

Section: Division of Nursing

* PROCEDURE *

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HACKETTSTOWN REGIONAL MEDICAL CENTER

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OR
(Scope)

TITLE: DYONICS SHAVER HAND PIECE

PURPOSE: To outline procedure for proper use of Smith & Nephew Dyonics Power Shaver System Hand Piece

EQUIPMENT: Dyonics shaver hand piece

CONTENT	PROCEDURE	KEY POINT
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Dyonics Shaver Handpiece

- A. The shaver handpiece is a hand held motor drive which is connected to the control unit via a 10-foot cable.
- B. The handpiece is designed to sense blade type installed and communicate that information to the control unit, which sets the operating parameters.

Operation of Handpiece

- A. The hand control shaver hand piece features push button controls for Forward, Reverse and Oscillate on the distal end of the handpiece. With these models you can control blade action with the handpiece as well as with the footswitch.
- B. All handpieces can be connected to either the A channel or B channel connector on the control unit front panel. The control unit automatically detects the type of handpiece connected. When a non-hand-control shaver is selected, the system prompts you to connect the footswitch by blinking the indicator light above the footswitch connector.
- C. Set speeds are remembered for Forward/Reverse and Oscillate modes independently and in increments of 100 rpms.
- D. Suction is connected to a portal on the proximal end of the handpiece and removes fluid and debris drawn through the blade window. In addition to removing fluids, the suction cools and lubricates the motor drive.
- E. Cutting takes place when the blade edge rotates across the blade's outer window. The blade action alternately opens and closes the window to the suction flow. With the blade Window Lock feature, you can set the handpiece to stop the blade in a specific position. The window can be fully opened or closed, or somewhere in between depending on what is required for the technique.

CAUTION: Do not operate the handpiece in the open air for an extended period, as the lack of irrigation may cause the blade to overheat and seize.

F. Forward/Reverse Speed Shift

Depressing and holding the Forward or Reverse buttons on the handpiece for one second will alternately shift between two pre-set speeds (high and low) in the forward or reverse direction. High and low speeds are set by pushing the Slower or Faster buttons on the front panel for the Smith & Nephew DYONICS Power System Control Unit in either the slow or fast speed. If the slow and fast speeds are not set, then depressing and holding the handpiece buttons will not activate Speed Shift.

NOTE: The footswitch does not control the Forward or Reverse Shift Speed settings.

- G. The **Oscillate** button causes the control unit to send alternate forward and reverse commands to the handpiece. The control unit reverses direction when the blade rotation reaches the set speed. The control unit continues the alternating signals until you remove your foot from the pedal.

H. Blade Window Lock

Blade Window Lock sets the stop position of the inner blade relative to the opening at the top of the outer blade. Each time you press the **Window Lock** button, the blade rotates clockwise to a new stop position. Blade **Window Lock** can also be set by simultaneously pressing the Slower and Faster buttons on the shaver control unit, or by pressing and holding the Oscillate button on the Hand Control Shaver Handpieces.

**Installing
Shaver Blade**

To Install A Blade in the Shaver Handpiece

1. Remove the blade from the sterile packing and insert the collar into the shaver.

A button on the blade collar fits into a notch on distal end of the Handpiece. The button clicks when the blade is fully engaged.

Pull the locking sleeve back, insert the blade and release the sleeve when the blade clicks into position.

The system automatically detects the blade type and displays the appropriate speeds (Table 1). The blade is properly engaged within the Control Units displays the minimum and maximum speeds.

2. Press the Forward button and observe the blade action to verify that it is properly installed.

The first time a blade type is installed in the Handpiece during a procedure, the system sets the blade speed to a default value. You can then increase or decrease the speed. As you change blade types during the procedure, the system recalls the speed last set for the blade type.

When no blade is installed in the selected shaver Handpiece, the Control Unit displays straight blade speeds.

**Blade
Window Lock**

Press the Window Lock button on the Footswitch to rotate the blade unit is in the best stopping position for the procedure.

You can also rotate the blade to a new stop position by simultaneously pressing the Slower and Faster buttons on the Control Unit front panel. If you are using a Hand Control Shaver, press and hold the Oscillate button down to advance the blade, and release the button when the blade is in the desired position.

If Blade Window Lock does not operate in a smooth, quiet manner, reset software by switching Handpiece channels or by turning the Control Unit power of OFF and then to ON.

WARNING: PERIODIC IRRIGATION OF THE TIP OF THE BURR OR CUTTER IS RECOMMENDED TO PROVIDE ADEQUATE COOLING OF THE BLADE AND TO PREVENT ACCUMULATION OF EXCISED MATERIALS IN THE SURGICAL SITE. ENSURE THAT SUCTION OF 128 mmHG MINIMUM IS PROVIDED WHILE THE INSTRUMENT IS RUNNING.