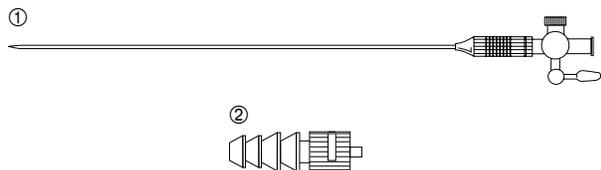


Accessories for Insufflation

Veress-Needles and Accessories



- ① **A5150.1** Needle, according to Veress, 150 mm

- 05151.1** Needle, according to Veress, 120 mm

- ② **00103** Adapter, male Luer-lock and x-mas tree

CO₂ Filter

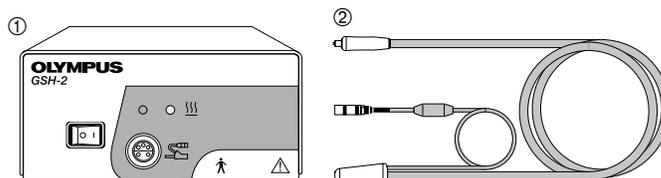


39 p. d.

- A5663*** Filter, sterile, **single use**, 39.1.1 for insufflation, large, 10 pcs.

For sterile filtration of the insufflation gas. Prevents possible contamination of the insufflation unit caused by backflow of body fluids.

Gas Preheater



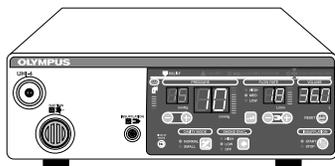
- ① **WA58670A*** Gas preheater "GSH-2", 230 V, with heat exchanger
Delivery includes: Gas preheater, power cable, heat exchanger, adapter, 2 silicone tubings

- ② **WA58671A*** Heat exchanger "WISAP 7642HS", for WA58670A, autoclavable

Technical Data

Power supply	Voltage 230 V ~
Frequency	50/60 Hz
Power consumption	55 W
Size	
Dimensions	150 (W) x 80 (H) x 170 (D) mm
Weight.....	2.2 kg
Classification	
Protection against electric shock class 1, type B	

- Provides constant body temperature under different flow conditions.
- The gas is heated over the complete heat exchanging tube length.
- Autoclavable heat exchanger for very low costs per procedure. Compatible to most available insufflators.

Insufflator UHI-4

N3829660 Insufflator "UHI-4" **39.1.2**
Delivery includes:

Insufflator, power cable, suction tubing set MAJ-591, insufflation tubing set MAJ-590, nut cover (For EU, Australian and New Zealand market)

Technical Data

Power supply	
Voltage	100 – 240 V
Frequency	50/60 Hz
Power consumption	110 VA
Size	
Dimensions (incl. projecting parts)	width 375 mm
	height 132 mm
	depth 380 mm
Dimensions (without projecting parts)	width 370 mm
	height 120 mm
	depth 330 mm
Weight.....	9.3 kg
Safety	
Protection class acc. to IEC 60601-1	class I, type CF
Directive 93/42/EEC	class IIa
Gas Supply	
Applicable gas.....	CO ₂ for medical use
Maximum supply pressure rating	16.2 MPa
Supply pressure indications (5 steps)	1: 0.1 – 1.4 MPa
	2: 1.5 – 2.4 MPa
	3: 2.5 – 3.4 MPa
	4: 3.5 – 4.4 MPa
	5: < 4.5 MPa
Flow rate settings (NORMAL cavity mode)	
	HIGH: 20 – 45 l/min
	MED: 1.1 – 1.9 l/min, 2 – 19 l/min
	LOW: 0.1 – 1.0 l/min
Flow rate settings (SMALL cavity mode)	
	HIGH: 6 – 10 l/min
	MED: 1.1 – 1.9 l/min, 2 – 5 l/min
	LOW: 0.1 – 1.0 l/min
Ambient conditions	
Operation	temperature 10 – 40 °C
	relative humidity 30 – 85 %
	atmospheric pressure 700 – 1060 hPa
Transport and Storage	temperature -25 – 70 °C
	relative humidity 10 – 90 %
	atmospheric pressure 700 – 1060 hPa

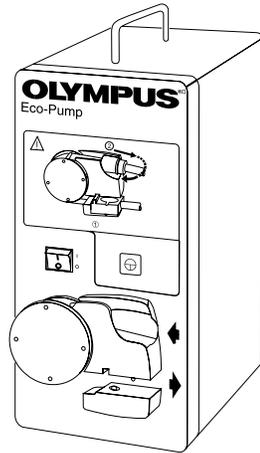
 For tubings and adapters, see page 426 and 427. **39.1.2**

Eco-Pump

A5889* Pump "Eco-Pump",
220 – 240 V

139.1.2

Delivery includes:
pump,
power cable,
mounting A5888,
spare fuses



Technical Data

Power supply

Voltage..... 220 – 240 V ~
Frequency50/60 Hz
Max. power consumption55 W
Fuses 230 V, T500 mA, slow blow

Size

Height 317 mm
Width 143 mm
Depth 170 mm
Weight approx. 5.5 kg

Safety

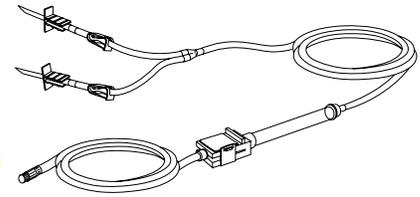
Protection classI, type BF
IP 41

Pump

Flow rate0 – 1.8 l/min (±10 %)
Max. pressure 400 mm Hg (±50 mm Hg)
Overpressure protection .. motor cut-off over 500 mm Hg
after 5 s (±25 mm Hg)

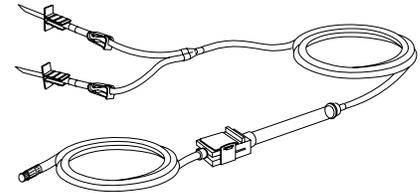
Tubings

A4054* Tubing, set,
10 pcs.,
for 2 bags,
sterile,
for single use



139.1.1

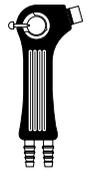
A4055*¹ Tubing, set,
1 pc.,
for 2 bags,
non-sterile,
reusable



¹not available in the U.S.

Recommended Suction/Irrigation Instrument

A5796* Handle,
for suction/irrigation tube

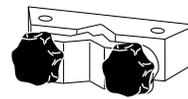


Suction/irrigation tube,
A5797* 10 mm
A5798* 5 mm
A5799* 3 mm

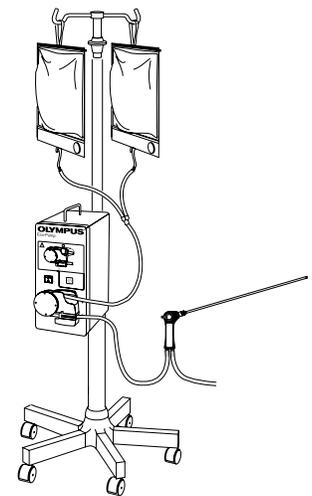


Mounting Clamp

A5888* Mounting,
to fix pump A5889 to
a support stand
(part of delivery of A5889)



to central
suction
supply
Example



UNIQUE HYBRID TECHNOLOGY

Philosophy

Olympus aims to provide innovative energy solutions delivering surgical safety and instrument versatility for efficient and streamlined operations with optimal patient outcomes. This is why Olympus developed the unique hybrid technology **THUNDERBEAT** for open and laparoscopic surgery. **140.1.1**

THUNDERBEAT is the world's first and only advanced energy system that delivers two well-established forms of energy to a tissue simultaneously:

- **Ultrasonic energy** for superior dissection and fast tissue-cutting capability
- **Advanced bipolar energy** for fast and secure hemostasis for vessels up to and including 7 mm in diameter

The combination doubles your energy – and sets new standards in the application of advanced energy in the operating room.

Ultrasonic Energy Only



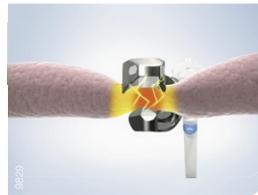
Rapid tissue cutting

Bipolar Energy Only



Reliable vessel sealing

THUNDERBEAT



Rapid tissue cutting and reliable vessel sealing

The THUNDERBEAT Modes

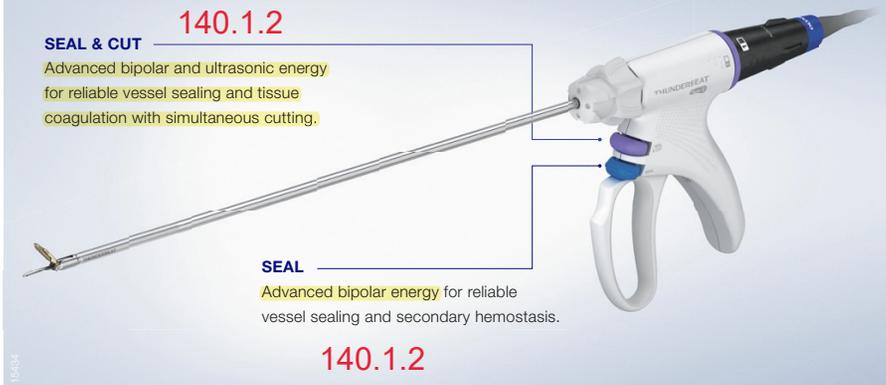
SEAL & CUT **140.1.2**

Advanced bipolar and ultrasonic energy for reliable vessel sealing and tissue coagulation with simultaneous cutting.

SEAL

Advanced bipolar energy for reliable vessel sealing and secondary hemostasis.

140.1.2

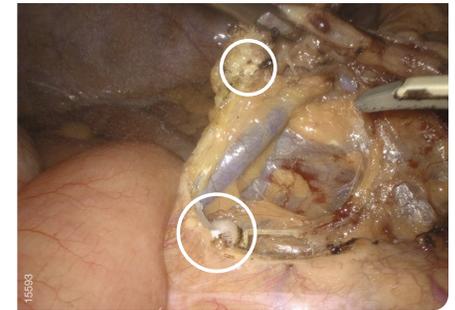
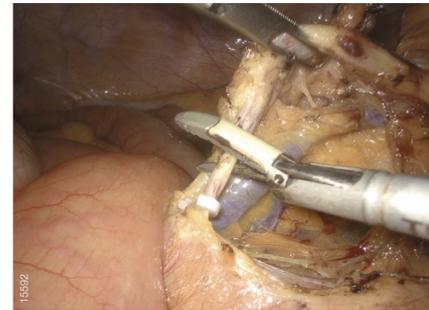


ADVANCED HEMOSTASIS

Reduced blood loss and optimal visibility on anatomic structures by superior primary and secondary hemostasis through advanced bipolar technology.

Primary Hemostasis and Secure 7 mm Vessel Sealing

Using the combined energy types of the THUNDERBEAT SEAL & CUT mode simultaneously allows for safe coagulation and fast tissue transection. Fewer vessel-ligation steps are required due to the ability of pre-coagulation as well as due to the secure cutting and sealing of 7 mm vessels.¹



Secondary Hemostasis

The THUNDERBEAT SEAL mode without simultaneous cutting allows for:

- Immediate sealing of secondary bleeders,
- Control of oozing bleeding by spot coagulation,
- Pre-sealing of vessels through the precise application of advanced bipolar energy.

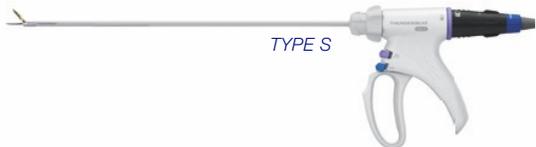
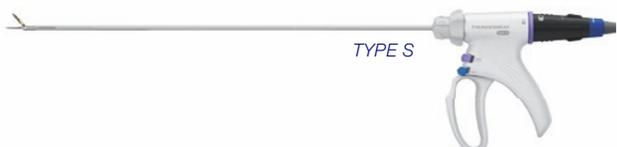


¹ Data on file, Olympus Cooperation

DOUBLE YOUR ENERGY

Ordering Information

THUNDERBEAT Instruments for Laparoscopic Surgery 140.1.5

Order Nr.	Grip	Diameter	Length	Pieces	
140 p.d. N5423630	Front-actuated	5 mm	35 cm	5/box	 <p>140.1.3 TYPE S</p>
N5423330	Front-actuated	5 mm	45 cm	5/box	 <p>140.1.4 TYPE S</p>

THUNDERBEAT Instruments for Open Surgery

Order Nr.	Grip	Diameter	Length	Pieces	
N4505730	Scissor	-	9 cm	5/box	 <p>Open Fine Jaw</p>
N4505530	Front-actuated	9 mm	20 cm	5/box	 <p>Open Extended Jaw</p>
N5423930	Front-actuated	5 mm	20 cm	5/box	 <p>TYPE S</p>

Generators and Accessories

Order Nr.	Description
WB91051W	ESG-400* electrosurgical generator
N5428060	USG-400 ultrasonic generator
N3808760	Transducer for THUNDERBEAT
N3809330	Communication cable – short: 0.25 m
N3809630	Docking fixture
WA956215	Power cable, Europlug (2x)

Optional

Order Nr.	Description
N3635730	Energy cart, TC-E400
N3809230	Foot switch for THUNDERBEAT
WB50403W	Foot switch, single (bipolar) pedal
N3809430	Communication cable – long: 10 m**
N3809530	Adapter for the connection to UHI-2 or UHI-3 insufflator**
E0427213	Neutral electrode cable (reusable)

* Including one double-foot switch

** Required for the automatic mist-and-smoke-evacuation function

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

OLYMPUS

OLYMPUS EUROPA SE & CO. KG

Postbox 10 49 08, 20034 Hamburg, Germany
Wendenstrasse 14-18, 20097 Hamburg, Germany
Phone: +49 40 23773-0, Fax: +49 40 233765
www.olympus-europa.com



7 psl.

ĮSPĖJIMAS

- Išgirdę spragtelėjimą nebesukite dinamometrinio rakto. Priešingu atveju sistema gali netinkamai veikti ir galima sunkiai sužeisti chirurgą, operacinės personalą ir (arba) pacientą.
- Dinamometrinis raktas ir stabilizatorius yra vienkartiniai gaminiai ir po kiekvienos procedūros juos reikia išmesti. Nenaudokite ir nesterilizuokite jų pakartotinai. Priešingu atveju kyla infekcijos arba THUNDERBEAT instrumento sugadinimo pavojus; jo funkcinės galimybės ir naudojimo trukmė gali būti ne tokios, kaip numatyta.
- Ant perdaviklio tvirtindami stabilizatorių nepažeiskite perdaviklio laido. Priešingu atveju gali įvykti elektros smūgis ir (arba) galima nusideginti.
- Prie sukamosios rankenėlės tvirtindami dinamometrinio rakto galvutę nepažeiskite kamieno izoliacijos. Priešingu atveju galimi nudegimai dėl srovės nuotėkio ir (arba) funkcinių galimybių sumažėjimas.

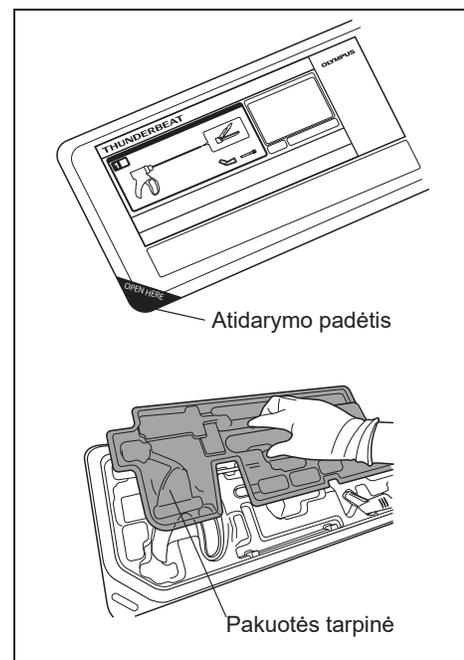
3 skyrius

140.1.4

- 1 Patikrinkite, ar nepraėjo tinkamo naudojimo data ir ant sterilios pakuotės nesimato pažeidimo požymių, pvz., įtrūkimų, nusilupusių lipdukų, užteršimo arba drėgmės.

Jei pastebimas bet koks pakuotės pažeidimas, gali būti panaikintas sterilumas. Nenaudokite THUNDERBEAT instrumento ir pakeiskite jį nauju THUNDERBEAT instrumentu.

- 2 Atidarykite sterilią pakuotę ir atsargiai ištraukite pakuotės tarpiklį ir THUNDERBEAT instrumentą iš sterilios pakuotės taikydami gerą sterilumo metodiką.



3.1 pav.