

ELECTROSURGERY

VIO® 200 D



THE ELECTROSURGICAL UNIT FOR MEDICAL SPECIALTIES –
MODULAR WITH INDIVIDUAL CONFIGURATIONS.



VIO®
200 D

ERBE

Perfection for Life

CUSTOM-MADE TECHNOLOGY IN ELECTROSURGERY. PERFECTED INDIVIDUAL SOLUTIONS FOR DIFFERENT INDICATIONS IN MANY MEDICAL SPECIALTIES.

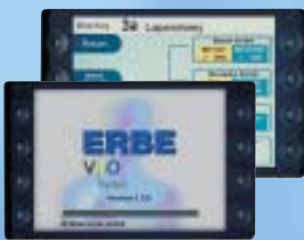


With the newly developed VIO electrosurgical system ERBE has set an innovative standard for the optimal support of applications in almost all medical specialties. Now available for many more indications.

We have designed the VIO 200 D to provide solutions for specific medical indications in the medical fields gastroenterology, ENT, and bronchoscopy, and for use in operative outpatient procedures. It complements the VIO 300 D which opened up new fields in high performance surgery.



In order to handle the requirements of different medical specialties, both the hardware and the software of the VIO 200 D were given a modular design. The VIO 200 D can be continually adapted, for example with exchangeable sockets, different languages for different countries, updates and specific upgrades for special indications. And it can be extended by adding system modules. The VIO 200 D can be utilized as a stand-alone unit or as a master unit within an electrosurgical system which can include modules such as an argon plasma coagulator (APC 2), a smoke plume evacuation system (IES 2) or additional components. Networked and interactive.



The improved and newly developed electrosurgical modes permit the operating physician to generate the required cutting, coagulation or devitalization effects for almost every application. Using new, adjustable electrosurgical technology, the power output can be adjusted, in typical ERBE fashion, so that only as much power is used as is necessary.

Despite its exceptional power and performance the VIO 200 D is easy to use, user-friendly and safe. Individually configured for your specific needs at the operating table.



Hardware and software – precisely tailored to your needs

- ✦ All currently available electro-surgical regulative technologies in a single unit – with automatic output dosage
- ✦ New and improved CUT and COAG functions
- ✦ Can be individually configured to meet the requirements of specific medical specialties, indications and procedures
- ✦ Large choice of socket modules and functions
- ✦ Upgrades for specific medical specialties continually possible
- ✦ Simple, interactive and safe operation via TFT display
- ✦ Individually programmable programs in simple text: switch on the unit and start work
- ✦ ReMode function: “remote control” using the handle or foot switch “straight from the sterile field”
- ✦ VIO 200 D – the master unit for additional modules of the VIO electro-surgical system, for example the APC 2



Variable configuration with socket modules

You decide which sockets you will need: ERBE standard sockets, international 3-PIN sockets, 4 mm sockets for endoscopy procedures, two bipolar or two monopolar sockets ... everything is possible



Precise power output adjusted to the specific indication

The master generator module VIO 200 D is user-friendly and provides the right amount of power at the right time. Modern regulative technologies optimally adjust the power for new and improved electro-surgical functions

VIO CART: the ergonomic systems cart for the VIO 200 D and additional system components. The VIO 200 D can also be used as a stand-alone unit mounted on a ceiling support.

STATE-OF-THE-ART PRECISION CUTTING.



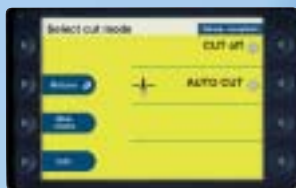
CUT

You do the cutting – the **VIO 200 D** will automatically adjust the power output. Intelligent microprocessor technology will deliver the required minimal power.

The advantages of **automatic power dosage**: efficient operation with optimal results and the highest degree of safety; the ERBE Power Peak System takes specific features during the initial cutting stage into account and provides automatic support; improved cutting effects and reduced thermal damage to tissue with minimal stress for the patient. You can individually choose the most effective treatment from a unique range of tried-and-tested or new electro-surgical modes for every medical specialty or indication.

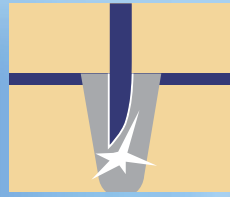
Power output regulation based on voltage regulation

The **ERBE voltage regulation** adjusts and maintains the pre-set voltage during the entire cutting process and automatically regulates the power output – creating reproducible cutting results largely independent of the cutting speed, type of electrode or tissue.



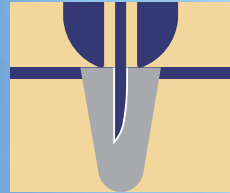
For the perfect cut

- ✦ ERBE voltage regulation for reproducible cuts with adjusted power output
- ✦ Wide range of applications for many different medical specialties
- ✦ Cutting results largely independent of the cutting speed, electrode shape or tissue type
- ✦ Newly developed electrosurgical monopolar and bipolar CUT effects
- ✦ Power Peak System for an optimal initial cutting stage



AUTO CUT

Automatically regulates the cutting quality according to the current requirements through regulation of the voltage. VIO adapts itself to the working mode of the operating physician. Minimal necrosis and reproducible cutting quality – largely independent of the electrode, the cutting process and the target tissue.

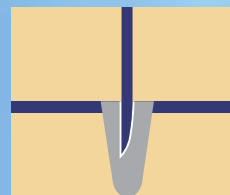


BIPOLAR CUT

Bipolar cutting with all the advantages provided by a voltage regulation in eight pre-determined cutting qualities. Cutting current is only present at the distal tip of the applicator. This means more safety and ensures precise cuts.

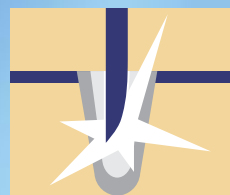
Up-to-date in your field with upgrades

With the maximum variability and the modular concept of the VIO 200 D you will be able to update your system at any time with newly developed or future ERBE functional components for medical specialties, indications and new operative procedures.



PRECISE UPGRADE (CUT COAG)

The most minute modifications with the highest degree of safety. For the precise adjustment of power and effects in microsurgery.



DRY CUT UPGRADE

The combination of voltage regulation and modulated waveforms produces an electrosurgical cut with unique hemostasis qualities and minimal smoke plume. Ideal for operative procedures requiring a good initial hemostasis.

ALL REGULATED AUTOMATICALLY. FOR EXACT COAGULATION AND DEVITALIZATION.



COAG

The VIO 200 D offers you a new range of coagulation effects – for all specialties and their procedures. From microsurgical coagulations to Argon Plasma coagulation (optional).



Voltage and power output regulation in a single system – for even better coagulation

The **ERBE voltage regulation** will constantly maintain the pre-set voltage during the entire coagulation process. This ensures that the system will deliver the precise amount of power required. Even under widely different conditions it will be possible to create a reproducible and optimal coagulation effect at all times. With a precisely limited and minimal power output – adapted to individual requirements. If the procedure requires contact coagulation with minimal carbonization, quick coagulation and as little sticking of the electrode as possible, then ERBE Soft Coagulation is the method of choice. The new **ERBE power regulation** will maintain a constant pre-set power output level over a longer period, creating an effective, previously unknown soft coagulation.



For perfect coagulation

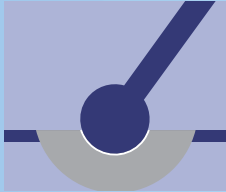


- ✦ Voltage regulation for reproducible coagulation with optimal power output
- ✦ SWIFT COAG – the coagulation with voltage regulation for dissection and pronounced hemostasis with minimal smoke plume
- ✦ Power regulation for rapid, non-sticking coagulation with minimal carbonization
- ✦ Newly developed electro-surgical COAG effects
- ✦ Monopolar and bipolar coagulation for all requirements
- ✦ AUTO-START and AUTO-STOP functions
- ✦ Subtle adjustment of effects



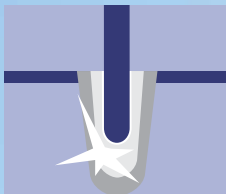
Argon Plasma Coagulation (optional)

Non-contact procedure with limited penetration depth. Even, homogenous coagulation of bleeding, effective devitalization of tissue anomalies. Low perforation risk.



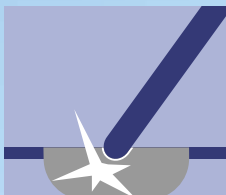
SOFT COAG

The new, rapid soft coagulation with regulated power output. Coagulation without carbonization and minimal sticking of the electrode. Provides in-depth coagulation with minimal tissue damage.



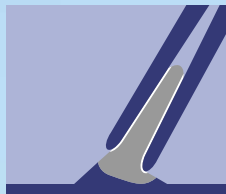
SWIFT COAG

Coagulation – also suitable for dissection. With this mode it is possible to carry out effective and rapid coagulation or dissection with pronounced hemostasis; minimal smoke plume due to voltage regulation.



FORCED COAG

Rapid and effective operative procedure which meets all the requirements of a standard coagulation. Can be carried out either directly with a coagulation electrode or indirectly using, for example, insulated surgical forceps.



BIPOLAR SOFT COAG

Bipolar coagulation. The low voltages prevent the instruments from sticking and distinctly reduce tissue carbonization. Effective, can be subtly adjusted with 8 effects.



BIPOLAR FORCED COAG

A quicker form of bipolar coagulation – compared to SOFT COAG. Suitable for all bipolar coagulations where vessels must be coagulated quickly and effectively.

INNOVATIVE USER INTERFACE AND SAFETY CONCEPT. VERSATILE AND COMFORTABLE.



With the **FocusView** function the new ERBE VIO 200 D offers a new type of user interface: you will only see the parameter settings you currently need.



Unique: The new PreView function

When adjusting the parameters you will be able to see by the alterations of the CUT/COAG symbols on the display how the setting will approximately affect the tissue during the application. This means that you can operate safely while minimizing the stress for the patient.

ReMode

With the modern ReMode activation concept ERBE has developed a “remote control” making the system even more user-friendly. Using the VIO foot switch the operating physician can alternate between pre-set instrument settings – without requiring an additional user to reset the parameters at the display.

Continually improved: the Neutral Electrode Safety System NESSY

With the NESSY safety concept and the new ERBE patient plate NESSY Ω the VIO system sets new standards for patient safety in monopolar electrosurgery.



NESSY monitors the application of the neutral electrode and provides the user with information which is graphically displayed on the monitor.



With its innovative shape the **NESSY Ω patient plate** can be applied irrespective of direction. The troublesome “leading edge” effect, the development of high current densities at the electrode edges, is practically excluded.

WELL DESIGNED ACTIVATION CONCEPT WITH REMOTE ACTIVATION. FROM THE OPERATING TABLE – JUST WHAT YOU ALWAYS WANTED.

The advantages at a glance

- ✦ Simple operation despite wide choice of functions
- ✦ **FocusView** reduces the information shown to the essentials, showing only the parameters of the instruments currently plugged into the unit
- ✦ **PreView** function shows you the expected target tissue effect on the display even prior to activation
- ✦ Display-supported neutral electrode safety system **NESSY** provides interactive assistance when positioning the patient plate
- ✦ Assignment of the foot switch: the display makes it possible to assign the foot switches or even just one foot switch pedal to the output socket of choice – simply and flexibly
- ✦ **VIO** supports the automatic activation functions **AUTO-START** and **AUTO-STOP**



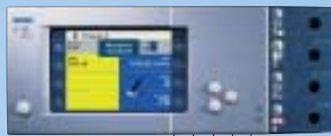
The new ergonomic **VIO** foot switch with a third button for the **ReMode** function.

INDIVIDUAL CONFIGURATION ACCORDING TO YOUR REQUIREMENTS



The ERBE VIO 200 D – open to future developments with modular hardware and software. We configure the system according to your requirements – which can range from the basic „stand-alone“ electrosurgical generator to the full electrosurgical system. This diagram offers you a first overview of the range of possible options for configuration. Our experts are on hand to offer professional advice. We would like to help you make the right choice.

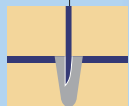
VIO 200 D



APC 2



Upgrade



PRECISE UPGRADE
CUT/COAG
Nr. 29140-202



DRY CUT UPGRADE
Nr. 29140-213

Systemsoftware: language



Nr. 20193-082

Block 1 Germanic (V_010300_260903_SB1.mot):
6 → English + German + Dutch + Swedish + Danish + Greek

Block 2 Romanic (V_010300_260903_SB2.mot):
6 → English + German + French + Italian + Spanish + Portuguese

Block 3 Asia (V_010300_260903_SB3.mot):
6 → English + German + Russian + Polish + Chinese

Block 4 Finno-Ugric (V_010300_260903_SB4.mot):
6 → English + German + Finnish + Hungarian

TECHNICAL DATA AT A GLANCE.



Power output

Maximum CUT output	200 Watt for 500 Ohm
Maximum COAG output	Up to 120 Watts
Safety system	NESSY
Frequency	350 kHz

Mains connection

Supply voltage	110 V – 120 V / 220 V – 240 V +/- 10%
Frequency	50/60 Hz
Mains current	Max. 8 A/4 A
Power input during stand-by	40 Watts
Power input during max. electrosurgical output	500 Watts/920 VA
Potential equilization connection	Yes
Fuse	T 8 A/T 4 A

Dimensions and weight

Width x Height x Depth	410 x 1600 x 370 mm
Weight	9.5 kg

Ambient temperature for the transport and storage of the unit

Temperature	-40 °C to +70 °C
Relative humidity	10% – 95%

Ambient temperature during operation of the unit

Temperature	+10 °C to +40 °C
Relative Humidity	15% – 80%

Standards

Classification acc. to the EC-Directive 93/42/EEC	II b
Protective class acc. to EN 60 601-1	I
Type acc. to EN 60601-1	CF

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CRYO SURGERY
OPHTHALMIC SURGERY
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