


OPTIMIZED
CLINICAL UTILITY


ENHANCED
USER-FRIENDLINESS


ELECTROSURGICAL
HERITAGE




VIO® 3n Fire
Precise. Reliable. Reproducible.

Expanding electrosurgical
applications

25 million & more reasons to trust our reliability!

Clinical utility: reliable, reproducible, and homogeneous tissue effects

User friendliness: intuitive, logical operation, customized for clinical applications

Updated multilingual stepGUIDE system

provides enhanced user-friendly operation

State-of-the-art microprocessor technology

multi-processors provide measurements on target tissue at more than 25 million per second

Patented generator module

enhances energy output especially with high and varying impedance loads, e.g. saline-enriched electrosurgical circuit

Proprietary Voltage and Spark Control

provide cutting results largely independent of the cutting speed, shape of the electrode, and the tissue type as well as reproducible coagulation with optimally adjusted output

Neutral Electrode Safety System (NESSY®)

provides an enhanced safety profile through dynamic, patient-specific return electrode monitoring of patient impedance levels and return electrode orientation

New and improved modes

more precision with incremental effect settings to fine-tune target tissue effects; introducing endoCUT® U, moveAPD®, and senseAPD®

Software updates and improved service via proprietary ARTUS stick

offers continued access to the latest performance and application enhancements and more efficient service from Erbe

erbe

With 175 years dedicated to advancing medical technology, Erbe has always been driven by a passion for innovation. Electrosurgical inventions and groundbreaking solutions are part of who we are - they're woven into our history and our vision for the future.

We've continually redefined what's possible in clinical practice, transforming the way interventions are performed. Our enduring partnerships are built on this legacy of trust, expertise, and a shared commitment to improving patient outcomes together.

The VIO® 3n stands as the latest evolution in our VIO® portfolio, featuring advanced upgrades that reflect our ongoing pursuit to elevate patient care.

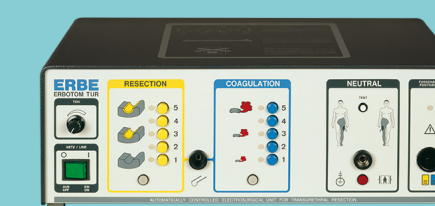
1923: Erbotherm 900 HC



1954: Erbotom-Multiplex



1985: Erbotom TUR



1992: ICC 200 E



2002: VIO® 300 D 1.x



2016: VIO® 3

With its logical and intuitive interface, the VIO® 3n Fire is designed to ensure optimal user-friendliness:

Digital instrument recognition technology automatically configures the system to preprogrammed experienced starting settings and instrument-specific parameters for select instruments, for use in various clinical applications, requiring less setting adjustments or modification.

The multilingual stepGUIDE provides enhanced, user-friendly operation, with a logical and intuitive interface, customized for clinical applications.

The system supports up to 10 program groups and 1500 pre-programmable settings to further customize unique clinical requirements. This is designed to ensure clear structure and optimized workflow.

VIO® 3n Fire

Optimized for various clinical applications

Preprogrammed experienced starting settings

FocusView: active instruments are shown on the display

Compact form factor with touchscreen user interface



Guided system notifies and supports clinical and non-clinical staff during setup and operation.

stepGUIDE with illuminated socket frames for increased user friendliness

Power bar display provides actual power utilized during and at the end of activation

Power display feature provides the maximum power output (P_{MAX}) and average power output (P_{AVG}) at the end of each activation

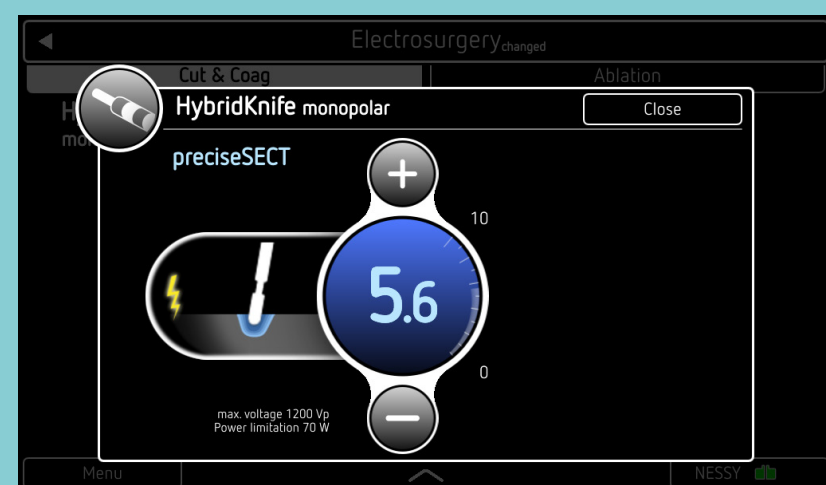
Footswitch design with ReMode® function: Selection of up to 6 sub-programs directly from the procedural field

Erbe patented machine-washable **footswitches** allow manual and automated cleaning and disinfection to meet institutional and global reprocessing requirements.



Erbe control technology

- Proprietary algorithms and state-of-the-art microprocessor technology with measurements on target tissue at more than 25 million per second for reliable, reproducible, and homogeneous tissue effects
- Cutting results largely independent of cutting speed, shape of the electrode, and tissue type as well as reproducible coagulation with optimally adjusted output
- Proprietary technology designed to monitor and even further minimize HF leakage current



More precision with incremental effect settings to fine tune target tissue effects.

Proprietary Voltage and Spark Control

CONSTANT VOLTAGE REGULATION

Constant voltage regulation with power dosing automatically delivers lowest effective adjusted power output in all modes, including both CUT and COAG.

SPARK RECOGNITION

Spark Recognition automatically detects the formation of micro electric sparks for controlled and reproducible cuts, e.g. length and quality, and for applicable COAG modes, to reduce carbonization and adhesion of tissue to the instrument.

Spark Regulation (micro electric sparks) provides reproducible, efficient cuts in tissue with high or extremely low impedance.

INITIAL CONTROL SUPPORT

For even the most challenging electrosurgical circuits

Offers optimal support during the initial cutting or coagulation stage, especially low contact impedance situations, allowing the electrode to start in contact with target tissue without delay:

- Power Peak System™ (PPS and Special PPS)
- Initial Cut Support
- Spark Support

TISSUE EFFECT CONTROL

To further optimize clinical applications for various interventions

autoSTOP™

Ends activation of select waveforms automatically.

softCOAG® with autoSTOP™

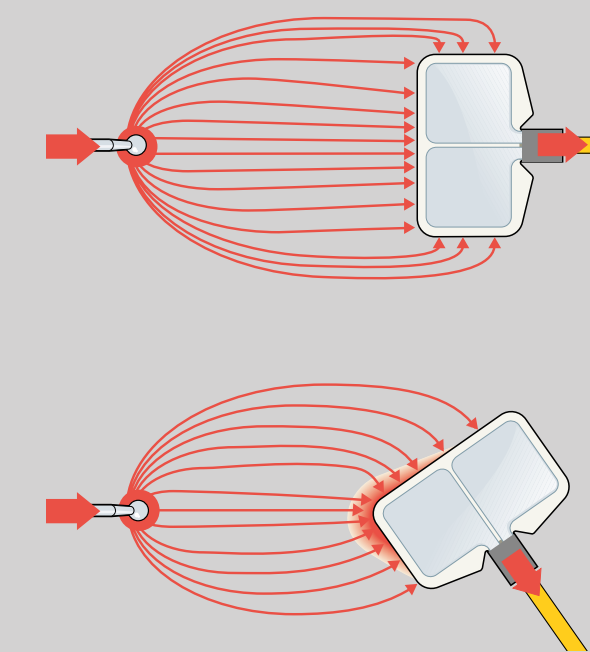
Ends activation automatically when sufficient dessiccation is achieved.

forcedCOAG® with autoSTOP™

Ends activation automatically on detection of a spark.

Neutral Electrode Safety System (NESSY®)

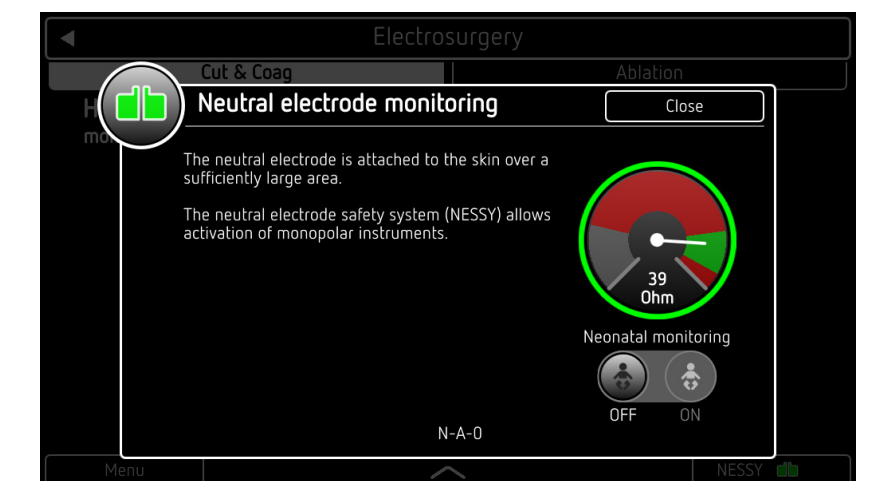
NESSY® provides an enhanced safety profile through dynamic, patient specific neutral electrode monitoring of patient impedance levels and return electrode orientation.



Conventional neutral electrodes must be oriented properly.

When connected to a split neutral electrode, three safety relevant properties are monitored:

- Connection to the VIO® 3n
- Contact of the patient's skin
- Application direction of the neutral electrode (NESSY® symmetry monitoring)



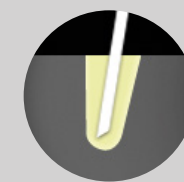
Neonatal monitoring:

Enhanced safety optimized for pediatric applications, especially for neonatal patients. Provides additional temperature related status and prompt messages in critical situations.

New and improved modes

VIO® 3n Fire has proprietary and optimized modes for various applications and clinical specialties, supporting monopolar and bipolar techniques, as well as proprietary hybrid technology.

All modes have benefited from the advanced measuring technology of VIO® 3n Fire supported by enhanced hardware components and configurations.



autoCUT®

Reproducible, smooth cuts, minimal to moderate hemostasis.



highCUT™

Reproducible, smooth cuts, with minimal to moderate hemostasis in particular in poorly conductive and varying tissue.



dryCUT™

Reproducible, slightly slower cut with pronounced hemostasis.



endoCUT® Q

The fractionated cutting mode comprises alternating cutting cycles and coagulation cycles to ensure a reliable and reproducible cut, and desired intensity of coagulation, respectively, e.g., for snares.



endoCUT® I

The fractionated cutting mode comprises alternating cutting cycles and coagulation cycles to ensure a reliable and reproducible cut, and desired intensity of coagulation, respectively, e.g., for sphincterotomes.



endoCUT® U

The fractionated cutting mode comprises alternating cutting cycles and coagulation cycles to ensure a reliable and reproducible cut, and desired intensity of coagulation, respectively. endoCUT® U is optimized for low-impedance environments.



autoCUT® bipolar

Reproducible, smooth cuts, with minimal to moderate hemostasis, e.g., for bipolar laproscopic scissors.



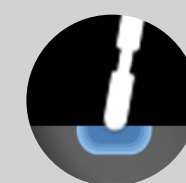
preciseSECT™

Optimized dissection characteristics through dynamic adaptation of modulation.



softCOAG®

Slow, deep coagulation with no spark formation, consequently no tissue carbonization. Adhesion of the electrode to the tissue is greatly reduced, e.g., for use with ball electrode for tissue ablation or with monopolar scissors.



forcedCOAG®

Effective and fast "standard" coagulation with moderate to intense hemostasis.



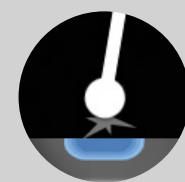
swiftCOAG®

Fast, effective coagulation that is highly suitable for dissection with high hemostasis due to its limited tissue-cutting property.



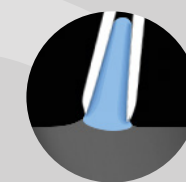
twinCOAG®

Fast, effective coagulation that is highly suitable for dissection with high hemostasis due to its limited tissue-cutting property. Two monopolar instruments can be activated at the same time.



sprayCOAG™

High voltage, non-contact surface coagulation.



softCOAG® bipolar

Slow, deep coagulation with no spark formation, consequently no tissue carbonization.

Adhesion of the electrode to the tissue is greatly reduced, e.g., for use with bipolar coagulation instruments.



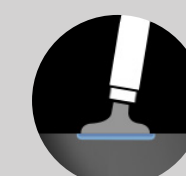
preciseAPC®

Used for coagulation and ablation, largely independent of the distance between the probe and tissue, particularly in the low energy range and for thermosensitive areas, thin-walled structures, to facilitate coagulation with minimal thermal spread.



moveAPD®

Widespread and even argon plasma coagulation, tissue effect generally independent from the distance between applicator and tissue.



senseAPD®

Accurately delivered argon plasma for superficial coagulation and tissue devitalization, generally independent from the distance between applicator and tissue.



pulsedAPC®

Controlled argon plasma coagulation with reduced energy input from pulses.

pulsedAPC® slow setting (short individual pulses) – more focused (less diffuse) ionized plasma for static applications in the treatment of smaller, more superficial areas, as well as thermosensitive and/or thin-walled structures.

pulsedAPC® fast setting (higher frequency of pulses) – for treatment of diffuse, superficial anatomy and for the ablation and volume reduction of target tissue using static applications for a longer period of time.



forcedAPC™

Effective, fast, “standard” argon plasma coagulation with ignition assistance for reliable and reproducible plasma ignition in the ever-changing environment of resistance variables.

APC®

Core Competencies: Leveraging our 100+ years of experience and knowledge in Electrosurgery

The most efficient Erbe ESU in this power class in terms of reduced power consumption in both standby and active states, potentially lowering the operational cost.

PRECISE. RELIABLE. REPRODUCIBLE.

- ✔ State-of-the-art microprocessor technology
- ✔ Patented generator module
- ✔ Proprietary Voltage and Spark Control
- ✔ New and improved modes
- ✔ User-friendly multilingual stepGUIDE
- ✔ Illuminated socket frames for increased user friendliness
- ✔ Neutral Electrode Safety System (NESSY®)
- ✔ Software updates and improved service via ARTUS stick

Technical specifications

Power connection	
Rated supply voltage	100 V - 240 V AC ± 10%
Rated supply frequency	50 Hz/60 Hz
Line current (averaged)	100 - 120 V AC: 4.9 A 220 - 240 V AC: 2.1 A
Power input in standby mode	100 - 120 V AC: < 19 W 220 - 240 V AC: < 19 W
Power input with max. HF output	100 - 120 V AC: < 455 W 220 - 240 V AC: < 455 W
Terminal for grounding (potential equalization)	Yes
Power fuses	F 6.3 A H / 250 V AC

Operating mode	
Discontinuous operation	Duty cycle 10 s ON / 30 s OFF

Programs	
Number of programs	1500 max.

Dimensions and weight	
Width × height × depth	410 × 165 × 381 mm (16.1" x 6.5" x 15.0")
Weight	8 kg (17.6 lbs)
Display size	10.1 inch

Ambient conditions for transport and storage	
Temperature	-29°C to +60°C
Relative humidity	15 - 85%

Ambient conditions for operation	
Temperature	+10°C to +40°C
Relative humidity	15 - 85%, non-condensing
Air pressure	54 - 106 kPa
Maximum operating altitude	5000 m above sea level

Standards	
Classification according to Regulation (EU) 2017/745	II b
Protection class as per EN 60 601-1	I
Type as per EN 60 601-1	Defibrillation-proof type CF applied part
IP code	IP2X

VIO® 3n Fire is compatible with various modules, systems, and Erbe carts, e.g., SystemCarrier performance, and SystemCarrier compact plus.

