

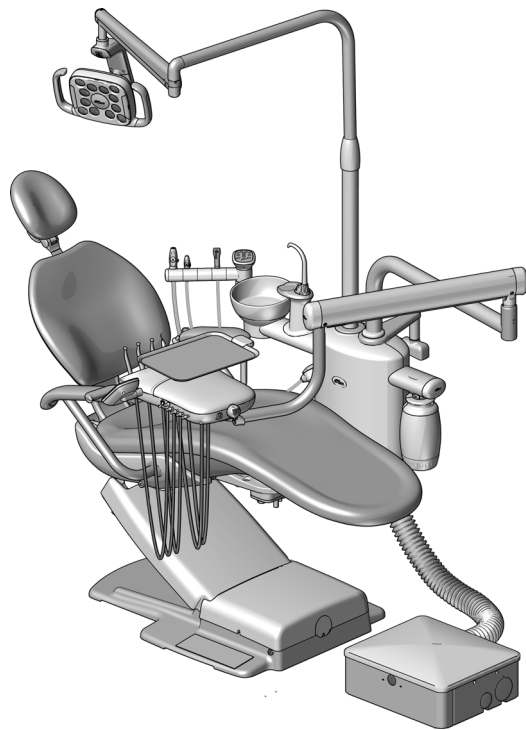


A-dec® 362 Support Center

INSTALLATION GUIDE

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A-dec 362 Support Center on an A-dec 311B Dental Chair

Product Models and Versions Covered in this Document*

Model	Versions	Description
352/353	A	Assistant's Instrumentation
334pro/335pro	n/a	Delivery System
334/335	B	Delivery System
511ft	n/a	Dental Chair
511	A/B	Dental Chair
411/Cascade®/Decade®	A	Dental Chair
Performer®/Priority		
311ft	n/a	Dental Chair
311	B	Dental Chair
362	A	Support Center

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

Before You Begin



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



READ THIS! The dental chair must be anchored to the floor before you begin these procedures. If the chair is not anchored, see the anchoring instructions in the installation guide that came with your chair.



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.

The A-dec 362 support center can be installed on either side of the chair. These procedures show an installation for a right-handed doctor.

Verify the Dental Chair Supports the A-dec 362 Support Center



WARNING The A-dec 362 support center can be mounted to most dental chairs that can support a post mount. To verify that a chair can support the A-dec 362, do one of the following:

- **A-dec chairs** - Contact A-dec Customer Service.
- **Other Manufacturer's Chairs** - Contact the manufacturer to ensure that the chair is capable of supporting the working load described in the following table.

To calculate the working load for the system, add up the values for the modules for the system's configuration. The system needs to support the resultant weight and moment.

Equipment Module	Weight	Moment
A-dec 362 Support Center with a water bottle	36.3 lb (16.5 kg)	N/A
A-dec 334pro/335pro Delivery System with tray	48.7 lb (22.1 kg)	215.7 ft-lb (293 N·m)
A-dec 352/353 Assistant's Instrumentation	18.6 lb (8.5 kg)	75.7 ft-lb (103 N·m)
A-dec 571/571L Dental Light	21.1 lb (9.6 kg)	46.8 ft-lb (63.5 N·m)
A-dec 482 Monitor Mount with monitor	36.7 lb (16.7 kg)	47.7 ft-lb (64.7 N·m)

For example, if the system includes a delivery system, and dental light, it would need to support a weight of 106.1 lb (48.2 kg) and a moment of 262.5 ft-lb (356.5 N·m):

Equipment Module	Weight	Moment
Support Center	36.3 lb (16.5 kg)	N/A
Delivery System	48.7 lb (22.1 kg)	215.7 ft-lb (293 N·m)
Dental Light	21.1 lb (9.6 kg)	46.8 ft-lb (63.5 N·m)
Working Load	106.1 lb (48.2 kg)	262.5 ft-lb (356.5 N·m)

Recommended Tools

- Hex key set
- Torque wrench with 5/16" bit
- 3/8" combination wrench
- 1/4" and 1/2" combination wrenches
- Wire strippers
- 5/16" socket and ratchet
- Magnetic level
- Sleeve pusher
- Diagonal cutters
- Phillips head screwdriver
- Standard screwdriver
- Voltmeter

Install the Adaptor Arm



READ THIS! Before starting these procedures, install the adaptor arm for a post mount system on the chair. The installation instructions ship with A-dec adaptor arms.

Installation Sequence

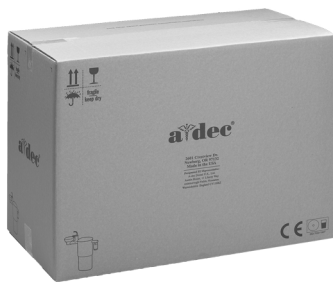
The modules for the A-dec 362 Support Center installation are shown below. Your installation may not require all modules described in this document.

1. Assess what modules you will install on the support center.
2. Use the installation sequence to note the order of the modules you will install.



NOTE The box for each module contains all of the parts needed to install that module.

1



Support Center

2



Assistant's Instrumentation

3



Delivery System

4



Dental Light

Install the Support Center

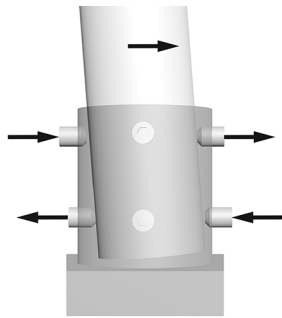
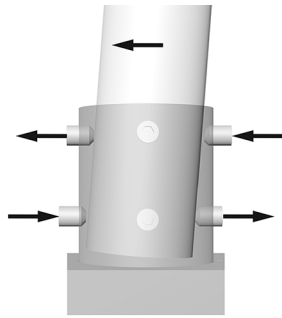
Recommended Tools

- 1/8", 5/32", 3/16", and 5/16" hex keys
- Torque wrench with 5/16" hex bit
- Magnetic level
- Diagonal cutters

Task 1.

- 1** Place the support center post in the adaptor arm.
Orient the rectangular hole toward the right as you face the chair from the toe.



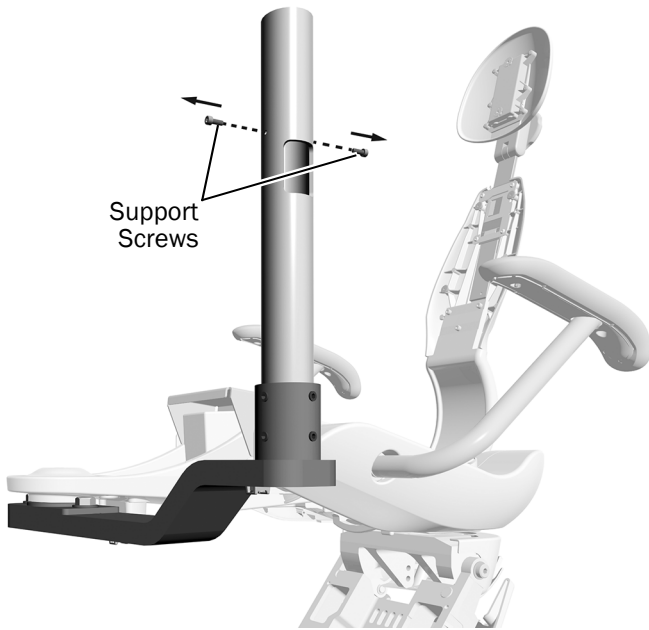
Task 2.

1. Center the post within the mount.
2. Place a magnetic level vertically against the post, just above the leveling screws.
3. Use a hex key to tighten the screws around the mount. Keep the post centered in the mount as much as possible.
4. To change the tilt of the post, adjust the leveling screws on the top and bottom of the mount in opposite directions. Which screws you tighten or loosen depends on the direction of the tilt you are trying to correct. Tighten and loosen leveling screws in pairs.
5. Adjust all eight leveling screws around the mount until level is achieved.
6. When the system is level, securely tighten the leveling screws.



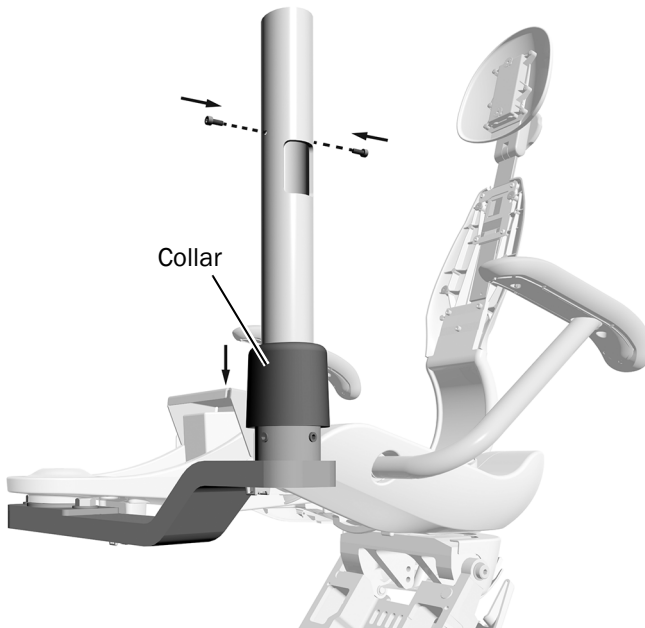
NOTE This is the initial leveling of the post. The support center will also require final leveling after all modules are installed.

Task 3.

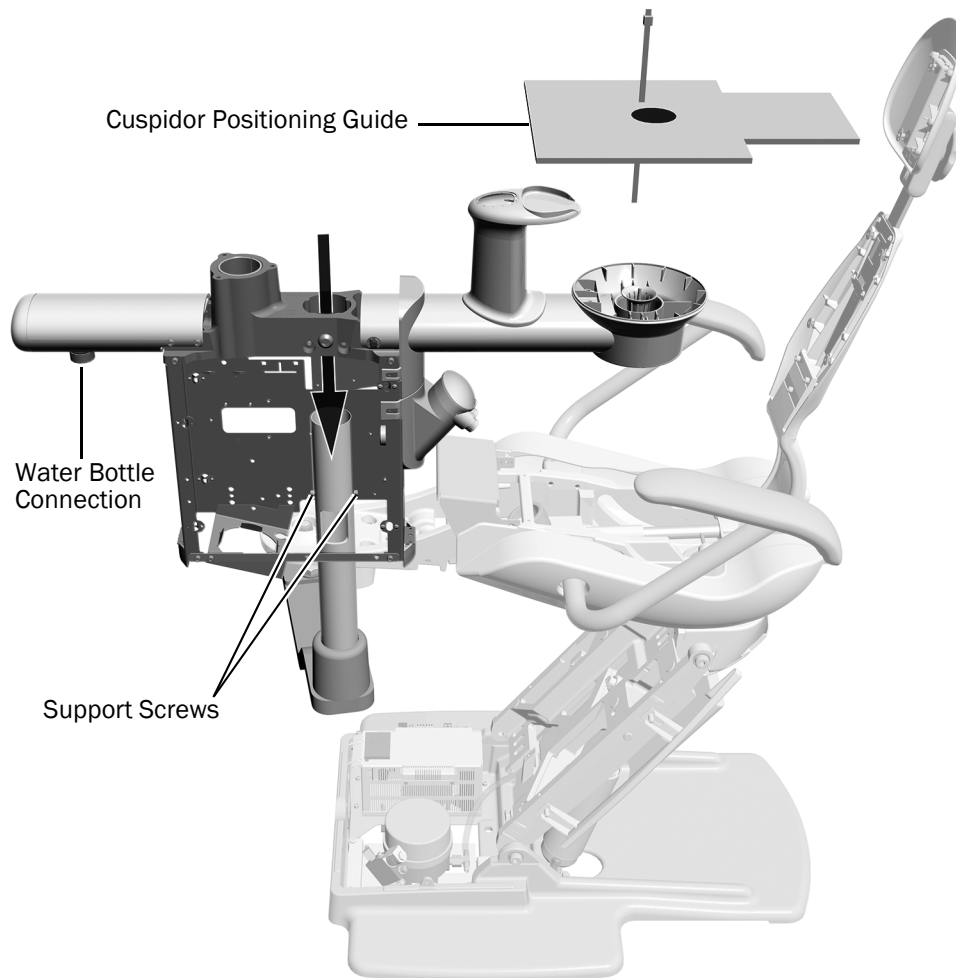


- 1** Use a hex key to remove the two support screws.

Task 4.



- 1** Slide the collar down over the leveling screws.
- 2** Reinstall the support screws.

Task 5.

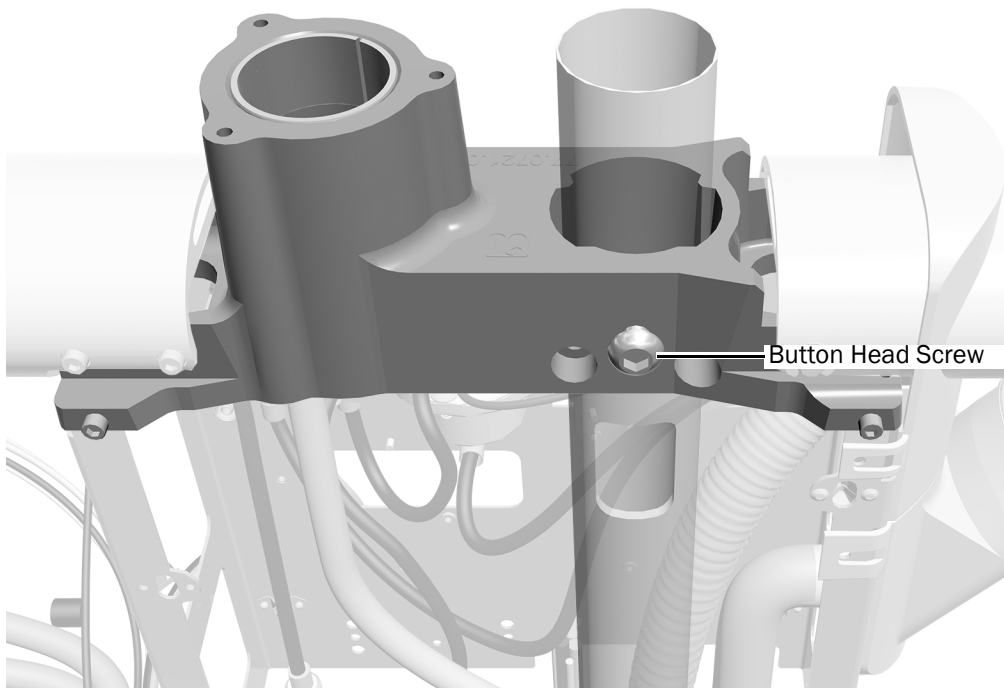
- 1** Wrap the support center tubing bundle around your arm and lift the support center out of the box.
- 2** Remove the covers from the support center.
- 3** If the system includes a cuspidor, use diagonal cutters to cut the cable tie and remove the cuspidor positioning guide and foam plug. Discard them.
- 4** Hold the support center over the support center post with the water bottle connection toward the toe of the chair.



CAUTION Be careful to clear all wires and tubing from the top of the support center post so they do not get pinched or damaged.

- 5** Slide the support center down the post until the frame rests on the support screws.

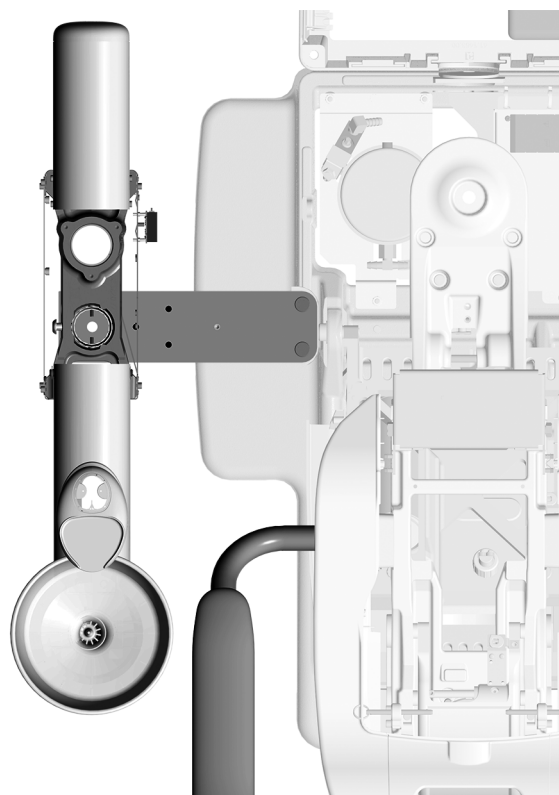
Task 6.

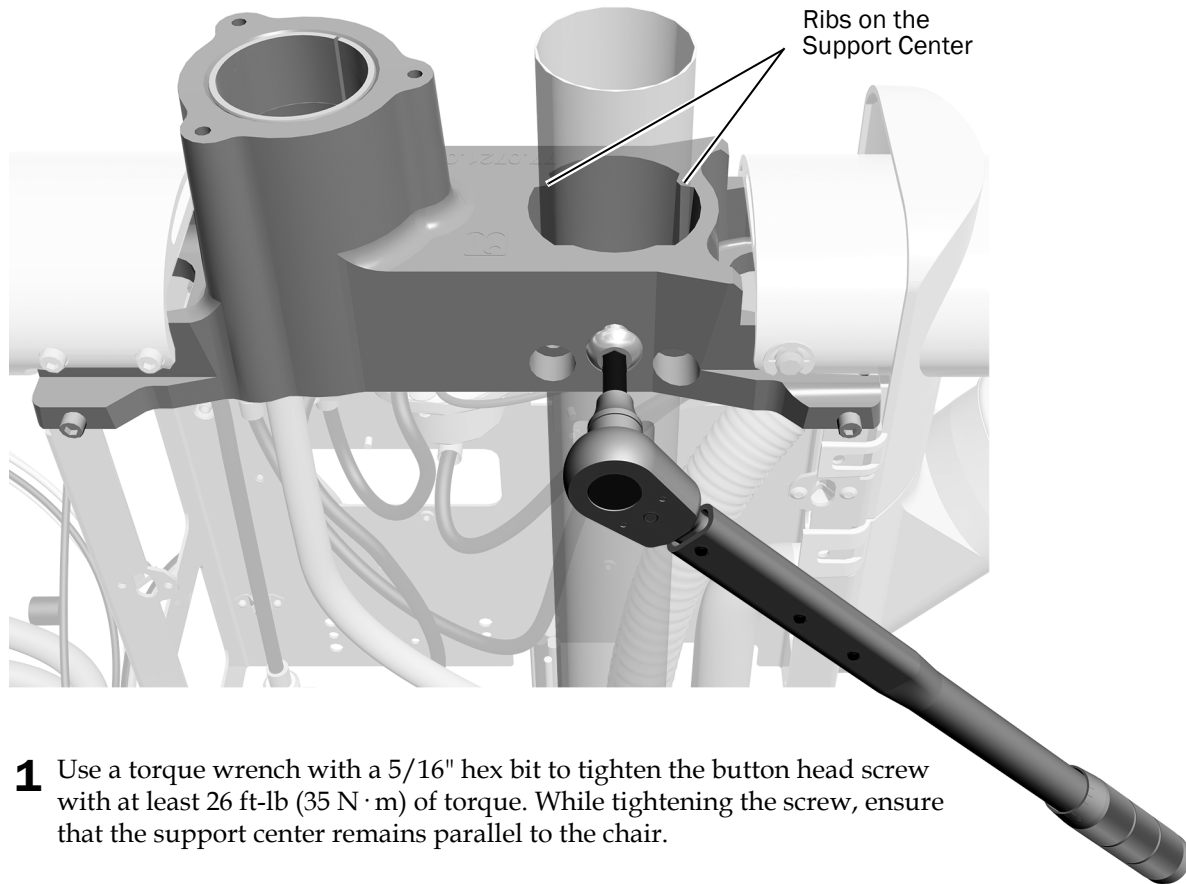


- 1** Use a 5/16" hex key driver to tighten the button head screw so that you can pivot the support center but it does not spin freely.

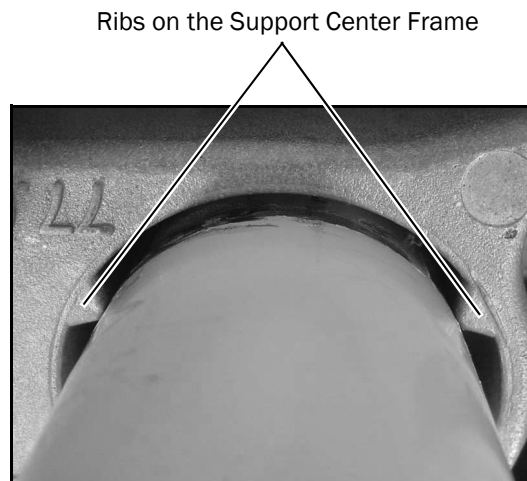
Task 7.

- 1** Align the support center so it is parallel with the chair.



Task 8.

- 1 Use a torque wrench with a 5/16" hex bit to tighten the button head screw with at least 26 ft-lb (35 N · m) of torque. While tightening the screw, ensure that the support center remains parallel to the chair.



- 2 Confirm that the ribs on the support center frame are fully seated against the post. If necessary, tighten the button head screw with more torque.



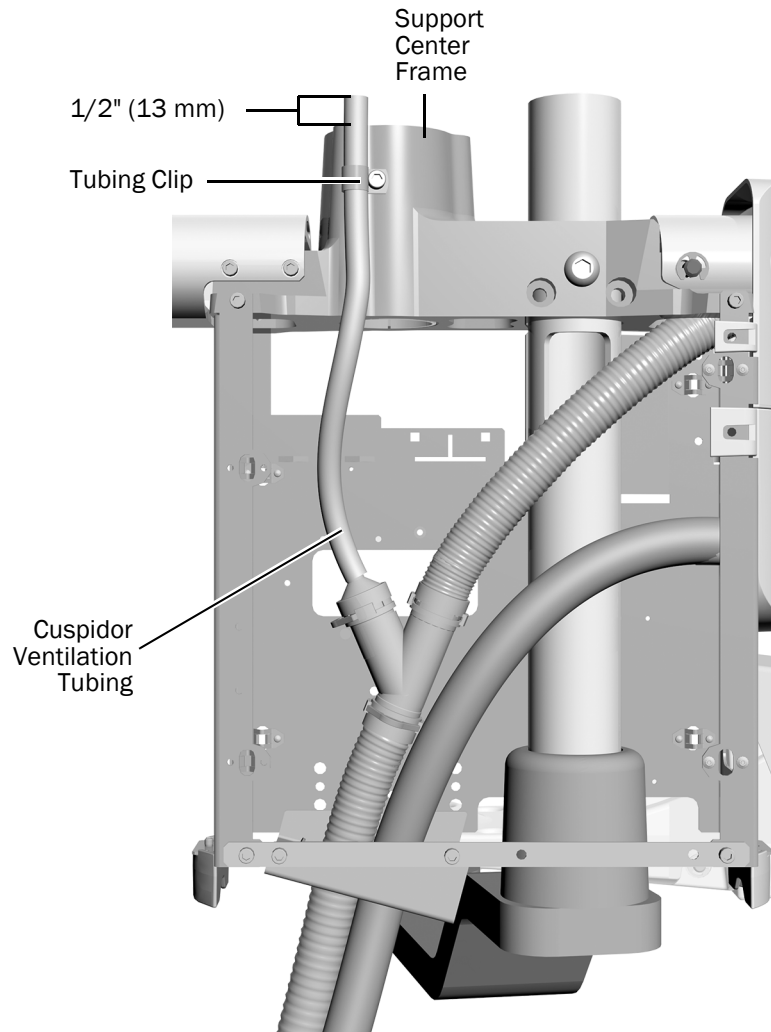
NOTE The entire length of the ribs on the support center frame must be fully seated against the post. Incomplete seating will cause problems with leveling later in the installation process.

Task 9.



CAUTION Verify that the end of the cuspidor ventilation tubing is 1/2" (13 mm) above the support center frame. This ensures that the cuspidor drains properly.

- 1** If it is necessary to adjust the length of the cuspidor ventilation tubing, use a hex key to loosen the clip securing the cuspidor ventilation tubing on the support center.
- 2** Shift the tubing up so that the end is 1/2" (13 mm) above the support center frame.
- 3** Tighten the clip to secure the ventilation tubing.



Install the A-dec 352/353 Assistant's Instrumentation

Install the A-dec 352 Assistant's Instrumentation Mounted on a Telescoping Arm 11
Install the A-dec 353 Cuspidor-Mounted Assistant's Instrumentation 15



A-dec 352 Telescoping Assistant's Instrumentation with Optional Touchpad



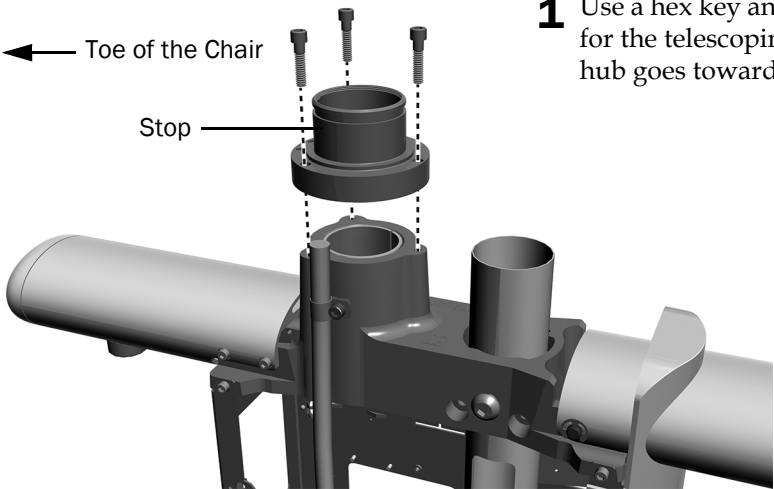
A-dec 353 Cuspidor-Mounted Assistant's Instrumentation with Optional Touchpad

Install the A-dec 352 Assistant's Instrumentation Mounted on a Telescoping Arm

Recommended Tools

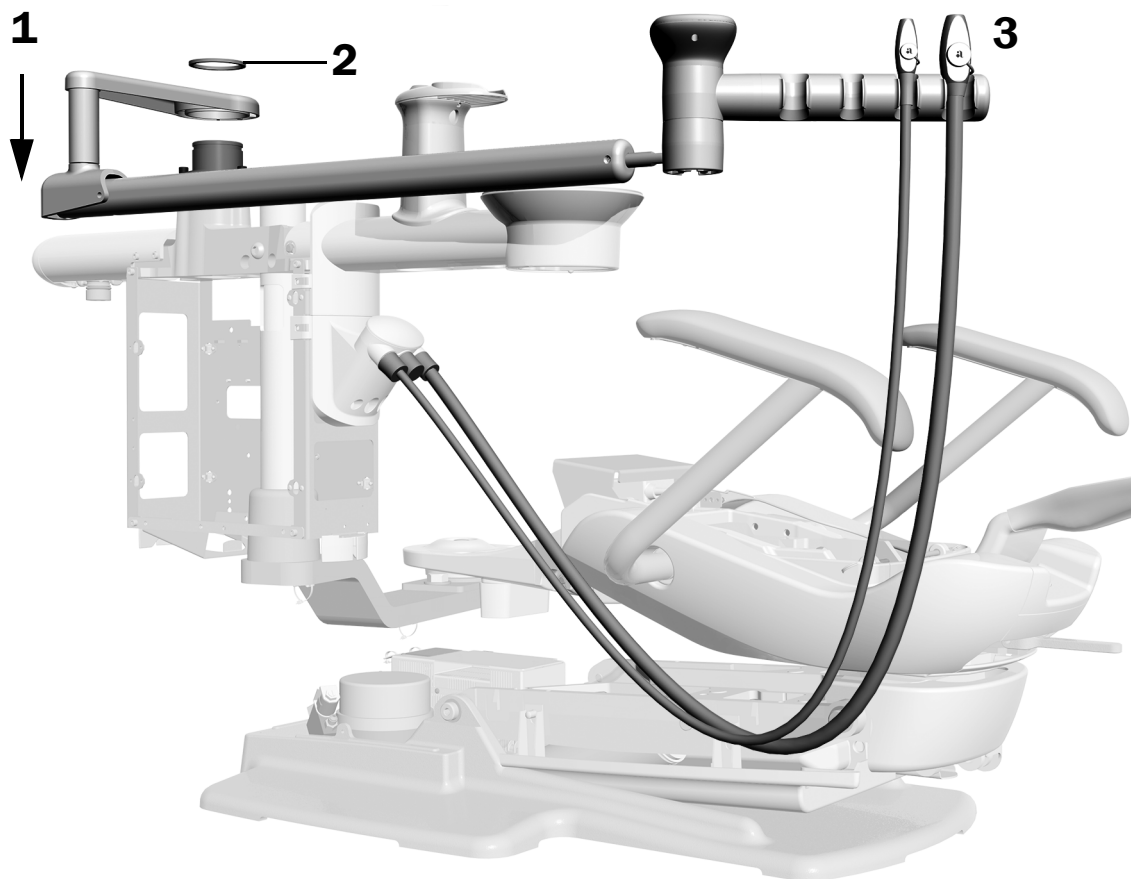
- 3/16" hex key
- Diagonal cutters

Task 1.



1 Use a hex key and three 1" socket head screws to mount the hub for the telescoping arm on the support center. The stop on the hub goes toward the toe of the chair.

Task 2.



1. Set the assistant's arm on the hub.
2. Push down one end of the wave washer and catch it on the hub ridge. Continue to work systematically around the hub to push the washer down until it is completely installed.
3. Place the HVE and saliva ejector in their holders, and then attach their tubing to the vacuum canister.

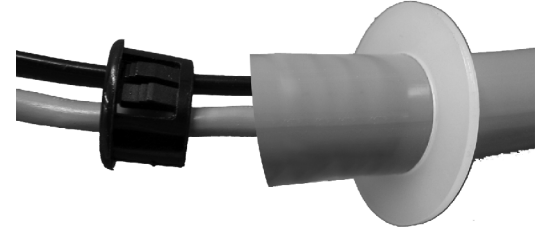


NOTE If the system includes an air vacuum system (AVS), the HVE and saliva ejector are installed before the product is shipped and cannot be removed.

Task 3.

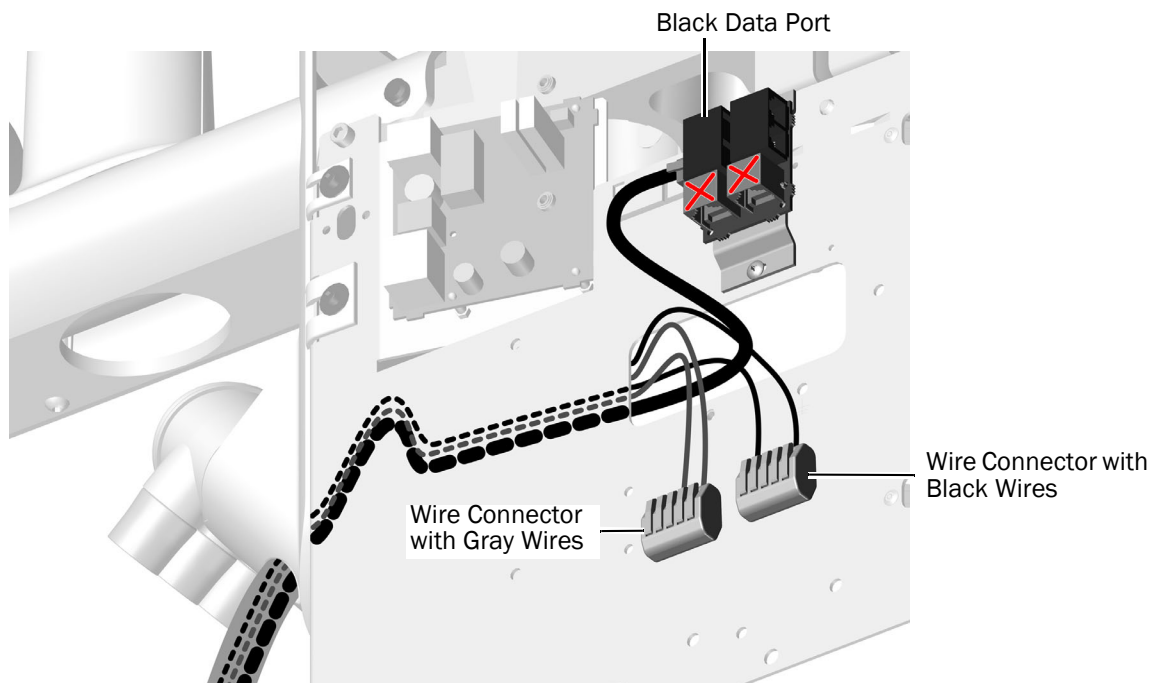
ATTENTION Circuit boards are sensitive to static electricity. Electrostatic Discharge (ESD) precautions are required when touching a circuit board or making connections to or from the circuit board. Circuit boards should be installed only by an electrician or qualified service person.

- 1** If the system includes a touchpad, route the touchpad tubing under the vacuum canister through the hole on the right (it is the largest hole).
- 2** Install the strain relief for the touchpad tubing by placing the washer on the tubing and then inserting the bushing into the tubing.



TIP When setting the strain relief, leave enough tubing to match the drape of the instrument tubing.

- 3** Route the touchpad data line and power cables through the support center and through the rectangular hole to the outside of the support center frame.

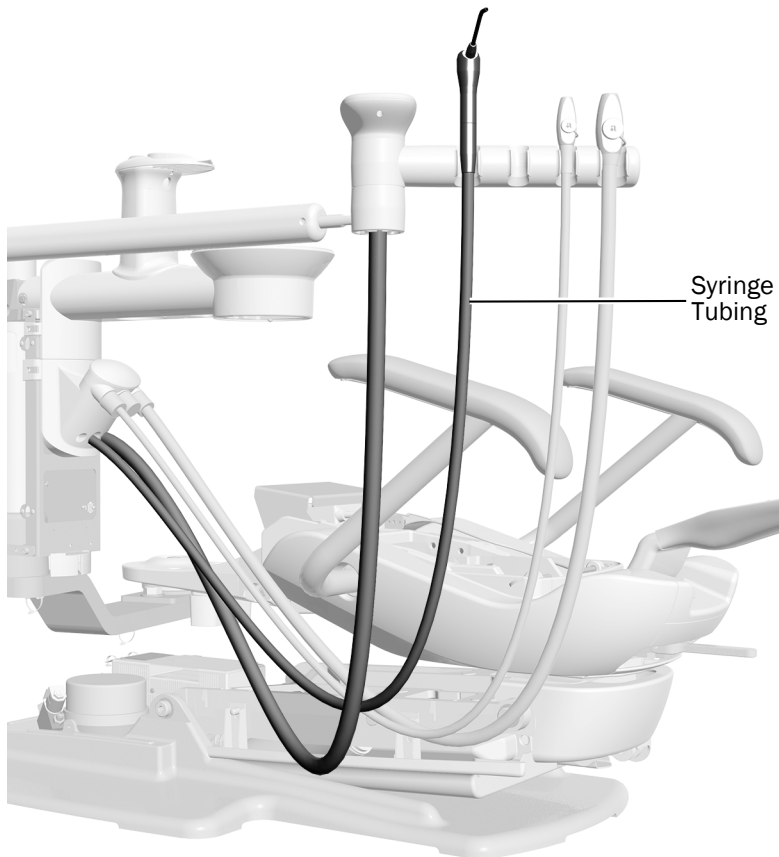


CAUTION Plugging the black DCS1 data line into a gray DCS2 port can damage the product.

- 4** Plug the data line into a black DCS1 data port.
- 5** Attach each power wire to the wire connector with the same color of wire.

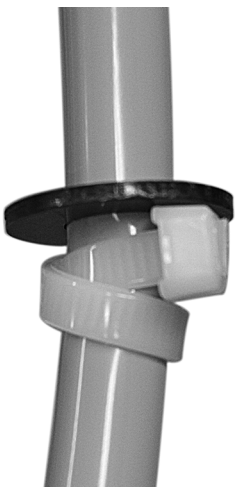
Task 4.

- 1 Place the syringe in the holder and route its tubing under the vacuum canister through the center hole.



Task 5.

- 1 Use a cable tie and the black washer to create a strain relief for the syringe tubing. Make a double loop with the cable tie to firmly hold the tubing.



TIP When setting the strain relief, leave enough tubing to match the drape of the instrument tubing.

Install the A-dec 353 Cuspidor-Mounted Assistant's Instrumentation

Recommended Tools

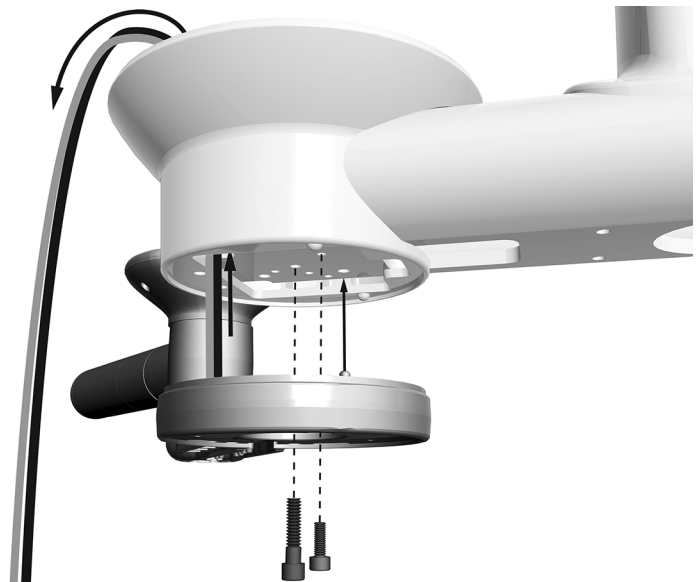
- 1/8", 3/16", and 5/32" hex keys
- Diagonal cutters

Task 1.

- 1 If the system includes an air vacuum system (AVS), use a hex key to remove the two screws connecting the toggle assembly to the bottom of the cuspidor bowl support.

Task 2.

- 1 If the assistant's instrumentation includes a touchpad, route the power cable and data line up into the cuspidor holder.
- 2 Place the assistant's instrumentation under the cuspidor holder and rotate it away from the chair so that the post fits into the hole in the bottom of the cuspidor bowl support.
- 3 Attach the assistant's instrumentation to the bottom of the cuspidor holder.
 - Use a 3/16" hex key to install the middle screw.
 - Use a 5/32" hex key to install the screw in the large, recessed hole that is off center.
- 4 If you disconnected the AVS toggle assembly in Task 1, reconnect it now.



Socket Head Screws (Actual Size Shown)



For the Middle Hole
(1/4-20 x 1" Screw)



For the Recessed Hole
(10-32 x 5/8" Screw)

Task 3.

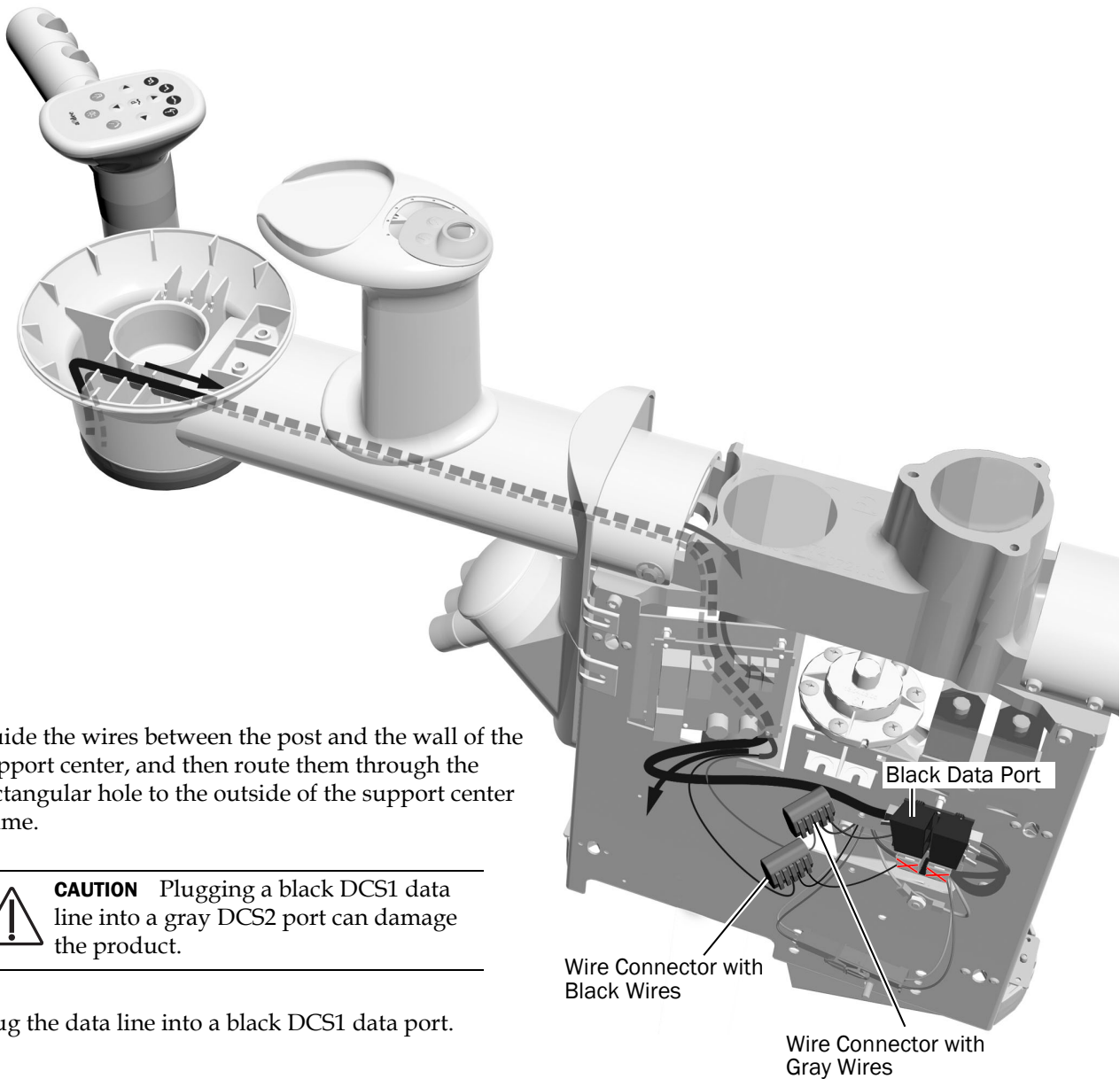
If the assistant's instrumentation includes a touchpad:

- 1 Route the power cable and data line through the cuspidor arm and into the support center.



TIP Attach a cable tie to the end of the wires to route them through the cuspidor arm.

- 2 Route the power cable and the data line through the cuspidor grooves.



- 3 Guide the wires between the post and the wall of the support center, and then route them through the rectangular hole to the outside of the support center frame.



CAUTION Plugging a black DCS1 data line into a gray DCS2 port can damage the product.

- 4 Plug the data line into a black DCS1 data port.
- 5 Attach each power wire to the wire connector with the same color of wire.

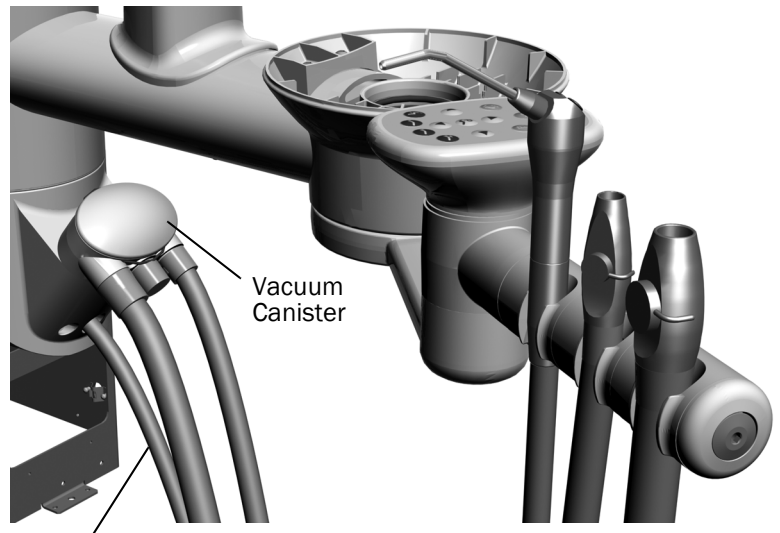
Task 4.

- 1 Place the high volume evacuation (HVE) and saliva ejector in their holders, and then attach their tubing to the vacuum canister.



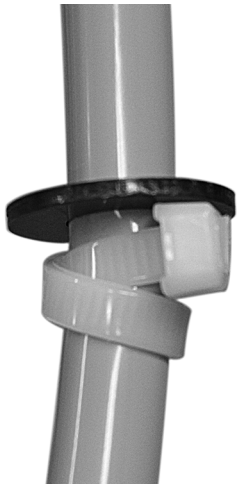
NOTE If the system includes an AVS, the HVE and saliva ejector are installed before the product is shipped and cannot be removed.

- 2 Place the syringe in the holder and route its tubing under the vacuum canister through the center hole.



Syringe Tubing

Task 5.



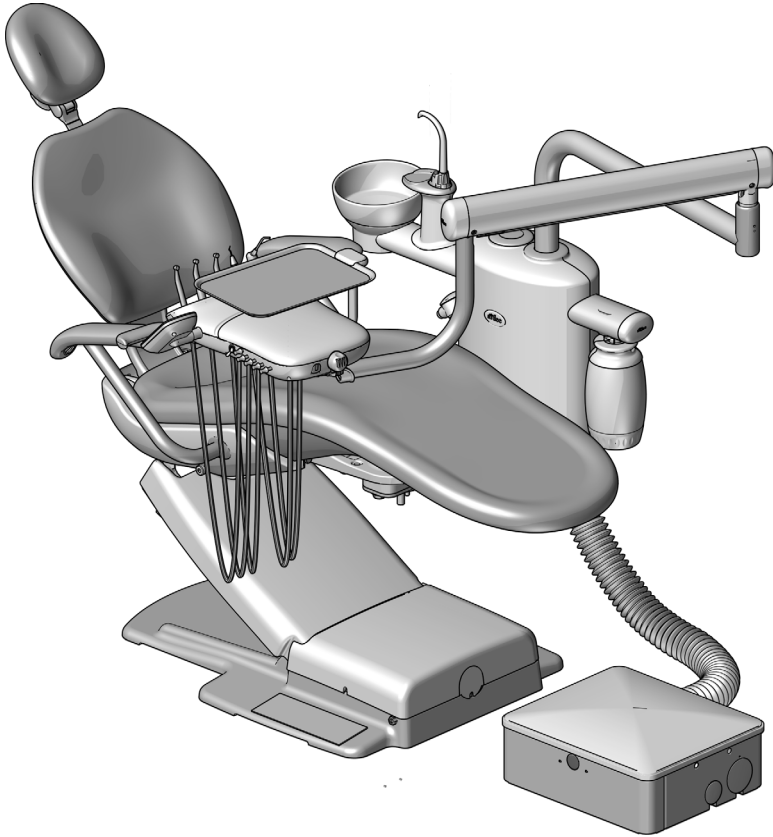
- 1 Use a cable tie and the black washer to create a strain relief for the syringe tubing. Make a double loop with the cable tie to firmly hold the tubing.



TIP When setting the strain relief, leave enough tubing to match the drape of the instrument tubing.

Install the A-dec 334pro/335pro/334/335 Delivery System

The steps are the same for installing either an A-dec 334pro/335pro/334/335 on an A-dec 362 support center.



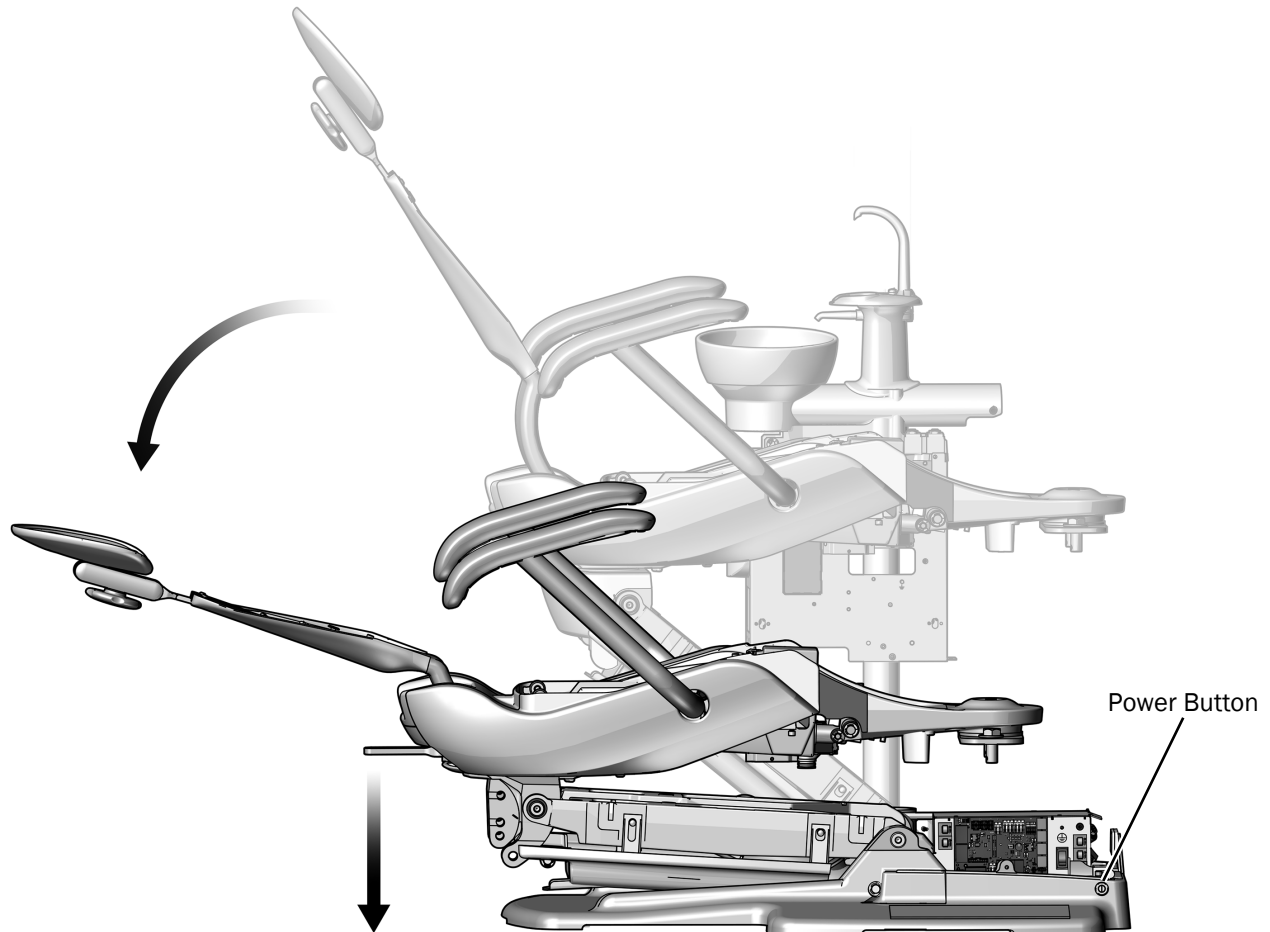
A-dec 334pro Traditional Delivery System on an A-dec 311B Dental Chair

Recommended Tools

- Hex key set
- 3/8" combination wrench

Install the Delivery System Components

Task 1.



- 1 Turn on the power to 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 Use the jumper to fully lower the chair.



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 Turn off the power to the chair.

Task 2.

- 1 Ensure the correct trim ring is on the delivery system post.
 - If the system includes a delivery system but no assistant's instrumentation mounted on a telescoping arm, use the trim ring that ships on the delivery system post.



Trim Ring Used With Delivery System and no Assistant's Instrumentation

- If the system includes a delivery system and an A-dec 352 assistant's instrumentation mounted on a telescoping arm, use the trim ring that ships in the kit.



Trim Ring Used With Delivery System and an A-dec 352 Assistant's Instrumentation Mounted on a Telescoping Arm

Task 3.

- 1 Pick up the delivery system and balance it over your shoulder so that one hand is free to route the tubing and wiring bundle.

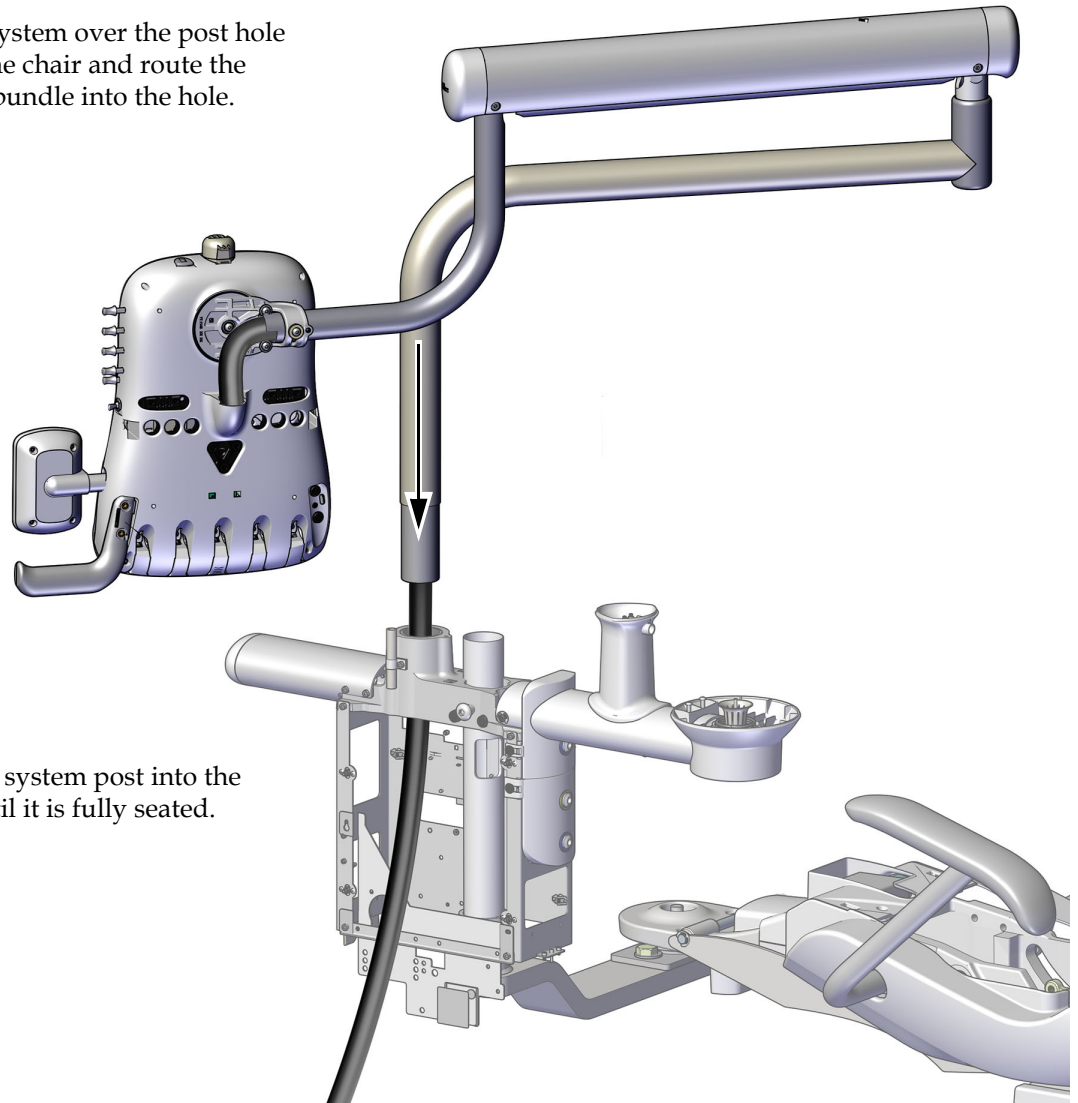


A-dec 334pro Shown

Task 4.

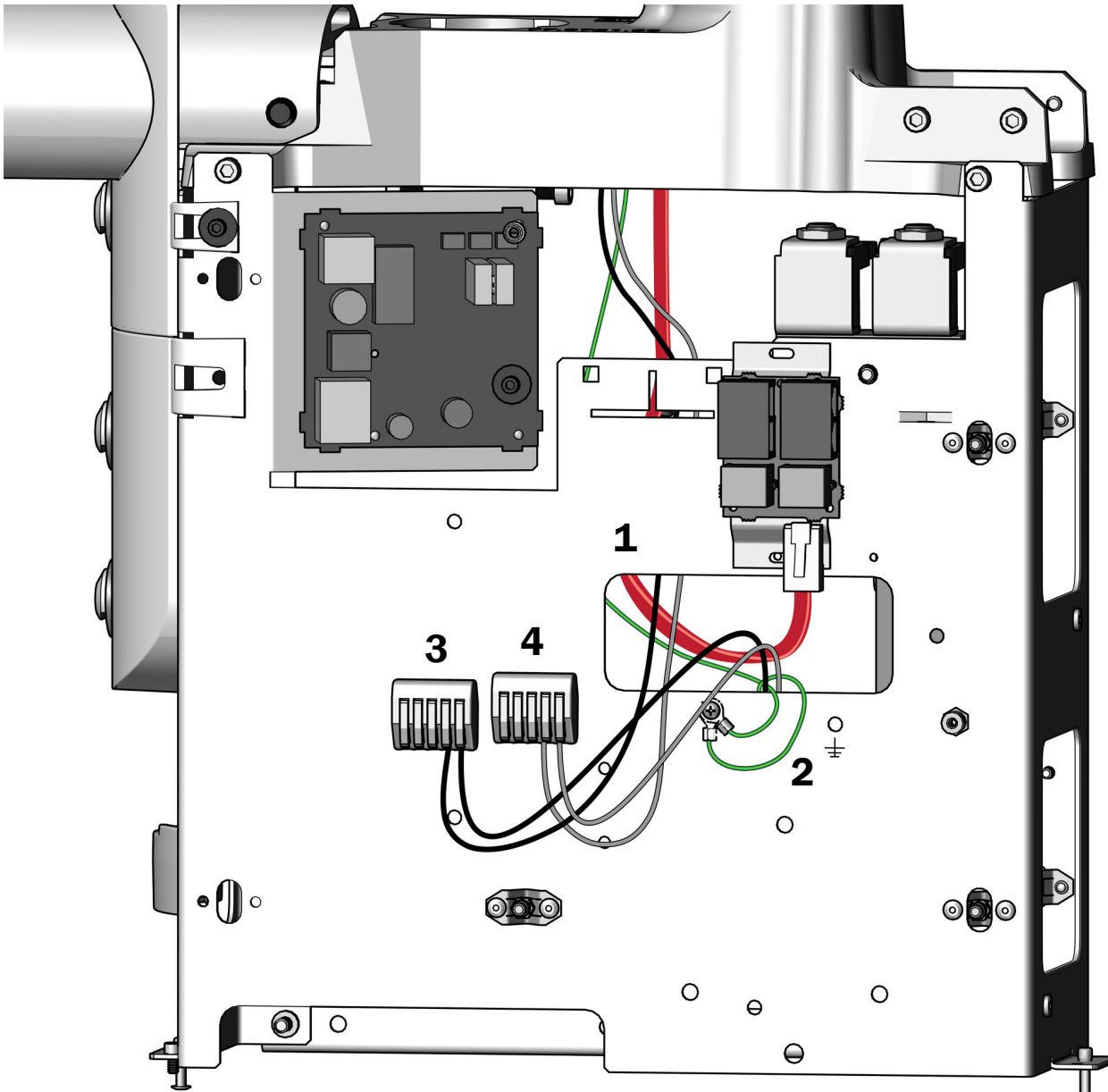
- 1** Hold the delivery system over the post hole toward the toe of the chair and route the tubing and wiring bundle into the hole.

A-dec 335pro Shown



- 2** Insert the delivery system post into the support center until it is fully seated.

Task 5.



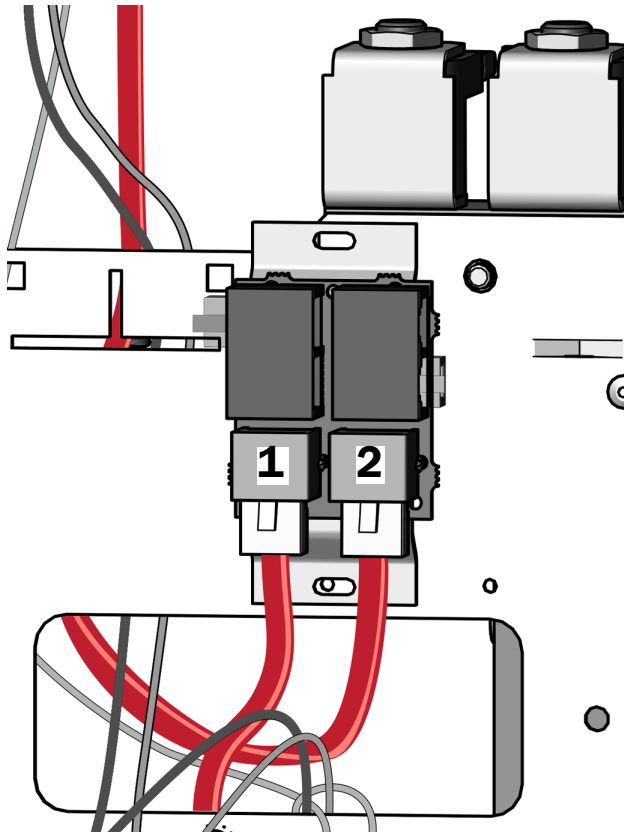
Wires and a Red DCS2 Data Line From a 334pro/335pro Shown

- 1** Route the wires and data line from the delivery system through the rectangular hole to the outside of the support center frame.
- 2** Attach the ground wire.
- 3** Connect the black wire to the wire connector with a black wire already attached.
- 4** Connect the gray wire to the wire connector with a gray wire already attached.

Task 6.

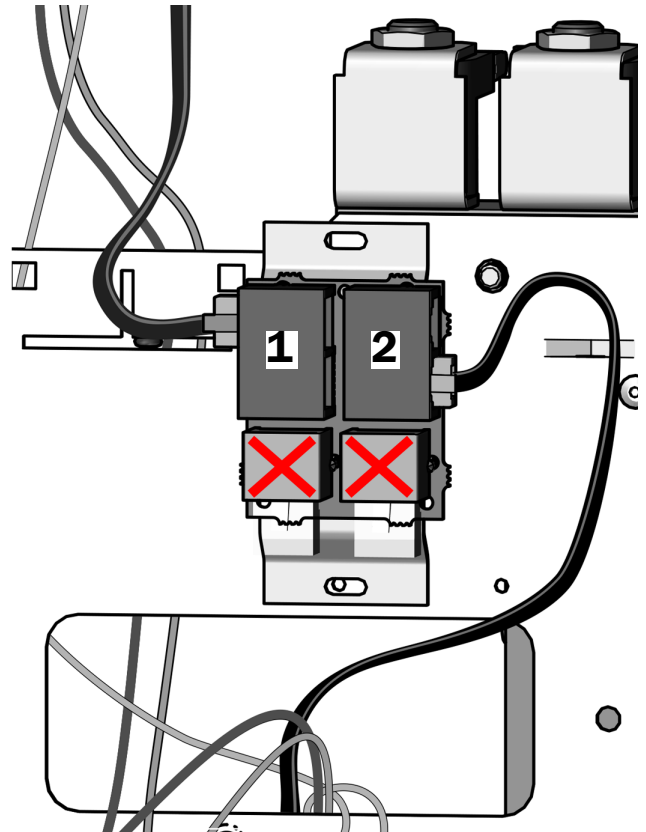
Complete one of the following:

A-dec 334pro/335pro Delivery Systems



- 1** Route the **red** DCS2 data line from the chair circuit board through the hole and connect it to a **gray** DCS2 data port.
- 2** Plug the **red** DCS2 data line from the delivery system into a **gray** DCS2 data port.
- 3** Connect the two-position black connector to the black 24 VAC isolated lead, if present.
- 4** Coil the excess wire and store it in the support center.

A-dec 334/335 Delivery Systems



- CAUTION** Plugging a black DCS1 data line into a gray DCS2 port can damage the product.
- 1** Plug the **black** DCS1 data line from the delivery system into a **black** DCS1 data port.
 - 2** Route the **black** DCS1 data line from the chair circuit board through the hole and connect it to a **black** DCS1 data port.
 - 3** Connect the two-position black connector to the black 24 VAC isolated lead, if present.
 - 4** Coil the excess wire and store it in the support center.

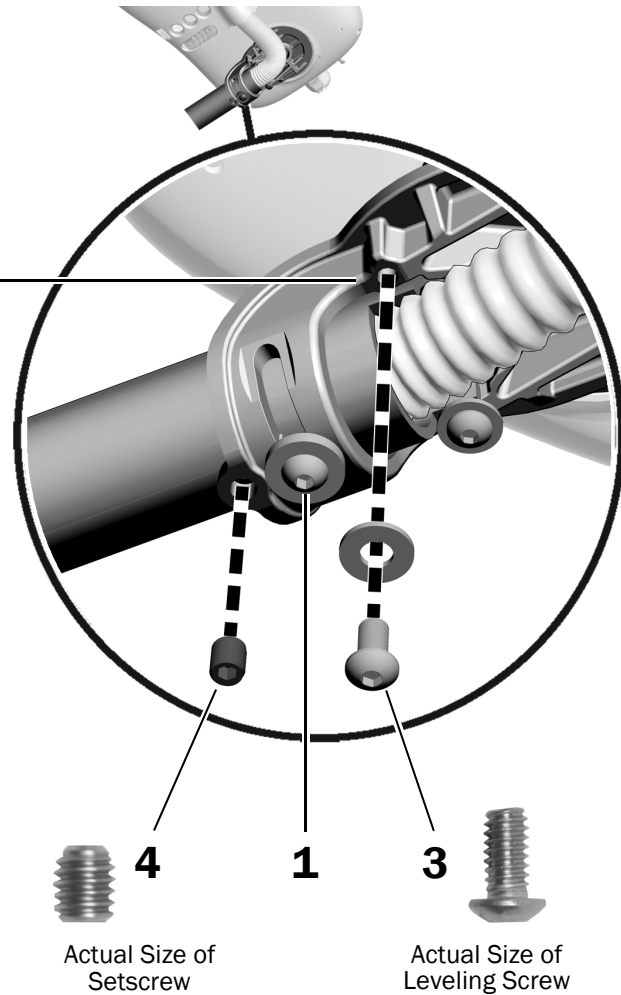
Task 7.

1. Loosen the button head screw.



NOTE Do not back out the button head screw all of the way. Only loosen it enough to be able to move the control head.

2. Rotate the control head so it is positioned over the hole for the missing leveling screw.
3. Install and tighten the 1/4-20 x 1/2" leveling screw and washer.
4. Install the 3/8" setscrew.
5. Tighten the button head screw.



Task 8.

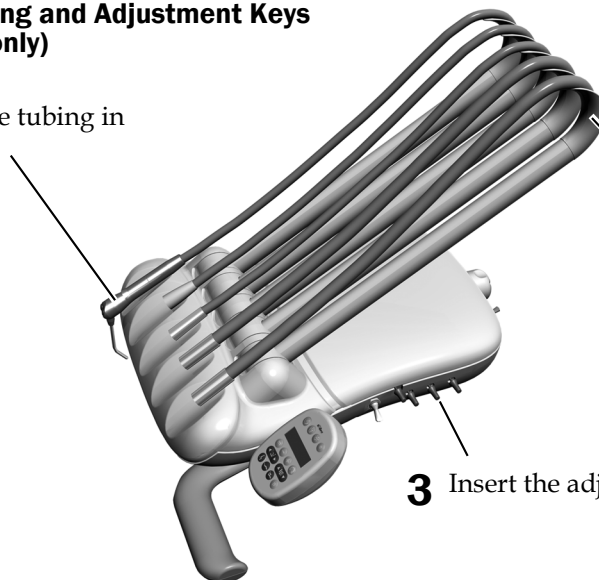
Install the Handpiece Tubing and Adjustment Keys (A-dec 334pro/334/335 only)

- 1 Place the handpiece tubing in position for use.

- 2 A-dec 335 Continental delivery systems only. Insert the whip hooks.

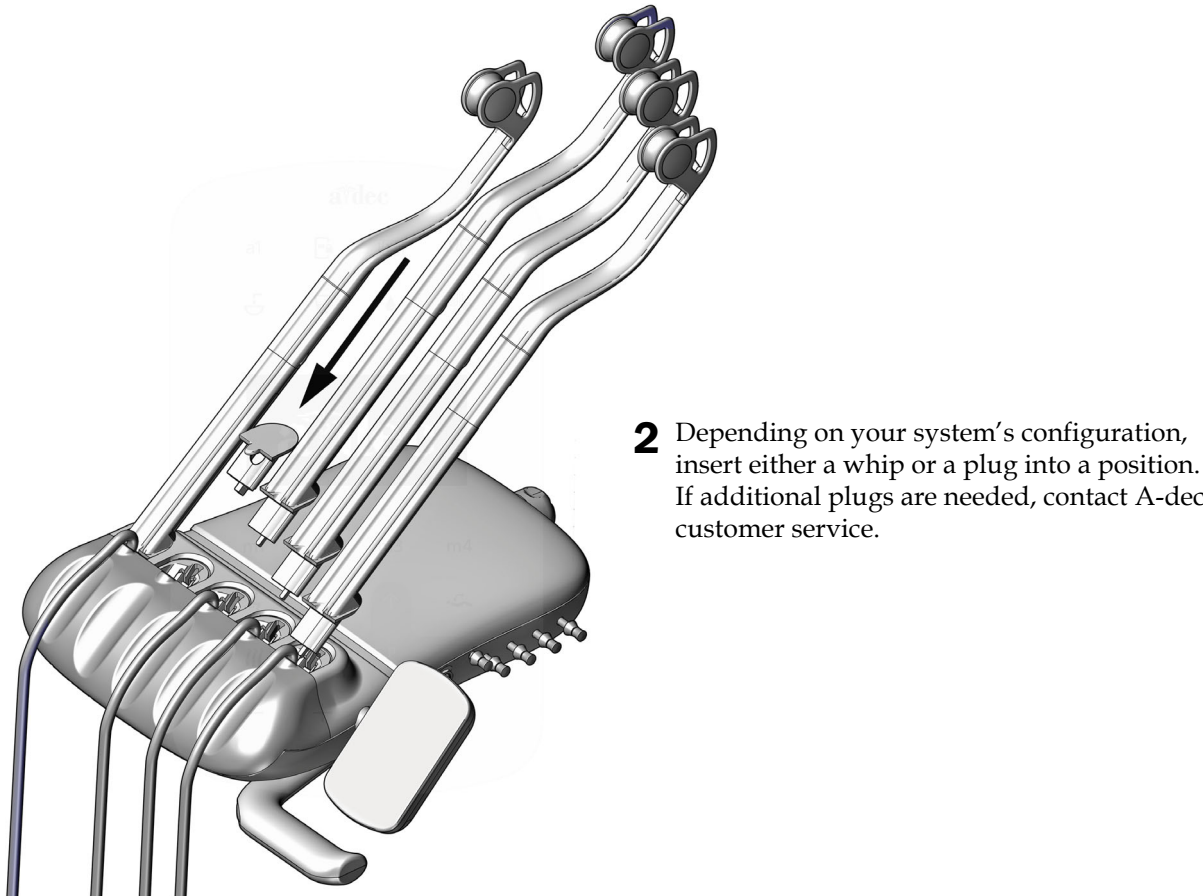
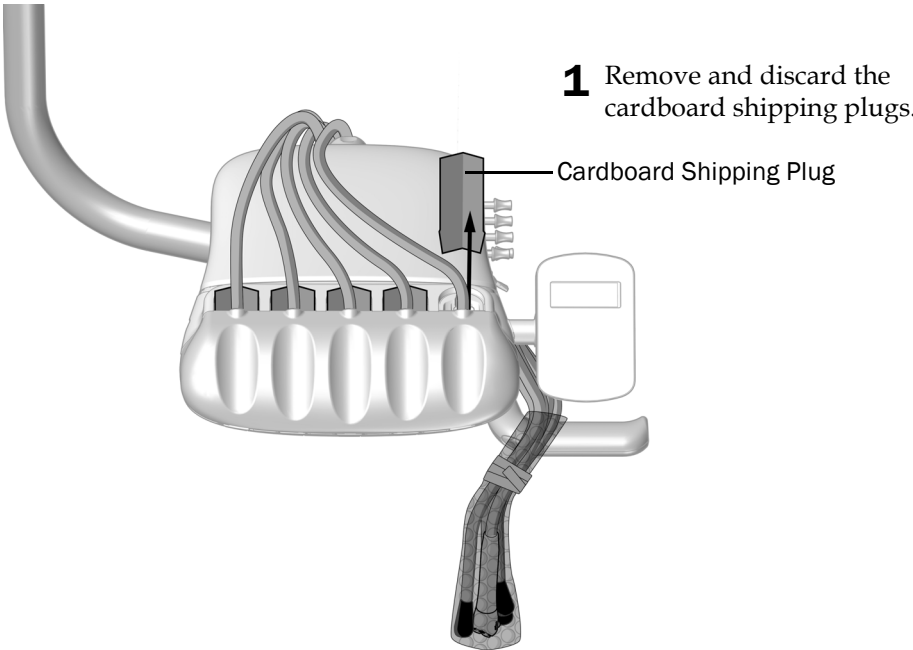
- 3 Insert the adjustment keys.

A-dec 335 Shown

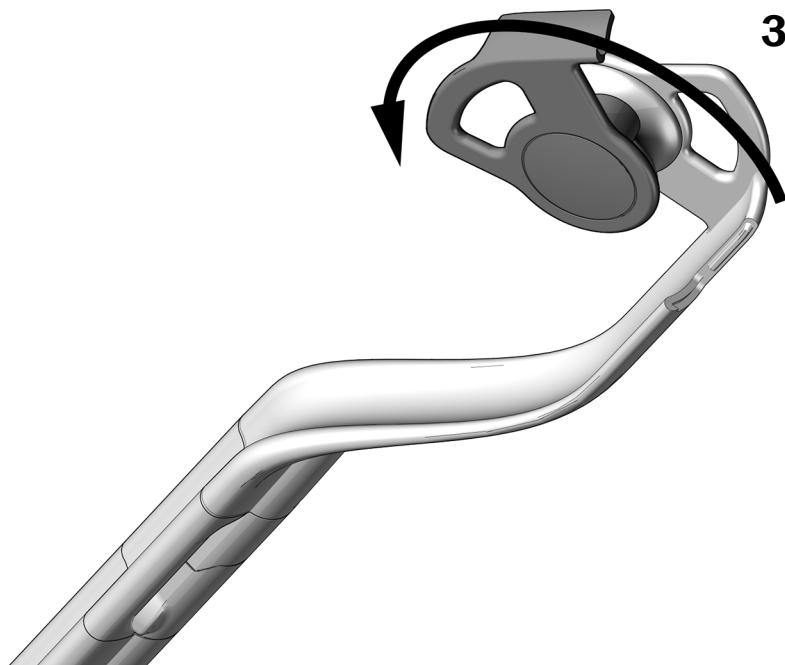


Task 9.

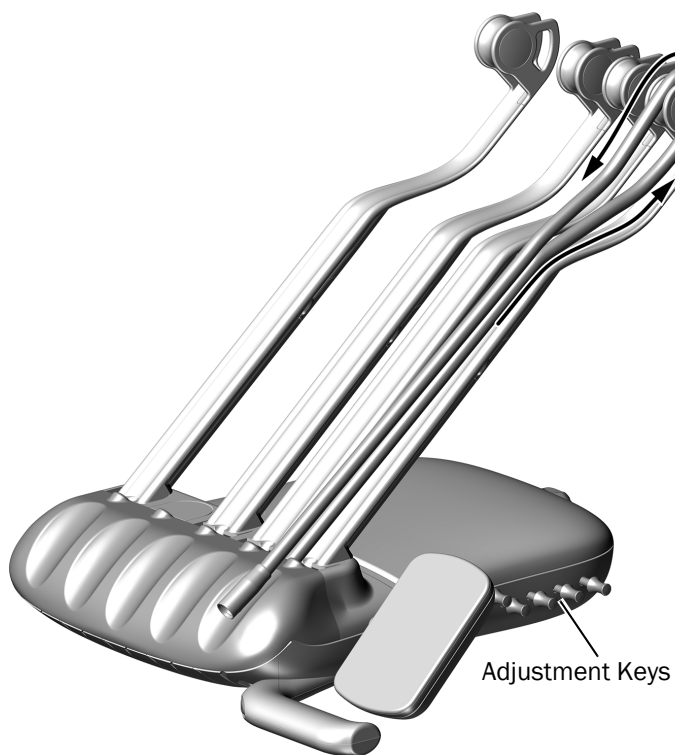
Install the Continental Whips and Adjustment Keys (A-dec 335pro only)



- 3** To open the whip, rotate the tubing guide 90° counterclockwise.



- 4** Route the tubing through the whip assemblies.
- 5** Close the tubing guide and make sure it snaps shut.
- 6** Place the handpiece tubing in the holders and insert the adjustment keys into the holes on the side of the control head.



Install the Tray Holder Mount (Optional)

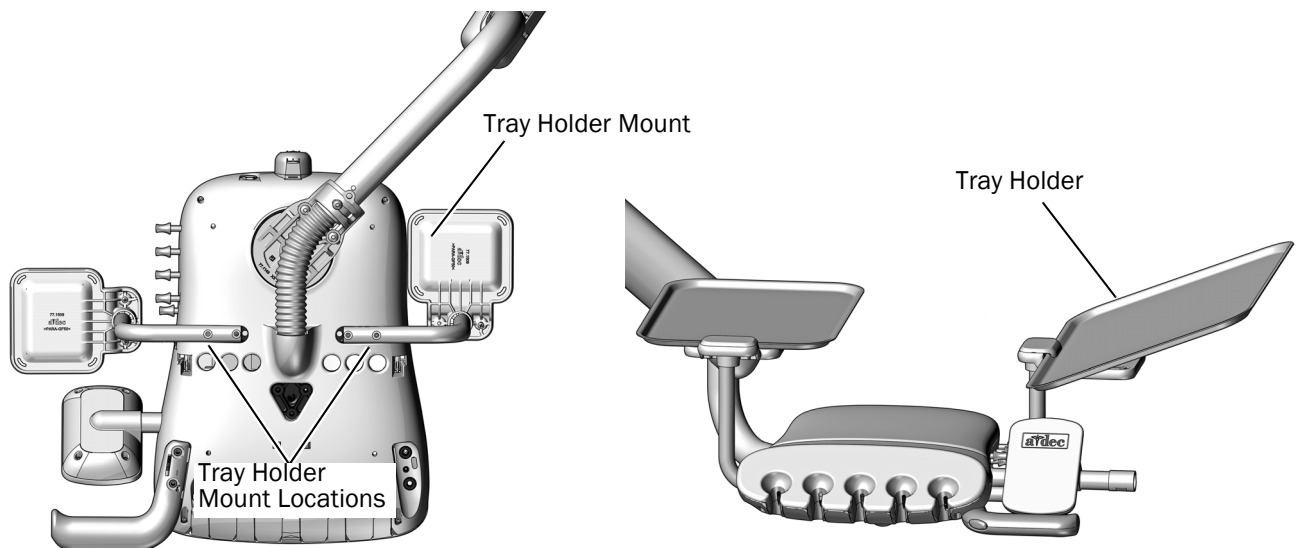
To install the tray holder mount, select the type of delivery system and complete the steps.

A-dec 334pro/334 Traditional Delivery System

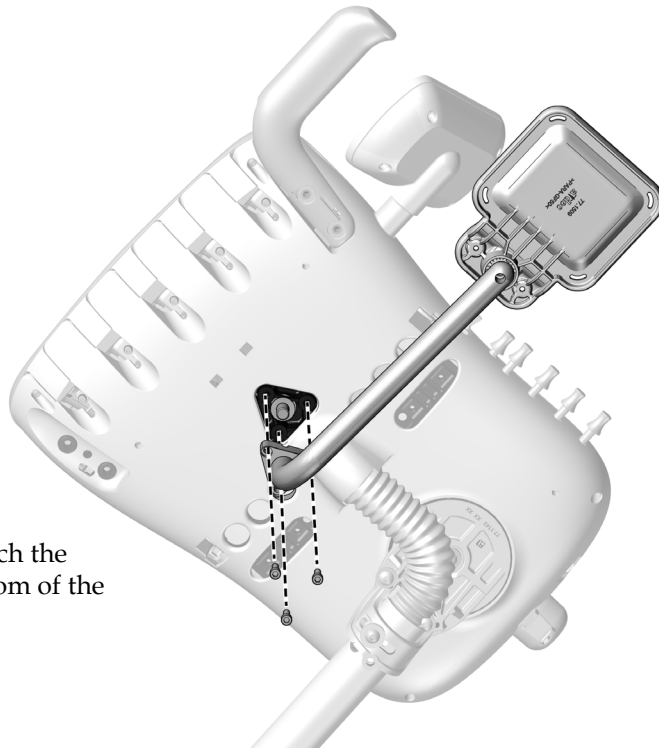
- 1** Use two 10-32 x 1" button head screws to attach the tray holder mount to the side of the bottom of the control head.
- 2** Tilt one end of the tray holder up and place the lip of the tray holder under the edge of the tray holder mount and lower the tray holder into place.



TIP While the tray holder can be installed on either side of the control head, it is helpful to mount it on the side opposite of the adjustment keys to provide better access to the keys.



A-dec 335/335pro Continental Delivery System



- 1** Use three 10-32 x 3/4" screws to attach the mount arm to the middle of the bottom of the control head.

Install the A-dec Dental Light

If your system includes a dental light, install it now. See the installation guide that shipped with the dental light.

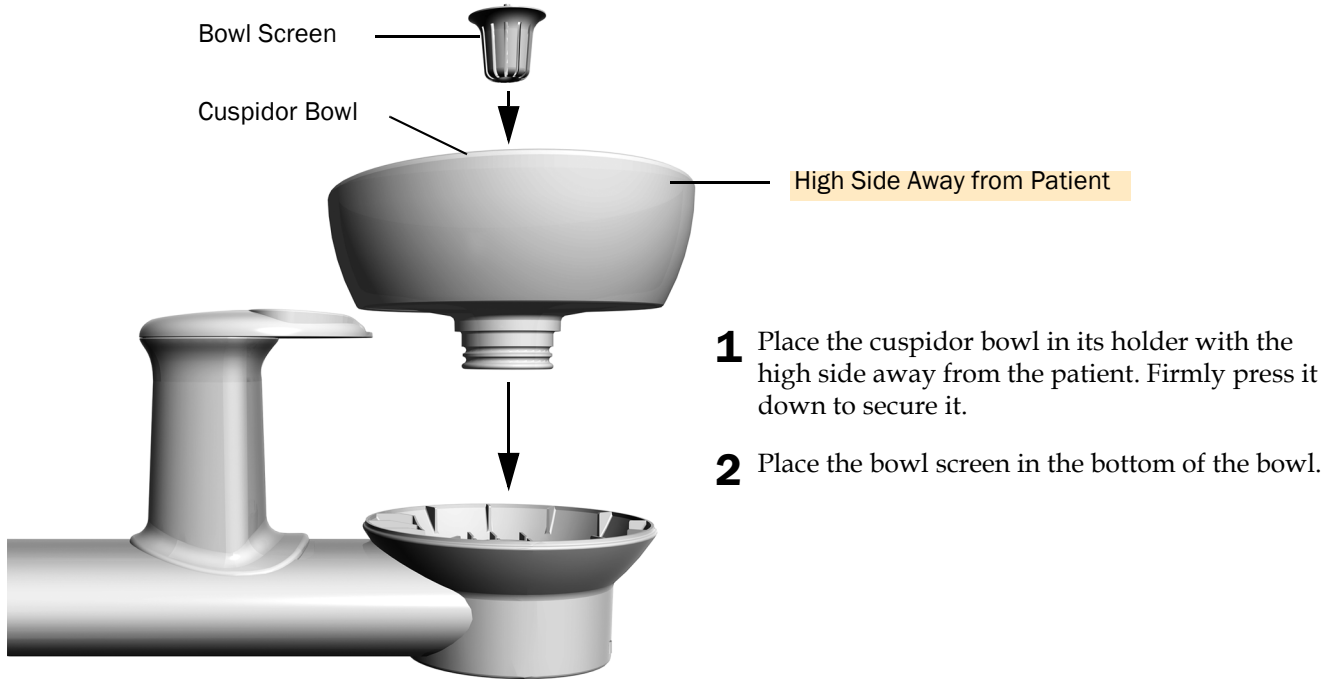
Install the Monitor Mount

If your system includes a monitor mount, install it now. See the installation guide that shipped with the monitor mount.

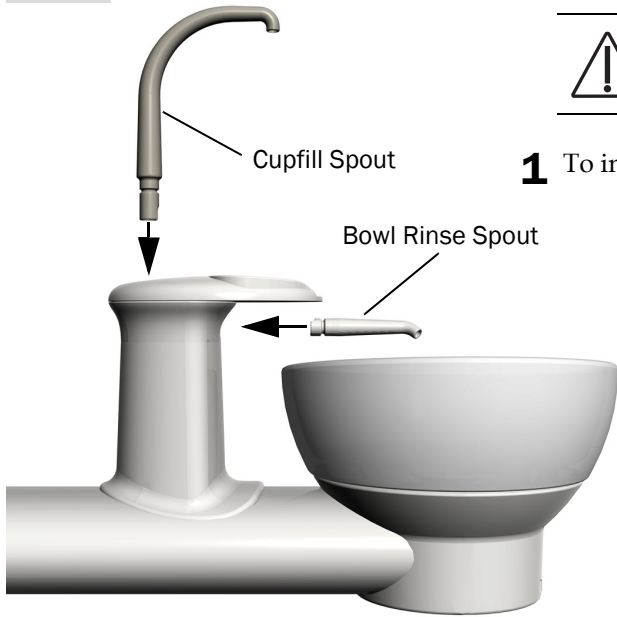
Install the Cuspidor



Task 1.



Task 2.



CAUTION When installing the cupfill spout, do not rotate it or it may break.

1 To install the cupfill spout, push it straight down.

2 To install the bowl rinse spout, push it straight in.

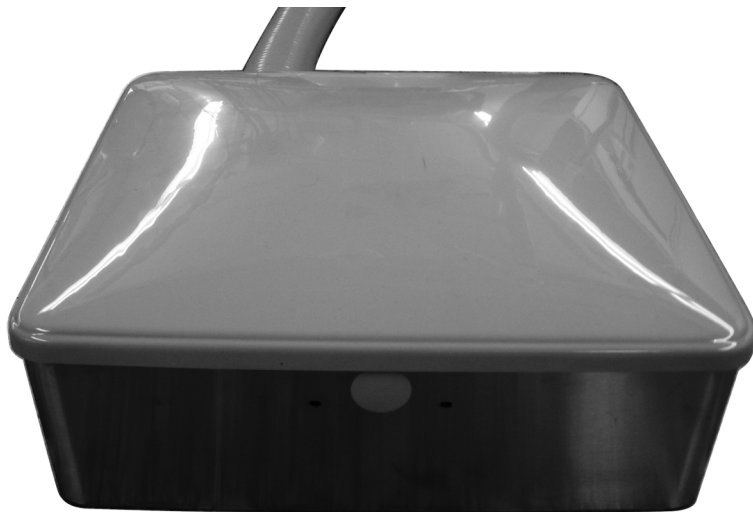
Install the Remote Floor Box



NOTE Install all of the system's modules before completing this procedure.

Recommended Tools

- Phillips head screwdriver



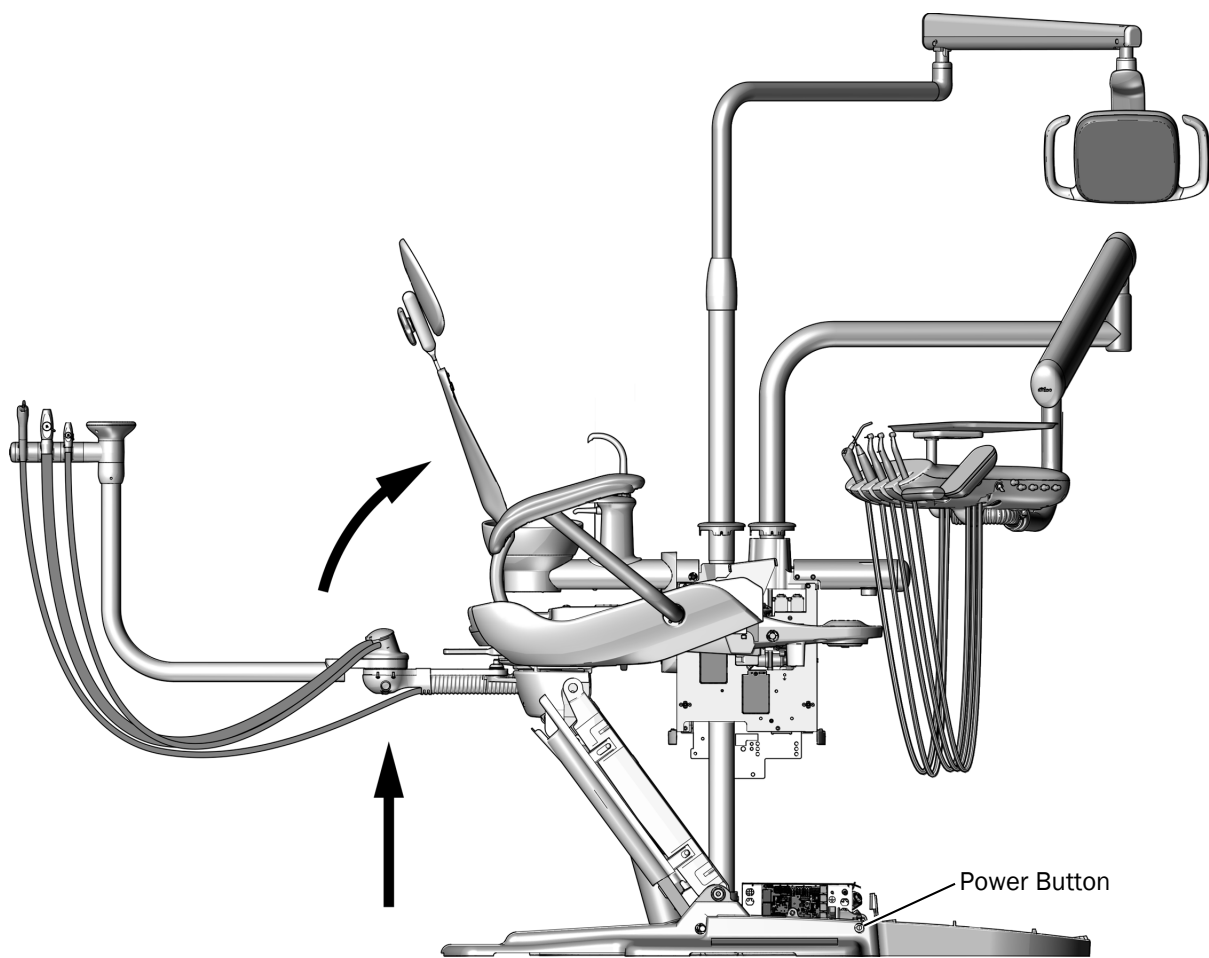
- 1** Remove the protective layer from the remote floor box.
- 2** Position the floor box over the utilities.
- 3** Use a Phillips head screwdriver and six size #10 screws to secure the floor box to the floor.

Route the Utilities



CAUTION To avoid damaging or disconnecting wires and tubing, do not route anything until all of the system's modules are installed.

Task 1.



- 1** Turn on the power to the system.
- 2** Make sure the chair base and back are fully raised.



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.



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.



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.

Task 2. Turn off the power to the system.

Route the Wires and Tubing to the Chair Base and Remote Floor Box

Complete the section for the system’s configuration.

Dental Chair	Route Data Line	Route Wires	Route Tubing
A-dec 311, 411, 511	Under the Chair	Under the Chair	Remote Floor Box
A-dec Cascade, Decade, Performer, with data ports	Under the Chair	Remote Floor Box	Remote Floor Box
A-dec Cascade, Decade, Performer, Priority, and other manufacturer’s chairs without data ports	Disconnect and remove the data line.	Remote Floor Box	Remote Floor Box

Route Under the Chair34
Route to the Remote Floor Box.39

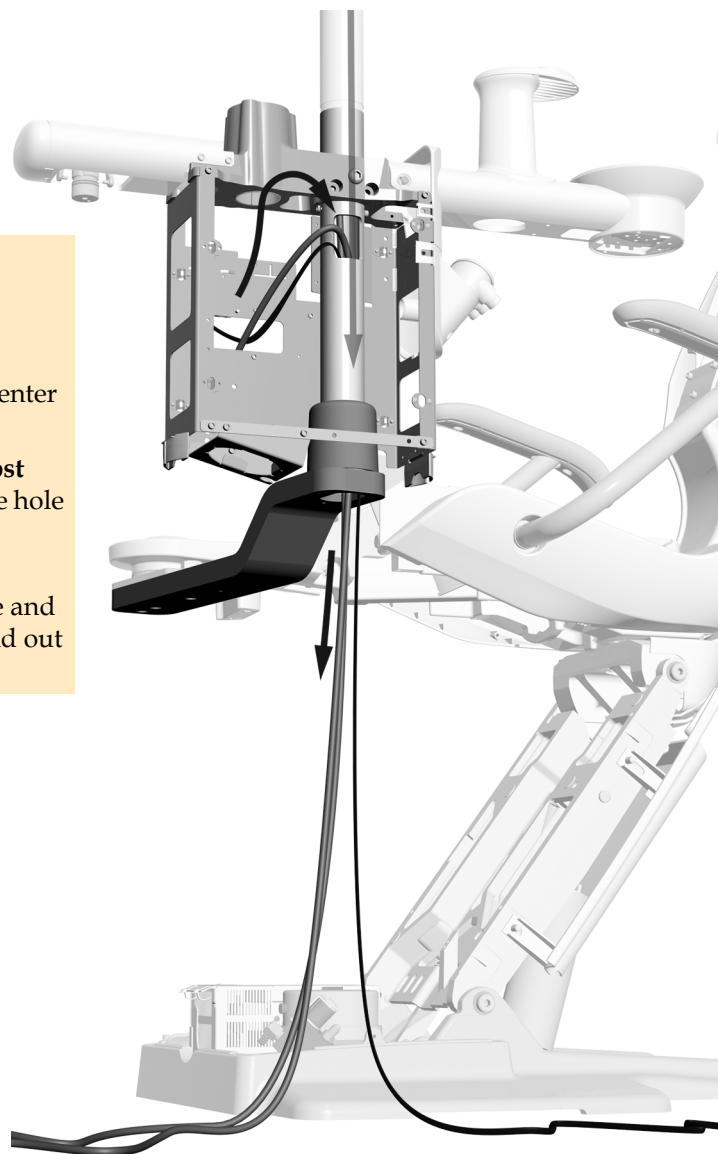
Route Under the Chair

Recommend Tool

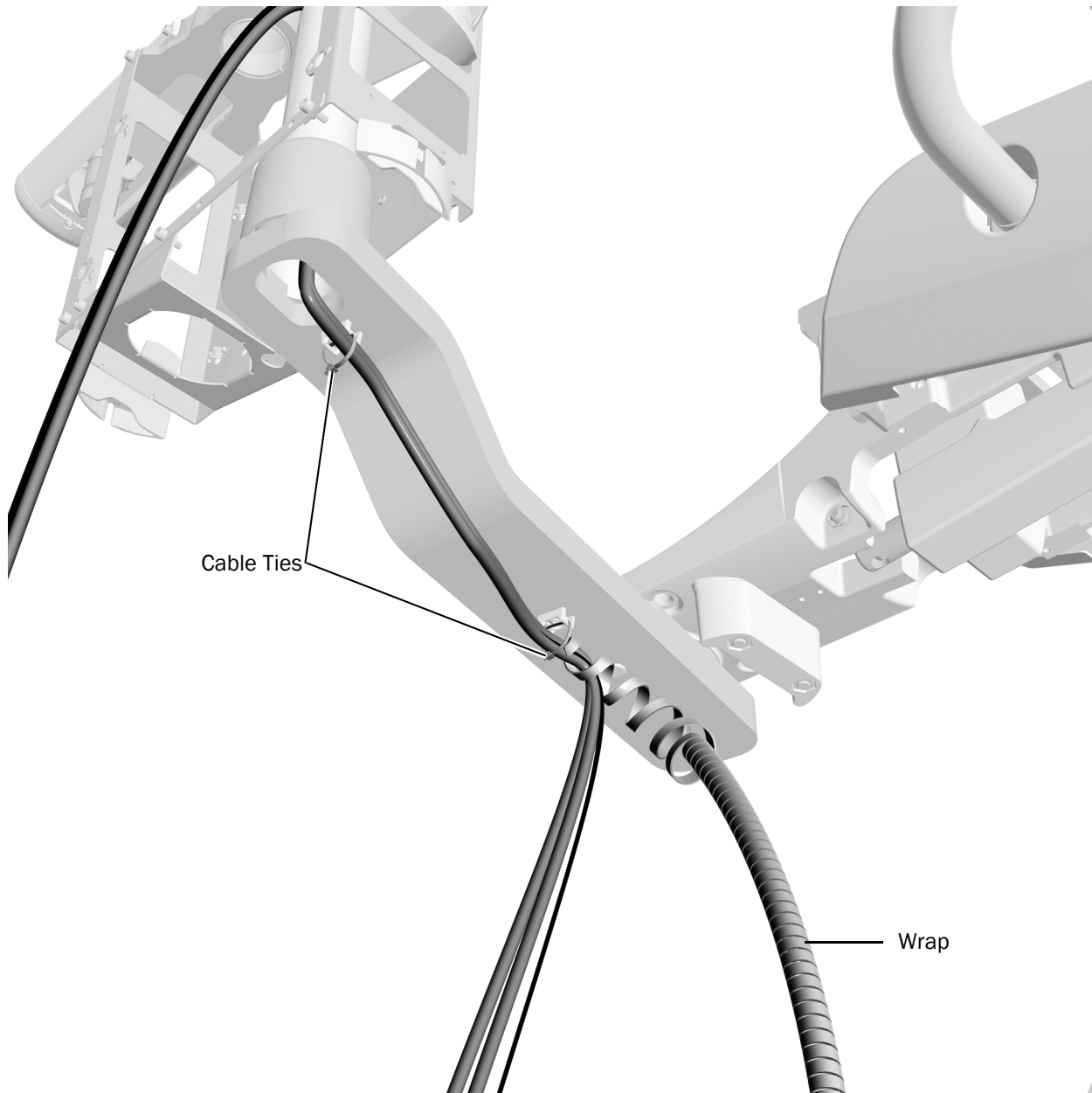
- Diagonal cutters

Task 1.

- 1** Route the support center wires and data line depending on your configuration:
 - **Adaptor Arms with a Hole Below the Post**
Route the support center wires and data line through the rectangular hole in the support center post and down out of the bottom of the post.
 - **Adaptor Arms with a Hole on Top by the Post**
Route the support center data line through the hole and inside the adaptor arm to the lift arm.
 - **Adaptor Arms without a Hole**
Route the power wires through the convolute and route the data line next to the adaptor arm and out of the bottom of the support center.



A-dec 362 Support Center on an Adaptor Arm with a Hole Below the Post on an A-dec 311B Dental Chair Shown

Task 2.

- 1** Use cable ties to secure the wire bundle on the bottom of the adaptor arm. Do not overtighten the ties.



NOTE If the adaptor arm does not have built-in brackets, use the adhesive-backed mounts shipped in the kit to secure the bundle as pictured in the image.

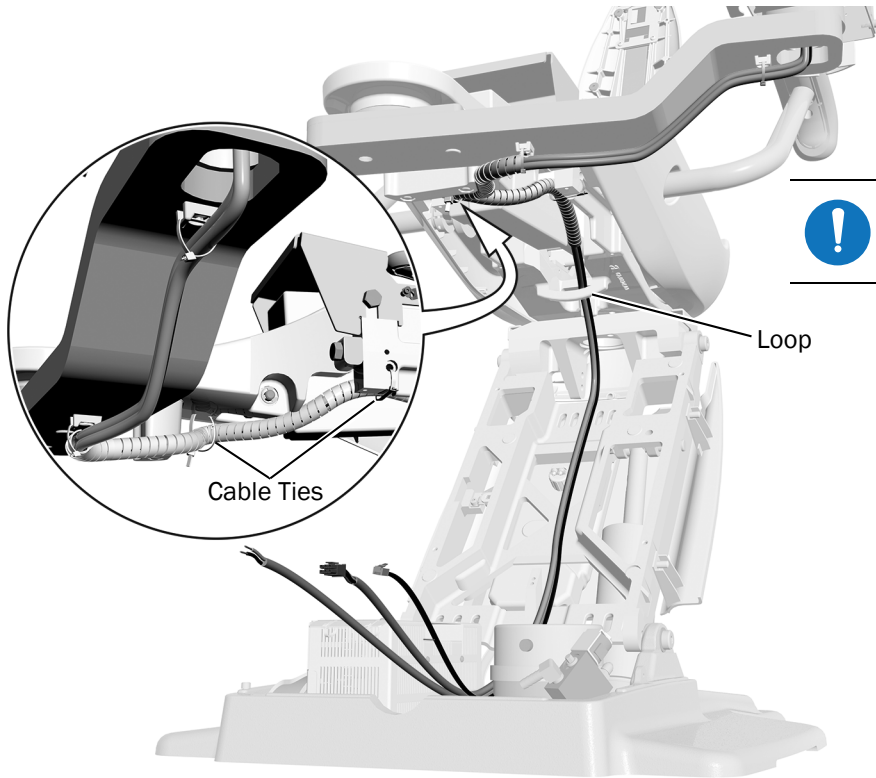
- 2** Trim the ends of the cable ties.
- 3** Install the wrap around the wires and data line. Position the wrap to start at the second cable tie.

Task 3.

Complete routing the cables according to the system's type of chair.

A-dec 311 and 411 Dental chairs 36

A-dec 511, Cascade, Decade, Performer, and Priority Dental Chairs 37

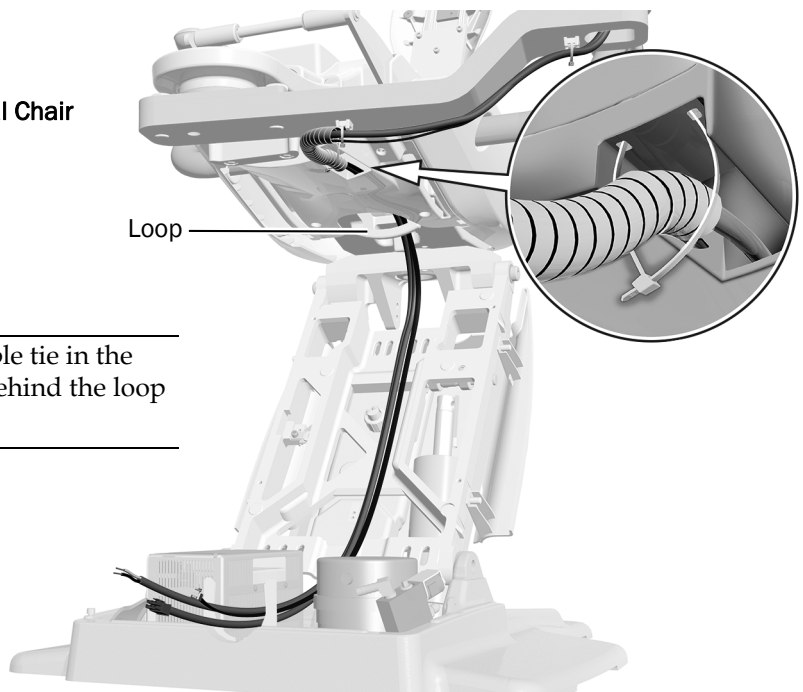


A-dec 311 Dental Chair



NOTE Secure with two cable ties and route behind the loop on the lift arm.

A-dec 411 Dental Chair



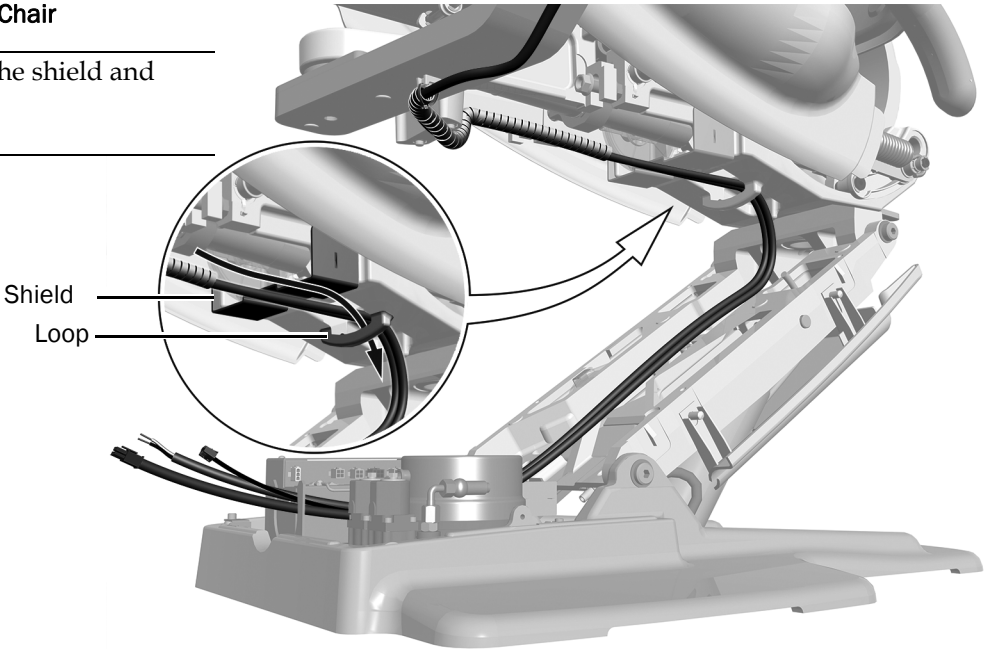
NOTE Secure with a cable tie in the lower cover and route behind the loop on the lift arm.

Task 3. Continued

A-dec 511 Dental Chair



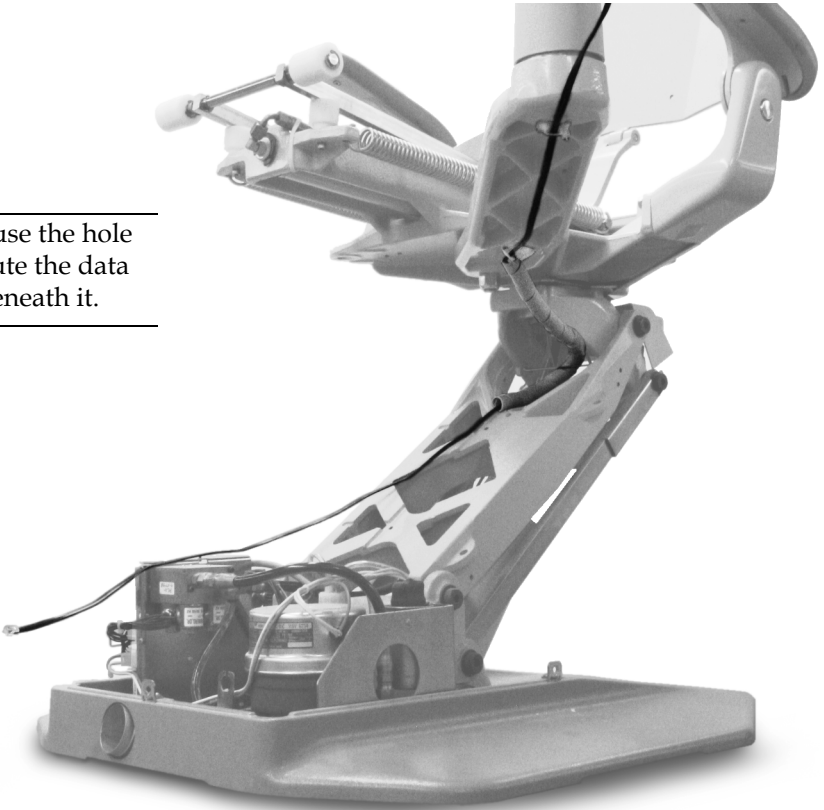
NOTE Route under the shield and behind the loop.



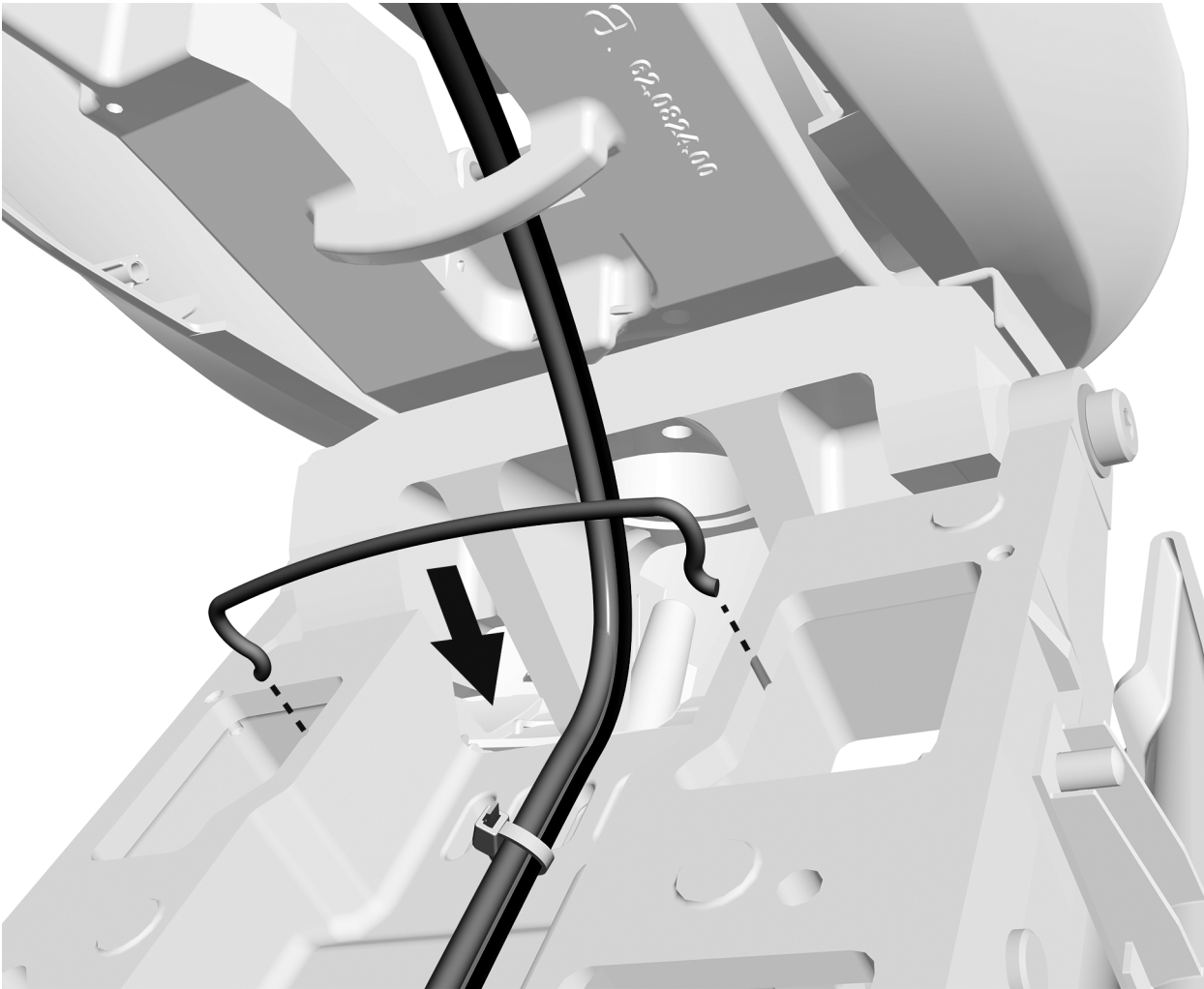
Cascade, Decade, Performer, or Priority Dental Chair



NOTE For A-dec Cascade Chairs, use the hole in the top of the adaptor arm to route the data line through the arm rather than beneath it.



Task 4.



- 1** If the chair includes a bail, install it on the lift arm. The bail ships in the floor box kit.
- 2** Use cable ties to group the wiring for a neat appearance.



CAUTION Do not attach the wires to the lift arm. The wires need to move freely when the chair moves.

Route to the Remote Floor Box

Recommended Tools

- Diagonal cutters
- Hex key set

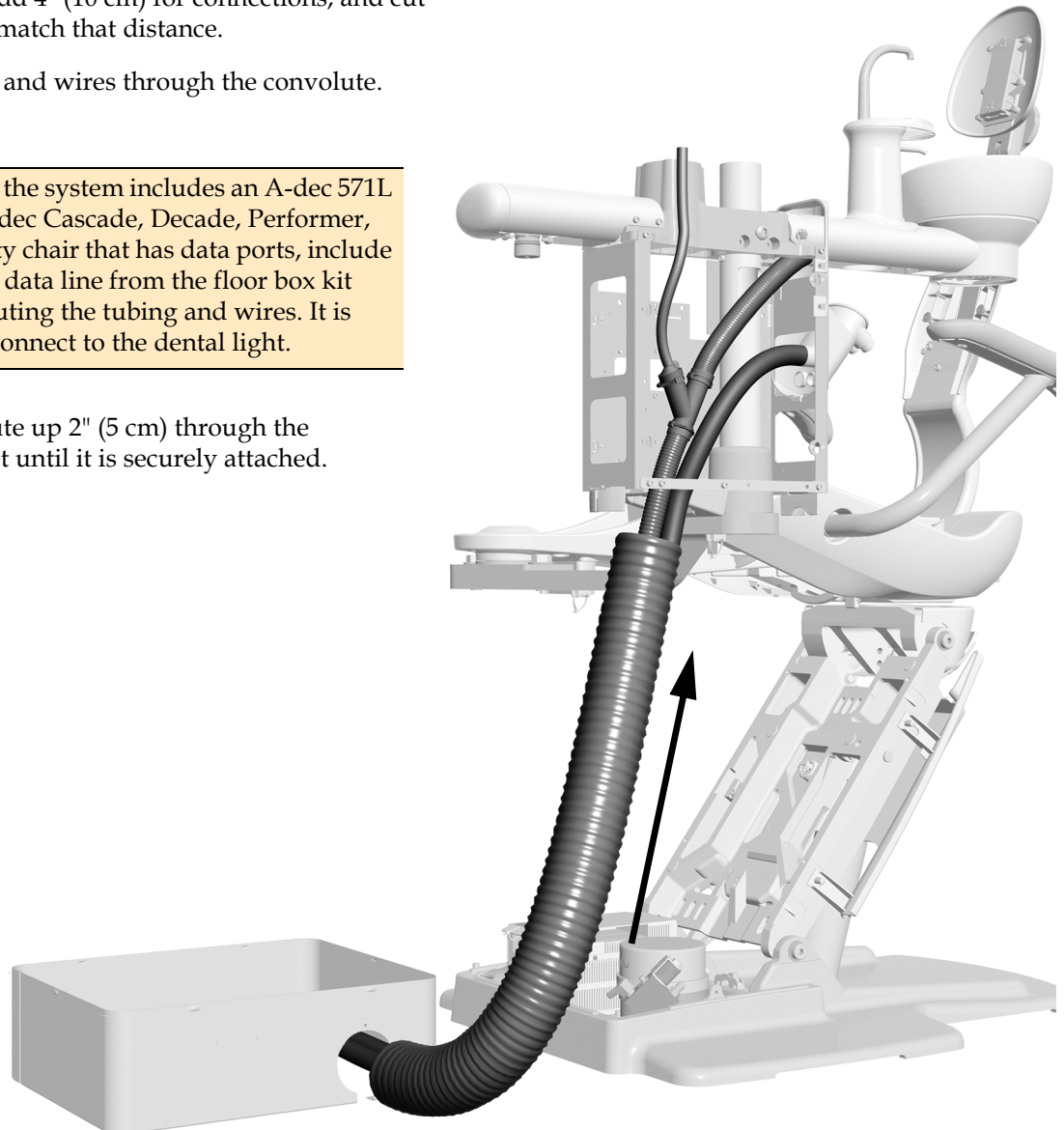
Task 1.

- 1 Measure between the floor box to the bottom of the support center, add 4" (10 cm) for connections, and cut the convolute to match that distance.
- 2 Route the tubing and wires through the convolute.



NOTE If the system includes an A-dec 571L on an A-dec Cascade, Decade, Performer, or Priority chair that has data ports, include the extra data line from the floor box kit when routing the tubing and wires. It is used to connect to the dental light.

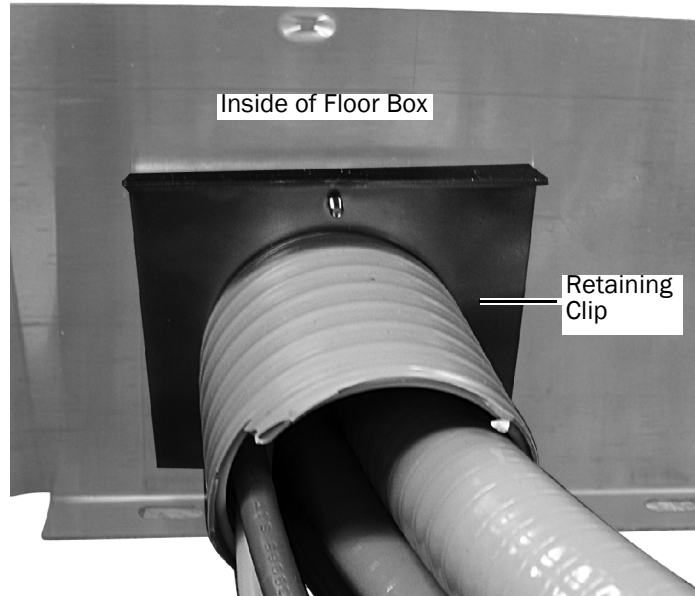
- 3 Push the convolute up 2" (5 cm) through the convolute bracket until it is securely attached.



NOTE Route items directly out of the bottom of the support center into the convolute. Do not route wires or data lines through the support center post then into the convolute.

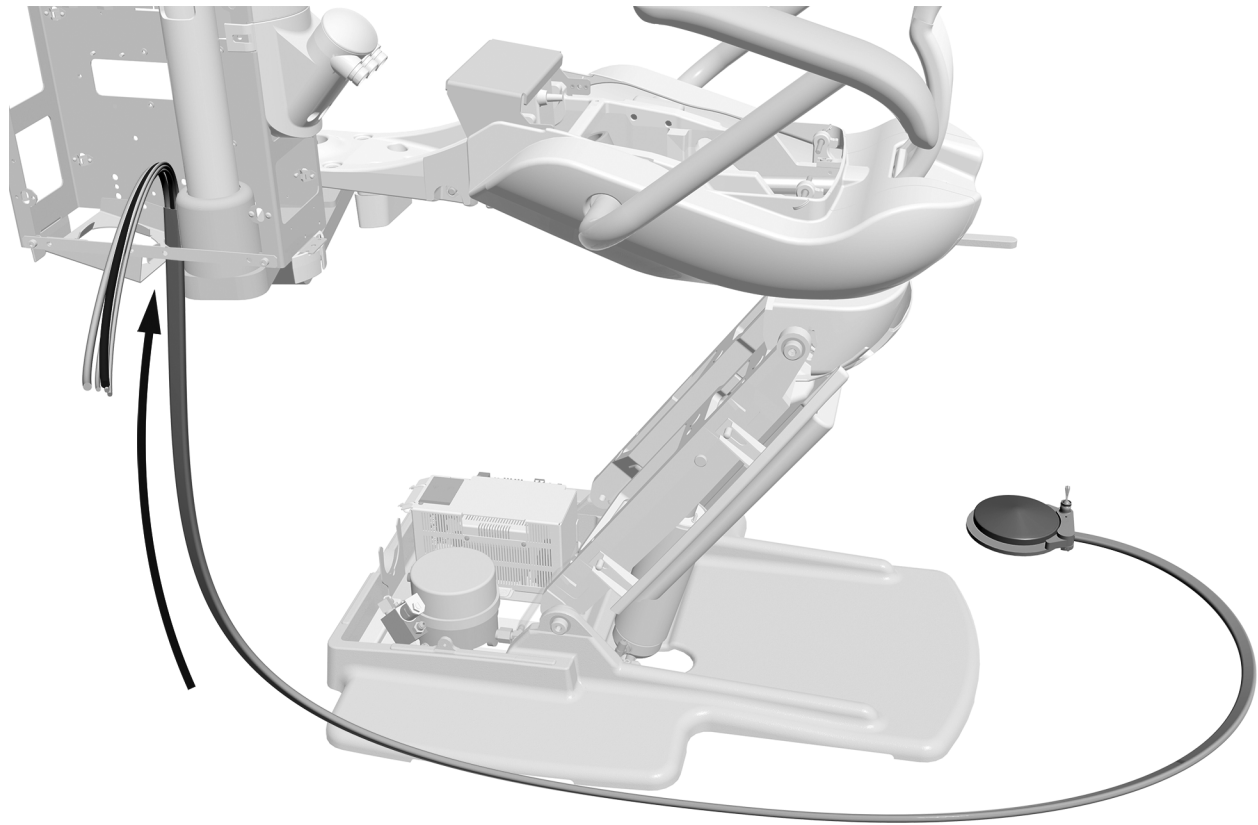
Task 2.

- 1** Route the convolute into the floor box.
- 2** Use a hex key to attach the retaining clip to the floor box and secure the convolute.
- 3** Insert the plugs into the unused holes in the floor box.



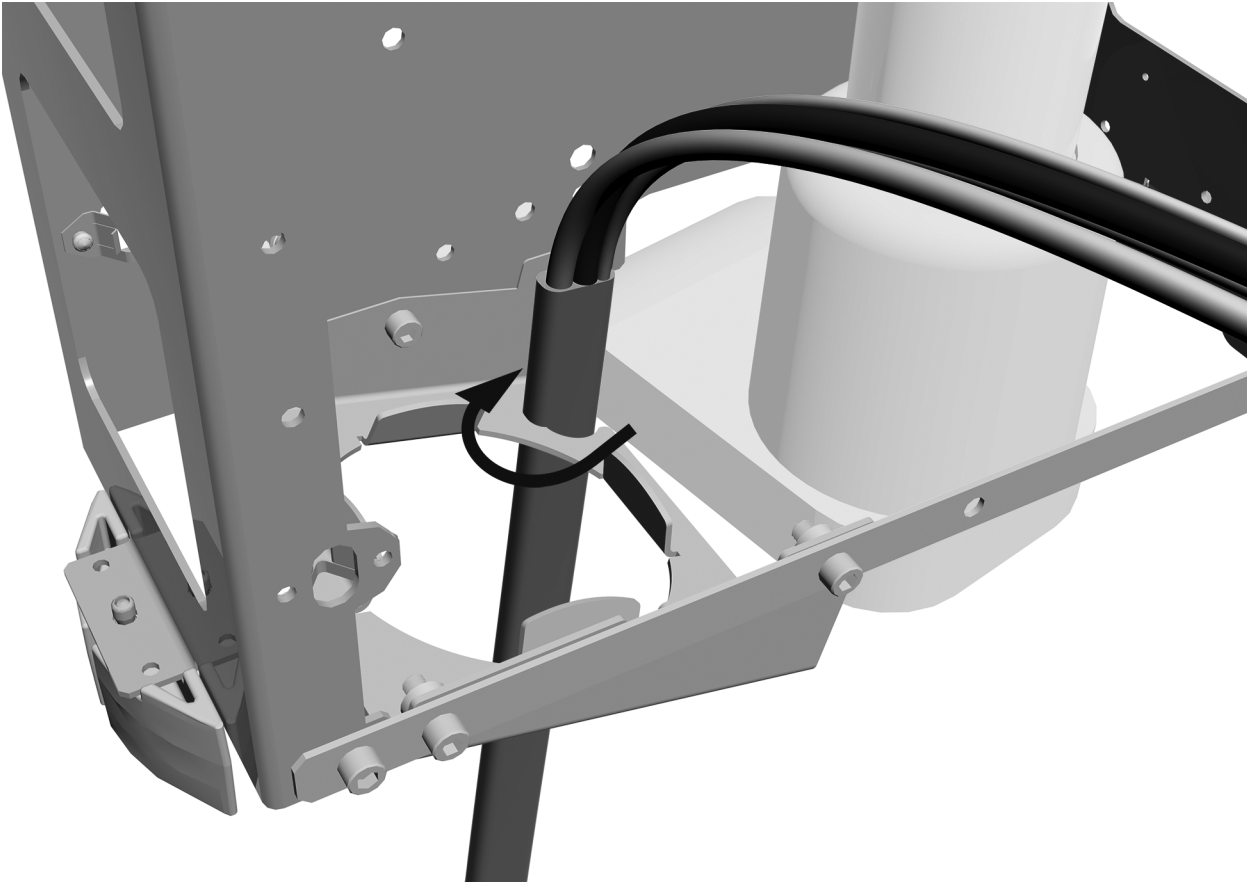
Route the Foot Control Tubing to the Support Center

Task 1.



- 1** Place the foot control in working position and route the tubing to the bottom of the support center.

Task 2.



- 1** With the ribs of the tubing facing the wall of the support center, insert the foot control tubing into the slot in the convolute frame.
- 2** Twist the tubing clockwise to secure it in the slot.

Connect the Support Center Tubing

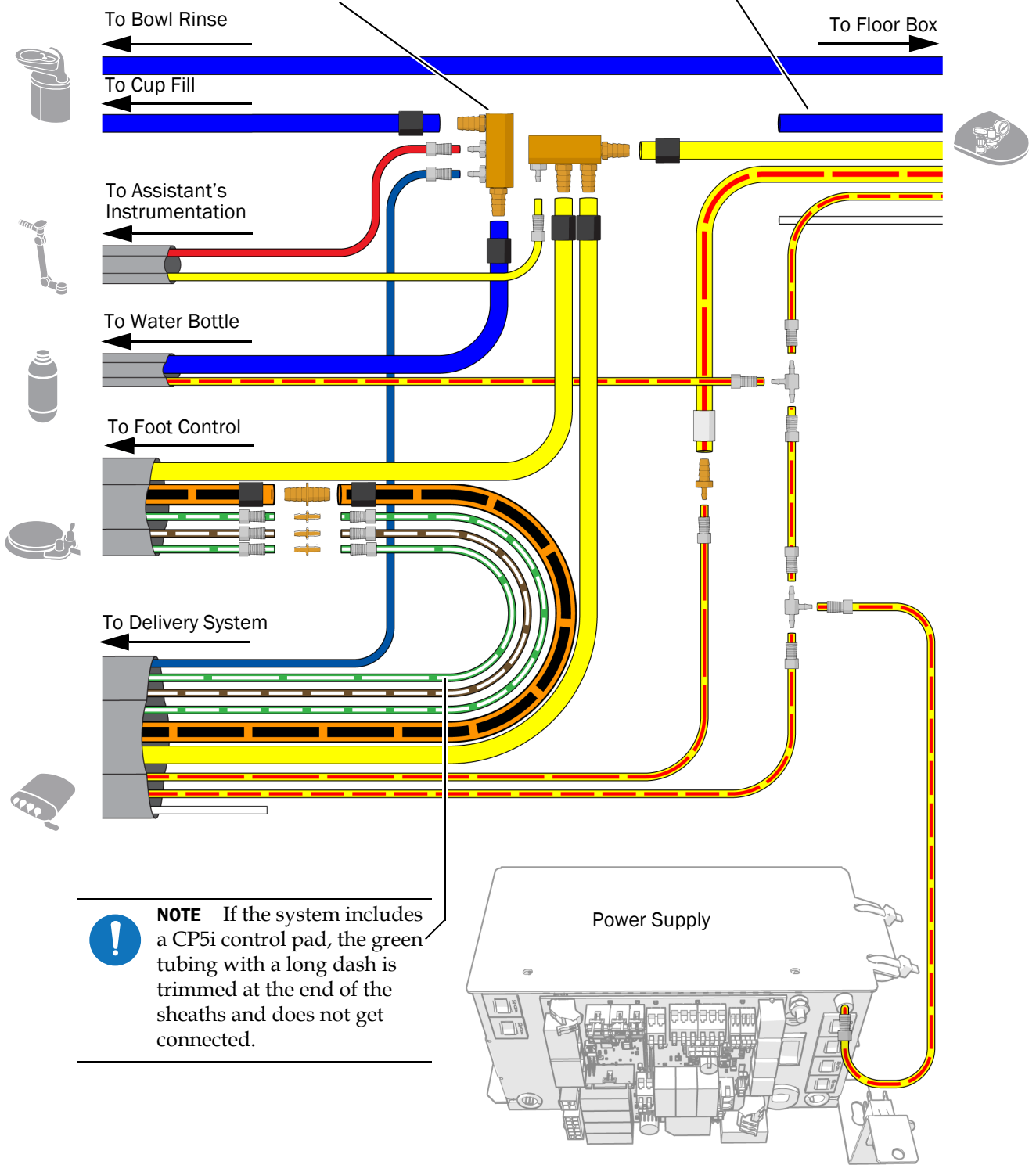
Recommended Tools

- Diagonal cutters
- Sleeve pusher

Connect the tubing according to the flow diagram on the following page.

NOTE When you install the water manifold, connect to the barb on the end to prevent standing water in the manifold.

CAUTION Do not connect this blue tubing.



NOTE If the system includes a CP5i control pad, the green tubing with a long dash is trimmed at the end of the sheaths and does not get connected.

Connect the Electrical 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.



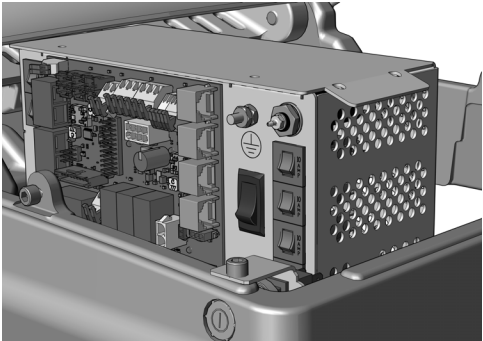
ATTENTION Circuit boards are sensitive to static electricity. Electrostatic Discharge (ESD) precautions are required when touching a circuit board or making connections to or from the circuit board. Circuit boards should be installed only by an electrician or qualified service person.



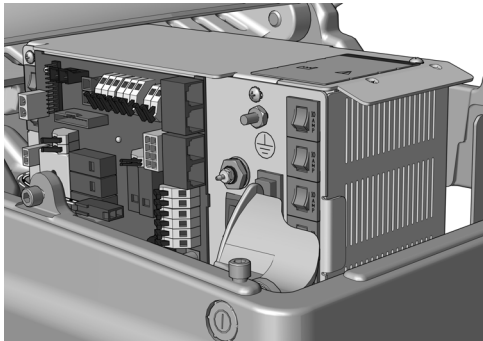
WARNING Failure to turn off or disconnect the power before you begin this procedure can lead to product damage and result in serious injury or death.

- 1. Turn off the power to the system.

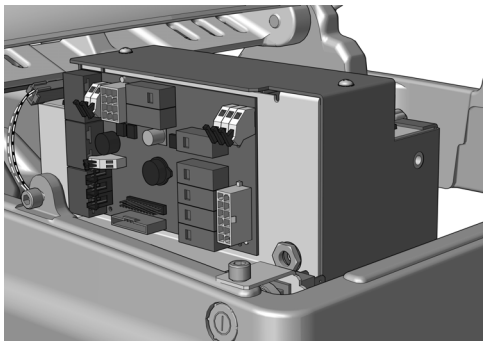
Complete the following section according to which power supply the system includes.



Connect the Wires and Data Line to an A-dec Universal Power Supply Manufactured After June 2023 46



Connect the Wires and Data Line to A-dec 311/411 Power Supplies Manufactured Before June 2023 48



Connect the Wires and Data Line to an A-dec 511 Power Supply Manufactured Before June 2023 51

Connect the Wires and Data Line to an A-dec Universal Power Supply Manufactured After June 2023

A-dec 334pro/335pro Delivery System	46
A-dec 334/335 Delivery System	47

A-dec 334pro/335pro Delivery System

Recommended Tools

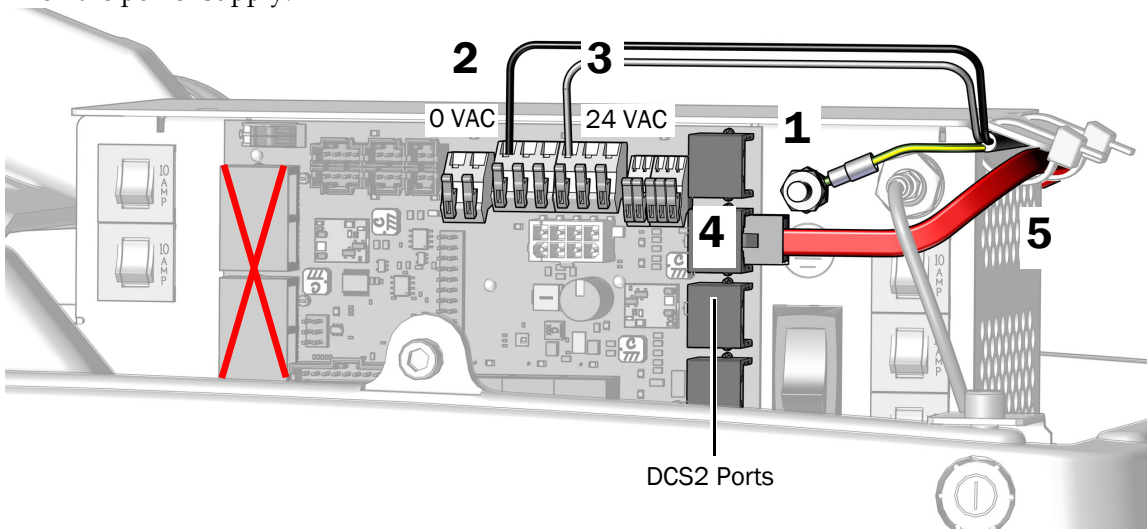
- Diagonal cutters
- 3/8" combination wrench

1. Attach the support center's ground wire.
2. Connect the black wire to the support center 0 VAC.
3. Connect the gray wire to the support center 24 VAC.
4. Plug the red data line into any DCS2 data port.



NOTE Perform the next step only if all chair modules have been installed and all other electrical connections have been made. Otherwise, wait to perform this step until all other electrical connections to the power supply have been completed.

5. Once all of the electrical connections have been made for the system's modules, secure the wires under the lip on the power supply.



Next Step Continue with "Connect the Floor Box Utilities" on page 58.

A-dec 334/335 Delivery System

Recommended Tools

- Diagonal cutters
- 3/8" combination wrench

1. Attach the support center's ground wire.
2. Connect the black wire to the support center 0 VAC.
3. Connect the gray wire to the support center 24 VAC.



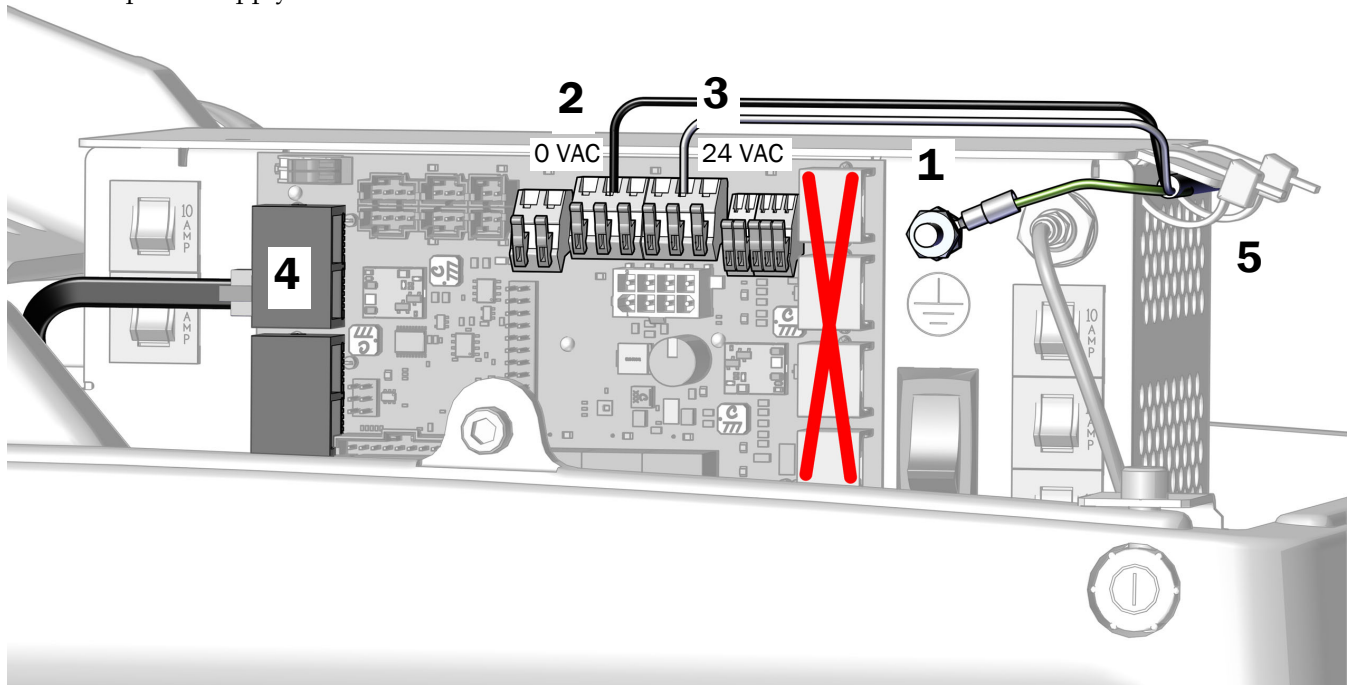
CAUTION Plugging the black DCS1 data line into a DCS2 port can damage the product.

4. Plug the data line into any DCS1 data port.



NOTE Perform the next step only if all chair modules have been installed and all other electrical connections have been made. Otherwise, wait to perform this step until all other electrical connections to the power supply have been completed.

5. Once all of the electrical connections have been made for the system's modules, secure the wires under the lip on the power supply.



Next Step Continue with "Connect the Floor Box Utilities" on page 58.

Connect the Wires and Data Line to A-dec 311/411 Power Supplies Manufactured Before June 2023

A-dec 334pro/335pro Delivery System	48
A-dec 334/335 Delivery System	50

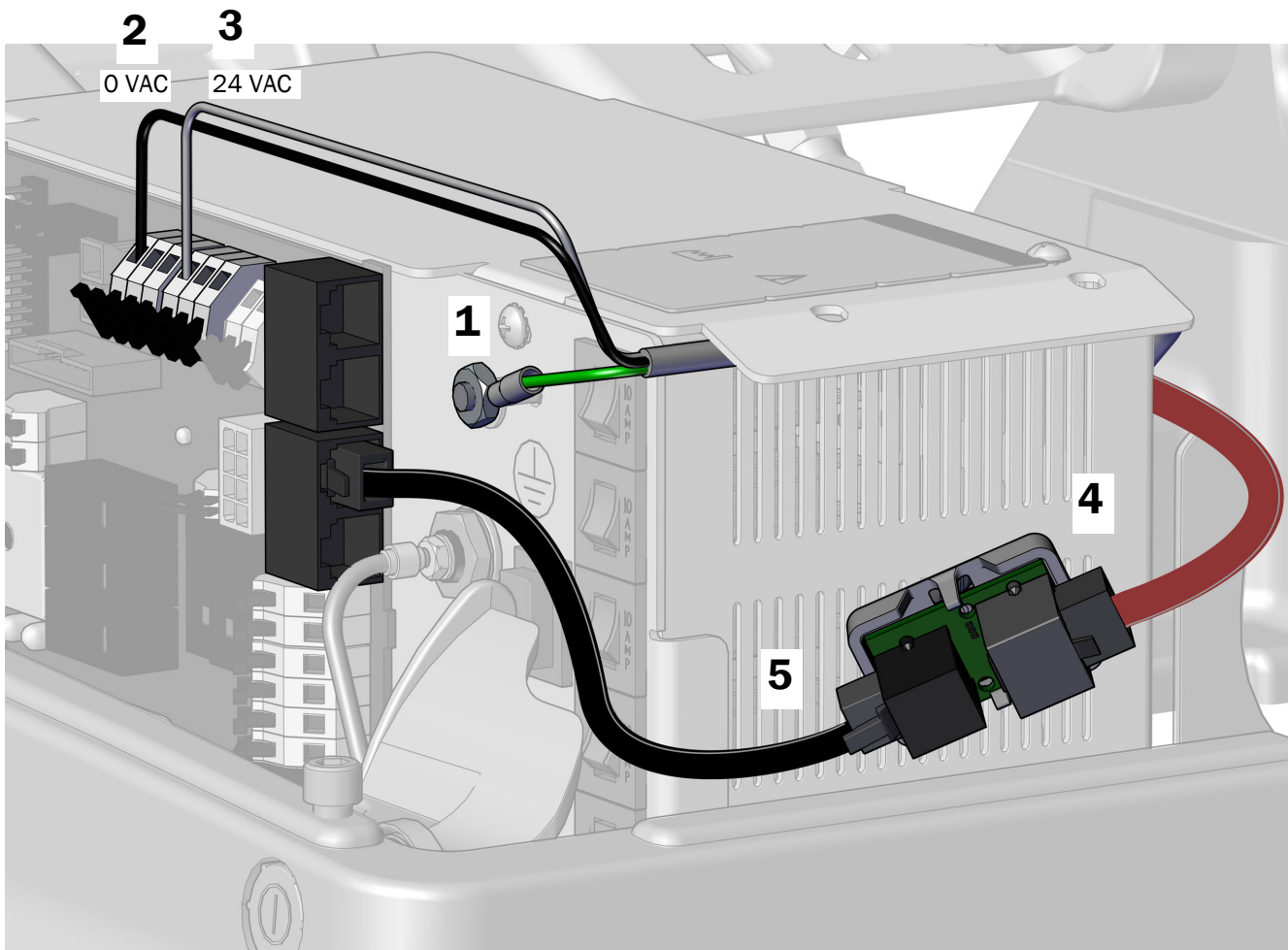
Recommended Tools

- Diagonal cutters
- 3/8" combination wrench

A-dec 334pro/335pro Delivery System

Task 1.

1. Attach the ground wire to the post on the power supply.
2. Connect the black wire to 0 VAC.
3. Connect the gray wire to 24 VAC.
4. With the gray port on the translator board positioned to the back of the power supply, connect the red DCS2 data line to the gray port.
5. Connect the black DCS1 data line from the translator board's black port to any data port on the power supply.



Task 2.

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



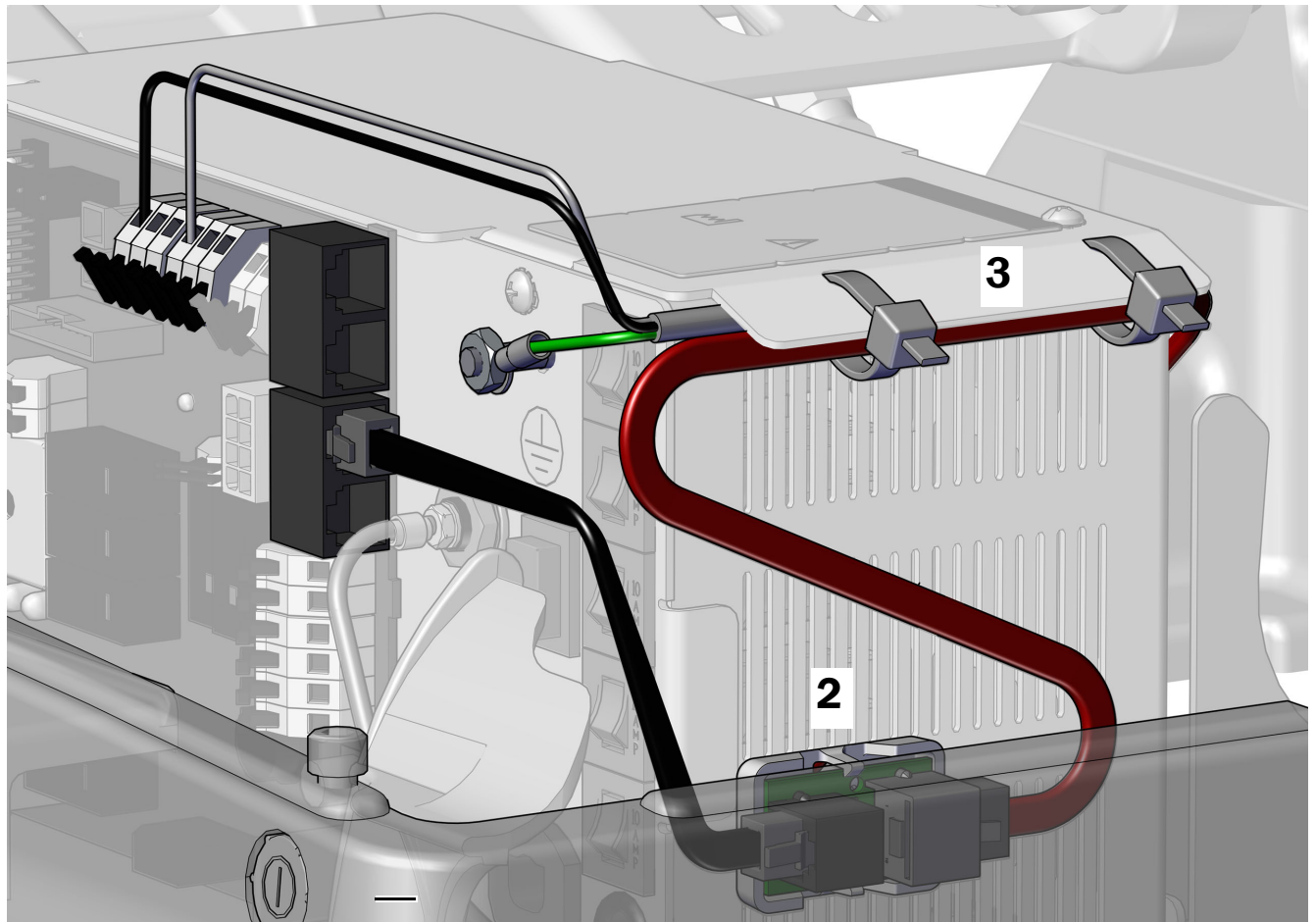
CAUTION The translator board must be attached in this position to prevent damage or interference with other equipment.

2. Attach the translator 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 an adaptor board for an LED light attached to the power supply, stack the translator board below it.

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



Next Step Continue with “Connect the Floor Box Utilities” on page 58.

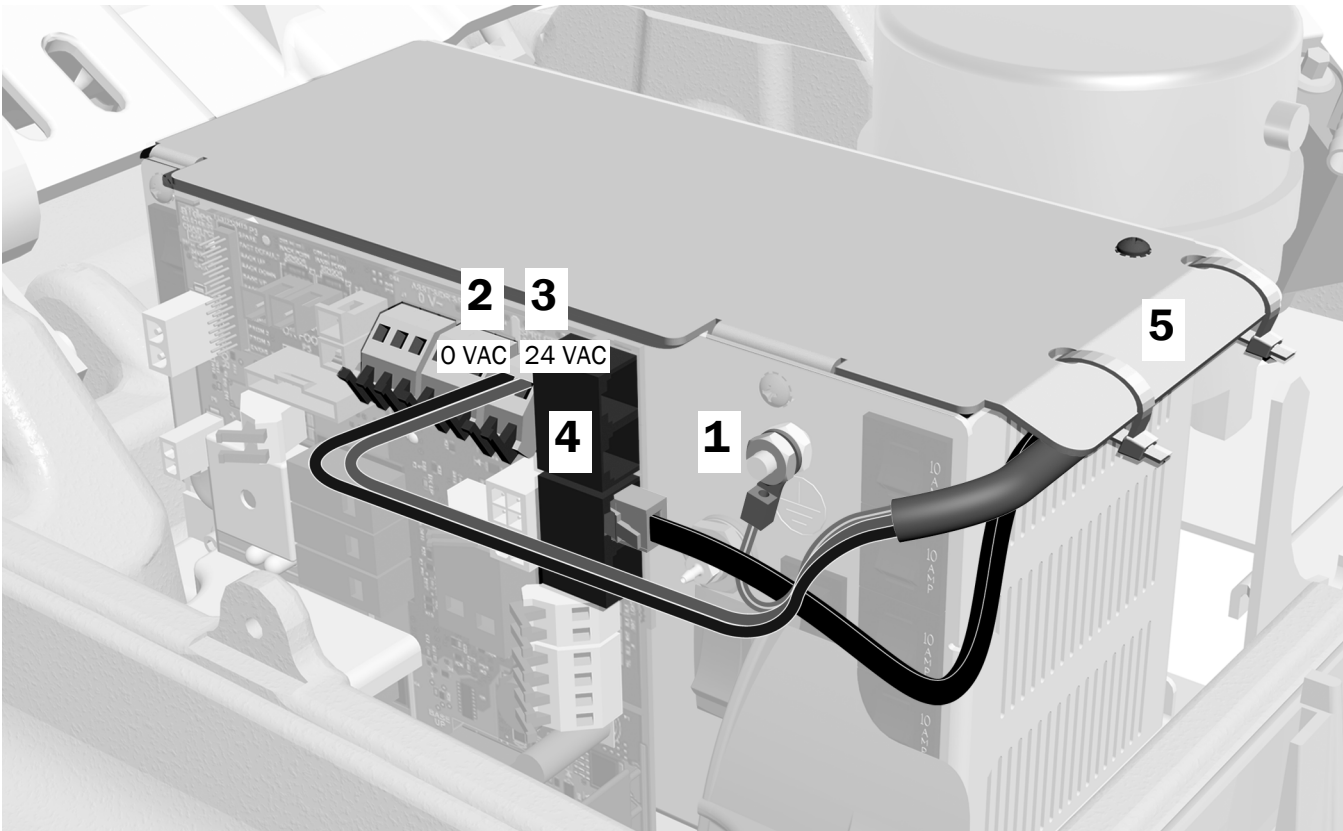
A-dec 334/335 Delivery System

1. Attach the support center's ground wire.
2. Connect the black wire to the support center (SPRT CTR) 0 VAC connection on the chair circuit board.
3. Connect the gray wire to the support center (SPRT CTR) 24 VAC connection on the chair circuit board.
4. Plug the data line into any DCS1 data port.



NOTE Perform the next step only if all chair modules have been installed and all other electrical connections have been made. Otherwise, wait to perform this step until all other electrical connections to the power supply have been completed.

5. Once all of the electrical connections have been made for the system's modules, secure the wires under the lip on the power supply.



Next Step Continue with “Connect the Floor Box Utilities” on page 58.

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

Complete the instructions for the system's configuration.

A-dec 334pro/335pro Delivery System 51
A-dec 334/335 Delivery System 53

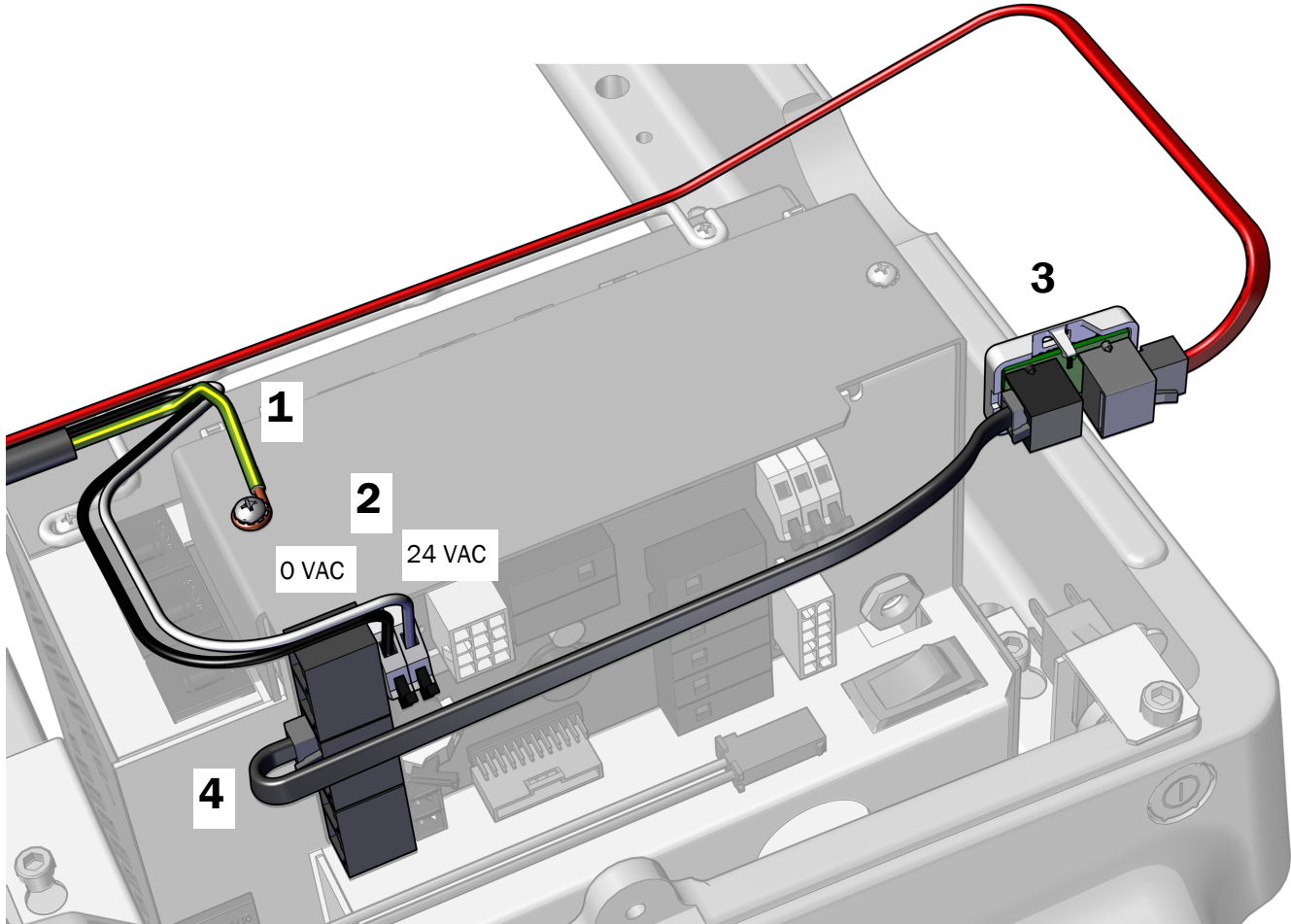
A-dec 334pro/335pro Delivery System

Recommended Tools

- Phillips head screwdriver
- Diagonal cutters

Task 1.

1. Use a Phillips head screwdriver to connect the ground wire to the top of the power supply.
2. Connect the black wire to 0 VAC, and gray wire to 24 VAC of the chair board's terminal strip.
3. Position the translator board with the gray DCS2 port toward the toe of the chair and connect the red DCS2 data line to the gray port.
4. Connect the black DCS1 data line from the black port on the translator board to the port on the power supply.



Task 2.



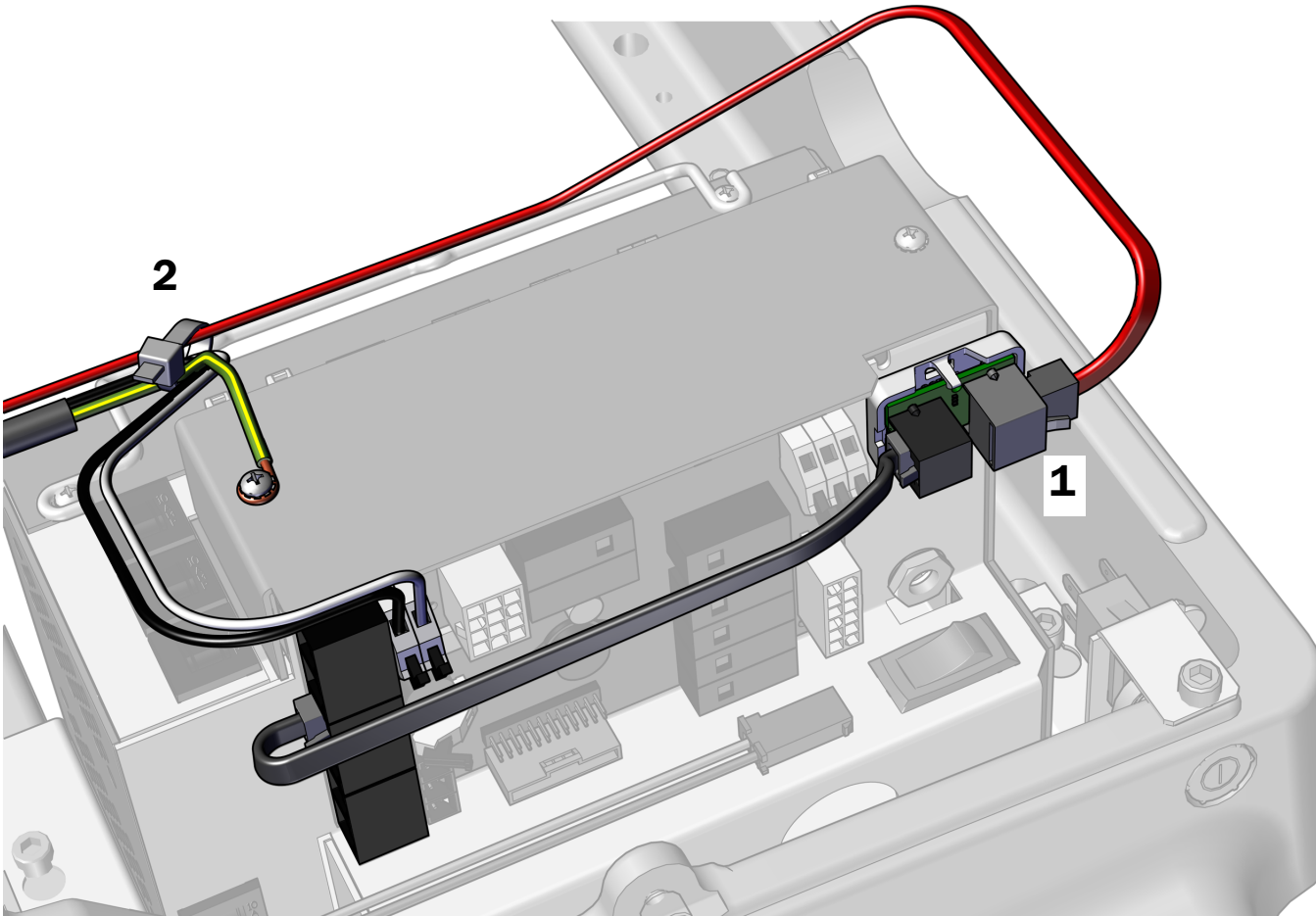
CAUTION Do not attach the translator board to the top of the power supply chassis. The pump cover will not fit.

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



NOTE If there is already an adaptor board for an LED light attached to the power supply, stack the translator board below it.

2. Secure the wiring to the bail with cable ties.



Next Step See "Connect the Floor Box Utilities" on page 58.

A-dec 334/335 Delivery System

Recommended Tools

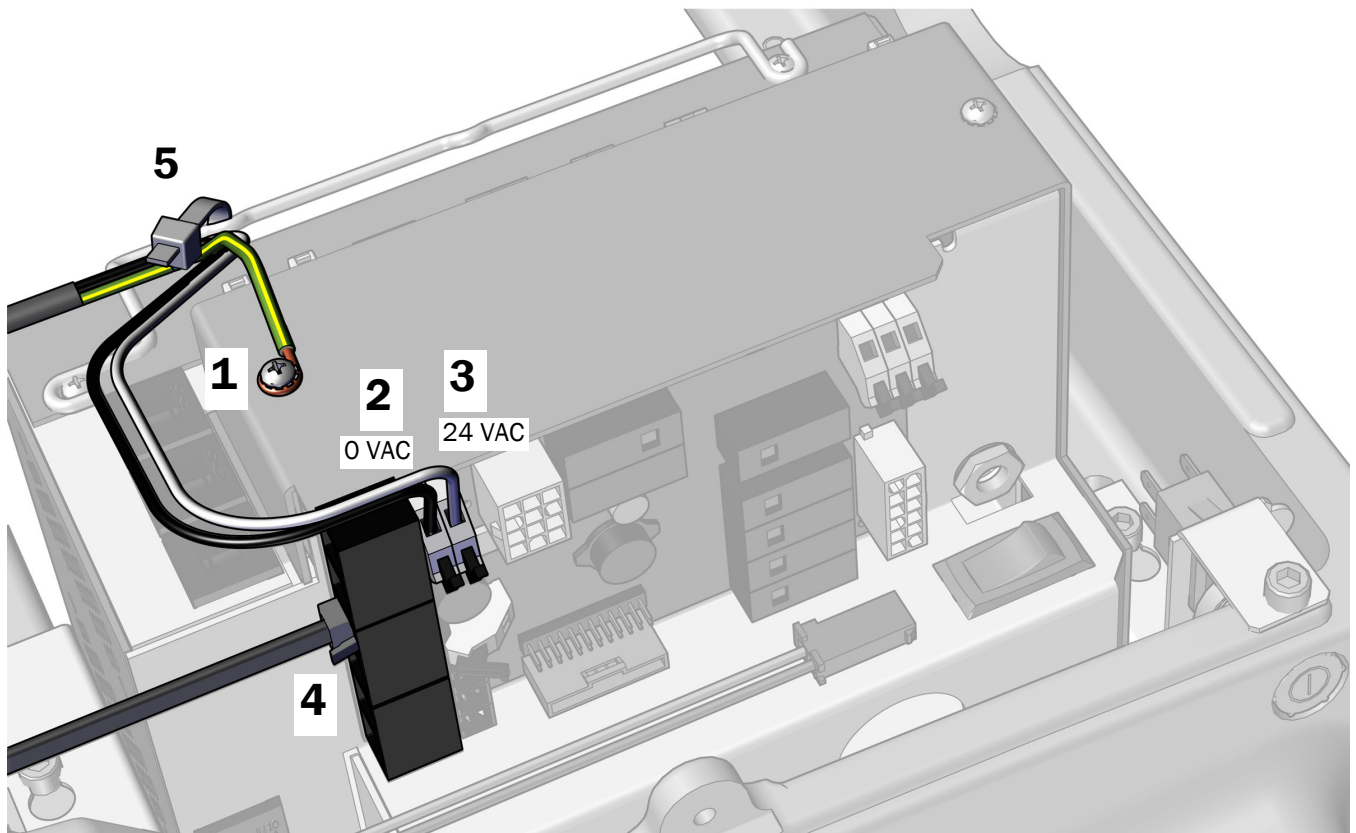
- Phillips head screwdriver
- Diagonal cutters

1. Attach the delivery system's ground wire.
2. Connect the black wire from the delivery system cable to the 0 VAC connector.
3. Connect the gray wire from the delivery system cable to the 24 VAC connector.



NOTE If needed, you can connect more than one wire to a single terminal.

4. Plug the data line into any data port.
5. After all of the electrical connections have been made for the system's modules, secure the wires to the bail on the power supply.



Next Step Continue with "Connect the Floor Box Utilities" on page 58.

Connect the Wires and Data Line to Cascade, Decade, Performer, Priority Dental Chair or Other Manufacturer's Chair

Recommended Tools

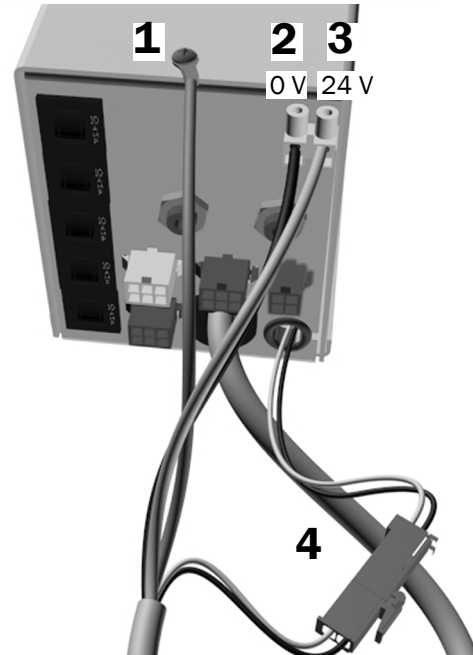
- Phillips head screwdriver
- Diagonal cutters
- Wire strippers

Task 1.



NOTE Be sure to use an A-dec 100, 110-120, or 220-240 VAC ISLN power supply.

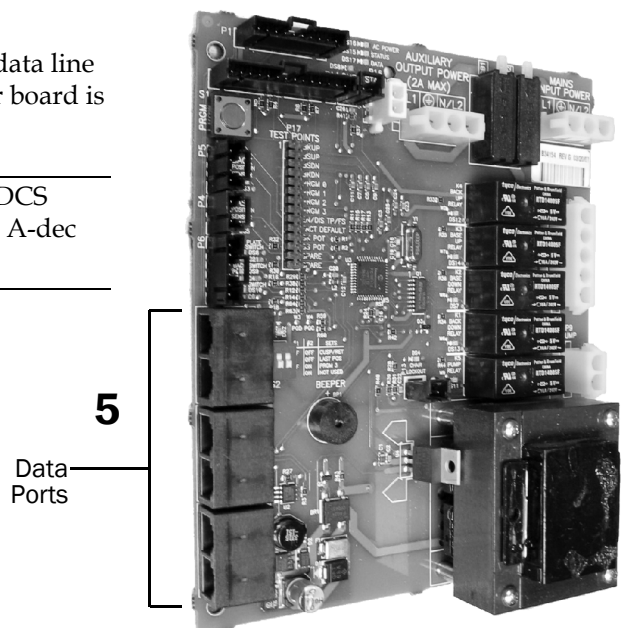
1. Use a Phillips head screwdriver to connect the ground wire to the screw on top of the power supply. If the system includes a light, also secure the dental light relay circuit board with this screw.
2. Connect the black wire to the support center 0 V connection on the chair circuit board.
3. Connect the gray wire to the support center 24 V connection on the chair circuit board.
4. Connect the two-position black connector to the two-position black 24 VAC isolated lead on the power supply.



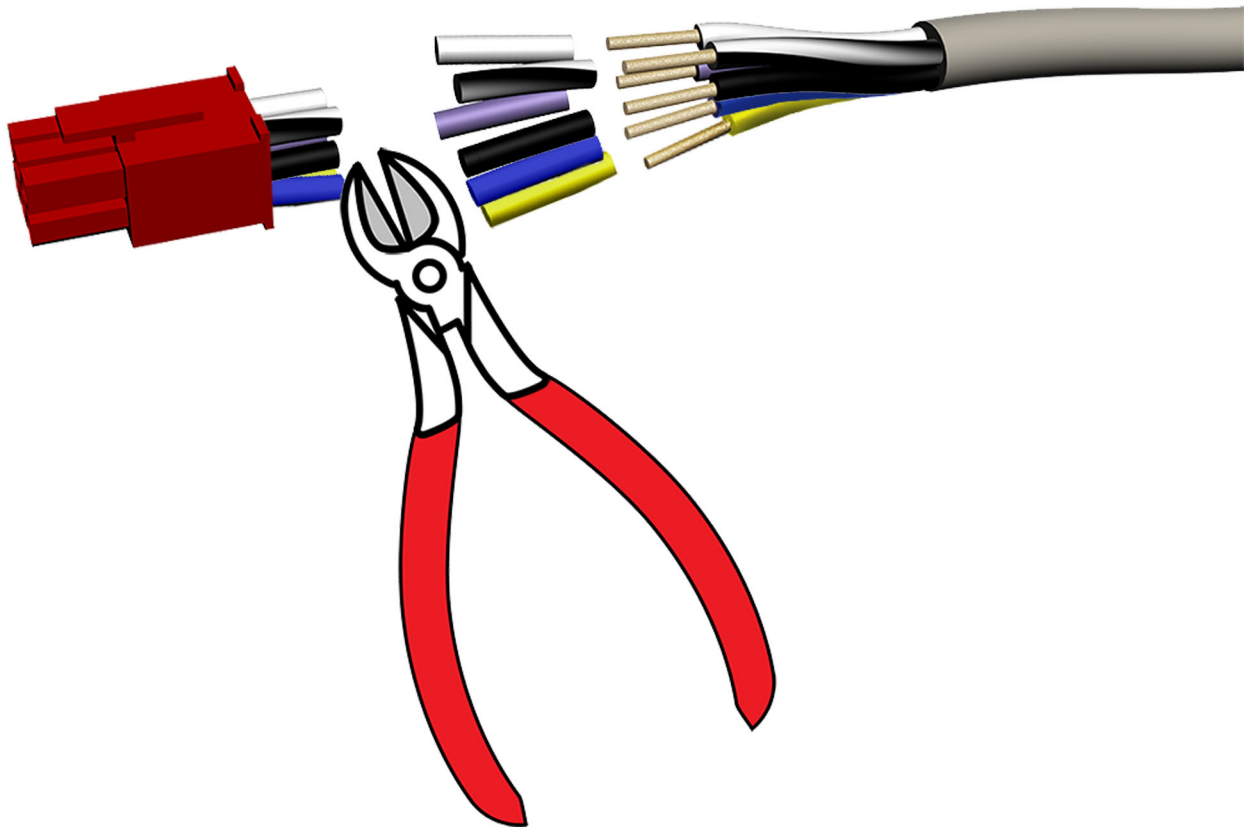
5. If the system supports DCS functionality, plug the data line into a data port on the chair circuit board. The chair board is located under the chair.



NOTE A-dec systems that do not support DCS functionality may be upgradeable. Contact A-dec Customer Service for information.



Chair Circuit Board with Data Ports

Task 2.

- 1** Cut off the red connector.



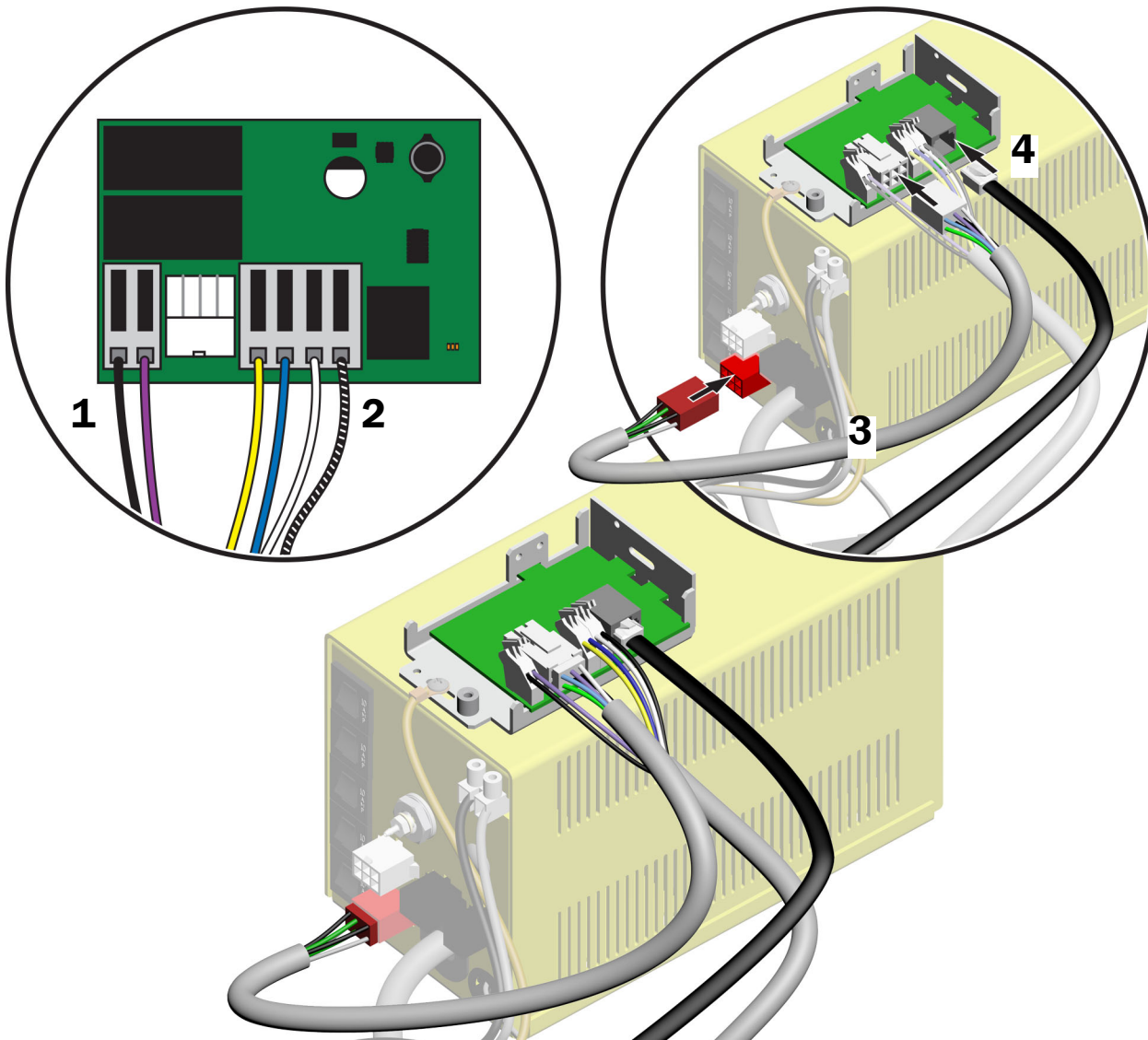
NOTE If the cable is too long, trim it to the correct length.



CAUTION To prevent damaging stranded core conductors by the unintended removal of outer strands, use wire strippers that are properly sized for stranded core conductors.

- 2** Strip back the wires 3/8" (10 mm). The stranded wires are 16 AWG (1.31 mm²).

Task 3.

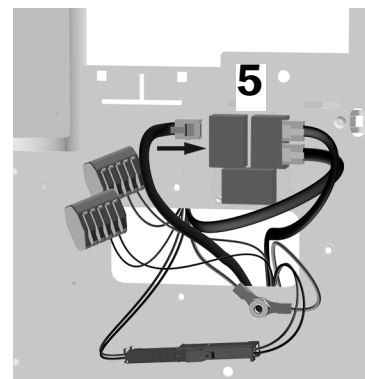


1. Connect the black and violet wires to terminal strip J5.
2. Connect the yellow, blue, white, and black/white wires to terminal strip J6.
3. Connect the dental light cable from the kit.
4. Connect the data line to the relay board.



NOTE This data line should have been routed with the rest of the tubing and wires through the convolute. See "Route to the Remote Floor Box" on page 39.

5. In the support center, connect the other end of the data line to a data port.

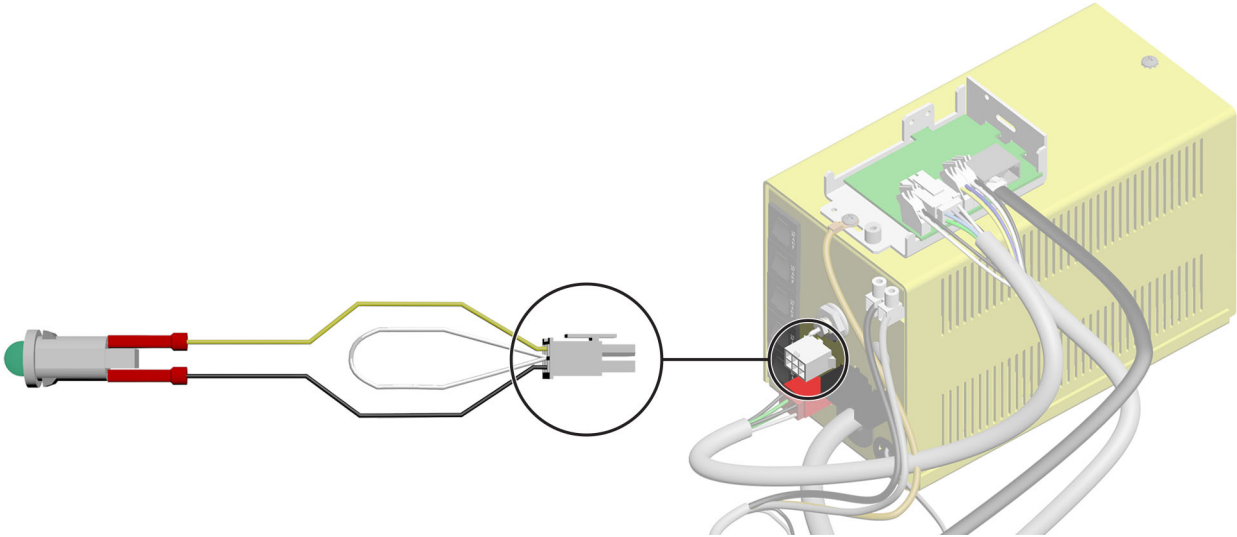


Task 4.



1 Connect the black and yellow wires to the LED indicator light.

Task 5.



1 Connect the indicator light cable to the power supply.

Connect the Floor Box Utilities

Complete the connections for the system's configuration.

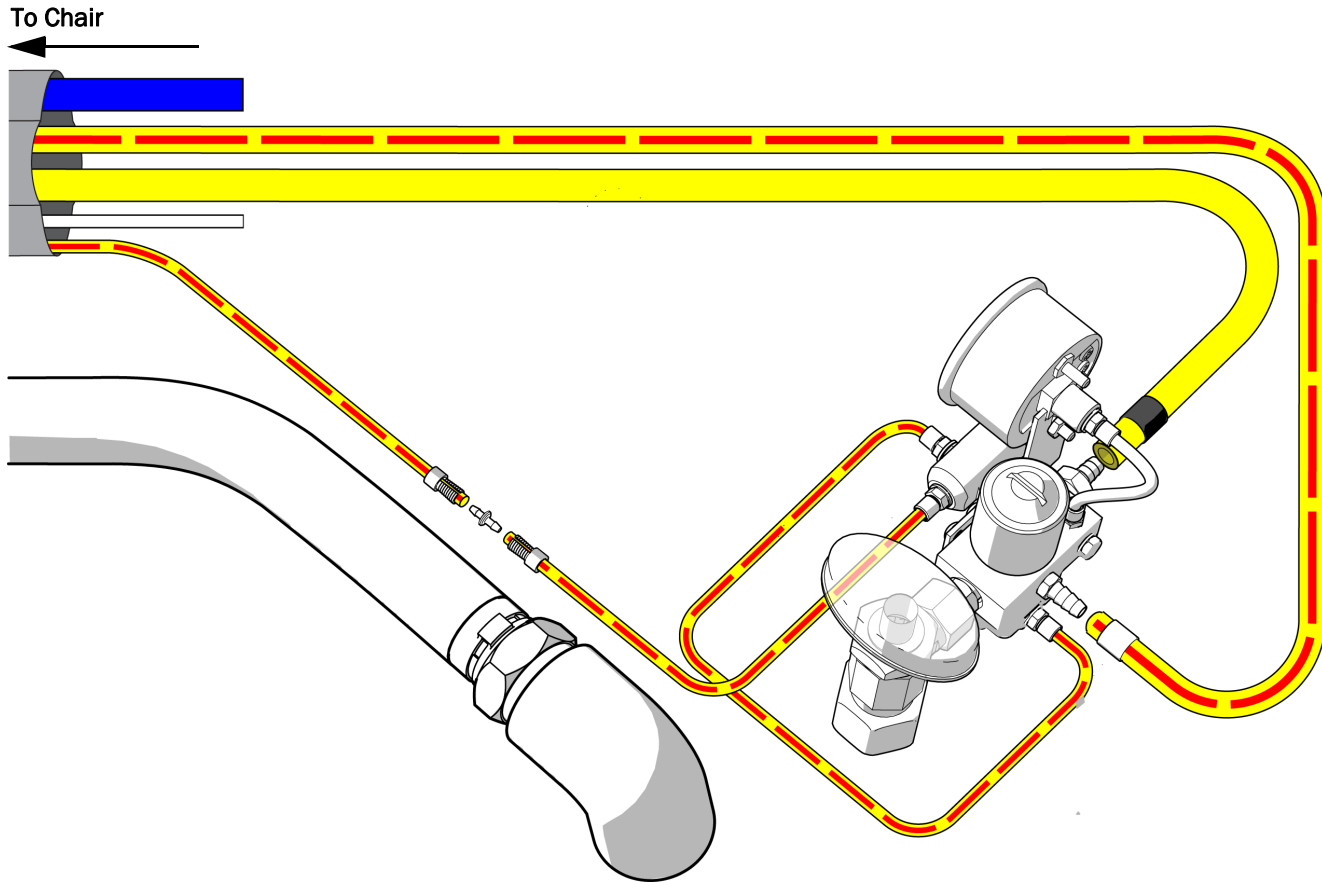
Connect a Delivery System Only	58
Connect a System with Multiple Modules	59

Connect a Delivery System Only

Use this diagram if the system does not include any other modules except a delivery system.

Recommended Tools

- Diagonal cutters
- Sleeve pusher

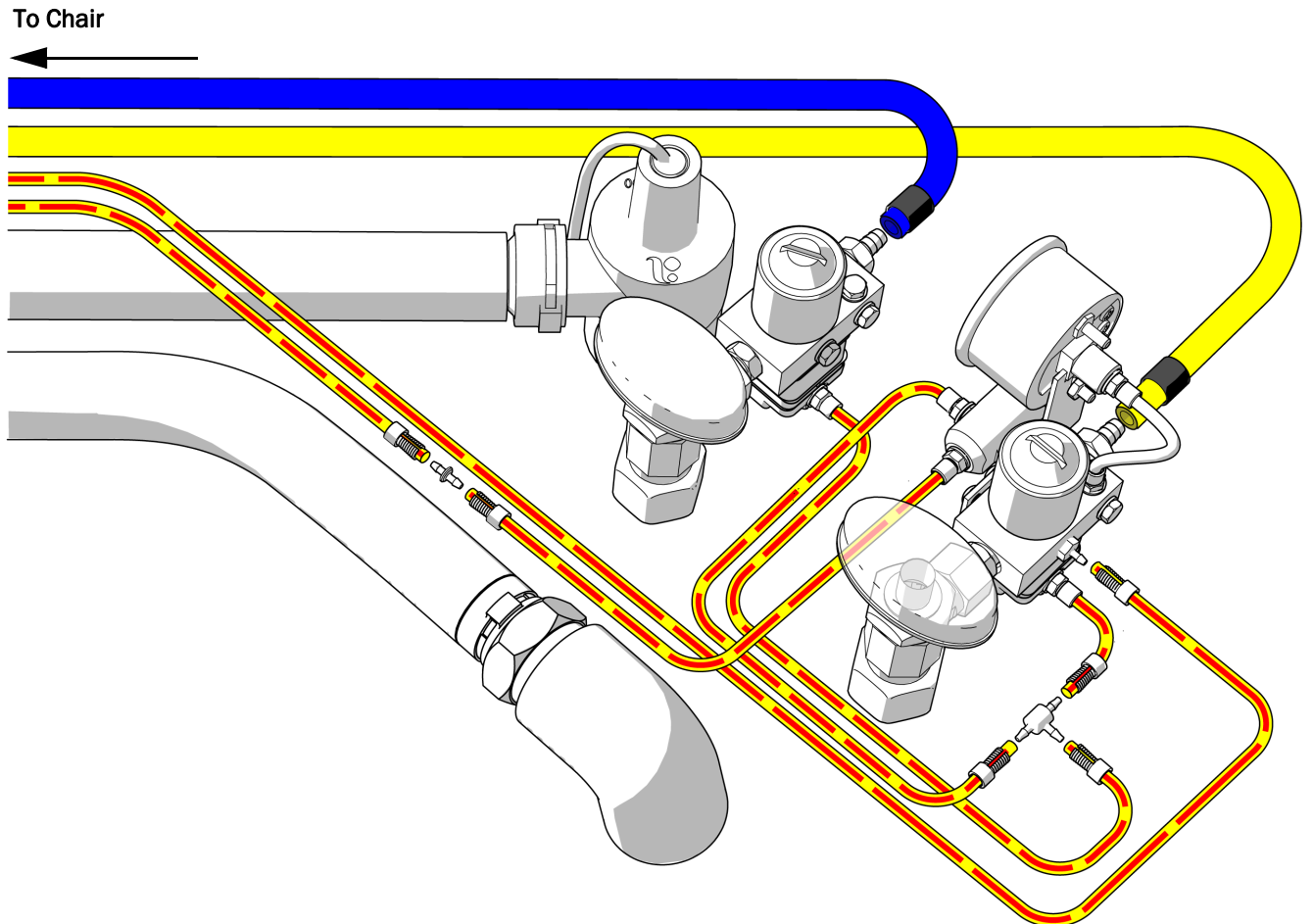


Connect a System with Multiple Modules

Use this diagram if the system includes any modules in addition to a delivery system.

Recommended Tools

- Diagonal cutters
- Sleeve pusher



Install the Moisture Separator (Optional)

To install the moisture separator, follow the directions included in the moisture separator kit.

Prepare the System

Install the Water Bottle

Task 1.



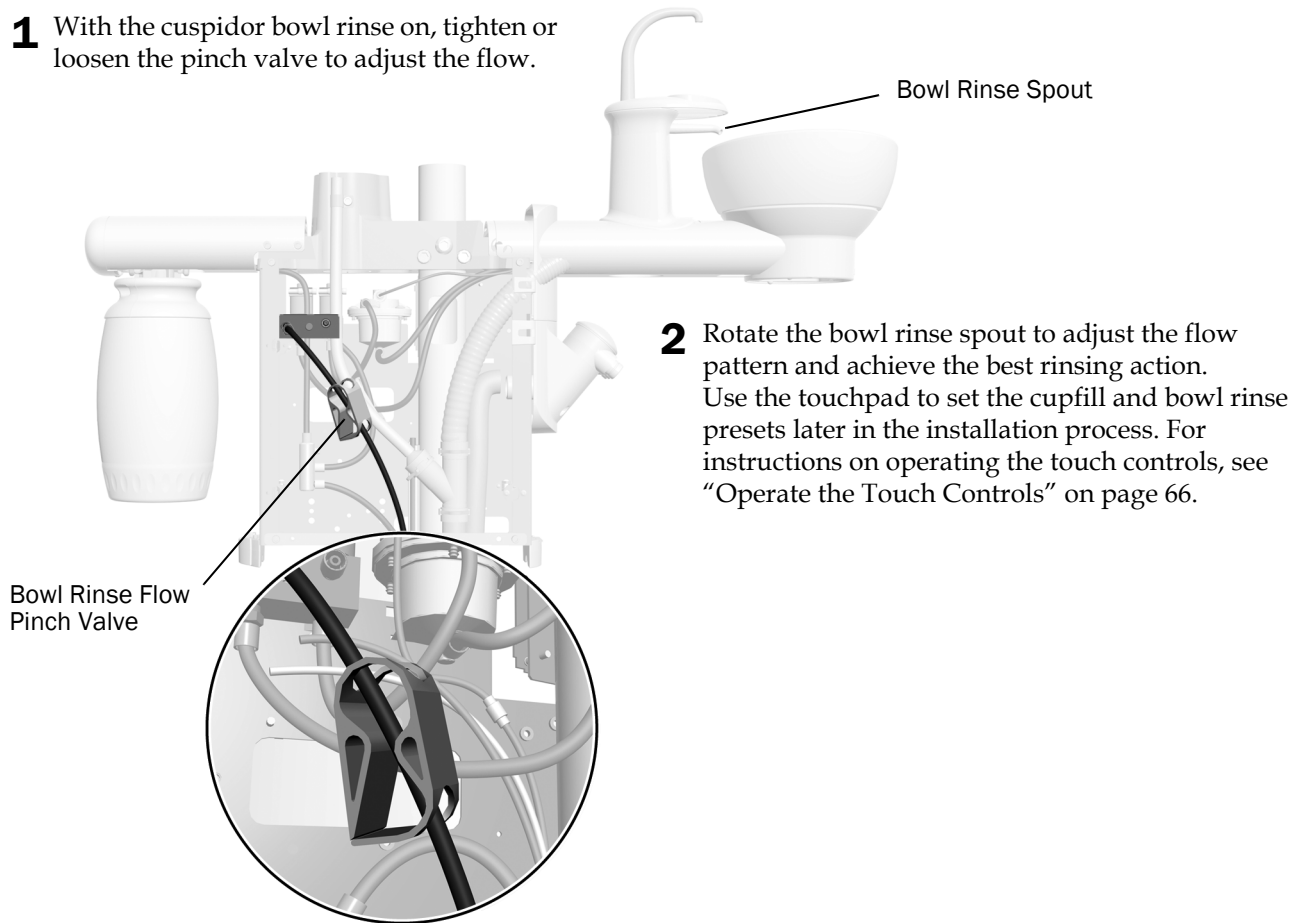
IMPORTANT A-dec recommends that the dental team perform a shock treatment on the dental unit waterlines before they use the system for the first time, and establish an ongoing waterline maintenance program. For more information, see the *Waterline Maintenance Guide* (p/n 85.0983.00) and *A-dec Self-Contained Water System Instructions For Use* (p/n 86.0609.00).



- 1** Apply A-dec silicone lubricant on the receptacle O-ring.
- 2** Push the water bottle up onto the water bottle receptacle and turn it to the right.

Adjust the Cuspidor Bowl Rinse Flow Settings

- 1 With the cuspidor bowl rinse on, tighten or loosen the pinch valve to adjust the flow.



- 2 Rotate the bowl rinse spout to adjust the flow pattern and achieve the best rinsing action. Use the touchpad to set the cupfill and bowl rinse presets later in the installation process. For instructions on operating the touch controls, see "Operate the Touch Controls" on page 66.

Adjust the System

For instructions about adjusting the system's modules, see the installation guides that ship with the equipment.

Level the System

Complete the following sections to level the system. A level system prevents the modules from drifting and instruments from rolling around the tray.



NOTE To successfully level the system, it is important to complete the following sections in the order that they are listed.

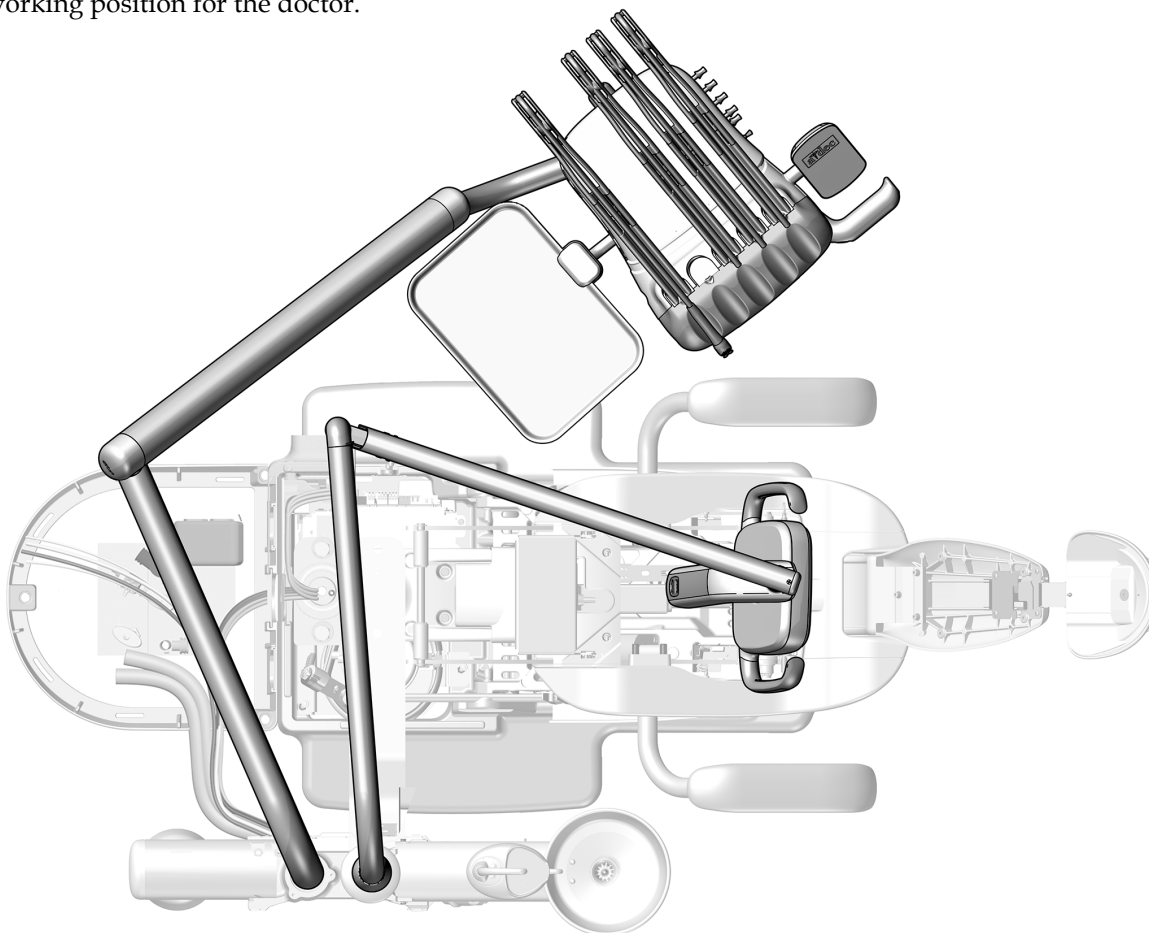
Level the Support Center

Recommended Tools

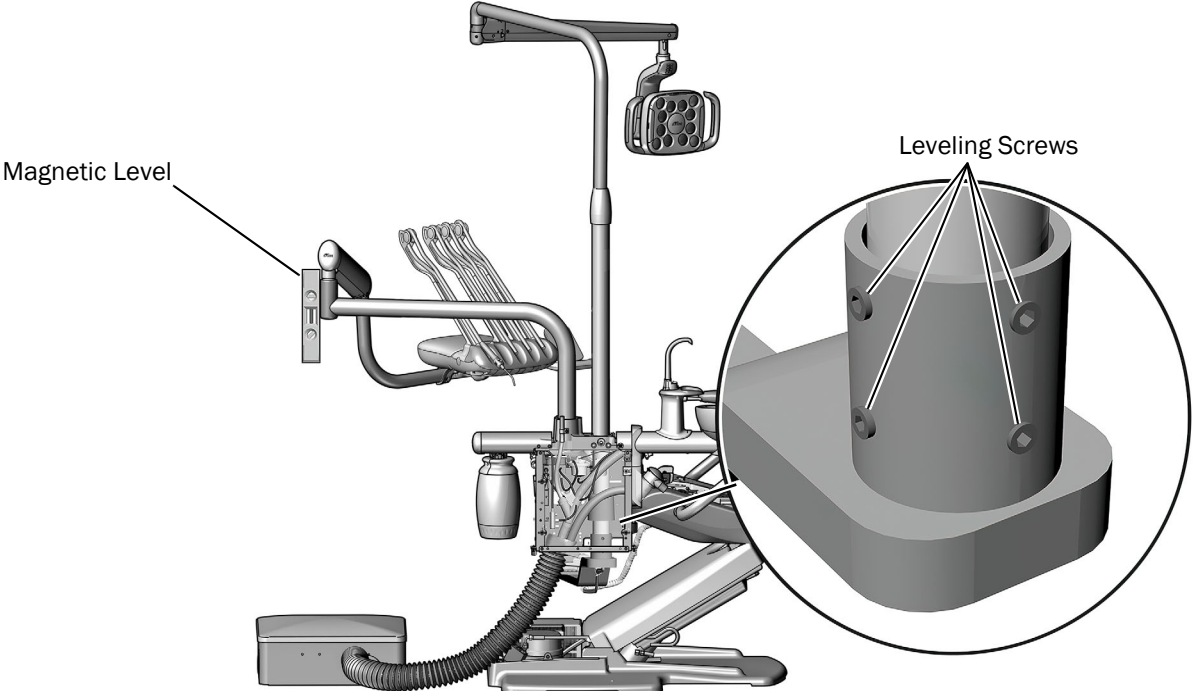
- Magnetic level
- 3/16" hex key

Task 1.


- 1** Move the chair, control head, and dental light into the normal working position for the doctor.



Task 2.

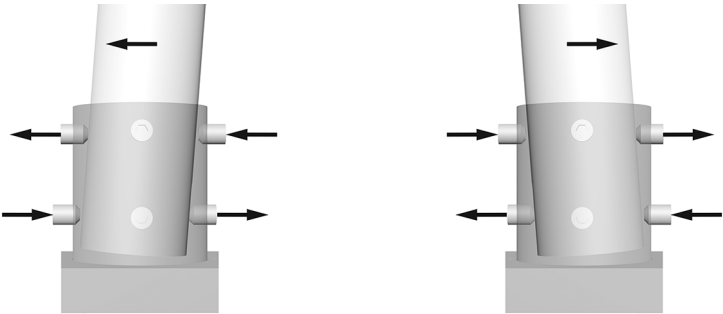


- 1** Place a magnetic level vertically on the knuckle of the delivery system’s rigid arm. Align the level by adjusting the leveling screws in the mount at the base of the post

 **TIP** If needed, use a piece of tape to hold the level in place.

Task 3.

- 1** To change the tilt of the post, adjust the leveling screws on the top and bottom of the mount in opposite directions. Which screws you tighten or loosen depends on the direction of the tilt you are trying to correct. Tighten and loosen leveling screws in pairs



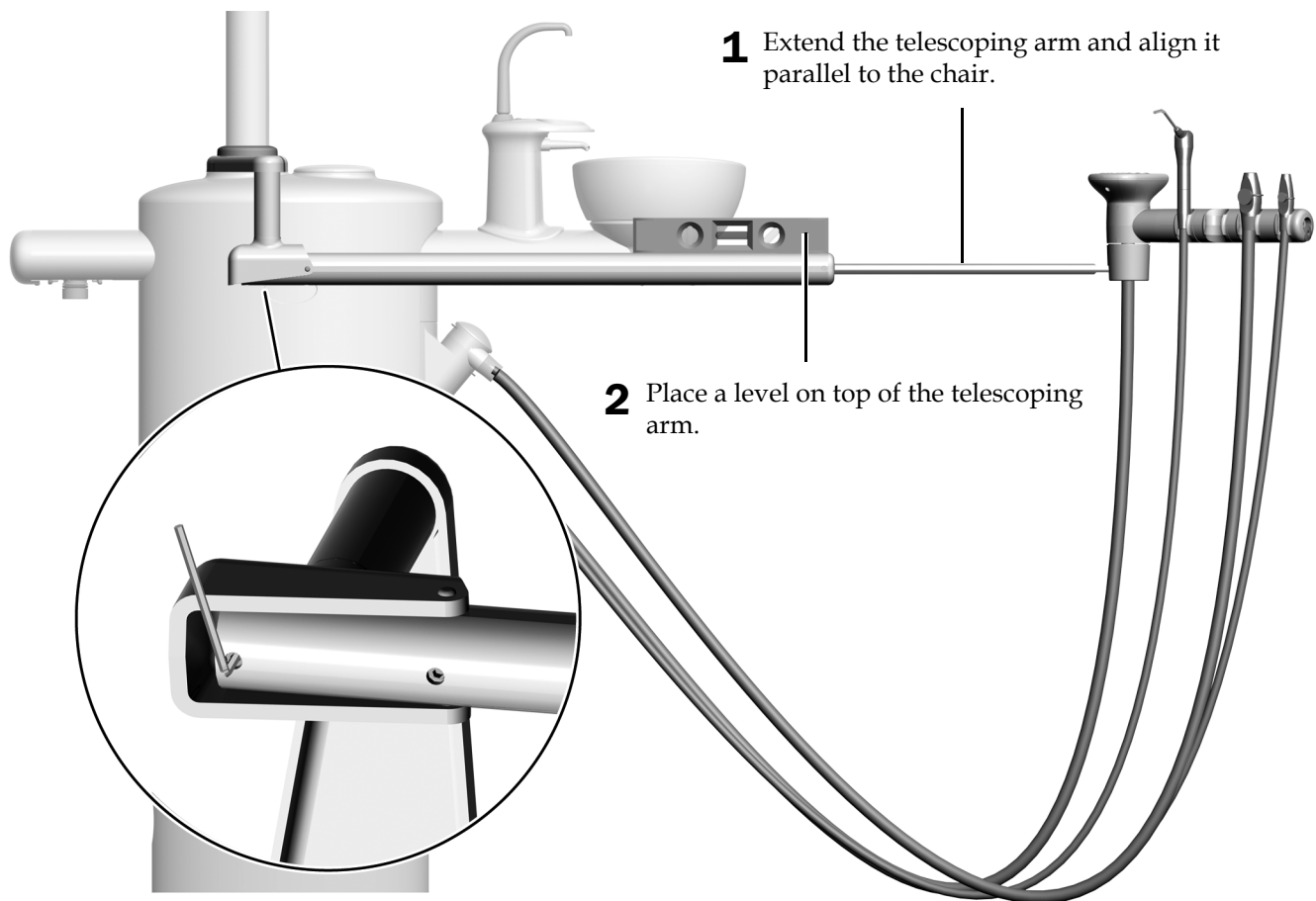
- 2** Adjust all eight leveling screws around the mount until the post is plumb and there is no drift of the delivery system.

Level the Assistant's Instrumentation Telescoping Arm

Recommended Tool

- 1/8" hex key

Task 1.



- 3 Use a hex key to level the arm.

Level the Delivery System

Recommended Tools

- 5/32" hex key
- Level

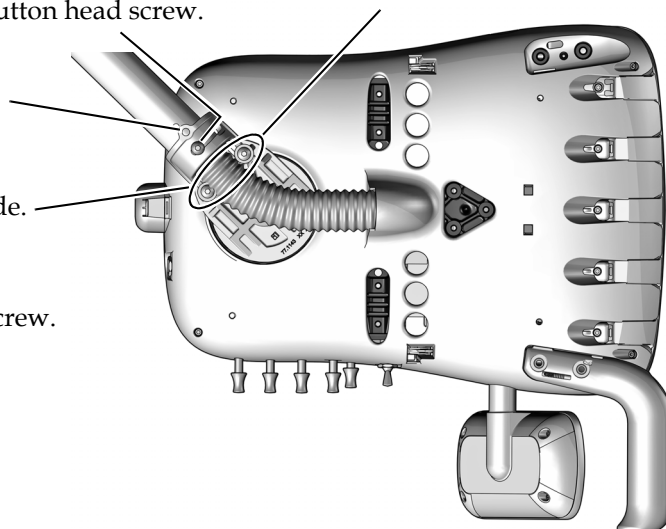
Task 1.



- 1** With the control head in the normal working position, turn it so it faces straight out from the flexarm.
- 2** Place a level on the tray holder or on top of the control head.

Task 2.

- 1** Slightly loosen the leveling screws.
- 2** Slightly loosen the button head screw.
- 3** Adjust to level front to back.
- 4** Adjust to level side to side.
- 5** Tighten the button head screw.



Operate the Touch Controls

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

Operate the Cuspidor with a CP5i/CP5 Control Pad	66
Operate the Cuspidor with an A-dec 300 Deluxe/Standard Touchpad	67
Operate Installed Modules	68



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

Operate the Cuspidor with a CP5i/CP5 Control Pad



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.



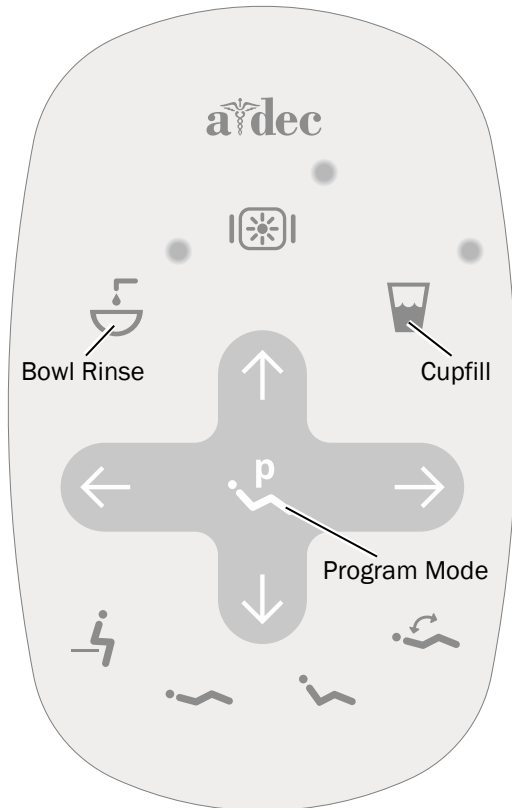
For configuring connectivity features, see the *A-dec+™ Software Platform Instructions for Use* (p/n 86.1030.00) at a-dec.com/connectivity-manual.



Operate the Cuspidor with an A-dec 300 Deluxe/Standard Touchpad







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



Standard Touchpad Shown

Turn On/Turn Off Cupfill and Bowl Rinse




Use the touchpad icons or the cuspidor buttons to control cupfill and bowl rinse functions.

Icon/Function	Actions/Options
Cupfill Touchpad  Cuspidor 	Controls water flow from the cuspidor into a cup. <ul style="list-style-type: none"> Press once for a timed operation. The factory preset is a 2.5 second fill. Press and hold for manual operation.
Bowl Rinse Touchpad  Cuspidor 	Provides rinse water for the cuspidor bowl. <ul style="list-style-type: none"> Press for a timed operation. The factory preset is a 30 second rinse. Press twice for continuous flow, then press once to stop the flow. Press and hold for manual operation. Release to stop the flow.





Customize Cupfill and Bowl Rinse Timing

Cupfill and bowl rinse timing can be set at the touchpad or the cuspidor.

Customize Timing From the Touchpad

- Press and hold  on the touchpad. Release when you hear one beep.
- Within five seconds, press and hold  or  for the desired amount of time.
- Three beeps indicate the new setting is saved.

Customize Timing From the Cuspidor

- Press and hold  and  under the cupfill spout. Release when you hear one beep.
- Within five seconds, press and hold  or  for the desired amount of time.
- Three beeps indicate the new setting is saved.

Operate Installed Modules

For touch control settings for the system's modules, see the installation guides that ship with the equipment.

Test the System

After you have completed the installation of the support center and modules, use the following checklist to test the system.

Utilities

- Regulated air pressure is at 80 psi.
- Floor box is free of air and water leaks.
- Tubing and connections are not kinked and are free of air and water leaks.
- Excess tubing and wires are coiled and stored away from moving parts.

Assistant's Instrumentation, Cuspidor, and Cupfill

- Vacuum/suction is set to the following specifications:
 - **Wet vacuum** - 10 ± 2 inches of Hg (34 ± 7 KPa), 9 SCFM (255 sl/min) minimum
 - **Dry/semi-dry vacuum** - 4.5 ± 1 inches of Hg (16 ± 3.5 KPa), 12 SCFM (340 sl/min) minimum
- Air and water syringe buttons operate smoothly
- Valves on HVE and saliva ejector move freely
- Cupfill timing is set properly
- Cuspidor flow pattern effectively rinses the bowl, bowl drains properly
- The end of the cuspidor ventilation tube is 1/2" (13 mm) above the support center frame
- There is 1-1/8" (29 mm) clearance between the cuspidor bowl and armrest

Additional Modules

For test checklists for additional modules, see the installation guides that ship with the equipment.

Install the Covers



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 Adjust and test the system before installing the covers.

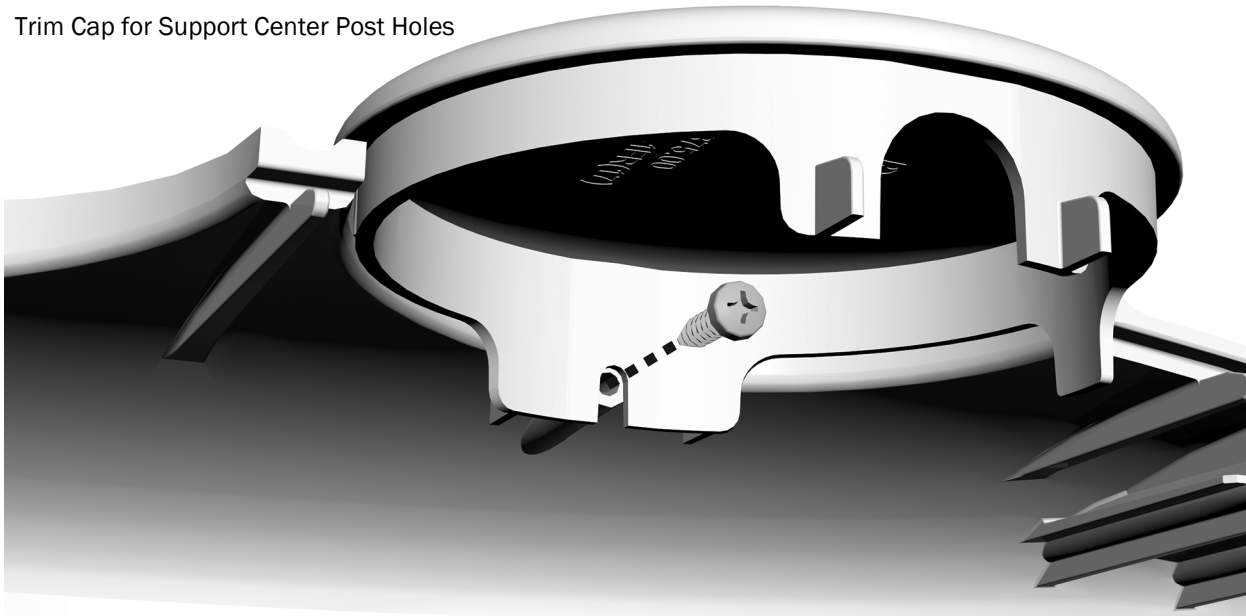
Install the Trim Caps

If the system does not have a delivery system, dental light, or monitor, install trim caps to cover the post holes for those modules.

Recommended Tool

- Phillips head screwdriver

Trim Cap for Support Center Post Holes



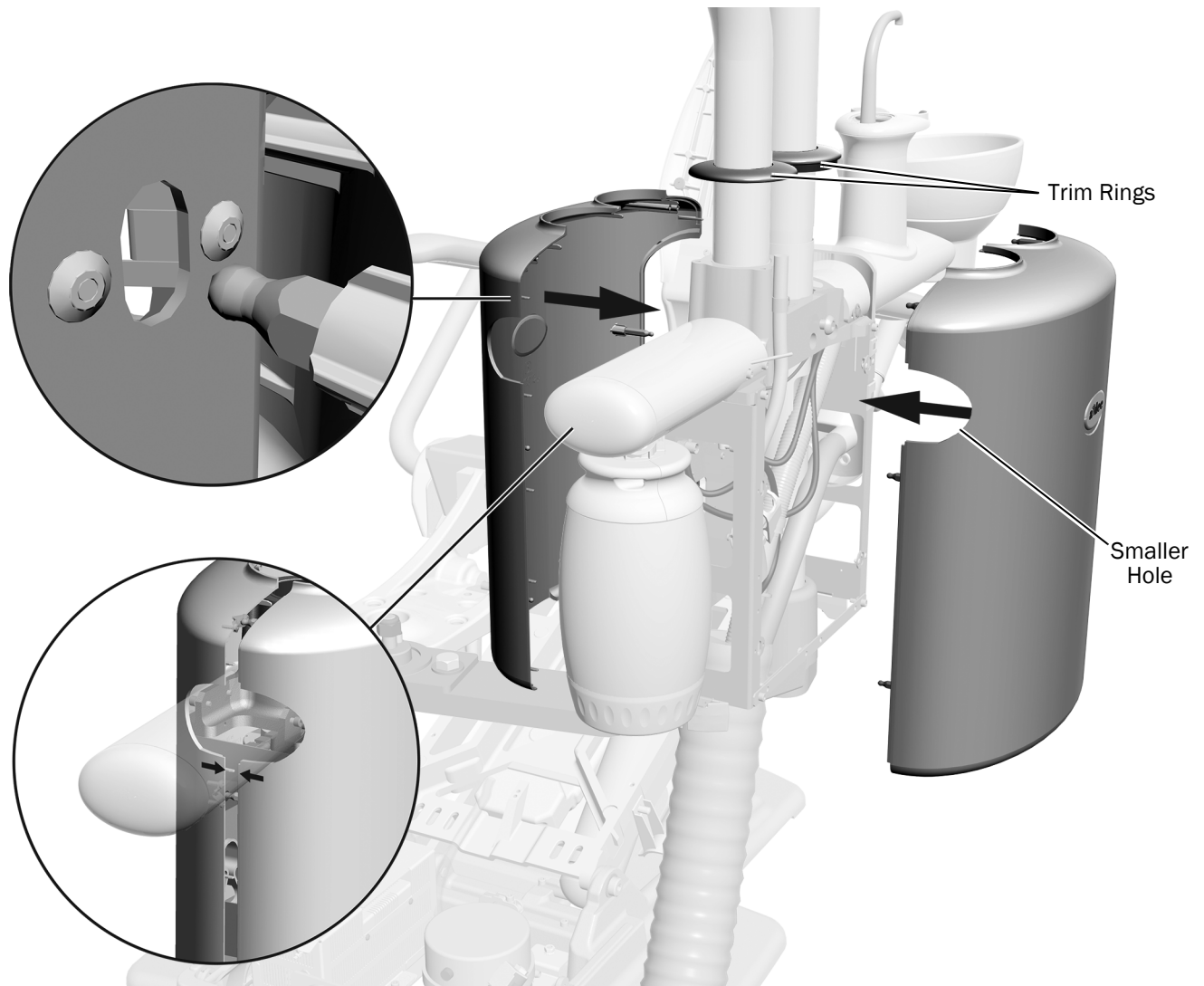
- **Support Center Post Holes:** Use a Phillips head screwdriver and a 6-19 x 1.2" screw to attach the trim cap to the support center cover that does not have the flow diagram.
- **Intermediate Post:** If the system has a monitor mounted on the intermediate post but does not include a dental light, push the trim cap onto the end of the intermediate post.
- **Assistant's Instrumentation Hub:** If the system includes an assistant's instrumentation mounted on a telescoping arm but does not include a delivery system, push the trim cap onto the top of the hub.



Trim Cap for Intermediate Post and Assistant's Instrumentation Hub

Install the Support Center Covers

- 1 Slide the post trim rings up.



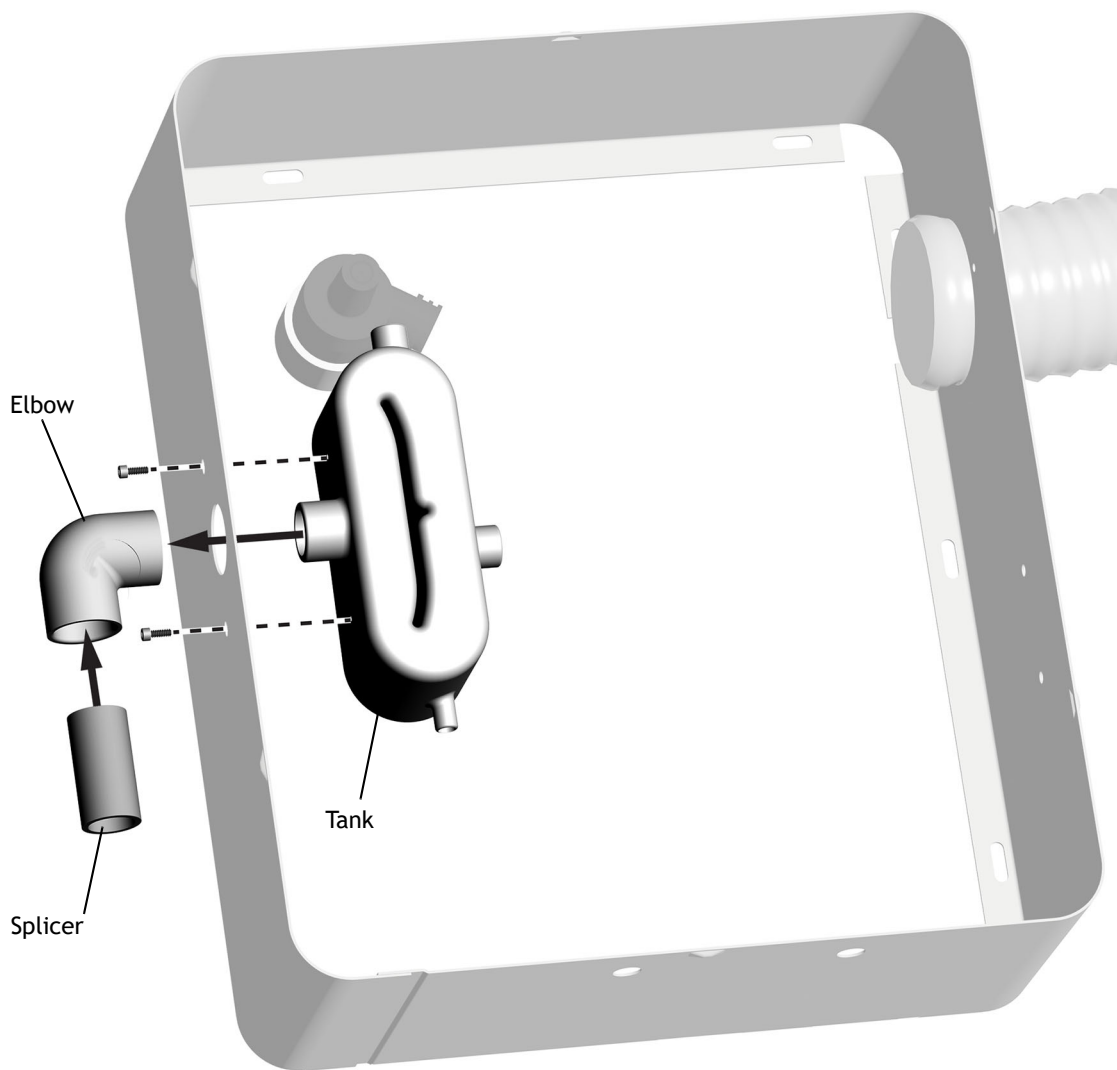
- 2 Orient the covers on the correct sides of the support center. The smaller hole on the side faces the toe of the chair.
- 3 Insert the small pins on the covers into the holes in the support center frame and the larger pins on the one cover into the connectors on the other cover.
- 4 Slide the trim rings down.

Appendix A: Connect the Air Vacuum System (AVS)

Install the AVS Tank and Exhaust Pipes

Recommended Tool

- 5/64" hex key



1. Insert the air-out stub through the 1.25" (32 mm) hole in the side of the floor box.
2. Use a hex key and two 3/8" socket head screws to attach the tank to the floor box.
3. Attach the elbow to the air-out stub.
4. Insert a splicer into the elbow.

Connect the AVS Tubing

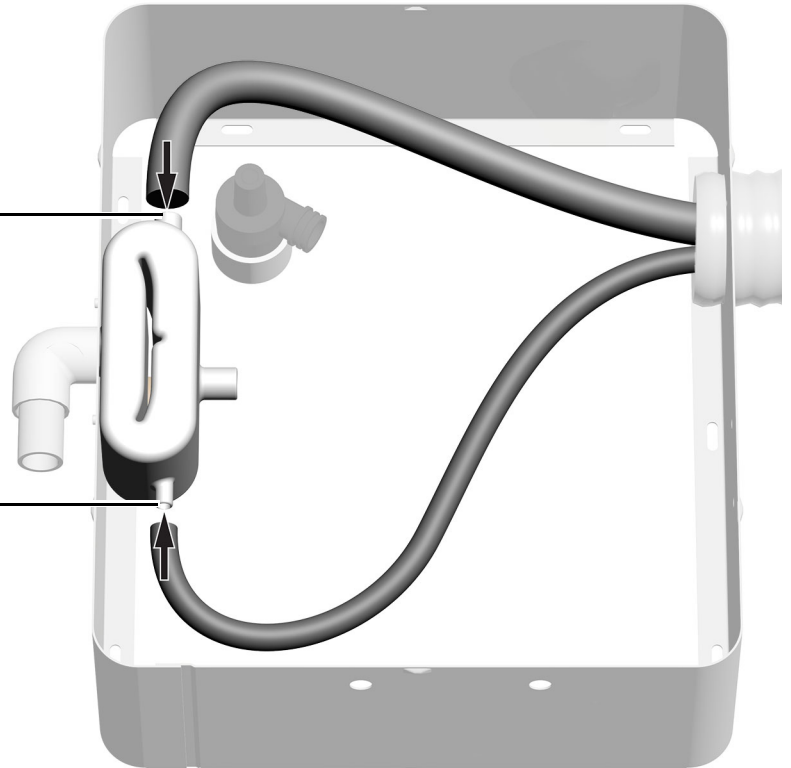
Recommended Tools

- Diagonal cutters
- 1/4" combination wrench

Task 1.

1 Insert the HVE tubing onto the HVE inlet.

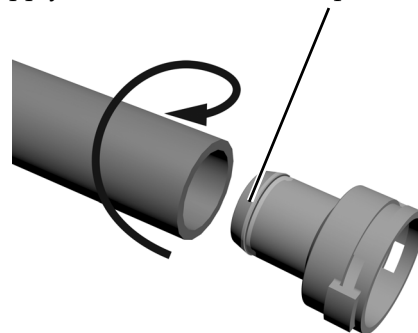
2 Insert the saliva ejector tubing onto the saliva ejector inlet.



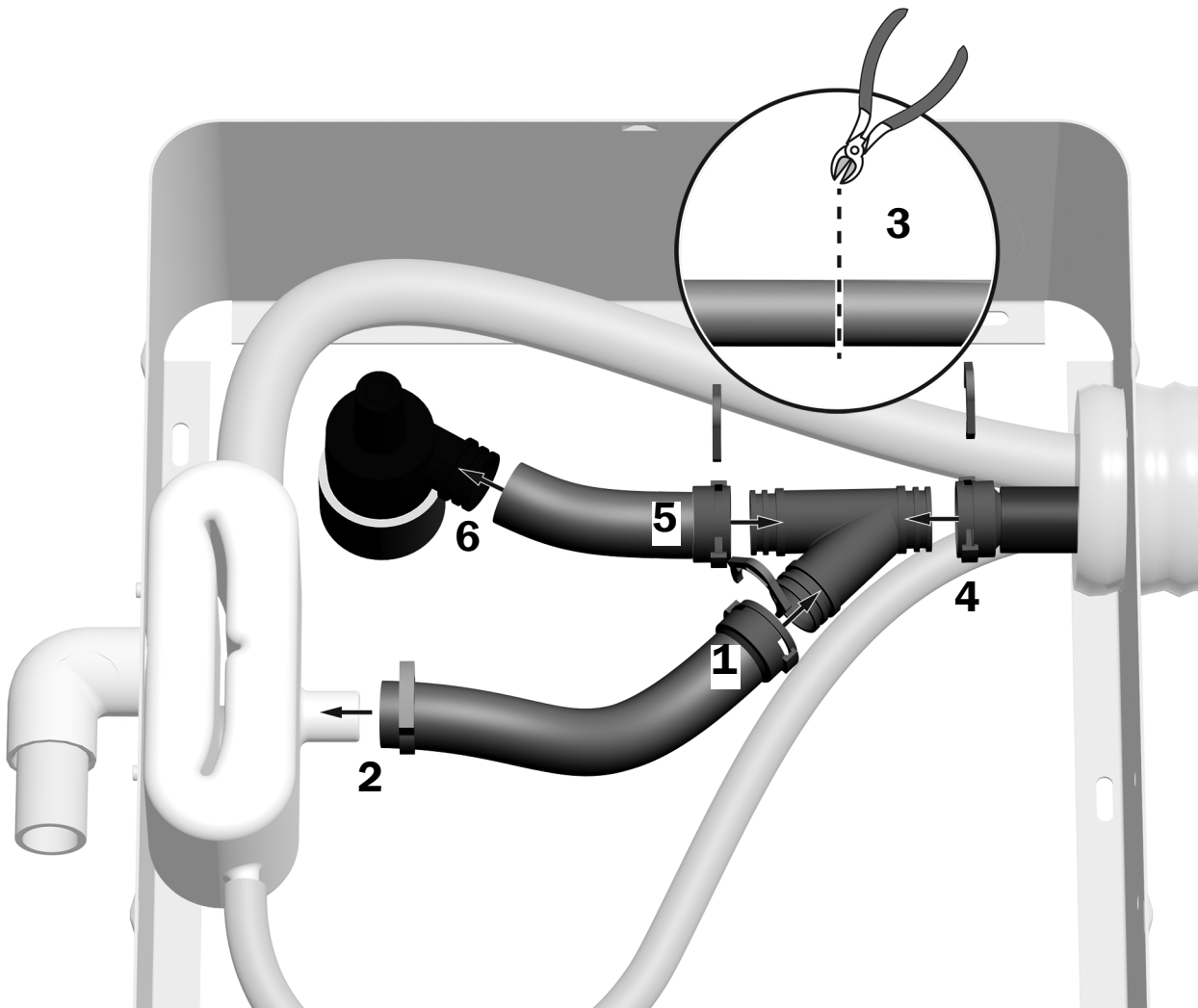
Task 2.

1 Remove an adaptor from the top of the Y connector and apply Loctite[®] 411[™] on its lip.

2 Use a twisting motion to push the 20 mm tubing onto the adaptor. The 20 mm tubing is from the kit.



Task 3.



1. Reconnect the adaptor to the top of the Y connector.
2. Use the ratcheting clamp to attach the other end of the tubing to the liquid separator drain.
3. Route the cuspidor drain tubing to the drain and place the Y connector next to tubing. Cut the tubing where it meets the top of the Y connector.
4. Use an adaptor and Loctite[®] to connect the cuspidor drain tubing from the support center to the bottom of the Y connector.
5. Use an adaptor and Loctite[®] to connect the remaining section of tubing to the top of the Y connector.
6. Connect the other end of the tubing to the drain.

Task 4.



- 1** Use a 1/4" combination wrench to replace one of the plugs on the air filter/regulator with a 5/16" barb.
- 2** Connect the yellow tubing from the support center to the barb on the air filter/regulator.

Regulatory Information and Warranty

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



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

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