

PK TECHNOLOGY

Powering Gynecology



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PK TECHNOLOGY is an impedance-controlled bipolar energy system that is designed specifically to enhance performance and versatility in laparoscopic gynecological surgery. It offers a complete range of multifunctional laparoscopic instruments, each individually designed for a specific area of application.

PK TECHNOLOGY instruments have been established on the market for more than ten years and are used by gynecologists all over the world in various procedures.

The surgeon benefits from:

- High patient satisfaction and effective performance⁶,
- Potentially shorter procedure times¹,
- Potentially improved operating-room efficiency¹,
- The confidence that comes with ten years' proven clinical history

PK TECHNOLOGY System with ESG-400 Generator

PK TECHNOLOGY provides surgeons with the ability to seal, transect, coagulate, dissect, vaporize, resect, and mobilize tissue all with precision and control from one energy platform: the ESG-400 – a fully equipped, latest-generation HF generator that provides the PK TECHNOLOGY instruments with advanced bipolar energy.

An autodetection function and dedicated sealing and cutting modes for PK TECHNOLOGY instruments and other Olympus devices help simplify the OR workflow.

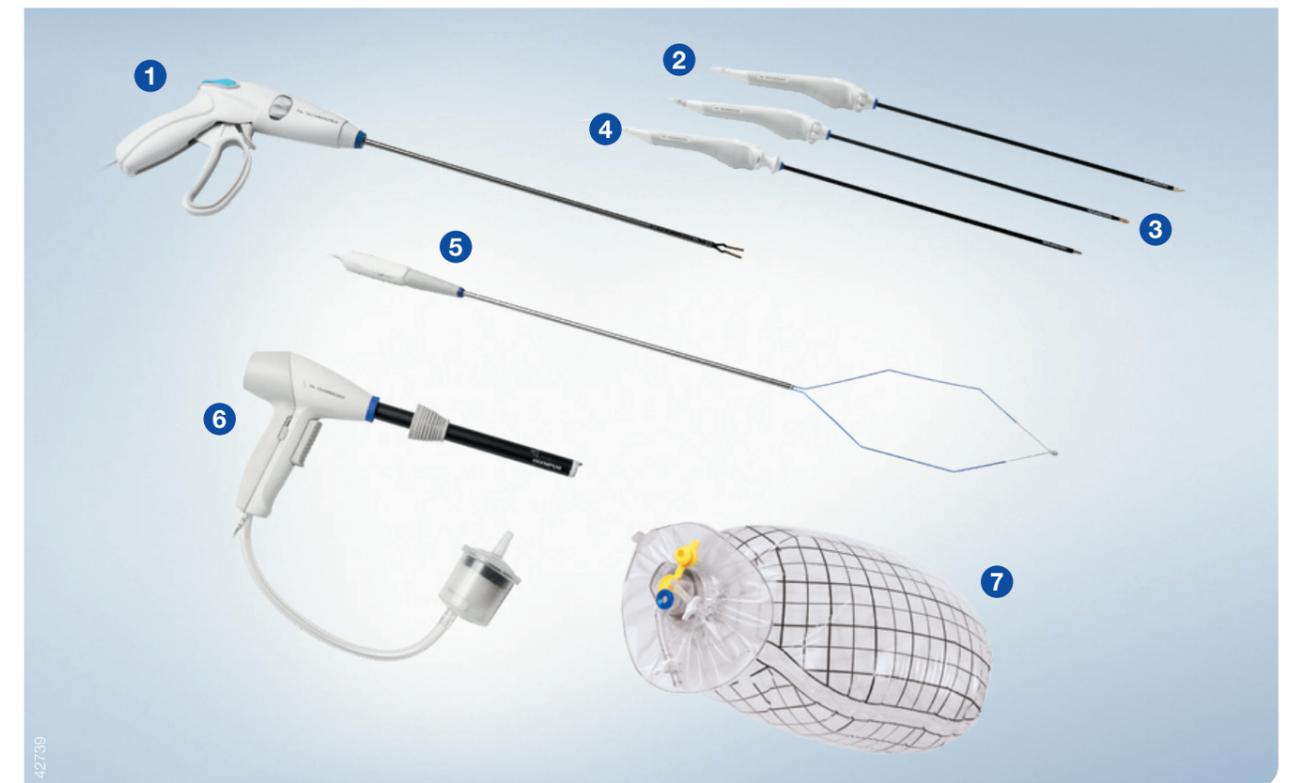


Clinically Proven for Over Ten Years

PK TECHNOLOGY is an effective technology that has over ten years of proven clinical history:

- Safer than traditional energy technologies, such as monopolar or conventional bipolar^{2,3,4,5},
- Associated with reduced operation time and high patient satisfaction⁶,
- Eliminates the risk of electrical injury⁶,
- Minimizes thermal damage to the tissue⁷

The PK TECHNOLOGY Instrument Portfolio



- 1 PK Cutting Forceps
- 2 PK Spatula
- 3 PK J-Hook
- 4 PK Needle
- 5 PK Lap Loop
- 6 PK Morcellator
- 7 PneumoLiner

¹ Erian J et al.: "Time Needed for Changing of Laparoscopic Instruments Has Been Minimized by the Use of the PK System." One Hundred Cases of Laparoscopic Subtotal Hysterectomy Using the PK and Lap Loop Systems; Journal of Minimally Invasive Gynaecology; 2005; 12: 365–9.

² Vilos GA, Rajakumar C: Electrosurgical Generators & Monopolar and Bipolar Electrosurgery; JMIG; 2013

³ Odell RC: Surgical Complications Specific to Monopolar Electrosurgical Energy: Engineering Changes That Have Made Electrosurgery Safer; JMIG; 2013

⁴ Brill AI et al.: Patient Safety during Monopolar Electrosurgery – Principles and Guidelines; JSLS; 1998

⁵ Shuman IE: Bipolar versus Monopolar Electrosurgery: Clinical Applications; Dentistry Today; 2001

⁶ Lee CL et al.: "Laparoscopic Radical Hysterectomy Using Pulsed Bipolar System: Comparison with Conventional Bipolar Electrosurgery"; Gynecol Oncol. 2007. 105(3): 620–4; Competitor: Kleppinger

PK Morcellator and PneumoLiner

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Peeling Tip

Integrated peeling tip promotes peeling on target tissue and avoids tissue coring throughout the procedure.

Reduced Surgical Smoke*

The smoke management of the PK Morcellator ensures clear visibility of the morcellator, the target tissue, and collateral tissue.

Faster Morcellation Speed*

PK Morcellator completes morcellation at a fast rate.



150028

17243

15202

* Compared to PKS PlasmaSORD

PK Cutting Forceps

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Clinically Proven and Convincing for More Than 10 Years

PK Cutting Forceps may shorten procedure times^{7,8} due to:

- Reliable coagulation⁸,
- Potentially fewer instrument changes⁷,
- Controlled and precise mechanical cutting,
- Strong grasping

Versatile Treatment

It is particularly suitable for LSH, TLH, LAVH, and BSO⁹.



Coagulation Button

allows easy hand activation

Rotation Wheel

for up to 330° shaft rotation

Smooth Trigger

for controlled and precise cutting

Ergonomic Handle

uitable for all hand sizes

Locking Mechanism

provides option to lock trigger jaw

Innovative Jaw Design

Smooth trigger and sticking prevention due to non-sticky, coated stainless-steel jaw.



13479

13557

⁷ Wang CJ et al.: "Comparison of Efficacy of Pulsed Bipolar System and Conventional Electrosurgery in LAVH"; J Laparoendosc Adv Surg Tech; 2005; 15(4): 361-4; Competitor: Kleppinger

⁸ Zupi E: "Hysteroscopic Endometrial Resection vs Laparoscopic Supracervical Hysterectomy for Menorrhagia"; Am J Obstet Gynecol; 2002; 188(1); Literature No.: 6862-0305

⁹ LSH: Laparoscopic Supracervical Hysterectomy; TLH: Total Laparoscopic Hysterectomy; LAVH: Laparoscopic-Assisted Vaginal Hysterectomy; BSO: Bilateral Salpingo-Oophorectomy

PK Lap Loop

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The Lap Loop offers higher patient safety in addition to fast, immediate, and straight cutting of the uterus during LSH procedures¹⁰. The gynecologist performing advanced laparoscopic surgery benefits from:

Patient Safety

- Blue-coated wire for optimal visibility
- White ceramic tip helps to identify if bowel is caught in loop

Efficiency

- Fast, clean, and immediate bipolar cutting during LSH procedures¹¹

Easy and Convenient Handling and Placement

- Large loop for big uterus
- Pop-up diamond-shaped loop opens up automatically in the abdomen
- Consistent loop shape
- Ergonomic handle design

Blue Wire Coating

promotes good visibility and contrast against surrounding tissue

Consistent Loop Shape

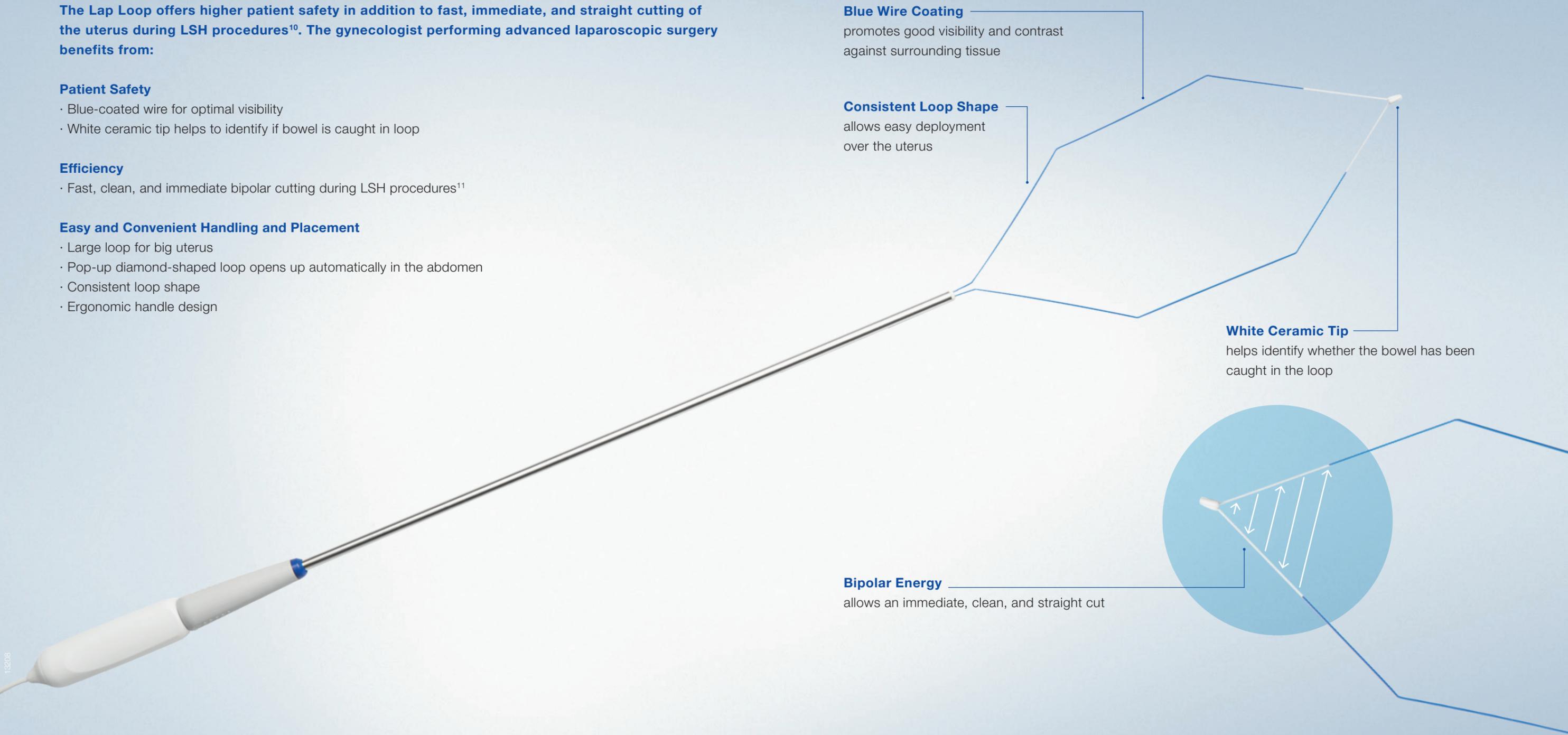
allows easy deployment over the uterus

White Ceramic Tip

helps identify whether the bowel has been caught in the loop

Bipolar Energy

allows an immediate, clean, and straight cut



¹¹ Erian J et al.: One Hundred Cases of LSH Using the PK and Lap Loop Systems; J Min Invasive Gyn; 2005; 12: 365-9; Competitor: Medsys

PK Loki

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PK Spatula

The PK Spatula cuts, coagulates, and dissects with unique bipolar precision, thus allowing for potentially faster procedures and enhanced effectiveness. The tip design allows for both pinpoint and broad tissue coagulation.

The PK Spatula is indicated for resection and coagulation of soft tissue and blood vessels in laparoscopic surgery. It is particularly suitable for myomectomies and the amputation of the uterus¹⁰.



Efficient tip design

PK J-Hook

The PK J-Hook can reduce the operating time by cutting and coagulating simultaneously. The unique tip design is excellent for skeletonization and mobilization, thus potentially enabling a smoother operation. The PK J-Hook is particularly suitable for adhesiolysis and the amputation of the uterus.



Simultaneous cutting and coagulation

PK Needle

The PK Needle is a unique bipolar cutting device that allows the surgeon to perform precise, safe, and fast procedures.

The PK Needle is indicated for resection of soft tissue in laparoscopic surgical procedures. It is particularly suitable for the treatment of ectopic pregnancy, myomectomies, and the amputation of the uterus.



Precise bipolar cutting

Ergonomic Handles with Hand Activation



Left: PK Spatula/J-Hook with rotation function; right: PK Needle

¹⁰ Hoffmann CP et al.: "Since Changing to the PK ZIP Needle to Detach the Cervix, We Have Seen Much Less Significant Delayed Cuff Bleeding"; Laparoscopic Hysterectomy: The Kaiser Permanente San Diego Experience; J Min Invasive Gyn; 2005; 12: 16-24

Olympus Energy Solutions

Powering Gynecology

Olympus Energy Solutions Work Together to Provide:

■ Electrosurgery

ESG-400 – A Fully Equipped, Latest-Generation HF Generator

Optimizing your state-of-the-art electrosurgery in all surgical disciplines for monopolar, bipolar, and advanced bipolar modes for open, laparoscopic, and endoscopic applications, as well as transurethral or transcervical resection (TURis/TCRIs).

■ Ultrasonic Surgery

USG-400 – Ultrasonic Energy for Advanced Tissue Management

The USG-400 Generator provides ultrasonic energy for the SONICBEAT Ultrasonic Dissector.

■ Combined Energy Surgery

Surgical Tissue Management System (THUNDERBEAT Platform)

Both surgical energy generators combined provide a unique platform that delivers the most widely used energy requirements to the surgical suite, eliminating the need for multiple devices in the operating room.

Visibility

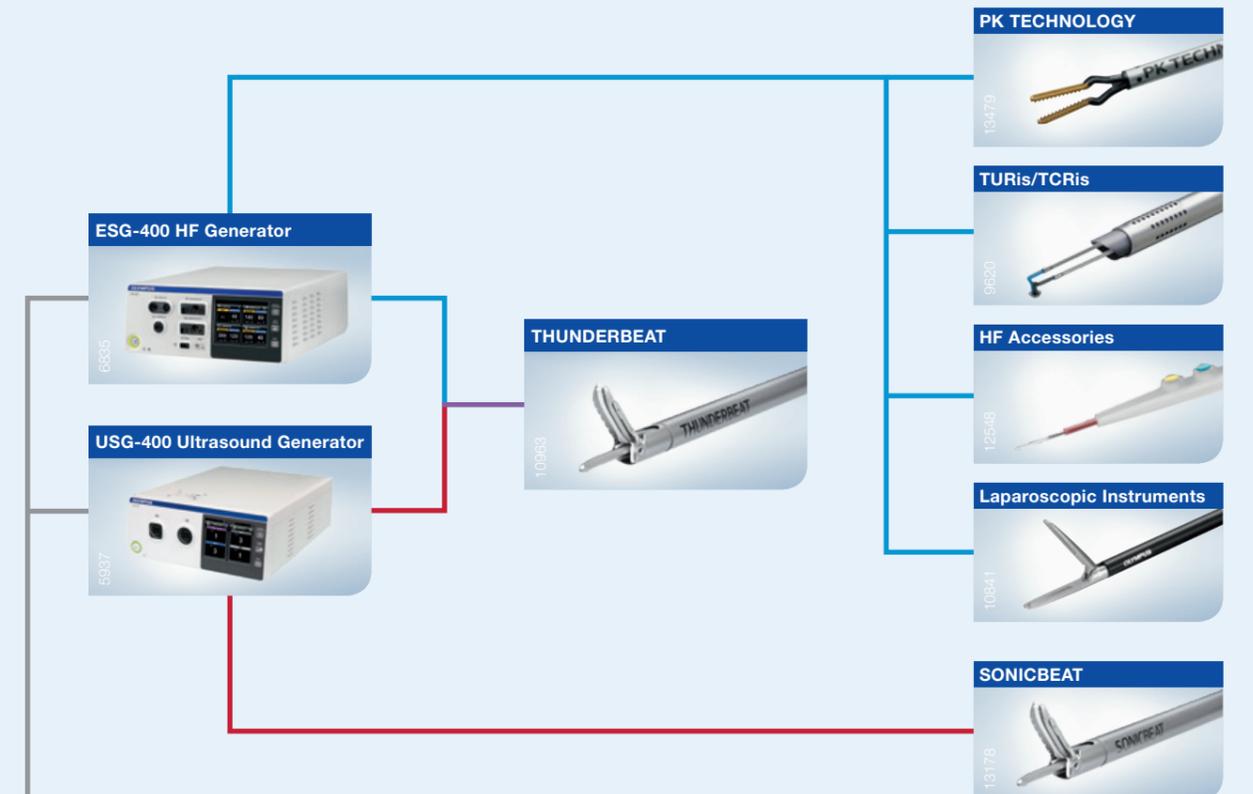
The Olympus Surgical Tissue Management System communicates intelligently with the Olympus insufflators (UHI-3 and UHI-4) in order to evacuate any smoke or mist whenever required during laparoscopic surgery. Coupled with the reduced mist production of the THUNDERBEAT laparoscopic instruments and Olympus imaging equipment, the surgeon enjoys the best possible visualization.

Utility

Olympus energy devices can be seamlessly integrated into the Olympus ENDOALPHA OR solutions. This enables clinical staff to easily select the desired function of THUNDERBEAT or PK TECHNOLOGY directly from the HomeScreen user interface of UCES-3. It also allows for intuitive navigation through the device using the touch screen or voice control.

UCES-3 offers a centralized one-touch control for all sterile and/or non-sterile medical devices – for example, electrosurgical generators, surgical cameras, or surgical lights and tables – providing greater efficiency and improved ergonomics during procedures. Finally, the Scene Selection function, an intelligent combination of user- and procedure-specific actions operated using one-touch control,

- Helps to standardize procedures,
- Decreases turnaround time,
- Enhances quality and overall workflow.



 www.olympus.eu/pk

Specifications, design and accessories are subject to change without any notice or obligation on the part of the manufacturer.

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