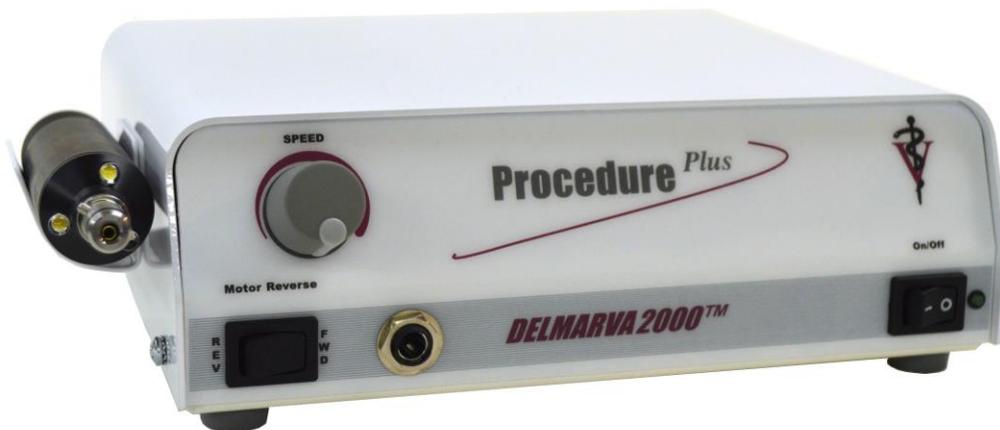


DELMARVA 2000™

Procedure Plus

Motor Pack with a Focused
LED Illuminated Handpiece pat. pending

**Model DE-3
Owner's Manual**



CONTAINS IMPORTANT SAFETY INFORMATION! READ BEFORE USE

Federal Law restricts the sale of this device to, or on the order of,
a licensed veterinarian.

SAFETY PRECAUTIONS

MUST READ BEFORE USE!

WARNING!

- **ALWAYS** sterilize or disinfect handpieces and attachments before use
- Do not use prophy angle or contra angle if stored at freezing temperature, until warmed up
- **ALWAYS** place handpiece in the side bracket after use and **NEVER** leave on the patient
- Avoid keeping the prophy cup or insert tip in one place too long

CAUTION!

- **NEVER** autoclave the handpiece
- **NEVER** soak the handpiece
- **NEVER** allow fluid to enter the Micro-Motor handpiece
- **NEVER** lubricate the Micro-Motor handpiece itself
- **NEVER** allow the Micro-Motor handpiece to fall onto a hard surface
- **NEVER** store the Micro-Motor handpiece with the prophy angle or contra angle attached
- **NEVER** wind the cord around the Micro-Motor handpiece
- Place the unit away from heat and with adequate ventilation
- Be careful moving the unit due to risk of damage from dropping

NOTE!

- **ALWAYS** perform maintenance on contra-angle and prophy angle daily

PACEMAKERS

Although the use of ultrasound scaling is normally considered safe around pacemakers, never the less it is advisable to keep the scaler cord as far away as possible from the pacemaker leads. This advice is applicable to all implanted active devices including cochlear implants, Parkinson's stimulators, insulin pumps, etc.

UNPACKING

Verify that all items are accounted for and undamaged:

- Procedure Plus Motor Pack unit with integral foot pedal
- Prophy Angle
- Prophy Cups and Paste (Sample Size)
- Micro-Motor hand piece with LED Illumination pat. pending

The **Delmarva 2000™ Procedure^{plus} Motor Pack** is a finely engineered instrument, designed to provide years of trouble free service. The following instructions will help you operate and maintain the unit at optimal performance.

ELECTRICAL POWER CONNECTION

Plug the electrical cord into the appliance entry on the rear of the Procedure^{plus} unit. Be sure that it is fully inserted. Plug the cord into a 120V 60HZ *grounded* outlet. The **On/Off** selector switch is located on the lower right side of the control panel.



SPEED (RPM) CONTROL KNOB

This knob controls the speed of the Micro-Motor handpiece. Turning the knob to the right increases the RPM.



MICRO-MOTOR HANDPIECE CONNECTION

The handpiece is shipped non-sterile. **Disinfect the handpiece before use.** See pages 4. Insert the plug into the jack labeled "**Motor Pack**" on the left side of the Procedure^{plus} unit. See pages 3 and 4 for instructions on the Prophy Angle and the Contra Angle. The LED will illuminate once the foot pedal is depressed.



Located next to the **Motor Pack** jack is the **Motor Reverse** rocker switch. This switch allows the motor to run clockwise (FWD) or counterclockwise (REV). The **Speed** setting is not affected by FWD or REV selection and the motor will run at the set speed regardless of direction. This allows the motor to be used such that fluid is directed into the oral cavity for collection by suction whether working on the right or left quadrant. On the other hand, if it is desired to reverse the motor to free the prophy cup or burr from hair, reducing the speed setting prior to reversing the motor is recommended in order to obtain the best control. **Always let the motor stop fully before reversing.**



ALWAYS place the handpiece back in the bracket on the side of the cabinet after use. In order to prevent harm, **NEVER** leave a handpiece unattended on the patient when the foot pedal is depressed.

USING THE MICRO-MOTOR HANDPIECE

The Micro-Motor handpiece is used in conjunction with the prophy angle for polishing with a prophy cup, or with the contra angle and a burr to cut down dentin in accordance with standard dental practice. Internal gearing within the prophy angle allows cup speeds from about 1,000 RPM to 8,000 RPM while the contra angle allows about 4,000 RPM to 20,000 RPM at the burr or disc.

It is absolutely essential to perform routine maintenance on the angles after each use. Without maintenance the angle will fail in use and can also easily damage the Micro-Motor.

THE ANGLES *MUST* BE STERILIZED BEFORE USE. SEE page 4 FOR INSTRUCTIONS.

Use low speed when polishing. Do not remain in one spot too long due to the risk of over heating the dentin. If a rough spot is evident which normal polishing will not address directly, employ appropriate alternate steps to reduce the roughness before continuing to polish. Do not allow the patient to swallow prophy paste. Use appropriate suction, lavage, and positioning to prevent swallowing of the paste.

See the Dental Accessories Pack (DE-12) literature for specific information on burrs and discs. Individual item labeling will give maximum permissible speeds. Note that the single sided disc is not intended for splitting teeth directly; however, if a series of pilot holes are made along the axis of the split then the single sided disc will perform adequately for splitting.

ATTACHING AN ANGLE TO THE MICRO-MOTOR



Align the slot in the angle with the pin in the Micro-Motor collar. *Push with a straight motion* until the angle seats fully against the Micro-Motor.



TO REMOVE: *Pull with a straight motion.* Use a firm grip and a deliberate motion. Use a cloth or rubber glove to increase grip if needed. *Do not use tools.* If the angle will not come off by hand, call Delmarva 2000™ Technical Support for advice.

ATTACHING THE PROPHY CUP TO THE PROPHY ANGLE

Bring the single use rubber prophy cup up to the angle as shown. Push the prophy cup over the pin on the rotating hub of the prophy angle using an arcing motion.

Be sure that the cup is evenly seated all the way around. Proper seating of the prophy cup on the pin is illustrated here. When using a tool to remove the prophy cup from the hub be sure to grasp only the rubber, NOT the hub.



PROPHY ANGLE AND CONTRA ANGLE MAINTENANCE

Lubrication *before and after* autoclaving is necessary. Dip the angle into the DE-11 cleaner lubricant and run the handpiece for 20 to 30 seconds. Shake off the excess fluid. Clean gauze may be used to dry the angle. Autoclaving will cause the angle to rust internally if you do not lubricate before hand. Close the DE-11 container immediately after use to prevent contamination and evaporation



CAUTION! DE-11 cleaner/lubricant contains isopropyl alcohol. **Flammable!** Do not use near fire or flame. Use with adequate ventilation. The DE-11 cleaner/lubricant also contains mineral oil. While normally non-reactive, some individuals have allergic sensitivity to mineral oil. Use appropriate precaution when needed.

It is strongly advised that you lubricate angles once a week whether they have been used or not. This protects against internal corrosion and lubricant evaporation. Regular maintenance will assure maximum useful service life from your prophy angle, however, expect to replace them between 6 months and one year depending on usage.



The upper prophy angle in the photo is far beyond the acceptable limits of wear. The gap, which should not exist, caused a blackened mixture of prophy paste and saliva to exude onto the patient. Compare the edge of the hub to one in the prophy angle in the lower part of the photo.

Remember, the pumice in prophy paste will wear the hub of the prophy angle as well as the target dentin, hence the finite service life. The prophy angle and contra angle should be thoroughly cleaned of prophy paste, saliva, and blood before lubrication prior to autoclave. Use a toothbrush and warm water. DE-11 fluid may be used in addition to water in order to loosen stubborn material.

STERILIZING AND DISINFECTING

PROPHY ANGLE AND CONTRA ANGLE

Clean thoroughly and lubricate prior to autoclave. Use a toothbrush and warm water to remove all prophy paste. Place the angle in an appropriate autoclave bag. Steam autoclave at no more than 132^o C (270^o F) and 215kPa (30 PSI) for a minimum of 15 minutes. Do not use dry heat. Lubricate again before use, being sure to wipe away any excess lubricant. **For best results and performance lubricate immediately after autoclave and store in air tight container or bag.**

MICRO-MOTOR HANDPIECE

Clean the Micro-Motor handpiece with moistened gauze to remove all traces of prophy paste. Wipe down with an appropriate topical disinfectant. Do not allow fluid to enter the handpiece. Shake off fluid and allow to dry.

MICRO-MOTOR HANDPIECE CARE AND TROUBLESHOOTING

ALWAYS remove the contra angle, but especially the prophy angle, after use. **NEVER** store the Micro-Motor handpiece with an angle on it. The reason for emphasis on this point is because prophy paste in particular, but also blood or saliva, will solidify overnight and “glue” the angle to the Micro-Motor hub so firmly that the angle cannot be removed by hand due to the high precision tight tolerance fit between the angle and the motor hub. Use moistened gauze to clean the Micro-Motor handpiece. Do not allow fluid to enter the Micro-Motor.

NEVER lubricate the Micro-Motor. Doing so *will* damage the motor beyond repair and void the warranty.

NEVER autoclave the Micro-Motor. Doing so *will* damage the motor beyond repair and void the warranty.

NEVER soak the Micro-Motor. Doing so *will* damage the motor beyond repair and void the warranty.

HANDLE WITH CARE! Dropping the Micro-Motor handpiece on the floor has a high probability of damaging the motor beyond repair and voiding the warranty.

DO NOT coil up the cord tightly. Tightly winding the cord can cause the wires inside to fail.

TROUBLE SHOOTING GUIDE

PROBLEM	CAUSE	SOLUTION
Unit will not come on (no lights)	Cord loose at outlet	Plug in firmly
	Cord loose at unit	Plug in firmly
	Faulty outlet	Use another outlet or else correct the fault
	Unit internal failure	Call Delmarva 2000™ Technical support
Micro-Motor will not rotate, lights are lit	Handpiece unplugged, or not fully plugged into unit	Plug in fully
	Reversing switch “hung up”	Firmly flip the reversing switch a couple of times
	Jammed (seized up) angle	Remove angle; if motor runs then replace the angle
	Faulty cable	Call Delmarva 2000™ Tech Support

ACCESSORIES



Item#	Description
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DE-8	Prophy Cups
DE-9	Prophy Angle
DE-10	Prophy Paste
DE-11A	Cleaner Lubricant Solution (1 each)
DE-11	Cleaner Lubricant Solution (case 12)
DE-12	Dental Accessories Kit
DE-15	Latch Type Contra Angle
DE-14	Micro-Motor handpiece with LED illumination <small>pat. pending</small>

WARRANTY

DELMARVA 2000, LTD. (hereinafter referred to as DELMARVA), subject to the terms/conditions herein below expressly set forth in Paragraphs (1) through (4), **HEREBY WARRANTS** that it will repair any part of the enclosed **DELMARVA Procedure Plus** which proves defective by reason of improper workmanship and/or material for a period of **THREE YEAR** from the date of **ORIGINAL** purchase without charge for parts or labor.

THREE YEAR parts and labor coverage on the entire unit excluding the following components:

- Micro Motor Hand Piece coverage, excluding dropping, coupler damage due to plastics or storage issues, and oil or water damage, one (1) year.
 - Foot switch is covered for two (2) years parts and labor.
 - Prophy Angle, and Contra Angle are consumable items and need replacement periodically. Replacement time varies with usage. 30-day warranty.
1. **ORIGINAL PURCHASER:** This warranty is limited to the original purchaser of the unit. The warranty card must be postmarked and returned to Delmarva within 30 days to validate Warranty.
 2. **PROPER DELIVERY:** To render the services provided hereunder, the unit must be shipped Freight Prepaid or delivered to **DELMARVA** in either its original package or a similar package affording equal degree of protection. Warranty does not include shipping and handling back to the customer. In the event a loaner is needed, it is the users responsibly to return the unit, prepaid.
 3. **UNAUTHORIZED REPAIR, ABUSE, ETC.:** The unit must not have been previously altered, repaired or serviced by anyone other than a service facility authorized by **DELMARVA**. To render such service, the serial number on the unit must not have been altered or removed. The unit must not have been subject to accident, misuse, abuse or operated contrary to the operating instructions. **Micro Motor Handpiece assembly** not warranted if subjected to abuse from excessive pulling/stretching, debris and/or chemical accumulations from water supplies. **Foot switch** is not warranted by failure due to operation or storage in a wet environment.

EXCEPT TO THE EXTENT PROHIBITED BY APPLICABLE LAW, NO OTHER WARRANTIES, WHETHER EXPRESS OR IMPLIED, INCLUDING WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, SHALL APPLY TO THIS UNIT. UNDER NO CIRCUMSTANCES SHALL DELMARVA BE LIABLE FOR CONSEQUENTIAL DAMAGES SUSTAINED IN CONNECTION WITH THE SAID UNIT, AND DELMARVA NEITHER ASSUMES NOR AUTHORIZES ANY REPRESENTATIVE OR OTHER PERSON TO ASSUME FOR IT ANY OBLIGATION FOR LIABILITY OTHER THAN SUCH IS EXPRESSLY SET FORTH HEREIN.

FOR SERVICE OR WARRANTY REPAIRS, PLEASE CALL: (302) 645-2226