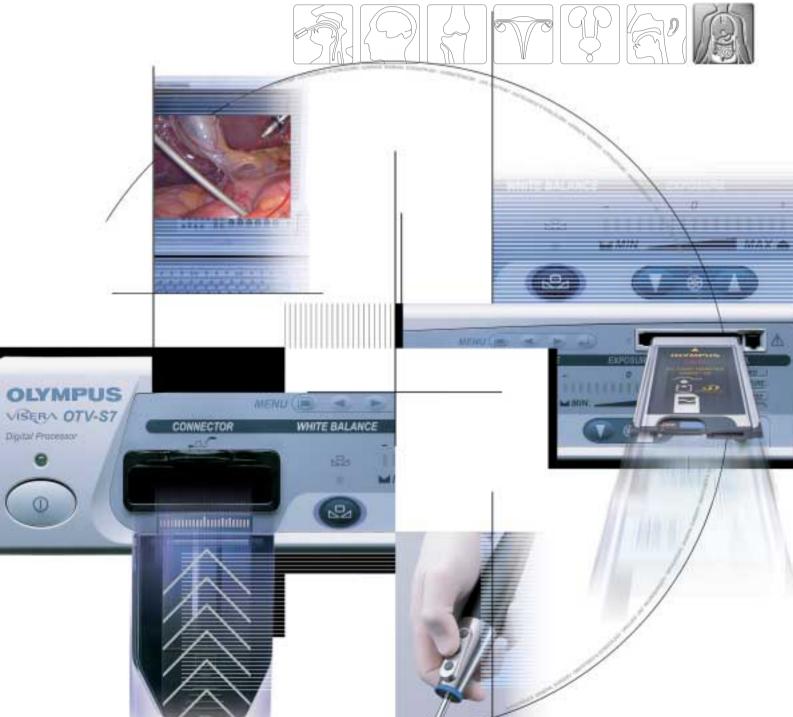








# Vision of the Next Generation



Vision of the Next Generation

# Versatility and Quality a Level Beyond

- Videoscopes, plus several high-quality camera heads.
- Autoclavability, including videoscopes and camera heads.
- Digital recording for both still and moving images.

With a full line of autoclavable surgical videoscopes and camera heads, digital documentation of still/moving images, and much more. Take control of your imaging needs with the sophistication and seamless efficiency of VISERA.

The VISERA Digital Imaging Platform responding to every need in minimally invasive surgery...and to your every demand.



# **High-Performance**

## Multi-Interface











### **VISERA Concept**

VISERA allows the interconnection of a variety of videoscopes and camera heads. It lets you share equipment and standardize control, enhancing the service, efficiency, and affordability of endoscopy in your hospital.

An extensive lineup for your needs. Adding functions later is also possible.

	DV Unit	PC Card Unit	P in P Unit	Orientation Unit
Туре В	<b>/</b>	<b>/</b>	_	_
Туре С	<b>/</b>	<b>/</b>	/	_
Туре D	<b>/</b>	_	_	_
Туре F	<b>/</b>	<b>/</b>	_	<b>/</b>



VISERA is also compatible with the EndoALPHA Olympus Integrated Endosurgery System.

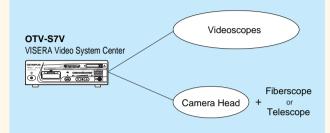
When used with the EndoALPHA Olympus Integrated Endosurgery System, VISERA camera functions can be controlled via voice navigation and touch control, thus greatly improving efficiencies in your operating room.



### **Superior Lineup**

# **Dynamic, High-Quality Imaging Solutions**

You demand a wide selection of scopes for any situation, plus the ability to connect all scopes to a single system.



- You demand autoclavable instruments.
- You demand remote control of functions.

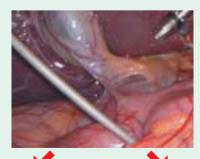




## **Digital Documentation**

# **Digital Gives You More Control**

You demand digital recording of both still and moving images for smarter management of recorded images.









# Dynamic, High-Quality **Imaging Solutions**

The VISERA lineup includes videoscopes with superb image quality, from a simultaneous-multicolor CCD on their distal tips. There are also a variety of camera heads, including autoclavable ones, allowing you to choose whichever most suits your needs.

OTV-S7V/CLV-S40

with LCD Monitor







LTF TYPE V3



A500\*\*A



ENDOEYE is the brand name of the LTF TYPE VP/V3 and A500\*\*A VISERA Laparo-Thoraco Videoscopes.

# A Variety of Camera Heads



# LTF TYPE VP/V3 VISERA Laparo-Thoraco Videoscope <NO <Y <

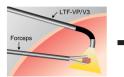
### Superb Image Quality from a Simultaneous-Multicolor CCD and Angulation in 4 Directions.

The LTF TYPE VP/V3 features a compact control section for easy one-handed use. The shorter bending section allows smoother orientation, even in narrow cavities.



### Wider Depth of Field and Tip Angulation in Four Directions

The LTF TYPE VP/V3 has a wider depth of field for finer observation of organs. The tip's angulation range makes it possible to view forceps from directly above, letting you cut tissues more smoothly.





In Abdominal Cavity



# A500\*\*A VISERA Laparo-Thoraco Videoscope (Autoclavable)

# **ENDOEYE**

### **High-Resolution True-Life Images with** a Simultaneous-Multicolor CCD.

ø5.4mm and ø10mm sizes are available, each with 0° and 30° direction of view. Those with 30° views also allow imagerotation for thorough orientation

autoclave



### Image Rotation for Thorough Orientation

You can rotate the scope using a knob for thorough orientation.



### **Autoclavable Camera Heads**

Three types of autoclavable camera heads are available: Normal, Eyepiece-Integrated, and Quick-Lock Integrated, letting you choose the one that best suits your needs







# Focus Free Camera Heads (Autoclavable)

The Focus Free function lets you concentrate on your procedures without taking time out to adjust the focus.



## **Quick and Cost-Effective Autoclave Sterilization**

Lets You Keep Up with Higher Numbers of Surgeries.

It only takes approx. 10 to 60 minutes to autoclave, so you don't have to worry about higher numbers of surgeries. Autoclaving is also cost-effective and known for its safety.

Non-autoclave equipment allows only one surgery per day

Monday

Tuesday Wednesday

P.M.	
_	Mo
/	Τu
/	W

	With autoclavable equipment, two surger
Þ	(one in the a.m., another in the p.m.)
	are possible.
	AM   DM

	A.M.	P.M.
Monday	/	<b>/</b>
Tuesday		<b>/</b>
Wednesday		<b>/</b>

### **Convenient Remote Control**

Remote control switches are built into the control sections of the videoscopes and camera heads. Frequently used functions can be programmed, letting you control them without looking away from what you're doing.







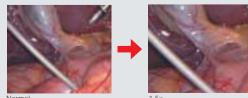
You can remote-control functions such as

- VTR Recording/Pause
- Zoom
- Capture
- (on SmartMedia\* via a PC card adapter)
- P in P. Rotated/ Mirrored Image Display
- Automatic White Balance

\*SmartMedia is a trademark of TOSHIBA Corporation.

### Electronic Zoom

You can enlarge an image to 1.2x, 1.5x, or 2x.





### P in P, Rotated, or Mirrored Image Display\*

You can display another image (such as ultrasonic, CT, or MRI) simultaneously with the endoscopic image and switch between them using the main and sub-display. Rotated or mirrored image display lets another doctor view images from the same angle. \*Available with Type C.



Rotated

Mirrored

# Digital Gives You More Control

VISERA lets you record images using remote control switches.

Once recorded digitally, both still and moving images can be quickly sorted and easily edited.



Still/Moving Image Recording with Remote Control Switches

\*SmartMedia is a trademark of TOSHIBA Corporation.





xD-Picture Card



Digital Data in Various Formats



Digital Videotapes via IEEE



Digitally Recorded Images Make Editing Easy for Conferences, Meetings, and More

Editing moving images is easy, letting you use image data in a variety of ways.

Conferences



- Quick Search Using a Server
- Quick Transmission Using a LAN (Local Area Network)



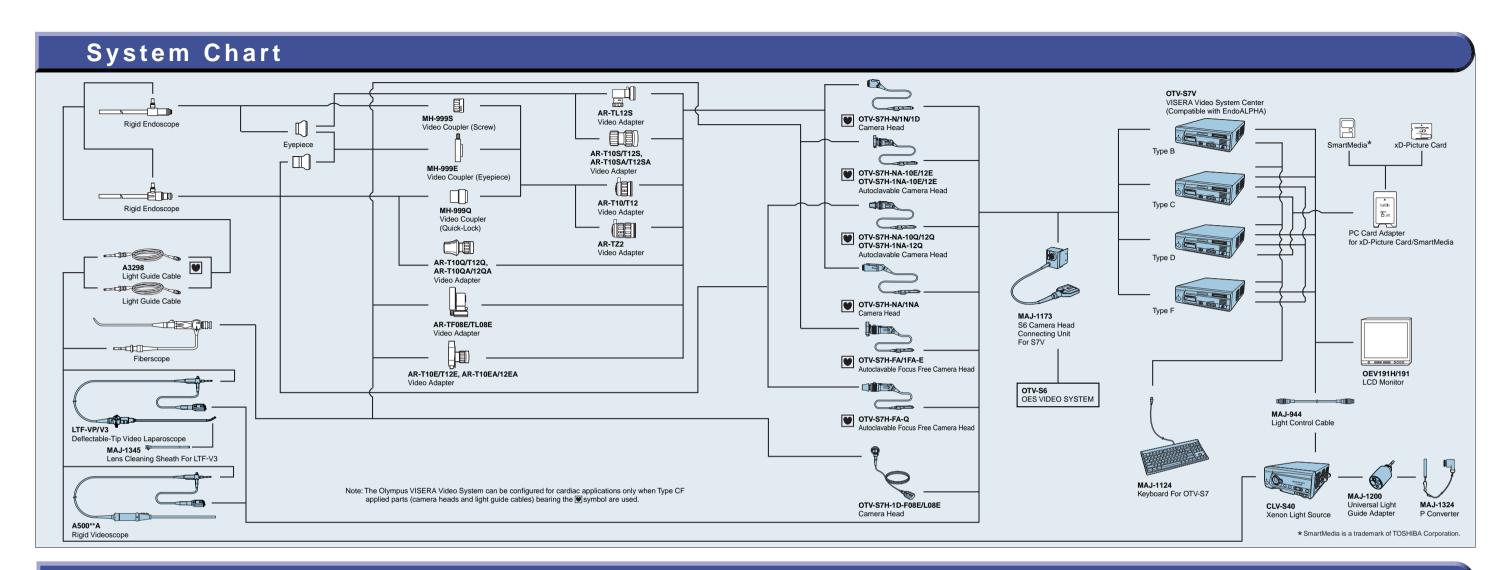
Space-Saving Digital Videotape

# Smart Storage and Management

### Compact and Convenient

Both still and moving images can be stored as compact digital data. A server and network make managing them hassle-free.





# VISERA Lineup

# Video System Center

VISERA VIDEO SYSTEM CENTER OTV-S7V

Select the type that meets your needs. You can add functions later to your selection.



B.O.D.	B.O.D. Indicator	Type B	Type C	Type D	Type F
DV Unit For OTV-S7 (OTV-S7BOD-DV)	DV/DVC PRO	<b>✓</b>	<b>/</b>	<b>/</b>	<b>/</b>
PC Card Unit For OTV-S7 (OTV-S7BOD-PC)	DIGITAL CAPTURE	<b>✓</b>	<b>/</b>	_	
P in P Unit For OTV-S7 (OTV-S7BOD-PP)	P IN P/REVERSE	_	<u> </u>	_	_
Orientation Unit for OTV-S7 (OTV-S7BOD-RT)	ORIENTATION	_	_	_	

### ■ Specifications (When all B.O.D. units are installed in the OTV-S7V)

Power Supply	Voltage		100 - 240 V AC *1		
	Voltage Fluctuation		Within ±10%		
	Frequency		50/60 Hz		
	Frequency F	luctuation	Within ±1 Hz		
	Electric Pow	er Consumption	70 VA		
	Fuse Rating		3.15 A, 250 V		
	Fuse Size		ø5 x 20 mm		
Size	Dimensions		295 (W) x 80 (H) x 370 (D) mm		
	Weight		Type B: 6.5 kg Type C: 6.6 kg Type D: 6.3 kg Type F: 6.6 kg		
Classification	Type Of Protection	Against Electric Shock	Class I		
	Degree Of Protection	on Against Electric Shock	Depends on the applied part.		
	Degree Of F	Protection	The VISERA Video System Center (OTV-S7V) should		
	Against Exp	losion	be kept away from flammable gases.		
Observation	Television System		NTSC / PAL		
	Video Signal Output		VBS (1.0 Vp-p 75 Ω): 1		
			Y/C (Y:1.0 Vp-p 75 Ω, C: 0.28 Vp-p 75 Ω): 3		
			RGB (R.G.B.: 1.0 Vp-p 75 Ω, SYNC: 4.0 Vp-p 75 Ω): 1		
			DV (IEEE1394 Digital Video Output Signal): 1		
	Video Signal Input		VBS (2.0 Vp-p): 1		
	Auto White I		Automatically adjusted with the white balance switch.		
	Brightness	Light Source	Light reflected from the subject is measured by the		
	Adjustment	Intensity	camera head or videoscope in combination with the		
		Adjustment	specified Olympus light sources.		
		Exposure Level	The exposure level switch adjusts brightness ±8 levels.		
Observation	Focus Free		Focus free is possible only when a camera head with a		
Menu			built-in focus free function is connected.		
	Image Enhancement		An imaging process which electrically intensifies the		
			boundary of an image.		
	AGC		The image can be electrically amplified when the light is inadequate		
			because the distal end of the endoscope is too far from the subject.		
	Iris		Exposure area can be selected.		
	Freeze		Image can be frozen by the video monitor.		

*1 When using an NTSC model with a voltage over	r 120 V AC, use a power cord specific to the voltage.
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Observation	Patient Data Input	Patient data can be entered.	
Menu	Patient Data Display	Patient data display is set to ON/OFF.	
	Shutter	Shutter is set to ON/OFF.	
	PC Card	Frozen image can be recorded to or played back from	
		SmartMedia.	
	Picture In Picture *2	The external image from the video input terminal can be	
		shown on the same video monitor as the main or sub image	
	Reverse Image	Mirrored or rotated (180°) images can be displayed on	
		the video monitor.	
	Multi-Freeze	Multi-freeze image can be displayed on the video monitor.	
	Preset	The OTV-S7V's setting can be saved or loaded for 7 users.	
	Clock	Time and date can be adjusted.	
	Remote Control	The OTV-S7V's functions can be operated by remote	
	Switch Setting	control switches on the camera head or videoscope.	
	Color Mode Setting	Color mode is selected from among 5 modes.	
	Red Color Adjustment	±8 levels	
	Blue Color Adjustment	±8 levels	
	Color Bar Output	Full-field color bar	
Recording	VTR Remote Control	Remote control of VTR recording possible by connecting	
		the optional MAJ-438 remote control cable.	
	SCV-3 Remote Control	Remote control of EVIS monitor photo unit (SCV-3: not	
		available in some countries) possible by connecting the	
		optional MH-986 remote cable.	
	OEP/OEP-3	Remote control of color video printer (OEP/OEP-3) possible	
	Remote Control	by connecting the optional MH-987 remote cable.	
	DV Remote Control	Remote control of DV recording possible by connecting	
		the optional IEEE1394 cable.	
	Memory Card	SmartMedia (128/64/32/16/8MB) and xD-Picture Card	
		(512/256/128/64/32/16 MB) are specified by Olympus.	
		MA-2E and MAPC-10 can be used as PC card adapter.	

<sup>\*2</sup> Input signals of the P in P display are limited to composite video signals (NTSC standard\*).
1 The P in P display is limited to signals in conformity to RS-170A color video signals (15.734 kHz horizontal and 59.94 Hz vertical).
Black-and-white video signals in conformity to RS-170 (15.75 kHz horizontal and 60 Hz vertical) are not acceptable due to the impossibility of synchronizing.

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### Camera Head

CAMERA HEAD

OTV-S7H-N

OTV-S7H-1N

OTV-S7H-1D

■ Specifications		
Camera Head	Dimensions	ø27 x 37 mm (from mount surface)
	Weight	40 g (excluding cable)
Cable		ø5.2 mm x 4 m
Cleaning/Disinfection		Immersible in disinfectant solution with a video adapter attached.
Sterilization		Ethylene oxide gas sterilization possible.



### CAMERA HEAD

# OTV-S7H-1D-F08E OTV-S7H-1D-L08E

■ Specifications		
Camera Head	Dimensions	Endoscopic mount: ø45.2 x 12.1 mm
		Finder block: 25W x 17.7H x 17.2D mm
		Camera head: ø14 x 45 mm
	Weight	45 g (excluding cable)
Cable		ø3.3 x 4 m
Cleaning/Disinfection		Immersible in disinfectant solution.
Sterilization		Ethylene oxide gas sterilization possible.



AUTOCLAVABLE CAMERA HEAD

OTV-S7H-NA

OTV-S7H-1NA

■ Specifications		
Camera Head	Dimensions	ø29 x 85 mm (from mount surface)
	Weight	125 g (excluding cable)
Cable		ø6.8 mm x 4 m
Cleaning/Disinfection	on	Immersible in disinfectant solution with a video adapter attached.
Sterilization		Ethylene oxide gas sterilization and steam (autoclave) sterilization possible.



Number of remote control switches: 2

AUTOCLAVABLE CAMERA HEAD

OTV-S7H-NA-10E

■ Specifications

Cleaning/Disinfection

OTV-S7H-

OTV-S7H-NA-12E

OTV-S7H-

1.2x, Eye-piece type 1.2x, Eye-piece type, w/

-1NA-10E /built-in moiré-filter	
-1NA-12E /built-in moiré-filter	
	Number of remote control switches: 2

Dimensions ø29 x 85 mm (from mount surface) 215 g (excluding cable) ø6.8 mm x 4 m Immersible in disinfectant solution



### AUTOCLAVABLE CAMERA HEAD

# OTV-S7H-NA-10Q OTV-S7H-NA-12Q OTV-S7H-1NA-12Q

	7 = 1 1 21 1		
		pecifications	•
	sions ø	Camera Head Dimensions	
	1		
	Ø	Cable	
	Ir	Cleaning/Disinfection	
sible.	E	Sterilization	
sible	Sterilization Ethylene oxide gas sterili		



### AUTOCLAVABLE FOCUS FREE CAMERA HEAD

# OTV-S7H-FA-E OTV-S7H-1FA-E OTV-S7H-FA-Q

■ Specifications			
Camera Head Dimensions		ø36 x 125 mm (Diameter of focus ring x total length)	
	Weight	240g (excluding cable)	
Cable	le Ø6.8 mm x 4 m		
Cleaning/Disinfection	ning/Disinfection Immersible in disinfectant solution with a video adapter attached.		
Sterilization Ethylene oxide gas sterilization and steam (autoclave) sterilization possible.			





### ■ Common Specifications

Observation	Pickup System	Interline type CCD solid-state image pickup, Picture elements 410,000 (NTSC), 470,000 (PAL)
	Resolution (at center)	Horizontal: over 640 lines
	Sensitivity	1.3 higher than the OTV-S6 under the same condition.
	-	OTV-S7H-N/1N/1D/NA/1NA: Minimum illumination 1.4 Lux (F1.4, AGC ON, 30% full video)
	S/N	Greater than 49 dB (AGC OFF, DARK)
Classification	Degree Of Protection Against Electric Shock	Type CF, Type BF (OTV-S7H-1D-F08E/L08E)
(Electro-Medical Equipment)	Degree Of Protection Against Explosion	The product should be kept away from flammable gases.

## Videoscope

VISERA LAPARO-THORACO VIDEOSCOPE

## LTF TYPE VP/V3



A high-resolution videoscope capable of angulation in 4 directions.

#### ■ Specifications

\* With 30°-view models.

■ Specifications Model

Television System Picture Elements

Direction Of View

Field Of View Depth Of Field

Outer Diamete Working Length
Image Rotation Function

Dedicated Autoclave Trav

Display

Model		LTF TYPE VP	LTF TYPE V3
Optical System	Field Of View	80°	90°
	Direction Of View	0° (forward viewing)	
	Depth Of Field	18 - 100 mm	15 - 100 mm
Insertion Portion	Distal End Outer Diameter	ø5.4 mm	ø10 mm
	Rigid Portion Outer Diameter	ø5.3 mm	ø10 mm
	Working Length	370 mm	330 mm
Bending Section	Angulation Range	Up 100°, Down 100°,	Up 100°, Down 100°,
		Right 100°, Left 100°	Right 60°, Left 60°
Total Length		3600 mm	



Number of remote control switches: 3

### VISERA LAPARO-THORACO VIDEOSCOPE

## A50001A/A50003A/A50021A/A50023A

High-resolution videoscopes with image rotation\*.



A50003A

Full Screen NTSC

410,000

20 to 100 mm

300 mm

	Number of remote e	ontroi switches. 5
Model	A50021A	A50023A
Display	Full So	creen
Television System	NT	SC
Picture Elements	270	,000
Direction Of View	0°	30°
Field Of View	70	)°
Depth Of Field	15 to 1	00 mm
Outer Diameter	5.4	mm
Working Length	300	mm
Image Rotation Function	_	0
Dedicated Autoclave Tray	595 (L) x 295 (	N) x 61 (H) mm

## **Light Source**

VISERA XENON LIGHT SOURCE

## **CLV-S40**

A high-quality light source with a powerful 300W xenon lamp.



### ■ Specifications

Power	Voltage (AC)	120 V, 220 V, 230 V, 240 V
Requirements	(see electrical ranging plate)	
	Frequency	50/60 Hz
	Input	6 A (120 V) , 3 A (220 V, 230 V, 240 V)
	Voltage Fluctuation	Within ±10%
Size	Dimensions	295 (W) x 125 (H) x 395.4 (D) mm (maximum)
	Weight	12 kg
Illumination	Lamp	Xenon short-arc lamp (ozone-free) 300 W
	Lamp Life	Approx. 500 hours on continuous use
		(In intermittent use, the lamp life may differ slightly)
	Ignition	Switching regulator
	Brightness Adjustment	Light-path diaphragm control

Illumination	Cooling	Forced-air cooling
	Emergency lamp	Halogen lamp (without mirror) 24 V 150 W
	Emergency Lamp Life	Approx. 500 hours on continuous use
		(In intermittent use, the lamp life may differ slightly)
Visual Observation	Control Method (automatic)	Servo-diaphragm
Video System	Automatic Sensitivity (AUTO)	17 steps
Front Panel Emergency Lamp Indicator		Indicates that the emergency lamp is operating, and
		blinks when the emergency lamp is broken.
	Intensity-Mode Memory Indicator	Indicates that Intensity-Mode Memory is selected.
	Standby Mode Indicator	Indicates that the standby mode is selected.
	Setting Retention	Selected settings are retained when the light source
		is switched off.

# **Ancillary Equipment**



OEV191H/191

Size 19 inch: 430 (W) x 386 (H) x 95 (D) mm

LCD MONITOR

Weight 8.0 kg







HIGH FLOW INSUFFLATION UNIT

WM-SC Size 1,500 (H) x 605 (W) x 656 (D) mm

\* LCD is not included.

UHI-3 Powerful 35 L/min. insufflation that

quickly responds to abdominal gas leaks.

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



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