



## Tri Auto mini: Compact, Cordless Endodontic Handpiece

 J MORITA MFG. CORP.

Thinking ahead. Focused on life.

  
MORITA

---

## Lightweight with Compact Head and Body

---



The refined, compact design of Tri Auto mini's head and body is very small and lightweight. With this handpiece, the dentist can experience the same tactile feedback as manual filing while various automatic controls reduce the risk of file jamming and breakage. Its slim design allows for easy access to posterior teeth with the ability to view both the canal openings and the pulpal floor during instrumentation. Another new and convenient feature is coordinated color change on the LCD display so that the user can easily recognize changes in speed, torque, file tip location, display type, etc. When connected to the Root ZX mini, the position of the file tip is monitored during the procedure, and many automatic functions such as Auto Apical Reverse can be activated.

# Features at a Glance

## ■ Small Head for Excellent Visibility

Head is only 9 mm in diameter

## ■ Compact and lightweight

The compact and lightweight design of Tri Auto mini provides excellent access and tactile feedback

## ■ Automatic Controls and Settings

Rotation Direction: Forward and Reverse  
Torque Reverse: Nine torque reverse settings  
Auto Controls: Auto Torque Reverse and Auto Torque Slow-down

## ■ Wide Speed Range

Eleven speed settings from 50 rpm to 1,000 rpm

## ■ Easy to read LCD Display

Graphics, numbers, and letters are easy to read  
The display may also be reversed for left-handed dentists

## ■ Backlight Color Identifies Current Conditions

The backlight changes color to alert the dentist when torque reaches its set limit, and if Tri Auto mini is connected to Root ZX mini, when the file tip goes beyond the apical limit.

## ■ Programmable Settings

Various setting combinations can easily be programmed and selected.

## ■ Module System

When connected to the Root ZX mini with the transmission cable (both sold separately), the automatic controls are available for more efficient canal preparation.

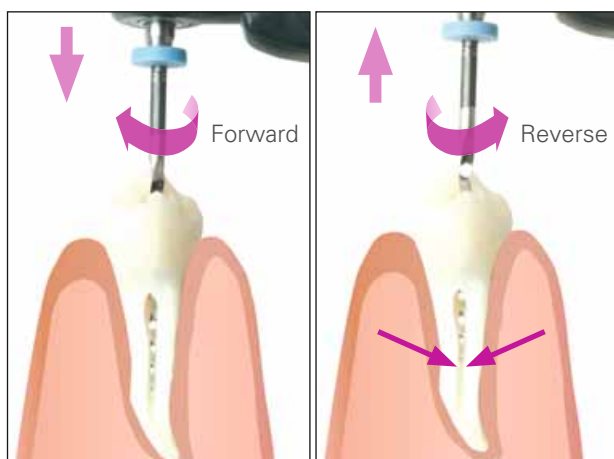


---

## Automatic Settings for Increased Safety

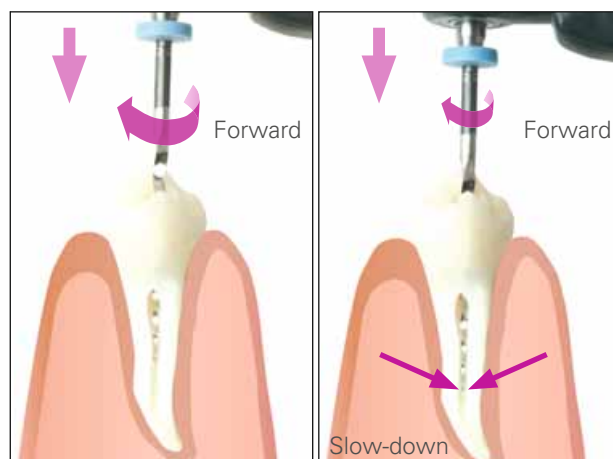
---

Tri Auto mini is a cordless endodontic handpiece. It can be used to enlarge canals with the same tactile feedback as manual filing. This unit offers automatic controls for speed, rotation direction, and torque that significantly increase the accuracy and safety of root canal treatment.



Reduces risk of file jamming  
Auto Torque Reverse

File reverses rotation when torque exceeds the set limit to reduce the risk of jamming.



Reduces risk of file breaking  
Auto Torque Slow-down

Rotation speed automatically slows down as the torque load increases.

### Nine Levels for Auto Torque Reverse

The limit that triggers the auto torque reverse can be set at any one of nine levels: 0.2, 0.4, 0.8, 1.0, 1.5, 2.0, 2.5, or 3.0 Ncm. Or auto torque slow-down can be used instead of auto torque reverse. Select the level best for the type of nickel-titanium file being used.

### Programmable Settings

The combinations for speed, torque and other settings can be programmed. Simply select one of the six memory numbers to switch from one combination to another.

**Wide Speed Range: 50 to 1,000 rpm**

Eleven speed settings: 50, 100, 150, 200, 250, 300, 400, 500, 600, 800, and 1,000 rpm. This is extremely convenient for different types of files and varying treatment needs.

**Set display for right or left hand user**



Display for right handed user

Display for left hand user

**Rechargeable Battery**

Cordless instruments are more comfortable to use.

**Auto Power Off**

**Auto Power Off**

The Tri Auto mini automatically turns off after a period of non-use to conserve power.



# Advanced Features for Ease of Use

Tri Auto mini's compact head makes it easy to access molar regions. Its overall small and lightweight design allows the user to experience the same tactile feedback as manual filing. The LCD display changes color for quick and easy recognition of changes in torque, file tip location, and display.

## Small Head for a Better View

Tri Auto mini



Tri Auto ZX



The head is only 9 mm in diameter making it easy to use and ideal for canal treatment. Its slim design allows for easy access to posterior teeth with the ability to view both the canal openings and the pulpal floor during instrumentation.

## Easy-to-read LCD Display



The LCD display has a backlight to make it easy to read. Changes in torque are not only shown with a meter, but can also be identified by a change in the color of the backlight. As torque increases, the color of the backlight changes from blue to green to red so that the dentist can get a general reading with a quick glance. Also, the backlight flashes when torque reaches the set level. The backlight color also changes to distinguish various types of displays such as the main display, settings display, and optional settings display. The entire display can be reversed for left-handed dentists.



Torque Meter (not linked to Root ZX mini)



Canal Measurement Meter (linked to Root ZX mini)

Display meter depends on usages.

## Compact and lightweight body and head

Finger instrument design reduces fingertip stress.

Lightweight ( a mere 100 grams) and compact, the Tri Auto mini is extremely easy to handle. Without any loss of tactile sensation, the dentist can enlarge canals as safely as manual filing.

## Backlight Color Identifies High and Low Torque Loads



Low Torque



High Torque

## Backlight Color Distinguishes Types of Displays



Main Settings



Sub Settings



Optional Settings

---

## Tri Auto mini and Root ZX mini Combination

### Safe and Efficient Canal Preparation

---

The Tri Auto mini handpiece can be connected to the Root ZX mini to add an apex locator function



Display in photo as it appears during treatment

#### Module System

When connected to the Root ZX mini with the transmission cable (both sold separately), the automatic controls listed below can be activated. The canal length measurement is used to show the location of the file tip inside the canal for safer and more efficient canal preparation. The meter for canal length appears in Tri Auto mini's display. The backlight changes color when the file tip reaches a specified point inside the canal.

Canal Measurement Meter Display

Auto Apical Stop or Reverse

Auto Start and Stop

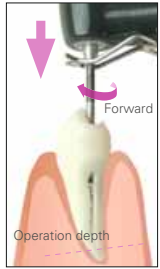
Auto Apical Slow-down

Auto Apical Torque Reduction

\*File Electrode(sold separately) also is necessary when connected to the Root ZX mini.



By connecting the Tri Auto mini to the Root ZX mini, the position of the file tip inside the canal can be monitored during the procedure. Automatic controls, such as auto apical reverse, can also be activated.



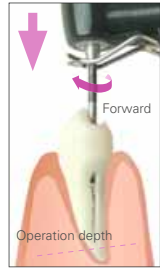
1. Auto Apical Reverse

The file automatically reverses its rotation when the tip reaches a specified point inside the canal.



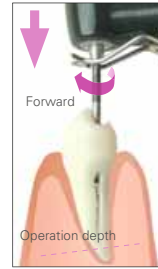
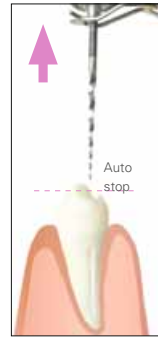
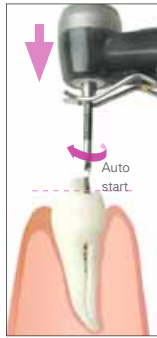
2. Auto Apical Stop

The file automatically stops when the tip reaches a specified point inside the canal.



3. Auto Start and Stop

The motor automatically starts when the file is inserted in the canal and stops when it is withdrawn. This promotes safe and efficient preparation.



4. Auto Apical Slow-down

The file automatically slows down as its tip approaches a specified point inside the canal.

**Display Changes Color:** When linked to the Root ZX mini, the display changes color depending on the location of the file tip inside the canal to warn the dentist and promote safe instrumentation.



The meter for file tip location appears in the display when the file is inserted in the canal. The meter moves along with the file tip to indicate its location inside the canal.



When the file reaches the apical region, the color of the display changes to green.



If the file tip goes beyond the apex, the color of the display changes to red.



# Tri Auto mini: Endodontic Handpiece for Root Canal Preparation

## Tri Auto mini Specifications

Product Name	Tri Auto mini
Generic Name	Dental Electric Motor Handpiece
Model	TR-CM
Torque (N / cm)	4
Torque Reverse Settings (N / cm)	0.2, 0.4, 0.6, 0.8, 1.0, 1.5, 2.0, 2.5 3.0
Speed Range (no load) ( rpm )	50±5-1,000±100
Speed settings ( rpm )	50, 100, 150, 200, 250, 300, 400, 500, 600, 800 1000
Drive Mechanism	Electric Motor
Display Type	LCD
Cutting Tool Grip Type	Push Button Latch Type
Handpiece	
Dimensions (mm)	Motor Handpiece: Width 28 X Height 27 X Length 195 Head: Diameter 9 X Height 11
Weight (grams)	100 including contra angle and lithium batteries
Power Supply (battery)	DC 3.7 volts (lithium ion battery, rechargeable)
Electric Shock Protection Class	Internal power supply
Electric Shock Protection Degree	BF applied device
Charger	
Dimensions (mm)	Width 68 X Depth 108 X Height 85
Weight (grams)	350
Power Supply	AC 100V
Frequency	50/60Hz
Power Consumption	5W
Electric Shock Protection Class	Class II
Electric Shock Protection Degree	-
Classification	Regulated Medical Device (Class II) Special Maintenance Regulated Medical Device

### Accessories



Battery Charger with cord



Battery

### Options (for connection to Root ZX mini)



File  
Electrode



Transmission Cable

Do not fail to thoroughly read all instructions in the user manual before using this instrument.

Specifications appearance may be changed without notice due to improvements.  
Editorial Supervisor: Dr. Masahide Aso, Unizone Dental Office

## Thinking ahead. Focused on life.

The slogan of Morita literally accompanies us in our decisions. Characterized by Japanese roots, we are setting forth the tradition of working to precision under highest quality demands. This is reflected in the complete product portfolio and shows that each individual product has been thought through in the finest detail. The art of manufacturing high-performance and sophisticated products has been used to considerable benefit by Morita in the course of the company's history and has enabled Morita to establish itself as one of the leading manufacturers of medical-technical products.

Our passion for perfection is a guarantee for comfort and efficiency in the day-to-day running of a doctor's practice. A precondition for this is that we know what users need and that is exactly why working in cooperation with them as partners is so important to us. This provides us with a precise idea of their specific needs and we use this as a starting point in order to create practical innovations. In doing so, we are permanently thinking beyond our own limits and develop new ideas in order to set new trends.

Diagnostic/Imaging Equipment



Treatment Units



Handpieces & Instruments



Endodontic Systems



Laser Equipment



Laboratory Devices



Developed and Manufactured by

**J. MORITA Mfg. Corp.**

680, Higashihama Minami-cho, Fushimi-ku, Kyoto,  
612-8533 Japan  
Tel: +81-75-611-2141, Fax: +81-75-622-4595,  
<http://www.morita.com>

Distributed by

**J. MORITA CORPORATION**

33-18, 3-Chome, Tarumi-cho Suita City, Osaka, 564-8650 Japan  
Tel: +81-6-6380-1521, Fax: +81-6-6380-0585,  
<http://www.morita.com/asia>

**J. MORITA EUROPE GMBH**

Justus-von-Liebig-Strasse 27A, D-63128 Dietzenbach, Germany  
Tel: +49-6074-836-0, Fax: +49-6074-836-299,  
<http://www.morita.com/europe>

**J. MORITA ANZ Representative Office**

Suite 2.05, 247 Coward Street, Mascot, NSW 2020, Australia  
Tel: +61-2-9667-3555, Fax: +61-2-9667-3577,  
<http://www.morita.com/anz>

**J. MORITA Middle East**

Saraya Al Wessam Building, Appt 902 Cross  
Roads Tag Al Roasaa & Abu Heif SabaPacha, Alexandria, 21311, Egypt  
Tel: +203-58-222-94, Fax: +203-58-222-96,  
<http://www.morita.com/middleeast>