

OLYMPUS

Your Vision, Our Future

VISERA 4K UHD

VISERA 4K UHD CAMERA CONTROL UNIT

2.1 OTV-S400

The Core of Real 4K UHD Image Reproduction.



คณะกรรมการพิจารณาผลการประกวดราคาอิเล็กทรอนิกส์ 2.1.2.3
 ๑.ลงชื่อ.....ประธานกรรมการ
 ๒.ลงชื่อ.....กรรมการ
 ๓.ลงชื่อ.....กรรมการ



OTV-S400 – VIDEO SYSTEM CENTER

2.1.2.1

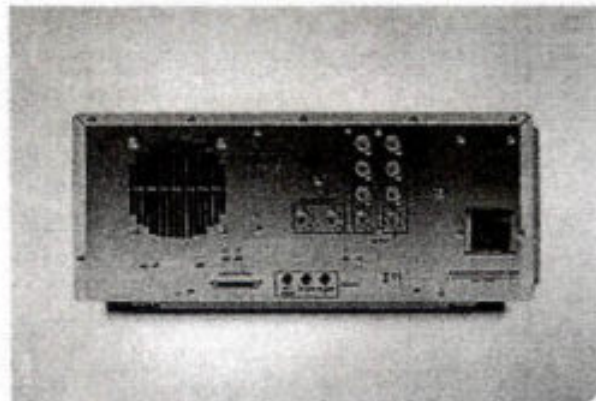
4K High-Quality Image Processing

- Wide color gamut
- 16-axial color-phase adjustment (more precise color setting based on surgeon's preference)
- Improved AE (automatic exposure) function

Improved Operability

- Touch panel enables adjustments during procedure
- Easy registrations and loading of user presets

Innovation by
Sony & Olympus



Specifications			
Power Supply	Rated voltage	220-240 V AC; within ±10%	
	Rated frequency	50/60 Hz; within ±1 Hz	
	Rated input	350 VA	
Size	Dimensions (maximum)	390 (W) × 160 (H) × 506 (D) mm	
	Weight	13.5 kg	
Observation	Signal system	Corresponds to the 4K and HD	
	Signal output (resolution)	4096 × 2160, 3840 × 2160, or 1920 × 1080 can be selected	
	Signal output (transmission method)	3G-SDI or HD-SDI can be selected	
	White balance adjustment	Available	
	Standard color chart output	The "Color bar" screen can be displayed	
	Color tone adjustment	Red adjustment	±8 steps
		Blue adjustment	±8 steps
		Chroma adjustment	±8 steps
	Automatic gain control (AGC)	The image can be electrically amplified when the light is inadequate due to the distal end of the endoscope being too far from the object	
	Contrast	Normal	Normal image
High		Darkens the dark part and brightens the bright part compared to normal	
Iris Area	Low	Brightens the dark part and darkens the bright part compared to normal	
	Auto	The exposure area is set automatically to obtain optimum brightness for the subject	
Image enhancement settings	Center	Center-weighted measuring	
	Fine patterns or edges in the endoscopic images can be enhanced electrically to increase the image sharpness		
	Either the structural enhancement or edge enhancement can be selected according to the user setup		
NBI observation	Structural Enhancement	Enhancement of contrast of the fine patterns in the image	
	Edg enhancement	Enhancement of edges of the endoscopic image	
Documentation	Endoscope's remote switches function	This observation uses the narrow band observation light	
	Displaying the record state	The functions of the remote switches on the endoscope can be set in the user presets	
	Displaying the image information	The recording state of the video recorder can be displayed on the monitor	
Memory backup	User presets	The following data can be displayed on the monitor: - Zoom ratio / One-touch auto focus / Observation mode / NBI observation mode	
	Memorization of selected settings	Up to 10 user presets can be registered	
Classification (electro-medical equipment)	The following settings are held in memory even after the video system center is turned OFF: - System settings / Color tone / Color mode / Contrast / Enhancement / White balance		
	Type of protection against electric shock	Class I	
	Degree of protection against electric shock of applied part	TYPE BF applied part	
	Degree of protection against explosion	The video system center should be kept away from flammable gases	

2.1.2.4



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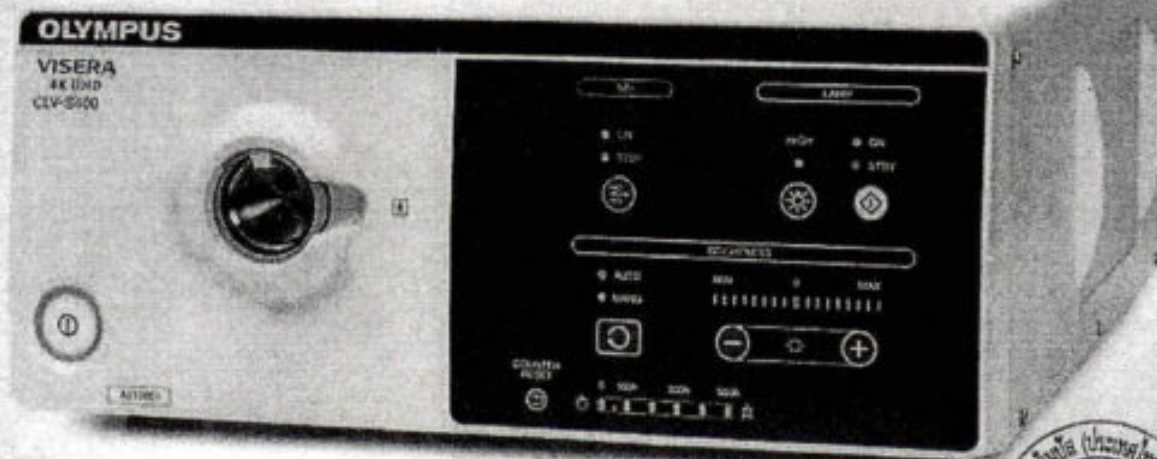
VISERA 4K UHD

2.2

VISERA 4K UHD XENON LIGHT SOURCE

CLV-S400

Ideal Illumination for 4K UHD Observation.



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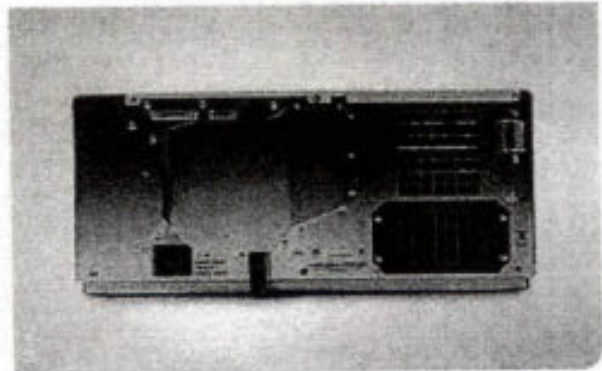
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CLV-S400 – LIGHT SOURCE

Custom Light Source for the 4K System

- 300 W xenon lamp 2.2.2.1
- Automatic light control
- NBI compatibility



Specifications		
Power input	Rated voltage	100-240 V AC; within ±10%
	Rated frequency	50/60 Hz; within ±1 Hz
	Rated input	500 VA
Size	Dimensions (maximum)	391 (W) × 162 (H) × 521 (D) mm
	Weight	15.5 kg
Illumination	Examination lamp	Xenon short-arc lamp (ozone-free) 300 W
	Average lamp life	Approximately 500 hours of continuous use (with intermittent use, the lamp life may vary slightly)
	Ignition method	Switching regulator
	Brightness adjustment	Light-path diaphragm control
	Cooling	Forced-air cooling
	Intensity mode	Normal or high intensity 2.2.2.2
	NBI observation	Available 2.2.2.4
	Emergency lamp	Halogen lamp (within mirror) 12 V 35 W
	Average emergency lamp life	Approximately 500 hours 2.2.2.3
Automatic brightness control	Automatic brightness control method	Servo-diaphragm method
	Automatic exposure	17 steps
Indicators on front panel	Emergency lamp	Indicates absence of emergency lamp, disconnection and use of emergency lamp
	NBI	When the NBI observation mode is enabled, the observation mode indicator lights up
Setting memory		Settings (except the observation mode) are stored even when the light source is OFF
Classification (medical electrical equipment)	Type of protection against electric shock	Class I
	Degree of protection against electric shock of applied part	TYPE BF applied part
	Degree of protection against explosion	The light source should be kept away from flammable gases



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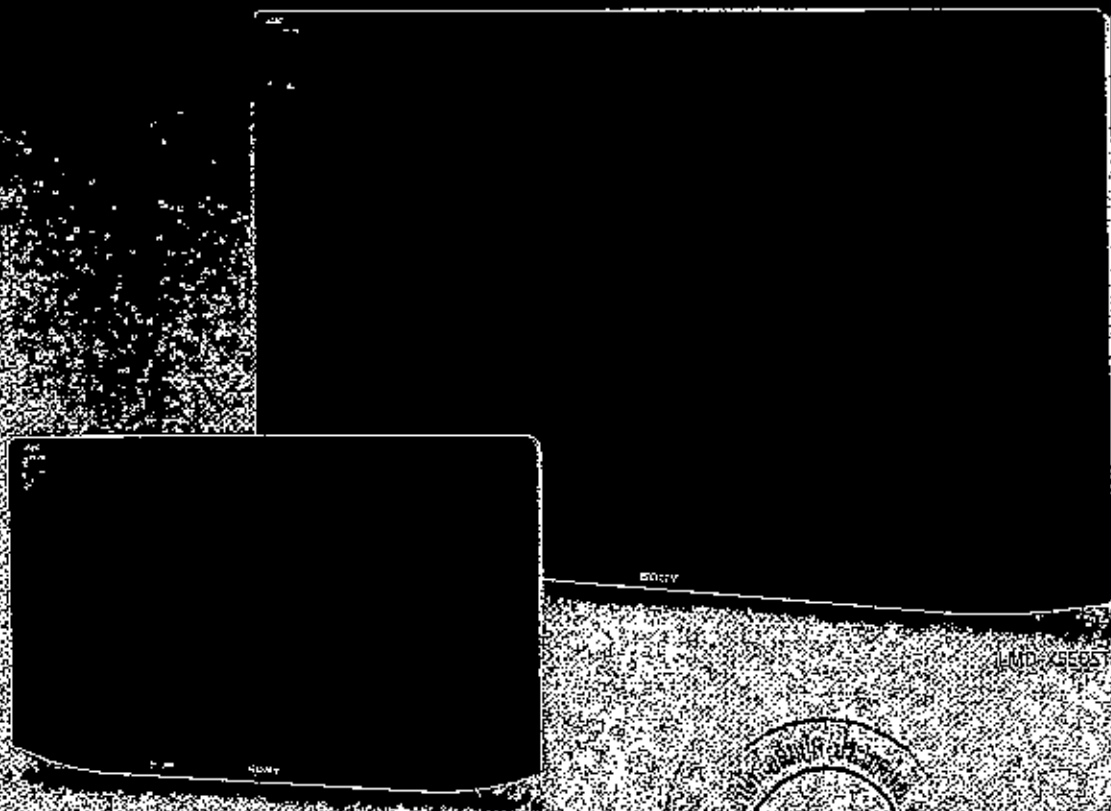
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SONY



LMD-X550ST

LMD-X310ST

LCD MONITOR

Innovation by
Sony & Olympus

4K 3D



4K and 3D imaging is becoming increasingly popular in today's operating rooms. High-resolution 4K imaging and 3D imaging offer depth perception and spatial orientation, providing medical staff with a more realistic visualization of complex surgical procedures.

Sony is proud to introduce 55-inch (model LMD-X550ST) and 31-inch (model LMD-X310ST) medical 4K 3D monitors that can display very high quality 4K Ultra HD color video images in 3D and 2D. These monitors are designed for use with surgical endoscope/laparoscopic camera systems, surgical microscopes, and other compatible medical imaging systems in hospital operating rooms. They are also suitable for use in doctors' offices and surgical centers, and in lecture rooms for educational use.

High Picture Quality

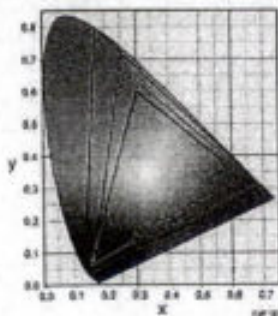
4K Ultra HD Resolutions

4K resolution on a large 31-inch (4096 x 2160) or 55-inch (3840 x 2160)* screen offers high picture quality.

* 31-inch (789-mm) and 55-inch (1,388-mm) screens are measured diagonally.

Wide Color Gamut BT.2020 signal input supported

These monitors comply with ITU-R Recommendation BT.2020 matching with Olympus 4K surgical Endoscopy system, offering a wider color gamut than the BT.709 color gamut - greater by as much as 30% (LMD-X550ST) and 42% (LMD-X310ST).



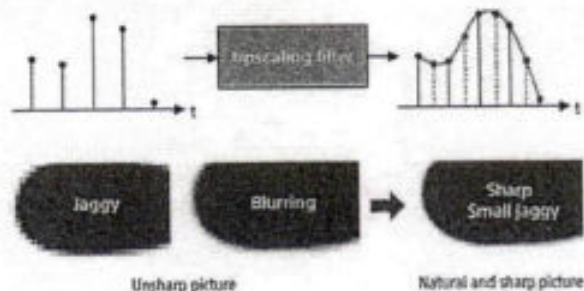
— BT.2020
— LMD-X310ST monitor
— General medical monitor

Pre-Installed Dedicated Values for Olympus Surgical Endoscopy and Systems

Special color settings, 3D settings and 4K/2K auto detection features (SDI-1 Input) are supported for use with Olympus 4K Surgical Endoscopy and existing endoscopy systems. This optimizes operability with Olympus Endoscopy systems.

HD/SD to 4K Upscaling

Thanks to Sony's unique upscaling filter, these monitors can provide a natural, sharp 4K view without blurring or 'jaggies' when you upscale HD/SD images to 4K.



Clear and High-Contrast View by OptiContrast™ Panel

They incorporate Sony's unique high brightness anti-reflective OptiContrast™ Panel. This can control incidental light reflections and dispersion within the LCD panel layer for improved contrast and visibility. It also helps to eliminate dew condensation in the panel.



OptiContrast Panel

Zoom Function

Image zoom can be adjusted to 1x, 1.2x, 1.5x, or 2x, allowing an enlarged view of small details while retaining high image resolution. Zoom can be set separately for each input (SDI/HDMI/DVI).

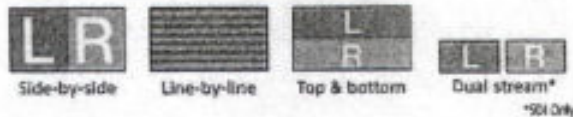


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3D Features

Various Display Formats in 3D

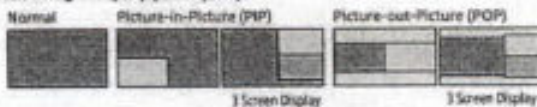
3D/2D operating mode can be set via a display menu and is confirmed by an on-screen indicator. These models can display 3D signals in both HD and 4K, and SDI (3G), DVI, and HDMI terminals are available in 3D mode. The monitors offer various 4K/HD 3D signal display formats such as side-by-side, line-by-line, and top & bottom. Furthermore, dual stream is also available when accepting an HD 3D signal via SDI, which enables the monitor to connect with a wide range of equipment with 3D output.



Wide Range of Display Modes

In addition to displaying a single 3D image, one LMD-XS50ST or LMD-X310ST monitor can display images from multiple sources quickly and easily from the menu. For example, the monitor can display 3D images in rotation, side-by-side, picture-in-picture (PIP), and picture-out-picture (POP). 3D PIP/POP multi-image display options include two screens with a main 3D/2D and sub 2D picture, or three screens with three 2D pictures. 3D pictures can also be rotated 180 degrees (image flip).

Multi-image Display (Examples)



Color Matching Function

When displaying 3D images (when you are wearing 3D glasses or a 3D eye-shield), a color matching function minimizes the color shifts between 2D display and 3D display. This function is activated automatically in 3D mode. Also, depth and parallax can be adjusted by a disparity simulation function.*

* Adjusted images are not reflected in the monitor's loop-through output.

3D Eye-Shield Kit Provided

The lightweight CFV-E305K eye shield kit comprises one frame and three disposable 3D eye-shields, and is designed for user comfort over extended periods.



2D/3D Switching Button

A 2D/3D switching button is placed on the control panel, which allows users to change modes efficiently and directly.



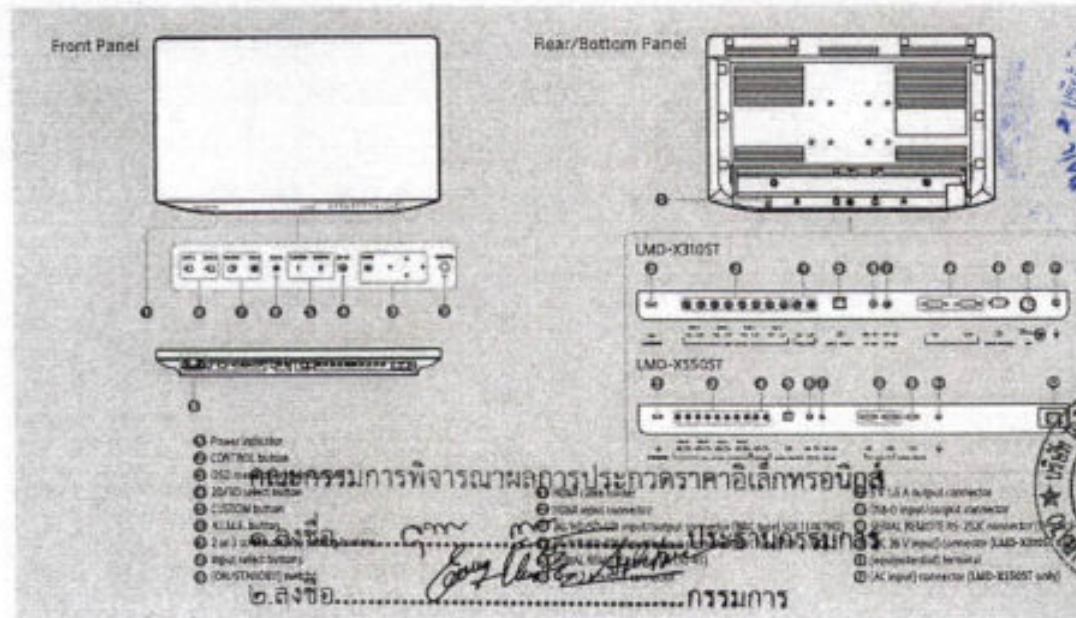
Compact and Stylish Design

Narrow Black Bezel for Optimized 3D Viewing

The narrow black bezel realizes a wider display area which is suitable for displaying in 3D. Also the monitor's slim, compact, easy-to-hold design facilitates simple user adjustment of the monitor position.

User-Friendly Control Panel

Operation is simplified by the monitor's intuitive, easy-to-use control panel. LED backlighting only highlights active control buttons, guiding the user and reducing the risk of inadvertent operation, especially in dark environments. Custom buttons can be assigned to commonly used functions.



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Specifications 2.3.2.1

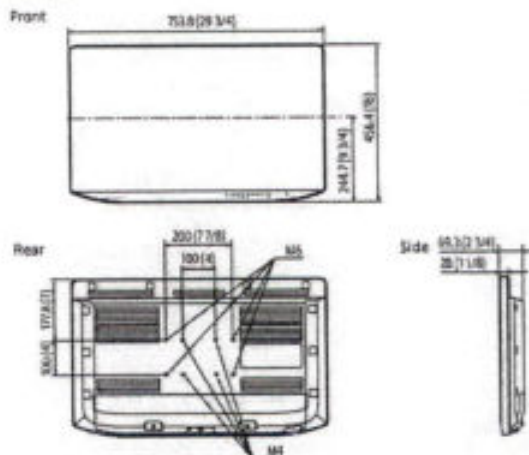
2.4.2.1

	LMD-X310ST	LMD-X550ST
Picture Performance		
Panel	a-Si TFT Active Matrix LCD	
Picture Size (Diagonal)	789.06 mm (31 1/8 inches)	1387.8 mm (54 3/4 inches)
Effective Picture Size (H x V)	698.0 x 368.1 mm (27 1/2 x 14 1/2 inches)	1209.6 x 680.4 mm (47 5/8 x 26 7/8 inches)
Pixel pitch	0.1704 x 0.1704 mm	0.315 x 0.315 mm
Resolution (H x V)	4096 x 2160 pixels: 2.3.2.2	3840 x 2160 pixels: 2.4.2.3
Aspect	17:9	16:9
Panel Efficiency	≥ 0.9999	
Backlight	LED	
Panel Technology	LCD with IPS	
Luminance (Panel Specification)	435 cd/m ² (Typical)	520 cd/m ² (Typical)
Contrast Ratio	1450 : 1	1400 : 1
Number of Gray scale	10 bit	
Color	1,073,741,824	
Panel Frame Rate	50/60 Hz	100/120 Hz
Viewing Angle (Panel Specification)	≥ 89° / ≥ 89° / ≥ 89° / ≥ 89°	
Vertical Viewing Angle (3D Mode)	22° at a viewing distance more than 175 mm, crosstalk ratio less than 7% (typical)	32° at a viewing distance more than 1,200 mm, crosstalk ratio less than 7% (typical)
Gamma	1.8, 2.0, 2.2, 2.4, 2.6, DICOM, Highlight	
Input		
HDMI Input	HDMI (x1) (HDCP 1.4a correspondence)	
DVI-D Input	DVI-D (x1) (HDCP 1.4a correspondence, TMDS single link)	
SDI Input	SDI-1: BNC (x4) / SDI-2: BNC (x1) (3G/HD/SD-SDI)*1	
Serial Remote (LAN)	D-sub 9-pin (RS-232C) (x1), RJ-45 (x1) (Ethernet, 10BASE-T/100BASE-TX)	
Output		
DVI-D Output	DVI-D (x1) when HDCP disabling	
SDI Output	SDI-1: BNC (x4) / SDI-2: BNC (x1) (3G/HD/SD-SDI)	
DC 5 V / 12 V Output	5 V Output (x1), 8 W 12 V Output (x1), 20 W max	
General		
Power Requirements	LCD monitor: DC Input: 26 V, 6.9 A AC adaptor (AC-300MD): 345 (W) x 150 (L) x 58 (H) mm AC adaptor's AC In: 100 V to 240 V, 50/60 Hz, 2.1 A to 1.0 A	LCD monitor: AC In: 100 V to 240 V, 50/60 Hz, 3.2 A to 1.3 A
Power Consumption	LCD Monitor: Approx. 180 W (max.)	Approx. 290 W (max.)
Operating Temperature	0 °C to 40 °C (32 °F to 104 °F) (Recommended: 20 °C to 30 °C (68 °F to 86 °F))	
Operating Humidity	30% to 65% (no condensation)	
Storage/Transport Temperature	-30 °C to +60 °C (-4 °F to +140 °F)	
Storage/Transport Humidity	0% to 90%	
Operating/Storage/Transport Pressure	100 hPa to 1060 hPa	
Dimensions (W x H x D)**	753.8 x 456.4 x 66.3 mm (29 3/4 x 18 x 2 3/4 inches) (Slimest D: 28 mm)	1264.8 x 771.5 x 65.5 mm (49 7/8 x 30 3/8 x 2 3/8 inches) (Slimest D: 33.9 mm)
Mass	Approx. 11.8 kg (26 lb 0.23 oz)	Approx. 35.2 kg (77 lb 9.6 oz)
Mounting	100 x 100 mm VESA (M4) 100 x 200 mm VESA (M5)	200 x 200 mm VESA (M6) 300 x 300 mm VESA (M8)
Supplied Accessories		
	AC adaptor: AC-300MD (1) AC power cord (1) Instructions for Use (ID-ROM) (1) Before Using This Unit (1) AC power plug holder (2) Service Contact List (1) Instructions for Use of the AC adaptor (1) Service Contact List (1) M4 x 12 mm Screw (4) 3D Eye Shield Kit: CPV-E30SK (1) Instructions for Use of the eye shield kit (1) European Representative (1)	AC power cord (1) Instructions for Use (ID-ROM) (1) Before Using This Unit (1) AC power plug holder (2) Service Contact List (1) M6 x 12 mm Screw (4) 3D Eye Shield Kit: CPV-E20SK (1) Instructions for Use of the eye shield kit (1) European Representative (1)

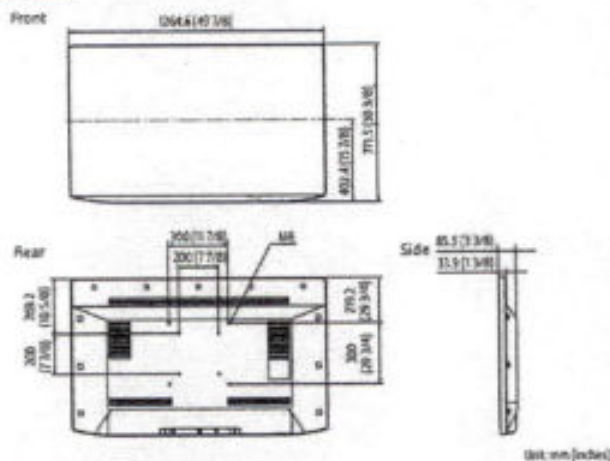
*1 SDI-1 input supported 4K/THD Auto signal detection
*2 The values for dimensions are approximate.

Dimensions

LMD-X310ST



LMD-X550ST



(Unit: mm [inches])

Optional Accessories

BKM-30GM Circular-polarizer 3D Glasses	BKM-31GM Circular-polarizer 3D Glasses (clip-on)	CPV-E30SK 3D Eye Shield Kit	CPV-E20SK 2D Eye Shield Kit
CPV-E30D 3D Eye Shield Pack	CPV-E20D 2D Eye Shield Pack	CPV-B100 Shield Frame	SU-600MD Monitor Stand (Only for LMD-X310ST)

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We provide medical imaging solutions from Sony and Olympus.

This device is not available in some areas.



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VISERA 4K UHD

2.5

4K AUTOCLAVABLE CAMERA HEAD/4K CAMERA HEAD

CH-S400-XZ-EA/EB

Clear Image in Every Condition



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SUSUMOTO OPTICAL (THAILAND) CO., LTD.

CH-S400-XZ-EA/EB

2.5.2.1

Sharper Images with Less Noise with the 4K Exmor R[®] CMOS Sensor and Optical-Fiber Transmission

- High sensitivity compared to normal CMOS sensor
- Less noise (dual noise-reduction function)
- No delay (4K high-speed transmission)

Optimal View (Fast and Accurate)

2.5.2.2

- One-Touch Auto Focus function always enables surgeons to see the fine details of tissue/texture
- Electronic zoom allows surgeons to observe the fine patterns and structures of tissues in the body – in high precision even when enlarged



Improved Operability (Ergonomic Design)

- Small, compact camera head
- New coupler design



V-Pro compatibility

2.5.2.3

Autoclave compatibility (CH-S400-XZ-EA only)

- Reduced costs compared with other sterilization methods

Innovation by
Sony & Olympus



Specifications

	CH-S400-XZ-EA	CH-S400-XZ-EB
Size	Camera head dimensions (unit: mm)	
	Camera head weight	280 g
	Cable	φ 5.1 mm × 3 m
Observation	Pickup system	CMOS image sensor
	Focal length	f = 23.5 mm
NBI observation mode*		Available 2.5.2.4
Records of camera head information*		Available
Electronic shutter function*		Available
Electronic zoom function*		Available
Cleaning/Disinfection/Sterilization	Cleaning/disinfection	Immersible in disinfectant solution
	Sterilization	Autoclavable/V-Pro/ETO/Sterad
Classification (electro-medical equipment)	Degree of protection against electric shock	TYPE BF
	Degree of protection against explosion	The camera head should be kept away from flammable gases

*For more details, refer to the instruction manual for the video system center.

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2.6, 2.7

5.4 AND 10 MM ULTRA TELESCOPES

Optimized for a High Resolution Image.



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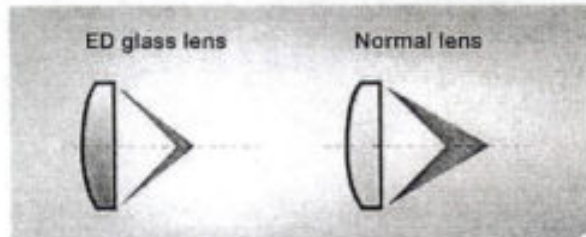


5.4 AND 10 MM ULTRA TELESCOPES

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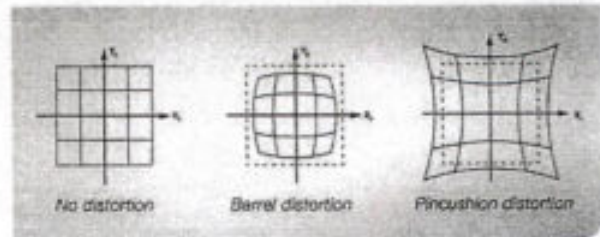
ED Glass Lenses – Razor-Sharp Images

- Optimized for high-resolution imaging
- High contrast at high spatial frequencies
- Comparable working length for 5.4 mm and 10 mm



Distortion-Free Images (5.4 mm telescope)

- Clear images even at the edges
- No barrel or pincushion distortion (using 5.4 mm telescope)



Wide Field of View

- Visual field increased by 20% compared to conventional HD endoscopes*

Compatibility

- Mechanical compatibility to current generations of camera heads and light guide cables by Olympus and other manufacturers that comply with DIN58105.

2.6.2.3, 2.7.2.4

Full Autoclavability

- Reduced waste due to full reusability of the telescopes



Good Illumination Even at the Edges

- The ULTRA telescopes have a homogeneous light distribution in the peripheral region (both 5.4 mm and 10 mm)

* 5.4mm ULTRA telescope compared to endoscope with 70° field of view and 10mm ULTRA telescope compared to endoscope with 75° field of view.

Ordering Information

Order Number	Outer Diameter	Direction of View (DOV)	Working Length	Max. Insertion Portion Width
WA4KL500	5.4 mm	0°	315.3 ± 0.5 mm	5.45 mm
WA4KL530	5.4 mm	30°	316.5 ± 1.8 mm	5.45 mm
WA4KL545	5.4 mm	45°	315.5 ± 1.5 mm	5.45 mm
WA4KL100	10 mm 2.6.2.1	0° 2.6.2.2	315.9 ± 0.5 mm	10.2 mm
WA4KL130	10 mm 2.7.2.1	30° 2.7.2.2	317.1 ± 1.5 mm	10.2 mm
WA4KL145	10 mm	45°	317.7 ± 1.5 mm	10.2 mm

Specifications

Operating Conditions	Ambient temperature	10 to 35°C (50 to 95°F)
	Relative humidity	30 to 85%
	Atmospheric pressure	700 to 1060 hPa
Storage Conditions	Temperature	10 to 40°C (50 to 104°F)
	Relative humidity	30 to 85%
Transport Conditions	Temperature	-40 to 70°C (-40 to 158°F)
	Relative humidity	10 to 95%

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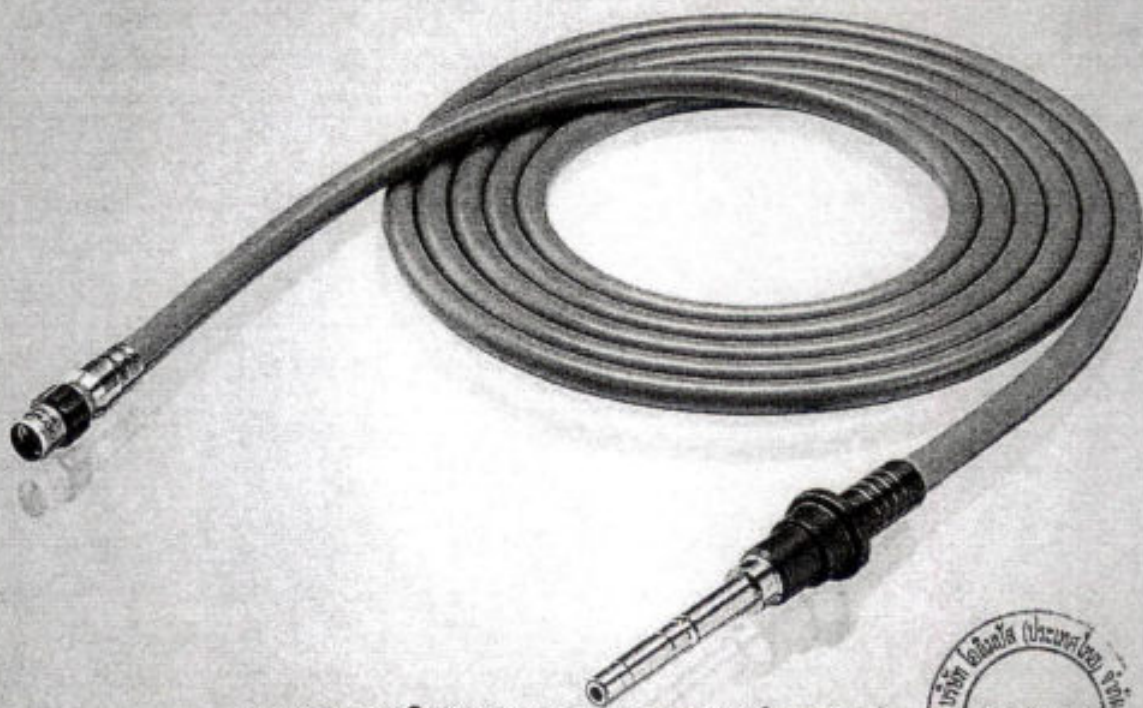
Your Vision, Our Future



2.9

LIGHT GUIDE CABLES

Eco-friendly and durable



คณะกรรมการพิจารณาผลการประกวดราคาอิเล็กทรอนิกส์

๑. ลงชื่อ..... *สม. นว.* ประธานกรรมการ

๒. ลงชื่อ..... *สมยศ อัสสัณ* กรรมการ

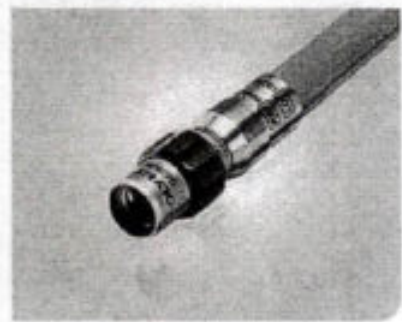
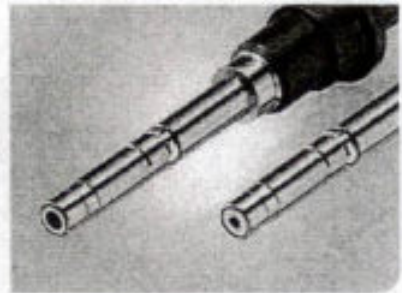
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OPTIMAL LIGHT TRANSMISSION

Ensuring you have a good view can be the key to success – and this particularly applies to endoscopic procedures. Olympus light guide cables mean you can focus on your day-to-day work, and not have to worry about light being correctly transmitted. When combined with an Olympus light source and the required scope, you'll benefit from optimal illumination to suit your needs.

- Eco-friendly in terms of RoHS compliance
- CF applied part classification for use in cardiac surgery
- Optimal light transmission thanks to fused optical fibers **2.8.2.1**
- Durability: optimized tube and fused fiber bundles for extremely high durability against mechanical stress and autoclaving
- High temperature resistance
- Compatible with a wide variety of endoscopes if used with suitable adapters
- Autoclavable



Specifications

Delivery of all light-guide cables includes light-guide adapter WA03320A.

WA03300A Light-guide cable, 2.8 mm, 3 m, CF type



maximum insertion portion width of the endoscope \leq 4.1 mm

WA03310A Light-guide cable, 4.25 mm, 3 m, CF type

2.8.2.2



maximum insertion portion width of the endoscope $>$ 4.1 mm

Spare Parts

WA03320A Spare light-guide adapter, Olympus light-guide cable to Olympus light source



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OLYMPUS SURGICAL TECHNOLOGIES EUROPE
Olympus Winter & Ibe GmbH
Kuehnstr. 61
22045 Hamburg, Germany
www.olympus-eeste.eu



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2.9

45L HIGH FLOW INSUFFLATION UNIT

UHI-4

Advanced functionality for enhanced performance and reliability
in a demanding surgical environment



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UHI-4

Main Features

High Speed Insufflation

The UHI-4 offers an increased maximum flow rate of 45L per minute. In addition, a new display mode provides clear visualization of the pressure, flow rate and volume in real time for monitoring the status of the UHI-4.

Automatic Smoke Evacuation

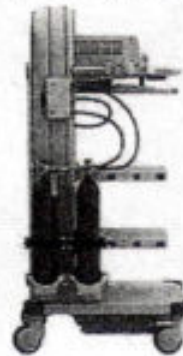
An automatic smoke evacuation feature is enabled on the UHI-4 when it is coupled with a new or existing energy platform. This will help provide a clear and unobstructed view of the surgical field during difficult laparoscopic procedures.

Adjustable Smoke Evacuation

In order to reduce the amount of CO₂ used during surgery, the UHI-4 allows for the smoke evacuation to be independently set on the front panel of the unit. The smoke evacuation can be toggled between a High and Low function.



New Cylinder Hose with Switch-over Valve



With the new CO₂ switch-over valve accessory, the surgeon can freely switch CO₂ tanks without interrupting long procedures, thus reducing the physical difficulty of exchanging tanks.

*To use this accessory, the new WM-NP2 mobile workstation as well as the double cylinder holder (a WM-NP2 accessory) is required.

New Small Cavity Mode

The newly developed Small Cavity Mode allows for safer insufflation of cavities smaller than the abdomen.



Specifications

Dimensions (W x H x D)	370 x 120 x 300 mm
Weight	9.3 kg
Abdominal Pressure Control	3 to 25 mmHg 2.9.2.2
Flow Rate Settings	0.1 to 45 L/min 2.9.2.1
Cavity Mode	Normal/Small
Gas Supply From Wall Pipeline	Connectable 2.9.1.3
Alarm	Overpressure of abdominal cavity/Tube clogging/insufficient supply of gas
Smoke Evacuation Function	Available (when connected to the below devices) • ESG-400 Electrosurgical Generator • USG-400 Ultrasonic Generator • UES-40 Electrosurgical Unit • SonoSurg-G2 Sonosurg Generator
OR Integration	ENDOALPHA UCES-3 ver. 4
Standard Set	UHI-4 MAJ-590 Insufflation Tube MAJ-591 Suction Tube



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Specifications, design and accessories are subject to change without any notice or obligation. This is the part of the manufacturer's responsibility.

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OLYMPUS MEDICAL SYSTEMS CORP.
Shinjuku Monolith, 2-3-1 Nishi-Shinjuku, Shinjuku-ku, Tokyo 163-0814, Japan



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2.10

Laparoscopic Pump LP100

One Device, Two Functions, Many Advantages



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Laparoscopic Pump LP100

One Device, Two Functions, Many Advantages

It's powerful, it's smart, it's convenient. With a built-in vacuum pump, the new LP100 from Olympus combines irrigation and suction functionality in one device – which makes it the device of choice for minimally invasive surgeries. It also allows full flexibility, e.g. irrigation can be combined with integrated suction or wall suction.

A suction and irrigation volume of up to 2 l/min helps to create a clear view during the operation. The system provides enhanced safety during application by ensuring that a new irrigation tube is used for each patient based on RFID technology.

The compact design means it can be used on an OR trolley or a table mount. With all these features, the lap pump represents high quality made in Germany in combination with more than 40 years of experience in the development of medical pumps.

The laparoscopic pump complies with CE regulatory requirements



Made for Easy Handling

The contemporary design of the pump is reduced to the essentials and the tube sets can be inserted with one hand in three simple steps. A built-in handle on the pump allows easy transportation, if necessary.

The Accessories

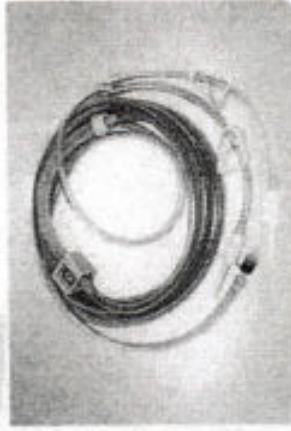
The accessories allow a flexible setup of the pump. All accessories can be ordered separately based on individual OR requirements.

The pump tube sets are compatible with the following suction/irrigation handles:

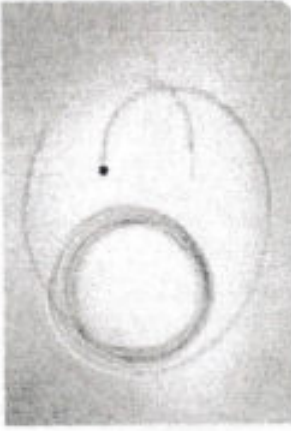
- WAS1172S Handle "HQP", for suction/irrigation tube, valve, suction channel 5 mm
- AS706 Handle, for suction/irrigation tube

2.10.2.2

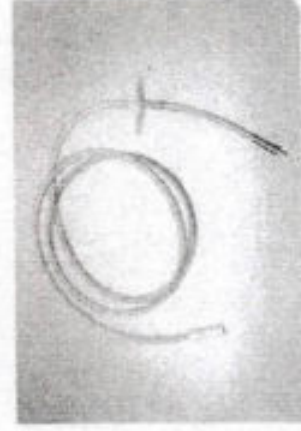
Accessories



Tube set for irrigation



Tube set for suction, laser fiber



Museum tube set and laser fiber

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Laparoscopic Pump LP100

Product Information

Technical Data

Mains voltage range	AC 100-240 V
Supply frequency range	50/60 Hz
Protection class	IP 41
Classification	Ila
Max. sound level	< 80 dB (a)
Max. negative suction pressure	-80 kPa
Max. pump pressure	450 mmHg
Max. irrigation performance	2 l/min
Accuracy flow	± 10%
Dimensions (w x h x d)	210 x 148 x 280 mm
Weight	3.7 kg

Device

Item No.	Description
WA58850A	Laparoscopic Pump "LP100"

Accessories

Part No.	Description
WA58810A	Tube set for irrigation, single-use, DEHP free, with RFID technology
WA58830A	Tube set for suction, single-use, DEHP free
WA58840A	Tube set for vacuum incl. filter, 30-day-use
WA51172S	Handle "HIQ+", for suction/irrigation tube, valve, suction channel 5 mm
A5796	Handle, for suction/irrigation tube

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๑. ลงชื่อ..... *สม*..... ประธานกรรมการ
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 ๓. ลงชื่อ..... *One*..... กรรมการ



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 Olympus Winter & Ibe GmbH
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 22045 Hamburg, Germany
 www.olympus-europe.com



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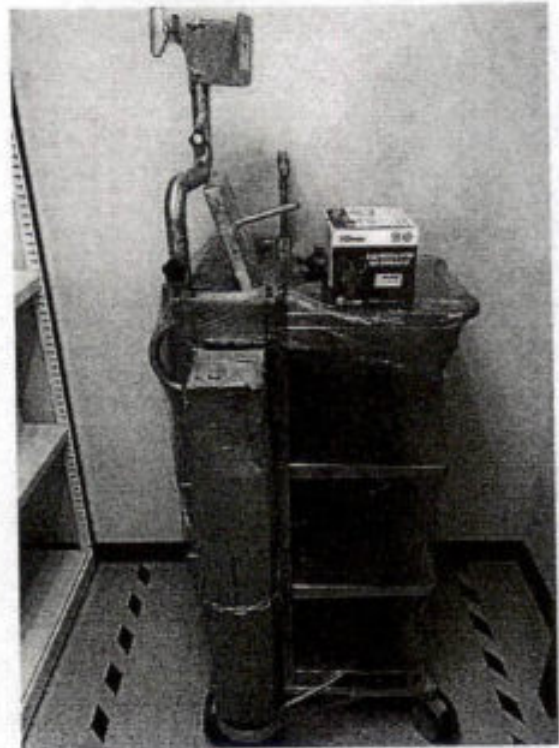
2.11

SUG-315 STAINLESS CART 4 SHELVES

FRONT



SIDE



สเปค

- มีชั้นสำหรับวางเครื่องมือ 2.11.2.2
- มีแขนสำหรับแขวนจอแสดงภาพ แบบปรับทิศทางได้ 2.11.2.3
- มีล้อ พร้อมที่ห้ามล้อ 2.11.2.4
- มีที่วางถังแก๊ส พร้อมถังแก๊ส 2.11.2.2
- มีถังแก๊สคาร์บอนไดออกไซด์ ขนาด 1.2-1.5 ลิว
- มีสายแก๊สทนแรงดันสูงสำหรับเชื่อมต่อถังแก๊ส
- มี Regulator เพื่อดูแลแรงดันภายในถังแก๊ส

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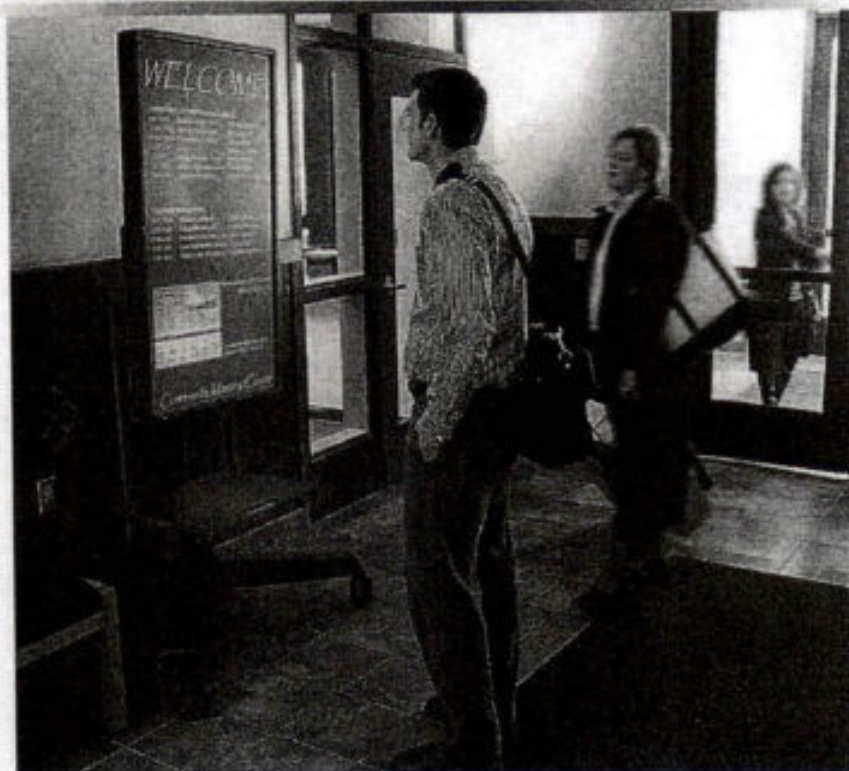


Highlights

- Move digital signage and images to where you need them
- Rotate your display to portrait or landscape orientation—no need to reinstall display
- Optional camera shelf accessory converts any space into a videoconference center
- Easily roll cart through standard-size doorways and over thresholds
- Narrow footprint allows presenter to move closer to the display, easily tucks into corners or nests with other carts for space-saving storage
- Constant Force CF technology enables smooth, effortless portrait-to-landscape rotation, tilt and height adjustment. Adjusts with just a touch—no knobs or levers
- Modular cable management channels conceal and organize cables
- Maximize your technology investment by sharing a large display over multiple rooms
- Second-generation design and 47 separate quality tests ensure reliability and optimum performance
- Speedy assembly and installation

Ergotron®

Neo-Flex® Mobile MediaCenter



Stretch your display media investment with lift, tilt, rotation and mobility

Bring digital content to life with Ergotron's sleek Neo-Flex Mobile MediaCenter. With effortless height adjustment and integrated portrait-to-landscape capability, this cart stretches your investment by serving a variety of projection needs in rooms throughout a facility. Built with the same unparalleled features as the award-winning LX Large Display Cart, the Mobile MediaCenter's affordability, simple assembly and effortless operation make it perfect for digital signage, conferencing and other applications.

**JUST
STAND
.ORG**

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คณะกรรมการพิจารณาผลการประกวดรางวัลเลิศหรอนก

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ERGOTRON®

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- Complies with UL Tip Standards 1667 and 1678
- Rugged plastic-composite shelf conveniently attaches to cart at any height
- Modular cable channel system is adaptable for various wiring configurations
- Portrait orientation is not recommended for some plasma displays. Contact display manufacturer if you have questions regarding your plasma's portrait-mode capability (this is not an issue with LCD technology)
- CPUs attach safely to rear of cart with Universal CPU Holder accessory (ordered separately). Compatible with CPU sizes from 12" H x 3" D to 16" H x 8.5" D (300 x 80 mm to 460 x 220 mm)

Small CPUs with VESA hole-mounting pattern can be mounted behind the display with the MMC VESA-CPU Mount (ordered separately); VESA-compliant (75/100 mm) thin client CPU must have either a 75 x 75 mm or 100 x 100 mm mounting hole pattern.

- Add the MMC Camera Shelf Kit (97-491-085, ordered separately) to place adjustable camera shelf above the display
- Three-year warranty

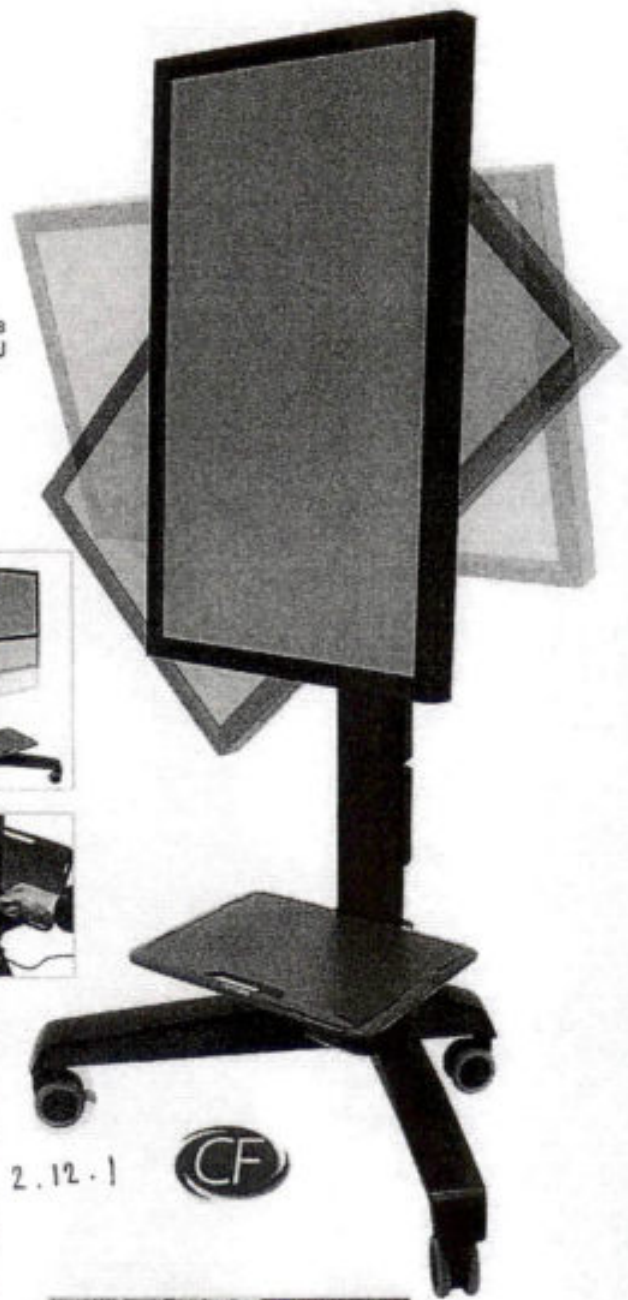


LD LCD Size	LD Weight*	Lift	Tilt	Pan	Rotation	VESA
24" (610 mm)	25-36 lbs (11.4-16.3 kg)	0-100 mm	±2°	—	0°	VESA
VHD LCD Size	VHD Weight*	Lift	Tilt	Pan	Rotation	VESA
32" (813 mm)	25-55 lbs (11.4-22.7 kg)	0-100 mm	±2°	—	0°	VESA
UHD LCD Size	UHD Weight*	Lift	Tilt	Pan	Rotation	VESA
32" (813 mm)	25-55 lbs (11.4-22.7 kg)	0-100 mm	±2°	—	0°	VESA

* Weight capacity: main shelf = 30 lbs (13.6 kg); table shelf = 8 lbs (3.2 kg); if MMC Camera Shelf Kit is added, display weight capacity is diminished by 3 lbs (1.4 kg); if 800 mm Kit is added the display weight capacity is diminished by 5 lbs (2.3 kg)

Save time and money utilizing a network of certified professionals to deploy Ergotron's fleet of Neo-Flex carts. See our Service Program page on Ergotron.com for more information.

Product Name	Neo-Flex Mobile MediaCenter LD, 24-190-085 (black) Neo-Flex Mobile MediaCenter VHD, 24-191-085 (black) Neo-Flex Mobile MediaCenter UHD, 24-192-085 (black)
Product Includes	Neo-Flex cart, display and pan assembly, lower main shelf, 4" (100 mm) casters (two locking), rear cable shelf, cable channel kit Vide Conferencing equipment is not included
Shipping Dimensions	66"L x 20"H x 14"D (1680 x 503 x 335 mm)
Shipping Weight	122 lbs (55 kg)
Compatible Display(s)	LD version: displays weighing 25-36 lbs (11.4-16.3 kg) = 75 x 75, 100 x 100, 200 x 100, 100 x 200; displays weighing 25-55 lbs (11.4-22.7 kg) = 200 x 200, 400 x 200, 200 x 400, 400 x 400, 600 x 200, 800 x 400
Mounting hole pattern - Width x Height in mm	VHD version: horizontal measurement = 200 mm, 400 mm, or 600 mm. Vertical measurement = 200 mm or 225 mm to 400 mm. With optional 800 mm Accessory Kit (97-489, ordered separately), horizontal measurement can be expanded to 800 mm or 680 mm UHD version: horizontal measurement = 200 mm, 400 mm, or 600 mm. Vertical measurement = 200 mm or 225 mm to 400 mm. With optional 800 mm Accessory Kit (97-489, ordered separately), horizontal measurement can be expanded to 800 mm or 680 mm



2.12.1



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รับรองทั้งหมด

หนังสือรับรองประกอบการนำเข้าเครื่องมือแพทย์
สำนักงานคณะกรรมการอาหารและยา
กระทรวงสาธารณสุข

หนังสือเลขที่ JPN ... 6007493

28 พฤศจิกายน 2560

ได้พิจารณาหนังสือรับรองการขาย/หนังสือรับรองการขายและหนังสือรับรองระบบคุณภาพการผลิตแล้ว
ถูกต้องตามประกาศกระทรวงสาธารณสุข (ฉบับที่ 34) พ.ศ. 2549 แห่งพระราชบัญญัติเครื่องมือแพทย์ พ.ศ. 2531
ชื่อผู้นำเข้า : บริษัท โออิมปัส (ประเทศไทย) จำกัด

ชื่อผู้ผลิต : SHIRAKAWA OLYMPUS CO., LTD.

หนังสือฉบับนี้ใช้ประกอบกับ หนังสือรับรองการขายเลขที่ 3771

ประเทศ Japan

หนังสือรับรองระบบคุณภาพการผลิตเลขที่

สามารถนำเข้าประกอบการนำเข้าเครื่องมือแพทย์จนถึงวันที่ 25 ตุลาคม 2565

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นางสาวยุวดี พัฒนพงษ์
ผู้อำนวยการกองควบคุมเครื่องมือแพทย์
กรมการแพทย์
เลขที่ 101 ถนนวิภาวดีรังสิต แขวงจตุจักร กรุงเทพฯ 10310



เงื่อนไข

- เมื่อปรากฏว่าประเทศผู้ผลิตหรือประเทศเจ้าของผลิตภัณฑ์ห้ามขาย หรือมีการยกเลิกการรับรองระบบคุณภาพการผลิตของ
เครื่องมือแพทย์รายการใดตามที่ระบุไว้ในหนังสือรับรองฉบับนี้ ให้ถือว่าการรับรองเครื่องมือแพทย์ดังกล่าวเป็นอันยกเลิก
- ห้ามนำเวชภัณฑ์หนังสือไปประกาศโฆษณา
- ห้ามโฆษณาว่าได้รับการรับรองจากสำนักงานคณะกรรมการอาหารและยา
- ห้ามโฆษณาเครื่องมือแพทย์ก่อนได้รับความเห็นชอบจากสำนักงานคณะกรรมการอาหารและยา
- สำนักงานคณะกรรมการอาหารและยา ขอสงวนสิทธิ์ที่จะออกเลิกเพิกถอนหนังสือรับรองประกอบการ
นำเข้าเครื่องมือแพทย์ฉบับนี้ หากผู้นำเข้าไม่ดำเนินการให้เป็นไปตามกฎกระทรวงกำหนดหลักเกณฑ์
วิธีการ และเงื่อนไข การจดทะเบียนขอทะเบียนประกอบการนำเข้าเครื่องมือแพทย์ ที่ออกตามพระราชบัญญัติ
เครื่องมือแพทย์ พ.ศ. 2551 เมื่อกฎกระทรวงดังกล่าวมีผลบังคับใช้แล้ว

หมายเหตุเพิ่มเติม

คณะกรรมการพิจารณาผลการประกวดราคาอิเล็กทรอนิกส์

ข้อมูลที่อยู่ประกอบการบันทึกเข้าทำหนังสือแจ้งข้อควรระวังของผู้ประกอบการ

๑. ชื่อ..... ประธานกรรมการ

๒. ลงชื่อ..... กรรมการ

๓. ลงชื่อ..... กรรมการ





MINISTRY OF HEALTH, LABOUR AND WELFARE
 GOVERNMENT OF JAPAN
 2-2, KASUMIGASEKI 1-CHOME, CHIYODA-KU, TOKYO 100-8916

CERTIFICATE

It is hereby certified that the following medical device marketed by OLYMPUS MEDICAL SYSTEMS CORP., 2-43-2 Hatagaya, Shibuya-ku, Tokyo 151-0072 Japan is manufactured under our supervision as stipulated in the Pharmaceuticals, Medical devices and Other Therapeutic Products Act of Japan and is authorized to be marketed in Japan.

Medical device:

4K AUTOCLAVABLE CAMERA HEAD OLYMPUS CH-S400-XZ-EA

For legalization by the foreign consul in Japan, this is to certify that the Seal affixed to this document is genuine.

Tokyo, NOV 13 2017 **T. TANAKA**
 Official
 Ministry of Foreign Affairs
 (Consular Service Division)

15 273 / 2560
 Tokyo 16 NOV 2017
 Certified as genuine by the Director of
Toshio TANAKA
 Miss Pichayapinee Mulapruk
 Consul-EMBASSY, TOKYO.
 Royal Thai Embassy, Tokyo

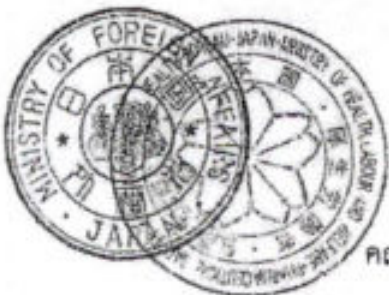
Manufacturing Site and Shirakawa Olympus Co., Ltd.
 Address: 3-1 Okamiyama, Odakura, Nishigo-mura Nishishirakawa-gun, Fukushima
 961-8061, Japan

No 3771

Tokyo, date OCT. 26. 2017



(Handwritten signature in Thai script)



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- ๑. ลงชื่อ..... ประธานกรรมการ
- ๒. ลงชื่อ..... กรรมการ
- ๓. ลงชื่อ..... กรรมการ

