A-dec® 342pro/342 Side Delivery System

INSTALLATION GUIDE

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A-dec 342pro Delivery System

Product Models and Versions Covered in This Document*

Models	Versions	Description
342pro	n/a	Delivery System
342	A	Delivery System
311/511	A/B	Dental Chair
311flt/511flt	n/a	Dental Chair
411	A	Dental Chair
592/593/5531/5631/5543	A	Dental Furniture

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

86.0673.00 Rev F

Before You Begin

- Check with local building and code authorities about installation requirements specific to your location.
- Check that the manual air shut-off valve is installed.
- For information about dimensions, range of motion, and placing the utilities, see the following:
  - *A-dec 342pro/342/542 Side Delivery System Pre-Installation Guide* (p/n 86.0035.00)
  - *Preference Collection® Dental Furniture Pre-Installation Guide* (p/n 86.0142.00)
  - *A-dec Inspire® Dental Furniture Pre-Installation Guide* (p/n 86.0528.00)

WARNING Consult a licensed professional, i.e. structural or architectural engineer, for mounting to metal stud or masonry walls. Ensure that all installations conform to local code requirements. Mounting structures must be designed to support a minimum shear load of 100 lb (445 N) and a minimum moment of 112 ft-lb (152 N-m).

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.

Recommended Tools

- Anti-static wrist strap
- Hex key set
- Adjustable wrench
- Phillips head and standard screwdrivers
- Needle-nose pliers
- Standard pliers
- Diagonal cutters
- Level
- Drill and drill bits
- Umbilical snake

Unpack the Delivery System

1. Remove the delivery system assembly from the box.
2. If installing on a cabinet, remove the cabinet doors and drawers to provide clear access.

Install the Delivery System

Complete the instructions for the location where the delivery system will be installed:

Install the Delivery System on a Cabinet 3
Install the Delivery System on a Wall 16

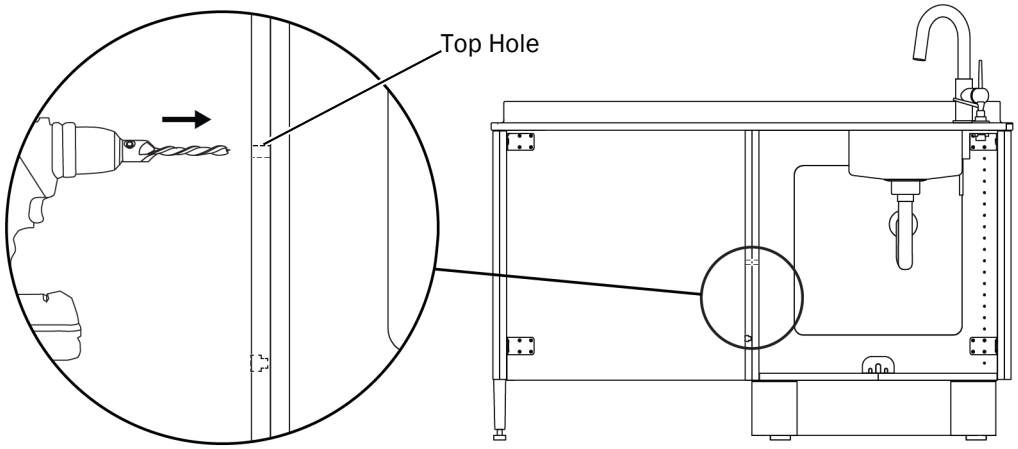
Install the Delivery System on a Cabinet

Install the Mounting Bracket

Complete the instructions for the location where the bracket will be installed:

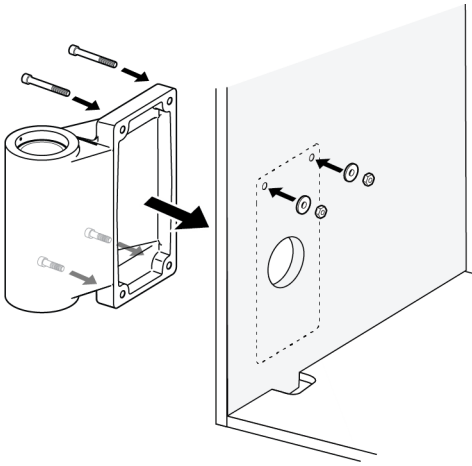
Install the Mounting Bracket on A-dec Inspire and Preference Cabinets 4
Install the Mounting Bracket on Non-A-dec Cabinets 5

Install the Mounting Bracket on A-dec Inspire and Preference Cabinets



A-dec Inspire Side Cabinet Shown

1 **All A-dec Inspire Side Cabinets and Preference Side Cabinets -** Use a 5/16" drill bit to extend the top two mount holes for the bracket through the cabinet.



2 Align the holes in the bracket with the holes in the cabinet.

3 Insert two screws in the bottom mounting holes and use a 3/16" hex key to secure the bracket.

Bottom Mounting Screws (2) - Actual Size

Washers (2) and Nuts (2) - Actual Size

Top Mounting Screws (2) - Actual Size

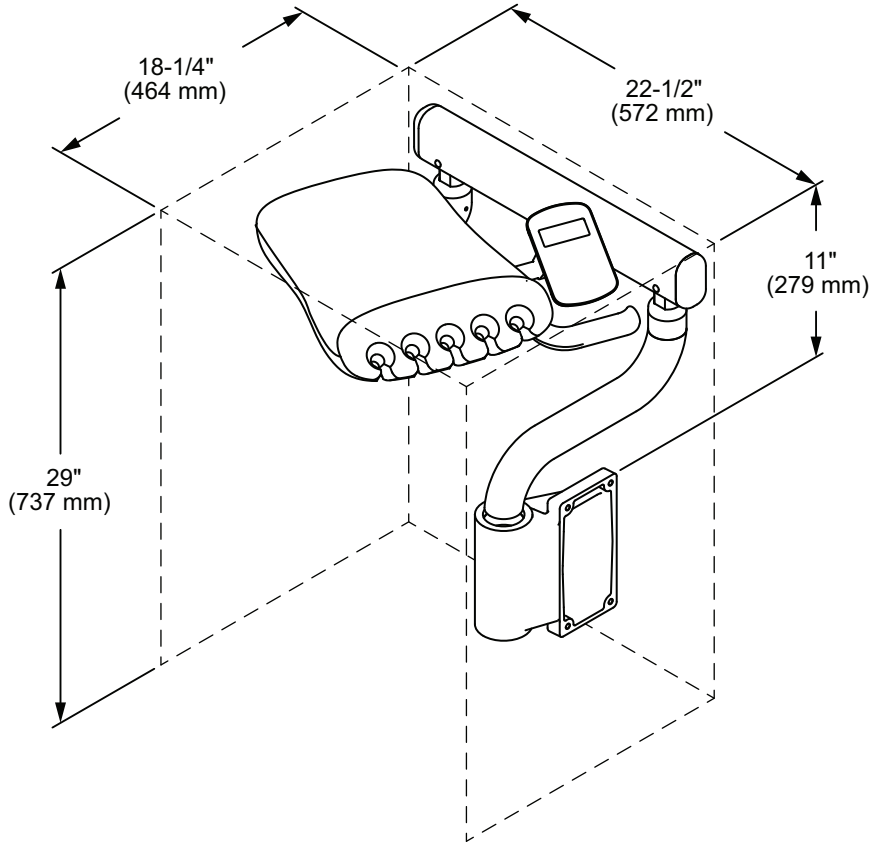
4 Insert two screws in the top mounting holes and use a 3/16" hex key and 7/16" wrench to loosely secure the bracket with the washers and nuts.

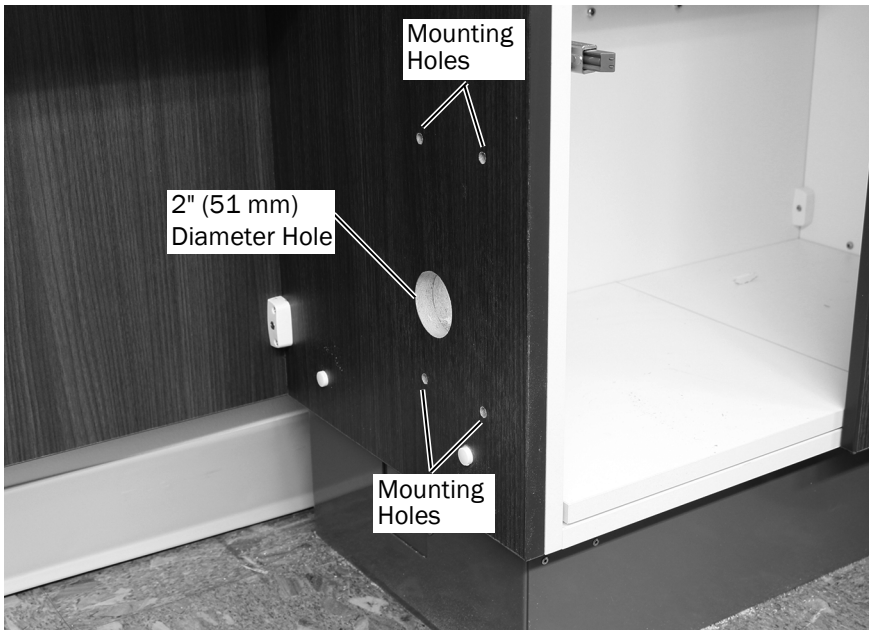
5 If there is a chase installed on the cabinet, use a Phillips head screwdriver to remove the chase cover.

Next Step See “Level the Mounting Bracket” on page 10.

Install the Mounting Bracket on Non-A-dec Cabinets

To be able to install the A-dec 342pro/342, the cabinet must have at least the following clearance in the space where it is to be installed.



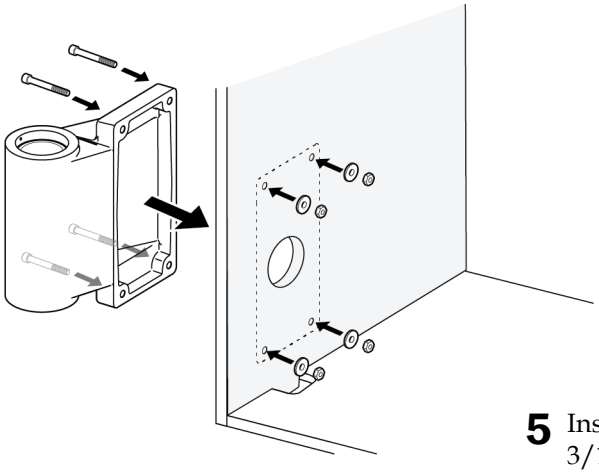


1 Tear out the Mounting Bracket Template on pages 8 and 9. Align the template with the front edge of the cabinet. Make sure to orient the template from the front of the cabinet.

2 Mark the 4 mounting holes and the 2" (51 mm) hole for the umbilical.

3 Use a 5/16" drill bit to drill the 4 mounting holes for the bracket.

4 Cut out the 2" (51 mm) hole for the umbilical.

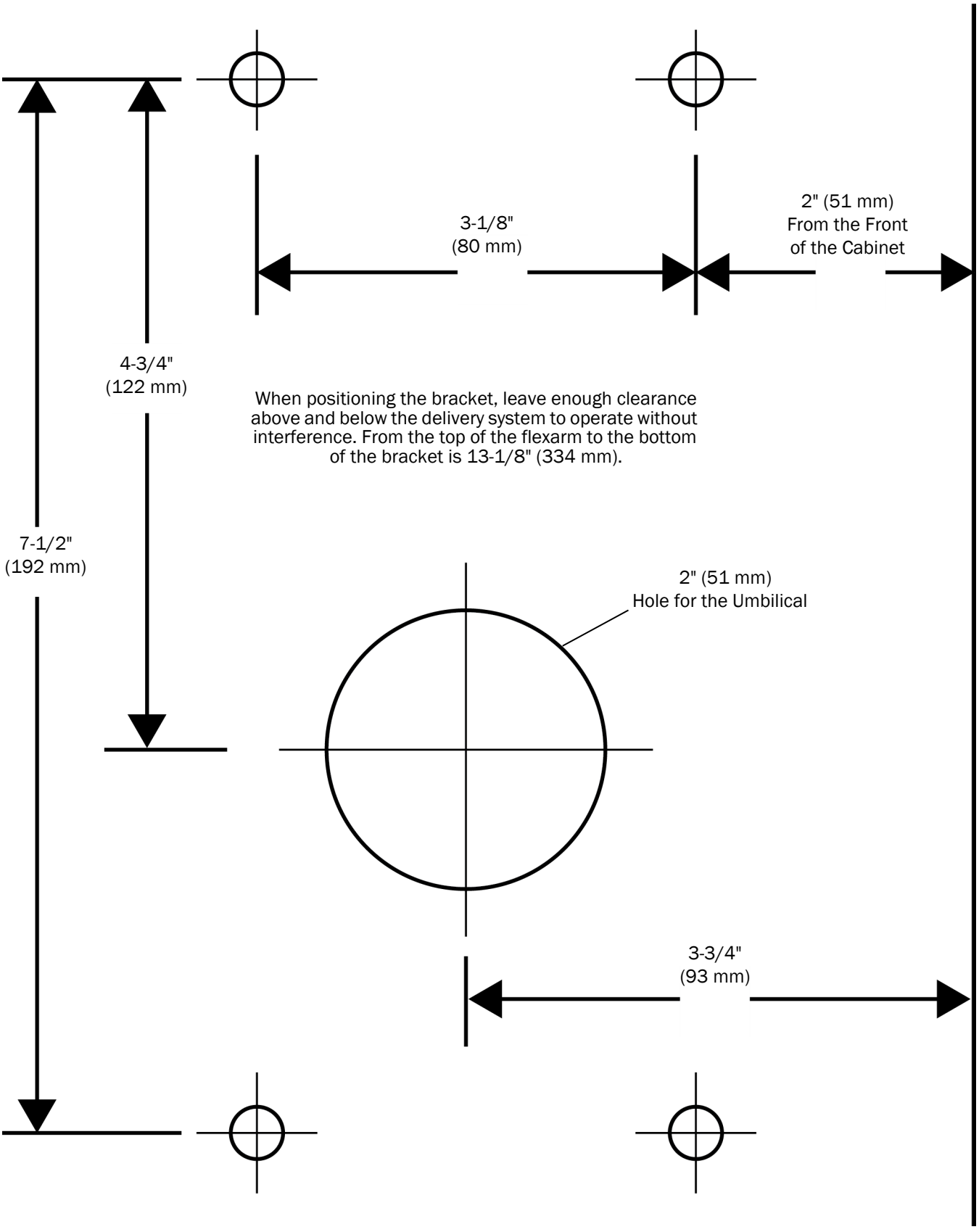


Mounting Screws (4) - Actual Size

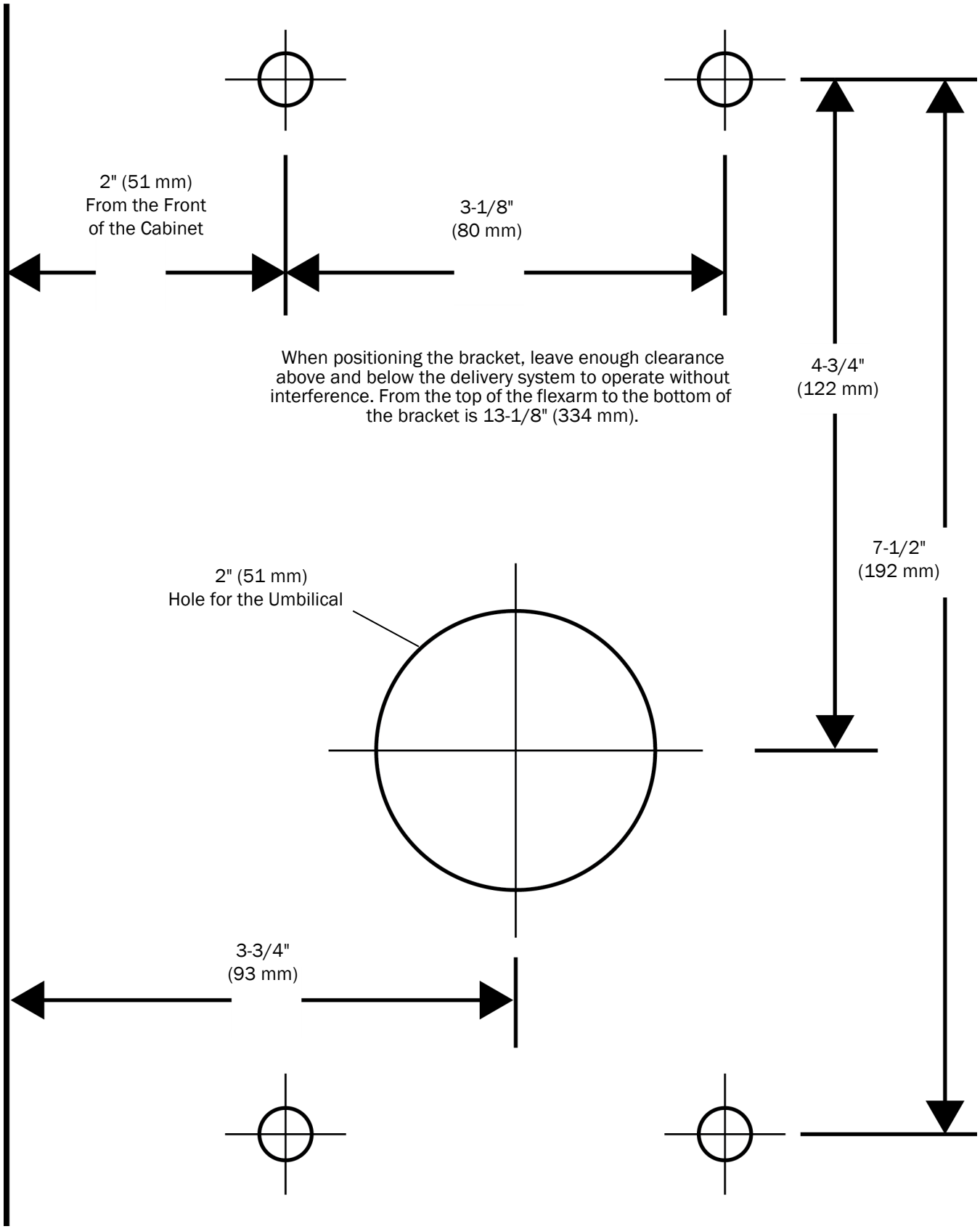
Washers (4) and Nuts (4) - Actual Size

5 Insert four screws in the mounting holes and use a 3/16" hex key and 7/16" wrench to loosely secure the bracket with the washers and nuts.

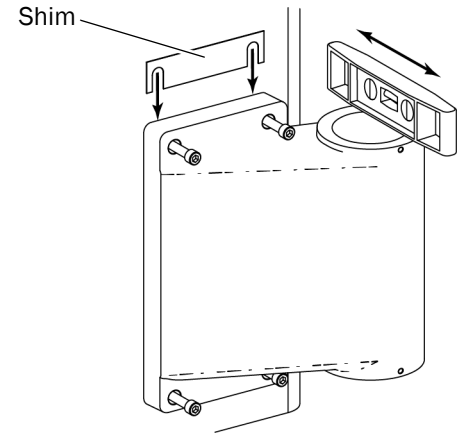
Mounting Bracket Template (Right-Hand Setup)



Mounting Bracket Template (Left-Hand Setup)

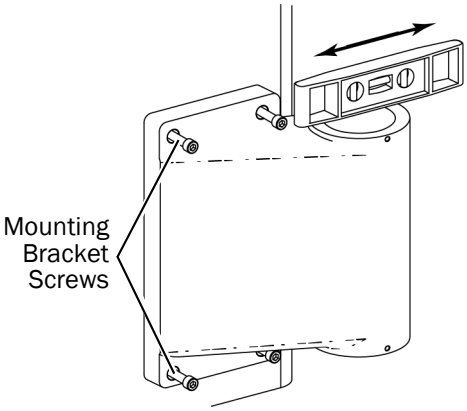


Level the Mounting Bracket



1 Verify that the cabinet is level.

2 Check the side-to-side level. To adjust the level, insert shims from the kit between the mounting bracket and the cabinet.



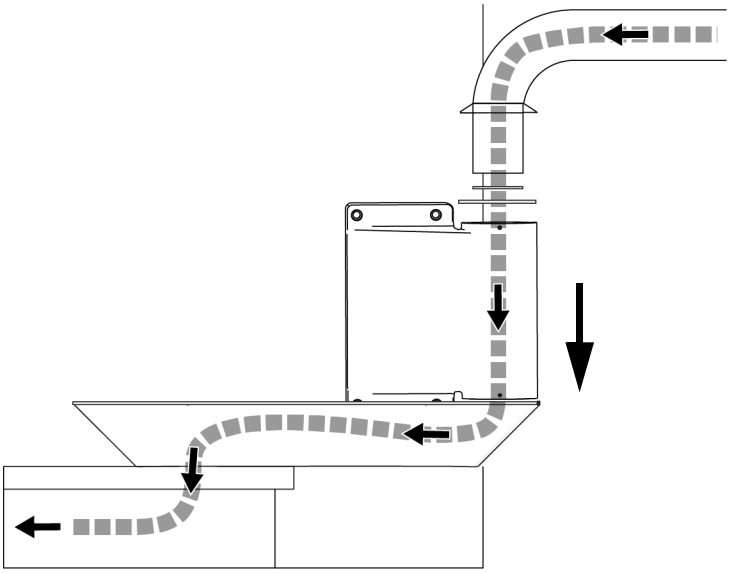
3 Check the front-to-back level. Loosen the mounting bracket screws, move the bracket until level, then retighten the screws.

Install the Delivery System

Complete the instructions for the location where the bracket will be installed:

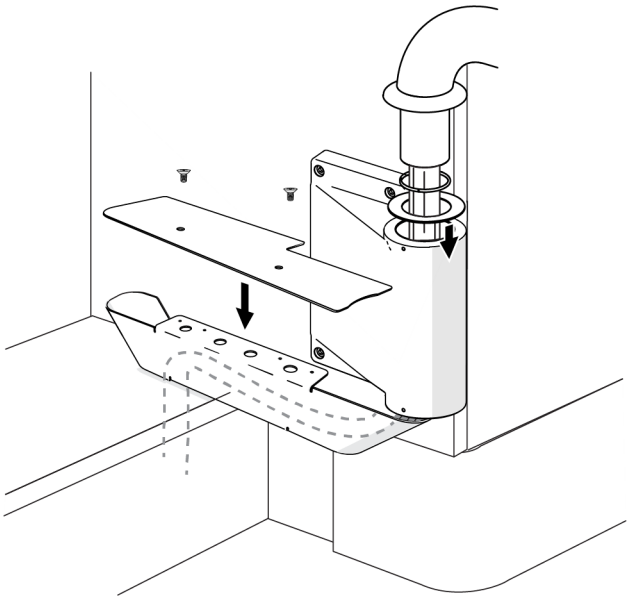
Install the Delivery System on All A-dec Inspire Side Cabinets **11**
Install the Delivery System on A-dec Inspire and Preference Central Cabinets, Preference Side Cabinets Adjacent to a Sink, and Non-A-dec Cabinets **12**
Install the Delivery System on Preference Side Cabinets Opposite a Sink **13**

Install the Delivery System on All A-dec Inspire Side Cabinets



1 Route the umbilical, wires, and data line down through the rigid arm, bracket, and chase (attached to the cabinet) to the utilities in the bottom of the cabinet.

2 Insert the rigid arm into the mounting bracket.
Ensure that the washers stay in place on the rigid arm hub.

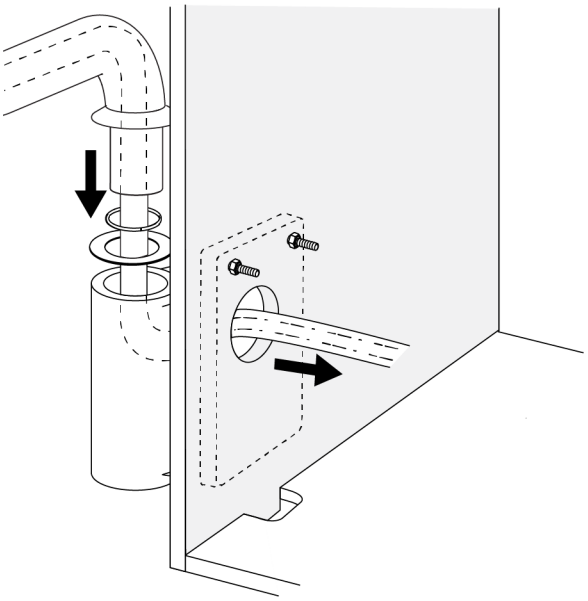


Chase Cover Screw - Actual Size

3 Use a Phillips head screwdriver and two screws to install the chase cover. The chase cover and screws are included in the Inspire 593 ship kit.

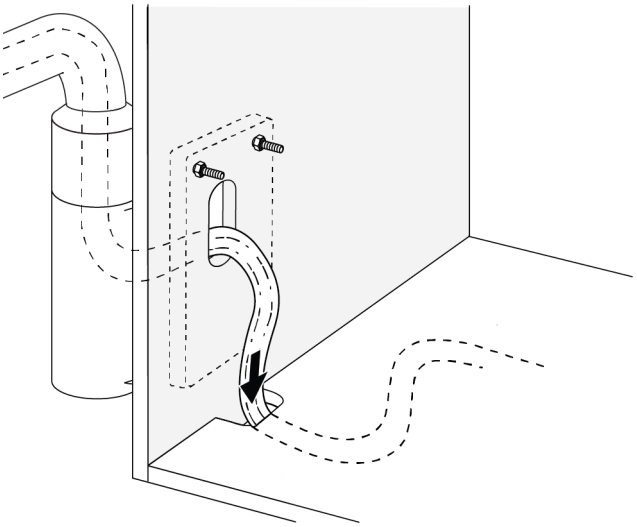
Next Step See “Finish the Delivery System Installation” on page 22.

Install the Delivery System on A-dec Inspire and Preference Central Cabinets, Preference Side Cabinets Adjacent to a Sink, and Non-A-dec Cabinets



Preference Side Cabinet Adjacent to a Sink Shown

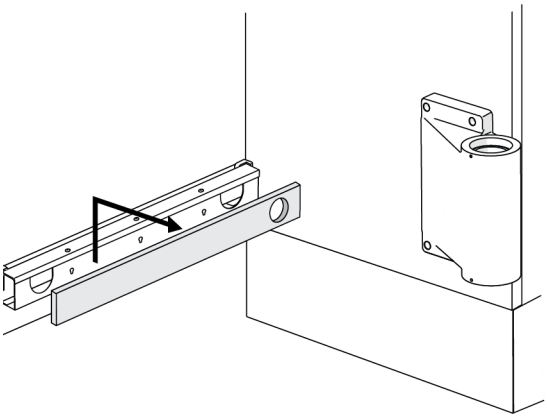
1. Route the umbilical, wires, and data line down through the rigid arm and bracket and into the cabinet/x-ray support column.
2. Insert the rigid arm into the mounting bracket. Ensure that the washers stay in place on the rigid arm hub.



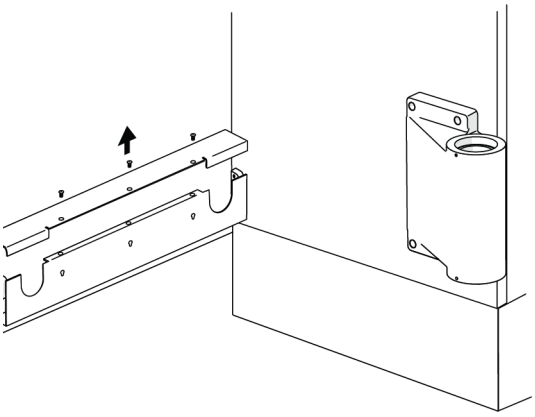
3. Route the umbilical, wires, and data line through the bottom of the cabinet to the utilities.

Next Step See “Finish the Delivery System Installation” on page 22.

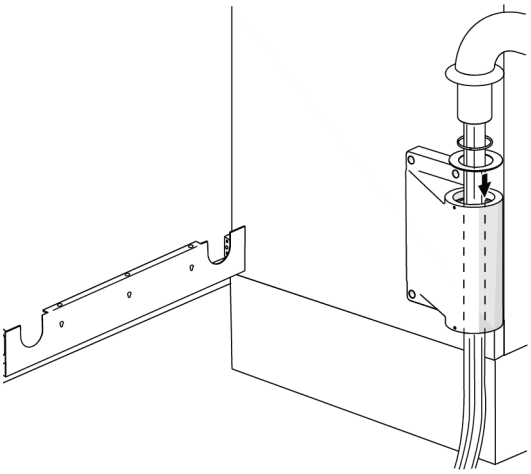
Install the Delivery System on Preference Side Cabinets Opposite a Sink



1 Slide the wood faceplate up and off of the chase.

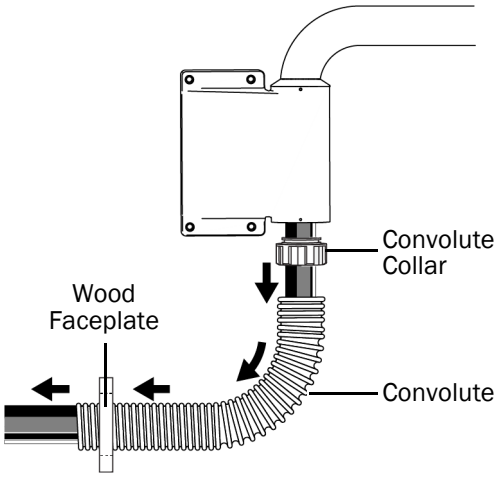


2 Use a Phillips head screwdriver to remove the top cover of the chase.

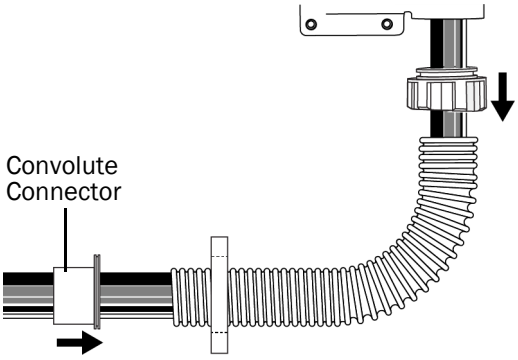


3 Route the umbilical, wires, and data line down through the rigid arm and bracket.

4 Insert the rigid arm into the mounting bracket. Ensure that the washers stay in place on the rigid arm hub.

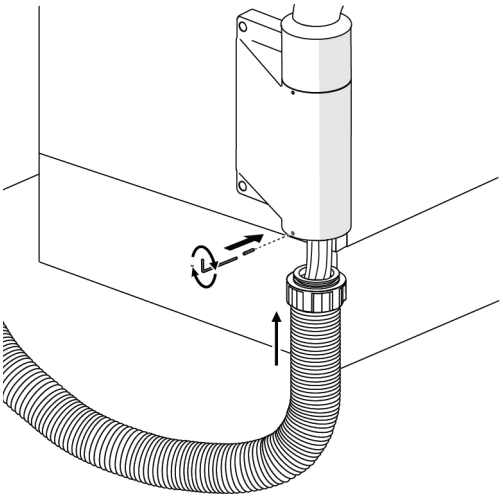


5 With the convolute collar's threads facing the convolute, route the umbilical, wires, and data line through the convolute collar and convolute, then route the convolute through the wood faceplate.



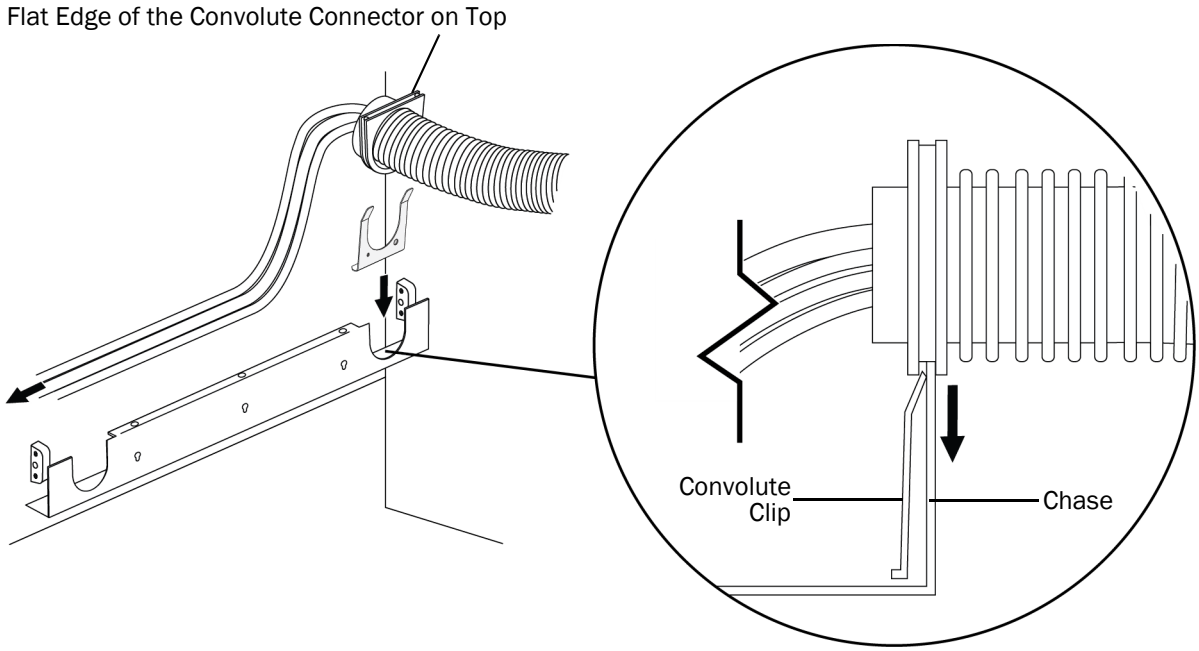
6 With the convolute connector's threads facing the convolute, route the umbilical through the connector, then screw the convolute connector and convolute collar onto the convolute.

NOTE The convolute collar and convolute connector are reverse threaded.

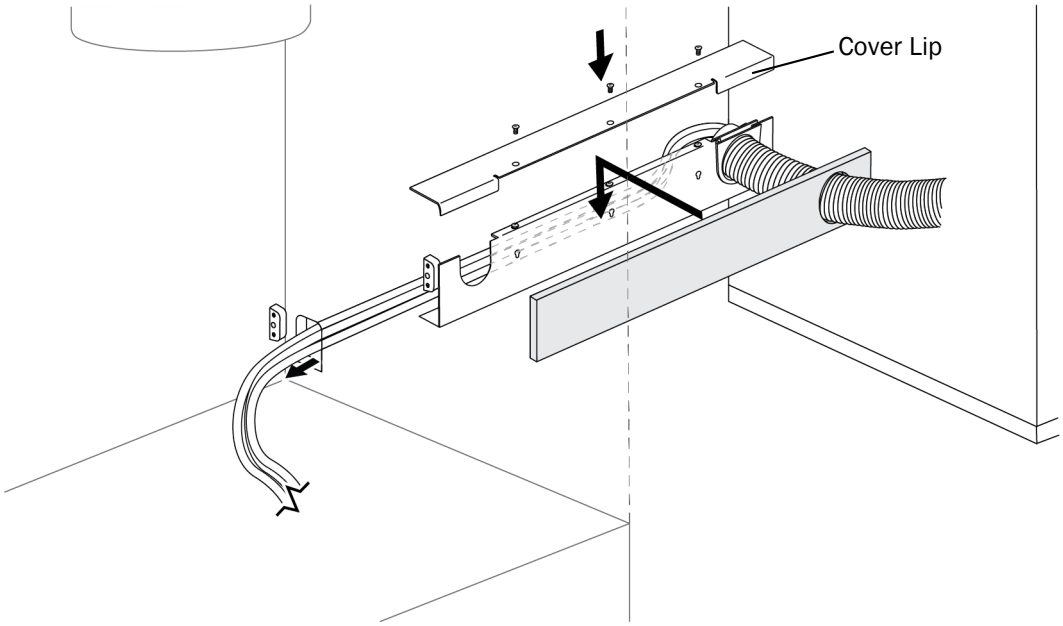


7 Push the convolute collar into the bracket and use a 1/16" hex key and setscrew to secure the collar to the bracket.

Setscrew - Actual size



8 Place the convolute clip into the chase against the cutout for the convolute, then slide the convolute connector into the cutout with both the chase and clip sliding into its slot.



9 Route the umbilical through the chase into the sink module and to the bottom of the cabinet. Replace the cover and faceplate.

TIP The two lips of the cover go behind the front of the chase.

Next Step See "Finish the Delivery System Installation" on page 22.

Install the Delivery System on a Wall

Install the Backboard

WARNING Do not use hollow wall fasteners that rely on non-structural elements. A-dec is not responsible for any damage resulting from the use of hollow wall fasteners.

WARNING Consult a licensed professional, i.e. structural or architectural engineer, for mounting to metal stud or masonry walls. Ensure that all installations conform to local codes. Walls must be designed to support a minimum shear load of 39 lb (173 N) and a minimum moment of 105 ft-lb (142 N · m).

1 Determine the backboard mounting location.

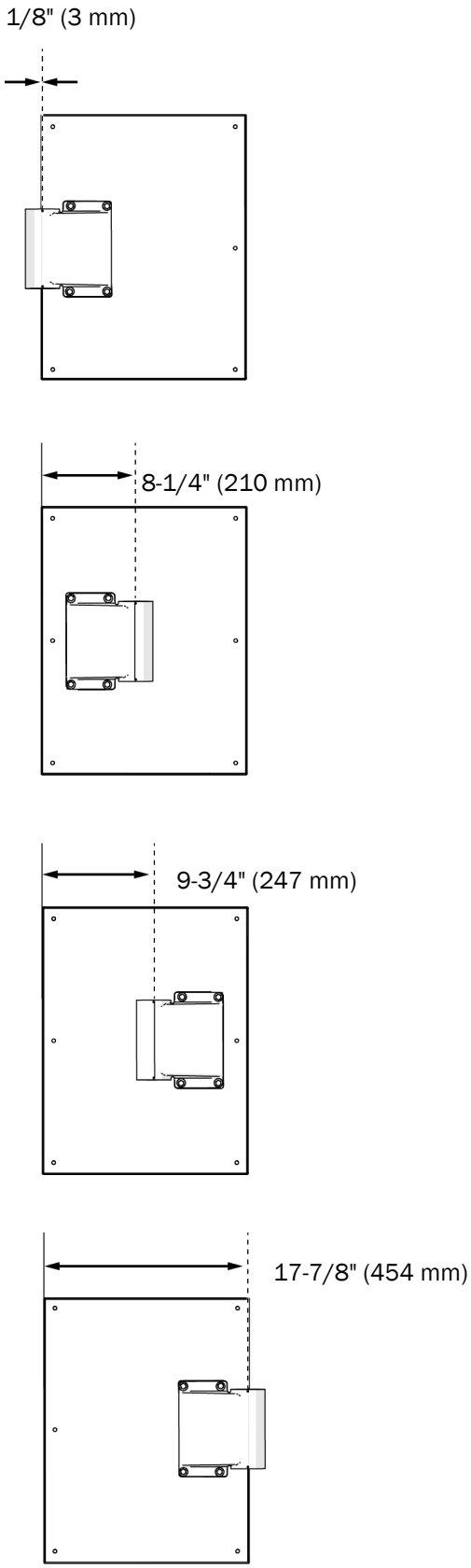
- Maximum arm extension as measured from the backboard is 60-1/4" (1530 mm).
- Recommended distance from the bottom of the backboard to the floor is 5" (13 cm). Adjust its position according to the office space and the preferences of the doctor.

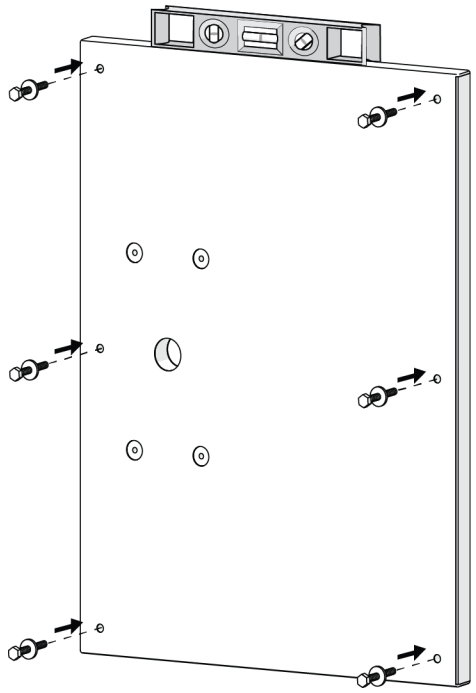
The images on the following page show the wall backboard and mounting bracket positioning options.

IMPORTANT For a template to assist placing the backboard and additional A-dec 342pro/342 information, see *A-dec 342pro/342 Side Delivery System Wall-Mount Backboard Template* (p/n 85.0049.00).

Backboard and Bracket Mounting Position Options

Distances are measured from the edge of the backboard to the center of the rigid arm's position in the mounting bracket.





2 Place the backboard where it is to be installed.

3 Make sure the backboard is level and mark the six backboard mounting holes.

WARNING The following instructions are for securing the backboard to wood studs only. Consult a licensed professional, such as a structural or architectural engineer, for mounting to metal studs or a masonry wall. Ensure that all installations conform to local code requirements.

4 Use a 3/16" drill bit to drill the mounting holes into the studs.

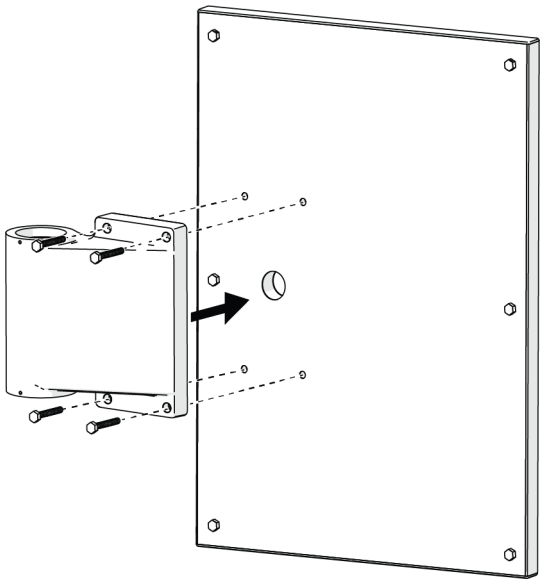
5 Install the washers onto the six lag screws.

6 Align the backboard with the mounting holes and use a 7/16" socket and ratchet to loosely secure the backboard with the lag screws.

7 Check for level, then fully tighten the screws.

Lag Screws - Actual size

Install the Mounting Bracket

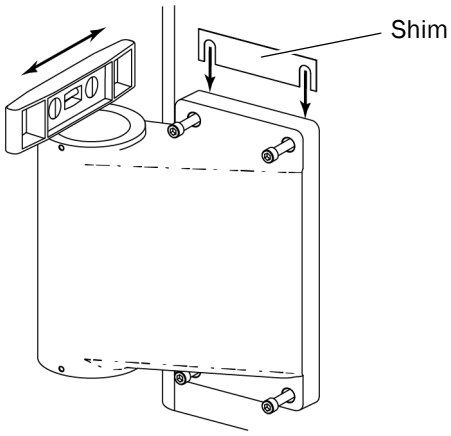


Left-Side Mounting Position Shown

1 Align the holes in the bracket with the holes in the backboard.

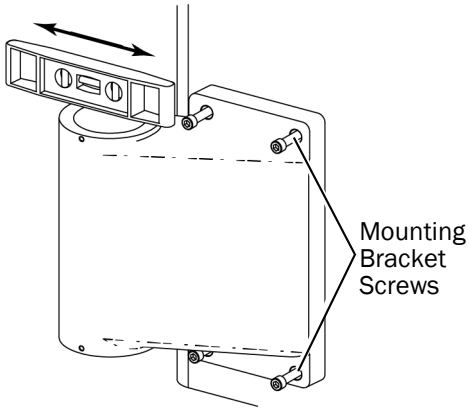
2 Use a 3/16" hex key and four screws to secure the bracket to the backboard.

Mounting Screw - Actual Size



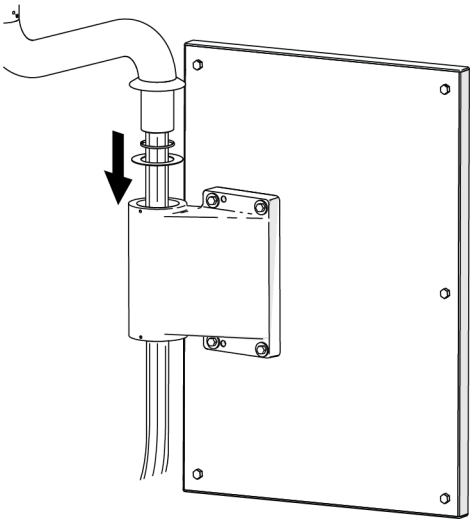
3 Verify that the backboard is level.

4 Check the side-to-side level. To adjust the level, insert shims from the kit between the mounting bracket and the cabinet.



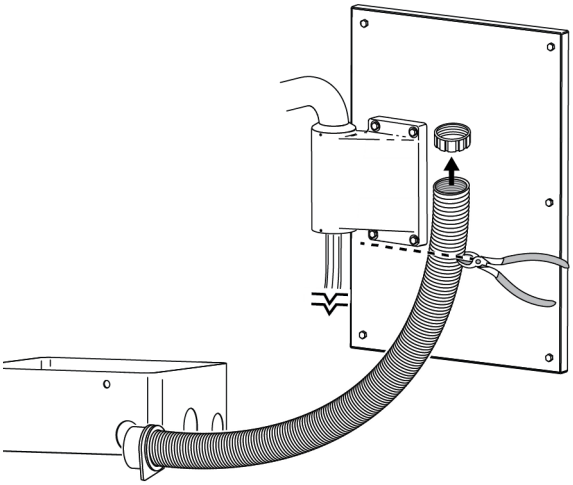
5 Check the front-to-back level. Loosen the mounting bracket screws, move the bracket until it's level, then retighten the screws.

Install the Delivery System



1 Route the umbilical, wires, and data line down through the rigid arm and bracket.

2 Insert the rigid arm into the mounting bracket. Ensure that the washers stay in place on the rigid arm hub.



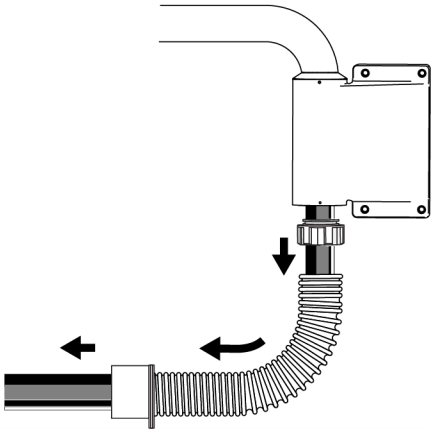
3 Remove the protective layer from the floor box and place the floor box around the utilities.

4 Remove the convolute collar from the convolute.

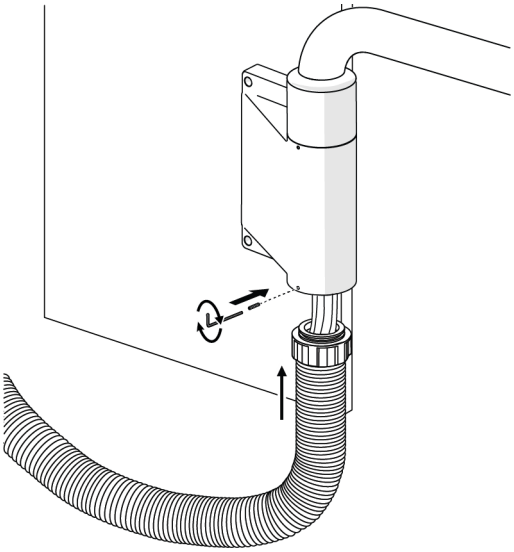
NOTE The convolute collar is reverse threaded.

CAUTION Do not cut the additional wires and tubing that are included for routing to the chair or the product will fail to function.

5 Measure the distance from the bottom of the bracket to the floor box and cut the convolute to fit.

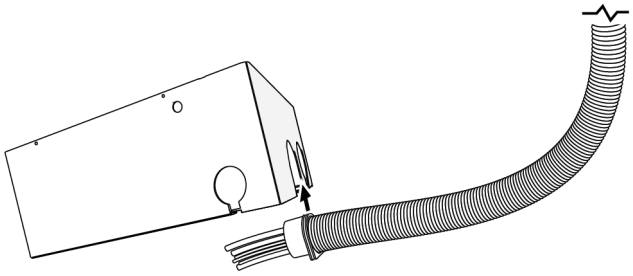


6 Reattach the convolute collar, then route the umbilical, wires, and data line through the convolute.

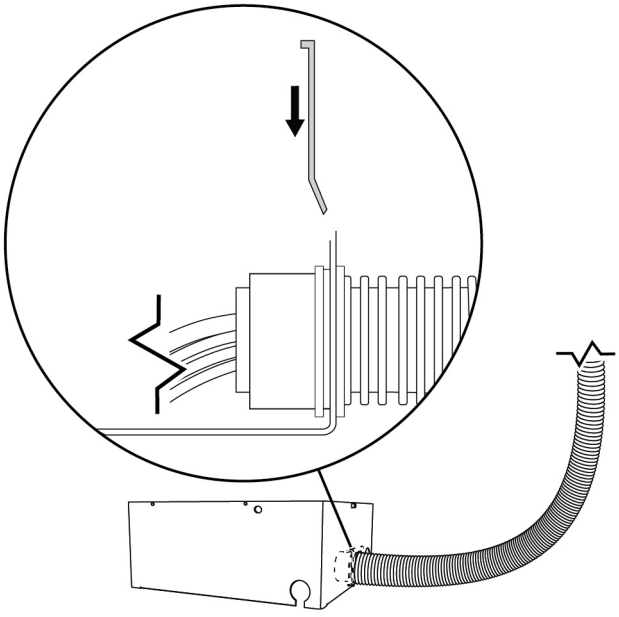


7 Push the umbilical collar into the bracket and use a 1/16" hex key and setscrew to secure the collar to the bracket.

Setscrew - Actual size



8 Slide the arch on the side of the floor box into the slot in the convolute connector.



9 To secure the convolute to the floor box, slide the convolute clip into the slot in the connector.

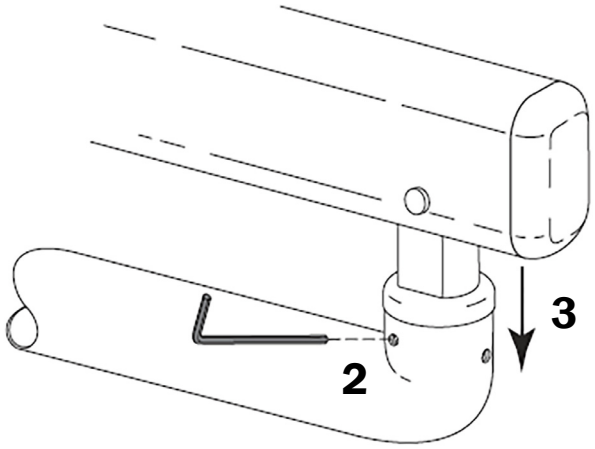
Finish the Delivery System Installation

Install the Flexarm on the Rigid Arm

1 Remove the blue tape from the rigid arm.

2 Tighten the setscrew slightly. This opens the split ring enough for the flexarm to be installed all the way in the rigid arm.

3 Slide the flexarm knuckle into the rigid arm hub.



Position the Control Head

1 Loosen the button head screw.

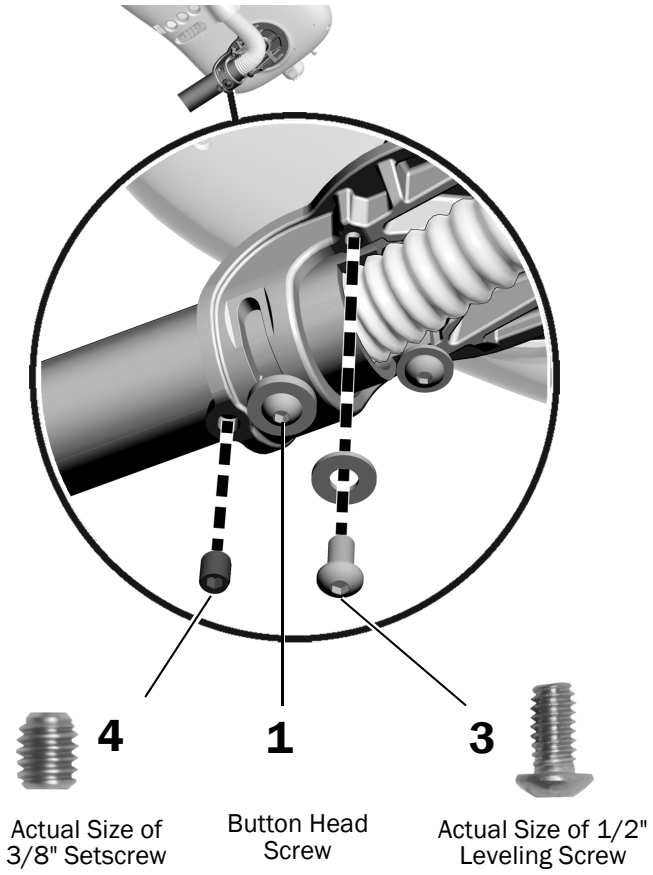
> **NOTE** Do not back out the button head screw all of the way. Only loosen it enough to be able to move the control head.

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.



Install the Water Bottle

To install the remote mount water bottle, use the instructions that ship with the water bottle (p/n 86.0469.00).

Install the Tray Holder Mount (optional)

Recommended Tool

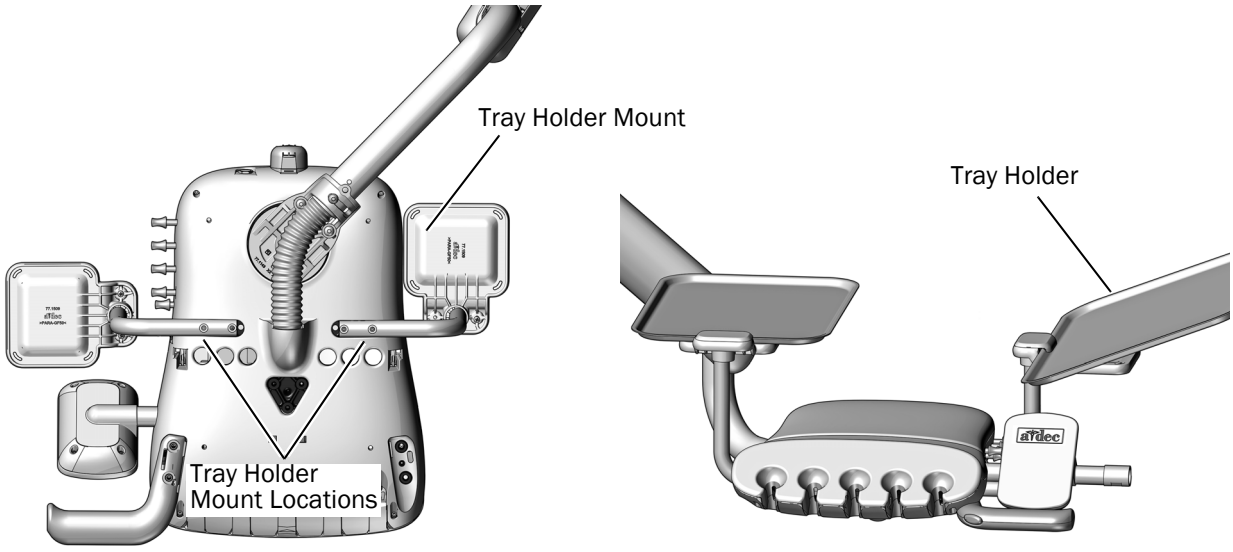
- 1/8" hex key

Task 1.

1 Use two 10-32 x 1" button head screws to attach the tray holder mount to 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 mount 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.



342pro Shown

Connect the Data Line and Power Cable at the Cabinet

Connect the Data Line at the Cabinet

Complete the instructions for the system's configuration:

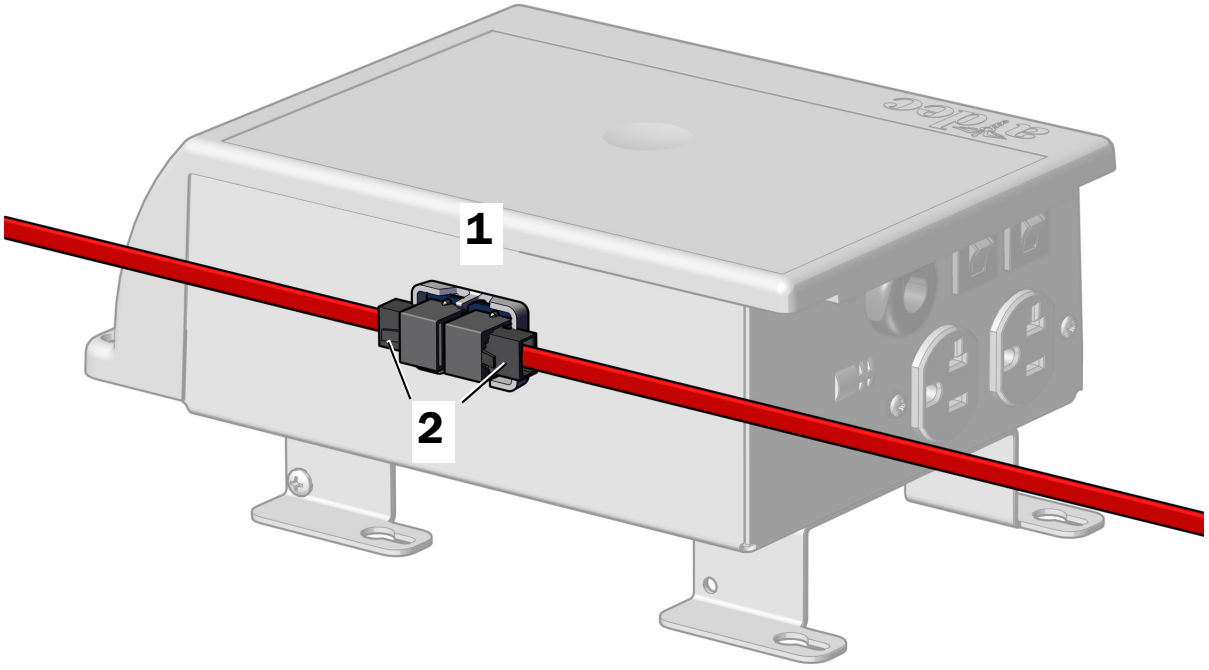
Connect the Data Line from an A-dec 342pro to an A-dec Inspire Distribution Box 24
Connect the Data Line from an A-dec 342 to an A-dec Inspire Distribution Box 25
Connect the Data Line from an A-dec 342pro/342 to a Preference Cabinet 26

Connect the Data Line from an A-dec 342pro to an A-dec Inspire Distribution Box

CAUTION A red DCS2 data line cannot be plugged into the Inspire cabinet distribution box. A coupler board must be used to connect a DCS2 data line from the cabinet to the chair board.

TIP To provide easier access for making connections, position the distribution box outside of the cabinet

1. Peel the paper backing off the coupler board and attach it to the side of the distribution box.
2. Connect the red DCS2 data line from the delivery system to one end of the coupler board and connect the 25' red DCS2 data line to the other end of the coupler board.



3. Route the 25' DCS2 data line to the dental chair power supply.

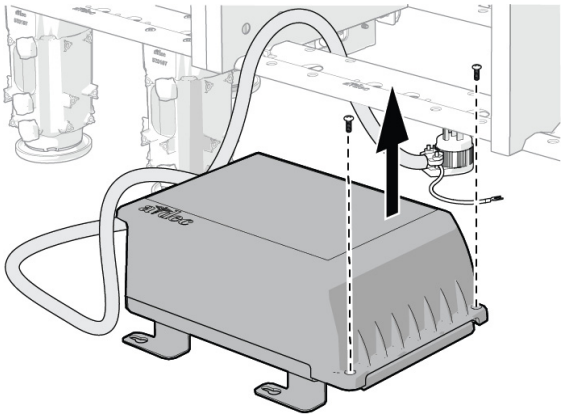
Next Step "Connect the Delivery System Power Cable at a Cabinet" on page 27.

Connect the Data Line from an A-dec 342 to an A-dec Inspire Distribution Box

Recommended Tool

- Phillips head screwdriver

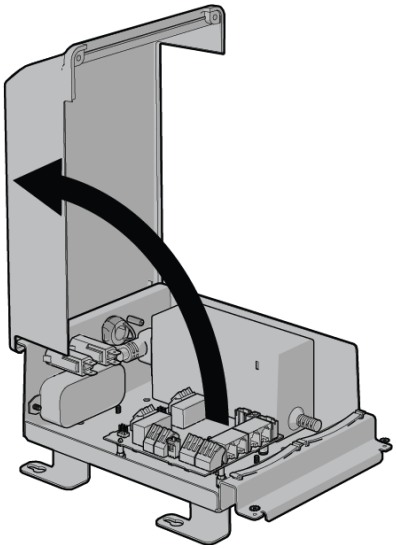
1. Use a Phillips head screwdriver to remove the two screws securing the lid of the distribution box.



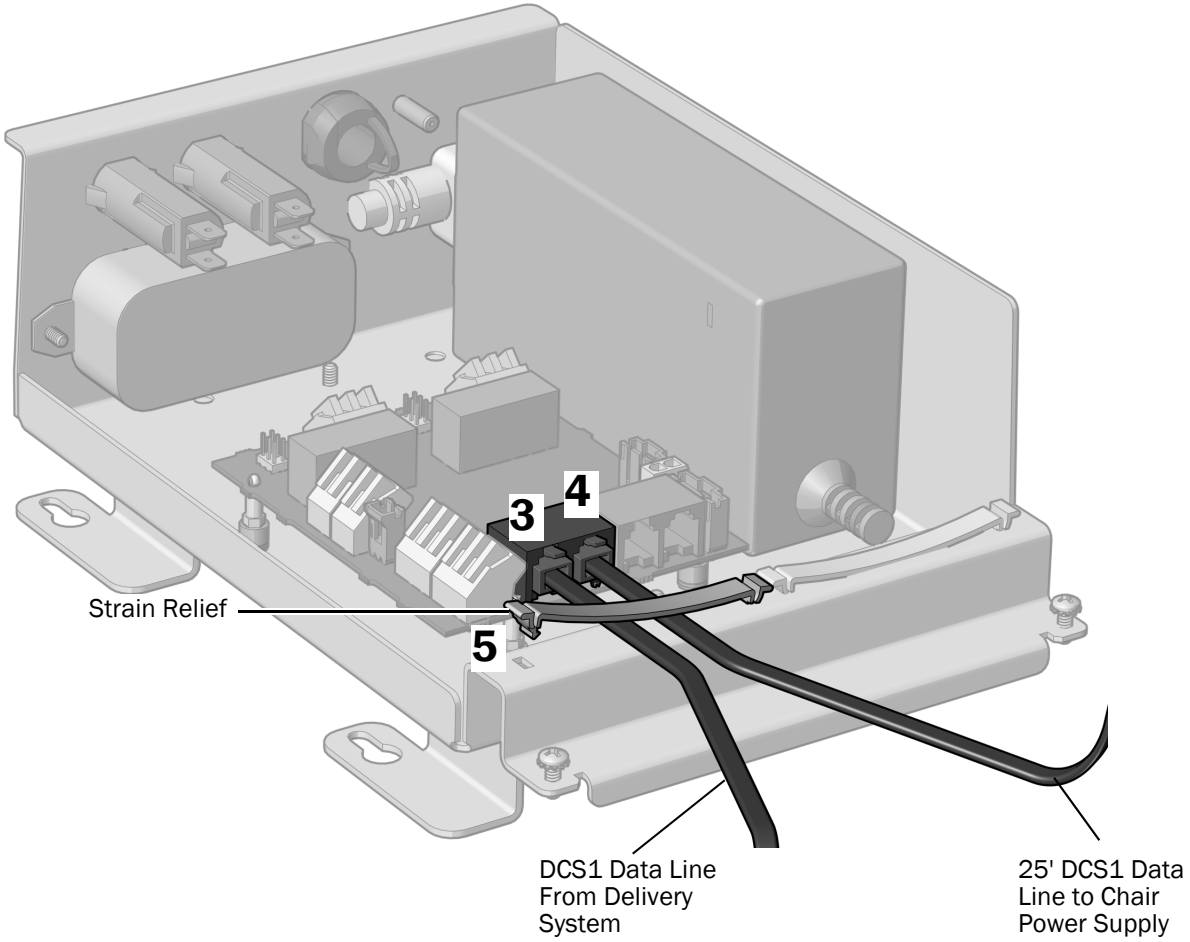
ATTENTION Circuit boards are sensitive to static electricity. Electrostatic Discharge (ESD) precautions are required when touching a circuit board or making connections to or from the circuit board. Circuit boards should be installed only by an electrician or qualified service person.

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.

2. Remove the cover.



3. Plug in the DCS1 data line from the delivery system. It does not matter which date port the line is plugged into.
4. Plug in the 25' DCS1 data line. It does not matter which data port the 25' line is plugged into.



5. Secure the data lines under the strain relief.
6. Route the 25' data line to the dental chair power supply.

Next Step "Connect the Delivery System Power Cable at a Cabinet" on page 27.

Connect the Data Line from an A-dec 342pro/342 to a Preference Cabinet

Complete the instructions for the system's configuration:

- **342pro:** Use the coupler board to connect the DCS2 data line from the delivery system to the 25' DCS2 data line. At the chair, connect the 25' DCS2 data line to the gray port on the translator board, and connect a DCS1 data line from the black port on the translator board to the chair.
- **342:** Use a cable splitter to connect the DCS1 data line from the delivery system to the 25' DCS1 data line.

Connect the Delivery System Power Cable at a Cabinet

Continue with the section for the system's configuration:

Connect the Delivery System Power Cable to a 300 W Stand-Alone Power Supply 27
Connect the Delivery System Power Cable to a Remote Power Cable 28

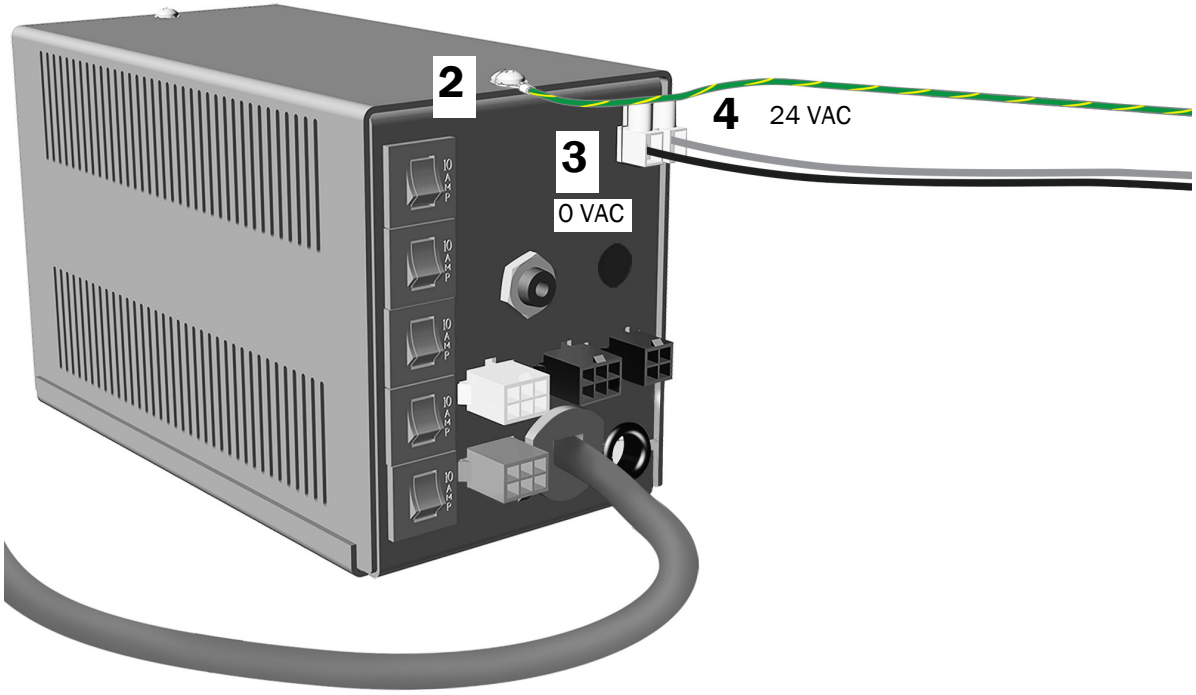
Connect the Delivery System Power Cable to a 300 W Stand-Alone Power Supply

Recommended Tool

Phillips head screwdriver

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 power to the system.
2. Connect the ground wire to the top of the power supply.
3. Connect the black wire to 0 VAC.
4. Connect the gray wire to 24 VAC.



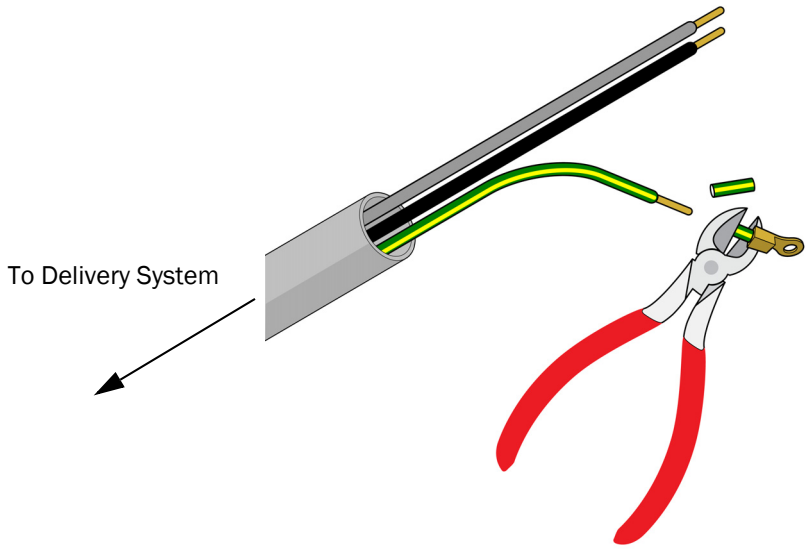
Next Step See "Connect the Remote Power Cable and Data Line at the Dental Chair" on page 29.

Connect the Delivery System Power Cable to a Remote Power Cable

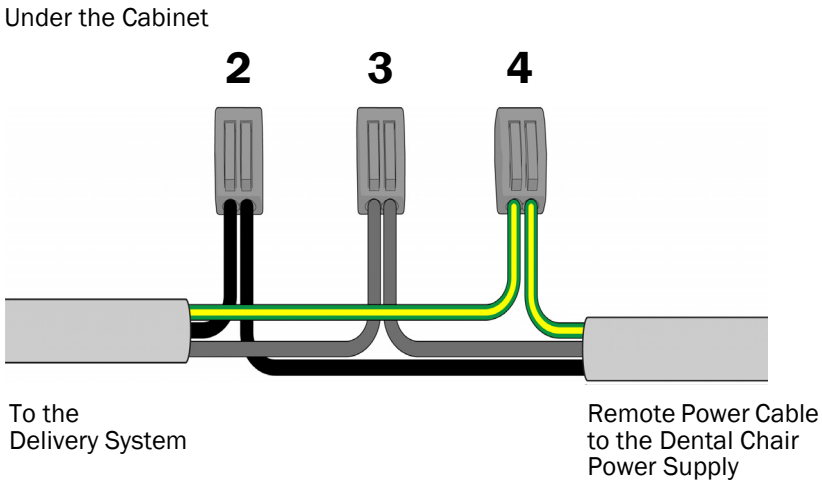
Recommended Tools

- Diagonal cutters
- Wire strippers

1. Cut off the eyelets from the green/yellow ground wire of the delivery system power cable and strip back the wires 3/8" (10 mm).



2. Connect the black wires with a wire connector.
3. Connect the gray wires with a wire connector.
4. Connect the ground wires with a wire connector.



5. Route the remote power cable to the dental chair power supply.

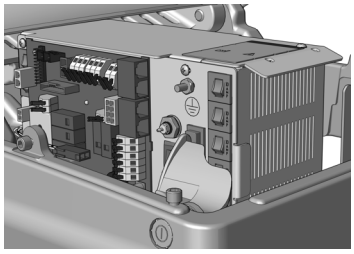
Connect the Remote Power Cable and Data Line at the Dental Chair

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.

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.

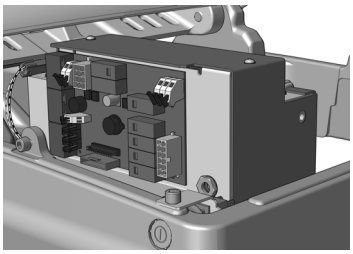
1. Turn off the power to the system.

Complete the section for the system's configuration:



Connect the Remote Power Cable and Data Line to an A-dec Universal Power Supply Manufactured After June 2023 30

Connect the Remote Power Cable and Data Line to an A-dec 311/411 Power Supply Manufactured Before June 2023 36



Connect the Power Cables and Data Line Used with an A-dec 300 W Stand-Alone Power Supply 39

Connect the Power Cables and Data Line Used with an A-dec 300 W Stand-Alone Power Supply 39

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

Complete the instructions for the system's configuration:

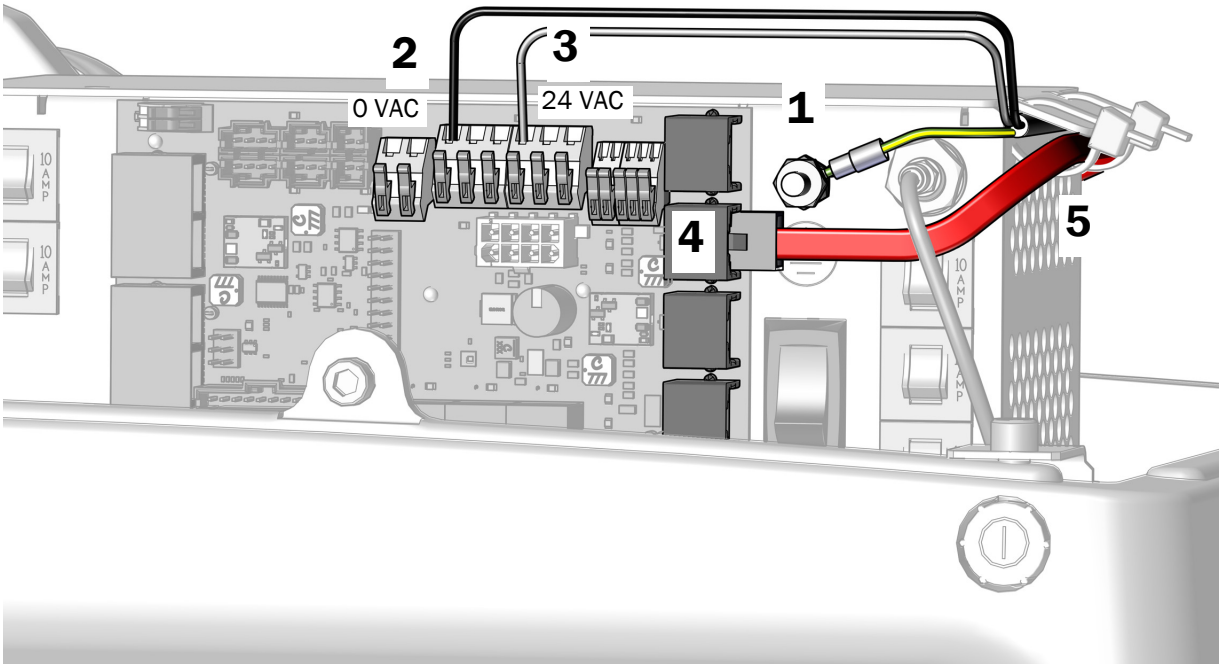
Connect the Remote Power Cable and Data Line from an A-dec 342pro to an A-dec Universal Power Supply 30
Connect the Remote Power Cable and Data Line from an A-dec 342 to an A-dec Universal Power Supply 31

Connect the Remote Power Cable and Data Line from an A-dec 342pro to an A-dec Universal Power Supply

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

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

4. Plug the red DCS2 data line into a port toward the toe of the chair.
5. After all of the electrical connections have been made for the system's modules, secure the wires and red DCS2 data line under the lip on the power supply.



Next Step See "Connect the Tubing" on page 40.

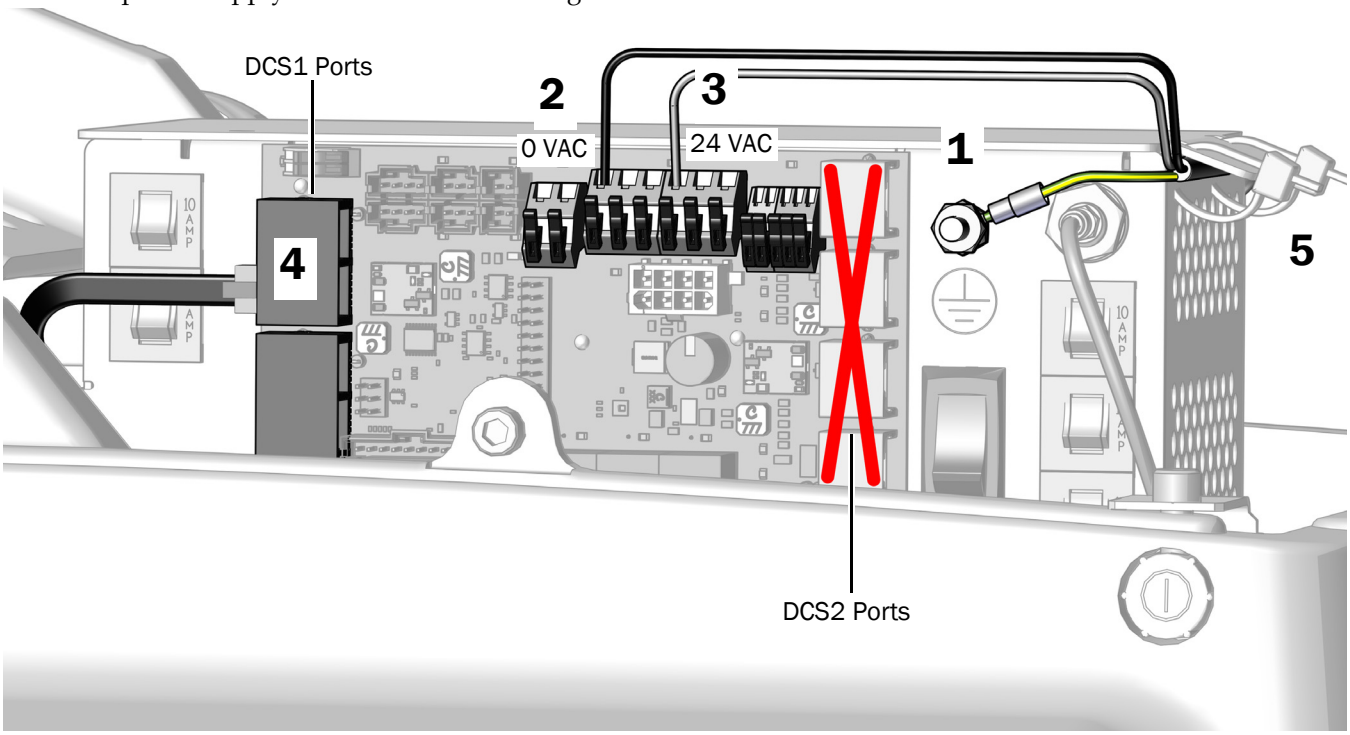
Connect the Remote Power Cable and Data Line from an A-dec 342 to an A-dec Universal Power Supply

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

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

CAUTION Plugging the black DCS1 data line into a DCS2 port toward the toe of the chair can damage the product.

4. Plug the black DCS1 data line into a DCS1 port toward the head of the chair.
5. After all of the electrical connections have been made for the system's modules, secure the wires under the lip on the power supply. The data line does not get secured.



Next Step See "Connect the Tubing" on page 40.

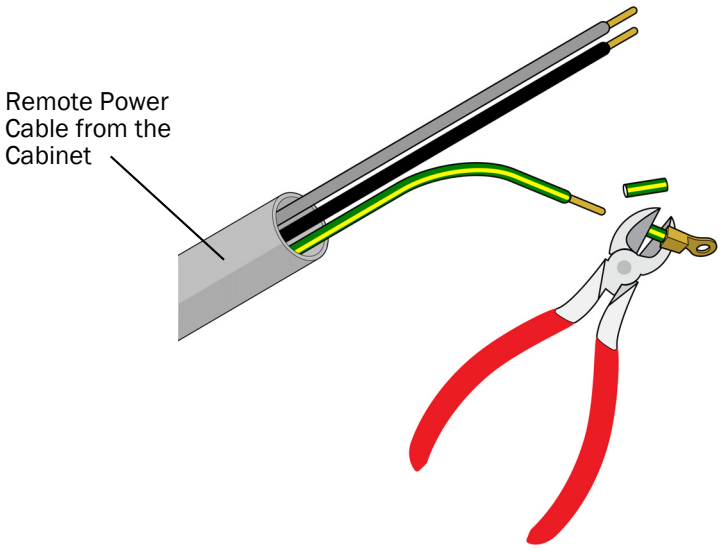
Connect the Remote Power Cable and Data Line to an A-dec 511 Power Supply Manufactured Before June 2023

Connect the Remote Power Cable to a 4-Position Power Adaptor Cable

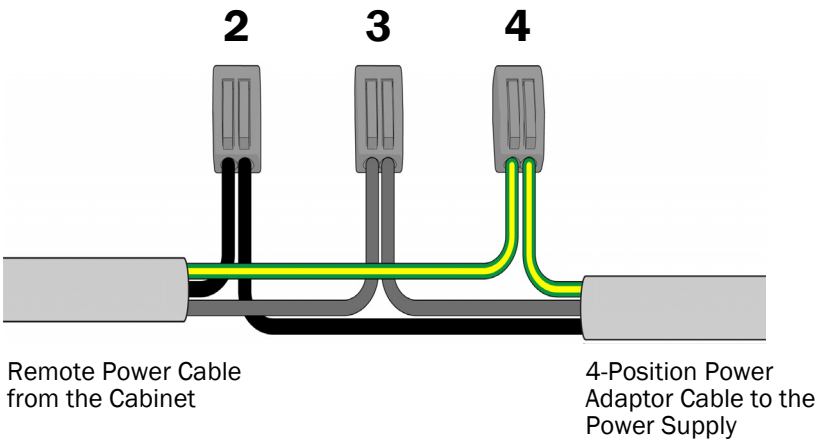
Recommended Tools

- Diagonal cutters
- Wire strippers

1. Cut the eyelet off of the green/yellow ground wire of the remote power cable and strip back the wires 3/8" (10 mm).



2. Connect the black wires with a wire connector.
3. Connect the gray wires with a wire connector.
4. Connect the ground wires with a wire connector.



Connect the 4-Position Power Adaptor Cable and Data Line to an A-dec 511 Power Supply

Complete the instructions for the system's configuration:

Connect the Power Adaptor Cable and Date Line from an A-dec 342pro to an A-dec 511 Power Supply 33
Connect the Power Adaptor Cable and Date Line from an A-dec 342 to an A-dec 511 Power Supply 35

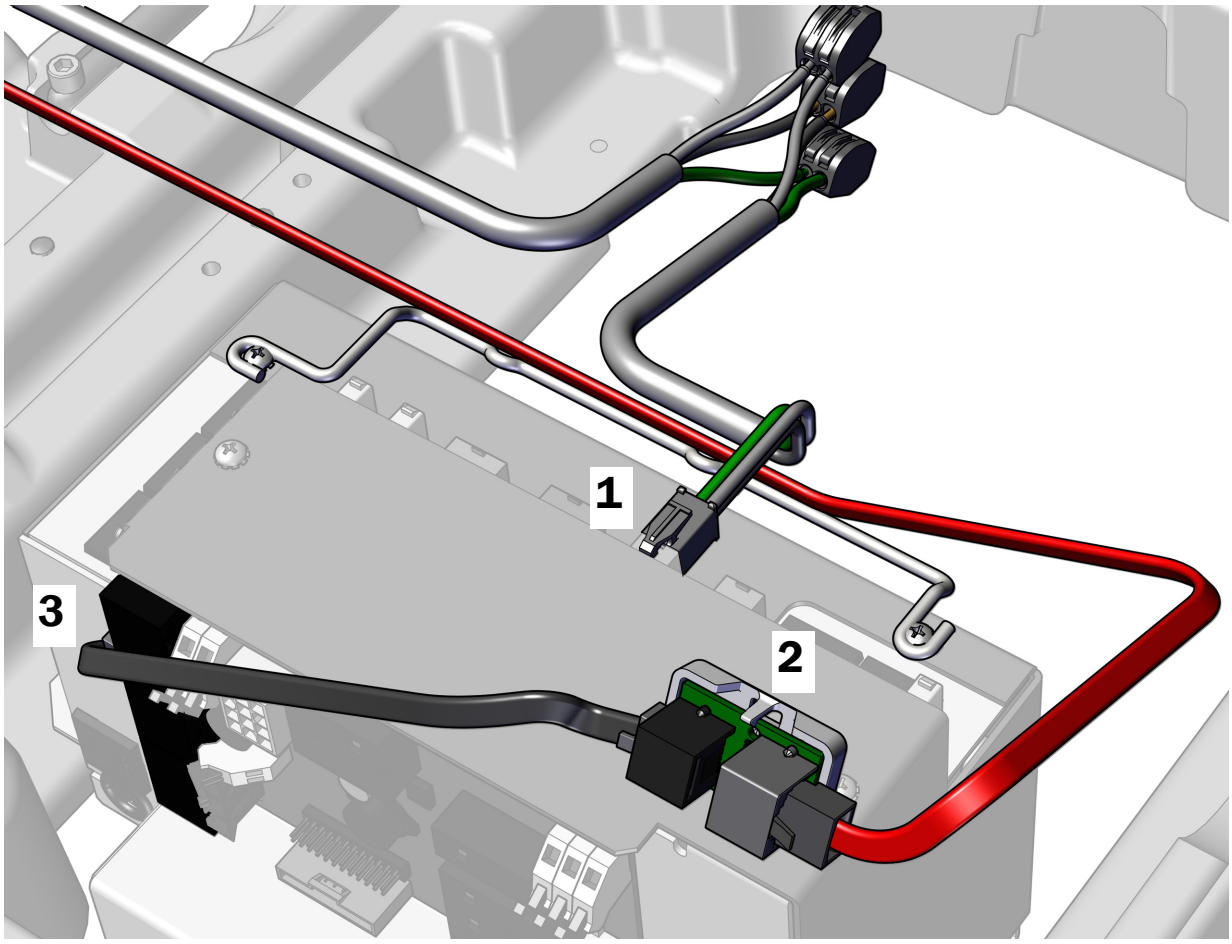
Connect the Power Adaptor Cable and Date Line from an A-dec 342pro to an A-dec 511 Power Supply

Recommended Tools

- Phillips head screwdriver
- Diagonal cutters

Task 1.

1. Plug in the 4-position power adaptor connector.
2. Position the translator board with the gray DCS2 port toward the toe of the chair, connect the red DCS2 data line to the gray port, and connect the black DCS1 data line to the black port.
3. Connect the black DCS1 data line from the black port on the translator board to the port on the power supply.



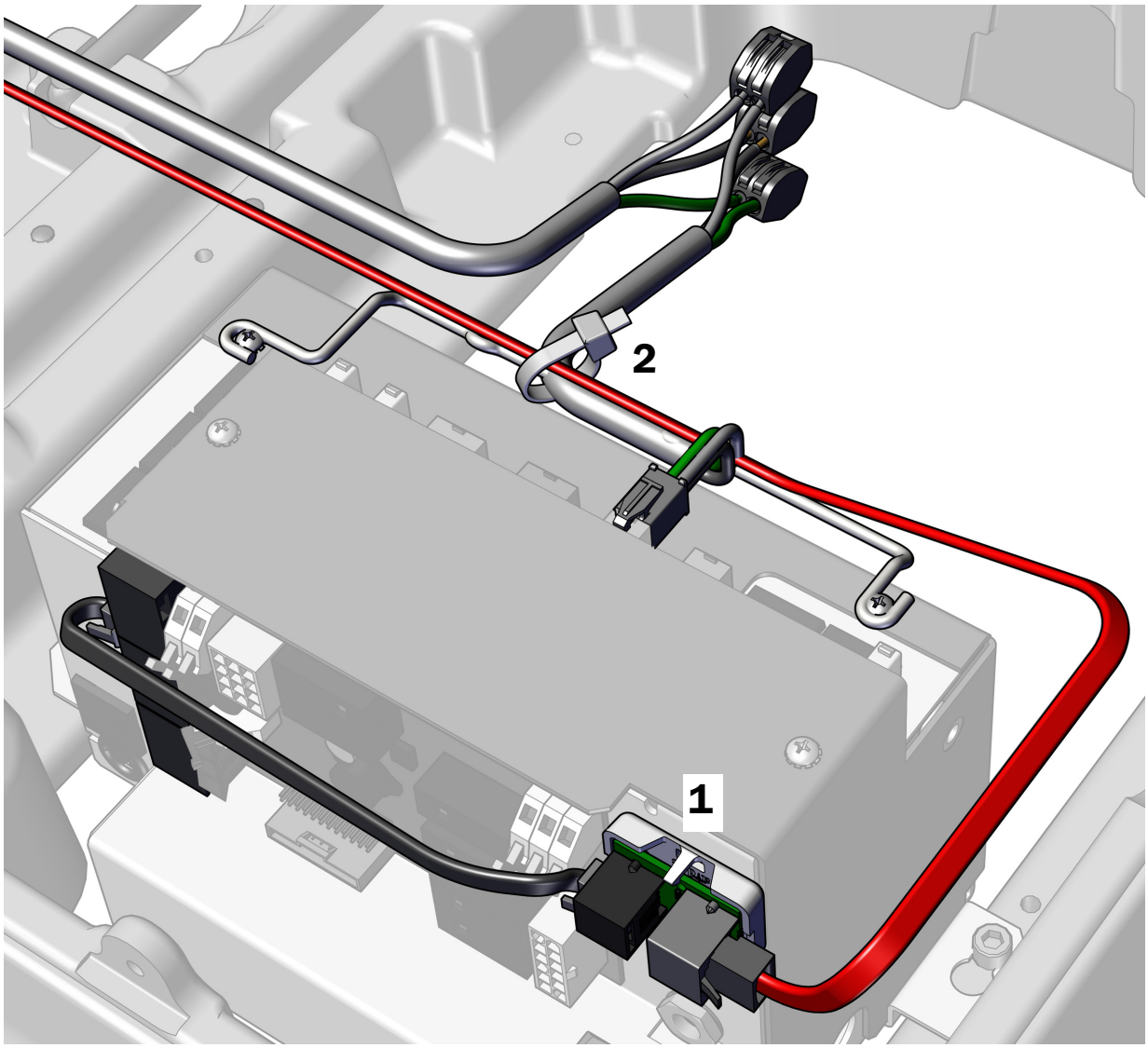
Task 2.

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.

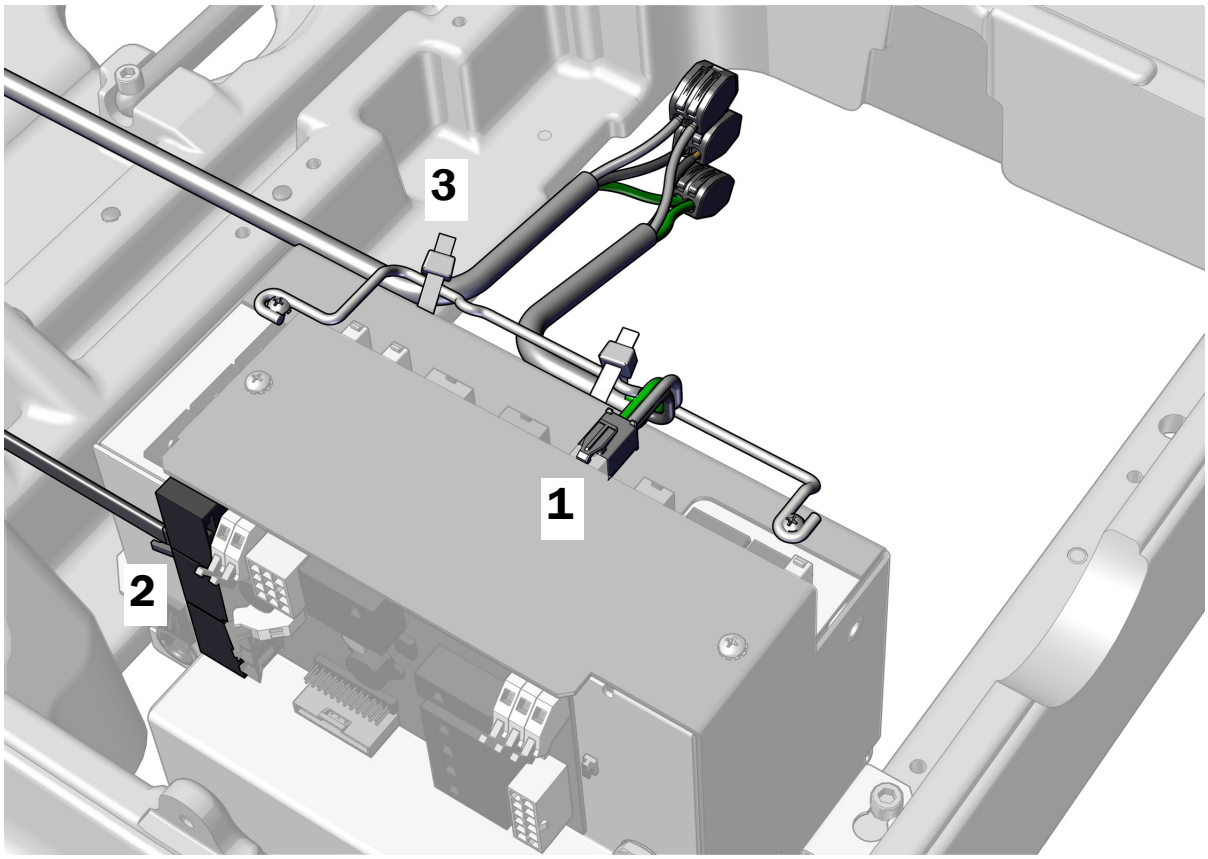
2. When all modules have been connected to the power supply, secure the wires to the bail with cable ties.



Next Step See “Connect the Tubing” on page 40.

Connect the Power Adaptor Cable and Date Line from an A-dec 342 to an A-dec 511 Power Supply

1. Plug in the 4-position power adaptor connector.
2. Plug the DCS1 data line into any data port.
3. After all of the electrical connections have been made for the system's modules, secure the wires to the bail on the power supply.



Connect the Remote Power Cable and Data Line to an A-dec 311/411 Power Supply Manufactured Before June 2023

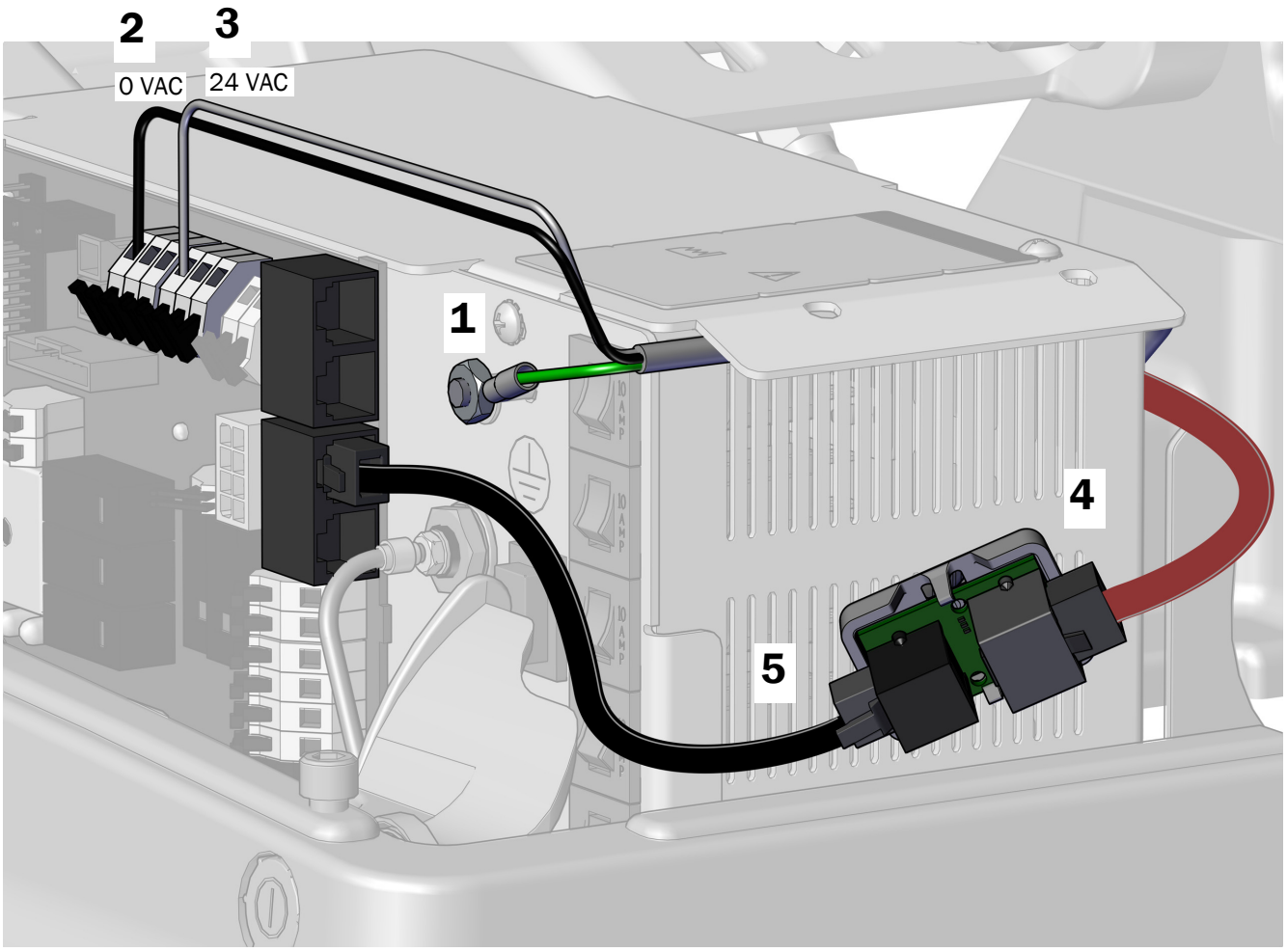
Complete the instructions for the system's configuration:

Connect the Remote Power Cable and Date Line from an A-dec 342pro to an A-dec 311/411 Power Supply 36
Connect the Remote Power Cable and Data Line from an A-dec 342 to an A-dec 311/411 Power Supply 38

Connect the Remote Power Cable and Date Line from an A-dec 342pro to an A-dec 311/411 Power Supply

Task 1.

1. Attach the ground wire to the post on the power supply.
2. Connect the black wire from the delivery system cable to the 0 VAC wire connector.
3. Connect the gray wire from the delivery system cable to the to 24 VAC wire connector.
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.

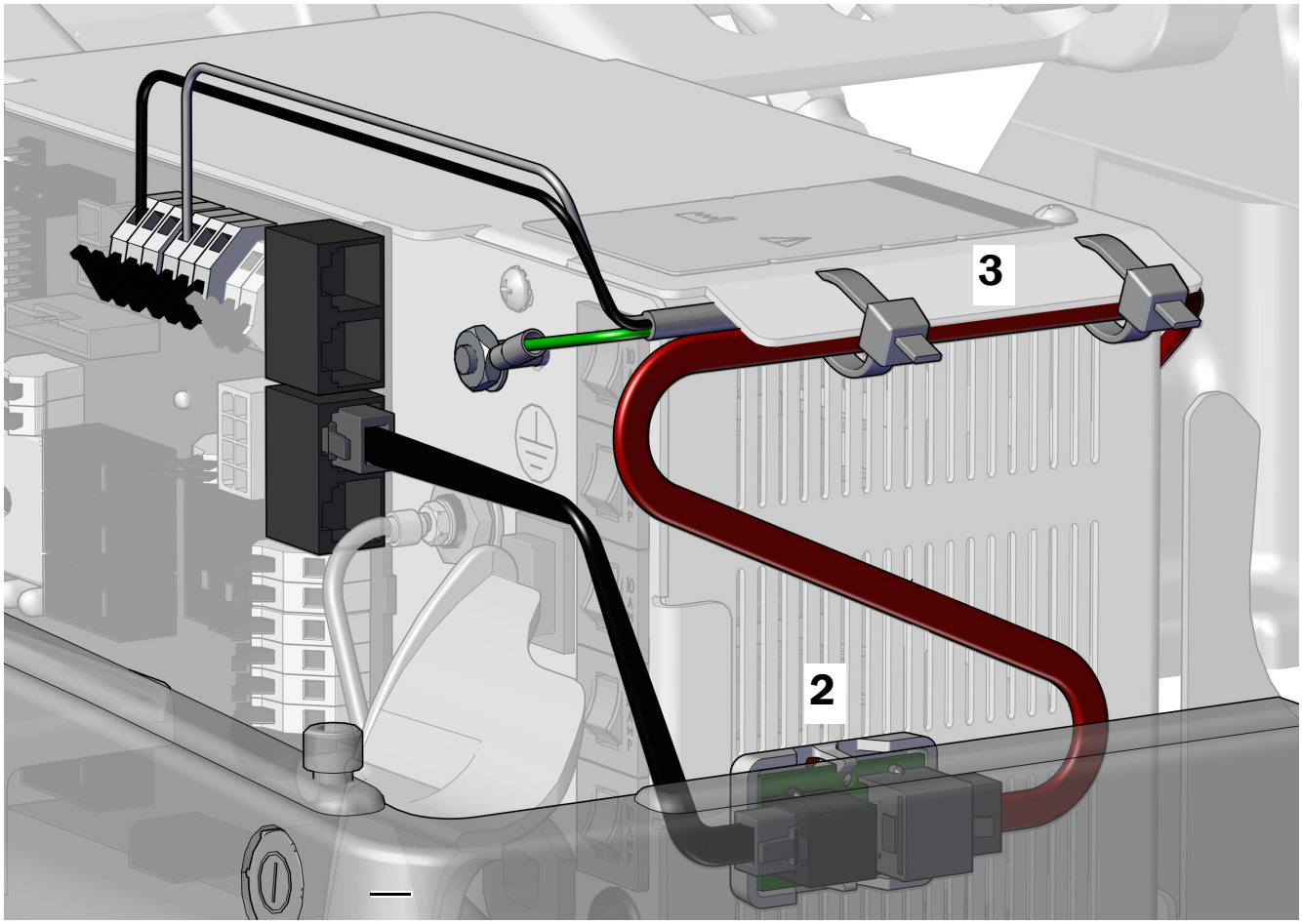
1. Peel off the protective paper from the translator board.

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.



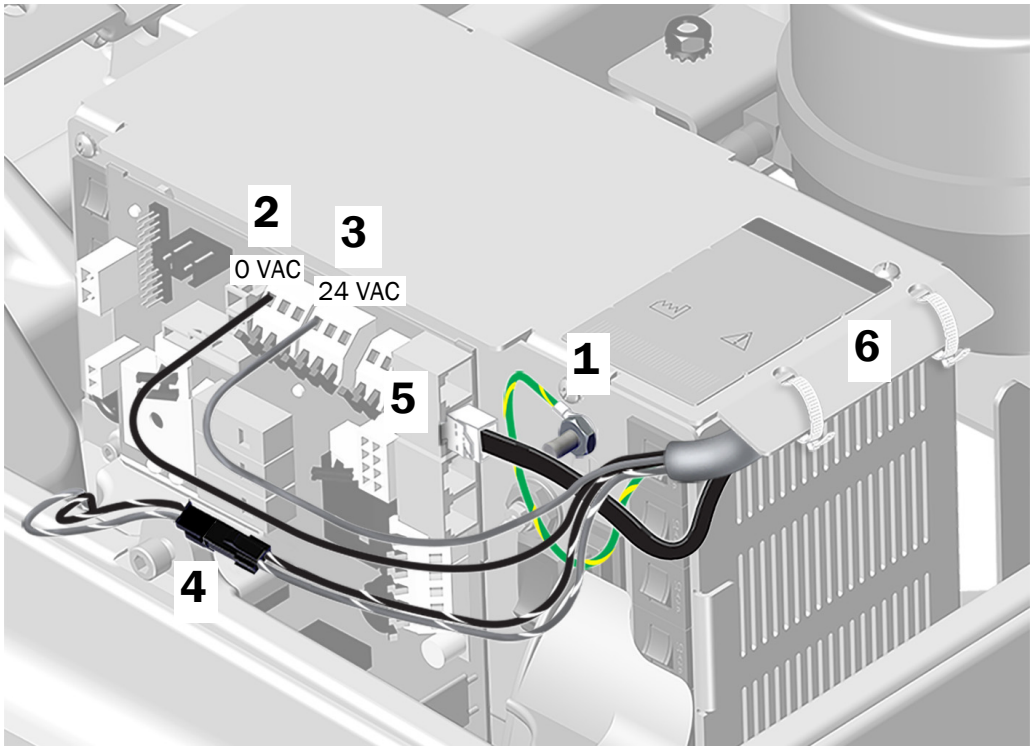
Next Step See "Connect the Tubing" on page 40.

Connect the Remote Power Cable and Data Line from an A-dec 342 to an A-dec 311/411 Power Supply

1. Attach the green/yellow ground wire to the ground terminal on the power supply housing.
2. Connect the black wire from the delivery system cable to the 0 VAC wire connector.
3. Connect the gray wire from the delivery system cable to the 24 VAC wire connector.

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

4. Connect the two-position connector to the 24 VAC isolated lead, if present.
5. Plug in the data line to one of the DCS1 data ports. It does not matter which port the line plugs into.
6. Use cable ties to secure the wires and data line under the lip.



Next Step See “Connect the Tubing” on page 40.

Connect the Power Cables and Data Line Used with an A-dec 300 W Stand-Alone Power Supply

Connect the Power Cables Used With an A-dec 300 W Stand-Alone Power Supply

See “Connect the Delivery System Power Cable to a 300 W Stand-Alone Power Supply” on page 27.

Connect the Data Line Used With an A-dec 300 W Stand-Alone Power Supply

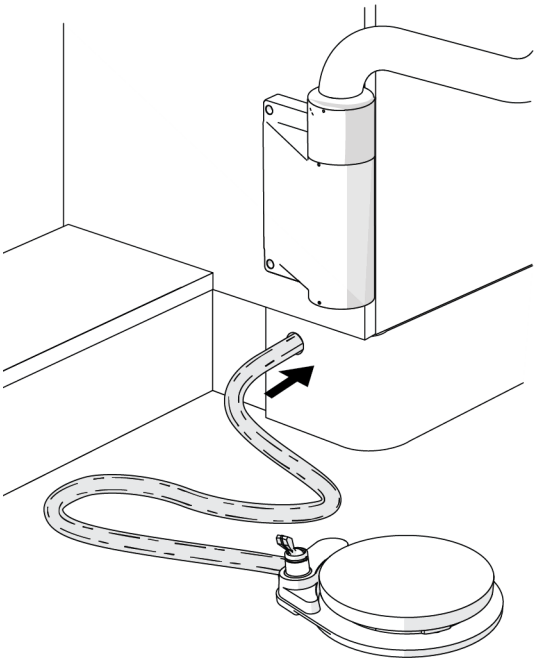
For instructions on plugging in the 25' data line from the cabinet, see the section for the system configuration.

Connect the Remote Power Cable and Data Line from an A-dec 342pro to an A-dec Universal Power Supply 30
Connect the Remote Power Cable and Data Line from an A-dec 342 to an A-dec Universal Power Supply 31
Connect the Power Adaptor Cable and Date Line from an A-dec 342pro to an A-dec 511 Power Supply 33
Connect the Power Adaptor Cable and Date Line from an A-dec 342 to an A-dec 511 Power Supply 35
Connect the Remote Power Cable and Date Line from an A-dec 342pro to an A-dec 311/411 Power Supply 36
Connect the Remote Power Cable and Data Line from an A-dec 342 to an A-dec 311/411 Power Supply 38

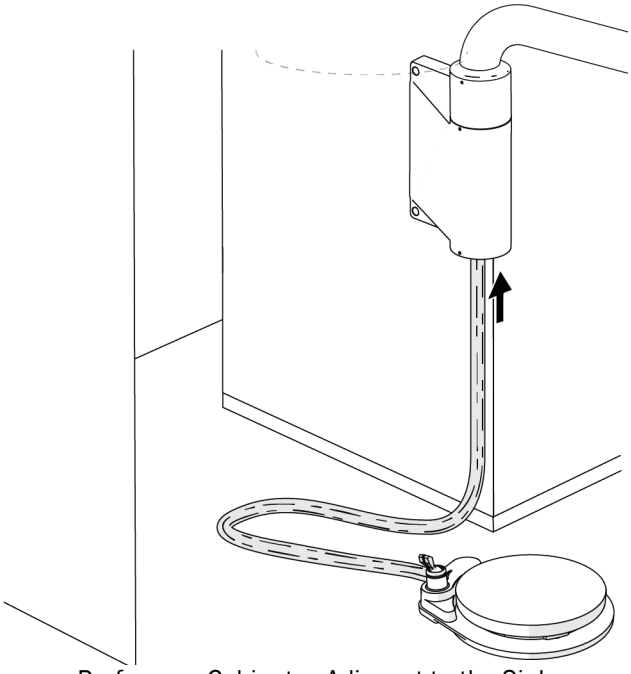
Connect the Tubing

Install the Foot Control

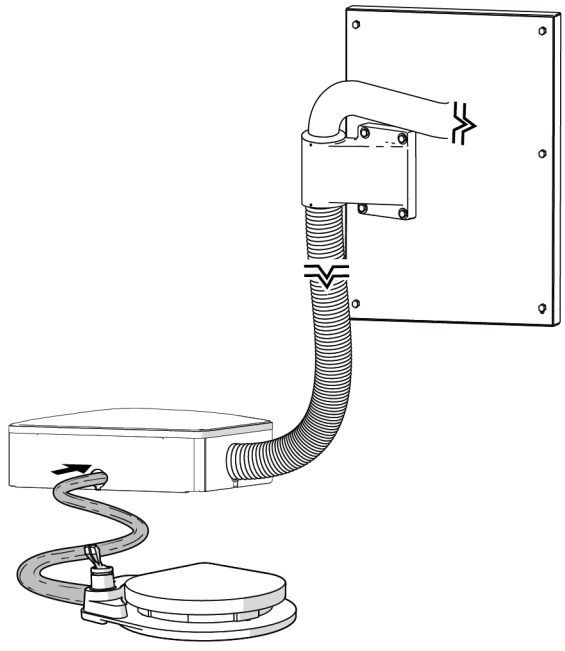
Route the foot control tubing according to where it will be installed.



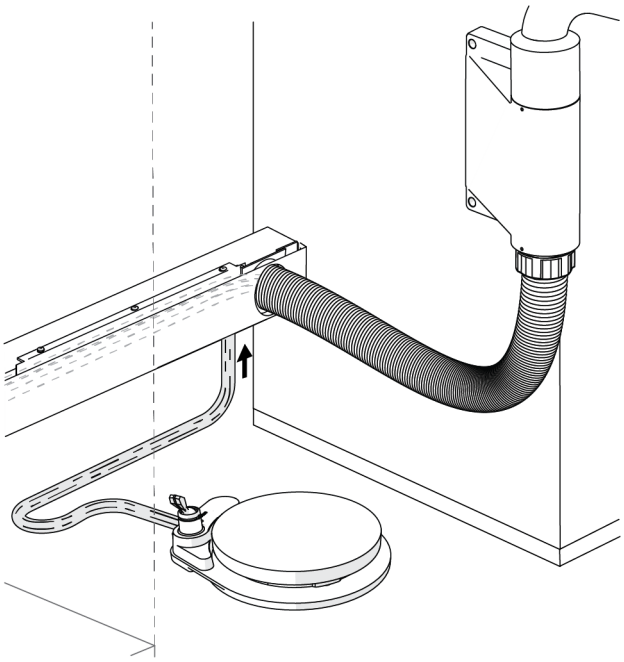
A-dec Inspire Cabinets



Preference Cabinets - Adjacent to the Sink



Wall Mount



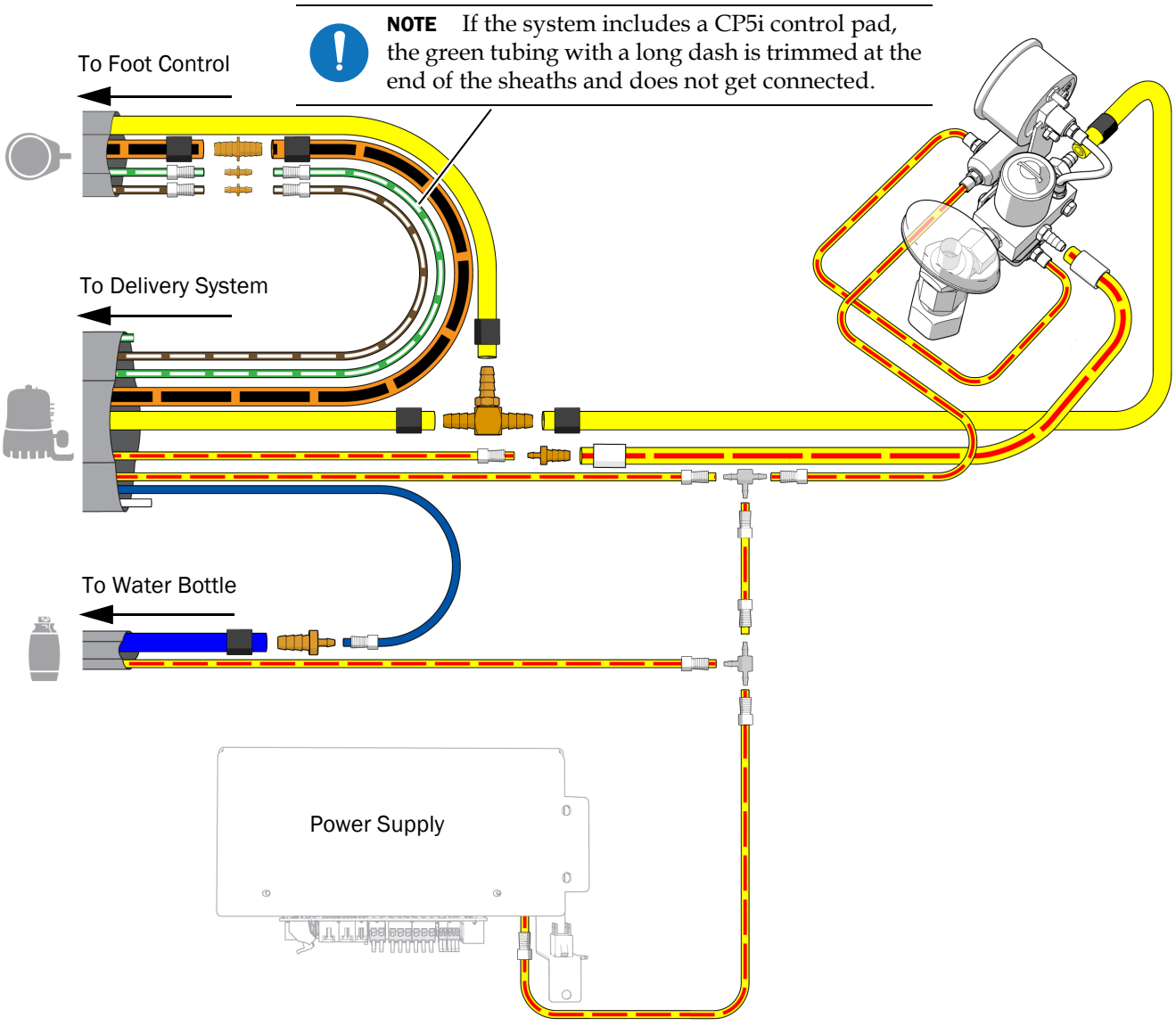
Preference Cabinets - Opposite from the Sink

Connect the Tubing

Connect the tubing according to the following flow diagram.

NOTE To connect to an A-dec 511 power supply, use the quick disconnects from the kit.

NOTE To connect the pilot air tubing to an A-dec 311/411 dental chair, see *Connect Pilot Air Tubing from an A-dec 341pro/341flt/342pro/342/541pro/541 Delivery System or A-dec 545sta/545 Assistant's Instrumentation to an A-dec 311/411 Dental Chair Installation Guide* (p/n 86.0160.00).

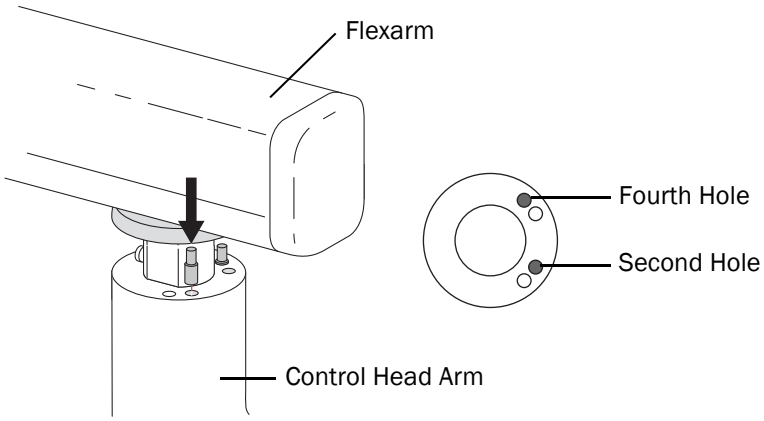


Adjust the System

Insert the Rotation Stops

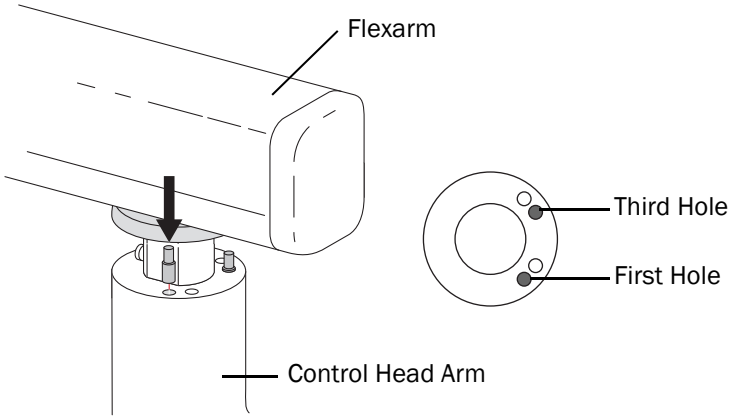
1 Insert the rotation stop pins with the large diameter end down:

- **Left-hand operation:** Insert the pins in the second and fourth holes.



Left-Hand Operation

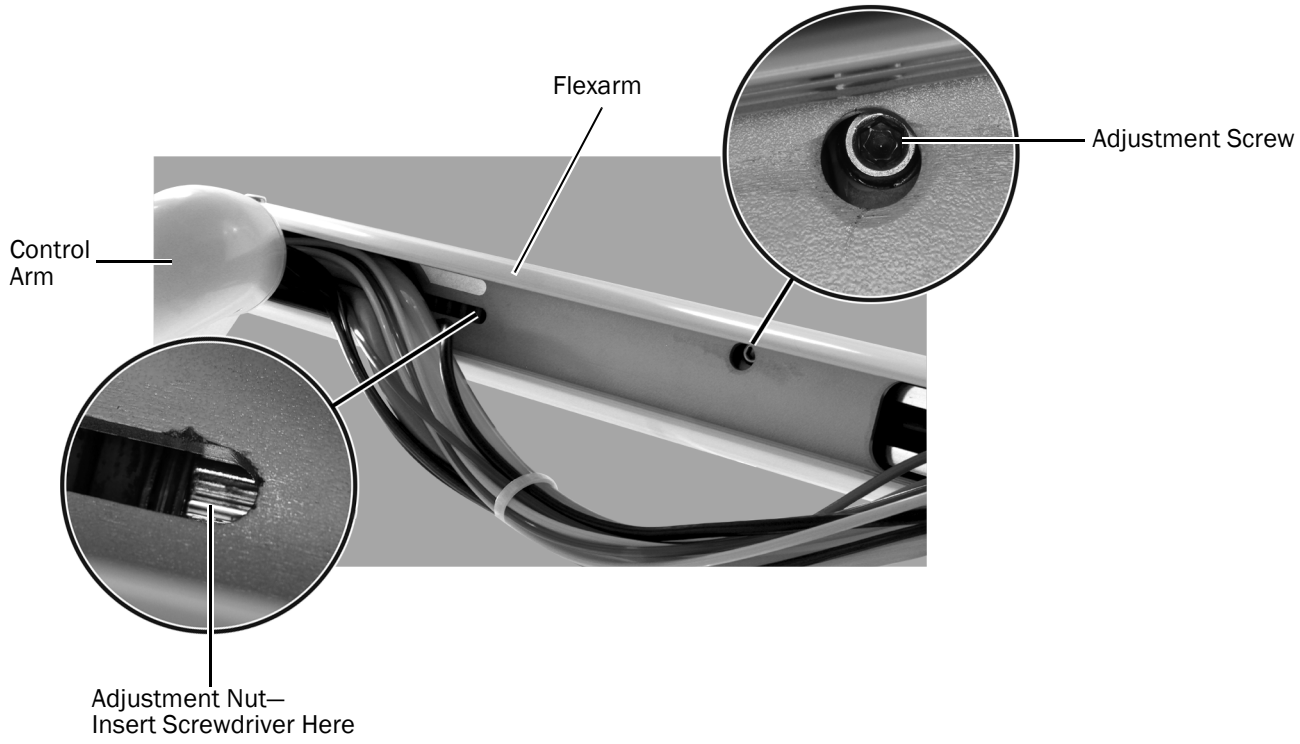
- **Right-hand operation:** Insert the pins in the first and third holes.



Right-Hand Operation

Adjust the Flexarm Counterbalance

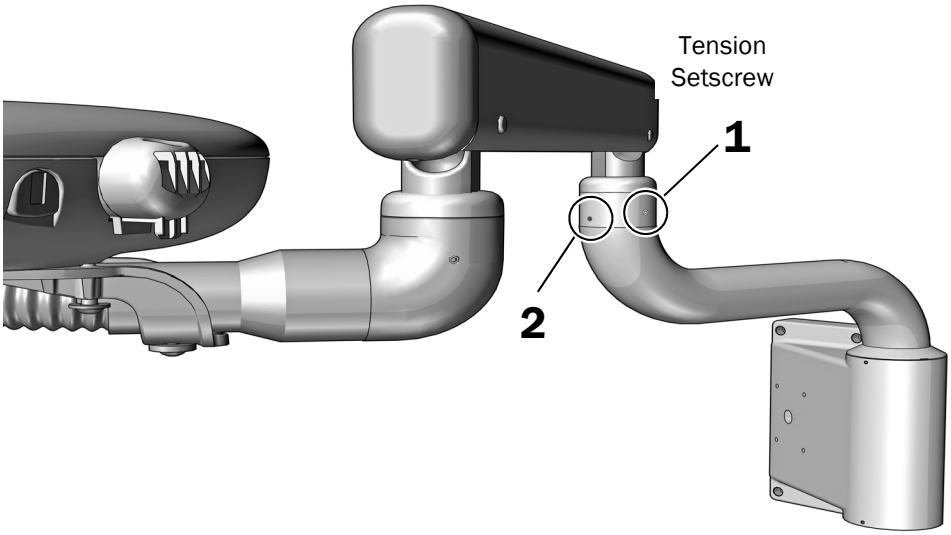
1. Load the control head for normal use. Attach the handpieces. If there is a tray holder, place a tray with instruments on the tray holder.
2. Move the control head to the lowest position.
3. Check whether the control head drifts.
4. Remove the cover under the flexarm.
5. Ensure there is enough slack in the tubing to access the underside of the flexarm.
6. Raise the flexarm up to access the following:
   - **Adjustment nut:** A spring that counterbalances the weight of the control head.
   - **Adjustment screw:** A friction mechanism that maintains the vertical position of the control head.



7. To adjust the counterbalance, insert a standard screwdriver into the adjustment nut:
   - If the control head drifts up, turn the nut counterclockwise.
   - If the control head drifts down, turn the nut clockwise.
8. After the counterbalance is adjusted, move the arm to the full up and full down positions, releasing the control head at each position. If the flexarm drifts in either position, use a 5/32" hex key to tighten the adjustment screw.

CAUTION Do not overtighten the adjustment screw, as you may damage the friction mechanism.

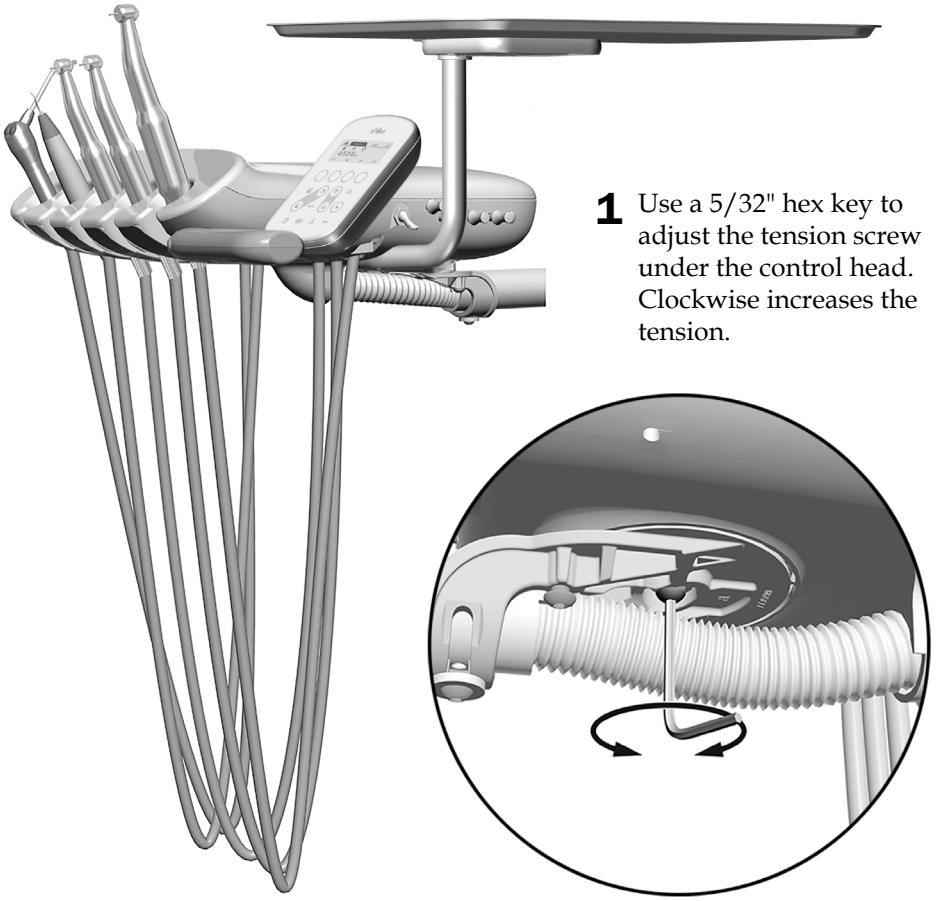
Adjust the Flexarm Rotation Tension



1 Use a 3/32" hex key to adjust the setscrew tension. It should be tight enough not to drift, but not so tight that it is difficult to move. Clockwise increases the tension.

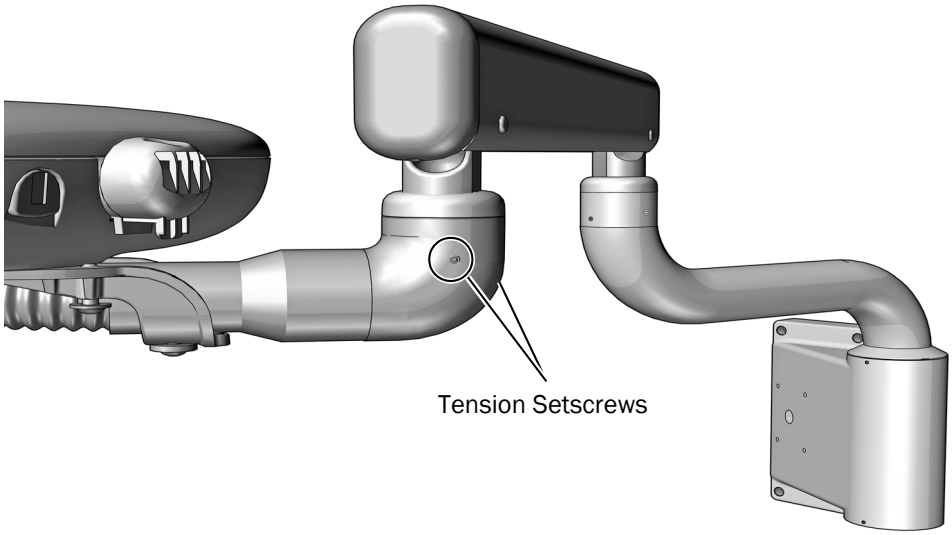
2 After the tension is adjusted, use the same hex key to tighten the other screw until snug.

Adjust the Control Head Rotation Tension



1 Use a 5/32" hex key to adjust the tension screw under the control head. Clockwise increases the tension.

Adjust the Control Arm Rotation Tension



1 Use a 3/32" hex key to adjust the two tension setscrews equally. Clockwise increases the tension.

Adjust the Tray Holder Mount Rotation Tension

1 Use a Phillips head screwdriver to remove the cap screws. Remove the cap.

2 Insert a 7/32" hex key into the tension bolt and turn clockwise to increase the tension.

3 Replace the cap and secure with the screws.

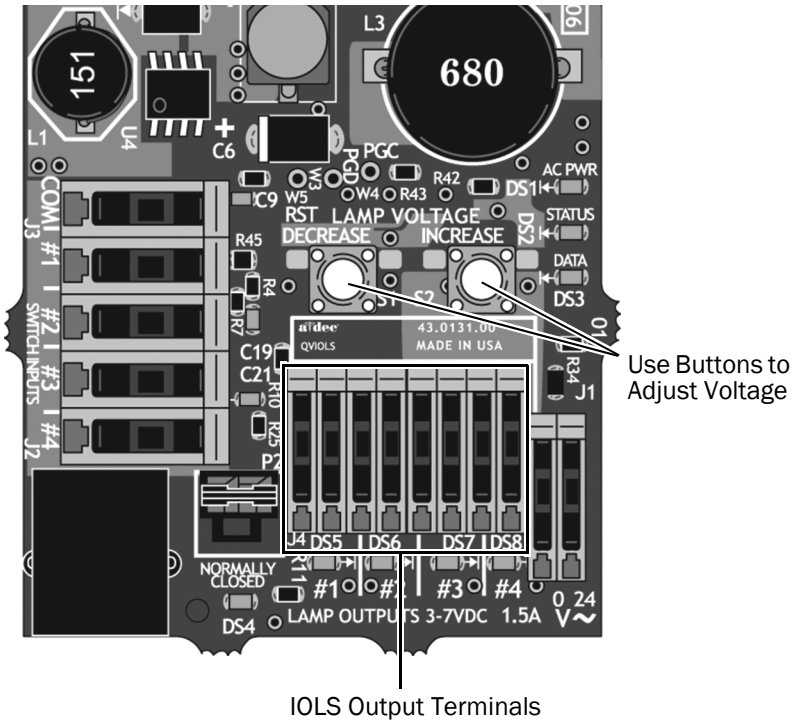
Adjust the Intraoral Light Source

Recommended Tools

- 7/64" hex key
- Voltmeter

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

1. Use a hex key to remove the control head back cover.
2. Set the voltmeter to DC voltage and place its probes on the IOLS output terminals for the handpiece you are adjusting.



3. Lift the handpiece from its holder and turn the light on.
4. Use the buttons behind the terminal to adjust the voltage according to the table on the next page.

CAUTION The values in the following table are valid only for fiber optics with 26 AWG wires, 750 mA loads, and the recommended 3.2 VDC at the bulb. For fiber optics powered with 26 AWG wires and other ratings, use the equation T = (Z x 0.006 x Y) + X where:

T = Terminal strip voltage (VDC)
X = Desired voltage at bulb (VDC)
Y = Rated lamp/load current (in Amps)
Z = Length of 26 AWG wire (inches) from terminal strip to bulb

For devices with a wire gauge other than 26 AWG, please contact A-dec Customer Service.

Length and Voltage Table for Bulbs Rated at 3.20 VDC

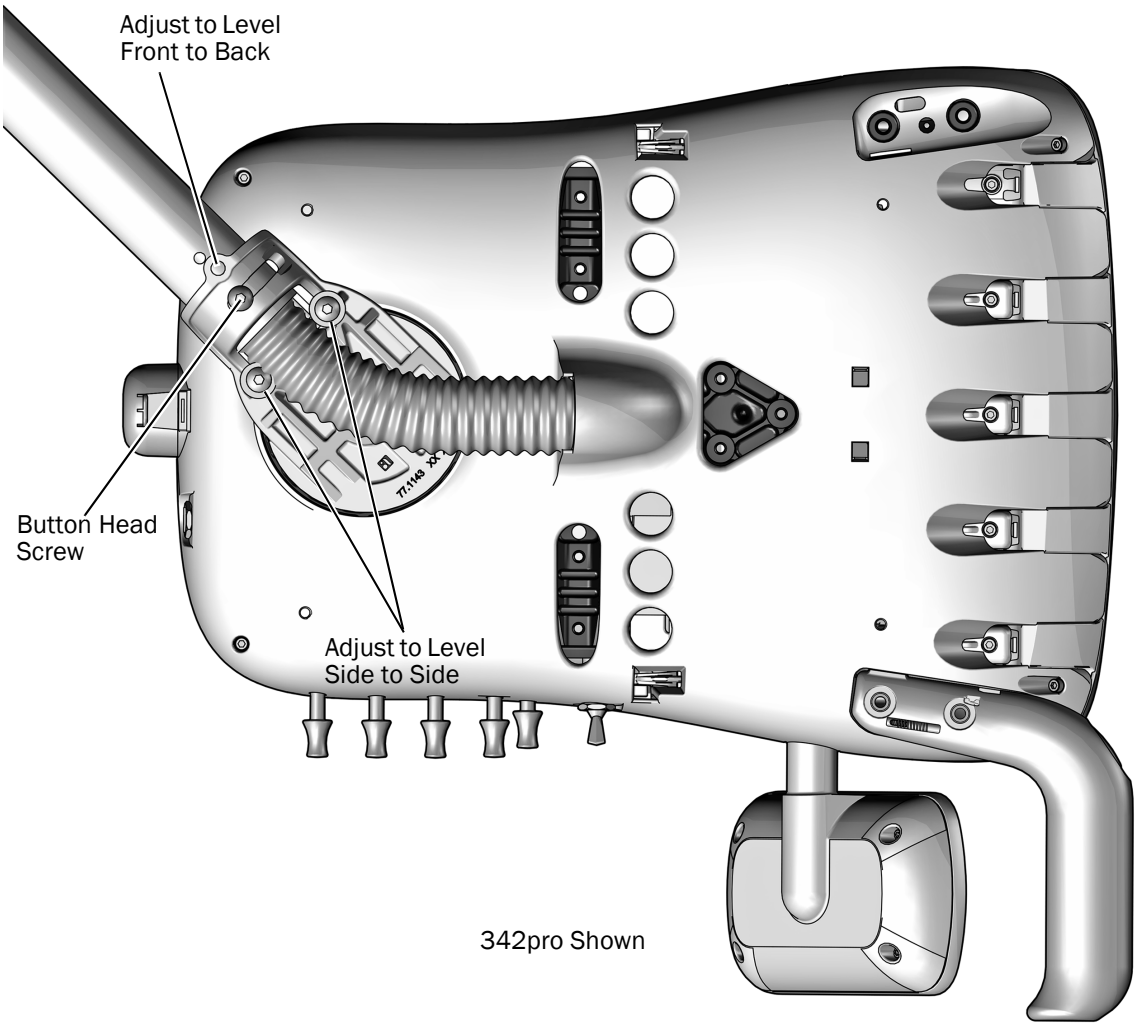
A-dec Tubing Length		Voltage at terminal strip resulting in recommended 3.20 VDC +/- 0.03 bulb voltage (measure with IOLS on)		
(in)	(cm)	0.200 A	0.380 A	0.750 A
50	127	3.37	3.52	3.84
64	163	3.42	3.61	4.02
85	216	3.49	3.75	4.28

Level the Delivery System

Recommended Tool

- 5/32" hex key

1. Move the control head to the normal working position.
2. Place a level on top of the control head.
3. Use a hex key to slightly loosen the button head screw holding the control head in place.
4. Make the following adjustments to level the control head. When making adjustments, align the level with the screws you are adjusting.
   - Use a hex key to level the control head from side to side.
   - Use a hex key to level the control head from front to back.
5. Tighten the button head screw to hold the control head in place.



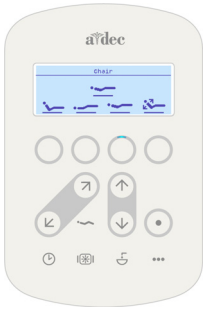
Customize Touch Control Settings

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

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

CP5 Control Pad **49**
A-dec 300 Deluxe Touchpad **50**
Standard Touchpad **52**

CP5 Control Pad



For touchscreen and control pad use, see the *A-dec DS76/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.

A-dec 300 Deluxe Touchpad

Technician Touchpad Setup

To adjust handpiece and touchpad settings for user preferences, press and hold m and e at the same time. When the **System Setup** screen appears, press ▶.

A-dec 300 Deluxe Touchpad Setup Screen Example

Navigate with Touchpad Buttons

Chair button functions become navigation buttons while you are in setup mode. Use the back up ▶, back down ◀, base up ▲, base down ▼, also the minus — and plus + buttons to navigate, and make adjustments and selections on the setup screens.

Contrast/Help Messages Setup

To adjust the touchpad screen contrast or turn on/off the help messages:

1. From the deluxe touchpad main screen, press and hold m and e at the same time for three seconds, and press ▶ to begin.
2. From the **System Setup** screen, press — or + to select **Touchpad** and press ▶ to begin.
3. From the **Touchpad Setup** screen, press — or + until **Contrast Adjust** or **Help Messages**: is displayed on the screen, then press ▶ to enter the **Contrast Adjust Setup** or **Help Messages Setup** screen.
   - In the **Contrast Adjust Setup** screen**:** Press — or + to adjust the contrast, then press ▶ to save the setting. Three beeps confirms the setting is saved.
   - In the **Help Messages Setup** screen**:** Press — or + to turn **On** or **Off** help messages, then press ▶ to save the setting. Three beeps confirms the setting is saved.
4. When finished making adjustments to touchpad settings, press ◀ until the A-dec logo is displayed.

NOTE For a listing of help messages, see the *Regulatory Information, Specifications, and Warranty* document (p/n 86.0221.00) in the Resource Center at www.a-dec.com.

Handpiece Holder Setup

You can set up how handpieces are configured for each handpiece holder. Handpiece types include Basic Air, Camera, Electric, Other, Ultrasonic, Vacuum, and Turbine.

To set up handpiece holders:

1. Press and hold m and e at the same time until a **System Setup** screen appears, then press ▶.
2. On the **System Setup** screen press — or + to highlight **Handpieces**, then press ▶.
3. On the **Handpiece Setup** screen press — or + to highlight **Holder Setup**, then press ▶.
4. Lift the desired handpiece from the holder.
5. On the **Holder Setup** screen press — or + to select the handpiece type, then do one of the following depending on the type of handpiece:
   - **Electric:** For setup instructions, see the installation information that ships with the control module.
   - **All other Types:** Press ▶. Three beeps confirms the setting is saved.
6. Return the handpiece to the holder.
7. Repeat steps 4 through 6 to set up each active handpiece.
8. When you are finished setting up the handpieces, press ◀ until you see the A-dec logo.

Intraoral Light Source Setup

NOTE With the A-dec 300 Deluxe Touchpad, you can set up various intraoral light source settings if a quad voltage intraoral light source (QVIOLS) or electric motor controller with built-in IOLS control is installed.

The following settings are available:

- **On When Selected:** Specify whether the intraoral light source turns on or remains off when the handpiece is removed from the holder.
- **Auto Off Delay**: Determine how long the light remains on when the foot control is released. This time is reset when you use the drive air again.
- **On in Endo:** Specify whether the intraoral light source turns on or off when in Endodontics mode. Because most Endodontics handpieces do not have light pipes, it is recommended that Off is selected to reduce heat and to extend bulb life.

To set up the intraoral light source:

1. From the deluxe touchpad main screen, press and hold m and e at the same time for three seconds and press ▸ to begin.
2. From the **System Setup** screen, press — or + to highlight **Handpieces** and press ▸.
3. From the **Handpiece Setup** screen, press — or + to highlight **Intraoral Lt Source** and press ▸.
4. Lift the desired handpiece from the holder.
5. From the **Light Source Setup** screen, press — or + to display the desired setting and press ▸.
6. Specify settings for the handpiece by pressing — or + and ▸ to move through the screens. Once the setup is complete, three beeps confirm the setting.
7. Repeat steps 5 and 6 for each setting.
8. Return the handpiece to the holder.
9. Repeat steps 3 through 8 to configure each handpiece.
10. When you are finished setting up the handpieces, press ◂ until you see the A-dec logo.

Standard Touchpad

There are no delivery system controls to set up or customize with a standard touchpad.

Test the System

After you have completed the installation, use the following checklist to test the delivery system; then follow up with the customer.

Delivery System

- Handpieces function properly and are set to the doctor's preferences:
  - Water coolant and air coolant
  - Handpiece tubing flush
  - Handpiece holder valves and switches
  - Handpiece drive air pressure
- Control head is level as checked on tray
- Articulating arms do not drift
- Foot control operates properly

Utilities

- Regulated air pressure is at 80 psi
- If the system includes a floor box, it 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

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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