



Short Instruction for use

IPR-EVO[®]

interproximal reduction
evolution

Universal
brushless motor for:

- **IPR**
- **Finishing, Polishing**

Features:

- Torque sensor
- Acoustic alarm



SWISS IPR
INNOVATION

UNIVERSAL USE



IPR Program

Suitable for DentaSonic DiaStrip, and all automatic strip on the market today



Polishing Program

Suitable for all finishing, and polishing strips and discs with RA shank (2,35mm contrangle).

Content

Foreword	4
Notice and Caution	5
01 Introduction	6
02 IPR-EVO Multitalend	8
03 Technical details	9
04 Operation panel introduction	10
IPR Program	11
05 Troubleshooting	12
06 Maintenance	12

Foreword

Thanks for using the cordless endo motor. For the sake of safety and efficient using of this product, please read this manual carefully.

This equipment meets the national standard: GB9706.1 M2007, medical electrical equipment Part 1 and general requirements for safety.

Protection against electrical shock: class II, type B We'll take the responsibility for the product's safety, reliability and property under the following conditions:

1. Installation, commissioning and maintenance of the equipment should operate by professionals approved by our company or who gain national appropriate level qualifications.
2. This equipment should be operated by qualified or approved personnel. Operator should have specialized medical application skills, and work follow the manual.
3. The equipment can't be used in the environment with flammable anesthetic gases mixed with air or nitrous oxide.

This device is a dental instrument, besides dental treatment, please don't use it.

Our company reserves the right to modify the design, technology, accessories, manual and package content for this equipment. Please prevail in kind. If there is difference between pictures and object, please make the object as the standard.

Notice

(The following conditions are not covered by the company's warranty)

1. Faults and damage caused by maintenance without authorization.
2. Faults and damage due to any Refitting are unauthorized.
3. Faults and damage result from factor of other company's products.
4. Faults and damage result from using non specified spare parts when maintaining equipment.
5. Fault and damage because of failure to comply with the precautions and operation method described in the manual.
6. Faults and damage due to inappropriate environment for operation, such as the environment for supply, installation etc.
7. Faults and damage caused by earthquakes, floods, lightning and other irresistible factors.
8. The user did not install and use base on the electromagnetic compatibility information provided in the random file
9. Use due to strong electromagnetic interference, such as close to the mobile phone, microwave oven and other portable and mobile RF communication equipment may affect the IPR-EVO 1 performance.

Caution

The equipment or system shall not be used close to or stacked with other equipment. If it must be used close to or stacked, it shall be observed and verified to work properly in the configuration used.

In addition to transducers and cables sold by the manufacturer of the equipment or system as spare parts for internal components, the use of non-prescribed accessories, transducers and cables may result in increased emission or reduced immunity of the equipment or system.

Use with equipment and systems of non-specified accessories, transducers or cables may result in increased emission or reduced immunity of equipment or systems.

01 Introduction

Cordless IPR motor is a professional equipment for interproximal treatment. It converts electrical energy into mechanical energy, and then controls the rotation and transmission through the motor. It uses micro motor to achieve the purpose of expanding the approximal enamel treatment. Cordless hand piece delivers freedom of movement.

Features

- 1. Lightweight, ergonomic design, easy to carry.
- 2. With 1:1 electric contra angle.
- 3. The equipment will auto-reverse or auto reverse & stop, auto-stop according to different torque and resistance.



interproximal enamel reduction evolution

02 Multitalent IPR-EVO The evolution in IPR

Cordless and safe

IPR-EVO is an easy-to-use universal system that is safe and effective in use.

Safety functions for IPR

1) Torque control

The torque control stop to work when the set torque is reached.

2) Torque sensor,

The torque sensor ring up when the set torque is reached, and stop to work.

Safety functions for Endo

The autoreverse and auto-forward modes with automatic safety stop minimize the risk of file breakage.

Small head

The extremely small head enlarges the field of vision and offers the best possible access to the treatment site.

Maximum comfort

Ergonomically shaped drive hand-piece for comfortable and fatigue-free working.

360° rotating contra-angle attachment

The contra-angle attachment can be attached to the drive handpiece as required. This means flexible handle positions during treatment.

IPR-EVO reciprocating head 1:1

IPR-EVO, Restoration
compatible with all automatic strips and other brands like (Dentsply, Dentatus, Intensiv).

All DiaStrip All Proxo file

IPR-EVO reciprocating head 1:1. Speed, Torque, Working mode can be adjusted.
Speed: 1400-5000 rpm adjustable Torque: 0.6-4.0N.cm adjustable

FINISHING / POLISHING

Brushes Discs Polishers

RA contra-angle rotating head 1:1. Speed, Torque, Working mode can be adjusted.
Speed: 1400-2000 rpm adjustable Torque: 0.6-4.0N.cm adjustable

03 Technical details



RA contra-angle rotating head 16:1 and 1:1 can also be used with LED light

Name:	IPR-EVO	IPR-EVO Head	Endo Head	Finishing Head
Article Ref.	IPR-EVO1	IPR-H1	EH-2	FP-3
Light:	-	no	yes	yes
Stroke / movement:	rotating	0.9mm reciprocating	rotating	rotating
Transmission Ratio:		silver (ring) 1:1	green (ring) 16:1	silver (ring) 1:1
Speed:	140 - 600 min ⁻¹	max 4'000 min ⁻¹	140 - 600 min ⁻¹	max 3'000 min ⁻¹

IPR-EVO handpiece drive	
Battery type:	Li-ion
Battery voltage:	3.7 V
Rated capacity:	1050 mAh
Torque range / Torque stages	0.6 - 4.0 Ncm / 0.6 / 0.7 / 0.8 / 0.9 / 1.0 / 1.1 / 1.2 / 1.3 / 1.4 / 1.5 / 1.6 / 1.7 / 1.8 / 2.0 until 4.0 Ncm
Weight:	120 g

EH-2 contra-angle head	
Transmission ration:	16:1
Coupling system:	Dentasonic coupling
Recommended root canal instruments:	Files for rotary root canal preparation at 300 min ⁻¹ with a shaft of Ø 2.35 mm
Weight:	20g
Hygiene:	thermo washer disinfected / sterilizable

Charging station	
Main voltage:	100-240V 50/60Hz standart EU for US plug, please ask
Permissible voltage fluctuation:	+/- 10%
Frequency:	50 - 60 Hz
Power:	5W
Weight:	60g

04 Operation panel introduction

POWER ON/OFF button

Power ON: Press the **POWER ON/OFF** button more than 2 second to turn on the equipment.

Power OFF: Press the **POWER ON/OFF** button again to turn off the equipment.

Motor switch

After turn on the equipment, press motor switch start to work. Press It again, the motor will stop.

Function key----S

Press function key, can be adjusted speed, Torque and Working mode

Order is: Speed(SP)----Torque(TQ)----

Working mode--- Save

When the option flickers, the data can be adjusted. When setting the data, press **S** to save the data in the current program number.

Program key-----P

Press"**P**", working program is Selectable (**P1-P9**)

Unit of per mode: Speed: rpm Torque: **N•cm**

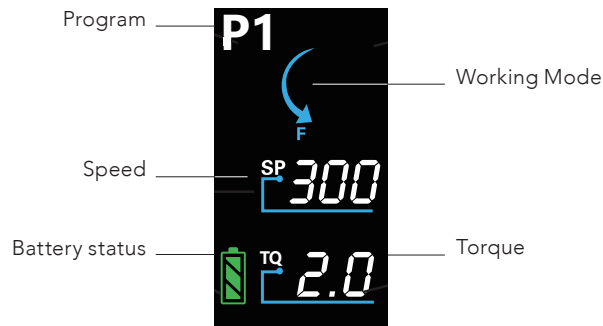
This instrument is equipped with 1:1 IPR angle head

Please select according to the following range of angle head parameters:

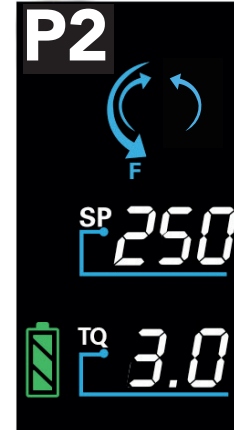
Speed (rpm): 140~600

Radio: 1:1

Torque (**N•cm**): 0.6~4.0



IPR Head Usage Program: P2 (adjustable IPR Program)



Program Code: P2 IPR-Low

Speed, Torque, Working mode can be adjusted.

Speed: 200-300rpm adjustable

Torque: 2.5-4N.cm adjustable

Working mode

⚙️ Stop working with acoustic alarm when the resistance exceeds the setting torque.

Program code: P2 IPR-Low

Speed, Torque, can be adjusted.

Speed: 200 - 300rpm are low

Torque: 1.5 - 2.5N.cm adjustable light pressure

Program code: P2 IPR-Medium

Speed, Torque, can be adjusted.

Speed: 250 - 400rpm adjustable are medium

Torque: 2 - 3.5N.cm adjustable medium pressure

Program code: P2 IPR-High

Speed, Torque, can be adjusted.

Speed: 200 - 500rpm adjustable are high

Torque: 2.5 - 4N.cm adjustable strong pressure

Finishing Usage Program: P3



Program Code: P3 Finishing, Polishing

Speed, Torque, Working mode can be adjusted.

Speed: 200-400rpm adjustable

Torque: 0.6-2N.cm adjustable

Working mode

⚙️ Stop working with acoustic alarm when the resistance exceeds the setting torque.

Program code: P3 Contouring, Finishing, Polishing

Speed, Torque, Working mode can be adjusted.

Speed: 200-400rpm adjustable

Torque: 0.6-4N.cm adjustable

05 Troubleshooting

If the product is found to be in abnormal operation during use, please refer to the following methods for maintenance and adjustment.

Problem	Reason & Solution
Doesn't work:	<ol style="list-style-type: none">1. No power, please charge it.2. Press the ON/OFF button in short time, please press the ON/OFF button more than 2 seconds.3. POWER ON/OFF button is broken: please contact the dealer or manufacturer.
No charging display:	<ol style="list-style-type: none">1. Doesn't connect well with adapter, please pull out and try it again.2. There are other things in the bottom of the machine or charging base, please clean it.3. Doesn't put the main unit in the right place of the charging base.

If the above methods are still not working properly, please contact the dealer or our company.

06 Maintenance

If not using for a long time, when you reuse it, please check it works normally and safely or not. If not using for a long time, please make sure to charge it every month, in order to protect the working life of the battery.

From the purchasing date, the working life is about 5 years.

Please clean the surface of the main unit by soft cloth with neutral detergent, and then using wet cloth to clean it.

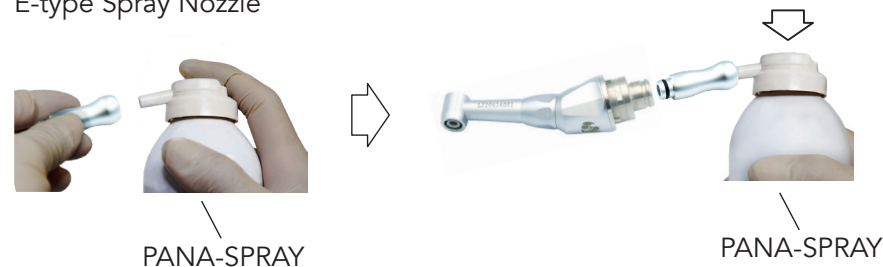
Note: It is forbidden to wipe the banana oil, oil (light gasoline) and so on. Do not put the machine in the sun or near the fire, so as not to cause battery explosion.

If the instrument reaches the service life and the parts are damaged and scrapped, it should be handled according to the local medical equipment scrapping regulations.

Contra angle head

1. **Lubricating:** Twist the nozzle into the oil outlet of the spray lubricant, remove the file from the angle, as shown in *Pic 12*, insert the outer sheath of the angle, and spray inwardly shoot for at least 2-3 seconds, until the oil comes out of the IPR head, keep the Spray can upright.
2. After that, remove the spray nozzle and clean with a paper towle the head.
3. Autoclave the head for 12 min at 135°C.

E-type Spray Nozzle



pic. 12

Note: it is recommended to use "disassemble" cleaning and maintenance method every time. After the contra angle is reloaded, please load the motor and run for 1 minute to ensure the uniform distribution of lubricating oil.





DS DentaSonic SA • Via Piodella 12 • CH-6933 Muzzano • Switzerland
Tel. +41 91 600 19 60 • info@dentasonic.ch • www.denta-sonic.com

FDA Owner Operator Number: 10051861

European representative:
Quaser S.r.l., Via Aprutina 152, 62018 Potenza Picena (MC), Italy

You must report us any serious incidents occurring in connection with the medical device we supplied, as also to the competent authority of the member state in which you are located.