



For further information and troubleshooting, please consult our full user manual on the enclosed CD.

NOTE: When starting treatment, first take a manual measurement using a manual file.

NOTE: In order to fully prepare the canal using the hand piece and rotary files, keep the D.A.L. "on" and in measuring mode (connected), to ensure that the apex is not perforated.

NOTE: Working with handpiece requires a thin file alternately after the thick one for additional cleaning of the remnants. The D.A.L. will not be accurate if the pulp chamber is full of liquid. It should be completely dry.

ATTENTION: In order to avoid a "false positive" reading if contact with the soft tissues occurs, the handpiece can be covered with a rubber sleeve. It is not, or may not serve as an alternative for the rubber dam, which is mandatory in endo procedures. The rubber sleeve is a single use item and should be disposed after use to prevent cross infection. It cannot be sterilized. The rubber sleeve is sold separately.

Verify conductivity between the handpiece and the D.A.L. by connecting the 0.5 validation cable to the D.A.L. Make contact between the endo file and the lip hook cable on the D.A.L. should light, verifying conductivity of the electric current between the D.A.L. and the endo file, allowing accurate measurement of the canal length.



# Digital Apex Locator

## Dual Function Apex Locator

### Quick Guide

Riding



Satellite



Manual



## E-type handpiece

The D.A.L. can be used in three modes:

**Manual Mode:** Independently with a manual endo file

**Riding Mode:** Assembled and "riding" on a rotary handpiece

**Satellite Mode:** Disassembled but attached to a rotary handpiece with a wire.

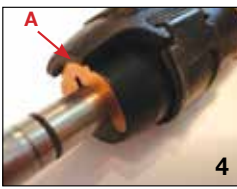


### Using the D.A.L. in Manual Mode

Connect the two lead wires **6** to the device **1**. Attach the lip hook **5** and file holder each to one lead wire.



### Using the D.A.L. in "Riding Mode"




Connect the strap **2** to the adaptor **3**. Use the strap best suited to the micro-motor diameter (19-22, 22-24 or 24-27). **pic. 2.**

Put the adaptor **3** onto the micro-motor, positioning the metal tab A on the E-type connection while pushing the tab toward the micro-motor, ensuring a snug fit. **pic. 3+4.**

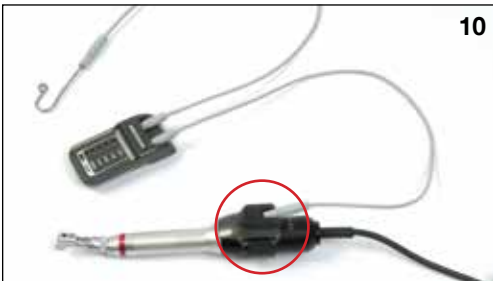
Secure the strap around the micro-motor locking the two pins on either side of the strap into place. **pic. 5.**

Complete assembly by sliding the D.A.L. **1** into its track on the adaptor. **pic. 6.**

Connect the handpiece to the micro-motor. **pic. 7.**

Connect the lip hook cable to the socket on the **right** side of the device (the side with the LEDs and the printed lip hook symbol ) **pic. 8.** Position the lip hook over the lip, on the opposite side to the side being treated. **pic. 9**

### Using the D.A.L. in "Satellite Mode"



Slide the satellite connector **4** into place on the adaptor **3**. Insert the pin (plug) of the extension cable **7** into the hole in the satellite connector **4** and connect the cable to the apex locator (right or left side). Connect the lip hook cable to the remaining side of the apex locator. **pic. 10.**

### Setting up the D.A.L.

To activate the D.A.L., make contact between the lip hook and the file. **pic. 11**

Once activated, the LEDs will flash in sequence as a "self-check". When the file reaches 2.00 mm from the apical constriction, the LEDs will light and an alarm will sound. The frequency of the alarm increases as the file nears the apical constriction. This is a particularly sensitive area when working with a handpiece, and use of a file beyond this point requires great caution. When the file reaches the apical constriction, the red "APEX" LED lights and the warning

alarm reaches a higher frequency. If the file passes the apex the warning alarm will reach the highest frequency and the "-0.00" (past apex) LED will flash.



### Maintenance

**Note:** The D.A.L.'s battery is assembled. Remove the protective plastic tab that insulates the battery from contact by pulling out firmly. **pic. 13**

#### Replacing the battery

Remove the battery housing with the display panel facing down, and take out the battery. Insert a new CR2450 battery into the housing, with the + terminal according to the + sign. **pic. 14, 15**



The device can be protected by inserting it into a plastic sleeve. **pic. 16.**