

*Color Coding System*

**TipBook**

# Tip Book



English

# Introduction

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**Satelec**® has been manufacturing ultrasonic generators for over 30 years and developed the first ever piezoelectric scaler for dentistry. (7)

Our motto? Innovation now and into the future, to ensure that you benefit from the best technology for your day-to-day practice and the “cutting edge” tools you need for the most exacting odontological procedures.

Our **Suprasson**® line of products, which is already a leader in the ultrasonic market, has expanded with the addition of an internationally-patented electronic control module: the **SP Newtron**®.

**Satelec** is probably the only manufacturer to offer such a large selection of ultrasonic instruments with the following features:

- Automatic, real-time frequency adjustment;
- Full control of oscillation amplitude;
- One of the broadest power ranges on the market.

This technological advance is the result of constant R&D investments and the quality of our engineering teams, who work tirelessly to meet your needs.

The purpose of this **TipBook** is to help you select the tip best suited for the treatment you perform and discover new treatment options using ultrasonic instruments.

Our new clinical kits are quick and easy to use with simple operating sequences, optimized settings, and instructions.

Our professionalism is tightly linked to the very close collaborative relationships we maintain with teams of clinicians and university researchers around the world.

This catalog is a result of this same collaborative effort and we trust that it will meet with your approval and confirm that in choosing **Satelec**, you have chosen the very best in ultrasonic instruments.

Francis Dieras  
Director of Research and Development

# Acknowledgements

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This fourth edition of the **TipBook** has been written with the guidance and backing of university lecturers and scientists, specialists and scientific consultants.

Our protocols, and the findings that support them, originate from university theses and international publications, which you will find referenced in the bibliography.

We have of course gained tremendous experience over the last thirty years from the dentists worldwide who, through their recommendations and advice, have contributed to the improvement of our products.

But our special thanks go to each **Satelec** user who shows faith in us, each time they choose one of our products.

Gilles Pierson  
President

# Tips

Mastering ultrasound does not stop at devising generators and control software, it also means designing the appropriate accessories that will give them optimum vibration power and guarantee their reliability.

Our instruments are made from the best alloys, exclusive to **Satelec**, using patented procedures.

We offer you a range of different coatings (diamond, thermal treatments) or materials (carbon) so you can choose the most suitable and efficient instrument for each material, giving you better performance.

**Satelec's** expertise in tuning all its ultrasonic instruments is second to none. Our transducers are probably the best in the world and certainly the only ultrasonic motors capable of driving all these tips at maximum performance, whatever their type or composition.

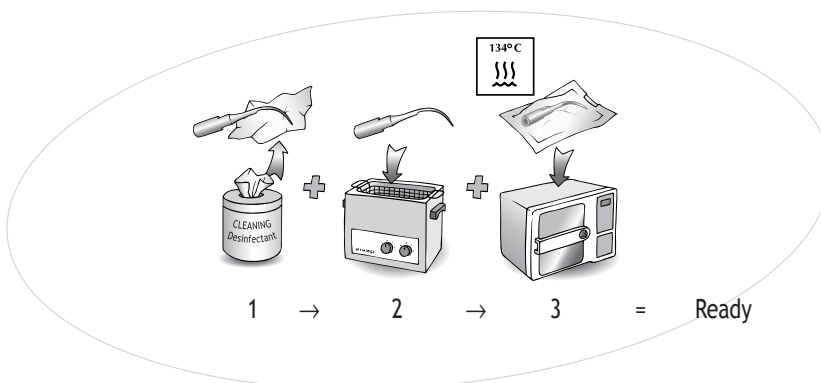
## Advantages

- **Corrosion resistant:** the steel alloy we have chosen does not corrode and is resistant to decontamination products as well as to irrigation solutions.
- **Tensile strength:** the manufacturing procedures are designed, and the tensile properties adjusted, to suit the treatments for which they are intended.
- **Sterilization:** the tips are suitable for autoclave sterilization, to comply with ISO-11134, as are the handpieces and accessories (wrenches, storage kits, etc.):

Temperature: 134°C;

Pressure: 2 bars (29 P.S.I.);

Sterilization time: 18 minutes.



### Calibration

Each tip is individually tested and “tuned” using the latest in ultrasonic calibration techniques. Our R&D department constantly monitors and evaluates the performance of our instruments with the assistance of leading clinicians from all dental disciplines.

### Spray Control System (SCS)

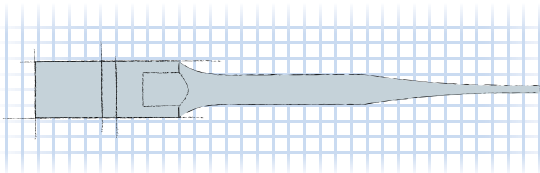
We have developed a new machining process that modifies the shape of the working edges for improved spray control:

- More powerful cavitation;
- Better spray control;
- Perfectly-controlled vibration energy at the end of the instrument.

### Quality and traceability

We specialize in micromechanics and the reliability of the instruments we manufacture is recognized worldwide:

- All alloy bars are marked with a batch number for better traceability from the start of production to the finished instrument;
- All production steps are monitored using statistically-validated samples;
- All tips are manually polished.

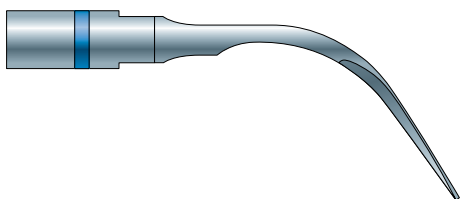




Tip no. 1-S



Tip no. 10Z



# World premiere

Satelec has developed and patented the first ever system of identification and selection of ultrasonic instruments according to their ideal power range.

From the time they start to design the prototypes, our engineers can predetermine the optimum power ranges of the instruments. The power settings are then refined and specified by clinical consultants in international working groups.

Just as burs used on the rotary instruments are coded to show their fixing method, the diameter of their working part and their length, our tips are also color coded.



## Color Coding System (CCS tips)

Since November 2004, the Satelec inserts are color coded to show their recommended power range. The same color coding is displayed on the latest generation of devices: **P-Max Newtron®**, **Prophy Max Newtron®**, **P5 Newtron®**, and the **SP Newtron®** module.

The new **Suprasson® P5 Booster** power setting button identifies the power range by color code, whatever the area of clinical application.

- Low power and amplitude: **green**.
- Medium power and amplitude: **yellow**.
- High power and amplitude: **blue**.
- Very high power and maximum amplitude: **orange**.

The color marking resists cleaning in the ultrasound bath, ultrasonic vibrations, decontamination agents and sterilization, to a much higher degree than any other system available at present.

The new markings have no effect on the performance of the **CCS tips** and the color coding is still visible when the tip is mounted on the handpiece.

Finally, the **CCS** system is completed with wrenches for the new kits paired with the tips by group or color code.

## Advantages

- The color coding identifies the power that gives the best safety/performance ratio (no instrument breakages/amplitude and resistance to the ideal load).
- Immediate identification of the recommended power range on the ultrasonic generator display and on the instrument, available throughout the time of use.
- The individual wrenches and storage kits guard against the risk of cross contamination to the user and auxiliary staff.
- The coding resists decontamination and sterilization.





# Handpieces

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The **Newtron®** handpiece is a piezoelectric transducer that provides the same performance whatever the tip or treatment.

The composite materials used in the handpiece housing are also autoclave-safe.

The titanium amplifier (exclusive manufacturing process) provides the transducer with unequalled torquing reliability and durability.

Our ultrasonic generators, which are controlled by the **SP Newtron** electronic module, boast the following features:

- The broadest range of frequencies on the market: 28 to 36 kHz
- The broadest power range: 0.1W to 10W
- The largest vibration amplitudes: 4 µm to 200 µm\*.

The automatic tuning control provides maximum performance while limiting transducer heating. The amplitude is electronically monitored approx. 30,000 times per second in real time, which is why **Newtron** handpieces generate homogeneous vibrations that are both more effective and more comfortable for the patient.

## **Newtron handpiece**

A new color makes it possible to quickly identify sterilizable handpieces. The front section can be removed for better decontamination of the titanium amplifier.

## **Newtron Lux handpiece**

Good visibility is essential. **Satelec** was the first manufacturer to offer handpieces with integrated fiber optics for its line of table-top devices. The **Newtron Lux**, a new-generation ultrasonic transducer, illuminates the operating area with “cold” light in a 360° radius.

The housing sports a new color specific to the **Newtron** product line. The design has been modified to give it a more comfortable, precise grip.

*\*SP Newtron electronics were built to meet the new ISO/CD 22374 (art. 4.3.2) standard requirements*



Newtron handpiece



Removable front section



Newtron Lux handpiece

# Contents

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Scaling . . . . .	16
Scaling tips . . . . .	18

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Periodontal debridement . . . . .	22
Perio mini-tips . . . . .	24
Periodontal and implant maintenance . . . . .	28
BDR mini-tips . . . . .	30
Periosoft™ mini-tips . . . . .	32

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Endodontic retreatment . . . . .	34
EndoSuccess™ mini-tips . . . . .	36
Pulpectomy and canal debridement . . . . .	38
Endo mini-tips . . . . .	40

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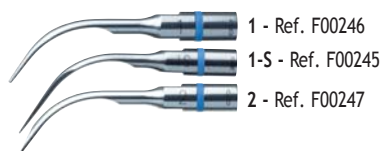
Apicoectomy and micro-surgery . . . . .	44
“S” series diamond-coated retro micro-tips . . . . .	46
“P” series diamond-coated retro micro-tips . . . . .	48

---

Conservative and restorative dentistry . . . . .	50
Excavus™ mini-tips . . . . .	52
Ultrasonic condensation and polymerization tips . . . . .	54
Perfect'Margin™ tips . . . . .	56
Loosening tips . . . . .	58

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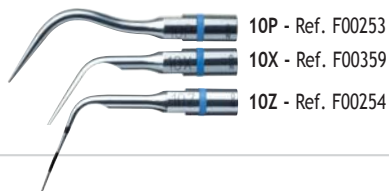
Power settings . . . . .	60
Bibliography . . . . .	66



1 - Ref. F00246

1-S - Ref. F00245

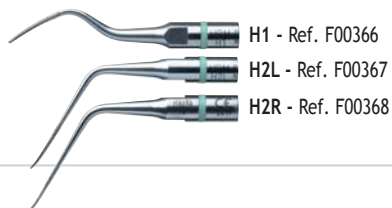
2 - Ref. F00247



10P - Ref. F00253

10X - Ref. F00359

10Z - Ref. F00254



H1 - Ref. F00366

H2L - Ref. F00367

H2R - Ref. F00368



H3 - Ref. F00369

H4L - Ref. F00114

H4R - Ref. F00115



ET18D - Ref. F88017

ET20 - Ref. F88011

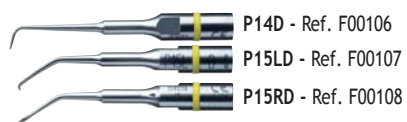
ET20D - Ref. F88013



ET25 - Ref. F88018

ET40 - Ref. F88012

ET40D - Ref. F88014



P14D - Ref. F00106

P15LD - Ref. F00107

P15RD - Ref. F00108



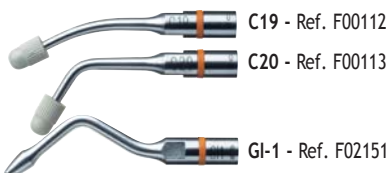
S12-70D - Ref. F00118

S12-90ND - Ref. F00125



5 - Ref. F00250

5AE - Ref. F00249



C19 - Ref. F00112

C20 - Ref. F00113


GI-1 - Ref. F02151




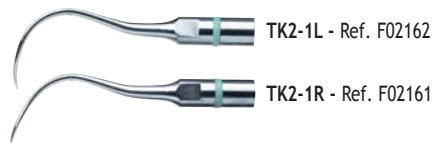
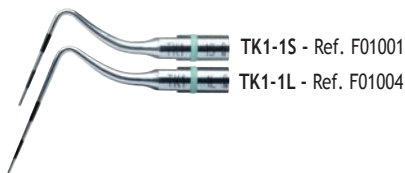
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 Twiny - Ref. F00290

 PH1 - Ref. F00702

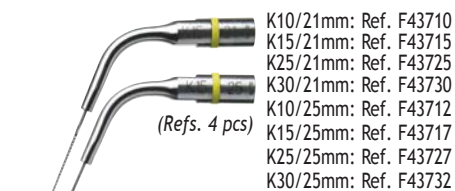
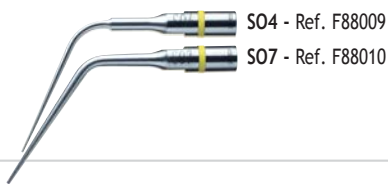
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 PH2R - Ref. F00706  
(Refs. 4 pcs)




 ETBD - Ref. F88020

 ETPR - Ref. F88019



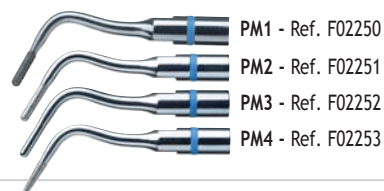
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 S13RD - Ref. F00105

 EX1 - Ref. F02040

 EX2 - Ref. F02041

 EX3 - Ref. F02042





**Prophylaxis**



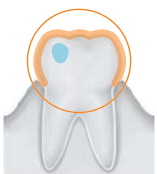
**Periodontics**



**Endodontics**



**Surgical endodontics**



**Conservative  
and restorative dentistry**

# Prophylaxis

## Scaling

The instruments are used at high power (blue code).

To be effective, the tips must be oriented tangentially to the surface being treated and must be moved in a back-and-forth sweeping motion without excessive lateral pressure.

Ultrasonic tips make faster scaling possible and cause less damage to tooth surfaces than manual instruments. Numerous studies have shown that ultrasonic treatments are 20 to 50% faster than manual instrumentation procedures. (4, 19)

The push-pull system of the SP Newtron module provides more efficient, homogeneous vibrations by constantly and automatically adjusting power to the applied load. Amplitude and power are controlled and adjusted automatically in real time (exclusively patented to Satelec).

### Advantages

- The micro-hardness of the exclusive alloy used for our tips respects the enamel and prevents damage to dental tissues.
- Controlled power = guaranteed efficiency.
- Low lateral pressure = enhanced patient comfort.
- Spray Control System = more efficient, better-controlled spray.

NEW

The no. 10Z tip is now marked with a gauge based on the principle of the Dutch Periodontal Screening Index (University of ACTA, Amsterdam/Belgian Association of Periodontology) to determine quickly the patient's state of health during prophylactic and initial treatments, or periodontal maintenance.

*Please see page 22 for further information.*



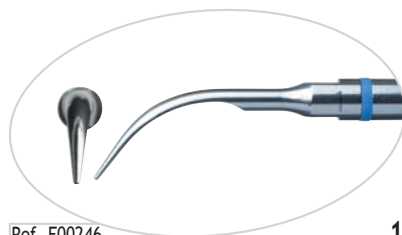




# Scaling tips

These four supra- and sub-gingival scaling tips are ideal for treating commonly encountered cases (pockets <3-4mm). All tips come with the new **Spray Control System** (Satelec exclusive).

The tip must be oriented tangentially to the surface being treated and must be moved in a back-and-forth sweeping motion, over the whole surface, without excessive lateral pressure. Removing thick deposits may require using the Boost mode for short periods. (19)



Ref. F00246

1



Ref. F00247

2



Ref. F00359

10X

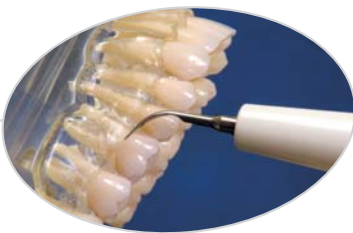


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10Z

## POWER SETTINGS

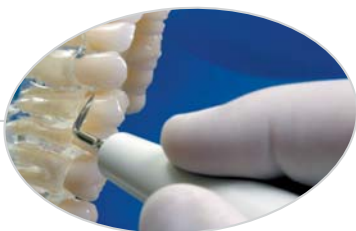
	P-Max Newtron Prophy Max Newtron	P5 Newtron	SP Newtron	Suprasson P5 Booster
No. 1 tip	8 to 10	14 to 15	7 to 8	7 to 9
No. 2 tip	8 to 10	14 to 15	7 to 8	7 to 10
No. 10X tip	6 to 8	12 to 14	6 to 7	7 to 8
No. 10Z tip	6 to 8	12 to 14	6 to 7	7 to 8



**No. 1 tip: "Universal".** Recommended for treating simple cases and gross supra-gingival scaling. Tangential orientation with respect to the tooth surface. To-and-fro sweeping motion to "push" and "pull" calculus without damaging the enamel.



**No. 2 tip: "Voluminous calculus".** Recommended for removing voluminous supra-gingival deposits. Apply flat end to surface of teeth.

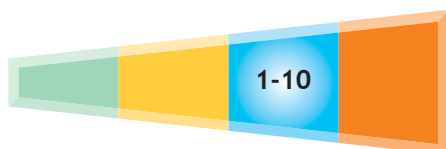


**No. 10X tip: "Interproximal".** Recommended for the treatment of interproximal spaces and for supra-gingival scaling. Anatomic shape allows quick, efficient hand movements.



**No. 10Z tip: "Sub-gingival".** New design for the 10Z for sub-gingival scaling, this instrument is recommended for scaling medium pockets (<4mm). The new version is more powerful as its amplitude has been increased by 75% and the working edges are longer.

**Color Coding System - Newtron Technology**  
Identification of power modes by color coding.



# Scaling tips

The tip must be oriented tangentially to the surface being treated, parallel to the main axis of the tooth, and must be moved in a back-and-forth sweeping motion without excessive lateral pressure. Begin the treatment at the center of the dental face. Push or pull the calculus towards the mesial and distal margins.

The Twiny® is a patented tip with remarkable versatility. It greatly reduces scaling time and removes pathogen toxins without damaging the cementum. The Twiny is recommended for both supra- and sub-gingival scaling. (14)

Thick deposits may require using the Boost mode for short periods.



1-S



3



10P



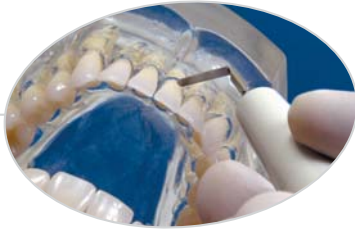
Twiny

## POWER SETTINGS

	P-Max Newtron Prophy Max Newtron	P5 Newtron	SP Newtron	Suprasson P5 Booster
No. 1-S tip	8 to 10	14 to 15	7 to 8	7 to 10
No. 3 tip	8 to 10	14 to 15	7 to 8	7 to 8
No. 10P tip	8 to 10	14 to 15	7 to 8	7 to 8
Twiny tip	8 to 10	14 to 15	7 to 8	7 to 10



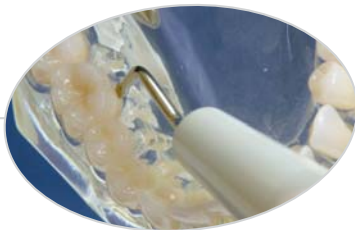
**No. 1-S tip: "Slim".** This tip was developed for supra- and sub-gingival scaling. It has improved load resistance, and superior amplitude and power compared to the original tip. The more effective lateral edges make it particularly suitable for scaling the interproximal spaces.



**No. 3 tip: "Stains".** For removing discolorations and stains (tobacco, tea, coffee, etc.). The tip is used by placing the rounded end in contact with the surface to be treated.

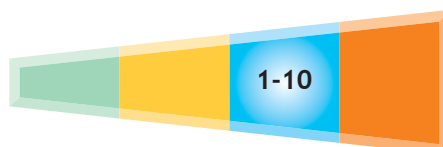


**No. 10P tip: "Shallow pockets".** Fine tip designed for scaling shallow pockets (<2-3mm). It provides greater irrigation than the other tips.



**Twiny tip: "Double spray".** Very powerful "surface" tip. The concave, symmetrical surfaces amplify the cavitation effect. It can be used to remove large deposits, polish treated surfaces, and irrigate pockets thanks to its double spray (pockets <3mm).

**Color Coding System - Newtron Technology**  
Identification of power modes by color coding.



# Periodontics

## Periodontal debridement

The tips are used at low amplitude and power (green code).

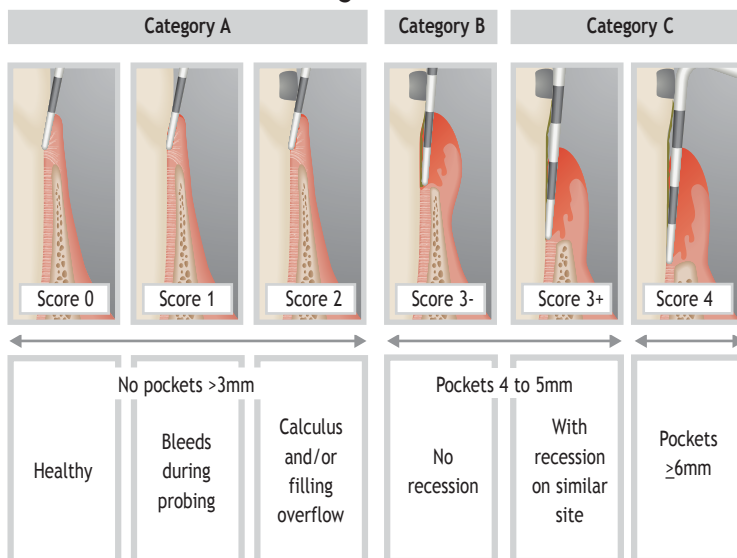
Satelec has developed specially designed mini-tips for more efficient mechanical treatments in accordance with the most recent research findings.

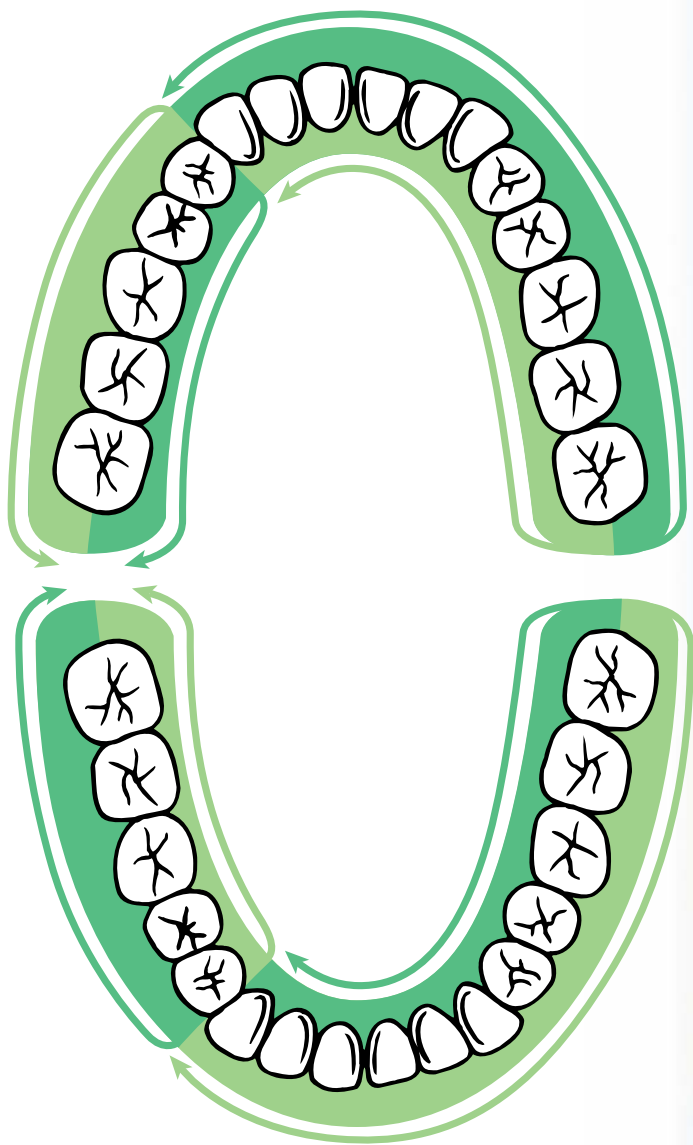
Non-surgical periodontal treatments are part of the etiological treatment phase in therapeutic strategies (1, 11, 13, 21) and are aimed at achieving the following results:

- Reducing gingival inflammation;
- Reducing pocket depth;
- Eliminating pathogenic bacteria and decontaminating root surfaces, making them more compatible with soft tissues;
- The best possible quality of tissue repair.

Non-surgical periodontal treatments are accessible to both general practitioners and specialists, and are aimed at removing microbial biofilms, which cause gingivitis and periodontitis. (5)

### Dutch Periodontal Screening Index





H4L - H2L

H4R - H2R

# Perio mini-tips

These mini-tips make it possible to perform a full-mouth periodontal debridement treatment. All the tips have a universal curette shape. The distal surface of the last segment is at a 90° angle to the shaft. The end of the mini-tip has a quarter-loop to prevent blunt trauma. The double guiding edges remove calculus and deposits with no risk of damage to connective fibers. (8, 9, 10)

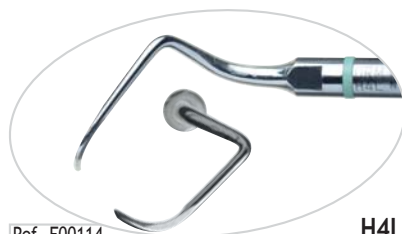
H4 tips are designed for sub-gingival scaling, non-surgical treatment of deep, narrow pockets (>4-6mm), and open treatments (flap surgery). Low pressure combined with a very low amplitude provide tactile sensitivity unequalled by any other ultrasonic tip.

The mini-tips operate in the opposite direction to manual curettes (ie. using a push stroke without scraping). They should be moved from the sulcular opening towards the bottom of the pocket without excessive lateral pressure (0.3 to 0.5N). The calculus is removed by methodically crisscrossing all root surfaces, while the biofilm is mechanically disrupted and eliminated by irrigation. Residual deposits are removed from pockets and cementum surfaces are decontaminated by the bacteriostatic effect of the micro-cavitation. (5, 8, 9)



Ref. F00369

H3



Ref. F00114

H4L



Ref. F00115

H4R



## POWER SETTINGS

	P-Max Newtron Prophy Max Newtron	P5 Newtron	SP Newtron	Suprasson P5 Booster
H3 tip	1 to 5	1 to 2	1 to 2	1 to 4
H4L tip	1 to 5	1 to 2	1 to 2	1 to 4
H4R tip	1 to 5	1 to 2	1 to 2	1 to 4



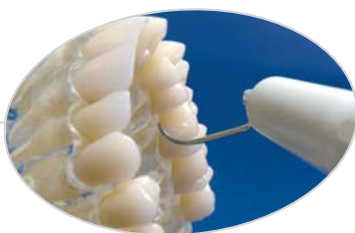


**H3 tip: "Anterior teeth".** Ideal tip to begin with, for the treatment of anterior teeth. The guiding edge is used parallel to the pocket.



**H4L tip: "Premolars and molars".** First tip in the sequence. Left angled. Recommended for the treatments of all surfaces and furcations:

- **Mandibular:** The lingual and mesial surfaces of sector 3, then the buccal and distal surfaces of sector 4. Pivoted at 43.
- **Maxillary:** The buccal and distal surfaces of sector 1, then the palatal and mesial surfaces of sector 2. Pivoted at 13.



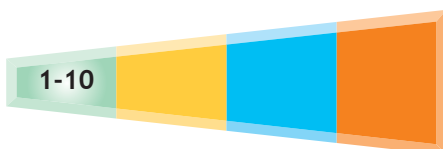
**H4R tip: "Premolars and molars".** Second tip in the whole-mouth sequence. Right angled. Follows the H4L tip in the treatment sequence. Recommended for the treatment of all surfaces and furcations:

- **Mandibular:** Buccal and distal surfaces of sector 3, then lingual and mesial surfaces of sector 4. Pivoted at 43.
- **Maxillary:** The buccal and distal surfaces of sector 1, then the palatal and mesial surfaces of sector 2. Pivoted at 13.

### Tip equivalents

- **H3:**  
Anterior teeth and premolars. Replaces manual curettes nos. 1-2, 3-4, and 5-6.
- **H4L and H4R:**  
Premolars and molars. Replace manual curettes nos. 7-8, 9-10, 11-12, and 13-14.

**Color Coding System - Newtron Technology**  
Identification of power modes by color coding.



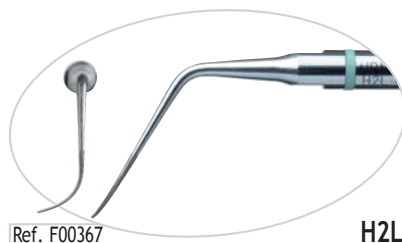


# Diamond-coated perio mini-tips

Diamond-coated mini-tips (350 to 400µm diameter, 30µm diamond grit size), which act as periodontal files, are used in the second step following ultrasonic debridement. They are designed to remove calculus from very narrow inter-root spaces and furcations and can be oriented vertically or horizontally to instrument the cementum surface down to the bottom of the pocket. They are also recommended for the debridement of periodontal abscesses and for odontoplasty during non-surgical treatment. (5, 6, 9, 11)

They are also used during surgical treatment to remove granulation tissue.

Diamond mini-tips are used with very low pressure (approximately 0.3N) and are inserted delicately, without forcing, to avoid over-instrumentation. Ideally these tips should be used before maintenance treatment using the BDR tips (in the next session).



## POWER SETTINGS

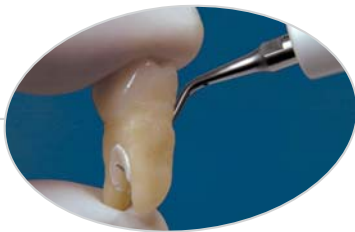
	P-Max Newtron Prophy Max Newtron	P5 Newtron	SP Newtron	Suprasson P5 Booster
H1 tip	1 to 5	1 to 2	1 to 2	1 to 3
H2L tip	1 to 5	1 to 2	1 to 2	1 to 3
H2R tip	1 to 5	1 to 2	1 to 2	1 to 3



**H1 tip: "Anterior teeth".** Diamond mini-probe recommended for simple cases. Used to treat anterior teeth.



**H2L tip: "Premolars and molars".** Left-angled diamond micro-probe. Recommended for treating furcations and very narrow spaces. Used for the same teeth as the H4L.

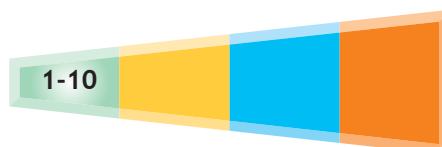


**H2R tip: "Premolar and molar area".** Right-angled diamond micro-probe. Used for treating furcations and very narrow spaces. Used for the same teeth as the H4R.

### Instrument equivalents:

- **H1:**  
Anterior teeth and premolars.  
Replaces 3-7 perio files.
- **H2L and H2R:**  
Premolars and molars.  
Replace 5-11 and 9-10 perio files.

**Color Coding System - Newtron Technology**  
Identification of power modes by color coding.



# Periodontal and implant maintenance

The tips are used at low amplitude and power (green code).

The maintenance phase of ultrasonic treatments of pockets involves the use of new generation, blunt mini-tips. Treatment is virtually painless. The biofilm is mechanically disrupted by micro-cavitation. (19, 21)

The bacteriostatic capacity of ultrasound and irrigation combined with the hydrodynamic effect removes debris more efficiently than sub-gingival irrigation using a manual syringe.

Disinfectants like chlorhexidine combined with ultrasound are recommended to optimize pocket decontamination. Our line of instruments also makes it possible to treat patients at risk, in sterile conditions if warranted, using saline solution. Finally, our maintenance tips make it possible to treat both natural teeth and prostheses.

Studies have proven that the quality of periodontal maintenance using this new technique provides enhanced patient comfort and motivation. (11, 12)

## Advantages

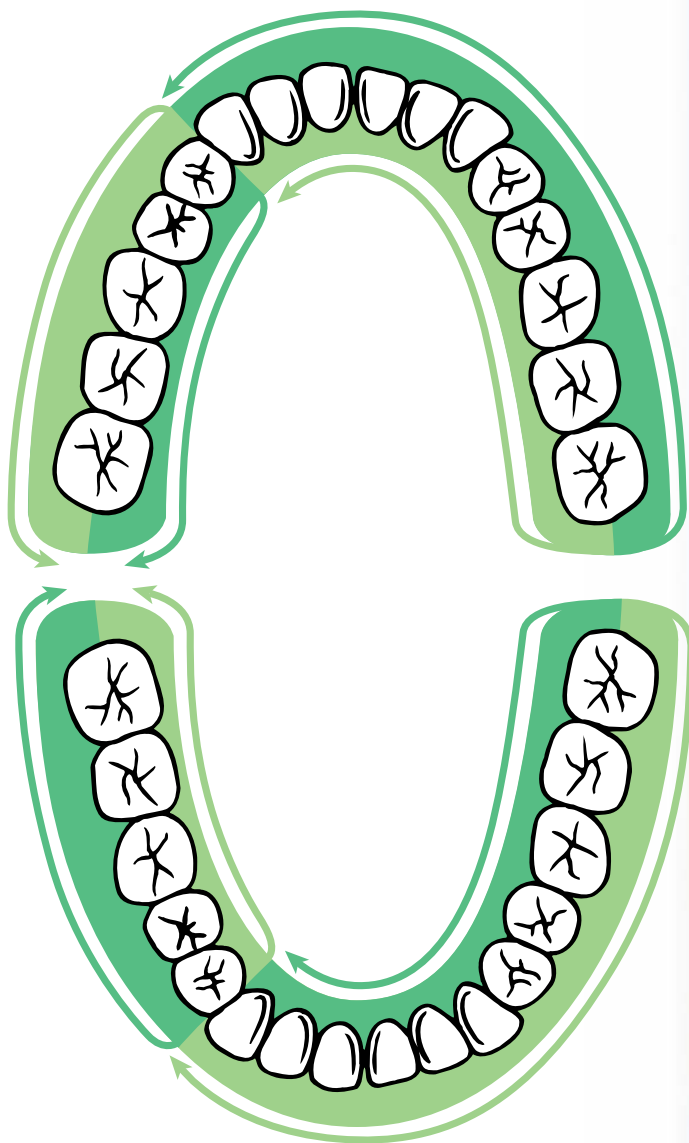
- Fine tips for easy access to the narrowest spaces and complex contours of deep pockets.
- Blunt shapes that prevent damage to cementum.
- Low amplitude for better tactile control and painless treatments.
- Micro-cavitation provides more effective sub-gingival irrigation thanks to the bacteriostatic effect.

NEW

The TK1-1S and TK1-1L tips are now marked with a gauge based on the principle of the Dutch Periodontal Screening Index (University of ACTA, Amsterdam/Belgian Association of Periodontology) to determine quickly the patient's state of health during periodontal and implant maintenance.

*Please see page 22 for further information.*





TK2-1L - PH2L

TK2-1R - PH2R

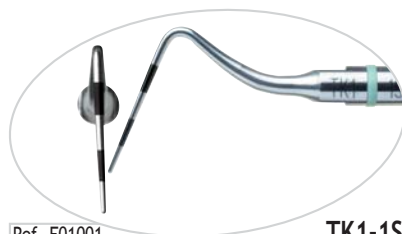
## BDR mini-tips\*

The four BDR mini-tips, in the shape of periodontal probes, are ideal for periodontal maintenance by dentists and dental hygienists.

- Two straight probes for initial examinations and the treatment of simple cases.
- Two angled probes (left and right) for full-mouth maintenance in a single session and for the treatment of complex cases.

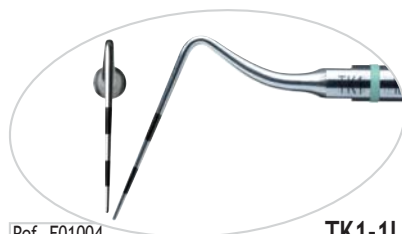
BDR mini-tips are used at low power with very low pressure to preserve tactile sensitivity. (8, 10, 12,17)

*\*Biofilm Disruption and Removal.*



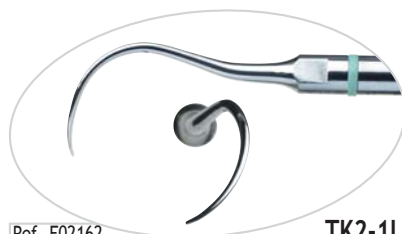
Ref. F01001

TK1-1S



Ref. F01004

TK1-1L



Ref. F02162

TK2-1L



Ref. F02161

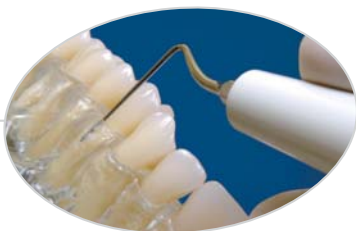
TK2-1R

## POWER SETTINGS

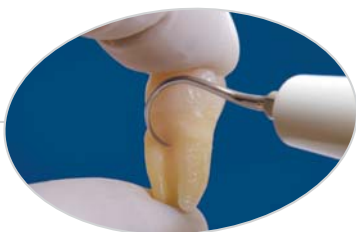
	P-Max Newtron Prophy Max Newtron	P5 Newtron	SP Newtron	Suprasson P5 Booster
TK1-1S tip	1 to 5	1 to 2	1 to 2	1 to 3
TK1-1L tip	1 to 5	1 to 2	1 to 2	1 to 3
TK2-1L tip	1 to 4	1 to 2	1 to 2	1 to 3
TK2-1R tip	1 to 4	1 to 2	1 to 2	1 to 3



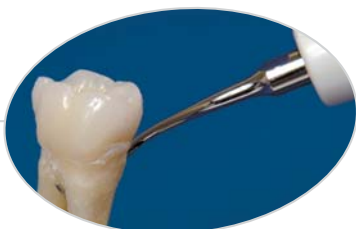
**TK1-1S tip: "Short probe".** Mini-tip recommended for examining shallow to moderate pockets (<4mm) and for the maintenance of simple cases.



**TK1-1L tip: "Long probe".** Mini-tip for examining and maintenance of moderate to deep pockets (>4mm).

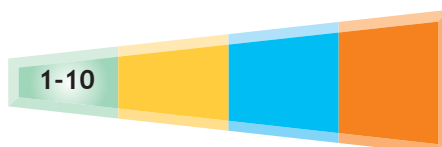


**TK2-1L tip: "Premolars and molars".** Left-angled mini-tip recommended for maintenance of moderate to deep pockets and furcations. Used to treat the same teeth on the same surface as the H4L.



**TK2-1R tip: "Premolars and molars".** Complements the TK2-1L tip. Right-angled mini-tip used to treat moderate to deep pockets and furcations on the same teeth as the H4R.

**Color Coding System - Newtron Technology**  
Identification of power modes by color coding.



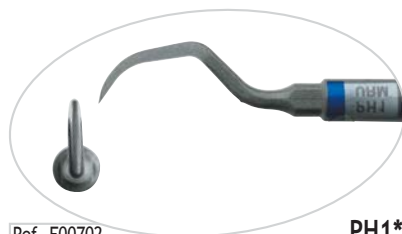
# Periosoft™ mini-tips

Carbon composite mini-tips are used at low amplitude and power (green code).

The goal of implant and prosthesis maintenance is to remove biofilm and loosely adhering deposits without scratching the surface of the prosthesis.

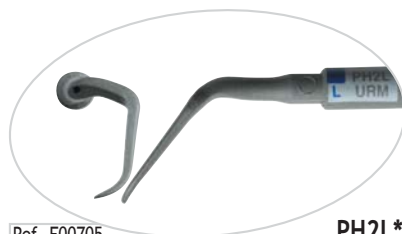
The Periosoft line is designed for implant and prosthesis maintenance. Surfaces are left undamaged, preventing the retention of bacterial deposits and reducing the risk of peri-implantitis (6, 16).

Periosoft carbon mini-tips are used to polish metal (gold, titanium) surfaces to reduce instrument marks. These mini-tips are also recommended for polishing ceramics and composite veneers without damaging the materials. The tips' ends are extremely fragile and care must be taken to avoid jamming them or using excessive force which could result in breakage. These tips are used with as little lateral pressure as possible and treatments are totally painless.



Ref. F00702

PH1\*



Ref. F00705

PH2L\*



Ref. F00706

PH2R\*



## POWER SETTINGS

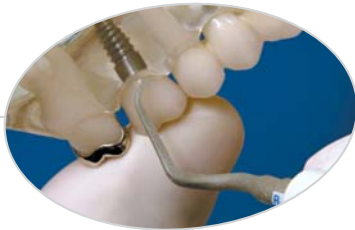
	P-Max Newtron Prophy Max Newtron	P5 Newtron	SP Newtron	Suprasson P5 Booster
PH1 tip	1 to 3	1 to 2	1 to 2	1 to 3
PH2L tip	1 to 3	1 to 2	1 to 2	1 to 3
PH2R tip	1 to 3	1 to 2	1 to 2	1 to 3



**PH1 tip:** "Anterior teeth". Universal curette shape. Easy to use in most treatments, particularly **anterior teeth**. Can also be used to polish the sulcus and grooves of natural teeth.



**PH2L tip:** "Premolars and molars". Shape comparable to 13-14 curettes. **Recommended** for posterior teeth.



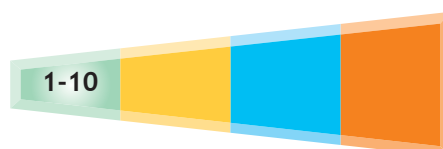
**PH2R tip:** "Premolars and molars". This carbon tip PH2R is also used for posterior teeth.

## Advantages

- Gentle on prosthetic surfaces (titanium, ceramic, composite).
- Eliminate biofilm and bacterial deposits.
- Micro-cavitation provides sulcular irrigation and bacteriostatic effect.

*\*Pack of four tips.*

**Color Coding System - Newtron Technology**  
Identification of power modes by color coding.





# Endodontics

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## Endodontic retreatment

Endodontic retreatment procedures have been steadily increasing since the mid 1990s. At first they were the exclusive domain of specialists, but they are gradually becoming an everyday treatment offered in general dentistry.

### Definition :

*The treatment consists of removing filling material from the canals and then debridement, shaping and then refilling the canal; this is usually needed when there has been inadequate or unsuccessful initial treatment, or when the root has been recontaminated by remaining exposed to the intra-oral environment for too long (Dr Gary B. Carr).*

The objective of the treatment is to correct an endodontic procedure which has failed, usually for one of the following reasons:

- "Hidden" canals;
- Over preparation;
- Insufficient access to the pulp chamber;
- Blockage (repair material, intra chamber calcifications, broken instrument).

Perfecting the ultrasonic mini- and micro-tips and the use of visual aids (loupes, operating microscope) have brought dentistry into the age of microsurgery and minimally-invasive treatment.

Satelec has provided the practitioner with the most innovative line of instruments: an extensive choice of exclusive alloys and coatings specially adapted to each sequence of the procedure.

### Advantages

- Fine but resistant mini-instruments in exclusive alloys (Titanium-Niobium\*, etc.).
- Diamond coatings for stronger abrasion power.
- Complete line of instruments, suitable for all clinical circumstances.
- Suprasson and Newtron technology for ultrasonic generators with unbeatable performance.

*\*exclusive alloy, patented.*



# ENDO **success**

The new **EndoSuccess™** kit addresses the problems the most commonly met during non-surgical endodontic retreatment procedures.

The metals used for this line of mini-tips have been chosen for the specific conditions under which the instruments are used in the course of this type of clinical application.

The use of the new **Titanium-Niobium** alloy is a major innovation, giving optimal ultrasound use in the most delicate circumstances.\*

This alloy has been chosen for its **remarkable mechanical performance and complete biocompatibility**. This material gives optimum clinical performances.

It has an alpha-beta microcrystalline structure which provides the best stability/time ratio under intensive usage.

With a three-micron diameter, three to four times smaller than that of standard steel, the grain of the metal gives unsurpassed ultrasound transmission, allowing the practitioner the freedom to work at high power and keep the flexibility and resistance required.

The **Newtron** technology in **Satelec** piezoelectric generators gives the tips unbeatable efficiency. The instruments are driven with great precision and respond faithfully to the power settings chosen by the practitioner.

They are also compatible with all the **Suprasson®** generators.

*\*exclusive Satelec patent.*

*The ultrasonic mini-tips (instruments) in the **EndoSuccess** kit, have been developed and designed with the scientific support of Dr Bertrand G. Khayat DDS, MSD - private practice limited to endodontics, Paris (France).*



Ref. F88017

**ET18D**



Ref. F88011

**ET20**



Ref. F88018

**ET25**



Ref. F88020

**ETBD**



Ref. F88019

**ETPR**

## POWER SETTINGS

	P-Max Newtron Prophy Max Newtron	P5 Newtron	SP Newtron	Suprasson P5 Booster
ET18D tip	5 to 10	6 to 10	3 to 5	6 to 10
ET20 tip	5 to 10	6 to 10	3 to 5	6 to 10
ET25 tip	5 to 10	6 to 10	3 to 5	6 to 10
ETBD tip	5 to 8	6 to 10	3 to 5	6 to 8
ETPR tip	10	20	10	14



**ET18D tip:** "Endo Treatment, diamond-coated". This tip is for use in the pulp chamber to **eliminate dental overhangs**, intra chamber calcifications (pulpoliths), temporary fillings and some filling materials. The tip can be used with irrigation.



**ET20 tip:** "Endo Treatment". Instrument used for interventions in the coronal third, to **remove root canal fillings**, broken instruments or dental debris. The tip is for use with or without irrigation.



**ET25 tip:** "Endo Treatment". This mini-tip in *Titanium-Niobium* has been designed for the most delicate interventions in the middle and apical thirds of the canal. It is ideal for eliminating broken instruments and silver points from the most inaccessible areas. It has a spray orifice for irrigation. (20)

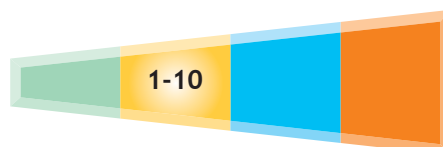


**ETBD tip:** "Endo Treatment, Ball Diamond tip". This tip is used to **locate canals** (calcified canals) and **explore the floor of the pulp chamber**. The diamond ball gives rapid and precise action in situations where the round bur cannot be used or is too invasive. Instrument with irrigation available.



**ETPR tip:** "Endo Treatment, Post Removal". Tip for **loosening root canal retention pins**. It is used to **extract prosthetics** with the integrated irrigation, at maximum power and in contact with the element that is being loosened.

**Color Coding System - Newtron Technology**  
Identification of power modes by color coding.



# Pulpectomy and canal debridement

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The tips are used at medium power (yellow code).

Since the 1980s, ultrasonic instruments have helped improve endodontic treatments. Debridement, irrigation, retreatments, and surgery have all benefited from improvements in ultrasonic technology. (20)

The files contribute to the removal of the canal contents. The hydrodynamic effect of the ultrasound combined with sodium hypochlorite or Salvizol EDTA® provide deep-cleaning action. (15)

## Advantages

- Respects the root canal path and the endodontic taper.
- Low pressure + appropriate tip = tissue preservation.
- Quicker preparations made by diamond micro-tips.



# Endo tips

The Endo mini-tips are used during root canal preparations and irrigation. They include specific instruments for endodontic retreatment.

The ultrasonic files are used to irrigate the canal with water or Salvizol during peri-operative sessions and with sodium hypochlorite for decontamination and the final cleaning.

The files are inserted in the center of the canal, leaving 1mm of the working length exposed. They are then slowly withdrawn without exerting any pressure apically or parietally.

The canal is irrigated until the smear layer is completely removed. The files are available in 21 and 25mm lengths.

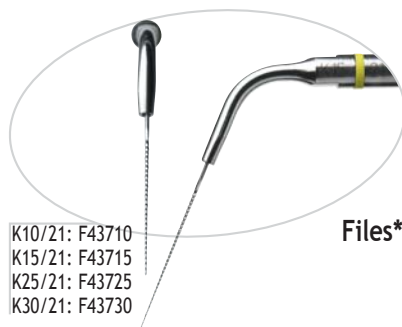
The ET tip is used to remove dental pulp concretions and prepare for loosening root canal retention pins. (20)

S04 and S07 tips are used for the lateral condensation of gutta percha.



Ref. F88011

ET20



K10/21: F43710  
K15/21: F43715  
K25/21: F43725  
K30/21: F43730

Files\*



Ref. F88009

S04



Ref. F88010

S07

## POWER SETTINGS

	P-Max Newtron Prophy Max Newtron	P5 Newtron	SP Newtron	Suprasson P5 Booster
ET20 tip	5 to 10	6 to 10	3 to 5	6 to 10
Files	4 to 7	6 to 7	3 to 4	4 to 7
S04 tip	7 to 8	7 to 8	4 to 5	6 to 8
S07 tip	7 to 8	7 to 8	4 to 5	6 to 8





**ET20 tip: "Retreatment".** This tip gives rapid removal of concretions. Useful for quickly eliminating concretions and removing temporary cements and broken instruments in the coronal third.



**Ultrasonic files\*: "Irrigation".**

- K10/21 file, initial irrigation.
- K15/21 file, final irrigation.
- K25/21 file, final irrigation wide canals.
- K30/21 file, irrigation of wide or juvenile canals.



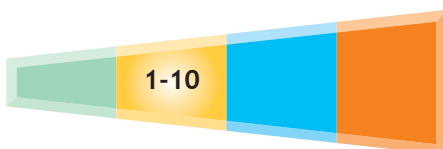
**S04 tip: "Fine condensation tip".** Lateral condensation due to thermal effect (no spray).



**S07 tip: "Medium condensation tip".** Same uses as the S04 tip. For condensing gutta percha in large canals.

*\*Pack of four files.*

**Color Coding System - Newtron Technology**  
Identification of power modes by color coding.





# Endo tips

These diamond-tipped versions of the Endo mini-tips can be used as alternatives to smooth instruments, depending on the case and the techniques habitually used by the practitioner.



Ref. F88013

**ET20D**



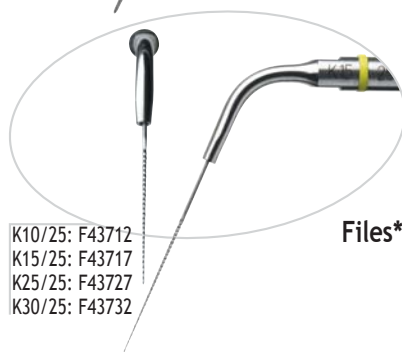
Ref. F88012

**ET40**



Ref. F88014

**ET40D**



K10/25: F43712  
K15/25: F43717  
K25/25: F43727  
K30/25: F43732

**Files\***

## POWER SETTINGS

	P-Max Newtron Prophy Max Newtron	P5 Newtron	SP Newtron	Suprasson P5 Booster
ET20D tip	5 to 10	6 to 10	3 to 5	6 to 10
ET40 tip	5 to 10	6 to 10	3 to 5	5 to 10
ET40D tip	5 to 10	6 to 10	3 to 5	5 to 10
Files	4 to 7	6 to 7	3 to 4	4 to 7



**ET20D tip: "Retreatment".** Diamond-coated version of the ET20 with enhanced cutting and abrasive power laterally. Particularly useful for removing very hard materials when "brushing" the parietal walls.



**ET40 tip: "Retreatment".** Quickly removes obstructions and broken instruments in the middle and apical thirds of large and straight canals.



**ET40D tip: "Retreatment".** Diamond-coated version of the ET40 for retreatments of extremely hard materials. The most powerful of the retreatment tips.

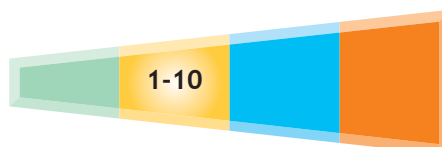


**Ultrasonic files\*:** "Irrigation". This longer working length file is used less often and corresponds to 25mm-long manual files used for the following treatments:

- K10/25 file, initial irrigation;
- K15/25 file, final irrigation;
- K25/25 file, final irrigation, wide canals;
- K30/25 file, irrigation of wide canals or in juvenile teeth.

*\*Pack of four files.*

**Color Coding System - Newtron Technology**  
Identification of power modes by color coding.



# Surgical endodontics

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## Apicoectomy and micro-surgery

The tips are used at medium power (yellow code).

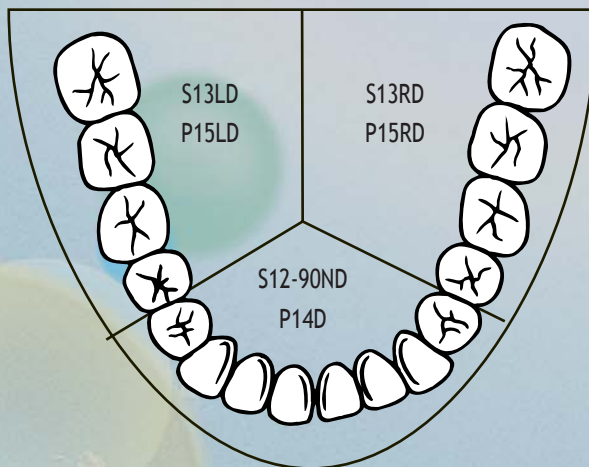
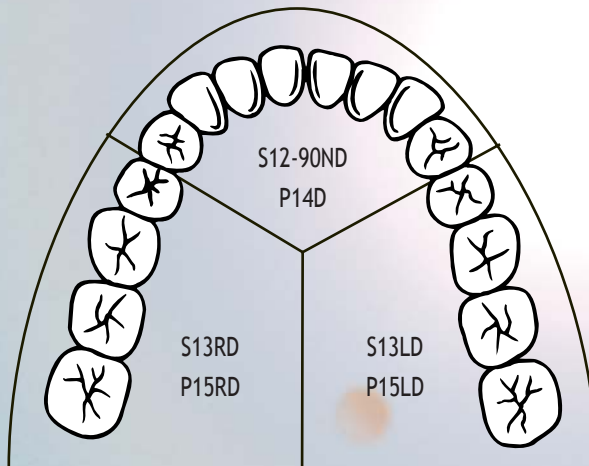
For over ten years, the use of ultrasonic instruments has been enabling the most effective clinical protocols in endodontic surgery. Minimally-invasive treatments are now routine and the preservation of tissue promotes rapid healing.

Satelec was the first manufacturer to define diamond-coated micro-tips with enhanced cutting power compared to smooth instruments or micro-burs, thereby enabling retropreparation without any risk of micro-fracture in the periapical walls.

The canal is prepared faster, without excessive pressure and more precisely thanks to the new instrument design.

### Advantages

- Excellent quality of diamond coating allows for enhanced cutting power.
- New micro-tip design, better adapted to the canal's shape.
- Easy and efficient instrumenting sequence for better micro-surgery.



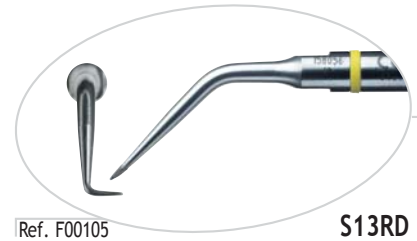
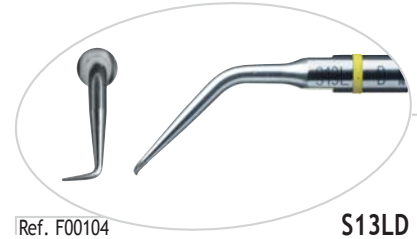
Difficult to access canals: S12-70D

# “S” series diamond-coated retro micro-tips

The “S” series micro-tips developed by Satelec were the first commercially available diamond-coated micro-tips in the world. Because of the high-performance diamond coating and the special end taper, they revolutionized micro-surgery by making it possible to perform preparations with no micro-fractures. They were developed with the input of American and European endodontists. (2)

They are used at medium power with as little pressure as possible to avoid periapical micro-fractures. These micro-tips are equipped with a spray, which can be turned off if an assistant is available to irrigate the operating field.

For more comfort and the greatest possible precision, we recommend using a magnifier or an operating microscope



## POWER SETTINGS

	P-Max Newtron Prophy Max Newtron	P5 Newtron	SP Newtron	Suprasson P5 Booster
S12-90ND tip	5 to 9	6 to 9	3 to 5	5 to 9
S13LD tip	5 to 9	6 to 9	3 to 5	5 to 9
S13RD tip	5 to 9	6 to 9	3 to 5	5 to 9
S12-70D tip	5 to 9	6 to 9	3 to 5	5 to 9



**S12-90ND tip: "Universal".** Recommended for roots of anterior teeth.



**S13LD tip: "Left-angled preparations".** Recommended for premolar and molar canals.

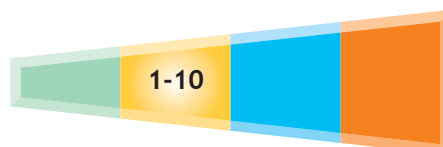


**S13RD tip: "Right-angled preparations".** Same use as the S13LD tip. Recommended for premolar and molar canals.



**S12-70D tip: "Back action".** Recommended for the treatment of posterior areas (difficult to access canals or particular root orientation).

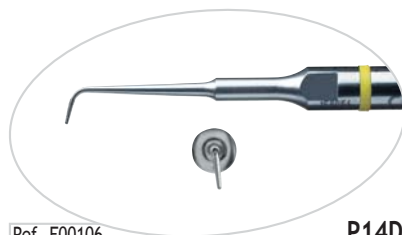
**Color Coding System - Newtron Technology**  
Identification of power modes by color coding.



# “P” series diamond-coated retro micro-tips

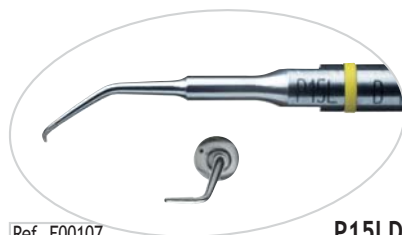
The “P” series of micro-tips, developed by opinion leaders, is generally used by endodontic surgeons. It contains three micro-tips that can be used for preparing cavities and isthmuses.

All of these tips are used at medium power with controlled pressure (the lightest possible) to avoid unnecessary tissue removal and micro-fractures of periapical walls. (2)



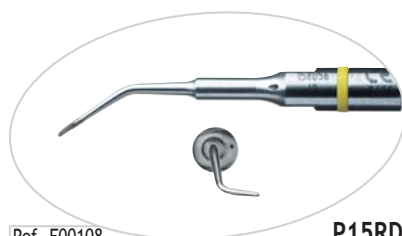
Ref. F00106

P14D



Ref. F00107

P15LD

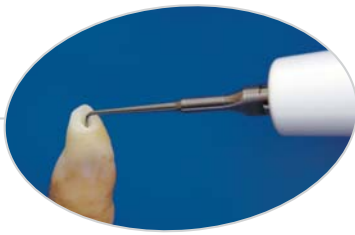
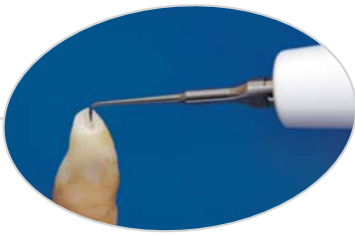


Ref. F00108

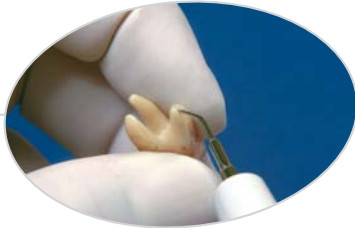
P15RD

## POWER SETTINGS

	P-Max Newtron Prophy Max Newtron	P5 Newtron	SP Newtron	Suprasson P5 Booster
P14D tip	5 to 8	6 to 8	3 to 5	5 to 8
P15LD tip	5 to 8	6 to 8	3 to 5	5 to 8
P15RD tip	5 to 8	6 to 8	3 to 5	5 to 8



**P14D tip: "Universal".** Recommended for preparing canals of anterior teeth.

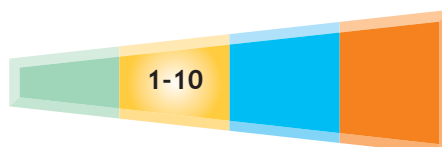


**P15LD tip: "Left-angled".** Recommended for preparing canals of premolars and molars.



**P15RD tip: "Right-angled".** Same use as the P15LD tip for preparing canals of premolars and molars.

**Color Coding System - Newtron Technology**  
Identification of power modes by color coding.





# Conservative and restorative dentistry

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The **Satelec** range now includes two new kits of mini-tips, presented in autoclavable stainless steel containers, to offer an even wider choice of conservative dentistry care.

As a result of controlled and tightly monitored surface treatment, combined with the **Newtron** technology of **Satelec** piezoelectric generators, and their innovative design, these mini-tips can be used on high power (blue code).

- **Excavus™** is a kit of five ultrasonic tips for minimally invasive excavation that allows you to achieve small-volume proximal cavities while preserving the integrity of adjacent teeth and healthy structures.
- **The Perfect'Margin™** kit of four tips enables delicate penetration of the sulcus to finish the sub-gingival limits without harming the free gum margin and the biological width. The results obtained enable a better quality of impression-taking and an extremely precise cervical adjustment of the prosthetic restoration.

Ultrasonic condensation of glass ionomer and sealing inlays/onlays are possible with **Satelec** devices because they provide sufficient energy for accelerated hardening applications through the transmission of ultrasonic vibrations.

**Piezocem** tips are also available for inlay and onlay sealing. In this case, the ultrasonic energy is used to fluidify thixotropic cements, making it possible to seal prosthetic reconstitutions without excessive pressure.

**Satelec** generators feature very high power for loosening prostheses (orange code, power levels 8 to 10).

Retreatments are easier and quicker than with a manual crown/inlay remover alone. The technique is used for crowns, bridge posts, and root canal retention posts. Feed-back makes it possible to benefit fully from the vibrations, by means of the dual synchronous effect of the **Reactor** which redirects waves into the prosthesis' mass.

## Advantages

- Instruments designed for minimally invasive, but faster, treatment, mean adjacent teeth and healthy structures are preserved.
- Powerful ultrasonic energy for condensation of glass ionomer and inlay/onlay sealing procures longer-lasting, more regular results, with better resistance to acid etching.
- Prostheses and bridges are loosened more quickly.
- Root canal posts can be loosened during endodontic retreatment procedures.



# EXCAVUS

## Ultrasonic tips for minimally invasive excavation

This complete range of Excavus ultrasonic mini-tips is ideal for creating small-volume proximal cavities that take into account the demands of and performance expected from adhesive conservative dentistry.

The distinctive geometry of each tip guarantees its efficiency in even the most difficult operating situations, while preserving the integrity of adjacent teeth and healthy structures for improved patient comfort.

The diamond used for coating the tips features extremely regular particles with excellent impact resistance and highly homogeneous statistical distribution ( $\pm 5\%$  of the median). These characteristics give the tips exceptional preparation qualities without clogging or temperature rise that could be detrimental to biological tissue.

The **Excavus** mini-tips are used at high power (blue code). We recommend storing them in their autoclavable stainless steel presentation container to facilitate the treatment sequence.



Ref. F02040

EX1



Ref. F02041

EX2



Ref. F02042

EX3



Ref. F02044

EXL



Ref. F02043

EXR

## POWER SETTINGS

	P-Max Newtron Prophy Max Newtron	P5 Newtron	SP Newtron	Suprasson P5 Booster
EX1 tip	1 to 5	11 to 14	6 to 7	6 to 8
EX2 tip	1 to 5	11 to 14	6 to 7	6 to 8
EX3 tip	1 to 5	11 to 14	6 to 7	6 to 8
EXL tip	1 to 5	11 to 14	6 to 7	6 to 8
EXR tip	1 to 5	11 to 14	6 to 7	6 to 8



**EX1 tip:** ball diamond tip (46µm). Diameter 1.7mm. Preparation of the occlusal surface and cervical margins.



**EX2 tip:** half ball diamond tip (46µm). Diameter 1.7mm. Preparation of the proximal surface without damaging the adjacent tooth.



**EX3 tip:** half ball diamond tip (46µm). Diameter 1.7mm. Preparation of the distal surface without damaging the adjacent tooth.

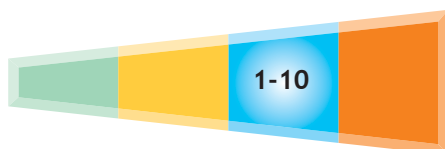


**EXL tip:** half ball diamond tip (46µm). Set 45° to the left. Allows access to the lesion without damaging the adjacent tooth.



**EXR tip:** half ball diamond tip (46µm). Set 45° to the right. Allows access to the lesion without damaging the adjacent tooth.

**Color Coding System - Newtron Technology**  
Identification of power modes by color coding.



# Ultrasonic condensation and polymerization tips

We recommend storing these tips in the clinical kit and identifying them with the orange code for very high power use.

The GI-1 tip is lightly placed on the glass ionomer and activated for 15 to 30 seconds for all materials and restorations. The ionomer is hardened when the vibration turns into a resonating sound. The tip must not be moved during the procedure. However, it is recommended to fill the cavity using successive layers.

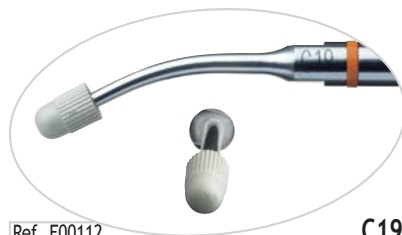
Because it is used at very high power, the ultrasonic energy is transformed into heat. As such, care must be taken to avoid contact between soft tissues and the shaft or any other metal surface of the tip. Silicone tubes of the same diameter as the tips are available for enhanced safety (optional). (18)

Piezocem tips are delivered with spare sterilizable thermo-plastic heads. They must be replaced as soon as cracks appear, to avoid damaging the prosthesis.



Ref. F02151

GI-1



Ref. F00112

C19



Ref. F00113

C20

## POWER SETTINGS

	P-Max Newtron Prophy Max Newtron	P5 Newtron	SP Newtron	Suprasson P5 Booster
GI-1 tip	9 to 10	18 to 20	9 to 10	10 to 12
C19 tip	4 to 7	16 to 18	8 to 9	10 to 12
C20 tip	4 to 7	16 to 18	8 to 9	10 to 12



**GI-1 tip: "Glass ionomer".** The end of the tip and most of the working length may be put in contact with the glass ionomer. The tip must not be moved once activated. The emission of a characteristic sound by the tip is a sign that the material has hardened. Wet the tip with bonding agent or varnish to prevent unhardened material from adhering to it. (18)

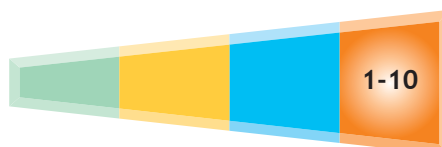


**C19 tip: "Piezocem, elbowed".** Condensation tip for inlays and onlays sealed with thixotropic cements. Used for anterior teeth. The tips are activated in 10-second sequences until the prosthesis is perfectly fitted in the cavity. In general, two to three sequences are required. Excess cement should be removed from the margins after each sequence.



**C20 tip: "Piezocem, contra-angle".** Condensation tip for inlays and onlays. Complements the C19 tip. Used for posterior teeth. The tips are activated in 10-second sequences until the prosthesis is perfectly fitted in the cavity. In general, two to three sequences are required. Excess cement should be removed from the margins after each sequence.

Color Coding System - Newtron Technology  
Identification of power modes by color coding.



# PERFECT MARGIN

## Prosthetic finishing

This instrument kit, developed with the scientific collaboration of:

- Dr Marc Sous - former University Lecturer, Victor Segalen University, Bordeaux (France);
- Dr Jean-François Lasserre - Assistant Professor, Victor Segalen University, Bordeaux (France);
- Mr Yann Le Peticorps - Professor, University Bordeaux 1 - ICMCB/CNRS (France),

is intended for tissue preparation and prosthetic finishing. The surfaces of the **Perfect'Margin** tips have been specially designed for each sequence of the procedure, so that the dentinal tissue can be quickly and safely prepared in areas where it would be delicate to use a diamond bur. Their fine, profiled shape enables delicate penetration of the sulcus to finish the sub-gingival limits without harming the free gum margin and the biological width.

The results obtained enable a better quality of impression-taking and an extremely precise cervical adjustment of the prosthetic restoration.

Despite the high power (blue code) of the **Satelec** piezoelectric generators, the **Newtron** handpiece retains a tactile sensation that is impossible to achieve with a bur.



Ref. F02250

PM1



Ref. F02251

PM2



Ref. F02252

PM3



Ref. F02253

PM4

## POWER SETTINGS

	P-Max Newtron Prophy Max Newtron		P5 Newtron		SP Newtron		Suprasson P5 Booster	
	Tissue preparation	Prosthetic Finishing	Tissue preparation	Prosthetic Finishing	Tissue preparation	Prosthetic Finishing	Tissue preparation	Prosthetic Finishing
PM1 tip	8 to 10	N/A	14 to 15	N/A	7 to 8	N/A	7 to 9	N/A
PM2 tip	8 to 10	1 to 2	14 to 15	11 to 12	7 to 8	6 to 7	7 to 9	6 to 7
PM3 tip	8 to 10	1 to 2	14 to 15	11 to 12	7 to 8	6 to 7	7 to 9	6 to 7
PM4 tip	8 to 10	N/A	14 to 15	N/A	7 to 8	N/A	7 to 9	N/A





**PM1 tip:** quarter round-tipped diamond-coated insert (76µm). Preparation of the dentine. Intra-sulcular penetration after supragingival preparation with a diamond bur.



**PM2 tip:** quarter round-tipped diamond-coated insert (46µm). Used in the intra-sulcular area. Preparation and finishing of the dentine.

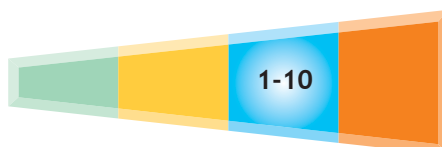


**PM3 tip:** quarter round-tipped, smooth insert. Finishing and improvement of the surface of the cervical limit before impression-taking.



**PM4 tip:** conical-tipped diamond-coated insert (46µm). Preparation of the dentine and inlay-core cavities. Polishing of entry cones for anatomical posts.

**Color Coding System - Newtron Technology**  
Identification of power modes by color coding.





# Loosening tips

These two tips suit all loosening applications. The cylindrical, slight elbow shape was designed to transmit vibrations as efficiently as possible while, at the same time, offering a clear view of the operating field. This is why loosening tips are more effective in these situations than any other type of tip.

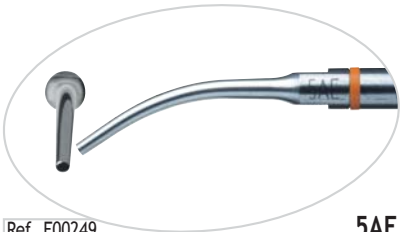
The tips are applied against the lingual and buccal surfaces first, ending with the occlusal surface. The flat end of the tip is held firmly against the tooth. The 5 and 5AE tips, in combination with endodontic retreatment tips, are also recommended for loosening root canal posts.

It may be necessary to use the generator at maximum power for limited periods. In such cases, care must be taken to prevent overheating and damage to underlying and surrounding tissues.



Ref. F00250

5



Ref. F00249

5AE

## POWER SETTINGS

	P-Max Newtron Prophy Max Newtron	P5 Newtron	SP Newtron	Suprasson P5 Booster
No. 5 tip	10	20	10	11 to 14
No. 5AE tip	10	20	10	11 to 14

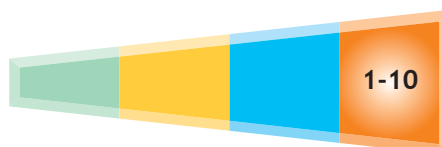


**No. 5 tip:** "Loosening without spray". Press the tip against the surface using successive contacts. **Begin** at the sulcus margin and **gradually move up**. The final contact, once the cement has been partially removed, is on the occlusal surface.



**No. 5AE tip:** "Loosening with spray". This tip is used under the same conditions as the no. 5 tip, but has a **spray orifice** that makes it possible to **cool the operating field** and prevent heat from being transmitted to the prosthesis and the underlying tooth.

Color Coding System - Newtron Technology  
Identification of power modes by color coding.



# Power settings



## Newtron technology: table-top devices

Tips	P-Max Newtron (Lux)	Prophy Max Newtron (Lux)	P5 Newtron
No. 1	8 to 10	8 to 10	14 to 15
No. 1-S	8 to 10	8 to 10	14 to 15
No. 2	8 to 10	8 to 10	14 to 15
No. 3	8 to 10	8 to 10	14 to 15
No. 5	10	10	20
No. 5AE	10	10	20
No. 10P	8 to 10	8 to 10	14 to 15
No. 10X	6 to 8	6 to 8	12 to 14
No. 10Z	6 to 8	6 to 8	12 to 14
C19	4 to 7	4 to 7	16 to 18
C20	4 to 7	4 to 7	16 to 18
ETBD	5 to 8	5 to 8	6 to 10
ETPR	10	10	20
ET18D	5 to 10	5 to 10	6 to 10
ET20	5 to 10	5 to 10	6 to 10
ET20D	5 to 10	5 to 10	6 to 10
ET25	5 to 10	5 to 10	6 to 10
ET40	5 to 10	5 to 10	6 to 10
ET40D	5 to 10	5 to 10	6 to 10
EX1	1 to 5	1 to 5	11 to 14
EX2	1 to 5	1 to 5	11 to 14
EX3	1 to 5	1 to 5	11 to 14
EXL	1 to 5	1 to 5	11 to 14
EXR	1 to 5	1 to 5	11 to 14

Power modes:



Low



Medium



High



Very high

# Power settings



## Newtron technology: table-top devices

Tips	P-Max Newtron (Lux)		Prophy Max Newtron (Lux)		P5 Newtron	
GI-1	9 to 10		9 to 10		18 to 20	
H1	1 to 5		1 to 5		1 to 2	
H2L (R)	1 to 5		1 to 5		1 to 2	
H3	1 to 5		1 to 5		1 to 2	
H4L (R)	1 to 5		1 to 5		1 to 2	
PH1	1 to 3		1 to 3		1 to 2	
PH2L (R)	1 to 3		1 to 3		1 to 2	
P14D	5 to 8		5 to 8		6 to 8	
P15LD (RD)	5 to 8		5 to 8		6 to 8	
PM1	TP = 8 to 10	PF = N/A	TP = 8 to 10	PF = N/A	TP = 14 to 15	PF = N/A
PM2	TP = 8 to 10	PF = 1 to 2	TP = 8 to 10	PF = 1 to 2	TP = 14 to 15	PF = 11 to 12
PM3	TP = 8 to 10	PF = 1 to 2	TP = 8 to 10	PF = 1 to 2	TP = 14 to 15	PF = 11 to 12
PM4	TP = 8 to 10	PF = N/A	TP = 8 to 10	PF = N/A	TP = 14 to 15	PF = N/A
SO4	7 to 8		7 to 8		7 to 8	
SO7	7 to 8		7 to 8		7 to 8	
S12-70D	5 to 9		5 to 9		6 to 9	
S12-90ND	5 to 9		5 to 9		6 to 9	
S13LD (RD)	5 to 9		5 to 9		6 to 9	
TK1-1S	1 to 5		1 to 5		1 to 2	
TK1-1L	1 to 5		1 to 5		1 to 2	
TK2-1L (R)	1 to 4		1 to 4		1 to 2	
Twiny	8 to 10		8 to 10		14 to 15	
Files	4 to 7		4 to 7		6 to 7	

Power settings scale:

- P-Max Newtron / Prophy Max Newtron: from 1 to 10 in each range.
- P5 Newtron: 1 to 20, covers all ranges.

Former generation tips :

Please see [www.acteongroup.com](http://www.acteongroup.com) for further details or send your enquiry to [satelec@acteongroup.com](mailto:satelec@acteongroup.com).

Perfect'Margin tips:

TP = Tissue preparation.

PF = Prosthetic finishing.

# Power settings



## Suprasson technology: table-top devices

Tips	Suprasson P-Max (Lux)	Prophy Max (S/Lux)	Suprasson P5 Booster
No. 1	5 to 9	5 to 9	7 to 9
No. 1-S	5 to 10	5 to 10	7 to 10
No. 2	5 to 10	5 to 10	7 to 10
No. 3	5 to 8	5 to 8	7 to 8
No. 5	10	10	11 to 14
No. 5AE	10	10	11 to 14
No. 10P	5 to 8	5 to 8	7 to 8
No. 10X	1 to 5	1 to 5	7 to 8
No. 10Z	1 to 4	1 to 4	7 to 8
C19	8 to 10	8 to 10	10 to 12
C20	8 to 10	8 to 10	10 to 12
ETBD	7 to 9	7 to 9	6 to 8
ETPR	10	10	14
ET18D	8 to 10	8 to 10	6 to 10
ET20	8 to 10	8 to 10	6 to 10
ET20D	8 to 10	8 to 10	6 to 10
ET25	8 to 10	8 to 10	6 to 10
ET40	8 to 10	8 to 10	5 to 10
ET40D	8 to 10	8 to 10	5 to 10
EX1	1 to 4	1 to 4	6 to 8
EX2	1 to 4	1 to 4	6 to 8
EX3	1 to 4	1 to 4	6 to 8
EXL	1 to 4	1 to 4	6 to 8
EXR	1 to 4	1 to 4	6 to 8

Power settings / modes:



Scaling button/mode  
(High power)



Perio button/mode  
(Low power)



Endo button/mode  
(Medium power)

# Power settings



## Suprasson technology: table-top devices

Tips	Suprasson P-Max (Lux)		Prophy Max (S/Lux)		Suprasson P5 Booster	
GI-1	8 to 10		8 to 10		10 to 12	
H1	1 to 5		1 to 5		1 to 3	
H2L (R)	1 to 5		1 to 5		1 to 3	
H3	5 to 10		5 to 10		1 to 4	
H4L (R)	5 to 10		5 to 10		1 to 4	
PH1	1 to 3		1 to 3		1 to 3	
PH2L (R)	1 to 3		1 to 3		1 to 3	
P14D	5 to 10		5 to 10		5 to 8	
P15LD (RD)	5 to 10		5 to 10		5 to 8	
PM1	TP = 5 to 9	PF = N/A	TP = 5 to 9	PF = N/A	TP = 7 to 9	PF = N/A
PM2	TP = 5 to 9	PF = 1 to 4	TP = 5 to 9	PF = 1 to 4	TP = 7 to 9	PF = 6 to 7
PM3	TP = 5 to 9	PF = 1 to 4	TP = 5 to 9	PF = 1 to 4	TP = 7 to 9	PF = 6 to 7
PM4	TP = 5 to 9	PF = N/A	TP = 5 to 9	PF = N/A	TP = 7 to 9	PF = N/A
SO4	5 to 10		5 to 10		6 to 8	
SO7	5 to 10		5 to 10		6 to 8	
S12-70D	5 to 10		5 to 10		5 to 9	
S12-90ND	5 to 10		5 to 10		5 to 9	
S13LD (RD)	5 to 10		5 to 10		5 to 9	
TK1-1S	1 to 5		1 to 5		1 to 3	
TK1-1L	1 to 5		1 to 5		1 to 3	
TK2-1L (R)	1 to 5		1 to 5		1 to 3	
Twiny	5 to 10		5 to 10		7 to 10	
Files	1 to 4		1 to 4		4 to 7	

Low

Medium

High

Very high

Perfect\*Margin tips:

TP = Tissue preparation.

PF = Prosthetic finishing.

# Power settings



## Newtron technology: modules / chairs

Tips	SP Newtron
No. 1	7 to 8
No. 1-S	7 to 8
No. 2	7 to 8
No. 3	7 to 8
No. 5	10
No. 5AE	10
No. 10P	7 to 8
No. 10X	6 to 7
No. 10Z	6 to 7
C19	8 to 9
C20	8 to 9
ETBD	3 to 5
ETPR	10
ET18D	3 to 5
ET20	3 to 5
ET20D	3 to 5
ET25	3 to 5
ET40	3 to 5
ET40D	3 to 5
EX1	6 to 7
EX2	6 to 7
EX3	6 to 7
EXL	6 to 7
EXR	6 to 7

Inserts	SP Newtron	
GI-1	9 to 10	
H1	1 to 2	
H2L (R)	1 to 2	
H3	1 to 2	
H4L (R)	1 to 2	
PH1	1 to 2	
PH2L (R)	1 to 2	
P14D	3 to 5	
P15LD (RD)	3 to 5	
PM1	TP = 7 to 8	PF = N/A
PM2	TP = 7 to 8	PF = 6 to 7
PM3	TP = 7 to 8	PF = 6 to 7
PM4	TP = 7 to 8	PF = N/A
SO4	4 to 5	
SO7	4 to 5	
S12-70D	3 to 5	
S12-90ND	3 to 5	
S13LD (RD)	3 to 5	
TK1-1S	1 to 2	
TK1-1L	1 to 2	
TK2-1L (R)	1 to 2	
Twiny	7 to 8	
Files	3 to 4	

Power modes / settings :



Low



Medium



High



Very high

# Power settings

## Suprasson technology: modules/chairs




Tips	SP 3055/B	SP 4055 (Lux)
No. 1	5 to 9	5 to 9
No. 1-S	5 to 10	5 to 10
No. 2	5 to 10	5 to 10
No. 3	5 to 8	5 to 8
No. 5	10	10
No. 5AE	10	10
No. 10P	5 to 8	5 to 8
No. 10X	1 to 5	1 to 5
No. 10Z	1 to 4	1 to 5
C19	9 to 10	8 to 10
C20	9 to 10	8 to 10
ETBD	6 to 8**	7 to 9*
ETPR	10	10
ET18D	8 to 10**	8 to 10*
ET20	8 to 10**	8 to 10*
ET20D	8 to 10**	8 to 10*
ET25	8 to 10**	8 to 10*
ET40	8 to 10**	8 to 10*
ET40D	8 to 10**	8 to 10*
EX1	1 to 4	1 to 4
EX2	1 to 4	1 to 4
EX3	1 to 4	1 to 4
EXL	1 to 4	1 to 4
EXR	1 to 4	1 to 4

Tips	SP 3055/B	SP 4055 (Lux)
GI-1	9 to 10	8 to 10
H1	1 to 3**	1 to 5*
H2L (R)	1 to 3**	1 to 5*
H3	1 to 3**	1 to 5*
H4L (R)	1 to 3**	1 to 5*
PH1	1 to 2**	1 to 3*
PH2L (R)	1 to 2**	1 to 3*
P14D	5 to 8**	5 to 10*
P15LD (RD)	5 to 8**	5 to 10*
PM1	5 to 9	5 to 9
PM2	5 to 9	5 to 9
PM3	5 to 9	5 to 9
PM4	5 to 9	5 to 9
SO4	8 to 10**	5 to 10*
SO7	8 to 10**	5 to 10*
S12-70D	5 to 8**	5 to 10*
S12-90ND	5 to 8**	5 to 10*
S13LD (RD)	5 to 8**	5 to 10*
TK1-1S	1 to 3**	1 to 5*
TK1-1L	1 to 3**	1 to 5*
TK2-1L (R)	1 to 3**	1 to 5*
Twiny	5 to 10	1 to 5
Files	1 to 4**	1 to 4*

### Power settings scale:

- SP Newtron: from 1 to 10 or from 10% to 100% depending on the dental equipment.

 Scaling button/mode  
(High power)

 Perio button/mode  
(Low power)

 Endo button/mode  
(Medium power)

\* Three position button (S/E/P) option for the SP 4055 (Lux) modules.

\*\* Two position button (S/E) option for the SP 3055 (B) modules.



# Bibliography

- (1) Bercy P., Tenenbaum H.,  
*Parodontologie du diagnostic à la pratique.*  
Paris, Bruxelles : De Boeck et Larcier S.A., 1996
- (2) Carr G.B.,  
*Ultrasonic root end preparation.*  
*Dent Clin North Am* 1997, 41 : 541-554
- (3) Da Costa Noble R., Soustre E., Lauverjat Y.,  
*Utilisation des nouveaux inserts ultrasoniques dans la surface radiculaire: étude en MEB.*  
*J Parodontol* 1992, 12 : 41-46
- (4) Drisko C.H., Lewis L.H.,  
*Ultrasonic instruments and antimicrobial agents in supportive periodontal treatment of recurrent or refractory periodontitis.*  
*Periodontology* 2000 1996, 12: 90-115
- (5) Gagnot G., Michel J-F., Darcel J., Cathelineau G.,  
*SEM study of the effect of new ultrasonic inserts on furcation dome.*  
*J Parodontol* 2000, 4: 411-417
- (6) Gagnot G., Prigent H., Darcel J., Michel J-F., Cathelineau G.,  
*Effects of composite ultrasonic tips on implant abutments. Study in vitro.*  
*J Parodontol* 1999, 4: 393-399
- (7) Gagnot G., Poblete M-G.,  
*The proper use of ultrasonic devices: control of vibrations.*  
*Rev Odont Stomat* 2003, 33: 85-95
- (8) Gagnot G., Mora F., Poblete M-G., Vachey E., Michel J-F., Cathelineau G.,  
*Comparative study of manual and ultrasonic instrumentation of cementum surfaces: influence of lateral pressure.*  
*Int J Periodontics Restorative Dent* 2004, 24 (2): 136-145
- (9) Himeno H.,  
*Evaluation of URM treatment in advanced periodontitis: a study on pocket elimination at initial preparation.*  
Hokkaido University, School of Dentistry, Department of Periodontics and Endodontics.  
*J Hokk Dent Assoc* 1994, 49-1: 181-192
- (10) Kumagai T., Ohta H.,  
*Clinical applications of the BDR tips.*  
Hiyoshi Dental Clinic, Sakata, Yamagata District (Japan), 2000.
- (11) Lauverjat Y., Kammacher X., Da Costa Noble R.,  
*Thérapeutique parodontale non-chirurgicale.*  
Encycl Médi Chir Odontologie, 23-445-E-10, 2001
- (12) Nagatani M., Noiri J.,  
*Effective clinical use of the ultrasonic scaler.*  
*J Dent Hygien* 2000, 9 : 26-41
- (13) Obeid P.,  
*Non-surgical therapy of periodontitis : comparison of different methods*  
Université Catholique de Louvain, Fac. Méd., Ecole Méd Dent et Stomatol, 2001
- (14) Piantoni P., Duffort J-F., Marin P., Justumus P-B., Simonet T., Brocard D., Baysse E., Benque E-P.,  
*Un insert ultrasonique de surface pour le débridement parodontal : étude clinique à 6 mois.*  
*J Parodontol* 2002, 1 : 15-22
- (15) Pourcel N., Perez F., Peli J-F.,  
*Action chélatante d'un irrigant endocanalair à base d'EDTA : influence du temps et de la concentration.*  
Université de Bordeaux II, UFR d'Odontologie, 2000
- (16) Salsou B., Diss A., Hitzig C., Bella M.,  
*Effets des aéropolisseurs sur les cols implantaires lisses: étude in vitro.*  
*J Parodontol* 2003, 1 : 33-39
- (17) Tsuchiya K.,  
*Instrumentation comparison: ultrasonic and manual.*  
*J Dent Hygien* 1998, 12: 33-40
- (18) Van Duinen R.N.B., de Gee A.J., Davidson C.L.  
*Advantageous effects of ultra-sound on the setting and mechanical properties of glass-ionomers.*  
ACTA, Department of Dental Materials Science and School of Dentistry, Amsterdam, The Netherlands, 2002
- (19) Walmsey A.D., Walsh T.F., Laird W.R.E., Williams A.R.,  
*Effects of cavitation activity on the root surface of teeth during ultrasonic scaling.*  
*J Clin Periodontol* 1990, 17: 306-312
- (20) Ward J.R., Parashos P., Messer H.H.,  
*Evaluation of an ultrasonic technique to remove fractured rotary nickel titanium endodontic instruments from root canals: clinical cases.*  
*J Endodon* 2003, 29 (11): 764-767
- (21) Wilder R.S., Finkelman R.D.,  
*Clinical significance of non-surgical periodontal therapy: an evidence-based perspective.*  
*J Clin Periodontol* 2002, 29: 2

# Notes



Handwriting practice lines consisting of 20 horizontal dotted lines.

# Notes



Area for handwritten notes, consisting of multiple horizontal dotted lines.



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