tubing that comes out of the back-mount rigid arm.
 - (2) Remove the wiring and tubing that comes out of the front-mount rigid arm.

Task 3.



- 1** Remove the halogen dental light wiring from the floor box, up the lift arm and back to the rigid arm.

Task 4.



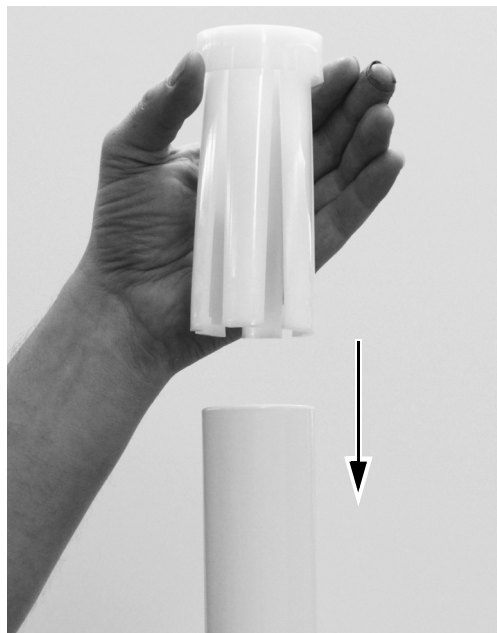
- 1** Lift the halogen light out of the lower post. Set the light aside.

Install the LED Dental Light on the Back Mount

Recommended Tool

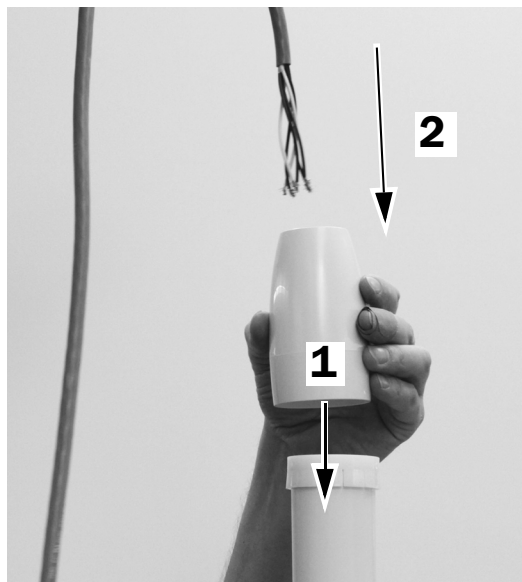
- 1/8" hex key

Task 1.



- 1** Insert and fully seat the bearing into the lower post.

Task 2.



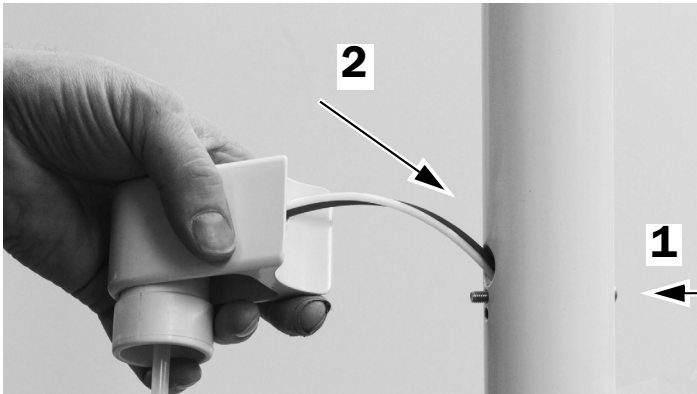
- 1** Place the trim cover on top of the bearing.
- 2** Route the wiring through the rigid arm.

Task 3.

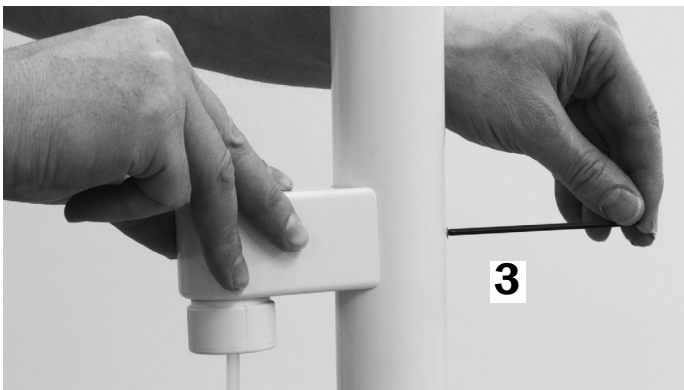


- 1** Insert the LED light into the lower post.

Task 4. If the dental chair has a delivery system:



- 1** Insert the water bottle mounting screw through the lower post.
- 2** Route the water bottle tubing through the lower post.



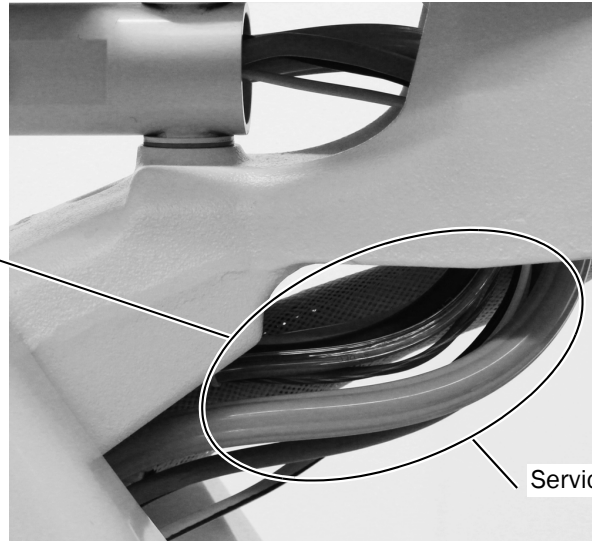
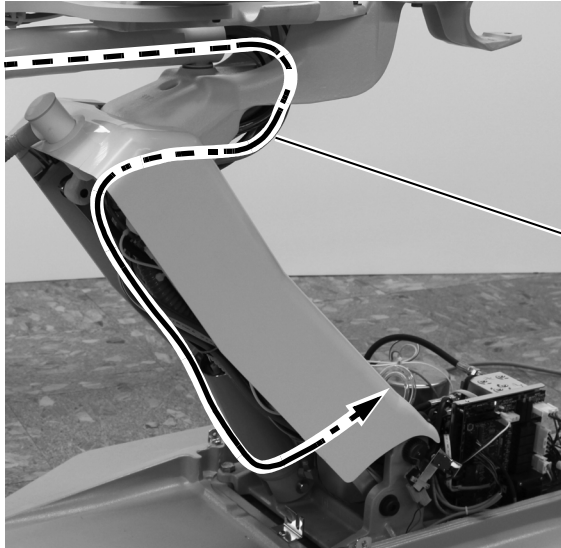
- 3** Use a 1/8" hex key to secure the water bottle housing.

Task 5.



CAUTION To prevent binding and damaging the umbilical, make sure there is a generous service loop below the upper structure.

- 1** Route the dental light cable and water bottle tubing through the upper structure and lift arm to the floor box.

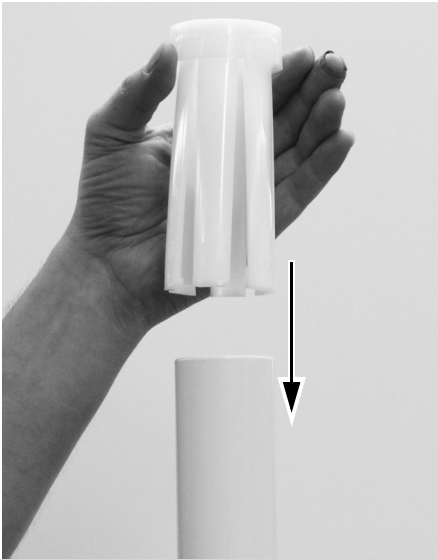


Service Loop

Next Step Continue with “Connect the LED Dental Light to the Power Supply” on page 20.

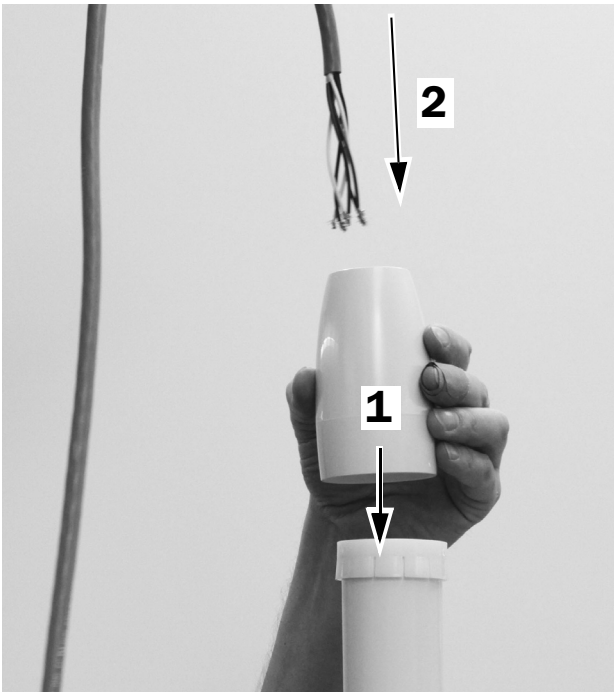
Install the LED Dental Light on the Front Mount

Task 1.

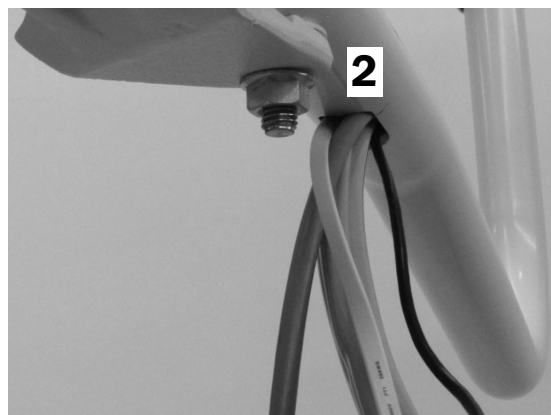


- 1** Insert and fully seat the bearing into the lower post.

Task 2.



- 1** Place the trim cover on top of the bearing.
- 2** Route the wiring into the lower post and out of the slot on the bottom of the post.

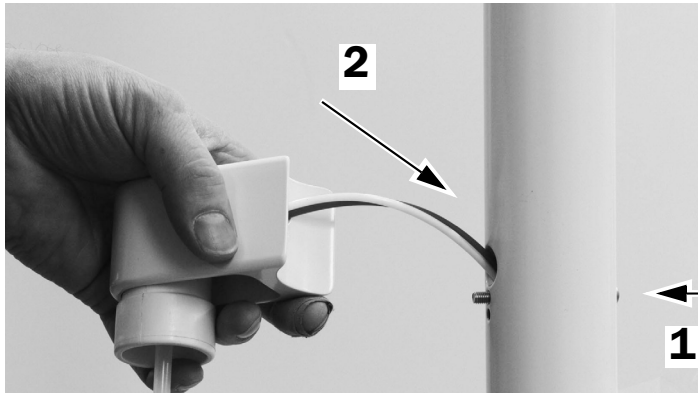


Task 3.

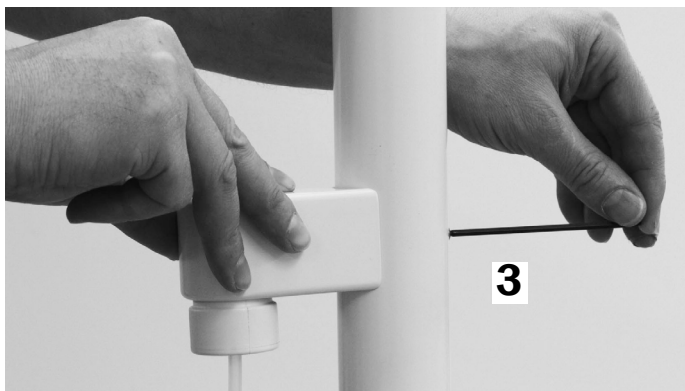


- 1** Insert the light into the lower post.

Task 4. If the dental chair has a delivery system:

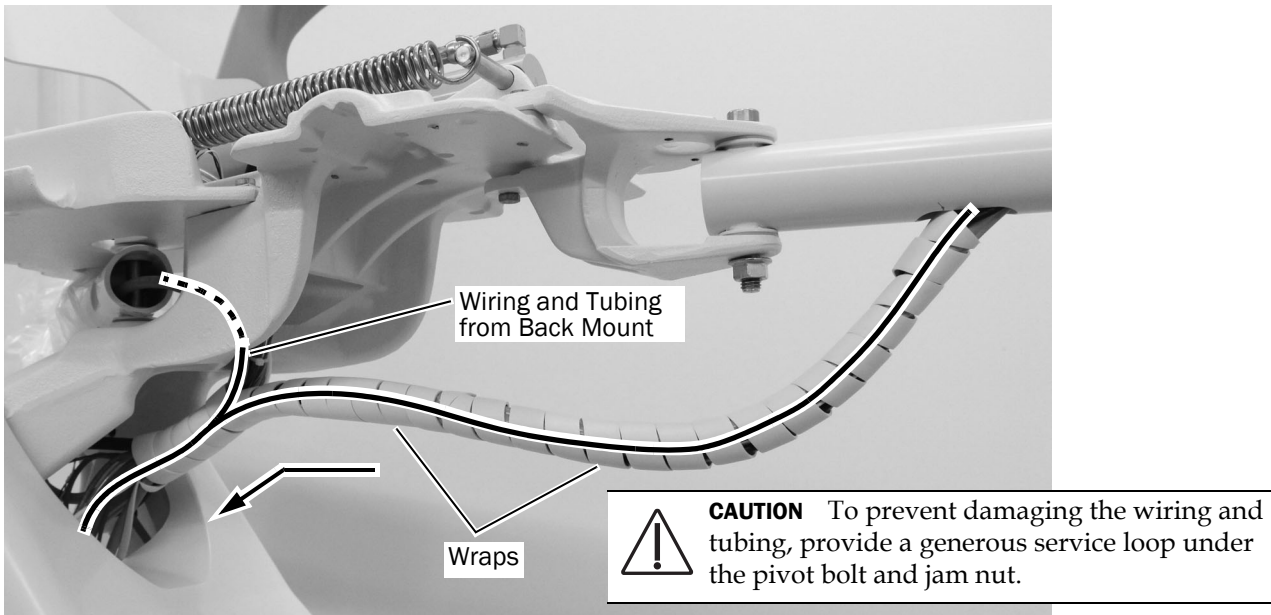


- 1** Insert the water bottle mounting screw through the lower post.
- 2** Route the water bottle tubing through the lower post and out of the slot on the bottom of the post.



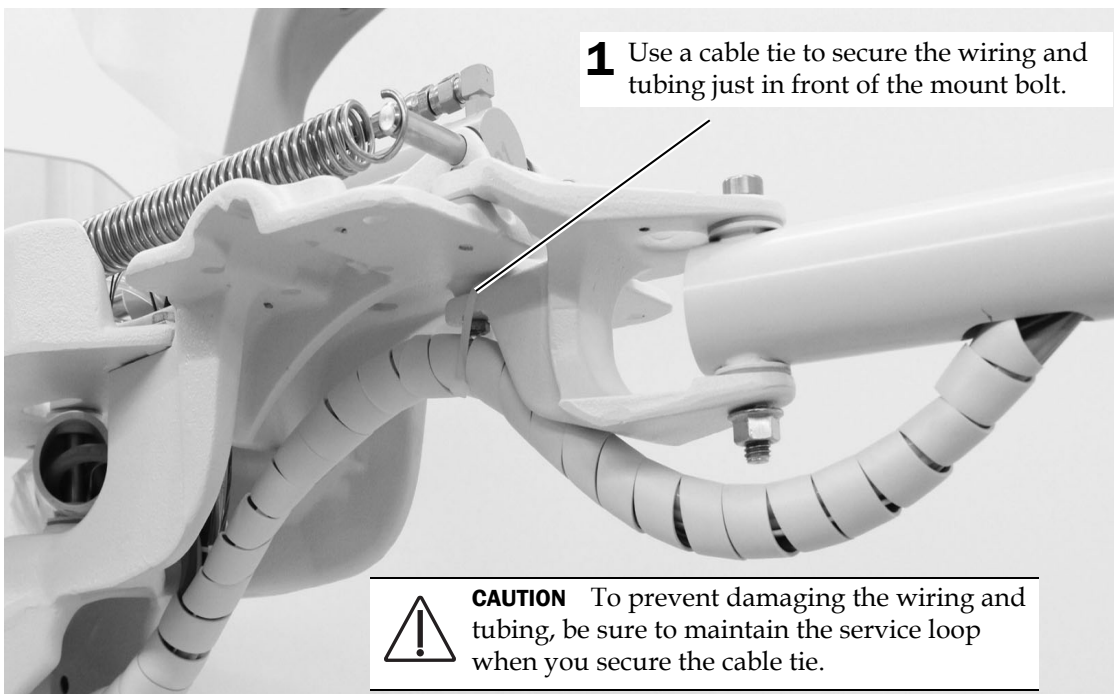
- 3** Use a 1/8" hex key to secure the water bottle housing.

Task 5.

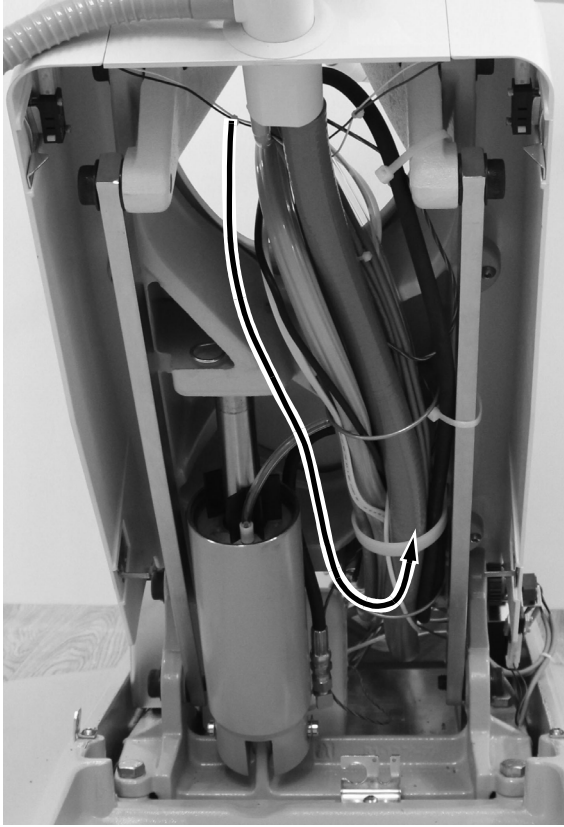


- 1 Route the wiring and tubing under the upper structure to the back side of the lift arm.
- 2 Starting at the slot in the lower post, install two wraps around the wiring and tubing. If there is tubing from equipment installed at the back-mount, include it in the wrap.

Task 6.



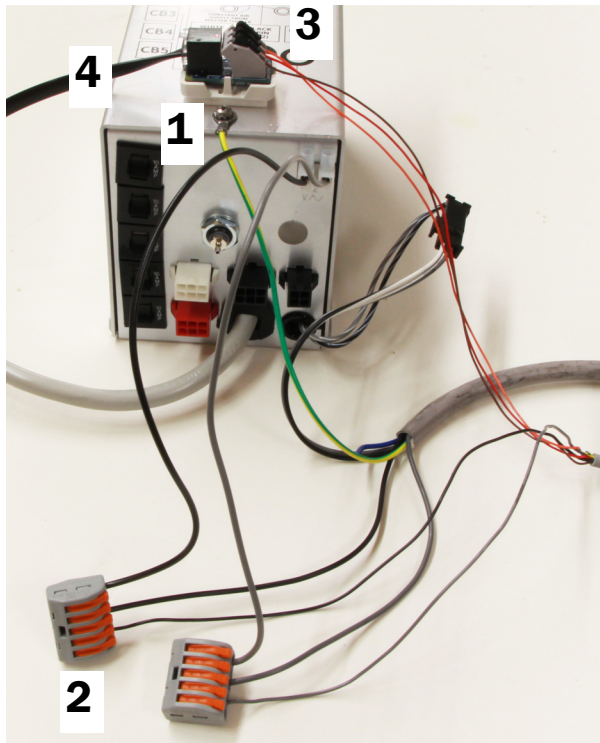
Task 7.



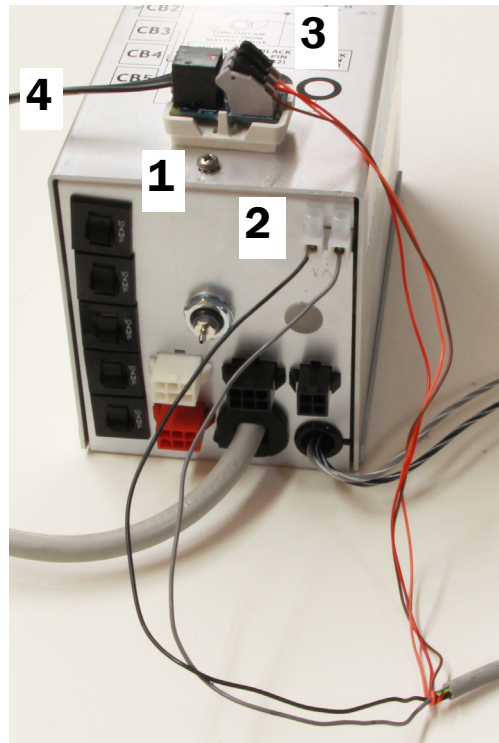
- 1** Route the wiring and tubing down the lift arm and to the floor box.

Connect the LED Dental Light to the Power Supply

Connect the 372L with Touchpad Functionality or 572L Dental Light



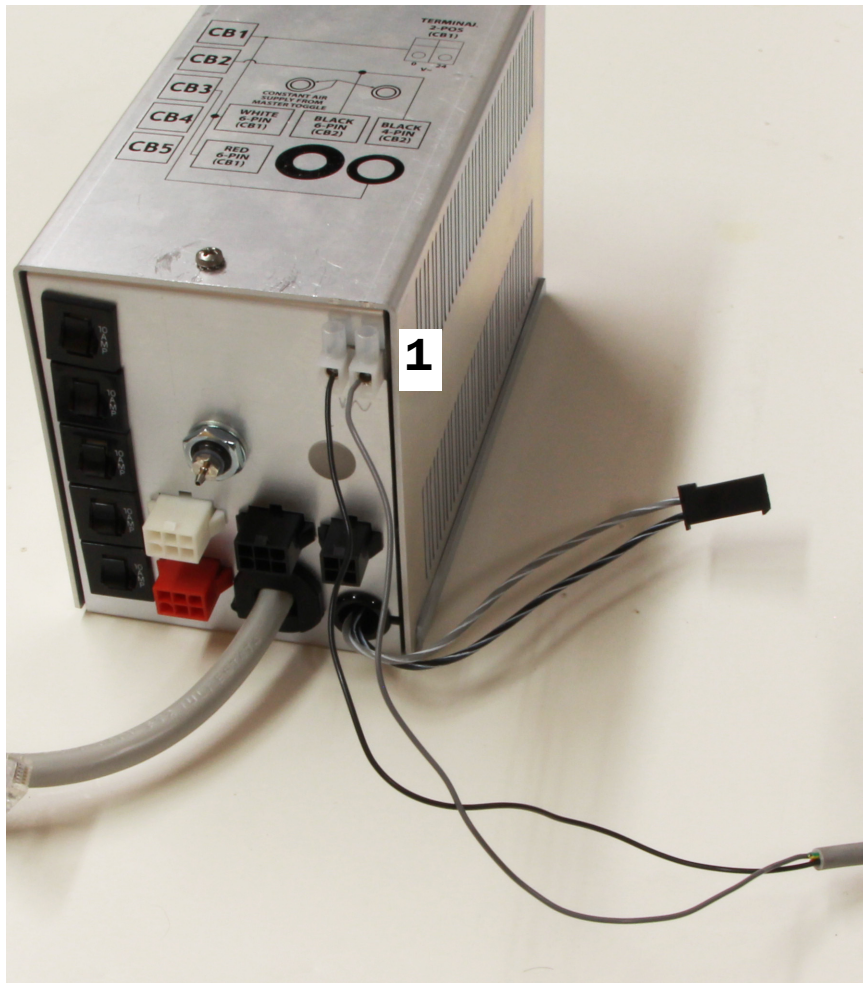
Connections With a Delivery System



Connections Without a Delivery System

- 1** Peel off the protective paper from the adaptor board. Attach the adaptor board to the top of the power supply.
- 2** Connect the black and gray wires as shown above.
 - **If a delivery system is installed:**
 - (1) Disconnect the delivery system black and gray wires from the power supply.
 - (2) Connect the supplied WAGO® connectors and wires to the 0 V and 24 V terminals on the power supply. Connect the black wire to 0 V. Connect the gray wire to 24 V.
 - (3) Connect the delivery system and light cable black wires to the WAGO connector with the black wire.
 - (4) Connect the delivery system and light cable gray wires to the WAGO connector with the gray wire.
 - **If a delivery system is not installed:** Connect the black wire to the 0 V terminal on the power supply and the light cable gray wire to the 24 V terminal.
- 3** Connect the colored wires to the positions on the adaptor board as labeled; brown to BRN, red to RED, and orange to ORN.
- 4** Connect a data line from the adaptor board to a port on the chair circuit board.

Connect the 372L without Touchpad Functionality to the Power Supply



- 1** Connect the dental light power cable black wire to the 0 V terminal on the power supply and the gray wire to the 24 V terminal.

Prepare and Adjust the Dental Light

Adjust the Dental Light Flexarm Counterbalance

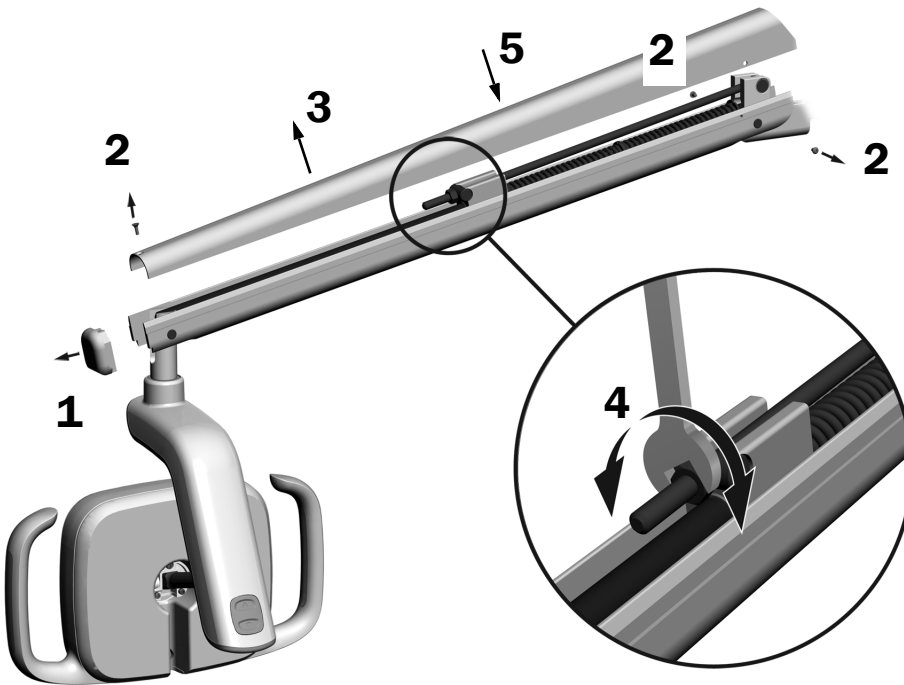
Recommended Tools

- 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 three 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 Dental Light Rigid Arm Tension

Check the movement of the dental light rigid arm. If the rigid arm moves too easily, tends to drift out of position or is too difficult to move, use the following procedures to adjust the tension on the rigid arm.

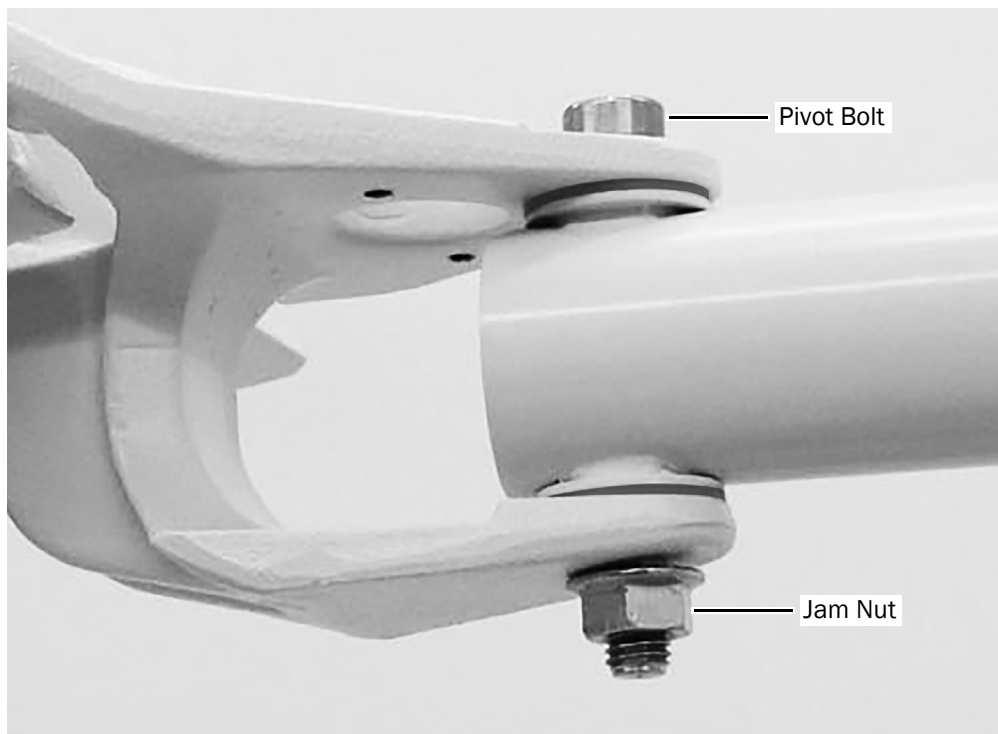
Front Mount Dental Light

Recommended Tool

- 15/16" socket and ratchet

Task 1.

- 1** Place the dental light in working position.
- 2** Loosen the jam nut on the pivot bolt.



- 3** Tighten or loosen the pivot bolt as needed.
- 4** Tighten the jam nut on the pivot bolt.

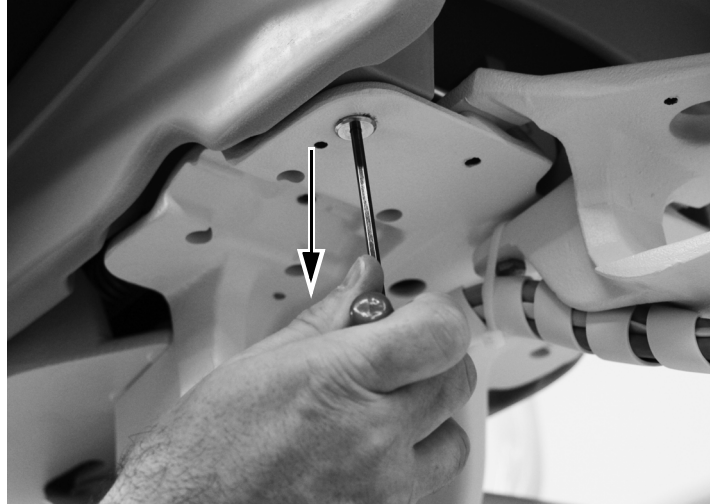
Rear Mount Dental Light

Recommended Tools

- 5/32" and 1/4" hex keys

Task 1.

- 1** Remove the four screws that secure the seat upholstery to the chair.
- 2** Lift the seat upholstery off the chair.
- 3** Plug the chair into the mains supply.
- 4** To provide access to the back mount tension adjustment, lower the back all the way down.



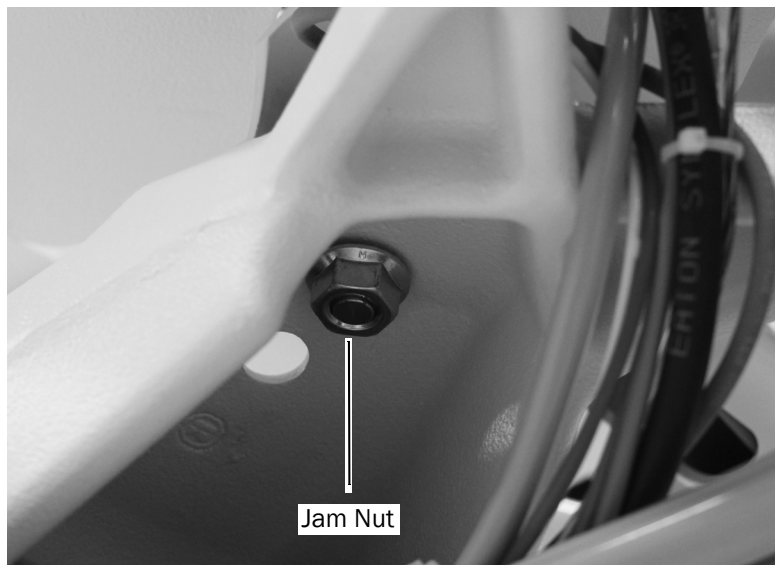
Task 2.

- 1** Check that the rigid arm is secured firmly in place and does not rotate easily. If necessary, tighten or loosen the bolt.



Task 3.

- 1** On the bottom of the pivot bolt, check the jam nut. If necessary, tighten the jam nut.



Task 4.

- 1** Raise the back.
- 2** Align the four threaded inserts in the seat upholstery with the holes in the chair casting.
- 3** Use four screws to secure the seat upholstery to the chair.
- 4** Unplug the chair from the mains supply.



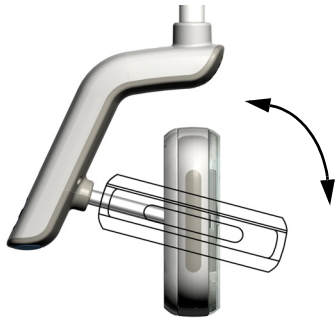
Adjust the Dental Light Rotation Tension

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.

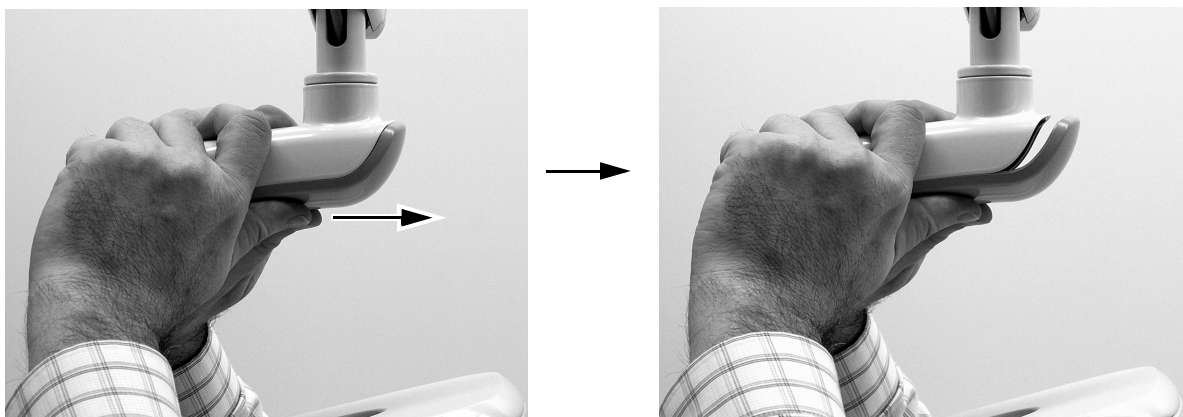
Adjust the Horizontal and Diagonal Tension

Task 1.

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

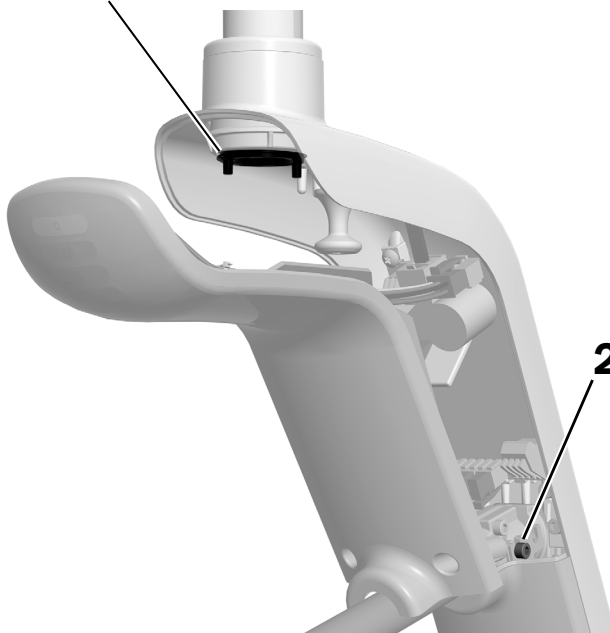
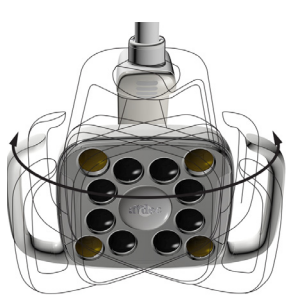


- 2** Grasp the driver housing and use your thumbs to push the driver housing cover away from the driver housing.

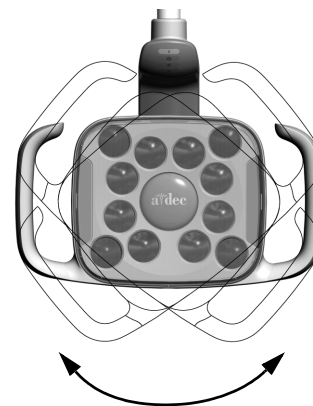


Task 2.

- 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 Dental Light

Perform the test procedure appropriate to your light:

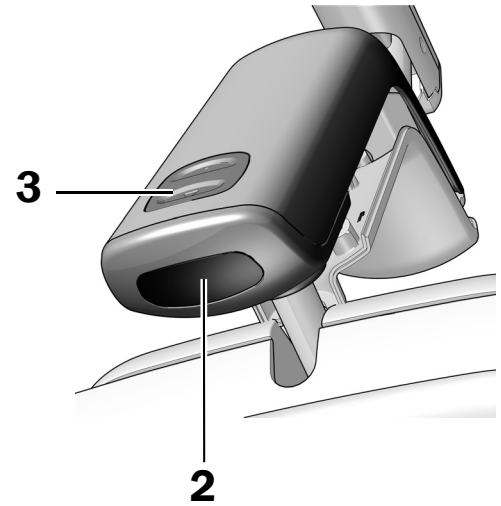
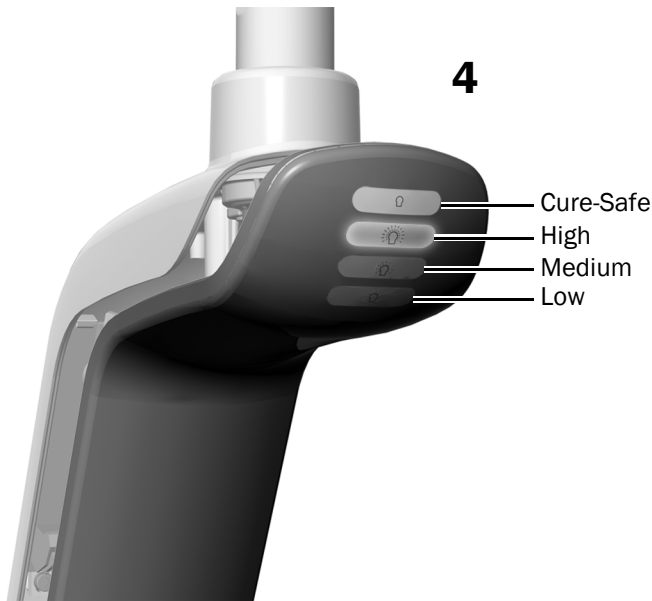
| | |
|---|-----------|
| A-dec 572L Procedure | 29 |
| A-dec 372L Procedure | 30 |
| Test the Dental Light Using the Touchpad | 31 |
| Reinstall the Driver Housing Cover | 32 |

A-dec 572L Procedure

Task 1.

1. Plug the chair into the mains supply.
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.

If it doesn't work properly, check the wiring connections.



Next Step See "Test the Dental Light Using the Touchpad" on page 31.

A-dec 372L Procedure

Task 1.

1. Plug the chair into the mains supply.
2. **372L Dental Light with Touchpad Functionality:** Press the power button several times to verify the light turns on and off. Leave the light off.

372L Dental Light without Touchpad Functionality: Press the power button repeatedly to verify the light cycles between high, composite/low, and off intensity modes.


If it doesn't work properly, check the wiring connections.





NOTE If you installed a dental light without touchpad functionality and you inadvertently press the dental light button on the touchpad, the indicator light will turn on. To turn off the indicator light, press and hold the dental light button.



Test the Dental Light Using the Touchpad

- 1 To verify the light turns on and toggles between intensity modes (372L with touchpad functionality: high and composite/low; 572L: high, medium, and low, plus cure-safe mode), repeatedly press and release . To turn off the light, press and hold the button.

NOTE When the 372L with touchpad functionality is in the composite/low mode or the 572L is in the cure-safe mode, the light indicator on the touchpad flashes.

- 2 To disable the auto on/off feature, press and hold  and  at the same time for three seconds. One beep indicates that the auto on/off function is off. To re-enable, repeat this step. Three beeps indicate that the auto on/off feature is activated.

Standard Touchpad



A-dec 300 Deluxe Touchpad



- 3 Unplug the chair from the mains supply.

Reinstall the Driver Housing Cover

Task 1.



CAUTION When removing or replacing covers, take care not to damage any wiring. Verify that the covers are secure after replacing 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.

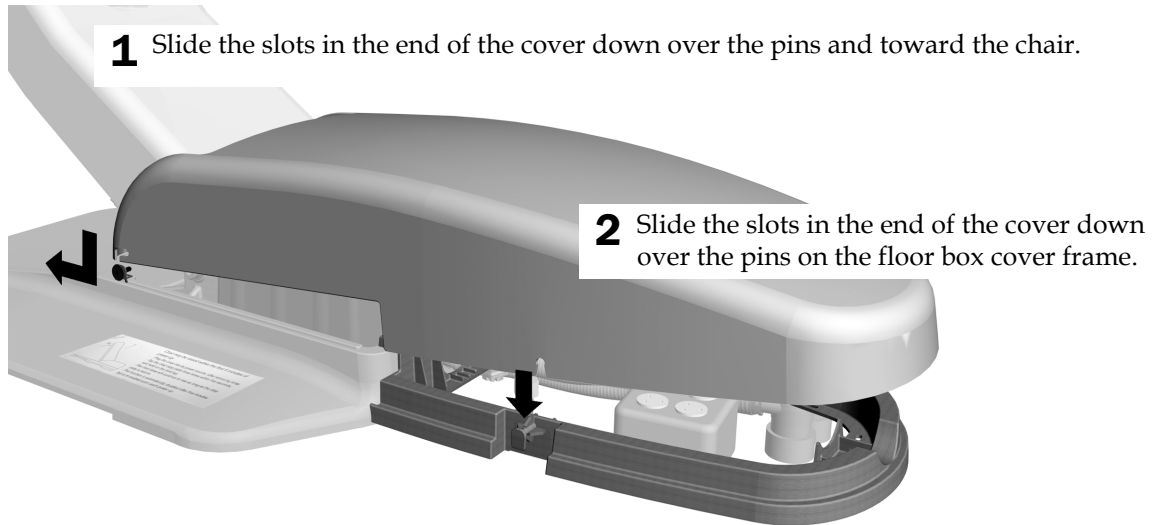


Reinstall the Covers



CAUTION When removing or replacing covers, take care not to damage any wiring or tubing. Verify that the covers are secure after replacing them.

Reinstall the Single Piece Floor Box Cover



Install the Stop Plate



1 Reinstall the stop plate.


Regulatory Information

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.

Product Models and Versions Covered in this Document

| Model | Versions | Description |
|----------------|----------|--------------|
| 372L, 572L | A | Dental Light |
| Performer 8000 | B | Dental Chair |

WAGO is a registered trademark of the WAGO Corporation.
Nord-Lock is a registered trademark of Nord-Lock International AB.

 **A-dec Headquarters**
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

A-dec, Inc. makes no warranty of any kind with regard to the content in this document including, but not limited to, the implied warranties of merchantability and fitness for a particular purpose.



86.0661.00 Rev D
Date of Issue 2021-04-02
Copyright 2021 A-dec, Inc.
All rights reserved.
IGrphpor22