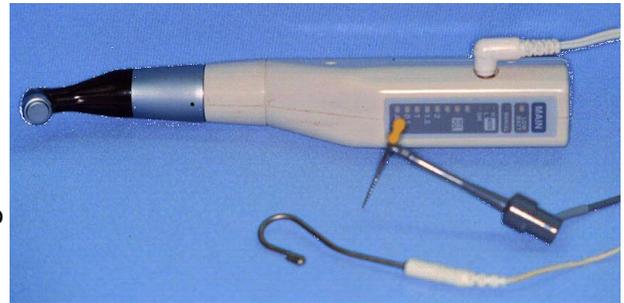


57-14 Tri Auto-ZX (Project 98-21) (4/99)

The Tri Auto-ZX is a rechargeable, battery-operated, low-speed endodontic handpiece with a built-in apex locator. Endodontic nickel-titanium rotary files (not included) are used with the unit. The Tri Auto-ZX has three automatic functions for root canal instrumentation: start/stop, torque reverse, and apical reverse. The automatic start/stop starts the file rotating when it enters the canal. The automatic torque reverse stops the file and reverses rotation when too much torque is applied. The automatic apical reverse stops the file and reverses the rotation when the tip reaches a level preset by the clinician (e.g., at the apex or 2 mm, 1.5 mm, 1 mm, or 0.5 mm from the apex). The cordless handpiece offers a choice of automatic or manual mode operation, and has an LED control panel that automatically shuts off after three minutes of inactivity. The handpiece is powered by a nickel cadmium battery and has a speed of 280 revolutions per minute. To use the unit as an apex locator, an electrode is clipped to the working length file and a second electrode, called the contrary electrode, is placed in contact with the patient's lip. The handpiece is recharged by placing it in a base unit that is 80-mm wide X 123-mm deep X 55-mm high (3.1" W X 4.8" D X 2.2" H). The outer dimensions of the handpiece are 30-mm wide X 37-mm deep X 212-mm long (1.2" W X 1.5" D X 8.3" H) and it weighs 160 grams (5.6 ounces). Accessories include: a probe cord, three file holders, a function tester, five contrary electrodes, and lubrication spray.



Manufacturer:

J. Morita USA, Inc.
9 Mason
Irvine, CA 92618
(888) 566-7482
(949) 581-9600
(949) 465-1095 FAX

Suggested Retail Price: \$2,100.00

Government Price: \$1,575.00

ADVANTAGES:

- + Is accurate as an apex locator.
- + Lightweight.
- + Portable.
- + Good torque.
- + Quiet.
- + Conforms to IEC 601.
- + UL listed.

DISADVANTAGES:

- Inaccurate readings during automatic mode operation.
- Inconveniently located manual mode button.
- File holder attachment reduces working length of file by 3 mm.

SUMMARY AND CONCLUSIONS:

The Tri Auto-ZX is a rechargeable, battery-operated endodontic handpiece with a built-in apex locator. The unit gives the clinician the ability to electronically monitor the canal before, during, and after instrumentation. The handpiece was found to be lightweight, portable, and quiet. It provided excellent torque for instrumentation. The apex locating features were found to be accurate. The major drawbacks

were false readings during the automatic mode operation, the design of the file holder, and the location of the manual mode button. The evaluator experienced false readings 30 to 40 percent of the time while in the automatic mode. Many times the handpiece would auto-reverse when reading the apical constriction, which differed from the clinician's initial working length. The design of the file holder requires attachment below the handle resulting in approximately a 3-mm reduction in file length, which necessitated the use of 30-mm long files many times. The manual mode button is difficult to activate while placing the handpiece into the root canal system. Even with these shortcomings the evaluator felt that, with practice, the Tri Auto-ZX has the potential to be easier and more time efficient than hand instruments. The **Tri Auto-ZX** is rated **Acceptable** for use by the federal dental services.