

360° endodontics



- ENDO *dual*
Be free

360° INNOVATIONS



The I-Endo dual is the first unit having an **encoder** coupled with an accurate micro-motor.

The precision position detecting **encoder** ensures high speed accuracy in rotating mode, and gives even greater benefits in reciprocating mode providing an exact angle measurement for:

- Evaluating the angular position with tolerance limits under 1° ,
- Getting the best performances for each file system.



2 DIFFERENT MODES



RECIPROCATING



ROTATING

The file motion can be changed easily and at anytime from a continuous rotating movement to a reciprocating movement.

FREEDOM OF MOTION



RECIPROCATING MOVEMENT: NEW VISION IN ENDO

This **RECIPROCATING MOVEMENT** is based on the natural, manual file forward and reverse motion for more:

- **SIMPLICITY** → A simplified protocol decreasing the number of files sequences (1 or 2 files needed)
- **EFFICIENCY** → Diminishes the screwing effect, decreases the global shaping time and creates a more centered canal
- **SAFETY** → Progressive evolution in the canal, very light apical pressure to respect the root canal anatomy, reduces file fatigue and the risk of breakage



ROTATING MOVEMENT: IMPROVED FUNDAMENTALS

Keep all the benefits of a **ROTATING MOVEMENT** while ensuring a constant and regular motion.

Auto-reverse accuracy:

A beeping tone warns you when 75% of the pre-set torque is reached.

The advanced microprocessor offers an extremely short time of response when torque is obtained.

3 auto-reverse modes when torque is reached:

- **STOP** → stops without reverse rotation
- **STANDARD** → runs in reverse rotation
- **SPECIAL** → runs reverse until the file is freed and automatically returns to forward

- HIGHLY VERSATILE
- LIGHT AND COMPACT
- EASY AND FAST ACCESS TO ALL SETTINGS
- COLOR CODED BUTTONS:
 - **GREEN:** ROTATING FUNCTIONS
 - **GREY:** RECIPROCATING FUNCTIONS
 - **WHITE:** STANDARD FUNCTIONS
- SAFE WITH:
 - SODIUM HYPOCHLORITE
 - CLEANING PRODUCTS



FREEDOM OF USE

OPEN SYSTEM

- Compatible with all systems and files from all major suppliers,
- Free control of the forward and reverse angles from 10° to 360° in reciprocating mode,
- Including 10 customizable programs in both modes,
- Compatible with all contra-angle ISO 3964 connections.

WIDE CHOICE OF ACCURATE ANGULATIONS



PRECISION AND RAPIDITY

- The **encoder** calculates an algorithm for greater precision,
- Integrated motor calibration system to check the contra-angle mechanical inertia for a perfect micro-motor/instrument adjustment,
- Advanced microprocessor for an extremely short response time.



- SMOOTH
- SHORT AND LIGHT
- WELL-BALANCED

FREEDOM IN ENDODONTICS

TAKE CONTROL OF THE WAY YOU PRACTICE

MODE Reciprocating or Rotating



Ratio

5 contra-angle ratio settings
(1:1 ; 6:1 ; 16:1 ; 20:1 ; 32:1)

+

RPM

-

Speed without contra-angle:
1 000 to 10 000 Rpm

Speed with a:
16:1 contra-angle → 100 to 600 Rpm
6:1 contra-angle → 150 to 1 660 Rpm

+

Ncm

-

Torque with a:
16:1 contra-angle → 0.5 to 10 Ncm (MAX)
6:1 contra-angle → 0.5 to 4.1 Ncm (MAX)

+

FWD°

-

+

REV°

-

Dedicated to reciprocating (F+R) mode

Adjustment from 10° to 360°
in forward and in reverse motion

BE FREE TO ANY FILE SYSTEM

An open and evolutive system
compatible with all major file
manufacturers.

Access to future endodontics
instruments innovations.



- ENDO *dual*

Technical specifications



Supply voltage	90 VAC-240 VAC - 50 Hz / 60 Hz
Equipment classification	Class II
Dimensions (W x H x D and weight)	150 x 90 x 140 mm ; 1 kg
Footswitch (W x H x D and weight)	70 x 30 x 95 mm ; 150 g