

# ULTRASONIC SURGICAL SYSTEM



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# Ultrasonic Surgical System

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CRT01-E

Input	100-240V, 50/60Hz, 180VA
Output	$\leq 35W \pm 10\%$
Drive Frequency	$55.6kHz \pm 1kHz$
Ambient Operating Conditions	Temperature: 18-25°C, Humidity: 30%-70%



# ULTRASONIC SURGICAL SYSTEM



The Ultrasonic Surgical System (Ultrasonic Scalpel) is a groundbreaking piece of clinical surgical equipment that uses ultrasonic energy to promote hemostatic cutting and coagulation of soft tissues. It can be used to cut soft tissue other than bone tissue and fallopian tubes, as well as to cut and seal vessels up to 5mm in diameter. It has been widely applied in a variety of open and endoscopic surgeries.

Compared with traditional manual devices or devices powered by other energy sources, the Ultrasonic Scalpel offers greater accuracy, lower smoke output, and no electro current flows through patients' bodies – bringing greater safety to patients and more convenience to surgeons.



The high gain ultrasonic hand piece and scalpel design offers equivalent scalpel tip excursion with smaller drive current, for higher system efficiency.



The faster dissection speed, reduced thermal damage, powerful coagulation, and higher sealed-vessel burst pressure make it superior to similar products.



The scalpels offers cutting, coagulation, dissection, and grasping functions all in one for greater operating efficiency.



Scalpels of six different lengths and styles are fully catered to a wide range of open and endoscopic surgical requirements to suit different surgeons.



## Y16-E Generator

The ultrasonic generator Y16-E provides an excitation signal and a high frequency AC power source to drive hand pieces. It provides two power levels - minimum and maximum - and offers 5-level power adjustment to meet different clinical requirements such as faster dissection or reliable coagulation.



Compact design and enlightened architecture.



Efficient ultrasonic drive circuit and control algorithm.



Mechanical power button ensures system reliability and safety.



Tilted touch screen design for smooth and comfortable operation.



12-level adjustable volume setting to meet different surgeons' voice feedback.

# HP401 / HP501

## Hand Pieces

The hand piece is available in two models - HP401 and HP501 - for use with gun-style scalpels (SG) and scissor-style scalpels (SS). The two handles are designed to meet the varied surgical tool needs of different departments and surgeons.



Aluminum alloy hand piece shell, military aviation quality, with high mechanical strength and corrosion resistance.



Genuine gold-plated electrode assembly with minimal contact resistance for optimum signal transmission with tools.



Top notch piezoelectric components guarantee product stability.



Amplitude transformer designed over several iterations to achieve highly efficient electroacoustic conversion.

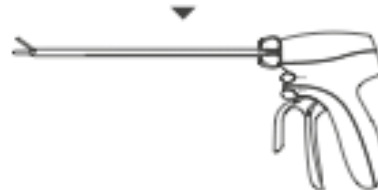


HP501 for use with scissor-type scalpels (SS) weighs just 160g, ensuring greater dexterity and precision during surgery, reducing fatigue, and improving the efficiency of surgeons.



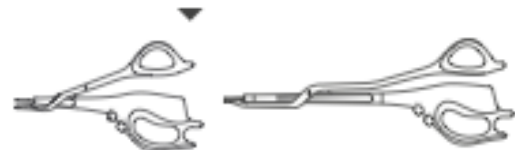
### HP401

For Use with Scalpel SG13/SG22/SG35/SG45



### HP501

For Use with Scalpel SS9 / SS17







## **SG** Gun-type Scalpels

### **SG13/SG22/SG35/SG45**

Gun-type scalpels include four models: SG13, SG22, SG35 and SG45. Each model features minimum and maximum energy settings and an ergonomic design, meeting the operating needs of different users. At present, they are widely used in endoscopic surgeries and open surgeries.



Each scalpel is equipped with a torque wrench for attaching the scalpel to the hand piece, allowing optimal connection between the two.



The unique cutter head structure design increases the effective dissecting length and achieves reliable sealing for blood vessels up to 5mm in diameter.



Sterilized scalpels are for disposable use only and completely hazard-free.



The curved cutter head design provides greater visibility to surgeons during surgeries.



The powerful clamp design reduces the possibility of tissue slippage and improves the instruments manipulation of surgeons during operations.



The cutter head can be rotated 360 degrees to meet the requirements of endoscopic surgery.



### SG13

Shaft length: 13cm

diameter: 5.5mm



### SG22

Shaft length: 22cm

diameter: 5.5mm



### SG35

Shaft length: 35cm

diameter: 5.5mm



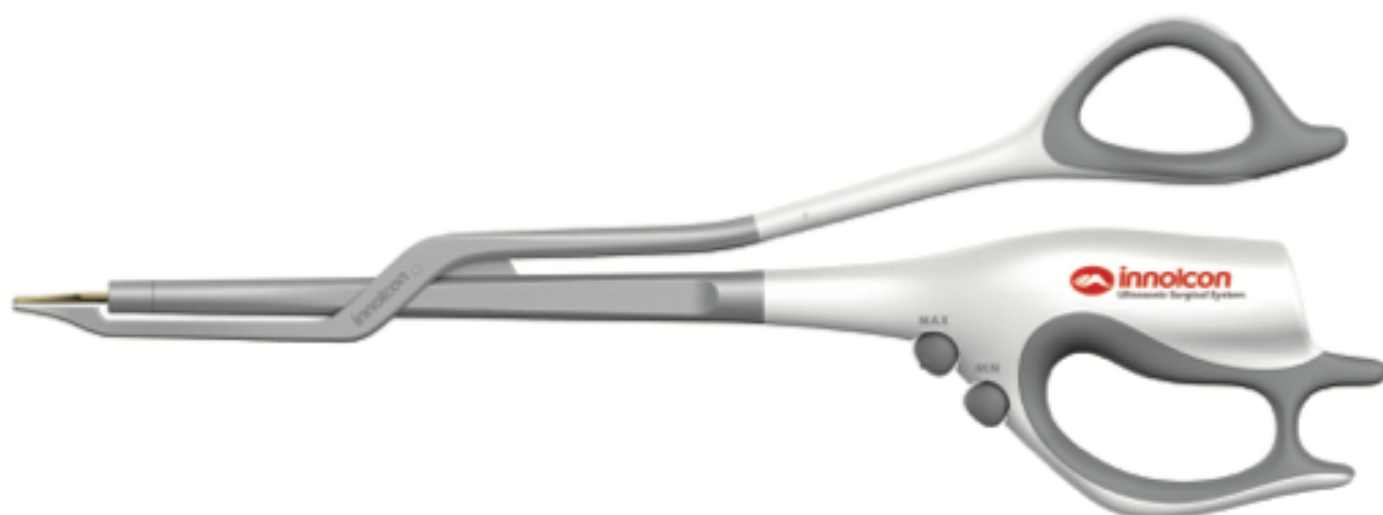
### SG45

Shaft length: 45cm

diameter: 5.5mm



For Use with Hand Piece 401 (HP401)



## **SS** Scissor-type Scalpels SS9 / SS17

The scissor-type scalpels have been designed as sterilized disposable products, too. They include the SS9 and SS17 models that are commonly used in open surgery. The SS series' unique cutter head design not only delivers similar characteristics to the gun-type scalpels in gripping and dissecting, but also boasts extra unique advantages.





Each scalpel is equipped with a torque wrench for attaching the scalpel to the hand piece, allowing optimal connection between the two.



SS9 and SS17's exquisite cutter heads are smaller and sharper than similar products, offering greater advantages in fine separation and dissection, such as thyroid surgery.



SS17 is longer and more suitable for deeper tissues dissection, such as radical cervical lymphadenectomy.



SS scalpels brings greater convenience to neck and head surgeries such as glossectomies, parotidectomies, thyroidectomies, etc.



**SS9**

Length 9cm



**SS17**

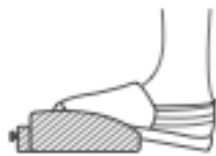
Length 17cm



For Use with Hand Piece 501 (HP501)

## FSW01 Footswitch

Pedal switches correspond to the minimum and maximum energy settings, providing more options and greater flexibility to users, catering to different surgical scenarios and user habits. The device is rated to be used over 1 million times.



Use diagram



Product diagram



## CRT01-E Cart

The cart's "H" shape brings greater stability and lightness. Front and back bi-handles, together with a skillfully designed drawer and hanger, offer greater expandability. The user experience is also enhanced by the sleek grey and white outer design.



### CRT01-E

Width	52cm
Length	61cm
Height	96cm
Load-bearing	20kg