ReinnoVet

EP-200

Intelligent Electrosurgical Generator with Vessel Sealing System

Advanced Energy Control for Complex Veterinary Surgery



Power Input

AC 220 V, 50 Hz

Weight Of Generator

5 kg

Diameter Of Sealing Vessels

⩽7mm

Peak Power

200W

Dimensions

442 × 418 × 170 mm

Electrode Type

Compatible with multiple brands

Built for Diverse and High-Volume Veterinary Surgery

EP-200 is an advanced veterinary electrosurgical energy platform integrating monopolar cutting and coagulation, bipolar energy, intelligent large-vessel sealing, and return electrode monitoring.

Its dual monopolar ports and complete instrument configuration support diverse procedures, frequent instrument switching, and high-volume surgical workflows.

EP-200

Advanced Expansion Model



- Dual monopolar ports
- More complete expansion capability
- Suitable for complex procedures and high-frequency surgical scenarios

EP-200 Core Capabilities

Monopolar Mode 01

Supports pure cut, blend cut 1/2/3, coagulation, and other monopolar functions.

Bipolar Mode 02

Standard mode + MACRO enhanced mode, compatible with various bipolar instruments.

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-200 Generator	1	Integrated touchscreen and operating interface
Electrosurgical Pencil	2	For monopolar cutting and coagulation
Bipolar Forceps	1	Anti-adhesion silver-nickel alloy
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 energy through the electrode to enable tissue cutting and coagulation, while the return electrode monitoring system helps reduce the risk of burns.
The intelligent algorithm dynamically adjusts energy delivery based on tissue impedance, supporting fast and reliable vessel sealing while reducing thermal impact on surrounding tissue.



Monopolar Electrosurgical Pencil

The monopolar electrosurgical pencil is used for five cutting functions and three coagulation functions in monopolar mode. Different electrode types, including blade, needle, ball, and loop electrodes, can be selected according to surgical needs.



Bipolar Coagulation Forceps

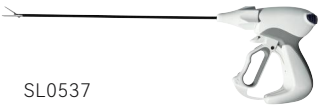
The bipolar coagulation forceps can be used in Standard Mode and Intelligent Mode for precise bipolar coagulation. Tissue cutting is available only when the generator is used with compatible bipolar cutting instruments.

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 1 Cut
- White Pedal Bipolar
- Blue Pedal Monopolar 1 Coag

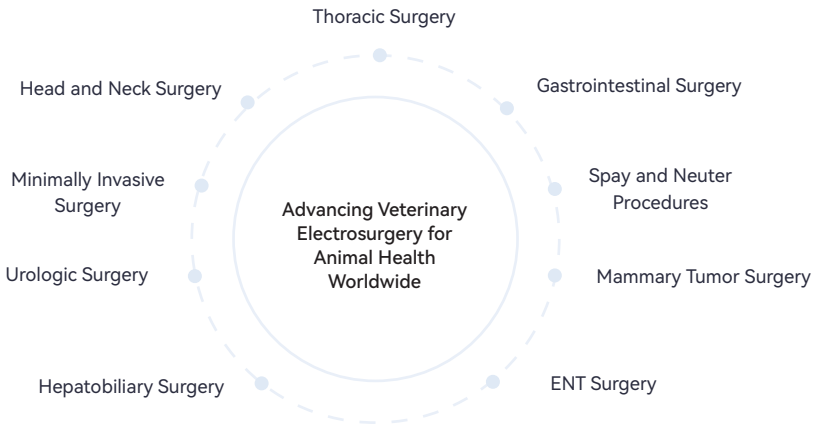
Vessel Sealing Mode

- Yellow Pedal Monopolar 2 Cut
- White Pedal Large-Vessel Sealing
- Blue Pedal Monopolar 2 Coag

Front Panel Functions



Applicable Procedures



Key Technical Highlights

01 Intelligent Energy Management System

The R&D team has independently developed an intelligent algorithm and tissue-adaptive algorithm, enabling automatic adjustment of electrosurgical cutting and large-vessel sealing energy output according to tissue characteristics.

In adaptive intelligent modes, manual parameter setting is minimized, helping reduce workload, lower dependence on operating experience, and improve procedural consistency.

02 Efficient Bipolar Mode

The bipolar interface supports both Standard Mode and Intelligent Mode to flexibly meet different surgical needs:

1. **Standard Mode** is compatible with most bipolar instruments and provides stable energy output.
2. **MACRO Mode** automatically adjusts voltage and power to achieve rapid cutting and coagulation, shortening procedure time and improving surgical efficiency.

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 Multifunctional Integration and Expandability

The platform supports connection with multiple surgical instruments, providing long-term investment value for hospitals and operating rooms.

In the future, the ReinnoVet Intelligent Energy Platform can be further expanded to support ultrasonic scalpel, Rebirth Knife, ultrasonic bone knife, and other electrosurgical functions, along with additional upgrades and services.

05 Safe Return Electrode Monitoring System

The platform is equipped with a return electrode monitoring system that continuously monitors the contact quality between the return electrode pad and the animal, helping prevent current concentration caused by poor contact. This reduces the risk of tissue burns at the return electrode site and improves surgical safety.

Intelligent Electrosurgical Cutting

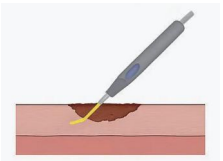
No manual parameter setting required — intelligent operation with one-touch control

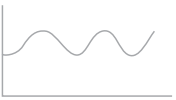
The Intelligent Electrosurgical Energy Platform is equipped with a dedicated tissue-adaptive algorithm to ensure efficient and precise tissue cutting.

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.

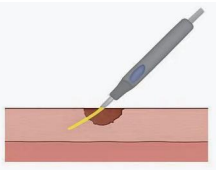


Traditional Cutting





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

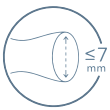
Standard Mode

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 output power control. 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, the ReinnoVet Intelligent Electrosurgical Energy Platform, 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



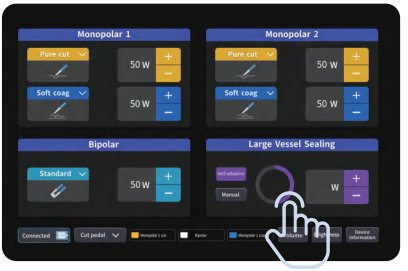
Real-time monitoring to reduce surgical risks

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.

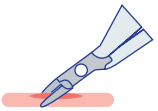


Intelligent Dual-Mode Energy Output Mechanism

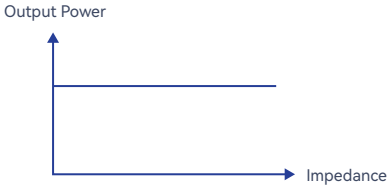
EP-200 Intelligent Electrosurgical Generator with Vessel Sealing System supports both **Manual Power Setting Mode and Adaptive Intelligent Mode,** adapting to different surgical complexities and surgeon operating habits.

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.

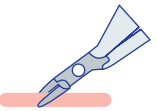


Constant Power Output

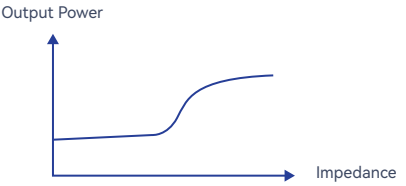


Automatic Mode

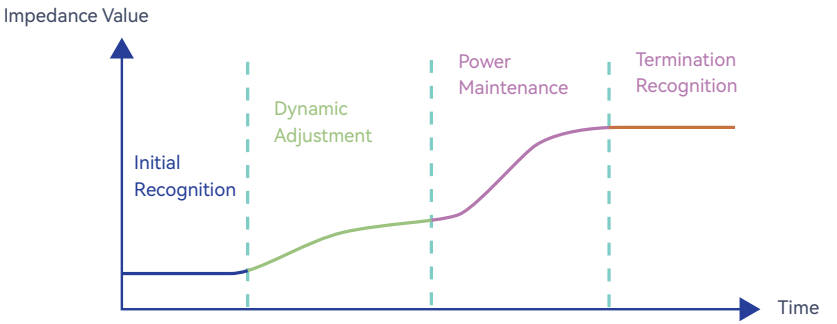
In adaptive intelligent mode, the system continuously monitors changes in tissue impedance, automatically identifies tissue type and sealing status, and adjusts energy output in real time. This enables closed-loop control, significantly improving sealing performance and intraoperative safety.



Dynamic Energy Output Adjustment



Intelligent Sealing Process Diagram

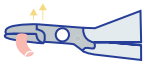


Initial Recognition



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.