

Dentaport ZX (Project 03-22) (5/04)



The Dentaport ZX is the newest addition to the J. Morita USA endodontic product line. Patterned after the Root ZX (DIS project 98-20), the Dentaport ZX is a combination apex locator and endodontic handpiece. Accordingly, the Dentaport ZX is marketed not only to accurately determine the length of the root canal but to also prepare the canal for obturation. The handpiece is advertised as having eight speed settings that range from 50-400 rpm with 11 torque settings. Furthermore, the handpiece is said to contain an automatic torque reverse function that will reverse motorized file rotation if a pre-set torque



limit is encountered. Other features include an auto-start feature that will initiate file rotation upon insertion into the canal, automatic file rotation slow down as the apex is approached, and a program that will cease and/or reverse file rotation upon reaching the apex. The apex locator is based on Root ZX technology that is purported to allow accurate apex location with lengths displayed on a LCD screen accompanied with adjustable audible feedback. The main control unit has dimensions of 4.5"H x 4.3"W x 4.1" D and both the main control unit and the handpiece micrometer weighs 13 ounces. The unit is battery powered and is recharged with the included AC adapter when not in use.

Manufacturer:

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Suggested Retail Price:

\$2400.00 Dentaport ZX includes:

- Main unit
- Micromotor
- Contra angle
- Handpiece cord
- Handpiece rest
- AC adapter
- Battery (preinstalled in main unit)
- Foot switch
- Function tester
- Probe cord
- File holder (3)
- Contrary electrode (5)
- AR oil

Government Price:

\$1800.00 Dentaport ZX (same items as above)

ADVANTAGES:

- + Very accurate apex location function
- + Apex location not affected by canal contents or irrigation fluids
- + Eight file rotation speeds (50 to 400 rpm)
- + Eleven torque settings ranging from 0.3 to 4.9 Newton-centimeters

- + Optional mode allows automatic start/stop when file enters/leaves canal
- + File rotation can be preset to either slow down, stop, or automatically reverse when reaching apical constriction
- + Adjustable volume
- + Easy to read display
- + Automatic "power-off" feature prolongs battery life
- + Internal rechargeable battery
- + Detailed operating instructions
- + Less expensive than purchasing separate apex locator and endodontic handpiece

DISADVANTAGES:

- **Micromotor cannot undergo heat sterilization**
- Limited battery capacity for multiple or lengthy procedures
- Does not include a "quick-start" instruction overview card
- Handpiece head size may limit posterior access in some situations

SUMMARY AND CONCLUSIONS:

The Dentaport ZX is a battery-powered electronic apex-location device and endodontic handpiece. It was found to provide extremely accurate apex location using an easy-to-read LCD screen with adjustable audible signals. The micromotor/contra angle has eight adjustable speed settings (50 to 400 rpm) with eleven available torque settings (0.3 to 4.9 N-cm). The clinical user valued the reliable function of the Dentaport ZX and found that it possessed adequate torque for most canal preparations. The evaluator appreciated the programmable features (e.g., Auto Apical Slow Down, Auto Apical Reverse, Auto Apical Stop, and Auto Torque Reverse) that are designed to prevent overpreparation and prevent file separation. The Dentaport ZX battery life was found to be too short for a busy endodontic practice. The major feature that limits the acceptability of the Dentaport ZX is that the micromotor's present configuration cannot be heat sterilized placing it in noncompliance with the Centers for Disease Control Dental Infection Control Guidelines. Until a heat sterilizable micromotor is available, the **Dentaport ZX** is rated **Unacceptable** for use by the federal dental services.