Instructions for Use

A-dec 300 Support Systems
351, 352, and 353 Assistant’s Instrumentation
362 and 363 Support Center and Cuspidor
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Regulatory Information

Regulatory information mandated by agency requirements is provided in the Regulatory Information, Specifications, and Warranty document (p/n 86.0221.00), which is available in the Document Library at www.a-dec.com.

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

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**Operate / Adjust**

**Power On/Off**

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 9.

**Master Toggle**

Use the master toggle to turn on the power, water, and air. The master toggle is normally located on the delivery system, but may instead be located on the support center or floor box on chairs without a delivery system.

If there is no power to the system, verify that the chair power button is pushed in. The chair power must be on in order for the master toggle to control system power.

**When to Turn Off the Power**

To save energy, turn off the power at the end of the work day and during 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 your delivery system Instructions For Use.
Chair Safety Features

A-dec dental chairs and systems include several features designed to improve safety. Activated stop switches may halt the chair or prevent it from moving. To help ensure uninterrupted chair motion:

- remove any potential obstructions under the chair and attached modules
- avoid pressing the foot control disk or lever
- keep handpieces properly seated in their holders

If the Chair Stops Unexpectedly

Check the actions listed above to correct the condition. If the downward movement of the chair stopped because of an obstruction, use the touchpad or footswitch to raise the chair and remove the obstruction.

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.

For detailed instructions on syringe usage, flow adjustment, and maintenance, see the A-dec Syringes Instructions For Use (p/n 85.0680.00).


**Instrument Holders**

The instrument holders independently rotate for customized positioning of each instrument. To reposition, pull the holder slightly away from the adjacent one, rotate it to the desired position, and release.

**CAUTION** Twisting the holder without pulling it away from the adjacent one will damage the mechanism.

**Auto-Electric Holders**

If you have a chair-side vacuum system and auto-electric holders, lift the HVE or saliva ejector from its holder and open the valve to turn on the vacuum. Return the instrument to its holder to turn off the vacuum.
HVE/Saliva Ejector Left/Right Conversion

To convert the standard HVE and saliva ejector for left-handed operation, push the control valve out of the valve body, rotate the control valve 180°, and push it back into place.

**NOTE** Be sure to reinstall the valve on the same side of the valve body. Otherwise, the HVE or saliva ejector will not operate properly.

**CAUTION** Do not attempt to remove the HVE valve if you have an Air Vacuum System (AVS). The HVE is permanently attached to the tubing in this configuration and cannot be removed (see below).

Air Vacuum System (AVS)

The AVS option includes a self-contained air vacuum generator. Also, with this option, the HVE valve body is permanently attached and cannot be removed from the tubing.

To activate the saliva ejector vacuum, use the on/off toggle.
Cuspidor Functions

Bowl Rinse and Cupfill

Use the buttons under the cupfill spout or on the touchpad to control the bowl rinse and cupfill functions. The buttons support both programmed and manual operation.

<table>
<thead>
<tr>
<th>Button</th>
<th>Description and Factory Presets</th>
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<tbody>
<tr>
<td>Bowl Rinse Operation:</td>
<td></td>
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<tr>
<td>• Press and release the bowl rinse button for a timed operation. The factory preset is a 30 second rinse.</td>
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<tr>
<td>• Press and release the bowl rinse button twice in less than two seconds to activate the continuous operation mode. Press and release the button again to end the continuous mode.</td>
<td></td>
</tr>
<tr>
<td>• Press and hold the bowl rinse button for manual operation.</td>
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</tr>
<tr>
<td>Cupfill Operation:</td>
<td></td>
</tr>
<tr>
<td>• Press and release the cupfill button for a timed operation. The factory preset is a 2.5 second fill.</td>
<td></td>
</tr>
<tr>
<td>• Press and hold the cupfill button for manual operation.</td>
<td></td>
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</tbody>
</table>

Note: Touchpad symbols are proprietary to A-dec Inc.
Cuspidor Functions (continued)

Customize Bowl Rinse or Cupfill Timing
To reprogram the timed bowl rinse or cupfill functions:
1. Press \( p \) on the touchpad, or press and hold the cupfill and bowl rinse buttons under the cupfill spout. Release the button(s) when you hear one beep.
2. Within five seconds, press and hold the cupfill or bowl rinse button for the desired time.
3. Release the button. Three beeps confirm that the program has changed.

Bowl Rinse Flow Adjustment
The bowl rinse function should provide enough water to completely rinse the cuspidor bowl. If the flow is not sufficient, an adjustment can be made inside the support center:
1. Remove the side cover from the support center by pulling the lower edges of the cover out.
2. With the bowl rinse on, squeeze the pinch valve to reduce the flow. Release the valve to increase the flow.
3. For the best rinsing action, adjust the flow pattern by rotating the bowl rinse spout.
To level the telescoping arm:
1. Extend the arm.
2. Locate the adjustment setscrew underneath the arm.
3. Use a 1/8" hex key and turn the setscrew clockwise to tilt the arm up, counterclockwise to tilt the arm down.
Clean / Maintain

Barrier Protection

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.

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).

Waterline Maintenance

A-dec recommends that you perform a shock treatment on the dental unit waterlines before you use the system for the first time.


IMPORTANT For complete details on how to maintain good water quality in your system, see the instructions for use provided with ICX and your self-contained water bottle:

A-dec ICX ................................................... p/n 86.0613.00
A-dec Self-Contained Water System .......... p/n 86.0609.00
Waterline Maintenance Guide ............... p/n 85.0983.00

NOTE For proper use and disposal of barriers, see the instructions provided by the barrier manufacturer.
Cuspidor and Drain

Spouts and Bowl
The contoured spouts and smooth bowl of the cuspidor provide for quick and easy cleaning. Remember to empty and clean the bowl screen every time you clean the cuspidor.

**CAUTION** Do not remove the spouts when cleaning the cuspidor. This will help prevent cleaning solutions from damaging the equipment and contaminating the cupfill water.

**CAUTION** Do not empty the solids collector screen or bowl screen into the cuspidor. Doing so could plug the cuspidor drain. Dispose of the contents in an appropriate biohazard container according to the regulations specific to your location. After cleaning, always install the bowl screen in the cuspidor bowl to prevent debris from plugging the drain.

Gravity Drain Tubing
At the end of each day, flush the cuspidor to remove debris from the flexible drain tubing. If the cuspidor is not flushed regularly, debris may build up and impair draining. To flush the cuspidor, run the bowl rinse for about 60 seconds.

Maintenance Parts
For replacement cuspidor bowl screens, contact your authorized A-dec dealer and order p/n 75.0035.03 (package of 5).
HVE/Saliva Ejector Valve Body Assembly Asepsis

NOTE  Vacuum lines should be cleaned at the end of each day by evacuating a detergent or water-based detergent-disinfectant through the system.

If you use barrier film to protect the main body of the HVE and saliva ejector, replace the barrier film after each patient. Clean and disinfect these instruments at the end of each day or after each patient if the barrier film has been compromised. If you do not use barrier film, or if you perform oral surgery, always clean and disinfect these instruments after each patient.

Disinfection
To disinfect the HVE and saliva ejector valve body assembly without disconnection from the vacuum system:

1. Remove the vacuum tip from the HVE or saliva ejector.
2. Disinfect the valve body assembly by using an intermediate-level disinfectant according to instructions for the disinfectant; A-dec recommends a phenolic (dual) water-based disinfectant.
3. Follow the manufacturer’s instructions for disinfectant contact time.
4. Operate the HVE and the saliva ejector valves several times to verify that they rotate smoothly.
HVE/Saliva Ejector Valve Body Assembly Asepsis (continued)

NOTE A-dec valve body assemblies are heat tolerant for sterilization. Users may sterilize at their discretion.

Routine Maintenance and Sterilization
To routinely maintain and sterilize the HVE and saliva ejector when disconnected from the vacuum system (frequency determined by the user):

1. Turn off the vacuum or open the control valve before disconnecting the HVE or saliva ejector.
2. Remove the vacuum tip from the HVE or saliva ejector. Discard disposable vacuum tips.
3. Remove the HVE or saliva ejector valve body assembly from the vacuum line by pulling it away from the tubing at the tailpiece.
4. Disassemble the valve body assembly by pushing the control valve out of the HVE or saliva ejector valve body.
5. Inspect the O-rings. Remove and discard if damaged.
6. Clean undamaged O-rings with a soft brush and a health authority approved detergent. O-rings may be cleaned in place or removed and cleaned at the discretion of the user.
7. Clean all exterior and interior surfaces of the valve body and control valve using a health authority approved detergent and the brushes provided with the product (or equivalent). Lumens or channels of the valve body must be cleaned with a brush of the proper length and diameter. The brush must be long enough to extend through the lumen.
8. Rinse thoroughly with water.

CAUTION Do not attempt to remove the HVE body or valve if you have an Air Vacuum System. The HVE is permanently attached to the tubing in this configuration and cannot be removed for sterilization. Instead, use barrier film produced under FDA good manufacturing practices for protection on the HVE body, making sure to replace the barrier after each use.

9. Process the disassembled valve body assembly components through a washer-disinfector. If a washer-disinfector is unavailable, valve body assembly components must be manually disinfected using a health authority approved disinfectant.

10. Allow the components to dry completely.

11. Sterilize the valve body assembly components at 132-134°C (270-273°F) for 4 minutes in a pre-vacuum sterilizer or 6 minutes in a gravity displacement sterilizer.

12. Prior to use, replace O-rings as needed, lubricate O-rings with A-dec silicone lubricant, and reassemble the valve body assembly.

**CAUTION** Use only silicone lubricant when lubricating instrumentation O-rings. Petroleum-based products will cause permanent damage to the O-rings.

13. Reinstall the valve body assembly on the tubing tailpiece.

14. Operate the HVE and the saliva ejector control valves several times to verify that they rotate smoothly.
HVE/Saliva Ejector Tip Asepsis

**NOTE** Select tips that are compatible with your HVE and saliva ejector openings. See “HVE and Saliva Ejector Openings for Tips” on page 17 for specifications.

**Disposble Tips**
Replace disposable HVE and saliva ejector tips after each use.

**CAUTION** Disposable HVE and saliva ejector tips are not sterilizable and should not be reused.

**Sterilizable Tips**
Heat sterilize stainless steel HVE tips after each use. To clean and sterilize a stainless steel HVE tip:
1. Remove the tip from the HVE.
2. Clean and rinse the tip using a mild detergent and water, then allow the tip to dry completely.
3. Sterilize the tip at 132-134°C (270-273°F) for 4 minutes in a pre-vacuum sterilizer or 6 minutes in a gravity displacement sterilizer.
Solids Collector

The solids collector aids in preventing solids from entering the central vacuum system. To ensure proper suction from the central vacuum and maintain proper treatment room asepsis, discard and replace the solids collector screen at least twice a week.

**TIP** For solids collector replacement screens, contact your local authorized A-dec dealer and reference Pinnacle p/n 5512 or A-dec p/n 11.1284.01.

To replace the solids collector screen:
1. Turn off the vacuum or open the HVE control valve.
2. Remove the solids collector cap and screen.
3. Discard the screen according to your local regulations.

**CAUTION** Do not empty the screen into your cuspidor. Doing so could plug the drain.

4. Inspect the collector cap O-ring, replace the O-ring as needed, and lubricate with A-dec silicone lubricant as needed.
5. Insert a new screen in the collector and replace the cap.

**DANGER** Infectious waste may be present. Follow asepsis protocol to prevent cross contamination.
Utilities and Shutoff Valves

The utilities for A-dec chair-mounted systems are located in the contoured floor box under your chair. To access, lift the cover up and off the floor box frame.

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

The manual shutoff valves control the air and water to the system. Leave these valves completely open (turned counterclockwise) during normal use to prevent leaks. From the valves, air and water pass through separate filters before entering the pre-regulators. Replace these filters when they become clogged and restrict flow.

To check for a clogged water filter:

1. Turn on the master toggle.
2. While watching the cuspidor, press the bowl rinse button. If the bowl rinse water flow fades or stops, replace the water filter.

To replace the filter:

1. Turn off the master toggle and close the shutoff valve (turn clockwise).
2. Bleed the system of air and water pressure by operating the syringe buttons until air and water no longer flow.
3. Using a standard screwdriver, remove the filter housing from the water pre-regulator assembly and remove the filter.
4. Replace the filter if it is clogged or discolored. Install the filter with the beveled edge facing the manifold.
5. Open the shutoff valves, turn on the master toggle, and operate the bowl rinse to remove air from the waterline.

**CAUTION** To ensure proper operation, install the filter with the beveled edge facing the manifold.
Specifications

Minimum Air, Water, and Vacuum Service Requirements

Air: 2.5 scfm (71 sL/min) at 80 - 125 psi (550 - 860 kPa) minimum
Water: 1.5 gpm (5.7 L/min) at 60±20 psi (410±140 kPa) minimum
Vacuum:
   (wet): 9 scfm (255 sL/min) at 10±2 inches of Hg (34±7 kPa) minimum
   (dry): 12 scfm (340 sL/min) at 4.5±1 inches of Hg (16±3.5 kPa) minimum

HVE and Saliva Ejector Openings for Tips

Standard HVE: 11 mm
Large Bore HVE: 15 mm
Saliva Ejector: 6 mm

Warranty

Warranty information is provided in the Regulatory Information, Specifications, and Warranty document (p/n 86.0221.00), which is available in the Document Library at www.a-dec.com.

IMPORTANT For electrical specifications, identification of symbols, and other regulatory requirements, see the Regulatory Information, Specifications, and Warranty document (p/n 86.0221.00), which is available in the Document Library at www.a-dec.com.

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