



VETROSON® MILLENNIUM 25/30 ULTRASONIC SCALER

SUMMIT HILL LABORATORIES

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OPERATING INSTRUCTIONS



YOU RECEIVE:

- One **VETROSON® Millennium 25/30 Scaler** unit with attached handpiece, foot control pedal, 6' water line with male quick-connect coupler, 2' water line with female quick-connect coupler, and disposable in-line filter.
- One transformer with cable
- **VETROSON "SS" #10 30k insert**, **VETROSON "SS" Universal Perio insert 30k**
- Operating Instructions, Question and Answer Brochure
- Warranty Information Form

STEP ONE: INSTALLING YOUR VETROSON® MILLENNIUM 25/30

Locate the device where the control panel will be easy to reach during scaling procedures. The **VETROSON® Millennium 25/30** requires access to a grounded electrical outlet and a source of drinking-quality water.

The scaler and its separate transformer generate a minimal amount of heat. Avoid covering them, as this will prevent normal cooling.

STEP TWO: WATER CONNECTION

Do not turn the unit on until you have connected the scaler's water line to a supply of drinking quality water (20-50 psi). Water should be clean and free of sediment. The unit has been connected to 6' of water hose that ends in the male half of the Quick Connect. The 2' of water hose that terminates in the female half of the Quick Connect needs to be connected to the water source.

WHEN CONNECTING TO A COLD WATER PIPE:

- ❖ For a new installation, have a plumber cut a “T” into the cold water line. We supply a ¼” compression nut and 2’ of braided hose with a female Quick Disconnect attached (OD of ¼ inch and an ID of 1/8 inch). The hose should fit snugly onto the nipple of your plumber’s connection and be held in place with the screw-on compression nut.
- ❖ If your plumber cannot locate the proper fittings to reduce to ¼” for the compression nut we can supply the proper threaded reducing fittings.



- ❖ For do-it-yourself practices, a One-Quarter Inch (1/4”) Self Tapping Saddle Valve can be purchased. Following the instructions, tap into the cold water line near the scaler. The tubing should fit snugly onto the nipple and be held in place with the screw-on compression nut.

FOR EXISTING WATER CONNECTION:

- ❖ If the practice has a previously installed Summit Hill Laboratories brass quick-disconnect fitting in the cold water pipe, simply remove the old plastic tubing and compression nut and install the current braided tubing and compression nut. The tubing should fit snugly onto the nipple and be held in place with the screw-on compression nut.

FOR CONNECTING TO A HIGH SPEED DENTAL UNIT:

- ❖ If the practice wishes to cut into the braided tank hose of a high-speed dental unit, we have included a Hose Splitter Kit with the **VETROSON® Millennium 25/30 Ultrasonic Scaler**; however, the “T” will generally not marry with clear plastic tubing. Replacement braided tubing (VUO2065) can be purchased.

IF A PORTABLE WATER SUPPLY IS REQUIRED:

- ❖ The hoses should easily connect to existing tanks. We can supply the **VETROSON** Portable Water Supply (1/2-gallon tank, pump and tubing) – VUA4090.

WHEN NOT IN USE, YOUR SCALER SHOULD BE DISCONNECTED FROM THE WATER SOURCE BY SEPARATING THE QUICK DISCONNECT.

The VETROSON® Millennium 25/30 Ultrasonic Scaler

comes with a pre-installed in-line filter. This will prevent particulates in the water supply from clogging the scaler or inserts. The filter disc should be replaced before it becomes clogged with debris so that water flow is not impeded. Replacement discs are available from Summit Hill Laboratories.



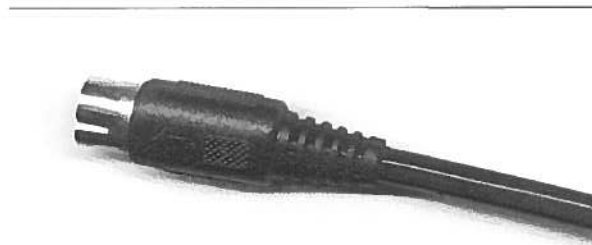
If the filter becomes clogged and replacement discs are not available, the hose connectors can be locked together without the filter disc to allow emergency operation.

IMPORTANT: THE WATER LINE TO THE SCALER SHOULD BE TURNED OFF AT THE QUICK-DISCONNECT WHENEVER THE DEVICE IS NOT IN USE.

STEP THREE: ELECTRICAL CONNECTION

The VETROSON® Millennium 25/30k must be powered via the Transformer Assembly supplied with the scaler.

- Plug the transformer cable into the back of the scaler.
- Then plug the transformer into any grounded 110V outlet. From this point on simply stepping on the pedal will turn on the scaler.



STEP FOUR: SELECTING INSERTS

Although the VETROSON® Millennium 25/30 accepts 25K inserts, one of its major advantages is that it has been designed to employ 30k inserts. These are shorter, lighter and more efficient than those working at 25k. The #3 & #10 Inserts are designed to be used above the gums. THE PERIO INSERT IS DESIGNED TO BE USED UNDER THE GUMS AT A LOWER (PERIO) POWER SETTING. IF THIS INSERT IS USED AT THE FULL (SCALING) POWER SETTING, DAMAGE TO THE P.C. BOARD WILL MOST LIKELY OCCUR.

The frequency of the scaler must be selected to match the tip using the push button (out for 30k, in for 25k) on the front panel. Brand new inserts might fit very tightly in the handpiece. A slight twisting motion can make insertion easier.

VETROSON inserts are clearly marked on the flat surface as to the type, frequency and date of manufacture. Inserts will be effective for 9-12 months depending upon usage and care in handling them. In time they actually wear out and develop metal fatigue since the metal “fins” are vibrating 30,000 cycles per second. If your practice is averaging 7 scalings/week look for metal fatigue in the 7-12 month period. The symptoms of metal fatigue are a warm (not hot) handpiece dripping as well as misting at the tip of the insert and a feeling that you are hand scaling. The best test is to have a new insert in a sealed box on hand as back-up.

If replacing the old insert with a new insert results is dramatically more efficient scaling, discard the old insert.

STEP FIVE: TURNING ON THE VETROSON® MILLENNIUM 25/30

The **VETROSON® Millennium 25/30** does not have a traditional on/off switch. The foot pedal turns the unit on and off. Because of this, the pedal should be placed where it will not be accidentally hit when the device is not in use.

When the foot pedal is depressed, the cabinet will emit a slight humming sound. This is normal and is caused by the instrument's inductor coils.

STEP SIX: CONTROLLING WATER FLOW

It is imperative to correctly set the water flow for maximum efficiency and power. To assure correct water flow use your #3 insert or #10. **Do not use the perio insert.**

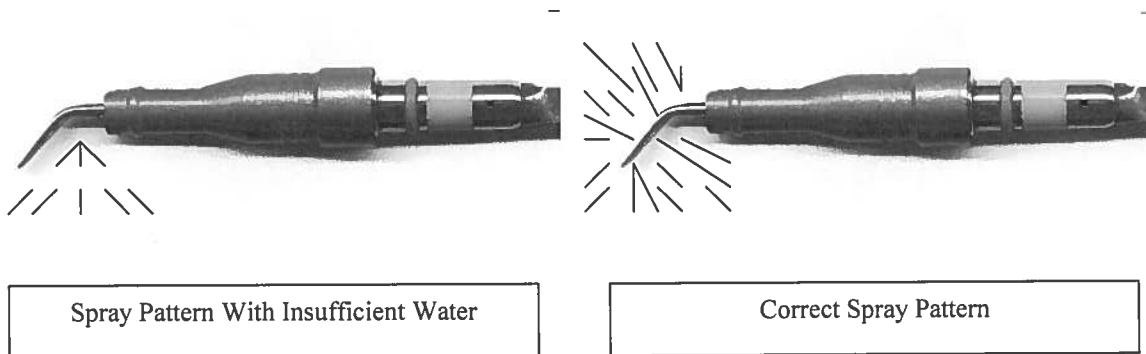
- 1) Turn the water control knob clockwise until it stops. This is the “off” position.
- 2) Then turn the knob counter-clockwise just less than one full turn. At this point the water should be spraying both at the “elbow” of the insert and at the tip. (See diagram below)
- 3) Now reduce the water pressure by slowly turning the knob clockwise until the water just sprays from the elbow.
- 4) Now turn the knob counterclockwise and when the spray is coming from the elbow to the tip stop. You are now in the right position. This will result in maximum scaling power.
- 5) Turning the water flow higher than as set in #4 above may result in inserts being blown out of the handpiece.

STEP SEVEN: AUTOTUNE

The **VETROSON® Millennium 25/30 Ultrasonic Scaler** features a new concept in autotuning. The unit zeroes in on an insert's natural resonance, producing a better and more consistent spray pattern for a broader spectrum of inserts. **NO ADJUSTMENTS ARE NECESSARY – EVEN WHEN CHANGING INSERTS.** For normal scaling your unit was supplied with the new **VETROSON Stainless Steel 30k Inserts.** ***Be sure your button is set at the 30k position.***

STEP EIGHT: CONTROLLING THE POWER

The power control knob has been pre-set at the factory. Be sure the Power Booster light is off. The Power Booster mode is controlled by pressure on the foot pedal. Firm pressure will enable the Power Booster and the green light will come on. Lighter pressure on the foot pedal (with the Power Booster light off) will result in normal scaling power.



VETROSON "SS" # 3 INSERT Pictured Above

The power control knob has a "perio" (low) setting, which may be used for safely scaling under the gums. Just turn the power button to "low", insert the new **VETROSON** Universal Perio Insert 30k and depress the foot pedal. It should be noted that at the "low" setting the insert will produce a water pattern different from what you have been experiencing. There will be very little fine mist. Instead droplets of water and/or a stream of water will be apparent. This is normal and will result in superior scaling under the gum line.

For short-term increases in power during perio procedures, apply firmer pressure to the foot pedal. The green Power Booster light will come on. This will instantly boost scaling power to a point midway between the current setting and the scaler's maximum power. When encountering hard-to-remove accretions during debridement, simply use the Power Booster feature to eliminate them. The Power Booster mode does not change the water flow, so extended procedures may require a water adjustment. In other words, enabling the Power Booster when the scaler is operating at a low setting will cause a major boost in power. Enabling the Power Booster when the scaler is already operating at maximum power will produce no significant increase.

To return to perio scaling power, lighten pressure on the foot pedal. The light will go out and power will revert to the low setting.



Whenever the foot pedal is released, the "on" light on the front panel will instantly turn off. When not operating in the Power Booster mode, the illuminated Power Booster button will also turn off, though it may take several seconds. Note: IT SHOULD BE STRESSED AGAIN THE PERIO INSERT IS DESIGNED TO BE USED UNDER THE GUMS AT A LOWER (PERIO) POWER SETTING. IF THIS INSERT IS USED AT THE FULL (SCALING) POWER SETTING, DAMAGE TO THE P.C. BOARD WILL MOST LIKELY OCCUR.

INFECTION CONTROL

When removing the autoclavable handpiece sheath, hold the handpiece at the base with one hand and turn

the top counter-clockwise with the other taking care not to twist the hose. The sheath will unscrew and slip off.

Sheaths can be sterilized in any conventional steam autoclave (e.g. Validator plus), 132-135 degrees C for 15 minutes for gravity displacement and 4 minutes for prevacuum cycles. **DO NOT USE DRY HEAT OR CHEMCLAVE.**

NOTE: Autoclaving does not remove debris that has accumulated on the sheath. Failure to adequately remove debris may result in inadequate sterilization. The sheath must be washed in soap and water and rinsed in running water prior to autoclaving.

Before replacing the sheath, lubricate the orange O-ring on the handpiece with petroleum jelly to assure a watertight seal. Align the sheath over the handpiece carefully to avoid damaging or dislodging this O-ring, and screw the sheath in place. Do not overtighten.



After repeated autoclaving, the black handpiece sheath may turn gray or become mottled. This in no way impairs its performance.

GENERAL COMMENTS CONCERNING SCALING

- The **VETROSON® Millennium 25/30** should be used only by trained professionals.
- Inserts and handpiece sheath should be sterilized before each use.
- Do not operate unit without scaler insert in handpiece and water flowing.
- Use of facemask is recommended when operating this device to avoid inhalation of bacterially contaminated aerosol by the operator.
- Before using the insert in the oral cavity, adjust the water spray until desired mist is obtained. For maximum efficiency use a good flow of water which acts as coolant, lubricant and lavage to flush out debris.
- Grasp handpiece in a comfortable manner, like holding a pen. To remove deposits from teeth, always use a light, brushing stroke with the side of the scaler insert in contact with the tooth surface. Excess pressure will not improve scaling action. Keep the scaler insert in motion at all times and use repeated gentle strokes to remove all tenacious deposits.
- Do not test scaler insert on fingers. It will feel uncomfortably hot. This is not a good or true test of how it feels on a tooth.

COMMON OPERATOR ERRORS

- Failure to keep insert parallel with the long axis of the tooth surface.
- Excessive hand pressure.
- Failure to use the lowest effective power setting for the case at hand.
- Insufficient water flow.
- Use of worn out insert.

These failures in procedure can result in ineffective or incomplete removal of deposits and possible damage to the pulp or tooth structure.

SPECIFICATIONS

Operating Frequency: Operator selected at either 25,000 or 30,000 cycles per second.
Operates at room temperature between 50 degrees F and 100 degrees F (10 degrees C – 38 degrees C)
Weight: 2 ¾ lbs.
Size: 1 ¾” x 5 1/2” x 7”
Power: 110V, 50/60Hz, 100VA (230V units available)

WARNINGS

- Water supply to **VETROSON® Millennium 25/30** should always be disconnected when scaler is not in use.
- All ultrasonic scalers produce aerosols. Precautions should be taken to prevent transmission of contagious diseases.
- Like all scalers of this type, the handpiece produces a small magnetic field. It has been reported that this can cause some sensitive patient monitoring devices (e.g. pulse oximeter) to give inconsistent or inaccurate readings.
- As with all electrical products, the **VETROSON® Millennium 25/30** should not be immersed in water or other liquids. Avoid placing it where it can fall or be pulled into liquid. Do not reach for the scaler if it has fallen into liquid.
- Do not use the scaler if it has been dropped or damaged or immersed in liquid. Call Summit Hill Laboratories for servicing.
- If the device will not be used for an extended period, unplug transformer from wall.

WARRANTY

SUMMIT HILL LABORATORIES will repair or replace any part of the control unit that proves defective by reason of workmanship and/or material for a period of 3 years from the date of purchase without charge for parts or labor. The handpiece, transformer, foot pedal and cables are covered by a one-year warranty from date of purchase. Other listed components and accessories are warranted against defects by reason of improper workmanship and/or material for a period of thirty days from date of purchase.

WATS “HELP” LINE

Please call our office anytime you have a problem with our equipment. Also, we have technical advisers available to help you with any questions you may have regarding set-up, accessories, etc. Please avail yourself of this service. Call 1-800-922-0722. For general information on our products please see us on the internet: www.Summithilllaboratories.com

SERIAL NUMBERS

Before placing your call to SUMMIT HILL LABORATORIES regarding “help”, “assistance” or “repairs”, have the serial number on your unit available to expedite the processing of the paperwork. Thank you.

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