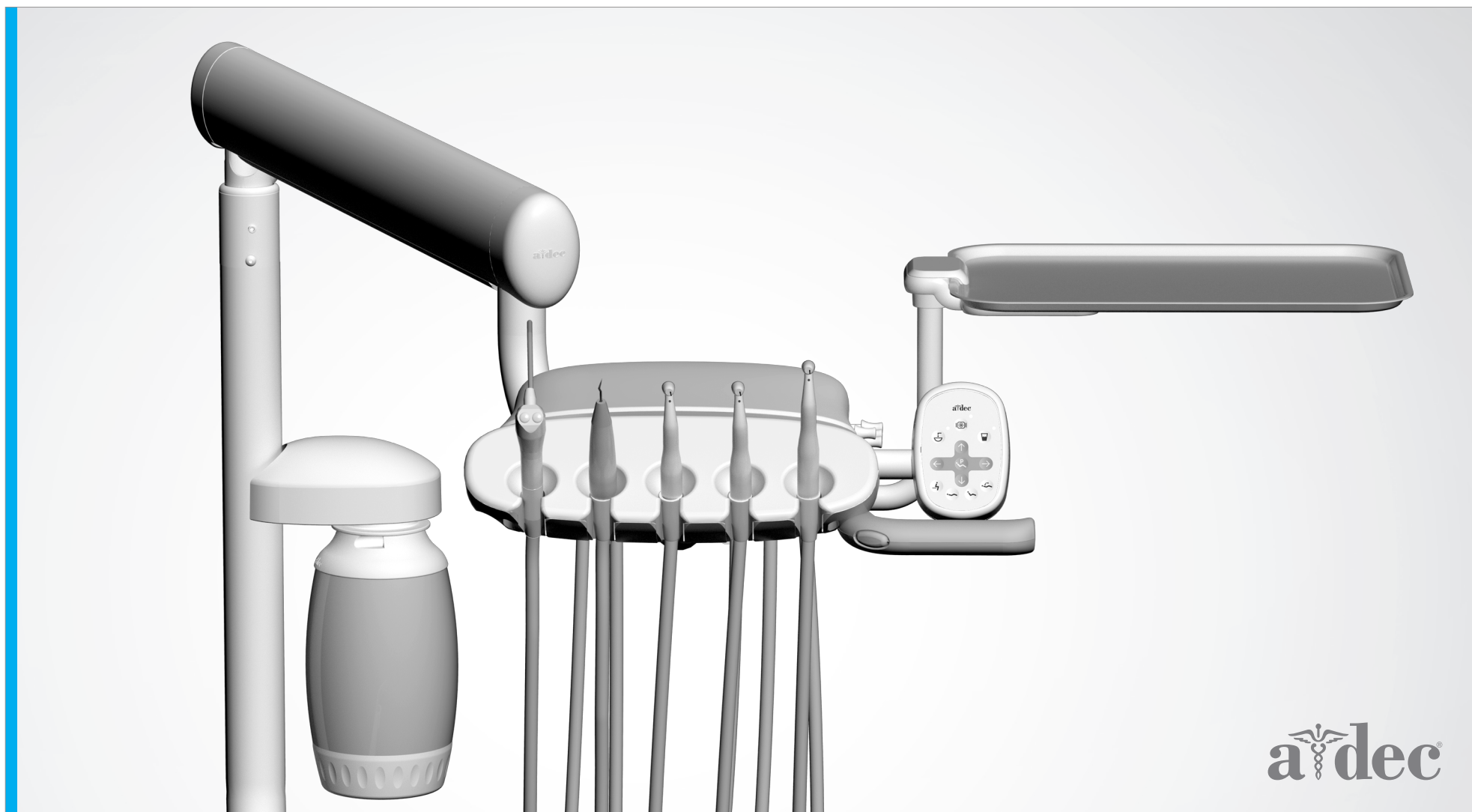


INSTRUCTIONS
FOR USE

A-dec® 332flt

DELIVERY SYSTEM



a|dec®

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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](https://www.a-dec.com/regulatory-guide).



Product Service

Product service is available through your local authorized A-dec dealer. For service information, or to locate an authorized dealer, contact A-dec at 1.800.547.1883 in the USA and Canada or +1.503.538.7478 worldwide, or visit www.a-dec.com.

Product Models and Versions Covered in This Document*

Models	Versions	Description
332ft	n/a	Delivery System

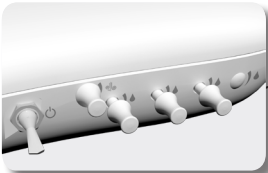
* Some products, versions, and options in this document may not be available in certain regions.

Content Map

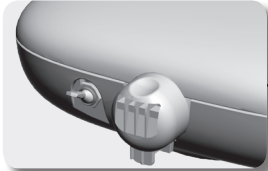
Touchpad6



Master Toggle2



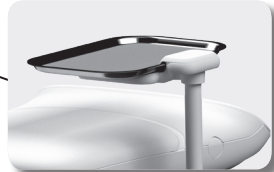
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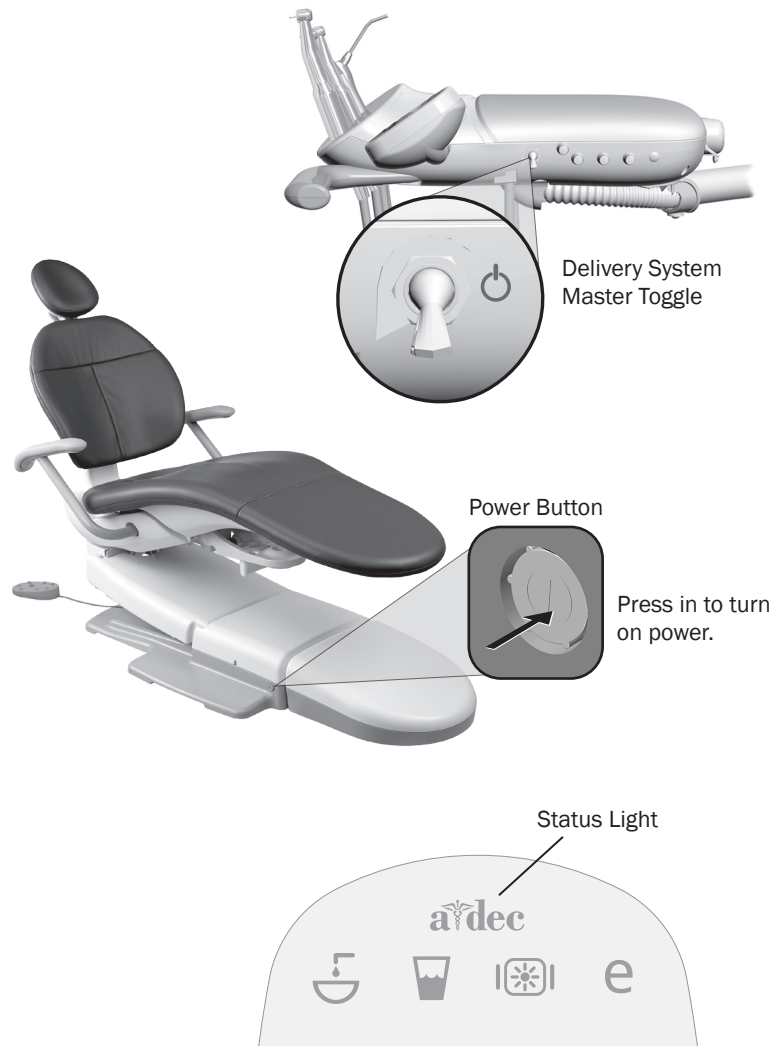
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Operate/Adjust

Turn On/Turn Off the Air, Water, and Power



NOTE A-dec recommends that you perform a shock treatment on the dental unit waterlines before you use the system for the first time. For more information, see "Waterline Maintenance" on page 21.

Master Toggle

Use the master toggle to turn on the system air, water, and power. If there is no power to the system, verify that the power button on the chair is pressed in. This button must be on in order for the master toggle to control system power.

When to Turn Off the Power

To save energy and reduce the chance of air leaks, press the power button to turn off power at the end of the day and before longer periods of non-use.

Touchpads and the Status Light

The A-dec logo on the touchpad illuminates when the system is on and ready for use. If the status light blinks, it may indicate that a safety feature has interrupted chair motion. See "Chair Safety Features" on page 3 for more information.

For complete details on touchpad functionality, please see "Touchpad Controls" on page 6.

Chair Safety Features



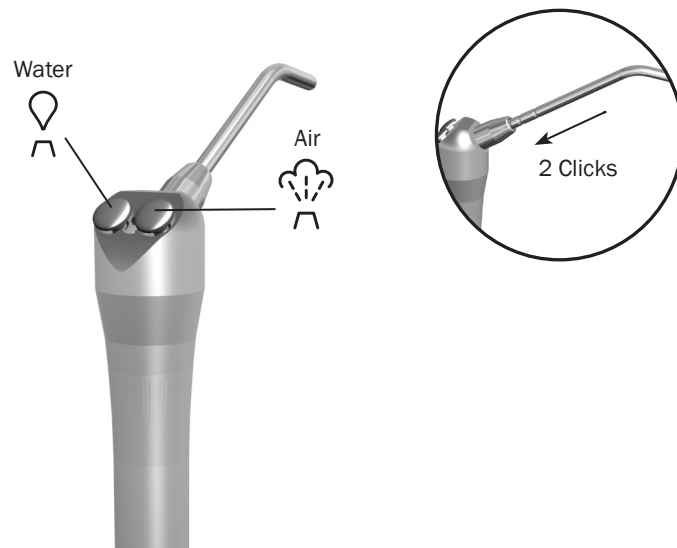
A-dec dental chairs and systems include safety features (like the chair stop plate) that may stop or prevent the chair from moving. This may occur due to any of the following:

- There's an obstruction under the chair or attached module.
- The foot control disc or lever is pressed.
- A handpiece isn't properly seated in its holder.

If the Chair Stops Unexpectedly or Won't Move

Check for and correct any of the conditions listed above. If an obstruction is blocking chair movement, use the touchpad or footswitch to raise the chair, then remove the obstruction.

Operate the Autoclavable Syringe

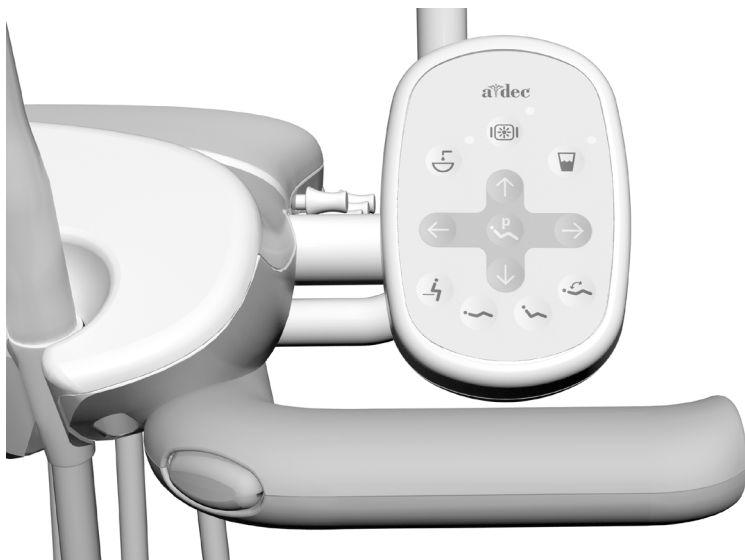


To install the A-dec syringe tip, push the tip in until you feel two clicks. Press both buttons simultaneously for the air/water spray.



IMPORTANT For more details on syringe usage and maintenance, see your A-dec syringe Instructions for Use.

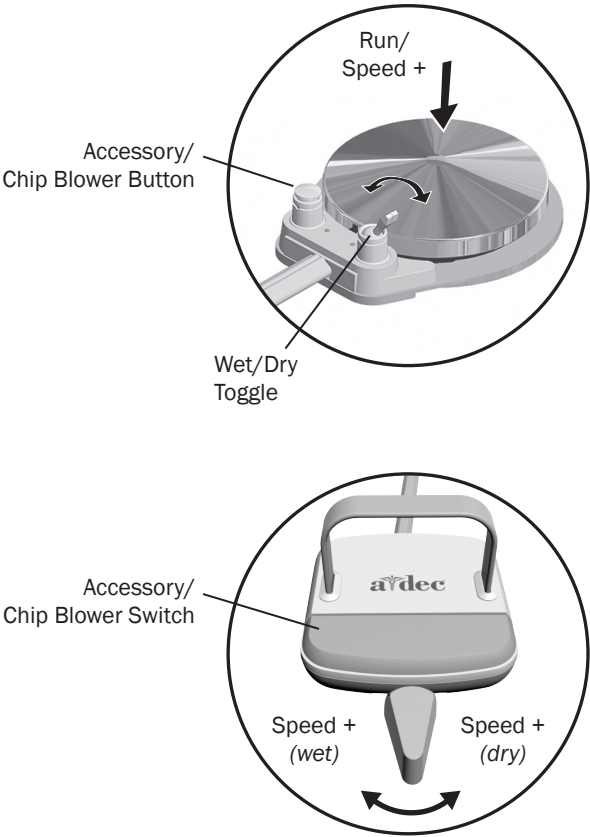
Position the Delivery System



On systems with a counterbalanced flexarm, an integrated brake maintains the vertical position of the control head (with up to 4 lb [1.8 kg] of additional weight). The brake does not restrict side-to-side movement. To adjust the control head height:

1. Press and hold the button to disengage the brake while you position the control head.
2. Release the button to engage the brake.

Operate the Foot Control



To activate a handpiece, lift it from the holder. Use the foot control to perform the desired handpiece operation.

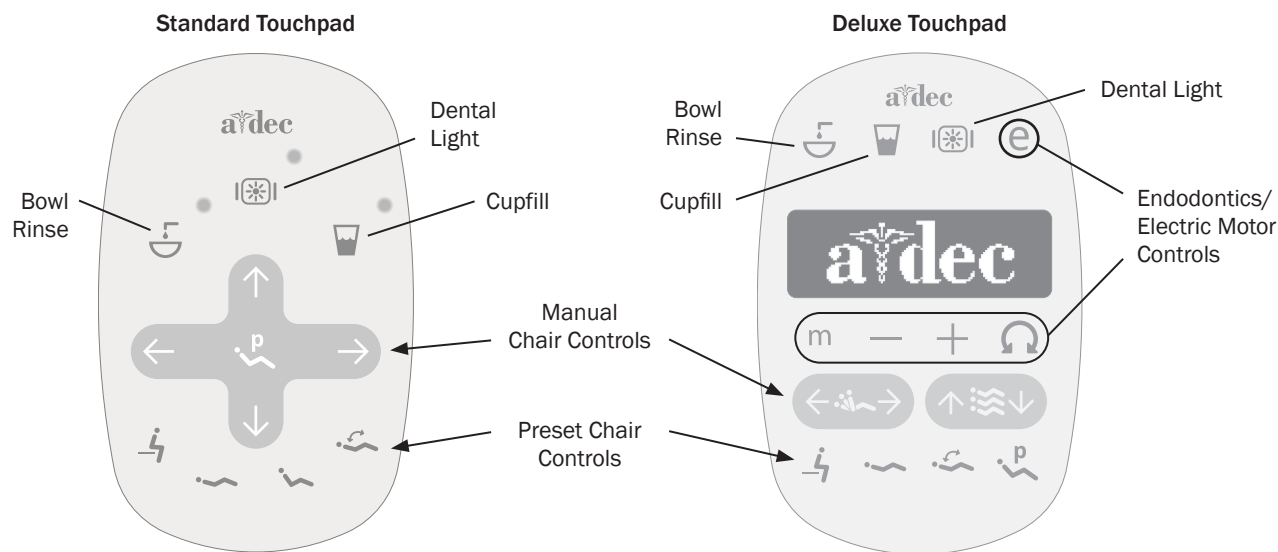
Control	Operation	Procedure
Disc Foot Control	Run a handpiece.	Press on the disc. Push down to increase speed.
	Run a handpiece with or without water coolant.	Move the wet/dry toggle toward the blue dot for wet operation or away from the blue dot for dry operation. Then press on the disc.
	Run the optional accessory or chip blower.	Press the accessory/chip blower button.*
	Operate the intraoral camera.	Press on the disc to capture an image.*
Lever Foot Control	Run a handpiece with water coolant.	Move the lever to the left. Move farther to increase speed.
	Run a handpiece without water coolant.	Move the lever to the right. Move farther to increase speed.
	Run the optional accessory or chip blower.	Press the accessory/chip blower switch.*
	Operate the intraoral camera.	Move the lever to the left or right to capture an image.*

** Contact your authorized A-dec dealer for questions about the operation or configuration of your integrated A-dec accessories.*

NOTE The lever foot control function can be reversed by a technician (change left direction to dry, right direction to wet). For more details, contact your authorized A-dec dealer.

For handpiece coolant adjustments, see page 15.

Touchpad Controls

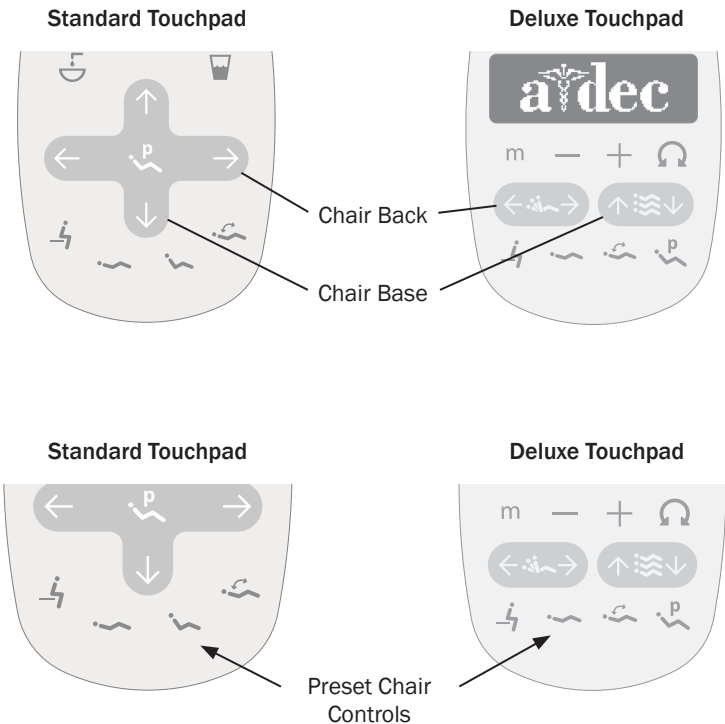


IMPORTANT The A-dec touchpad and footswitch control chair movement in the same way. See your dental chair Instructions for Use for detailed information about your footswitch controls.

Basic Touchpad Functions

Your A-dec 300 system may include a standard or deluxe touchpad, or both. The standard touchpad operates the chair, cuspidor, and dental light functions. The deluxe touchpad adds functions for electric motors and other integrated clinical devices. Both touchpads provide manual and programmable controls.

Touchpad Controls (continued)

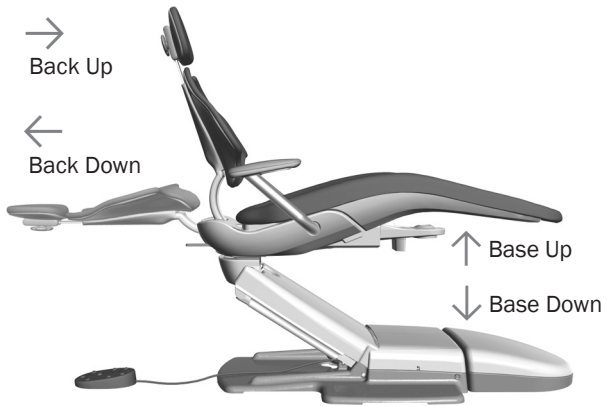


WARNING Ensure that the patient is positioned safely before using the manual or preset chair controls. Never leave the patient unattended while the chair is in motion. Always take extra care with small children and patients with limited mobility.

To stop the chair at any point during preset movement, press any chair positioning button on the footswitch or touchpad.

Position the Chair with Manual Controls

Press and hold an arrow button until the chair is in the desired position. The horizontal arrows raise and lower the chair back. The vertical arrows raise and lower the chair base.



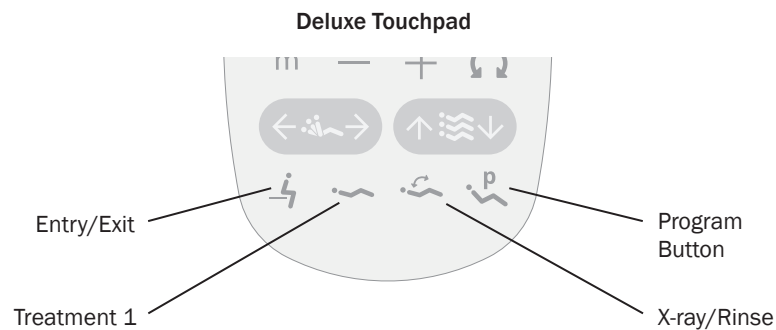
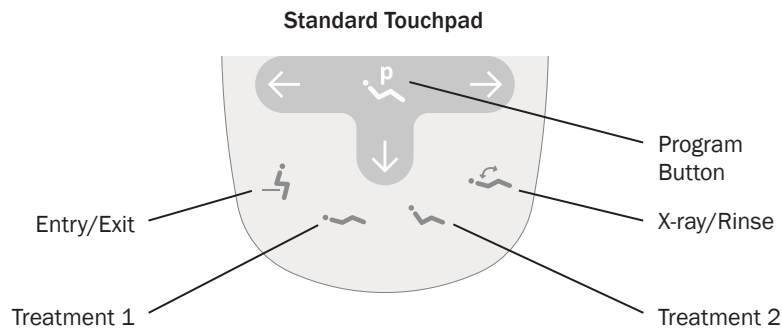
Position the Chair with Preset Controls

Press , , , or to move the chair to a preset position. See the table below for factory settings.

Icon	Position	Factory Setting
	Entry/Exit	Positions the chair for patient entry/exit.
	Treatment 1	Positions the chair base and back down.
	Treatment 2	Positions the chair base down and back partially up (standard touchpad only).
	X-ray/Rinse	Moves the chair to either x-ray or rinse position. Press again to move the chair to the previous position.

Note: Touchpad symbols and icons are proprietary to A-dec, Inc.

Touchpad Controls *(continued)*



Reprogram Entry/Exit, Treatment 1 and 2 Buttons

To change the factory preset chair positions assigned to the entry/exit and treatment buttons (↵, ~, ~):

1. Use the manual controls to position the chair as desired.
2. Press and release **P**. One beep indicates that the programming mode is on.
3. Within five seconds, press the chair position button you wish to reprogram (for example, press ↵). Three beeps confirm that the new setting is programmed into memory.

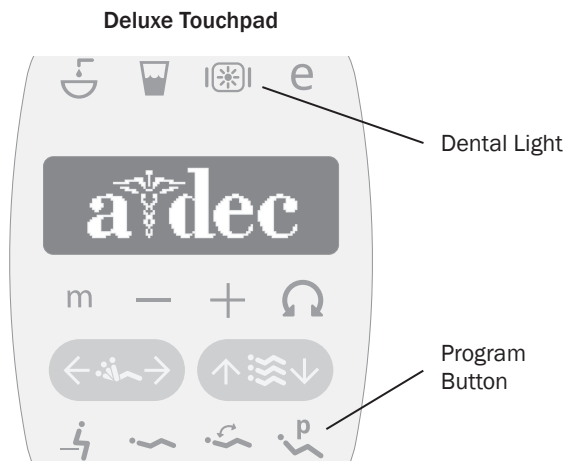
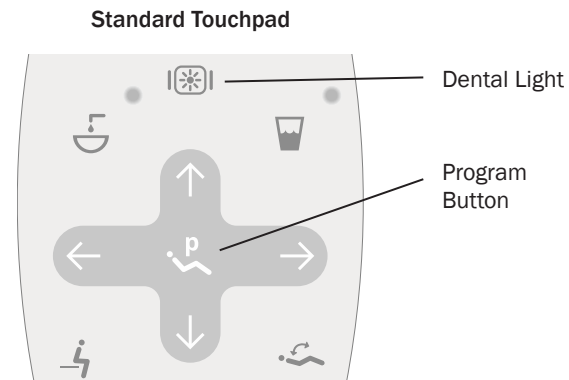
Reprogram X-Ray/Rinse Button

The x-ray/rinse button (↵) is preset to move the chair and patient into an upright position for x-rays or cuspidor access. A second press of ↵ returns the chair to the previous position.

You can reprogram ↵ to function in a similar way to the other programmable chair preset buttons. To change its function:

1. Press and hold **P** and ↵ at the same time for three seconds.
 - One beep indicates ↵ is set as another programmable chair preset button.
 - Three beeps confirm that ↵ is configured as the x-ray/rinse factory preset (which toggles between the x-ray/rinse and the previous chair position).
2. If you reprogram ↵ as another programmable button and want to assign a different chair position, follow the steps outlined in “Reprogram Entry/Exit, Treatment 1 and 2 Buttons” above.

Touchpad Controls *(continued)*



Dental Light Auto On/Off Feature

The auto on/off feature turns the A-dec light on once the chair reaches a preset treatment position.

When you press  or , the dental light turns off and the chair moves to that preset position.

To disable the auto on/off feature, press and hold the program button  and  at the same time for three seconds until you hear one beep.

To enable the auto on/off feature, press and hold  and  at the same time for three seconds until you hear three beeps.



IMPORTANT For more information about dental light functions, see your dental light Instructions for Use.

Electric Handpiece Settings *(deluxe touchpad only)*



Standard Mode

To activate the electric motor, lift the handpiece from the holder. The touchpad screen displays the previous settings used for that handpiece position. Standard mode provides four factory preset speeds for electric motors:

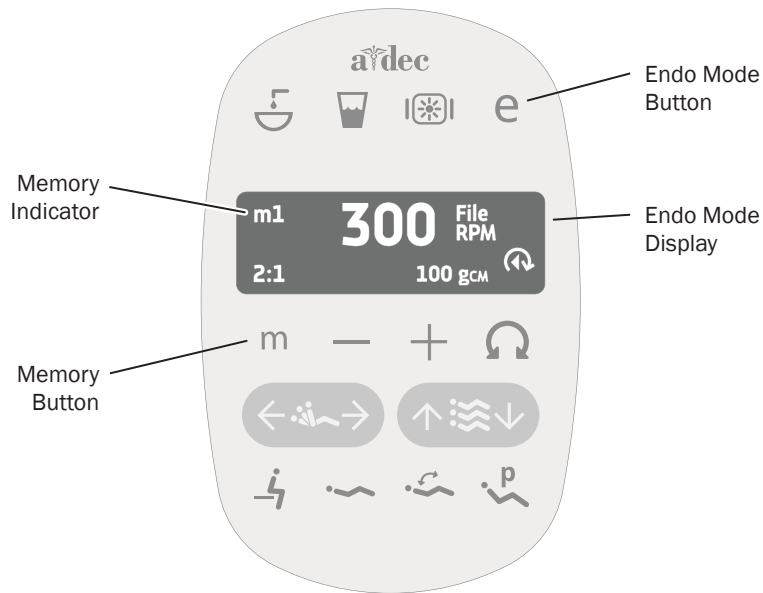
Memory Setting	Factory Preset Speed
m1	2,000 rpm
m2	10,000 rpm
m3	20,000 rpm
m4	36,000 rpm

You can reprogram these memory settings with your own specific preset speeds. A total of eight customized settings per handpiece is possible (four in standard mode and four in endodontics mode).

To program the handpiece setting:

1. Press — or + until the rpm setting you want displays on the touchpad screen.
2. Press to save it to memory. One beep sounds.
3. Press m to display the m1 through m4 memory settings. When the desired memory setting displays, press . Three beeps confirm the setting.

Electric Handpiece Settings *(deluxe touchpad only) (continued)*



Endodontics (Endo) Mode

In addition to handpiece speed adjustments, the endo mode allows you to change a number of settings based on the specific file and desired handpiece behavior. Icons on the touchpad screen reflect the settings.



NOTE For more information regarding speed and torque limits for a specific file, consult the file manufacturer.

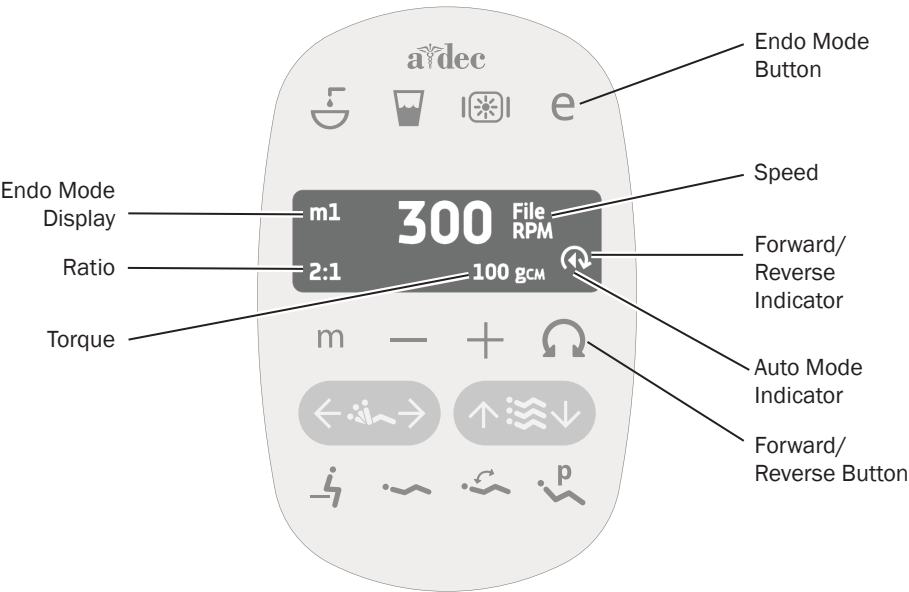
To program the handpiece setting:

1. Lift the handpiece from the holder.
2. If the touchpad screen does not display the endo mode, press **e**.
3. To change settings in endo mode, press **—** or **+**. A white reverse video box displays on the touchpad screen.
4. Use the chair positioning buttons to move from setting to setting on the touchpad screen.
5. Use **—** or **+** to change the setting as desired.
6. To set the speed limit, torque limit, or ratio into memory, press **P**. One beep sounds.
7. Press **m** to display the **m1** through **m4** memory settings. When the desired memory setting displays, press **P**. Three beeps confirm the setting.

Electric Handpiece Settings (deluxe touchpad only) (continued)

Endo Mode Touchpad Screen Icons

Icon	Setting	Description
	Speed	Setpoint for file speed limit. For more information, consult your file manufacturer.
	Torque	Setpoint for file torque limit. For more information, consult your file manufacturer.
	Torque Units	Toggles between newton centimeters (N·cm) and gram centimeters (g·cm). Adjusting this setting for one handpiece changes it for all handpiece settings. <i>Note: 1 N·cm = 102 g·cm.</i>
	Ratio	Sets the handpiece ratio. For more information, consult your handpiece manufacturer.
	Auto Modes	Adjusting this setting for one handpiece changes it for all handpiece settings. The auto mode indicator displays inside of the forward/reverse indicator.
	Auto Stop	When the file reaches the torque limit, the motor shuts off.
	Auto Reverse	When the file reaches the torque limit, the motor stops and reverses direction.
	Auto Forward	When the file reaches the torque limit, the motor stops, reverses direction, and then changes back to forward again.



Forward/Reverse Button

The forward/reverse button changes the electric motor's direction. The system defaults to the forward position when you return the motor to the holder or turn off the system. In reverse mode, the screen icon flashes continuously.

Electric Handpiece Adaptive/Reciprocating Endo Functions

Reciprocating Mode Settings

Icon	Setting	Description
	Reciprocating Modes	The file rotates until it is under load. The file reciprocates until it is no longer under load when it resumes to normal rotation. The reciprocating indicator on the screen shows the mode that is in use. When you change this setting, the change applies to all reciprocating presets.
	TF™ Adaptive	This mode is for Kerr® TF™ Adaptive motion files that rotate clockwise/right. TF™ Adaptive mode is always set to the ratio of 8:1.
	File Recipro R	This mode is for clockwise/right rotating reciprocating files. The ratio of 8:1 is recommended. Ratios of 3:1 and 1:1 are also available.
	File Recipro L	This mode is for counter-clockwise/left rotating reciprocating files. The ratio of 8:1 is recommended. Ratios of 3:1 and 1:1 are also available.



WARNING Make sure the file used in reciprocal motion is approved for a torque of 3 N-cm and a maximum speed of 600 rpm (min⁻¹).

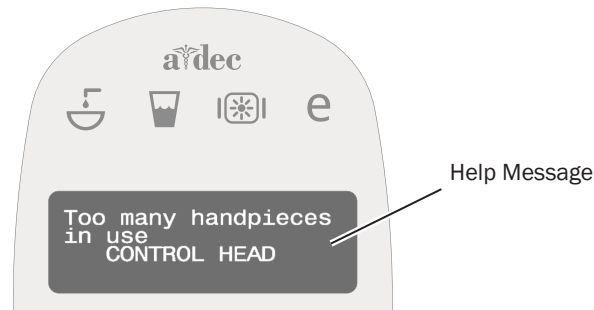


NOTE While the file is in reciprocal motion, it initially rotates in the cutting direction, then follows a reciprocal motion in the opposite direction. Reciprocal motion takes load off the motor and prevents the file from jamming. The motion in the direction of cutting is larger than the reverse motion.



NOTE A-dec recommends use of KaVo® handpieces for the most accurate torque experience.

Touchpad Help Messages



The deluxe touchpad screen displays help messages for disabled operations. When a help message appears, record the screen message and the function you were performing in case service is required. For complete details on help messages, see the *Regulatory Information, Specifications, and Warranty* document (p/n 86.0221.00) available in the Resource Center at www.a-dec.com.

Other Handpiece and Accessory Settings

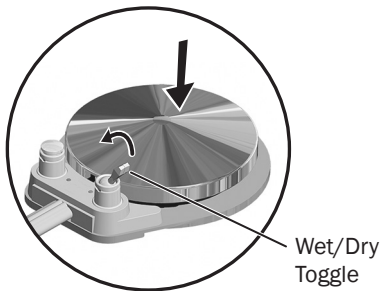
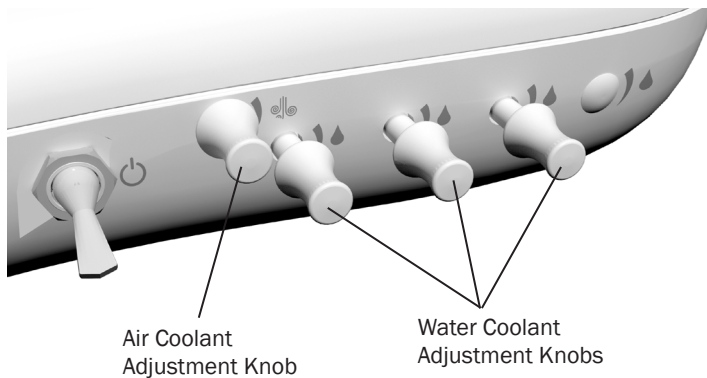
See your authorized A-dec dealer to change any of these handpiece and accessory settings, if applicable:

- **Auto-Off Delay** – determines how long the handpiece light remains on if the foot control is released. The default setting is 5 seconds. (*Note. May not be available in some versions of motors.*)
- **On When Selected** – specifies whether the handpiece light turns on or remains off when the handpiece is removed from the holder. The default setting is on.
- **On in Endo** – specifies whether the handpiece light turns on or off when the endo mode is selected. The default setting is off, which is recommended to reduce heat and extend bulb life.
- **Ultrasonic Colors** – for Acteon ultrasonic instruments, specifies whether color-coded tip categories are on or off. The default is on.
- **Voltage Adjustment** – allows for customized light output voltage for each handpiece position. The default setting is 3.2 VDC.

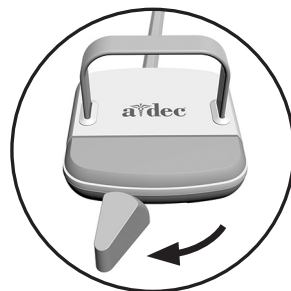
Adjust the Handpiece Coolant Spray



CAUTION When performing this procedure, do not attempt to completely shut off the water or air flow. The adjustment knobs are not designed to completely shut off flow and can damage the control block if you apply too much force.



Disc Foot Control



Lever Foot Control

The air coolant knob on your delivery system simultaneously adjusts air flow to all handpiece positions. Each water coolant knob adjusts water flow to a single position. Use the following process to adjust for the desired handpiece coolant atomization:

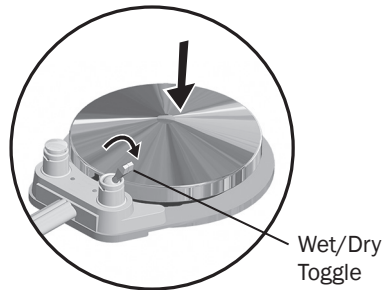
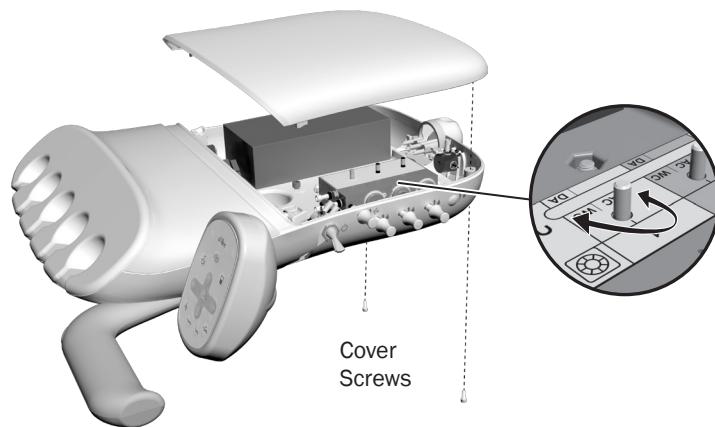
1. Insert a bur into each handpiece you are adjusting.
2. Turn the air coolant adjustment knob clockwise until coolant flow stops.
3. Lift the handpiece from the holder and do one of the following:
 - On a disc foot control: flip the wet/dry toggle to water (toward the blue dot) and press the disc all the way down.
 - On a lever foot control: move the lever all the way to the left.
4. Locate the water coolant adjustment knob for the handpiece position you are adjusting and turn it clockwise until coolant flow stops.
5. Slowly turn the water coolant adjustment knob counterclockwise until water droplets are expelled from every water port on the handpiece head. Return the handpiece to the holder.
6. Repeat steps 3 through 5 for each handpiece.
7. To set the air coolant for the system, lift a handpiece from the holder.
8. Turn the air coolant adjustment knob counterclockwise until you achieve the desired atomization at the cutting surface of the bur.



CAUTION Do not continue turning the air coolant adjustment knob counterclockwise after the air coolant stops increasing. The stem may come out of the control block.

9. If you require more water coolant, increase the water output in step 5 as needed.

Adjust Handpiece Drive Air Pressure



Disc Foot Control



Lever Foot Control

For accurate drive air measurement, use a handpiece pressure gauge attached to the handpiece tubing.

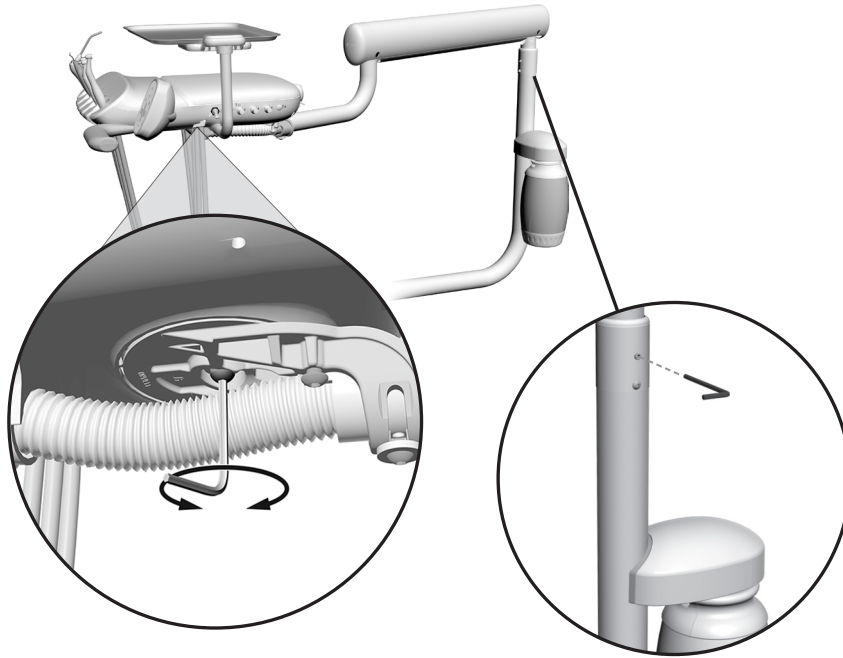
To adjust the drive air pressure for each handpiece:

1. Use a 7/64" hex key to remove the two control head back cover screws. Remove the cover and locate the drive air pressure controls inside.
2. Lift the handpiece from the holder.
3. Do one of the following:
 - On a disc foot control: flip the wet/dry toggle to dry, and press the disc all the way down.
 - On a lever foot control: move the lever all the way to the right.
4. With the handpiece running, check the handpiece pressure gauge.
5. Adjust the handpiece drive air pressure to meet the manufacturer's specifications. Turn the control stem clockwise to decrease flow and counterclockwise to increase flow.



CAUTION Exceeding the manufacturer's recommended drive air pressure increases the risk of damage and may significantly decrease the life of your handpiece components. For the proper drive air pressure, see the handpiece manufacturer's Instructions for Use.

Adjust the Control Head and Arm Rotation



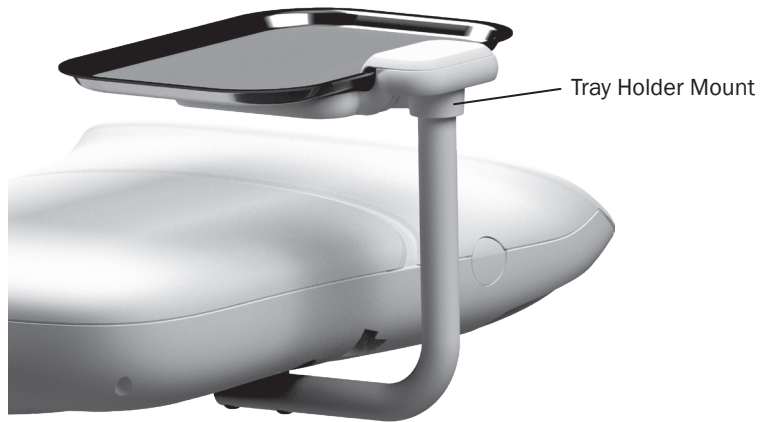
Control Head

If the control head is too loose or difficult to rotate, use a 5/32" hex key to adjust the tension screw under the control head.

Flexarm

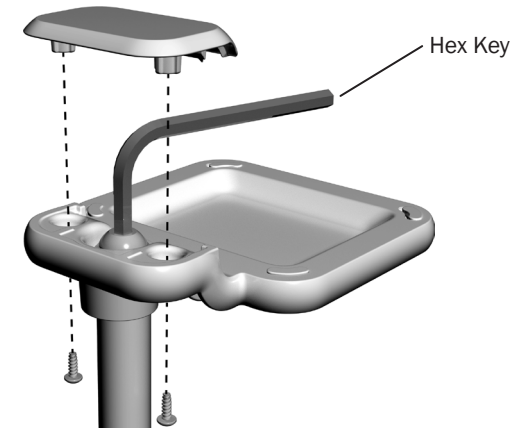
If the control head begins to drift right or left, use a 1/8" hex key to adjust the setscrew tension for the flexarm rotation.

Adjust the Tray Holder Mount Rotation

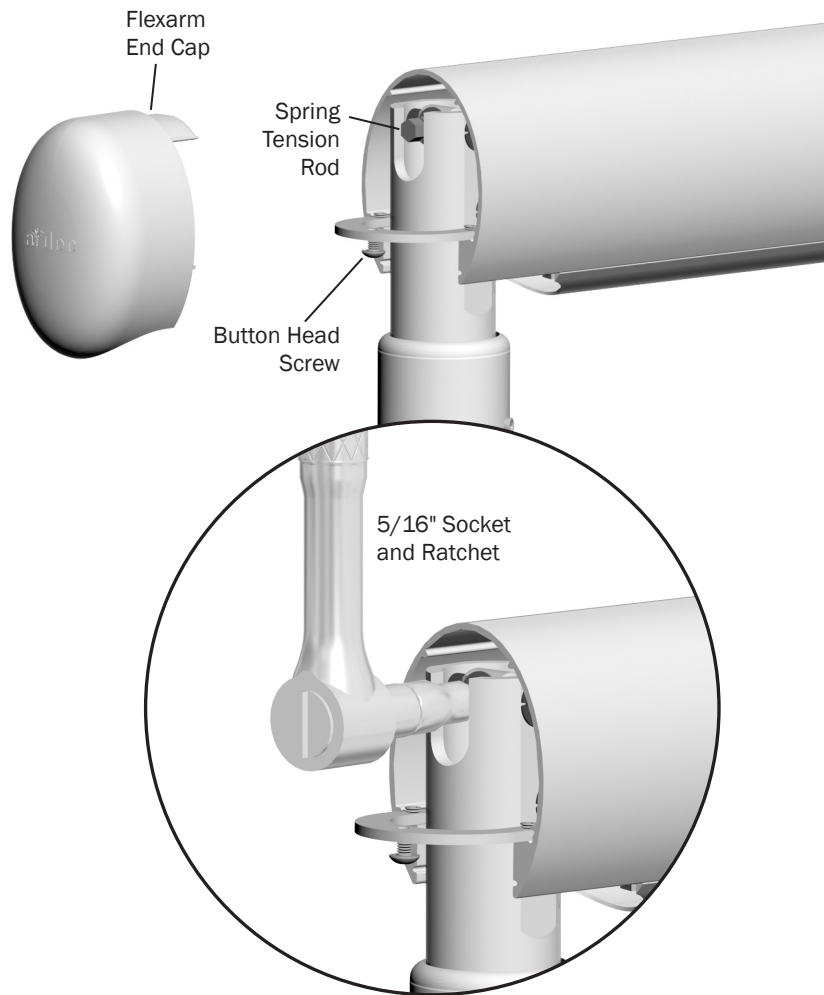


If the tray holder mount rotation is too tight or too loose, use a 7/32" hex key to adjust the tension:

1. Use a Phillips head screwdriver to remove the screws holding the cap. Remove the cap.
2. Insert the hex key into the tension bolt and turn clockwise to increase the tension.



Adjust the Flexarm Tension

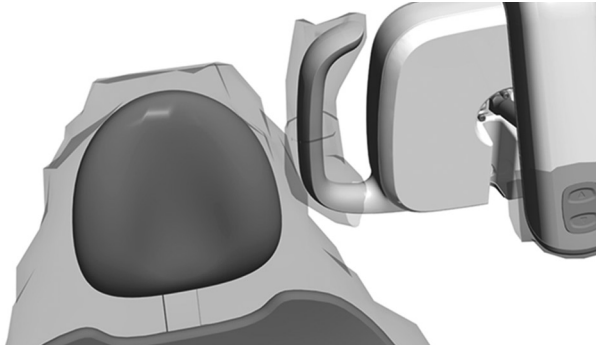


If the control head falls or rises rapidly when you flip the master toggle to the off position, complete these steps to adjust the flexarm spring tension:

1. Flip the master toggle to the on position.
2. Load the control head for normal use, attaching handpieces and placing a tray on the tray holder.
3. Position the control head so the flexarm is level.
4. Use a 1/8" hex key to loosen the button head screw that secures the end cap farthest from the control head, then pull the cap straight out.
5. Flip the master toggle to the off position.
6. Use a 5/16" socket and ratchet to adjust the flexarm spring tension rod until the control head rises gradually when you flip the master toggle to the off position.
 - If the control head rises rapidly, turn the rod counterclockwise.
 - If the control head falls, turn the rod clockwise.

Clean/Maintain

Protect with Barriers



NOTE For proper use and disposal of barriers, see the barrier manufacturer's Instructions for Use.



IMPORTANT For recommendations on cleaning and chemical disinfection of touch and transfer surfaces (where barrier protection is not applicable or when barriers are compromised), please see the *A-dec Equipment Asepsis Guide* (p/n 85.0696.00).

A-dec recommends barrier protection for all applicable touch and transfer surfaces. Touch surfaces are areas that come into contact with hands and become potential cross-contamination points during dental procedures. Transfer surfaces are areas that come into contact with instruments and other inanimate objects.

In the USA, barriers must be produced under the Current Good Manufacturing Practice (CGMP) as specified by the U.S. Food and Drug Administration (USFDA). For regions outside the USA, refer to the medical device regulations specific to your location.

Waterline Maintenance



A-dec recommends that you use ICX Renew® dental unit waterline shock treatment* before you use the system for the first time.

For on-going waterline maintenance, A-dec recommends a three-part protocol:

- Continuous use of A-dec ICX® waterline treatment tablets
- Regularly monitor the water quality in your dental equipment
- Shock treatment whenever the test results exceed your established water quality action level

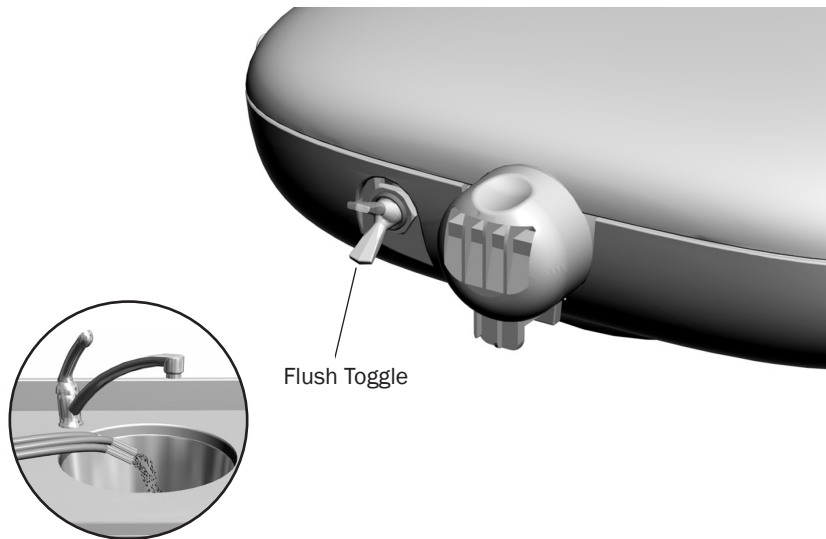


IMPORTANT For complete details on how to maintain good water quality, see the appropriate Instructions for Use provided with your A-dec waterline maintenance products. For quick access to these documents online, scan, tap, or click the QR code below.



** Note. ICX Renew may be sold under different names in different regions.*

Flush the Handpiece Tubing

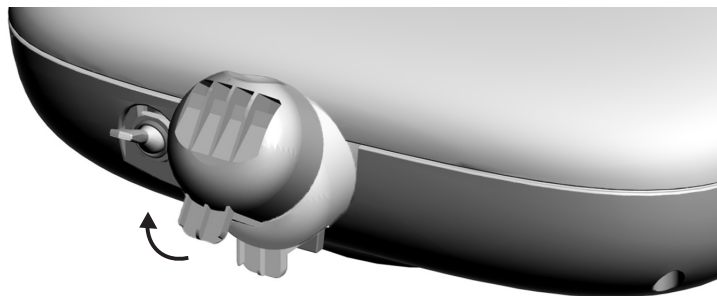


NOTE Flush all handpiece tubing (air and waterlines) in accordance with the regulations in your area. If no regulations exist, flush the tubing for a minimum of 20–30 seconds at the beginning of the day and after each patient.

Use the flush toggle to move a high volume of water through the handpiece tubing. To flush the tubing after each patient:

1. Disconnect the handpieces.
2. Hold all of the handpiece tubing that uses water coolant over a sink, cuspidor bowl, or basin.
3. Hold the flush toggle down for 20–30 seconds.

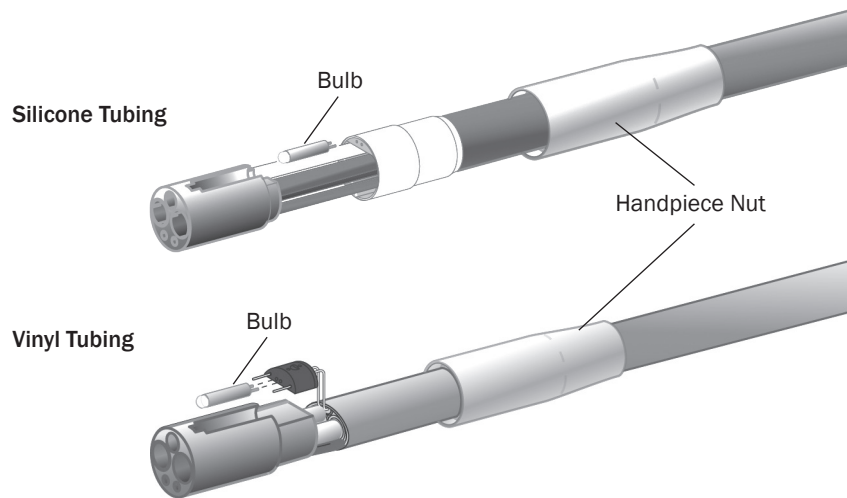
Maintain the Oil Collector



Service the oil collector on the delivery system once a week for normal usage and more often for heavier use. To service:

1. Unsnap the oil collector cover from the control head and discard the old gauze. Do not remove the foam muffler.
2. Fold a new gauze pad (2" x 2" [51 mm x 51 mm]) into quarters and place it inside the cover.
3. Snap the oil collector cover closed.

Replace the Bulb for Fiber-Optic Tubing

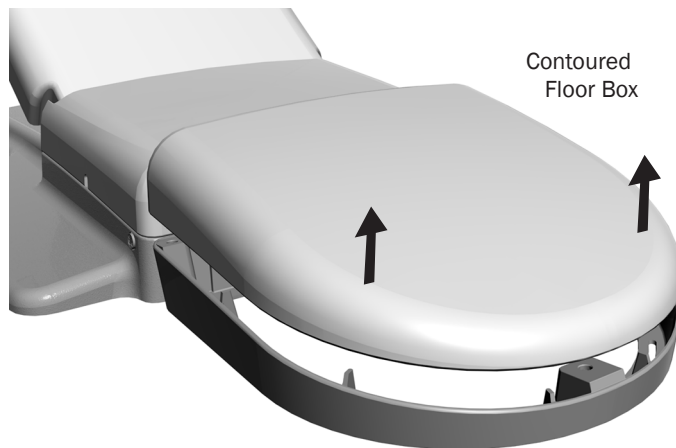


IMPORTANT To replace the bulbs in your handpieces or quick-disconnect couplings, see your handpiece Instructions for Use.

To replace the bulb in your fiber-optic 5-hole silicone or vinyl tubing:

1. Disconnect the handpiece and quick-connector coupling from the tubing.
2. Pull back the metal handpiece nut.
3. Slide back the metal portion of the handpiece terminal (silicone tubing only).
4. Replace the bulb.
5. Reinsert the metal portion of the terminal into the plastic portion (silicone tubing only).
6. Carefully slide the handpiece nut back over terminal.

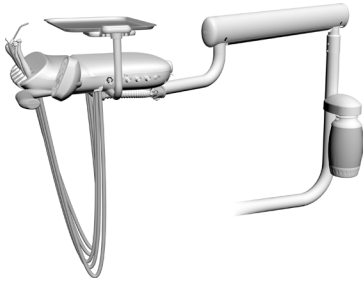
Access the Utilities



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 system utilities are located in the contoured floor box for chair-mounted systems. To access, lift up the floor box cover. For maintenance, contact your local authorized A-dec dealer.

Specifications



System Accessory Load

Maximum accessory load capacity: 4 lb (1.8 kg)
(in addition to integrated accessories)



IMPORTANT For electrical specifications, identification of symbols, and other regulatory requirements, 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.



NOTE Specifications are subject to change without notice. Requirements may vary depending on your location. For more information, contact your authorized A-dec dealer.



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