

ATR Tecnika Digital Torque Control Motor (Project 01-43) (12/03)



The ATR (Automatic Torque Reduction) Tecnika Digital Torque Control Motor is a rotary-instrumentation system for endodontics. It has seven components: 1) central control unit, 2) foot-pedal assembly, 3) micromotor assembly, 4) cradle for handpiece, 5) autoclave plug, 6) power-supply cord, and 7) instruction booklet. The central control unit has a liquid-crystal-display (LCD) screen that identifies the current function and annotates torque value, reduction setting, RPM speed, auto-reverse status, and file selection. The speed range is purported to be from 1600 to 12,800 rpm, with gear reduction options of 15:1, 16:1, 18:1, and 20:1. The Tecnika control unit is 6.5" wide x 7.5" deep x 4" high, weighs 2.5 lbs, and comes with three cords: a 7'3" handpiece cord, a 6'10" foot-pedal cord and an 8'3" power cord. The unit operates at 110 volts/60 hertz. The micromotor and contra angle are sold separately.

Manufacturer:

Dentsply Tulsa Dental
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Tulsa, Oklahoma 74135-6565
(918) 493-6598
(800) 662-1202
(800) 597-2779 FAX
www.tulsadental.com

Suggested Retail Price:

\$1090.00 for motor (item number ATRTECH)
\$430.00 for Contra angle (item number ATRTECHCA)
Total price: \$1520.00

Government Price: (item numbers as listed above)

\$950.00 for motor
\$350.00 for Contra angle
Total price: \$1300.00

ADVANTAGES:

- + Reliable and durable
- + Quiet operation
- + Acoustic alarm/auto-reverse when torsional limit exceeded
- + Well-balanced handpiece with good weight and cord length
- + Small latch-head provides good access
- + Minimal set-up time
- + Excellent overall appearance
- + Unit easily disinfected
- + Autoclavable handpiece, motor, and cord
- + LCD screen easy to read
- + Foot pedal easy to use
- + Accepts GT, Profile ISO, ProTaper, and Series29 files

DISADVANTAGES:

- Amount of information on LCD can be confusing
- Occasional users may find the system very complex
- Complicated operating instructions
- Steep learning curve for programming of torque settings
- Using other manufacturers' files requires significant expertise

SUMMARY AND CONCLUSIONS:

The ATR Tecnika Digital Torque Control Motor, marketed by Dentsply, is an electrically-powered handpiece which provides rotary instrumentation for canal preparation. The system provides preprogrammed and fully-adjustable torque settings which purportedly decrease the possibility of instrument separation. The operator can set individual torque limits based on canal anatomy, experience level, or other special considerations. The ATR Tecnika has a safety feature that sounds an alarm and provides for auto-reverse when the pre-programmed torque limit is reached. This audible alarm can be disarmed. The unit met all electrical safety requirements, was easy to assemble, and met with good patient acceptance. The well-balanced handpiece provided smooth and quiet operation. Although the LCD screen was easily read, it was found to be somewhat confusing due to the amount of information displayed. One of the evaluators felt that significant expertise was required to program the system for compatibility with other manufacturer's files. The clinical evaluators agreed that the system requires a steep learning curve and that it should be considered for purchase only by endodontists or very frequent users. The **ATR Digital Torque Control System** is rated **Acceptable** for use by the federal dental services.