



Acteon® Satelec® Curing Lights on A-dec 532/533/541 Delivery Systems

INSTALLATION GUIDE

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Product Models and Versions Covered in This Document

Models	Versions	Description
532/533/541	B	Delivery System

Before You Begin



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



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

- Anti-static wrist strap
- Diagonal cutters
- Standard and Phillips head screwdrivers
- Pliers
- Wire strippers
- Tubing sleeve pusher

532B/533B: Install the Handpiece Tubing and Control Module

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Prepare the Chair and Delivery System

- 1** Turn on the power to the system.
- 2** Raise the chair to the full base up and full back up position.



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

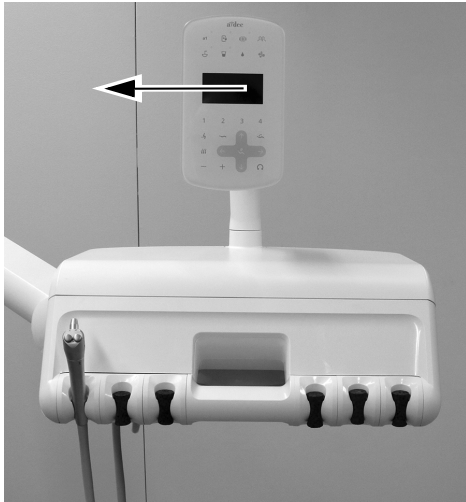
- 3** Turn off the power to the system.

Install the Handpiece Tubing

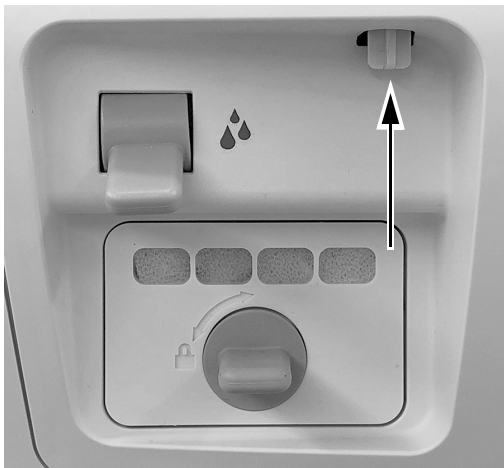
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532B: Install the Handpiece Tubing

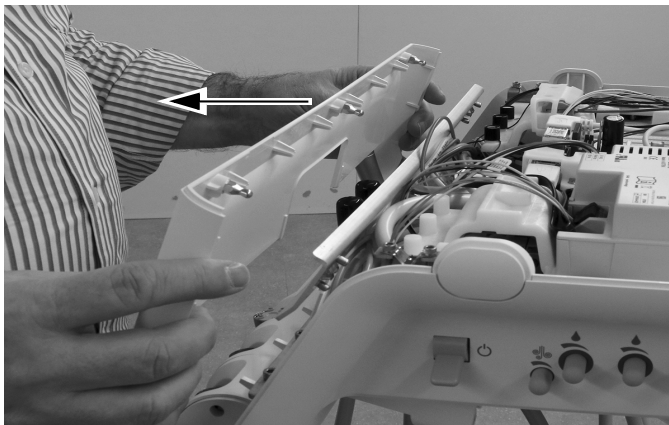
- 1 Swivel the touchpad to the side.



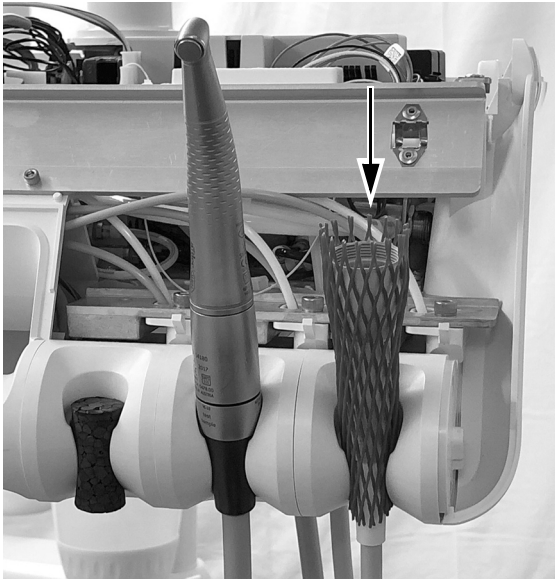
- 2 Push up on the cover release at the back of the control head and lift the top cover off the control head.



- 3 Pull the front cover off the control head.

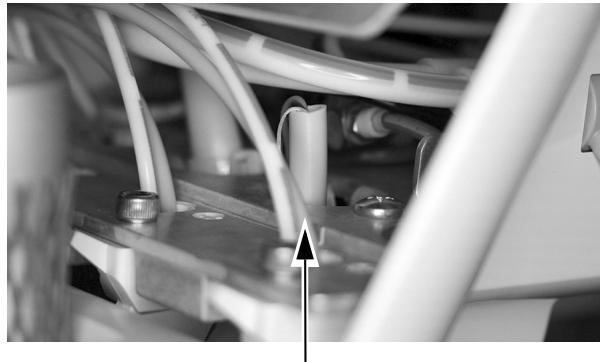


- 4** Set the curing light tubing nut into the desired holder position.

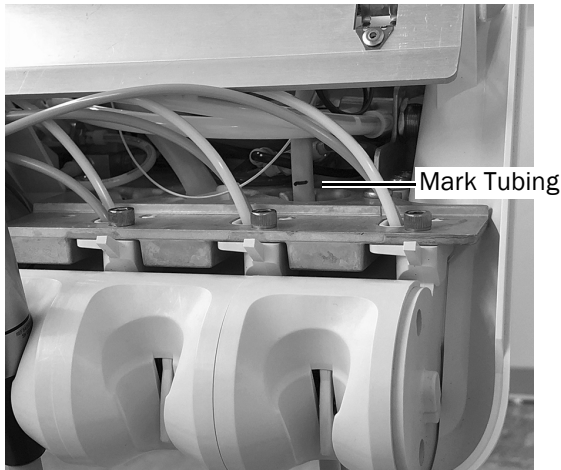


CAUTION Do not remove the aluminum plate on the front of the delivery system. The screws that secure the plate screw into plastic, not metal. Repeated removal of the screws over time will deform the plastic and loosen the front cover of the delivery system.

- 5** At the end of the tubing, fold the wires back along the tubing. Insert the tubing up through the bottom of the control head next to the holder position where the tubing nut is located.



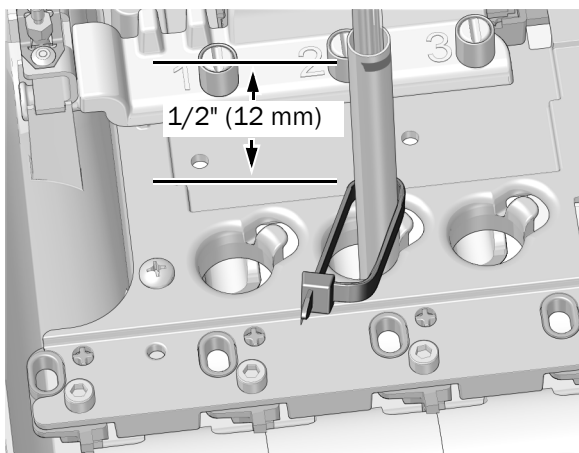
- Adjust the drape of the tubing to match the drape of the other tubing on the control head and mark the tubing sheath about 1/2" (12 mm) above the chassis.



- Cut the tubing sheath back to the mark and cut off the sheath.

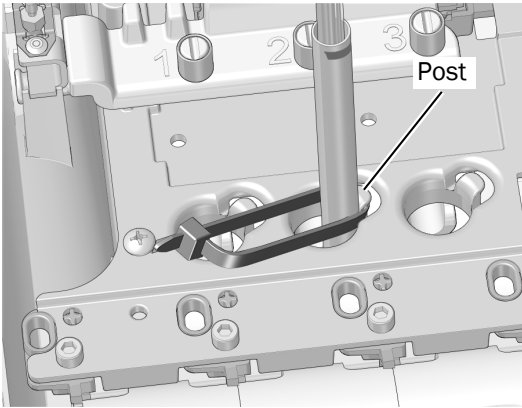


- Insert the tubing up through the chassis. Place a cable tie around the tubing about 1/2" (12 mm) below the mark on the tubing. Create a large loop with the cable tie but do not tighten it.

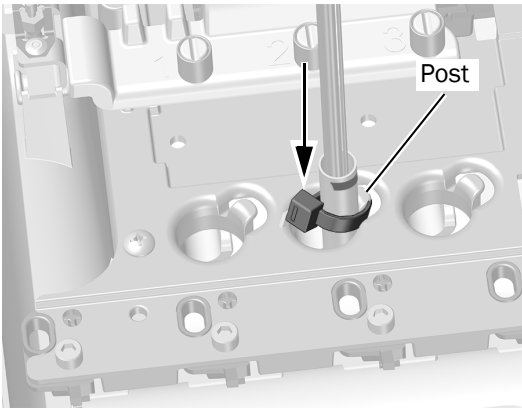


NOTE The aluminum panel is not shown to enhance visibility.

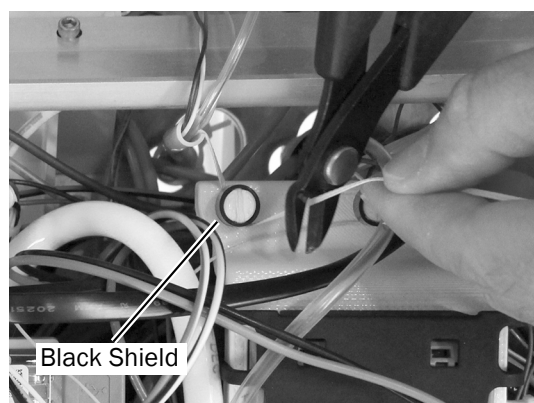
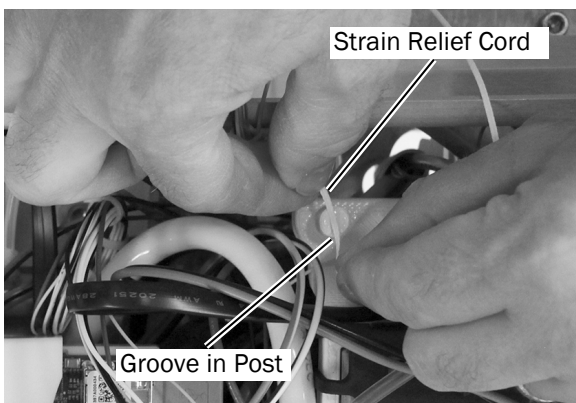
- 9** Position the cable tie loop around the post at the edge of the tubing hole in the chassis. Be sure the loop in the cable tie is behind the post.



- 10** Push the cable tie down so it is below the top of the post. Tighten the cable tie, ensuring the cable tie remains around the post. Cut off the excess cable tie.



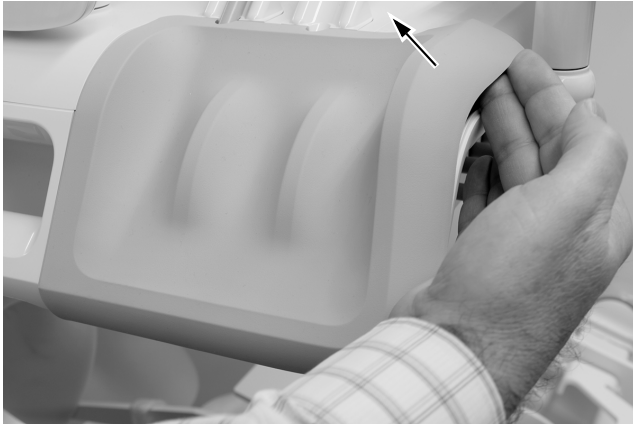
- 11** Place the strain relief cord from the handpiece tubing in the groove on top of the post on the support bracket which corresponds to the position you placed the tubing into. Cover the post with the black shield. Cut off the excess strain relief cord.



Next Step Continue with "Mount the Control Module on the Module Shelf" on page 11.

533B: Install the Handpiece Tubing

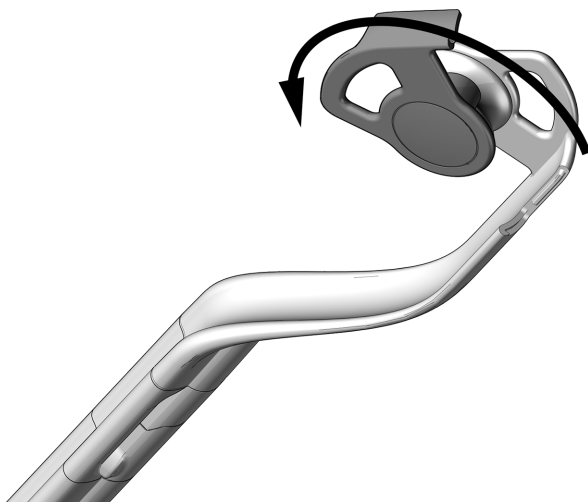
- 1** Lift the corner of the instrument pad on the side of the delivery system where you will install the handpiece.



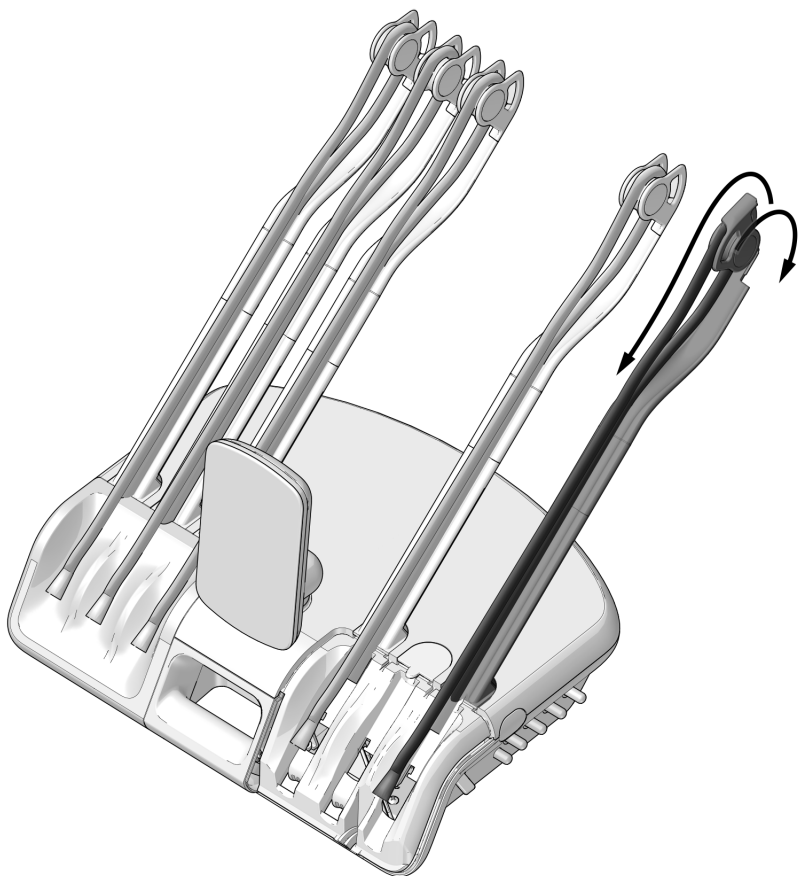
- 2** Carefully pull the instrument pad away from the control head.



- 3** Rotate the side of the tubing guide forward.



- 4 Route the tubing through the whip assemblies.
- 5 Close the tubing guide and make sure it snaps shut.



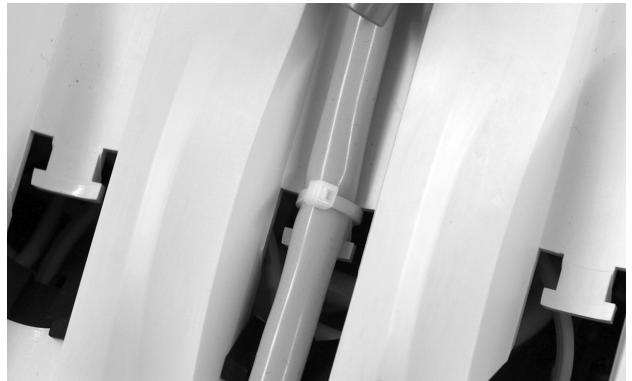
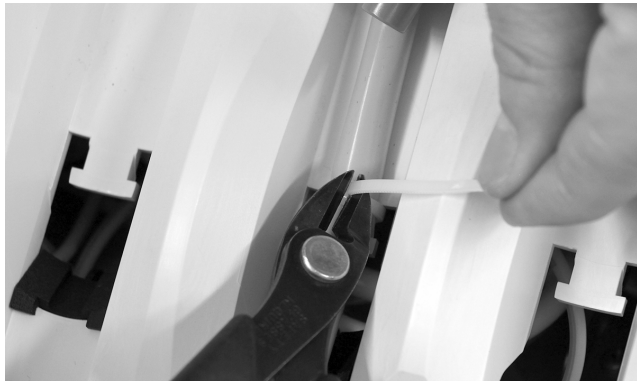
- 6 Loop a cable tie around the tubing and move the cable tie up so it loops around the tab at the top of the opening. Cinch the cable tie around the tubing and tab to hold the tubing in place, but do not tighten it.



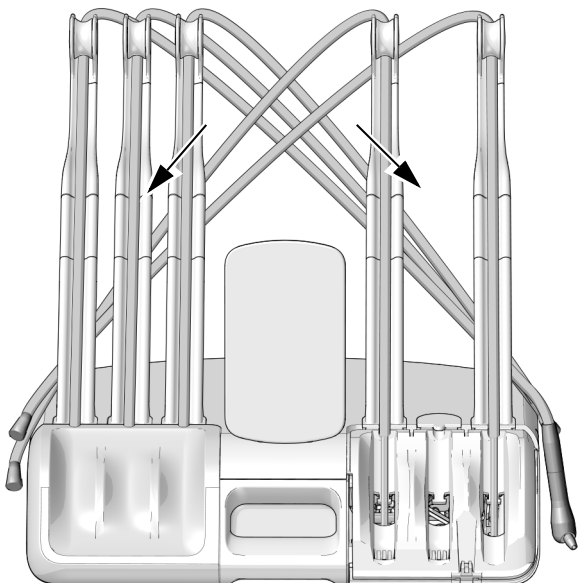
7 Adjust the tubing so that the tubing nut is positioned as shown.



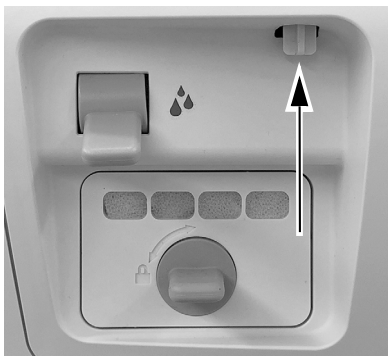
8 Tighten the cable tie around the tubing so it is snug and cut off the excess cable tie.



9 Lay each tubing behind the whips on the opposite side of the control head.



10 Push up on the cover release at the back of the control head and lift the top cover up from the control head. Rotate the cover all the way forward.

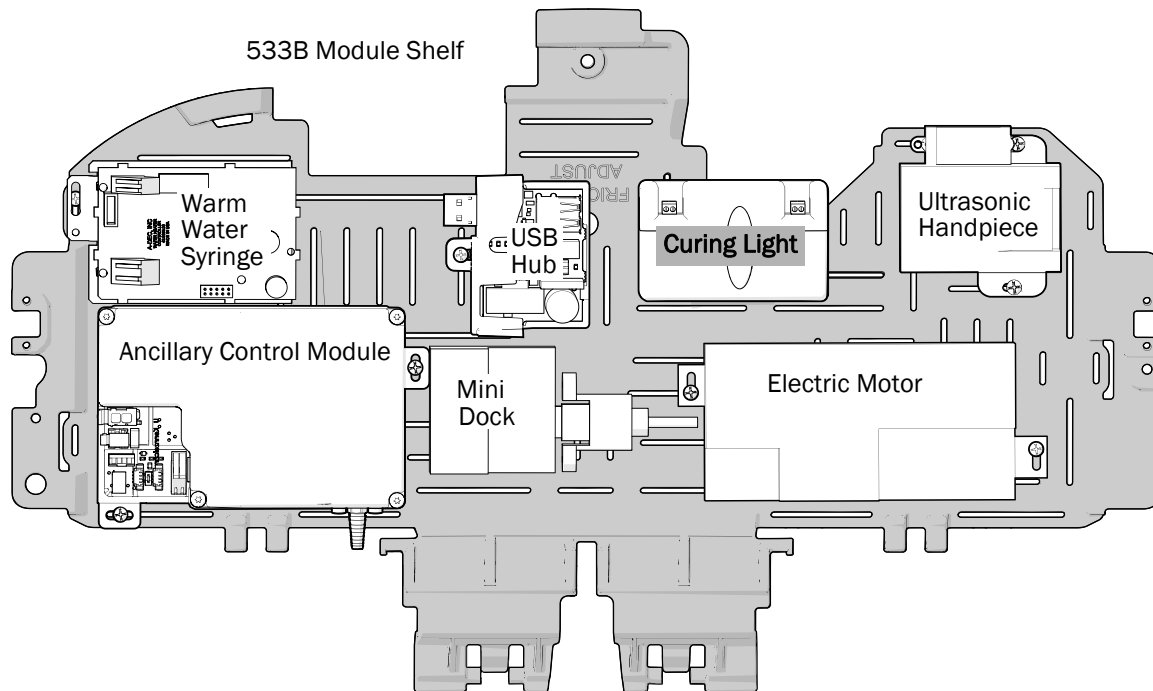
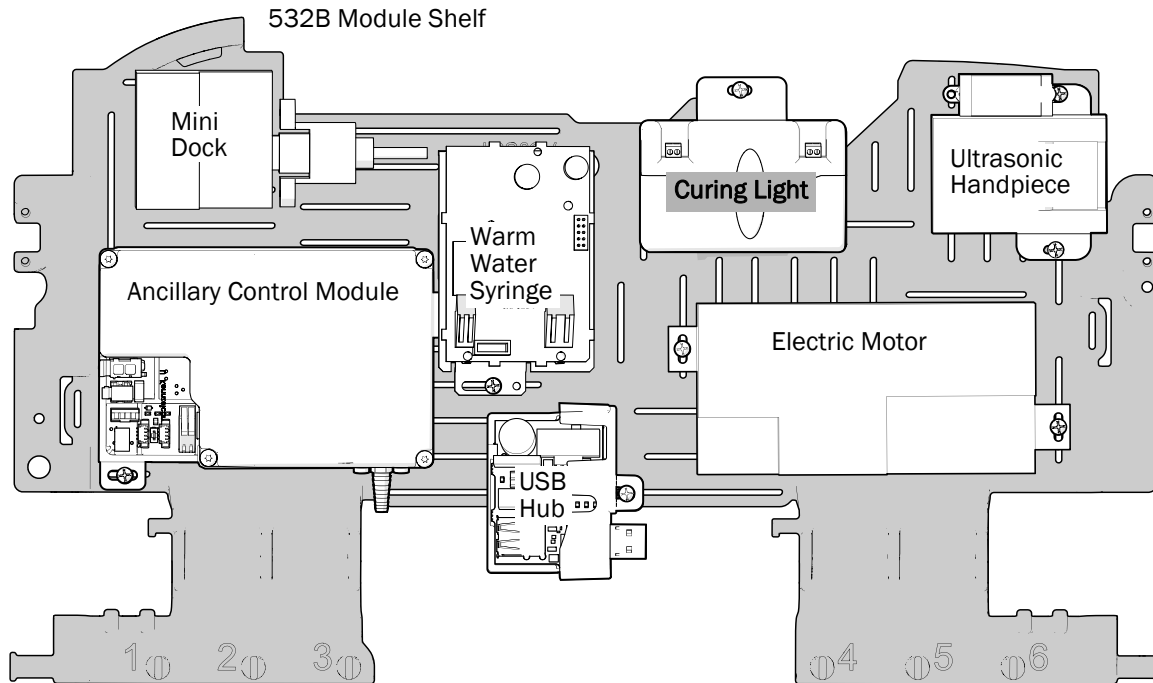


11 From the backside of the top cover, pull the handpiece tubing through the hole in the top cover at the desired handpiece position.



Mount the Control Module on the Module Shelf

- 1 To ensure maximum flexibility for future installations, note the recommended placement of the control module as shown below.



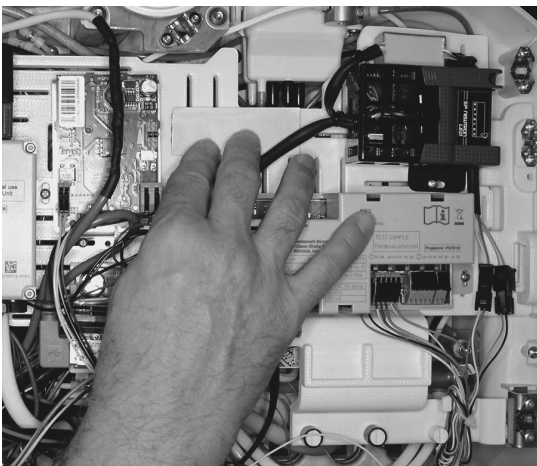


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- 2 Place an anti-static wrist strap snugly on one wrist and connect the other end of the wrist strap to the grounding lug mounted on the flush toggle at the back of the control head.

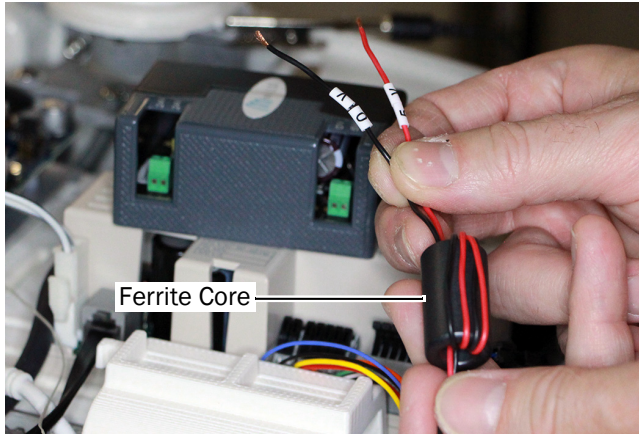


- 3 Peel the backing off of one of the pieces of hook and loop material. Orient the material as shown below and place it on the module shelf.

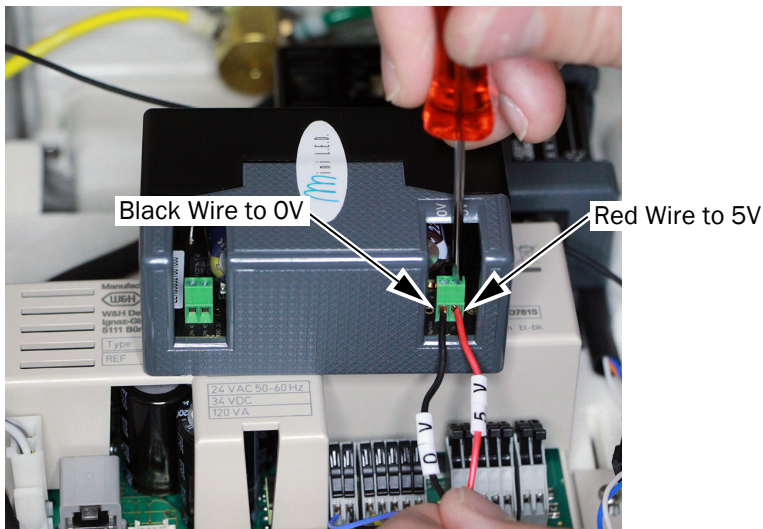


532B Shown

- 4** Wrap the red and black wires from the handpiece tubing around the ferrite core twice. Position the ferrite core close to the end of the red and black wires.



- 5** Loosen the screws in the green connector on the right side of the control module, insert the red and black wires, and tighten the screws to secure the wires.

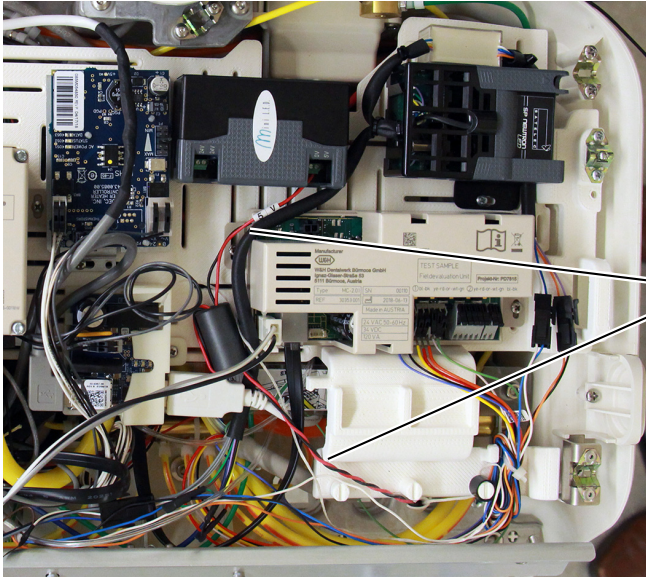


- 6** Peel the backing off the top piece of the hook and loop material.



532B Shown

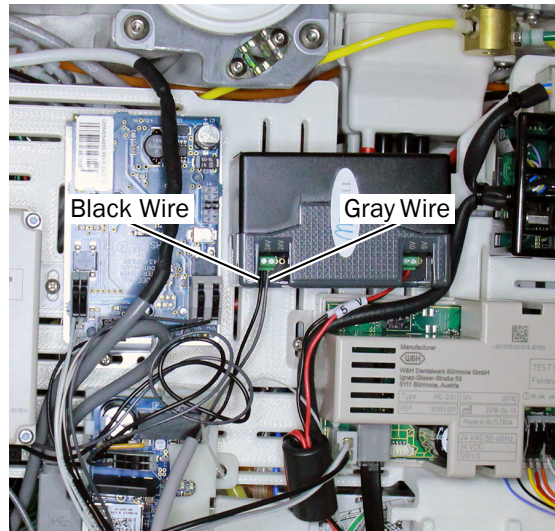
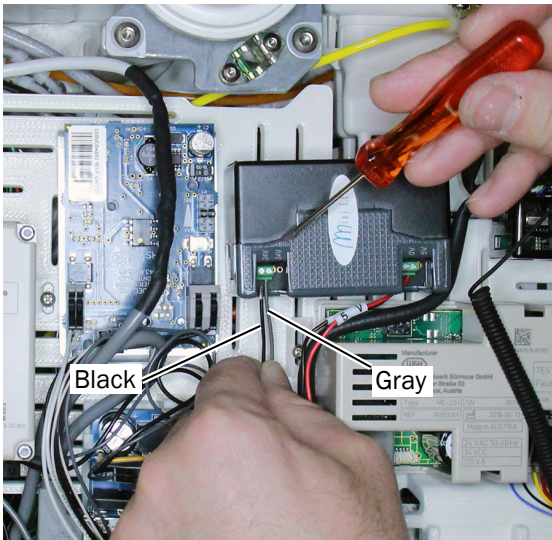
- 7** Press the control module onto the hook and loop material. Route the red and black wires around other modules. Do not route the wires over the top of any module.



Route wiring around other modules.

532B Shown

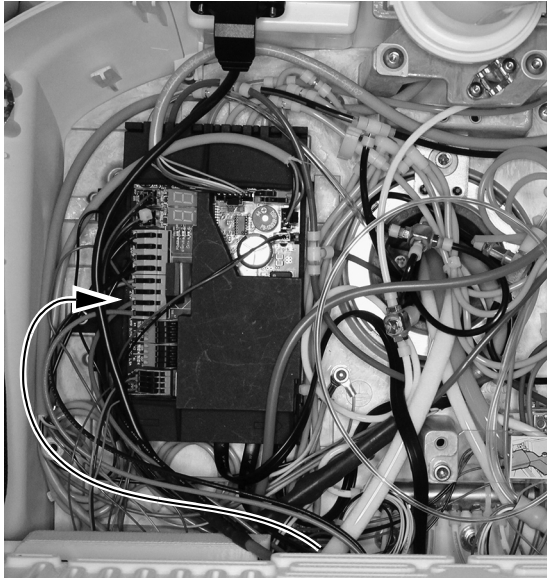
- 8** Loosen the screws in the green connector on the left side of the control module, insert the black and gray wires, and tighten the screws to secure the wires.



532B Shown

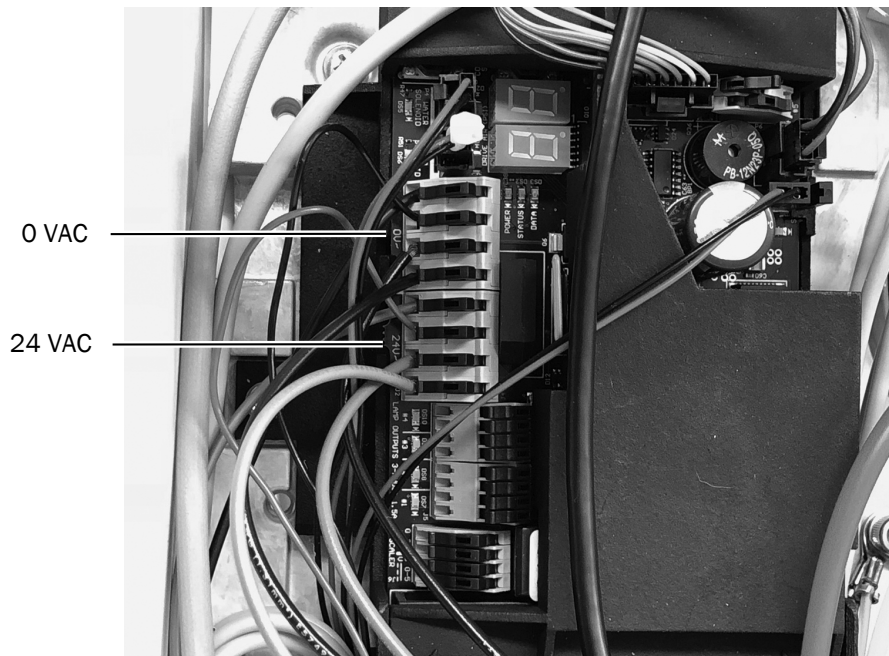
Connect the Control Module Wires to the Delivery System Circuit Board

- 1 Route the black and gray jumper wires from the curing light control module to the front of the control head and down to the delivery system circuit board.



532B Shown

- 2 Connect the black wire to the 0 VAC terminal. Connect the gray wire to the 24 VAC terminal.



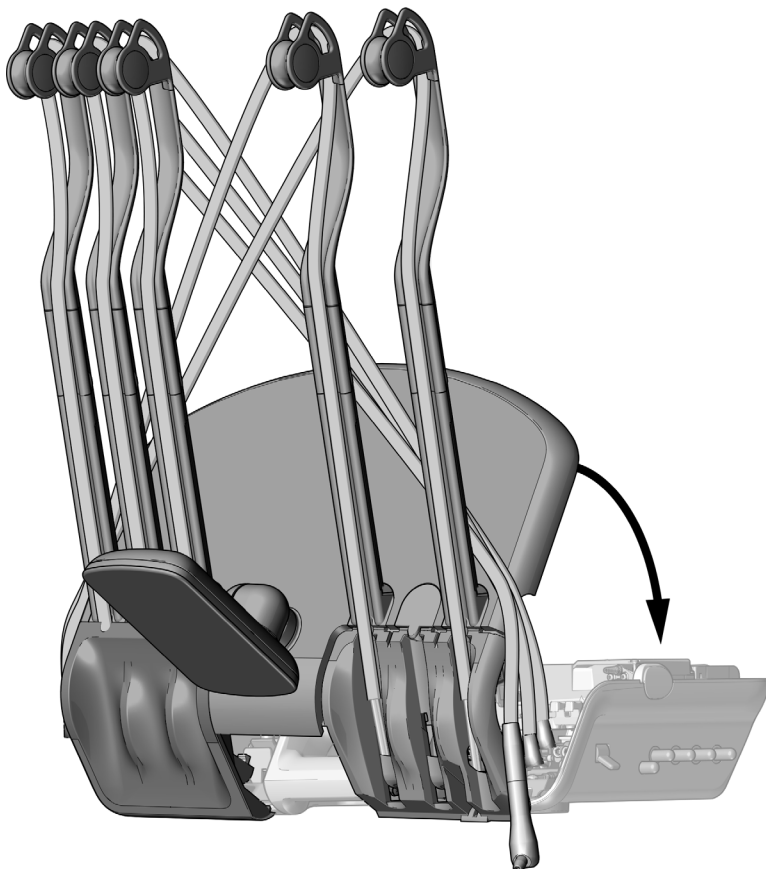
Next Step 532B Only: Continue with “Connect the Curing Light” on page 25.
533B Only: Continue with “533B: Close the Cover” on page 16.

533B: Close the Cover



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** Lower the top cover. Squeeze the back of the cover and the control head together to ensure the cover is fully seated on the control head.



- 2** Replace the handpiece tubing in their normal position on the whips.

Next Step Continue with “Connect the Curing Light” on page 25.

541B: Install the Handpiece Tubing and Control Module

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Connect the Control Module Wires to the 0 V/24 V WAGO® Connectors	24

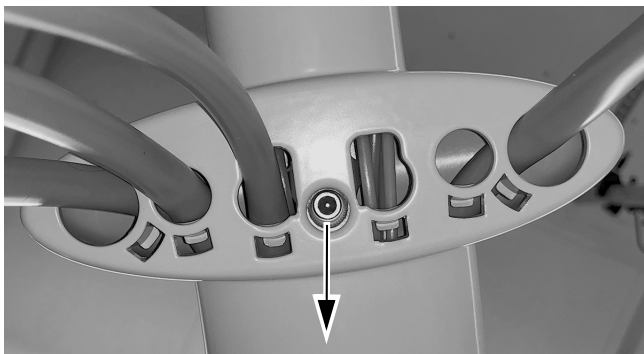
Remove the Delivery System Covers

- 1** Pull the side covers out at the bottom and pull them away from the delivery system.

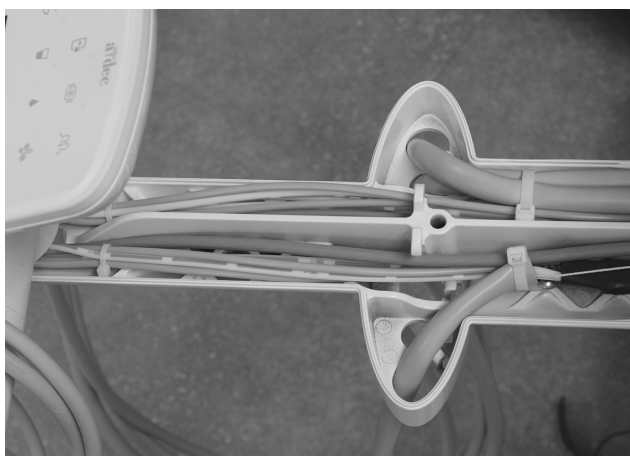
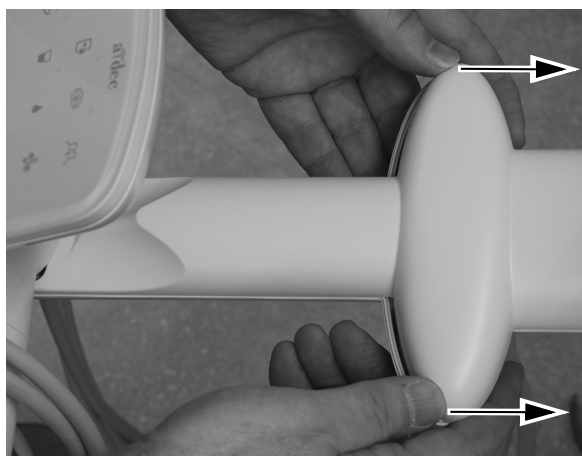


Install the Handpiece Tubing

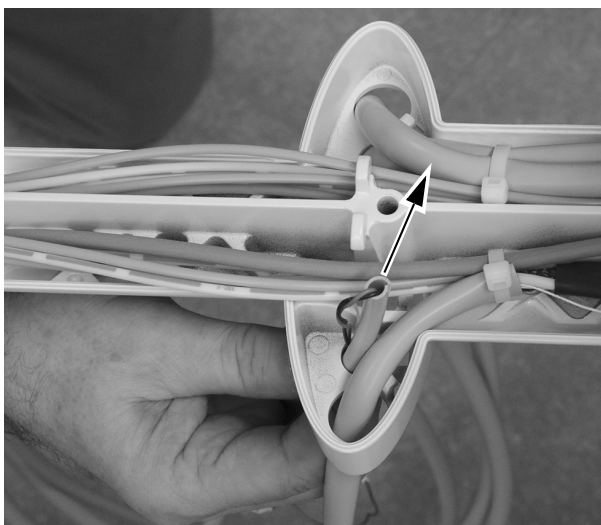
- 1 On the underside of the instrumentation arm, use a 5/32" hex key to remove the screw that secures the top cover on the instrumentation arm.



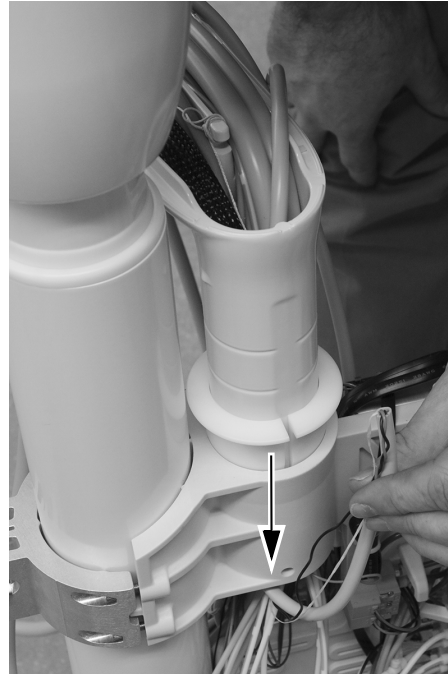
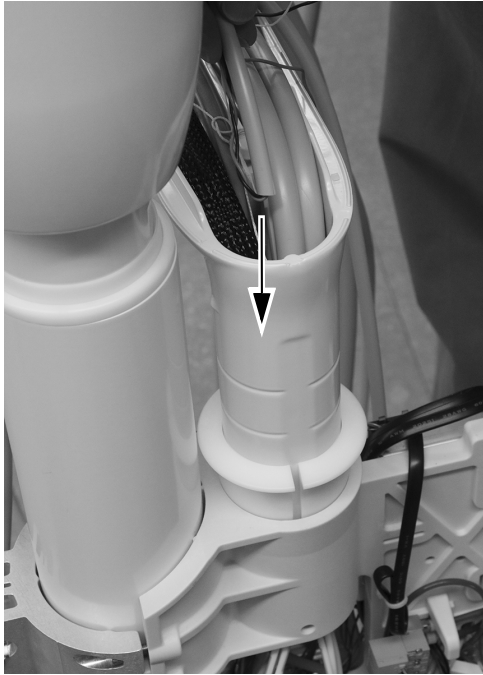
- 2 Slide the top cover away from the touchpad and remove the top cover.



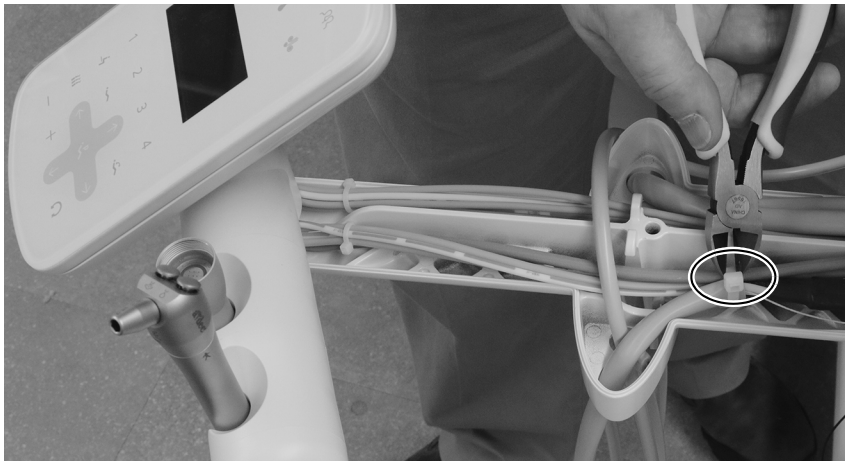
- 3 Insert the curing light tubing up through an open hole in the instrumentation arm and pull the tubing up through the arm.



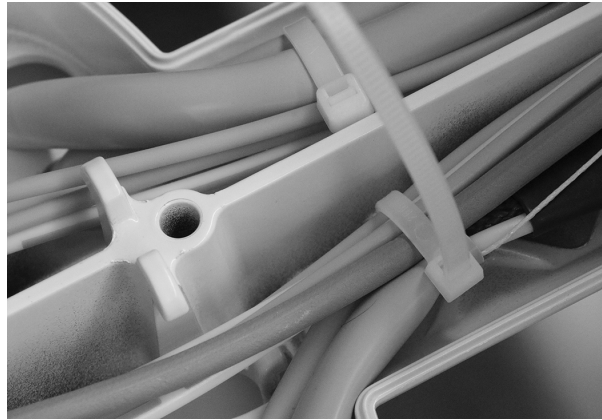
- 4** Pull the curing light tubing up through the instrumentation arm and route it down through the vertical post of the instrumentation arm.



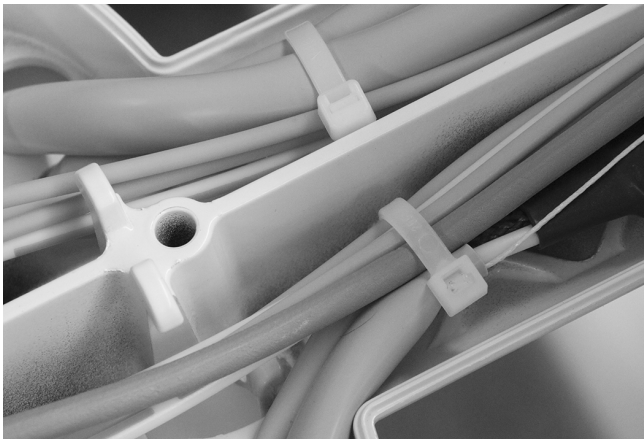
- 5** Use a pair of diagonal cutters to cut the cable tie that secures the handpiece tubing on the same side of the holder assembly that the curing light handpiece will be installed.



- 6** Pull the curing light tubing up through the instrumentation arm so that it matches the drape of other handpieces. Secure the tubing to the instrumentation arm by passing a cable tie through the cable tie hold down and wrapping it around the tubing.

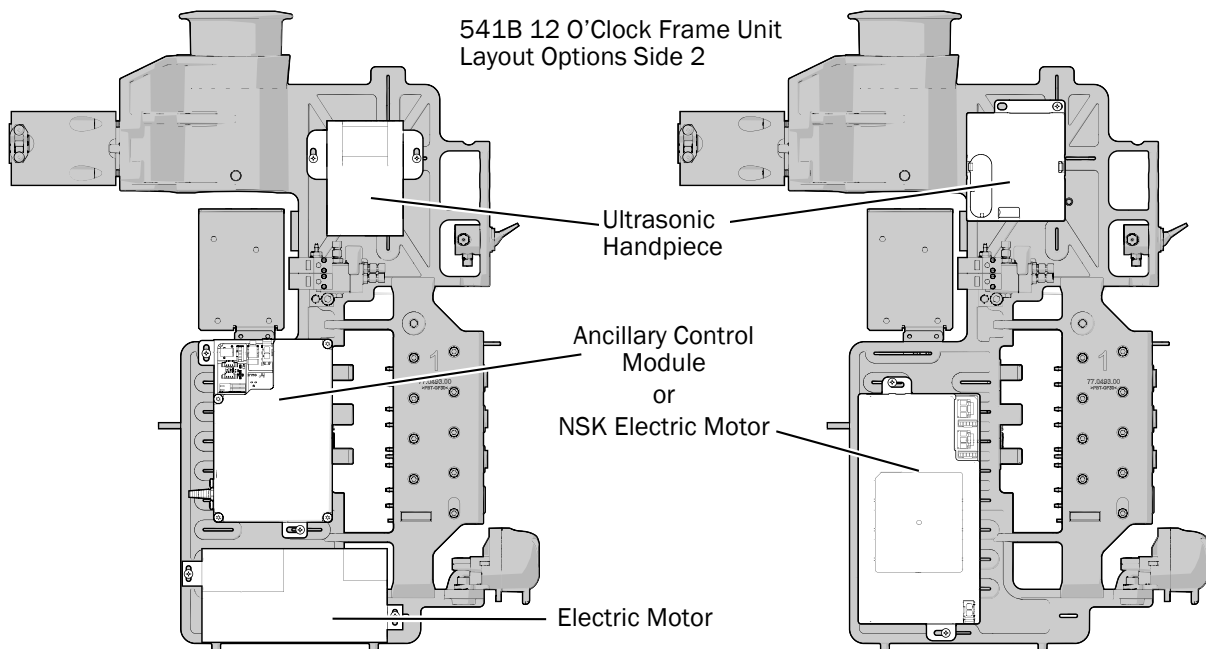
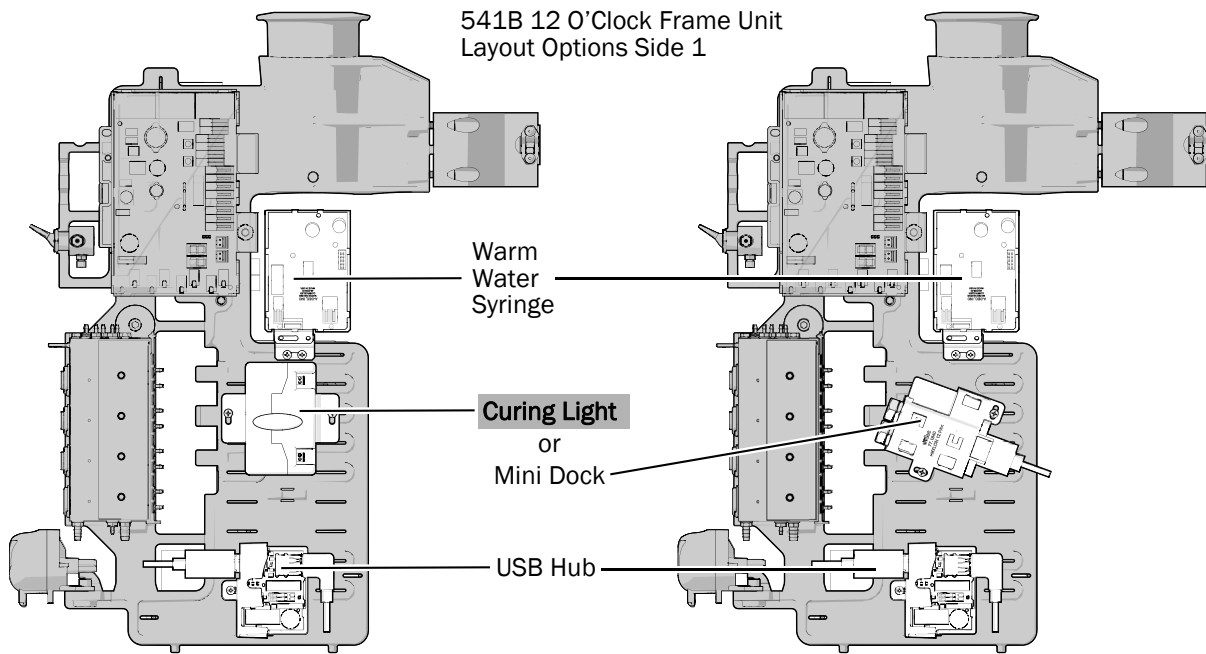


- 7** Tighten the cable tie so it is snug. Use diagonal cutters to trim the excess cable tie.



Mount the Control Module on the 12 O’Clock Frame Unit

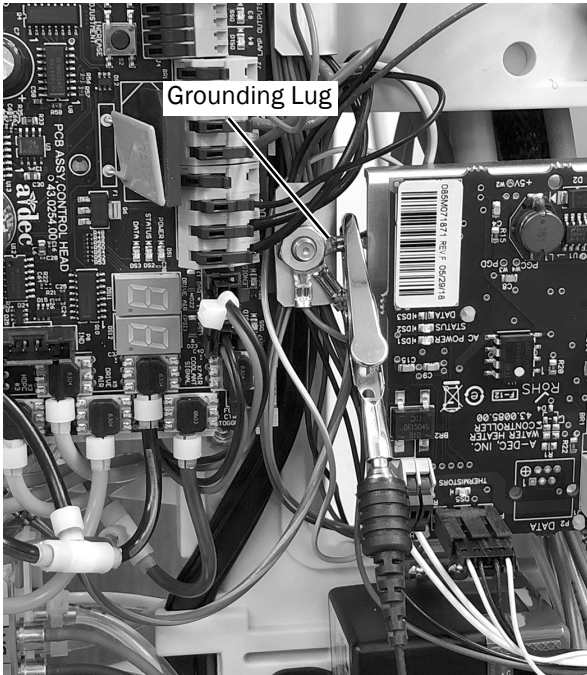
- 1 To ensure maximum flexibility for future installations, note the recommended placement of the control module as shown below.



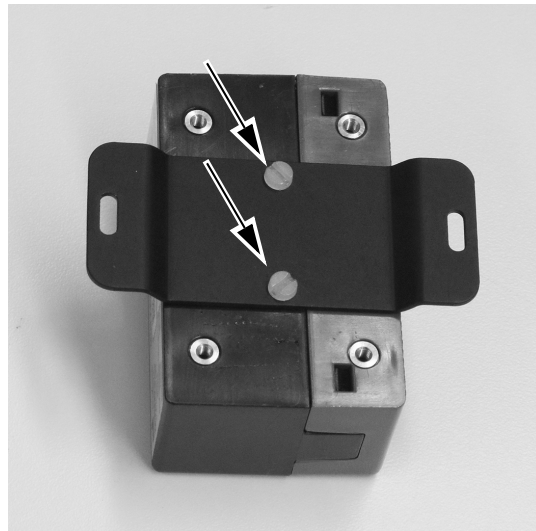
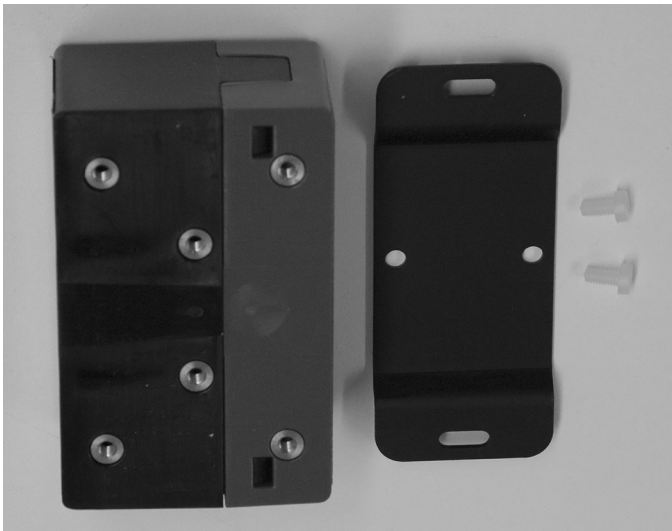


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- 2** Place an anti-static wrist strap snugly on one wrist and connect the other end of the wrist strap to the grounding lug located near the edge of the control head circuit board.



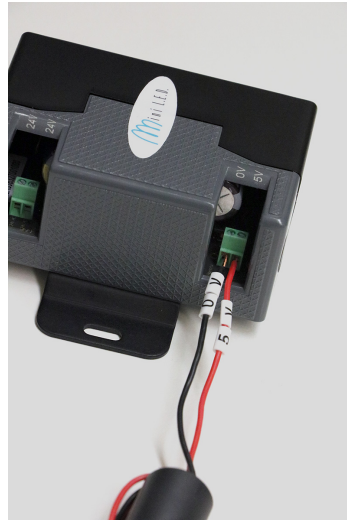
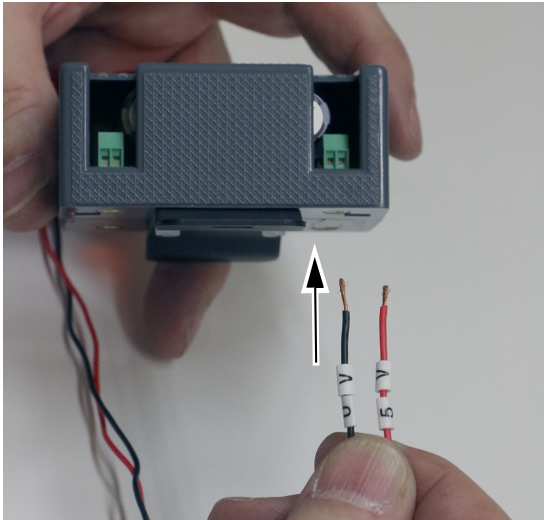
- 3** Locate the control module, mounting bracket, and two plastic screws. Secure the bracket to the control module with two plastic screws.



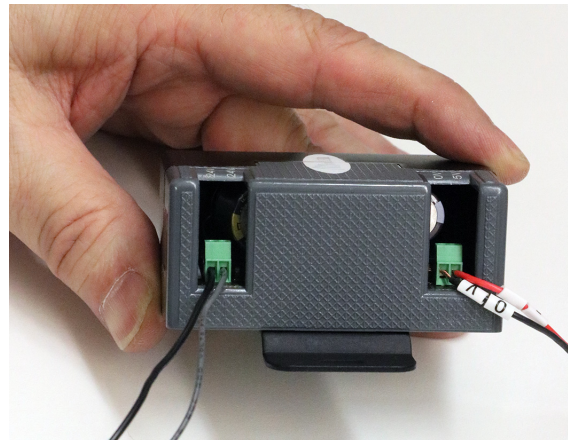
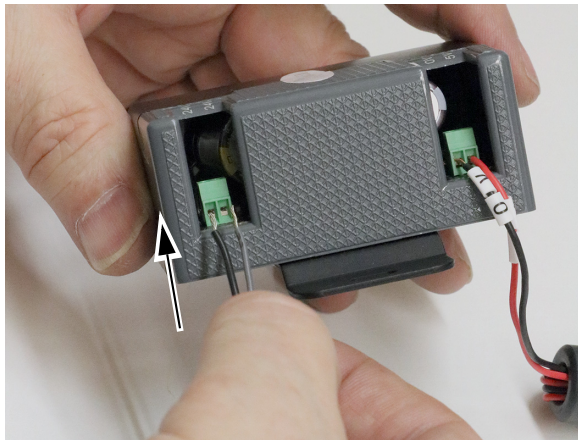
- 4** Wrap the red and black wires from the handpiece tubing around the ferrite core twice. Position the ferrite core close to the end of the red and black wires.



- 5** Loosen the screws in the green connector on the right side of the control module, insert the red and black wires, and tighten the screws to secure the wires.



- 6** Loosen the screws in the green connector on the left side of the control module, insert the black and gray wires, and tighten the screws to secure the wires.

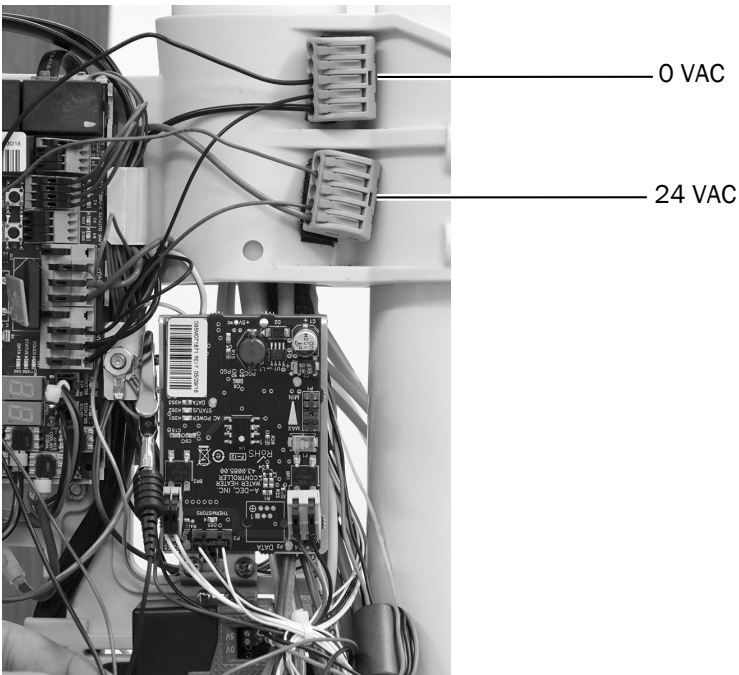


- 7 Use two stainless steel screws to secure the control module to the 12 o'clock frame.



Connect the Control Module Wires to the 0 V/24 V WAGO® Connectors

- 1 Connect the black and gray jumper wires from the control module to the WAGO connectors at the side of the delivery system circuit board. Connect the black wire to the 0 VAC terminal. Connect the gray wire to the 24 VAC terminal.



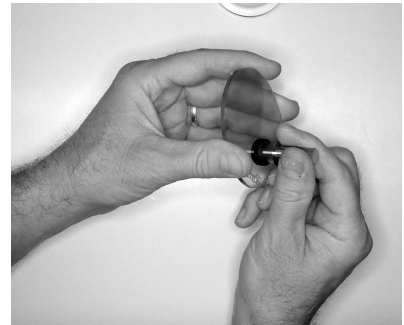
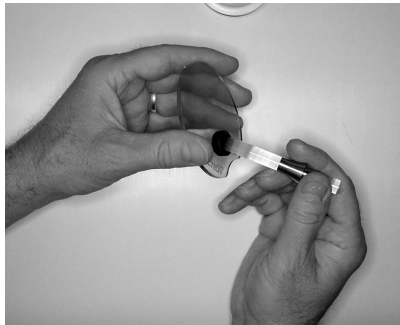
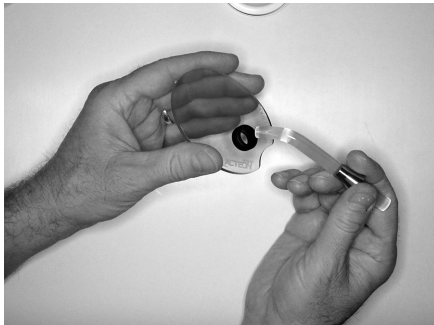
Connect the Curing Light

1 Remove the plastic shield from the base of the curing light.

2 Screw the curing light into the tubing nut.



3 Slide the protection shield over the optical guide until the rubber gasket rests on the ferrule.





4 Insert the optical guide into the curing light and push on the optical guide until it clicks.



Configure the Handpiece Settings

If you installed the curing light into an inactive holder position (usually position 1 or 6), continue with “Test the Installation” on page 27.

If you installed the curing light in an active holder position, complete the following steps to configure the holder position.

- 1** Turn on the power to the system using the master toggle.
- 2** Press and hold  and  at the same time until a **System Setup** screen appears.
- 3** Press \rightarrow .
- 4** Press \rightarrow again to select **Handpieces**.
- 5** Press \rightarrow on the **Handpiece Setup** screen to select **Holder Setup**.
- 6** Lift the handpiece from the holder.
- 7** Press — or + to change the highlighted choice to **Other** and press \rightarrow to select it.
- 8** Return the handpiece to the holder.
- 9** Press \leftarrow until you see the A-dec logo.

Test the Installation



CAUTION To avoid eye and skin damage due to exposure to ultraviolet radiation, wear Class II safety glasses and protective gloves when operating a curing light.

- 1** Turn on the power to the system using the master toggle.
- 2** Remove the curing light from the control head.
- 3** Point the optical guide away from you and press the On/Off button.
- 4** Verify that the curing light turns on.
- 5** Turn off the curing light and place it back on the control head.

Reinstall the Delivery System Covers

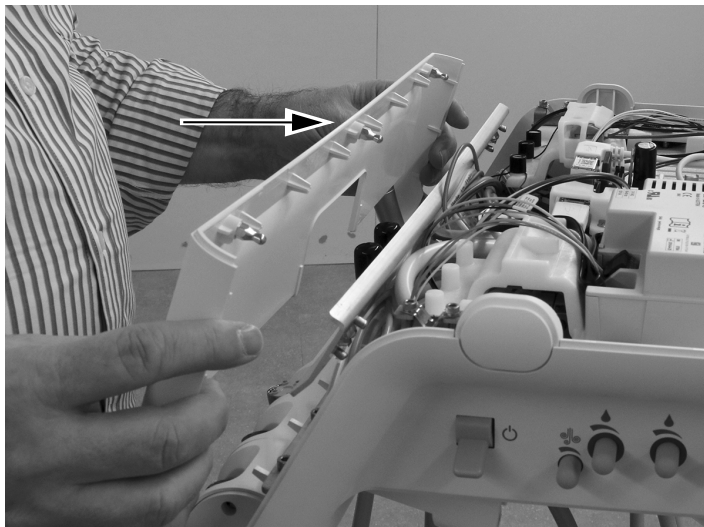


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532B: Reinstall the Front and Top Covers	27
533B: Reinstall the Instrument Pad	28
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532B: Reinstall the Front and Top Covers

- 1** Reinstall the front cover onto the control head.

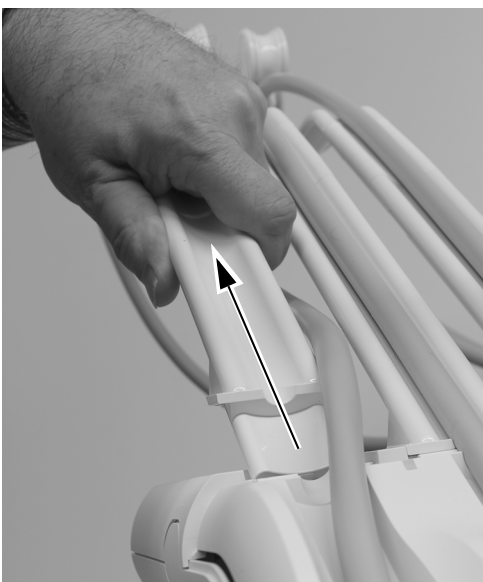


- 2 Place the top cover onto the control head. Squeeze the back of the cover and the control head together to ensure the cover is fully seated on the control head.



533B: Reinstall the Instrument Pad

- 1 Pull each of the whips behind the removed instrument pad out of the control head.



- 2** Replace the instrument pad on the control head and press it into place. Press all around the edges of the instrument pad to ensure that it is fully seated on the control head.



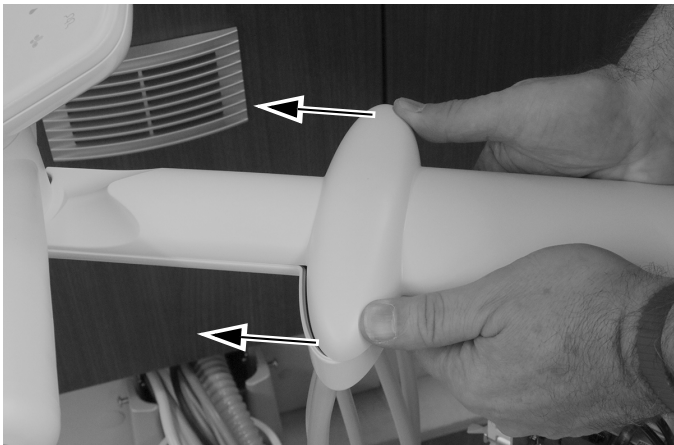
- 3** Insert the whips into the control head. Ensure the top edge of the instrument pad is fully seated before you insert the whips.



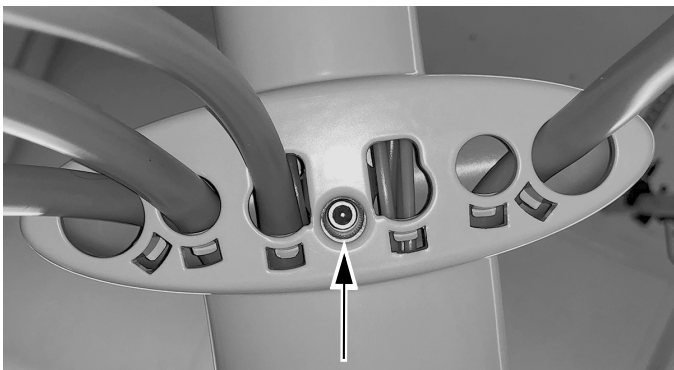
- 4** Reinstall the handpiece tubing into the whips.

541B: Reinstall the Delivery System Covers

- 1 Place the top cover on the instrumentation arm and slide the top cover toward the touchpad.



- 2 Use a 5/32" hex key to reinstall the screw that secures the top cover on the instrumentation arm.



- 3 Reinstall each of the side covers.



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.

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86.0766.00 Rev B
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