ReinnoVet

EP-300

Intelligent Electrosurgical Generator with Vessel Sealing System

Practical Energy Control for Routine Veterinary Surgery



Power Input

AC 220 V, 50 Hz

Weight Of Generator

3 kg

Diameter Of Sealing Vessels

⩽7mm

Peak Power

200W

Dimensions

370 × 400 × 180 mm

Electrode Type

Compatible with multiple brands

Core Energy for Routine Veterinary Surgery

EP-300 is a practical veterinary electrosurgical energy platform integrating monopolar cutting and coagulation, bipolar energy, intelligent large-vessel sealing, and return electrode monitoring.

With a simplified single-monopolar-port configuration and complete core surgical functions, EP-300 is designed for routine veterinary procedures, providing an effective balance of functionality, ease of use, and cost efficiency.

EP-300

Standard Practical Model



- Simplified single-monopolar-port configuration
- Complete monopolar, bipolar & vessel-sealing functions
- Designed for routine veterinary surgery

EP-300 Core Capabilities

Monopolar Mode 01

Supports Pure Cut, Blend Cut 1/2/3, Intelligent Cut, and multiple coagulation functions.

Bipolar Mode 02

Supports Standard Mode and Intelligent Mode for flexible bipolar cutting and coagulation applications.

Intelligent Large-Vessel Sealing 03

Automatically recognizes tissue status and detects impedance changes 450,000 times per second.

Tissue-Adaptive Algorithm 04

Real-time impedance detection and energy adjustment 100 times per second to minimize thermal damage.

Return Electrode Monitoring System 05

Real-time monitoring of return electrode contact quality to help prevent electric burns.

Interactive Touchscreen 06

High-resolution interactive interface for intuitive operation and improved surgical efficiency.

System Components

Component	Quantity	Description
EP-300 Main Unit	1	Integrated touchscreen and operating interface
Electrosurgical Pencil	1	For monopolar cutting and coagulation
Bipolar Forceps	1	Stainless-steel bipolar forceps
Large-Vessel Sealing Instrument	1	For sealing vessels and tissue bundles up to 7 mm
Three-Button Footswitch	1	Controls monopolar, bipolar, and vessel sealing activation
Electrosurgical Snare	Optional	Optional configuration according to clinical requirements

Actual configurations may vary depending on the market and order requirements.



Main Unit

The main unit delivers high-frequency electrical energy for tissue cutting and coagulation. Its intelligent energy-control system dynamically adjusts energy delivery according to tissue impedance, while the return electrode monitoring system helps improve safety during monopolar electrosurgery.



Monopolar Electrosurgical Pencil

The monopolar electrosurgical pencil supports five cutting modes and three coagulation functions. Different electrode configurations can be selected according to surgical requirements.



Bipolar Coagulation Forceps

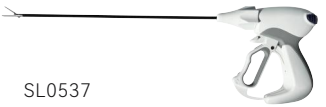
The bipolar coagulation forceps can be used in Standard Mode and Intelligent Mode for precise bipolar coagulation. Tissue cutting is available when the generator is used with compatible bipolar cutting instruments.

Large-Vessel Sealing and Cutting Instrument

The large-vessel sealing and cutting instrument is suitable for vessel sealing procedures.



SL1220



SL0537



SL5300S



Three-Button Footswitch

The three-button footswitch provides two operating modes for convenient control of electrosurgical and vessel-sealing functions.

Electrosurgical Mode

- Yellow Pedal Monopolar Cut
- White Pedal Bipolar
- Blue Pedal Monopolar Coag

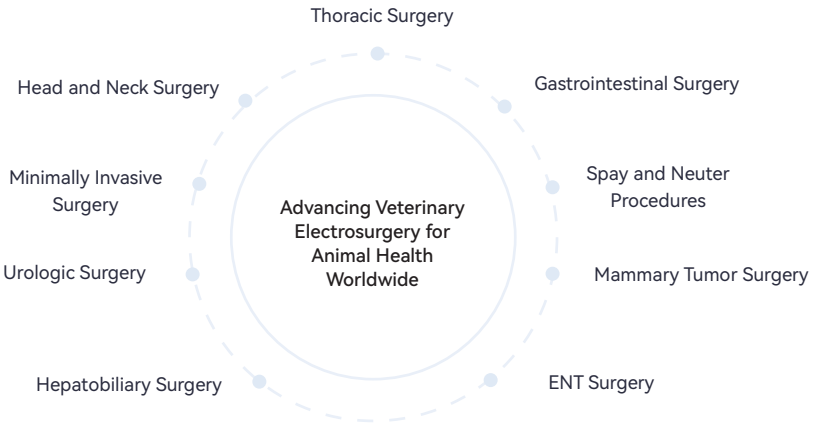
Vessel Sealing Mode

- Yellow Pedal Monopolar Cut
- White Pedal Large-Vessel Sealing
- Blue Pedal Monopolar Coag

Front Panel Functions



Applicable Procedures



Key Technical Highlights

01 Intelligent Energy Management System

The intelligent energy-management and tissue-adaptive algorithms enable automatic adjustment of electrosurgical cutting and large-vessel sealing energy output according to tissue characteristics.

In adaptive intelligent modes, manual parameter adjustment is minimized, helping simplify operation, reduce dependence on operating experience, and improve procedural consistency.

02 Efficient Bipolar Mode

The bipolar interface supports both Standard Mode and Intelligent Mode to meet different surgical requirements.

1. **Standard Mode** is compatible with most bipolar instruments and provides stable energy output.
2. **Intelligent Mode** automatically adjusts voltage and power to provide dynamic and precise energy control for cutting and coagulation.

03 Optimized Large-Vessel Sealing Interface

The platform is fully compatible with the large-vessel sealing system. Through intelligent algorithms, it delivers accurate energy output and algorithm-based energy delivery control for vessels and tissue bundles, enabling fast and durable tissue sealing while reducing sealing time and damage to adjacent tissue. This supports faster postoperative recovery and less discomfort for animals.

04 Integrated Core Surgical Functions

EP-300 integrates monopolar, bipolar, and intelligent large-vessel sealing functions into one compact platform, supporting the major energy requirements of routine veterinary soft-tissue surgery.

05 Safe Return Electrode Monitoring System

The return electrode monitoring system continuously monitors contact quality between the return electrode pad and the animal, helping prevent current concentration caused by poor contact and reducing the risk of accidental burns.

Intelligent Electrosurgical Cutting

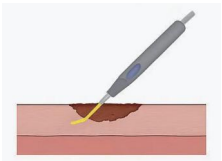
No manual parameter setting required — intelligent operation with one-touch control

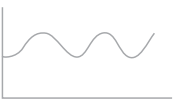
The Intelligent Electrosurgical Energy Platform is equipped with a dedicated tissue-adaptive algorithm to ensure efficient and precise tissue cutting.

This mode automatically identifies tissue status and adjusts output parameters in real time, optimizing both cutting speed and low thermal damage in electrosurgical cutting mode.

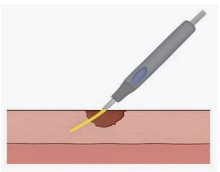


Traditional Cutting





Intelligent Cutting



Monopolar Mode

Five Cutting Modes

01 Pure Cut

For rapid full-thickness resection and precise excision of lesion tissue. The coagulation effect in Pure Cut mode is relatively weak.

02 Blend Cut 1

For relatively fast cutting and coagulation of lesion tissue with minimal bleeding.
Outputs a cutting waveform with a 70% duty cycle.

03 Blend Cut 2

For medium-speed cutting and coagulation of lesion tissue with moderate bleeding.
Outputs a cutting waveform with a 50% duty cycle.

04 Blend Cut 3

For slow cutting and coagulation of lesion tissue with heavier bleeding.
Outputs a cutting waveform with a 30% duty cycle.

05 Intelligent Cut

Automatically identifies tissue status and adjusts output parameters in real time, enabling efficient and precise cutting while minimizing thermal impact on surrounding tissue.

Three Coagulation Functions

01 Soft Coagulation

Heats tissue at a slower rate with increased thermal penetration depth. Suitable for deep tissue coagulation requiring high coagulation stability. A ball electrode is commonly used.

02 Spot Coagulation

The electrode generates sparks that pass through the air to coagulate tissue, enabling precise coagulation of a small targeted area.

03 Surface Coagulation

The electrode spark spreads over a wider area, coagulating a larger tissue surface. Suitable for broad-area tissue coagulation.

Bipolar Mode

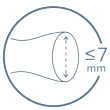
Standard Mode

Suitable for most bipolar instruments, including bipolar scissors and bipolar forceps. It enables precise coagulation, and tissue division when used with compatible bipolar cutting instruments, with generally lower lateral thermal spread than monopolar instruments.

Intelligent Mode

Compared with Standard Bipolar Mode, Intelligent Mode uses an intelligent algorithm to provide more stable and precise energy output. It can be used for precise cutting or coagulation.

Intelligent Large-Vessel Sealing Mode



Suitable for sealing veins, lymphatic vessels, and tissue bundles up to 7 mm in diameter

Through an intelligent algorithm, the system provides dynamic and accurate energy output and algorithm-based energy delivery control for large-vessel sealing. This allows the tissue to achieve reliable vessel sealing within a preset time, completing the fusion of tissue and the vessel lumen.



Reduces vessel sealing time by 50%

With precise algorithm-based energy delivery management, EP-300, when used together with the large-vessel sealing instrument, can reduce vessel sealing time by 50% while minimizing adhesion, eschar formation, and thermal spread in adjacent tissue.

Return Electrode Monitoring System



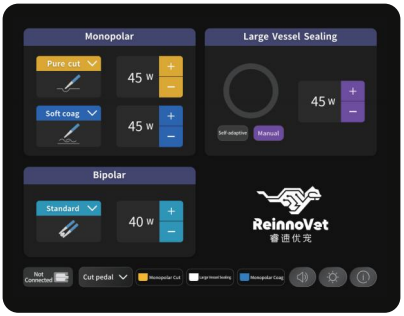
Real-time monitoring to reduce surgical risks

The built-in advanced monitoring system continuously ensures safe contact of the return electrode pad. In the event of accidental detachment or poor contact, the system automatically stops working, reducing the risk of accidental burns during surgery.

Interactive Touchscreen

High-resolution interactive touchscreen with a clean, intuitive interface and convenient operation

Quick settings and real-time monitoring help improve surgical efficiency, making it easy to manage surgical modes and energy output.

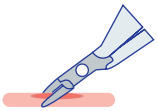


Intelligent Dual-Mode Energy Output Mechanism

EP-300 Intelligent Electrosurgical Generator with Vessel Sealing System supports both Manual Power Setting Mode and Adaptive Intelligent Mode, adapting to different surgical complexities and surgeon operating habits.

Manual Mode

In conventional manual mode, the surgeon sets a fixed power level based on experience. This allows convenient operation, but has limited responsiveness to tissue differences and may increase the risk of excessive thermal injury, eschar formation, or sealing failure.

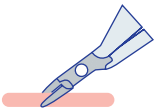


Constant Power Output

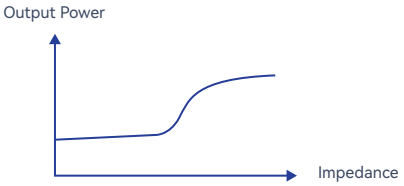


Automatic Mode

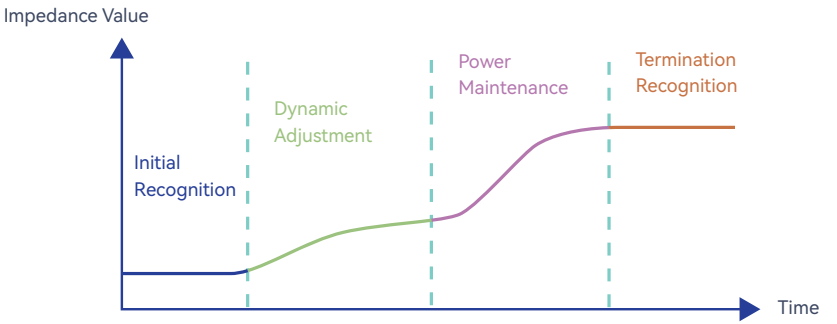
In adaptive intelligent mode, the system continuously monitors changes in tissue impedance, automatically identifies tissue type and sealing status, and adjusts energy output in real time. This enables closed-loop control, significantly improving sealing performance and intraoperative safety.



Dynamic Energy Output Adjustment



Intelligent Sealing Process Diagram

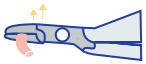


Initial Recognition



Detects tissue status and ensures that the impedance is suitable before initiating sealing.

Dynamic Sealing



Energy is adjusted in real time, with output controlled through dynamic impedance feedback.

High-Impedance Termination



When the preset impedance value is reached, energy output automatically stops, indicating successful sealing.