Endo Pilot
Non-stop to a perfect Endo

Apex  Motor  DownPack  BackFill
UltraSonic  Battery  Wireless  Pump
EndoPilot    New Benchmarks for Efficiency and Performance

The perfect solution with
EndoMotor, ApexLocator, Ultrasonic, Rinsing and Obturation!

The modular device concept offers different EndoPilot Models. Depending upon requirements, very comfortable, compact device units unfold.

Following modules are available:

for the preparation:
- Apex measuring
- EndoMotor
- Ultrasonic with or without rinsing function

The centrepiece, the EndoPilot—control unit offers a large, easy to read touch display. Working steps, information and settings can be easily retrieved via the menu which can be intuitively handled.

All hand-pieces are clearly arranged and easy to reach in the sophisticated stand-up display.

Updates, for the saving of new files or functions, for example, are provided on a regular basis. The user can update his device effortlessly with the help of update-cards.

The advantages:

- Modular set-up – up to 5 functions in one device
- Safe apex measuring with simultaneous mechanical preparation
- Fully-insulated contra-angle – safe apex measuring and position supervision
- File management with „Box administration“ and „File wear supervision“
- Comfortable touch-display, quick and intuitive handling
- Ultrasonic with instrument selection and rinse-protocol-timer
- Wireless foot switch
- Reciprocal technique
- SAF expansion, self-adjusting-files can be used

Invest in your future while remaining flexible to your changing needs!
Depending upon requirements and desire, a flexible configuration and therewith an optimized adaption to the individual needs is possible. Functions may also be added later.

Please see the different configuration steps on the next pages.
EndoPilot Set „comfort“

Apex measuring and preparation, footswitch with cable and AC adapter

**Control unit:**
- **EndoPilot**, touch-screen, blue
- **Base** with handpiece holder, white
- Med. **AC/DC converter** 90-240V/50Hz
- **footswitch** with cable, blue

**Preparation:**
- **EDP-Motor** ISO-E standard, LED-indicator integrated apex-connection
- **EDP-contra-angle**, 1:1, insulated, ISO-E standard
- **Apex** cord with lip-clip

Upgradeable:
- DownPack
- BackFill Gun
- Ultrasonic „CoPilot“
- Peristaltic-Pump
- SAF-System

EndoPilot Set „mobil“

like "comfort", but with battery and wireless footswitch

**Control unit:**
- **EndoPilot**, touch-screen, blue
- **Mobil base** with handpiece holder and **battery pack**
- Med. **AC/DC converter** 90-240V/50Hz
- **Wireless footswitch**, blue

**Preparation:**
- **EDP-Motor** ISO-E standard, LED-indicator integrated apex-connection
- **EDP-contra-angle**, 1:1, insulated, ISO-E standard
- **Apex** cord with lip-clip
EndoPilot Set „comfort plus“

like "comfort", but with Obturation

Control unit:
EndoPilot, touch-screen, blue
Base with handpiece holder, white
Med. AC/DC converter 90-240V/50Hz
footswitch with cable, blue
Switchbox

Preparation:
EDP-Motor ISO-E standard, LED-indicator
integrated apex-connection
EDP-contra-angle, 1:1, insulated, ISO-E standard
Apex cord with lip-clip

Obturation:
Down-Pack handpiece, with LED-indicator
Heating tip size: fine
Back-Fill Gun
Gutta Percha Bar (100 pcs/box)
Heat Insulator (10 pcs/box)
Needles 3x Ø23 + 3x Ø25 ga (6 pcs/box)
Accessory tools and cleaning set

Upgradeable:
• Ultrasonic „CoPilot“
• Peristaltic-Pump
• SAF-System

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EndoPilot Set „ultra“

Apex measuring and preparation, Ultrasonic, battery-pack, wireless twin-footswitch

**Control unit:**
EndoPilot, touch-screen, blue
Base with handpiece holder, white
Med. AC/DC converter 90-240V/50Hz

**Preparation:**
EDP-Motor ISO-E standard, LED-indicator integrated apex-connection
EDP-contra-angle, 1:1, insulated, ISO-E standard
Apex cord with lip-clip

**Ultrasonic:**
CoPilot-unit with battery-pack
Ultrasonic-handpiece Satelec Newton
Wireless twin-footswitch with handle, blue

Upgradeable:
- DownPack
- BackFill Gun
- Peristaltic-Pump
- SAF-System

EndoPilot Set „ultra plus“

like "ultra", but with Obturation

**Control unit:**
EndoPilot, touch-screen, blue
Base with handpiece holder, white
Med. AC/DC converter 90-240V/50Hz

**Preparation:**
EDP-Motor ISO-E standard, LED-indicator integrated apex-connection
EDP-contra-angle, 1:1, insulated, ISO-E standard
Apex cord with lip-clip

**Ultrasonic:**
CoPilot-unit with battery
Ultrasonic-handpiece Satelec Newton
Wireless twin footswitch with handle, blue

**Obturation:**
Down-Pack handpiece, with LED-indicator
Heating tip size: fine
Back-Fill Gun
Gutta Percha Bar (100 pcs/box)
Heat Insulator (10 pcs/box)
Needles 3x Ø23 + 3x Ø25 ga (6 pcs/box)
Accessory tools and cleaning set

Upgradeable:
- Peristaltic-Pump
- SAF-System
EndoPilot Set „ultra premium“

like "ultra plus", but with additional pump for external rinsing

Control unit:
EndoPilot, touch-screen, blue
Base with handpiece holder, white
Med. AC/DC converter 90-240V/50Hz

Preparation:
EDP-Motor ISO-E standard, LED-indicator
integrated apex-connection
EDP-contra-angle, 1:1, insulated, ISO-E standard
Apex cord with lip-clip

Ultrasonic:
CoPilot-unit with battery
Ultrasonic-handpiece Satelec Newton
Wireless twin footswitch with handle, blue

Obturation:
Down-Pack handpiece, with LED-indicator
Heating tip size: fine
Back-Fill Gun
Gutta Percha Bar (100 pcs/box)
Heat Insulator (10 pcs/box)
Needles 3x Ø23 + 3x Ø25 ga (6 pcs/box)
Accessory tools and cleaning set

Pump:
Peristaltic-Pump
Sterijoint
disposable pump tube set

Upgradeable:
• SAF-System
The ApexLocator is a patented, highly-precise, digital Apex measuring in real-time. It is especially developed for Endodontics to enable apex measuring during the preparation. The precise, electronic length determination works in accordance with the impulse measuring process. Thanks to state-of-the-art micro-processor technology, the exact determination of the preparation length is done with 10-Bit-resolution.

A quick signal analysis provides for the length determination in real-time during the preparation. Consequently, the user has the file position under control at any point of time and thereby work very safely. The signal of the ApexLocator is directly forwarded from the contra-angle, to the file. File contact brackets are obsolete. By the complete insulation of motor and contra-angle, mismeasurements, as they may appear by contact with the mucous membrane, for example, are excluded.

The depth of preparation can be individually adjusted by simple sliding of the marker (cross in the apex display) on the touch display.

In combination with the file clamp, the ApexLocator can of course also be used for the manual length determination, i.e. without motor. The measured value of the manual probing can be stored comfortably via the foot switch and can be used as a reference with the technical preparation.

An additional safety feature is the external voltage control, warning of interfering voltage.
The high-performance, torque- and speed-controlled EndoMotor enables a comfortable, economic and above all, a safe preparation of the root canal. It is light-weight and offers a maximum in tactility.

Coloured LED-lights inform about the rotation direction, the load and the apex position.

The optional twist function prevents the blocking of the file by alternating left and right movements as soon as the pre-selected torque has been reached.

Another, patented function is the torque-reduction upon approaching the apex. It limits the cutting performance of the file in the apical area and provides for a constant transportation of the debris out of the canal.

Even upon reaching the apex, the Endo-Motor does not switch into anticlockwise rotation, but stops briefly and then carefully continues in the clockwise rotation. The "change of rotation direction" often used in competing devices causes the undesired transport of the debris towards the apex.

A freely programmable reciprocal drive can be chosen for every file. Different profiles of movement are storable for every file. In combination with the patented EndoPilot contra-angle, constant control over the current file position is granted - see ApexLocator -.

A change of files is quickly done as no inconvenient file contact brackets are needed.

With the help of the arrows keys visible in the menu, the EndoPilot automatically suggests the next file within the file sequence.
**File Library**

**Pre-programmed database of almost all file systems**

The file database contains almost all common nickel-titanium file systems and provides for a free selection of the desired file system.

All parameters (speed, torque, etc.) of every file are already pre-programmed, but may also be changed individually. Own sequences may be defined independent of the manufacturer (Function „MyFile“).

The EndoPilot offers storage capacity for 1,000 different files along with individual torque and speed values for all important NiTi-systems.

The software is updated on a regular basis. That means, new files and/or functions are made available on a regular basis and can be updated easily by the user via update-cards.

**File Management**

**Automatic recognition of the file-wear**

The patented file management supervises the wear resp. the load of each file and adds them up. All important wear-parameters like torque, speed and duration of the usage are thereby considered and are shown as a wear-parameter. The curving of the canal can also be chosen as wear-parameter.

The limit of the file alarm is individually determined by the dentist for each file. As soon as the pre-set limit is reached, the following warning will appear:

„File alarm – replace file!“

It is of course the decision of the dentist if a file is replaced.

The determined wear-values will be stored after the switching off of the device. The values will be visible again upon using the file again.

In total, up to 8 file boxes with an unlimited number of different files can be administered.
**Favourites**

Customizing the start page

The menu „Favourites“ offers the possibility to store up to 3 „favoured“ file systems on the start page of the mechanical preparation. The special advantage is the quick access to the individually favoured file systems and saves the repeated new selection from the entire file assortment.

All additional file systems are listed in alphabetical order.

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**MyFile-System**

Design of own Sequences via hybrid technique

The function „MyFile“ enables a speedy arrangement of individual, producer independent instrument sequences.

Single files from the pre-programmed file database may be combined at will.

Up to 5 sequences with up to 10 files can be individually designed.

Each file can be liberally forwarded into the MyFile-sequence. In total, 50 storage places are available.

Type of movement, torque and speed values will be automatically taken over from the file library. An individual adjustment of these values is as possible as is the re-set to the factory setting (the recommendation by the file manufacturer).

The naming of the file always appears easy to read in full text on the display.
**DownPack**

An optimal root filling of the prepared and disinfected root canal system is the goal of every endodontic treatment. With the **DownPack**-module, an obturate, three-dimensional filling of the apical third is achieved. With the help of the warm, vertical condensation technique, highly efficient, safe and homogeneous root canal fillings can be obtained.

The light **DownPack**-handpiece guarantees for an optimised handling and the slim form allows for the unobstructed view on the spot of treatment.

The desired heating temperature of the tip can be freely chosen via the display and the heating takes place within seconds!

An integrated LED-display in the handpiece informs about the heating process. The inserting resp. replacement of the heating tip is easy, quick and safe.

The following heating tips are available:

- **Heating tip XF** 040/.04 green  
- **Heating tip F** 050/.04 grey  
- **Heating tip FM** 050/.05 yellow  
- **Heating tip M** 050/.07 red  
- **Heating tip ML** 050/.09 blue
**BackFill**  
**Optimal control of the flow velocity**

Finally, a thermoplastic filling of the middle and coronal third with the BackFill-Pistole is done. The temperature selected via the touch display is reached very quickly by the high-performance steering.

Standard gutta-percha bars are used as filling material. In order to apply the fluidized gutta-percha, needles in 3 different sizes are available!

With the help of the easy to use pistol handle, the rate of flow of the warmed gutta-percha can be steered in an ideal way.

Hence, the filling process is optimally controllable.

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**Gutta-percha bar** (100 pcs/box)

- **Needle 20ga** approx. 0,9mm
- **Needle 23ga** approx. 0,6mm
- **Needle 25ga** approx. 0,5mm
CoPilot

The CoPilot is an additional module and supplements the device concept by the ultrasonic function.

With the perfect supplement, the EndoPilot becomes to an all-in-one unit.

The module expands the EndoPilot by the following functions:

- Ultrasonic-handpiece
- Battery operation
- Additional DownPack-connection
- Wireless Twin-footswitch

The adjustable countdown-timer allows for the use of standardized rinsing-protocols.

The CoPilot module offers a twin wireless foot switch as well as the battery-powered operation.

The setting of the ultrasonic performance, the runtime and the selection of pre-programmed ultrasonic instruments is done easily via the touch display.

The CoPilot set can be combined smoothly with all EndoPilot sets resp. can be upgraded retroactively. A peristaltic pump can be added as an option.

CoPilot Ultrasonic extension

**CoPilot:**

**CoPilot-Unit**

**Ultrasonic handpiece** Satelec, Newton

**Wireless Twin-footswitch** with handle

Power supply **adapter cable** for CoPilot

**Accessories:**

Rinsing adapter

mounting material, M4x12

Socket wrench

Universal instrument tool

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Peristaltic Pump

If working with liquid supply is desired, it is possible to expand the CoPilot by the CoPilot-Peristaltic Pump. The liquid is provided to the „Sterijoint“ at the ultrasonic handpiece via an external hose.

The amount of liquid can be set via the touch display of the EndoPi-lot. When using the foot switch, the pump works either permanently, or, depending upon the setting, only a small portion of liquid at the beginning (Injection Function).

The peristaltic pump can be integrated into the existing stand-up display without the need of additional space. The power supply is provided via the CoPilot module.

CoPilot Pump extension

109 3301 Persitaltic Pump
109 3123 Sterijoint
**Expansion Module „mobil“**

Flexible and independent

The flexible variation possibility to the EndoPilot „comfort“.

The classic EndoPilot „comfort“ (ApexLocator and EndoMotor) becomes a flexible and independent unit with the expansion module „mobil“.

The module „mobil“ contains an especially narrow stand-up display with integrated battery-pack.

The EndoPilot „mobil“ is operated comfortably via a wireless footswitch. The external power supply is only needed for the charging process.

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**Extension „mobil“**

109 2310 "mobil" stand incl. battery ..........
109 2361 Wireless footswitch, single ..........
Expansion SAF–System

SAF–System (SAF = self-adjusting-file):
Cleaning, treatment and rinsing in a single step.

The compressible hollow design of the SAF instrument adapts to the form of the root canal and allows a novel, minimally invasive treatment concept. Depending on the stage of expansion, an extension of the different EndoPilot–device versions with the SAF-System can be done without problem. Please contact us.

The EndoPilot controls both, the SAF-motor and the pump. The instrument-head converts the rotary motion of the motor (5000 rpm) into an oscillating movement. The peristaltic pump supplies the SAF-file continuously rinsing liquid. The application time of the SAF-file should be 4 minutes. This is detected by EndoPilot and displayed on the screen. In addition, an acoustic signal informs about the treatment time in minutes.

With the help of My File function customized files sequence can optimize the workflow of the practitioner.

<table>
<thead>
<tr>
<th>SAF–expansion for „Comfort plus“</th>
<th>SAF–expansion for „Ultra Plus“</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>EndoPilot</strong> <strong>Motor for SAF</strong> with ISO-E connection, LED-indicator, 5000 upm</td>
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<td><strong>SAF-Pump</strong> with <strong>Switch</strong> function</td>
<td><strong>SAF-Pump</strong></td>
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<td>SAF-Motor rest</td>
<td>SAF-Motor rest</td>
</tr>
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<td>109 5103</td>
<td>109 5102</td>
</tr>
<tr>
<td>109 5112 <strong>SAF-head</strong> RD73-NX</td>
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<tr>
<td>109 5111 ISO-E <strong>handpiece</strong> for head</td>
<td>109 5111 ISO-E <strong>handpiece</strong> for head</td>
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**Trolley**

**The EndoCart for the Endopilot**

Pre-set with 3 drill holes for the safe mounting of EndoPilot or CoPilot incl. mounting material.

- 3 levels
- two sockets
- storage space: 40 x 30 cm

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**Trolley with 3 levels**

109 2403 Trolley .................
Consumables

**DownPack:**
- 109 0156  Heating tip XF  040/.04
- 109 0152  Heating tip F  050/.04
- 109 0153  Heating tip FM  050/.05
- 109 0154  Heating tip M  050/.07
- 109 0155  Heating tip ML  050/.09

**BackFill:**
- 109 0142  Gutta-percha  (100 pcs)
- 109 0146  Needle Ø 25ga  (6 pcs)
- 109 0145  Needle Ø 23ga  (6 pcs)
- 109 0144  Needle Ø 20ga  (6 pcs)

**Passive ultrasonic irrigation:**
- 109 4221  File IRRI 20-21  (4 pcs)

**Ultrasonic Retreatment:**
- 109 4241  Instrument ET40

**Pump:**
- 103 2500  Disposable pump type set, steril lead 1.95m

**Accessories:**
- 109 2311  Apex-cable-Set, complet
- 109 2313  Cable with file-clamp
- 109 2314  Lip-clip

*The prices listed are without obligation and are applicable for deliveries ex factory plus the applicable legal Value-Added-Tax. Prices are subject to change without notification; errors, omissions and misprints*