

90127.DOC – DFU for Cavitron Select

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DENTSPLY Preventive Care [LOGO]

Cavitron® Products

Cavitron® Select Ultrasonic Scaler
Directions For Use

Cavitron® Select Ultrasonic Scaler with Cavitron® Select Reservoir Pump
Directions For Use

Please read carefully and completely before operating unit.

ENGLISH

Cavitron® Select Ultrasonic Scaler

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Please read carefully and completely before operating unit.

Introduction

Cavitron® Select Ultrasonic Scaler with Cavitron® Select Reservoir Pump

DENTSPLY® Preventive Care is an ISO9001 certified company. The Cavitron® Select System is classified by Underwriters Laboratories Inc. with respect to electric shock, fire, mechanical hazards only in accordance UL 2601-1 1 and Can/CSA C22.2 NO. 601.1.

The Scaling System operates by converting ordinary AC house current into high frequency current. The ultrasonic system consists of two parts: an insert, and the electronic system. The system incorporates two closed loops. One loop provides automatic tuning (operating frequency is adjusted to be at resonance for each insert), the second loop automatically controls the tip stroke over different working conditions. The scaler produces 25,000 microscopically small strokes per second at the insert's working tip. This combined with acoustic effects of the coolant water, produces a synergistic action that literally "powers away" the heaviest calculus deposits while providing exceptional operator and patient comfort.

The Pump/Reservoir accessory for the Cavitron® Select is an optional lavage dispenser. Footswitch plug, handpiece plug, water tube and power supply plug are removed from the Scaler before mating with the Pump/Reservoir. The Scaler is snapped together with the Pump/Reservoir. The footswitch plug, handpiece plug and power supply plug are inserted into mating receptacles at the rear of the Pump/Reservoir. Ultrasonic signal, footswitch and DC

power connections between the units are made via an edgcard connector at the rear of the Scaler and the front of the Pump module. The Reservoir has a capacity of 500 ml. Fluid from the Reservoir is propelled from the Reservoir Bottle with 15–19 psig compressed air generated by an internal diaphragm pump. ON/OFF of the lavage is controlled through an internal solenoid valve. Fluid to the Handpiece passes directly from the Pump/Reservoir to the Handpiece. No fluid passes through the Cavitron® Select when used with this accessory. Flow through any insert in the Handpiece will be greater than 40 cc/m water when adjusted to maximum.

Technical Support

For technical support and repair assistance in the U.S., call 1-800-347-7412 Monday through Friday, 8:00 AM to 5:00 PM (Eastern Time). For other areas, contact your local DENTSPLY® representative.

Supplies & Replacement Parts

To order supplies or replacement parts in the U.S., contact your local DENTSPLY® Preventive Care Distributor or call 1-800-989-8826 or 717-767-8502 Monday through Friday, 8:00 AM to 5:00 PM (Eastern Time). For other areas, contact your local DENTSPLY® representative.

Caution: Federal law restricts this device to sale by or on the order of a Dentist.

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Section 1: Indications for Use

Ultrasonic procedures:

- All general supra and subgingival scaling applications.
- Periodontal debridement for all types of periodontal diseases.
- Endodontic procedures.

Section 2: Contraindications and Warnings

2.1 Contraindications

- Ultrasonic Systems should not be used for restorative dental procedures involving the condensation of amalgam.

2.2 Warnings

- Persons fitted with cardiac pacemakers have been cautioned that some types of electronic equipment might interfere with the operation of a pacemaker. Although no instance of pacemaker interference has ever been reported to DENTSPLY[®], we recommend that the handpiece and cables be kept at least 6 to 9 inches (15 to 23 cm) away from any pacemaker and pacemaker leads during use.

Section 3: Precautions

3.1 Precautions for All Systems

- Cavitron[®] Inserts manufactured by DENTSPLY[®] Preventive Care Division should be used for optimal performance.
- Do not place the System on or next to a radiator or other heat source. Excessive heat may damage the System's electronics. Place the System where air is free to circulate on all sides and beneath it.
- The System is portable, but must be handled with care when moving.
- Equipment flushing and dental water supply system maintenance are strongly recommended. See Water Supply under Section 10: System Care.
- Close the water shut-off valve to the System every night before leaving the office.

3.2 Precautions for Ultrasonic Prophylaxis Procedures

- Like a toothbrush, ultrasonic inserts "wear out" with use. Inserts with just 2 mm of wear lose about 50% of their scaling efficiency. In general, it is recommended that ultrasonic inserts be discarded and replaced after 2 mm of wear to maintain optimal efficiency and avoid breakage.
- If excessive wear is noted, or the insert has been bent, reshaped or otherwise damaged, discard the insert immediately.
- Ultrasonic insert tips that have been bent, damaged, or reshaped are susceptible to in-use breakage and should be discarded and replaced immediately.
- Retract the lips, cheeks and tongue to prevent contact with the insert tip whenever it is placed in the patient's mouth.
- Only the medically approved DENTSPLY[®] power supply should be used with this System.

3.3 Precautions for Cavitron[®] Select Reservoir Pump

- Do not place the System on or next to a radiator or other heat source. Excessive heat may damage the System's electronics. Place the System where air is free to circulate on all sides and beneath it.
- The System is portable, but must be handled with care when moving.
- Equipment flushing and dental water supply system maintenance are strongly recommended. See Water Supply under Section 10: System Care.

Section 4: Infection Control

4.1 General Infection Control Recommendations

As with all dental procedures, use standard personal protection equipment (i.e., wear face mask, eyewear, or face shield, gloves and protective gown).

For maximal operator and patient safety, carefully follow the Infection Control Information procedures detailed in Section 11.

As with high speed handpieces, and other dental devices, the combination of water and ultrasonic vibration from your Cavitron[®] Select Scaler will create aerosols. With proper technique, much of the Cavitron[®] Select Scaler's aerosol dispersion can be effectively controlled and minimized. Please carefully follow the procedural guide lines in this manual regarding the use of your System.

4.2 Water Supply Recommendations

It is highly recommended that all dental water supply systems conform to applicable CDC (Centers for Disease Control and Prevention) and ADA (American Dental Association) standards, and that all recommendations be followed in terms of flushing, chemical flushing, and general infection control procedures.

Section 5: Installation Instructions for Cavitron[®] Select Ultrasonic Scaler

5.1 General Information

If the installation of your Cavitron[®] Select Scaler is performed by someone other than trained DENTSPLY[®] Distributor personnel, care should be taken to observe the following requirements and recommendations.

5.2 Water Line Requirements

- Incoming water supply line pressure to the Scaler must be 20 psi (138 kPa minimum) to 60 psi (414 kPa maximum). If your dental water system's supply line pressure is above 60 psi, install a water pressure regulator on the water supply line to your Cavitron[®] Select Scaler.
- A manual shut-off valve on the dental water system supply line should be used so that the water can be completely shut-off when the office is unoccupied.
- After the above installations are completed on the dental water supply system, the dental office water line should be thoroughly flushed prior to connection to the Scaler.

5.3 Electrical Requirements

Refer to Section 13: Specifications.

5.4 Unpacking the System

Carefully unpack your Cavitron[®] Select Scaler and verify that all components and accessories are included:

1. Cavitron[®] Select Scaler.

2. Detachable AC Power Cord set.
3. Cavitron[®] Select Flow Control Detachable Handpiece.
4. Foot Control Assembly.
5. Hose / Filter / Quick Disconnect Assembly.
6. Additional Filter (#90158).
7. Medically Approved Power Supply.
8. Literature Packet.

5.5 Power Cord/Power Connection

- Verify the Power Control knob is set to the OFF position before proceeding.
- Plug the detachable AC cord into the back of the Medically Approved Power Supply.
- Plug the power supply outlet into the back of the System.
- Plug the 3 prong grounded plug into an approved outlet.

5.6 Foot Control Cable Assembly Connection

Align the Foot Control plug with the receptacle on the back of the System and push it in until firmly seated.

5.7 Water Supply Line Connection

- Push the blue hose into the orange water receptacle until the hose cannot be pushed in any further.
- Connect the free end of the system's water supply line to the office water supply line.
- Inspect all connections to make certain there are no leaks.
- To remove water line from Cavitron[®] Select Scaler, turn off or disconnect water supply line first, then push on outer orange ring of the outlet and gently pull out water hose.

5.8 Flow Control Detachable Handpiece Cable Assembly Connection

- Plug the Handpiece outlet into the receptacle on the back of the System.
- Holding the Handpiece Cable Assembly slightly above the male connector, insert it into the female connector.
- Applying slight pressure, rotate male connector until it seats into position and moves forward approx. 1/8".
- Once seated, snap male connector into female connector by pushing on the end of the male connector.
- Rotate Flow Control to middle setting.

Section 6: Installation Instructions for Cavitron[®] Select Scaler with Cavitron[®] Select Reservoir Pump

Section 6: Installation Instructions for Cavitron[®] Select Scaler with Cavitron[®] Select Reservoir Pump, continued

6.1 General Information

If the installation of your Cavitron® Select Ultrasonic Scaler with Cavitron® Select Reservoir Pump is performed by someone other than trained DENTSPLY® Distributor personnel, care should be taken to observe the following requirements and recommendations.

6.2 Electrical Requirements

Refer to Section 13: Specifications.

6.3 Unpacking the System

Carefully unpack your Cavitron® Select Scaler and verify that all components and accessories are included:

1. Cavitron® Select Scaler.
2. Cavitron® Select Reservoir Pump.
3. Detachable AC Power Cord set.
3. Cavitron® Select Flow Control Detachable Handpiece.
4. Foot Control Assembly.
5. Cavitron® Select Reservoir Bottle.
6. Hose / Filter / Quick Disconnect Assembly.
7. Additional Filter (#90158).
8. Medically Approved Power Supply.
9. Literature Packet.

6.4 Assembling the System

- Insert Cavitron® Select Reservoir Bottle into Cavitron® Select Reservoir Pump and rotate clockwise until bottle locks into place.
- Connect Cavitron® Select Scaler to Cavitron® Select Reservoir Pump. Insert male edge card connector on Cavitron® Select Reservoir Pump into Cavitron® Select Scaler opening on the back of the Cavitron® Select Scaler. Press down on the top of the Cavitron® Select Scaler (directly above power setting knob) until the striker knob located on the Reservoir Bottle locks into place.
- To detach Cavitron® Select Scaler from Cavitron® Select Reservoir Pump and Bottle, lift up on the front of the Cavitron® Select Scaler (below power setting knob and power light). After the striker knob is unsnapped, pull the Cavitron® Select Scaler away from the Cavitron® Select Reservoir Pump.

NOTE: Always disengage striker knob before pulling the Cavitron® Select Scaler away from the Cavitron® Select Reservoir Pump.

6.5 Power Cord/Power Connection

- Verify the Power Control knob is set to the OFF position before proceeding.
- Plug the detachable AC cord into the back of the Medically Approved Power Supply.
- Plug the power supply outlet into the back of the Cavitron® Select Reservoir Pump.
- Plug the 3 prong grounded plug into an approved outlet.

6.6 Foot Control Cable Assembly Connection

Align the Foot Control plug with the receptacle on the back of the Cavitron® Select Reservoir Pump and push it in until firmly seated.

6.7 Flow Control Detachable Handpiece Cable Assembly Connection

- Plug the Handpiece outlet into the receptacle on the back of the Cavitron® Select Reservoir Pump.
- Holding the Handpiece Cable Assembly slightly above the male connector, insert it into the female connector.
- Applying slight pressure, rotate male connector until it seats into position and moves forward approx. 1/8".
- Once seated, snap male connector into female connector by pushing on the end of the male connector.
- Rotate Flow Control to middle setting. This energizes the system and the ultrasonics are now ready to be enabled.

Section 7: Cavitron® Select Ultrasonic Scaler Description

Section 7: Cavitron® Select Ultrasonic Scaler Description, continued

7.1 System Controls: Cavitron® Select Ultrasonic Scaler

[callouts for artwork]

AC Power Indicator Light

Lighted when System is switched ON.

Handpiece Holder

Holds the System's Handpiece when system is not being used.

Power Adjustment (ON/OFF Switch)

Turn knob to select ultrasonic power level for operation: clockwise increases system power, counter clockwise decreases system power.

7.2 System Controls: Cavitron® Select Ultrasonic Scaler with Cavitron® Select Reservoir Pump

[callouts for artwork]

Reservoir Pump

Lavage dispenser.

AC Power Indicator Light

Lighted when System is switched ON.

Handpiece Holder

Holds the System's Handpiece when system is not being used.

Power Adjustment (ON/OFF Switch)

Turn knob to select ultrasonic power level for operation: clockwise increases system power, counter clockwise decreases system power.

Refillable Cavitron® Select Water Reservoir Cap

7.3 Handpiece

The handpiece accepts all Cavitron® 25K™ Ultrasonic Inserts. The open end of the handpiece accepts all Cavitron® 25K™ Inserts.

7.4 Cavitron® 25K™ Ultrasonic Inserts

The many styles of Cavitron® 25K™ Ultrasonic Inserts are easily interchangeable for various procedures and applications. See enclosed booklet for specific information.

[callouts for artwork]

Insert Tip

Shape and size of tip determines access and adaptation. Lavage directed to tip.

O-Ring

Provides seal for handpiece coolant.

Finger Grip**Insert Marking**

Manufacturer, Date (YYMM),
Frequency, Type.

E.g. DENTSPLY 9608 25K FSI-SLI-10S

Connecting Body

Transfers and amplifies mechanical motion of stack to insert tip.

Magnetostrictive Stack

Converts energy provided by the handpiece into mechanical oscillations used to activate the insert tip.

Hold the handpiece in an upright position. Activate the insert (fill handpiece up with water) to bleed any air bubbles that might be trapped inside the handpiece. Lubricate the rubber O-ring on the insert with water before placing it into the handpiece. Fully seat insert with a gentle push-twist motion. DO NOT FORCE.

7.5 Foot Control Information & Operation

The Foot Control is a single-position momentary switch, which activates both ultrasonic energy and Lavage Flow at the insert tip.

[chart art in columns top to bottom]

Foot Control released...

Both ultrasonic activation and irrigating flow stop.

Foot Control depressed

The ultrasonic insert tip is activated and irrigating water flows.

Section 8: Accessories

1. Cavitron® Select Flow Control Detachable Handpiece
2. Medically Approved Power Supply
3. Cavitron® Ultrasonic Inserts
4. Foot Control Assembly
5. DualSelect™ Dispensing System
6. Cavitron® Select Reservoir Bottle
7. Cavitron® Select Reservoir Pump

*For detailed information, contact your local DENTSPLY® Representative or authorized DENTSPLY® Distributor.

Section 9: Techniques for Use

9.1 Patient Positioning

- For optimal access to both the upper and lower arches, the backrest of the chair should be adjusted as for other dental procedures. This assures patient comfort and clinician visibility.
- Have the patient turn their head to the right or left. Also position their chin up or down depending upon the quadrant and surface being treated. Evacuate irrigant using either a saliva ejector or High Volume Evacuator (HVE).

9.2 Performing Ultrasonic Scaling Procedures

- NOTE: Refer to the Infection Control Information card supplied with your System for general procedures to be followed at the beginning of each day and between patients.
- The edges of Cavitron® Ultrasonic Inserts are intentionally rounded so there is little danger of tissue laceration with proper ultrasonic scaling technique. Whenever the insert tip is placed in the patient's mouth, the lips, cheek and tongue should be retracted to prevent accidental prolonged contact with the activated tip.
- Hold the empty Handpiece in an upright position. Activate the Foot Control until fluid exits.
- Lubricate the rubber O-ring on the insert with water before placing it into the handpiece. Fully seat insert with a gentle push-twist motion. DO NOT FORCE.
- Activate the System. Hold the handpiece over a sink or drain. Check spray temperature to verify fluid is reaching the working end of the insert tip. Adjust the Lavage Control knob to ensure adequate flow for the selected Power setting. Greater flow settings provide cooler irrigant.
- In general, it is suggested that a "feather-light-touch" be used both supra- and subgingivally. The motion of the activated tip and acoustic effects of the irrigating fluid, in most cases, is adequate to remove even the most tenacious calculus.
- Periodically check the Cavitron® Ultrasonic Insert for wear with the DENTSPLY® Insert Efficiency Indicator.
- The use of a saliva ejector or High Volume Evacuator (HVE) is recommended during all procedures.
- Set the System's Power Adjustment knob to the lowest power setting for the application and the selected insert.

9.3 Patient Comfort Considerations

Reasons for sensitivity

- Incorrect tip placement. Point should be directed away from root surfaces.
- Not keeping tip in motion on tooth. Do not allow the insert to remain in a static position on any one area of the tooth. Change the insert's path of motion.
- Applying pressure. Use extremely light grasp and pressure, especially on exposed cementum.
- If sensitivity persists, decrease power setting and/or move from the sensitive tooth to another and then return.

Section 10: System Care

Section 10: System Care, continued

10.1 Daily Maintenance

Start-Up Procedures at the beginning of the day (Cavitron® Select Ultrasonic Scaler):

1. Open the manual shut-off valve on the dental office water supply system.
2. Turn the System ON using the Power Control knob (see illustration in Section 7). Verify the Power Indicator Light is lighted.
3. Set the Power Control knob to full power.
4. Set the Lavage Control on Handpiece to maximum.
5. Hold the Handpiece (without the Cavitron® Insert installed) upright over a sink or drain. Activate the Foot Control and flush the water line for at least 2 minutes.

6. Place a sterilized Cavitron® Insert into the Handpiece and set the Lavage Control knob to your preferred operating position.

Start-Up Procedures at the beginning of the day (Cavitron® Select Ultrasonic Scaler with Cavitron® Select Reservoir Pump):

1. Fill Cavitron® Select Reservoir Bottle with tap or distilled water. Replace Cavitron® Select Bottle cap.
2. Carefully lock Cavitron® Select Reservoir Bottle into Cavitron® Select Reservoir Pump.
3. Connect Cavitron® Select Scaler to Cavitron® Select Reservoir and Bottle (see Section 6 for complete instructions).
4. Turn the System ON using the Power Control knob (see illustration in Section 7). Verify the Power Indicator Light is lighted.
5. Set the Power Control knob to full power.
6. Set the Lavage Control on the Handpiece to maximum.
7. Hold the Handpiece (without the Cavitron® Insert installed) upright over a sink or drain. Activate the Foot Control and flush the water line for at least 2 minutes.
8. Place a sterilized Cavitron® Insert into the Handpiece and set the Lavage Control on the Handpiece to your preferred operating position.

Between Patients (Cavitron® Select Ultrasonic Scaler):

1. Remove all ultrasonic inserts used, clean and sterilize.
2. Clean and disinfect the surfaces of the cabinet, Power Cord, Handpiece and cable assembly, Foot Control and cable assembly by applying an approved non-immersion type disinfectant solution* carefully following the instructions provided by the disinfectant solution manufacturer. To clean system, generously spray disinfectant solution on a clean towel and wipe all surfaces. Discard used towel. To disinfect system, generously spray disinfectant on a clean towel and wipe all surfaces. Allow disinfectant solution to air dry.
3. Hold the Handpiece over a sink or drain and flush the water line of the unit as above at maximum water flow for 30 seconds.
4. Place a freshly sterilized insert into the handpiece.

Between Patients (Cavitron® Select Ultrasonic Scaler with Cavitron® Select Reservoir Pump):

1. Follow steps 1–4 listed above in Between Patients (Cavitron® Select Ultrasonic Scaler).
2. When Cavitron® Select Reservoir appears empty, unscrew cap or detach Cavitron® Select Reservoir Bottle from System (see Section 6 for complete instructions).
3. Fill Cavitron® Select Reservoir Bottle with tap or distilled water.
4. Carefully lock Cavitron® Select Reservoir Bottle into Cavitron® Select Reservoir Pump or screw cap back on Bottle.
5. Connect Cavitron® Select Scaler to Cavitron® Select Reservoir and Bottle (see Section 6 for complete instructions).

Shut-Down Procedures at the end of the day (Cavitron® Select Ultrasonic Scaler):

1. Remove all ultrasonic inserts used, clean and sterilize.
2. Turn the System OFF.
3. Clean and disinfect the surfaces of the cabinet, Power Cord, Handpiece and cable assembly, Foot Control and cable assembly by applying an approved non-immersion type disinfectant solution* carefully following the instructions provided by the disinfectant solution manufacturer. To clean system, generously spray disinfectant solution on a clean towel and wipe all surfaces. Discard used towel. To disinfect system, generously spray disinfectant on a clean towel and wipe all surfaces. Allow disinfectant solution to air dry.
4. Close the manual shut-off valve on the dental water supply system. (If using Cavitron® Select Ultrasonic Scaler only).

* NOTE: Water-based disinfection solutions are preferred. Some alcohol-based disinfectant solutions may be harmful and may discolor plastic materials.

Shut-Down Procedures at the end of the day (Cavitron® Select Ultrasonic Scaler with Cavitron® Select Reservoir Pump):

1. Remove Cavitron® Insert from Handpiece.
2. Turn the System OFF.
3. Detach Cavitron® Select Reservoir Bottle from System (see Section 6 for complete instructions).
4. Empty entire contents of Cavitron® Select Reservoir Bottle.
5. Replace empty Cavitron® Select Reservoir Bottle to System.
6. Carefully lock Cavitron® Select Reservoir Bottle into Cavitron® Select Reservoir Pump.
7. Connect Cavitron® Select Scaler to Cavitron® Select Reservoir and Bottle (see Section 6 for complete instructions).
8. Turn unit ON.
9. Hold the Handpiece (without the Cavitron® Insert installed) upright over a sink or drain.

10. To air purge the water line, operate the Cavitron® Select Scaler for at least 30 seconds. (This will eliminate fluid to prevent it from settling in the Cavitron® Select System for extended periods of time. This may also help decrease the chance of bio-film formations in the Cavitron® Select water lines.)

11. Follow steps 2–4 listed in *Shut-Down Procedures at the end of the day (Cavitron® Select Ultrasonic Scaler)*.

10.2 Weekly Maintenance: Cavitron® Select Ultrasonic Scaler with Cavitron® Select Reservoir Pump

1. Remove Cavitron® Insert from Handpiece.
2. Turn the System OFF.
3. Detach Cavitron® Select Reservoir Bottle from System (see Section 6 for complete instructions).
4. Empty entire contents of Cavitron® Select Reservoir Bottle.
5. Replace empty Cavitron® Select Reservoir Bottle to System.
6. Carefully lock Cavitron® Select Reservoir Bottle into Cavitron® Select Reservoir Pump.
7. Connect Cavitron® Select Scaler to Cavitron® Select Reservoir and Bottle (see Section 6 for complete instructions).
8. Turn the System ON.
9. Hold the Handpiece (without the Cavitron® Insert installed) upright over a sink or drain.
10. To air purge the water line, operate the Cavitron® Select Scaler for at least 30 seconds. (This will eliminate fluid to prevent it from settling in the Cavitron® Select System for extended periods of time. This may also help decrease the chance of bio-film formations in the Cavitron® Select water lines.)
11. Turn the System OFF.
12. Detach Cavitron® Select Reservoir Bottle from the System (see Section 6 for complete instructions).
13. Prepare a 1:10 hypochlorite (NaOCL) solution by mixing 1 part 5.25% sodium hypochlorite with 10 parts tap water.
14. Pour this 1:10 solution into the Cavitron® Select Reservoir Bottle.
15. Carefully lock Cavitron® Select Reservoir Bottle into Cavitron® Select Reservoir Pump.
16. Connect Cavitron® Select Scaler to Cavitron® Select Reservoir and Bottle (see Section 6 for complete instructions).
17. Turn the System ON.
18. Hold the Handpiece (without the Cavitron® Insert installed) upright over a sink or drain.
19. Operate the Cavitron® Select Scaler for at least 10 seconds.
20. Turn the System OFF.
21. *Leave the unit undisturbed for at least 10 minutes, BUT FOR NO MORE THAN 30 MINUTES to allow sodium hypochlorite solution to soak into the lines. As a suggestion, place a sign which states that the System is being disinfected and should not be used.*
22. Remove Cavitron® Select Reservoir Bottle and discard disinfectant solution.
23. Autoclave Cavitron® Select Reservoir Bottle (see Section 11).
24. Fill Cavitron® Select Reservoir Bottle with tap or distilled water.
25. Carefully lock Cavitron® Select Reservoir Bottle into Cavitron® Select Reservoir Pump.
26. Connect Cavitron® Select Scaler to Cavitron® Select Reservoir and Bottle (see Section 6 for complete instructions).
27. Turn the System ON.
28. Operate the Cavitron® Select Scaler for at least 60 seconds.
29. Repeat steps 1–11.

NOTE: ALL CHEMICALS MUST BE FLUSHED FROM THE SYSTEM BEFORE IT IS READY FOR PATIENT USE.

10.3 Filter Maintenance

If water filter becomes discolored or clogged, please replace. Replacement filters (#90158) are available by contacting DENTSPLY Preventive Care Customer Service.

Section 11: Infection Control Information

Section 11: Infection Control Information, continued

CAVITRON® SELECT ULTRASONIC SCALER

The objective of this information is to supplement published general guidelines for reducing cross contamination of infectious diseases when using a DENTSPLY® Cavitron® Select Ultrasonic Scaler during routine dental care. In the event any regulatory agency disagrees with this information, the agency requirements take precedence.

The control of infection is accomplished by combining the techniques of cleaning, disinfecting and sterilizing. The methods selected should consider both the destruction of the harmful microorganisms and the effect on the materials of construction.

The outer surfaces of the DENTSPLY® Cavitron® Select Ultrasonic Scaler, consisting of the cabinet, power line cord, handpiece, cable assembly, footswitch and footswitch cable, should be cleaned and disinfected. The detachable handpiece and ultrasonic inserts require cleaning and sterilization. Preferred methods are discussed. However, alternatives are available. Special steps may be required when following an alternate method.

RECOMMENDED DAILY PROCEDURES

Beginning of the day:

Hold the handpiece over a sink or drain, set power to low, activate the foot control, and flush the water line of the unit at maximum water flow for at least 2 minutes.

Place a freshly sterilized insert into the handpiece.

The unit is now ready for operation.

Between patients:

Remove all ultrasonic inserts and handpiece used, clean and sterilize.

Clean and disinfect the surfaces of the cabinet, Power Cord, Handpiece and cable assembly, Foot Control and cable assembly by applying an approved non-immersion type disinfectant solution* carefully following the instructions provided by the disinfectant solution manufacturer. To clean system, generously spray disinfectant solution on a clean towel and wipe all surfaces. Discard used towel.

To disinfect system, generously spray disinfectant on a clean towel and wipe all surfaces. Allow disinfectant solution to air dry.

Hold the handpiece over a sink or drain and flush the water line of the unit as above at maximum water flow for 30 seconds.

Place a freshly sterilized insert into the handpiece.

End of the Day:

Remove all ultrasonic inserts and handpiece used, clean and sterilize.

Clean and disinfect the surfaces of the cabinet, Power Cord, Handpiece and cable assembly, Foot Control and cable assembly by applying an approved non-immersion type disinfectant solution* carefully following the instructions provided by the disinfectant solution manufacturer. To clean system, generously spray disinfectant solution on a clean towel and wipe all surfaces. Discard used towel.

To disinfect system, generously spray disinfectant on a clean towel and wipe all surfaces. Allow disinfectant solution to air dry.

*Note: water-based disinfectant solutions are preferred. Some alcohol based disinfectant solutions may be harmful and may discolor plastic materials.

ULTRASONIC INSERT STERILIZATION

The cleaning and sterilization procedures for all Dentsply® Cavitron® Ultrasonic Inserts are described in the Infection Control Information sheet packaged with Dentsply® Cavitron® Inserts Form No. 79429). Copies are available by contacting the Technical Support number listed.

Cleaning/Disinfecting

If necessary, prior to sterilization, rinse Cavitron® Inserts under water to remove any gross debris. The use of cleaning and disinfectant solutions, such as ultrasonic cleaning solutions, are not recommended.

Sterilization

Bagged Inserts

- Place insert in a paper or paper/plastic steam sterilization pouch. Place the paper side up when using a paper/plastic steam sterilization pouch.
- Place the bagged insert into the steam autoclave. After warm-up is completed, operate at a sterilizing temperature and pressure of 273° F/31 psi (134° C/216 kPa) for 12 minutes, followed by a 20-30 minute drying time.
- To maintain sterility, the insert should remain in the sealed pouch until it is ready for use.

Unbagged Inserts

- After warm up is completed, steam autoclave unbagged Cavitron® Inserts at a sterilizing temperature and pressure of 273° F/31 psi (134° C/216 kPa) for 3 minutes, followed by a 20-30 minute drying time. Use the insert immediately.

O-RINGS

- Before placing Cavitron® Inserts into the handpiece, performing the following steps will increase the o-ring life on Cavitron® Inserts:
- Fill entire handpiece with water.
- Lubricate o-ring (black or green rubber material) with water.
- Gently twist the insert down into the handpiece until the insert is fully seated in place.

PUMP & RESERVOIR STERILIZATION

Cleaning:

- Wipe pump with a cloth saturated with multi-purpose instrument cleaner.
- Discard cloth.
- Dry reservoir thoroughly with a clean cloth. Discard cloth.

Sterilizing (Reservoir Only):

- Cycle in a monitored sterilizer operating at a maximum temperature of 375° F (190° C) (15 minutes cycle) in accordance with the sterilizer manufacturer's directions.

CAUTION

- DO NOT USE Cold sterilization solution.
- DO NOT USE chemical disinfectant prior to sterilization or rapid deterioration of the materials may occur.
- DO NOT immerse handpiece in ultrasonic bath.
- All other sterilization methods may adversely affect the handpiece and void warranty.

Section 12: Troubleshooting

Although service and repair of the Cavitron® Select should be performed by DENTSPLY® personnel, the following are some basic trouble shooting procedures that will help avoid unnecessary service calls. Generally, check all lines and connections to and from the System, a loose plug or connection will often create problems. Check the settings on the System's knobs.

12.1 Troubleshooting Guide

System will not operate:

(Power Indicator Light is not lighted.)

1. Check that the Power Control knob is in the ON position, and that the detachable Power Cord is fully seated in the receptacle on back of System.
2. Check that the System's three-prong plug is fully seated in an appropriate AC receptacle, and that AC current is present.
3. Check that the DC power plug is properly inserted into the DC input located on the back of the System.

(Power Indicator Light is lighted.)

1. Check that the Foot Control Connector is fully seated in the Foot Control Receptacle on the back of the System.
2. Check that the Handpiece Cable Assembly is fully seated in the Handpiece Receptacle.

System operates:

(No lavage flow at insert tip.)

1. Assure that Lavage control is properly adjusted.
2. Check that irrigant supply control valve/s (dental office water supply) are open.
3. Check that the Handpiece Cable Assembly is fully seated in the Handpiece Receptacle.
4. Check to see if Water Filter is discolored—if so, replace.

12.2 Technical Support and Repairs

For technical support and assistance call 1-800-347-7412 Monday through Friday, 8:00 AM to 5:00 PM (Eastern Time). For other areas, contact your local DENTSPLY® representative.

Section 13: Specifications

[CALLOUTS FOR GRAPHICS:]

DIRECT CURRENT
TYPE B EQUIPMENT
FOOTSWITCH
REFER TO INSTRUCTION MANUAL FOR INFORMATION

Cavitron® Select: 100/115 VAC Systems

Electrical Voltage	30 VDC +/- 5%	
Current	2 amps DC Max	
Frequency	50/60 Hertz	
Water Pressure	20 – 60 psig	
Flow Rate	Minimum setting (CCW) 0 – 15 ml/min Maximum setting (CW) >45 ml/min	
Weight	425 g / 15 oz.	
Dimensions	Height:	2.4 in.
	Width:	3-1/8 in.
	Depth:	7 ½ in.
	Handpiece Cable:	72 in.
	Foot Control Cable:	72 in.
	Power Cord:	2 m
	Water Supply Line:	96 in.

Cavitron® Select Power Supply (674-002-001):

Electrical Voltage	100 – 240 VAC	
Current	1,6 amps Max @ 100 – 240 VAC	
Insulation Requirement	Reinforce	
Frequency	47 – 63 Hertz	
Weight	550 g / 19.4 oz. Max	
Dimensions	Height:	14,3 cm / 5.7 in.
	Width:	7,6 cm / 3.0 in.
	Depth:	14,3 cm / 5.7 in.
	Power Cord:	213 cm / 84 in.
Footswitch	Not for operating theatres Protection Class IPX1	

Cavitron® Select Reservoir Pump:

Electrical Voltage	30 VDC +/- 5%
Pump Pressure	15 – 19 psig
Flow Rate	≥40 ml/min
Weight	513 g / 18 oz.
Dimensions	Height: 10,2 cm / 4.0 in. Width: 8,4 cm / 3.3 in. Length: 30 cm / 11.8 in.

Operating Environment:

Temperature:	15 to 40 Deg. Celsius
Relative Humidity:	30% to 75% (non-condensing)

Transport and Storage Conditions:

Temperature:	0 to 70 Deg. Celsius
Relative Humidity:	10% to 95% (non-condensing)
Atmospheric Pressure:	500 to 1060 hPa

Section 14: Classification

- Type of protection against electric shock: Class 1
- Degree of protection against electric shock: Type B
- Degree of protection against the harmful ingress of water: Ordinary
- Mode of operation: Continuous
- Degree of safety of application in the presence of a flammable anaesthetic mixture with air or with oxygen or nitrous oxide: Equipment not suitable for use in the presence of flammable anesthetics or oxygen.
- According to medical device directive: IIA (rule 9)

Section 15: Disposal of Unit

- Accordance with local and state laws.