

EVIS X1 Video System Center

CV-1500

A Unified Platform with 5 LED Spectrum Technology



A Unified Platform with 5 LED Spectrum Technology

By integrating the LED light source with the video processor, Olympus has developed a powerful system that is much more compact and lightweight than the predecessors*1.

Broad Compatibility

The CV-1500 can be connected to many different types of endoscopes, providing access to a wide variety of endoscopy-supporting functions.

Enhanced Observations

In addition to conventional white light and NBI (Narrow Band Imaging) and AFI (Auto Fluorescence Imaging) observation, the CV-1500 offers three other powerful enhanced observations to improve diagnostic and therapeutic capability:

- TXI (Texture & Color Enhancement Imaging) optimizes the structure, color tone and brightness of the mucosal surface.
- RDI (Red Dichromatic Imaging) improves visibility of deep blood vessels and bleeding points.
- BAI-MAC (Brightness Adjustment Imaging with MAintenance of Contrast) improves brightness in darker portions.

Intuitive, User-friendly Functions

With One-Touch Connector for quick, easy connection and no need for white balance adjustment*2, setup is simplified, with the aim of streamlining workflow and accelerating procedure time. Touch-sensitive panel facilitates intuitive operation, while convenient functions like Pre-freeze and MyCV mode ensure user-friendly working environment.

Downtime is reduced thanks to the use of **LED bulbs that last years without needing replacement.**

*1 Combination of EVIS EXERA III/EVIS LUCERA ELITE series light source and processor *2 Olympus 1100/1200/1500 series endoscopes only

Specifications		
Power Supply	Rated voltage	100-240 V AC; Within $\pm 10\%$
	Frequency	50/60 Hz; within ± 3 Hz
	Rated input	600 VA
Size	Dimensions (W x H x D)	370 x 198 x 488 mm; 398 x 218 x 580 mm (maximum)
	Weight	19.4 kg
Classification (Medical Electrical Equipment)	Type of protection against electric shock	Class I
	Degree of protection against electric shock of applied part	Depend on applied part. (The degree of protection against electric shock of this product is BF type if the mounting part to be connected to this product is BF type. However CF type is not subject to combination in this product.)
	Degree of protection against explosion	The video system center should be kept away from flammable gases.
	Analog signal output	VBS composite and Y/C; simultaneous outputs possible.
	Digital signal output	12G-SDI (SMPTE ST 2082), 3G-SDI (SMPTE424M), HD-SDI (SMPTE292M), SD-SDI (SMPTE259M)
Observation	User settings	The function settings for up to 20 users can be stored.
	Color tone adjustment	Adjust the color tone of each endoscopic image for White light observation mode, NBI observation mode, and RDI observation mode. · Red adjustment : ± 8 steps · Blue adjustment : ± 8 steps · Chroma adjustment : ± 8 steps
	Automatic gain control (AGC)	The image can be electronically amplified when the light is inadequate due to the distal end of the endoscope being too far from the object.
	Contrast	· H (High) : Darkens the dark part and brightens the bright part. · L (Low) : Brightens the dark part and darkens the bright part.
	BAI-MAC	Brightness adjustment with maintenance of contrast
	Iris	The iris modes can be switched. · Auto : The brightness is adjusted based on the brightest part of the central part and the average brightness of the periphery part. · Peak : The brightness is adjusted based on the brightest part of the endoscopic image. · Average : The brightness is adjusted based on the average brightness of the endoscopic image.
	Image enhancement settings	Fine patterns or edges in the endoscopic images can be enhanced electrically to increase the image sharpness. · Enhancement type A : Emphasizes the pattern and contour of the endoscopic image. · Enhancement type B : Emphasizes the finer parts than structure emphasis type A.
	Switching the enhancement modes	The enhancement level can be selected from 3 levels (OFF, 1, 2, and 3)
	Image size selection	The size of the endoscopic image can be selected from 2 modes. (Except SDTV)
	Electric zoom	Switch between mode 1, mode 2, and mode 3.
	PIP/POP	Switch between PIP and POP.
	Aspect ratio	Switch between 16:9 and 4:3. (Except SDTV)
	Freeze	Freeze the endoscopic image.
	Pre-freeze	The image with the least blur is selected from the images captured in the set time period before freeze operation and displayed.
	Optical-digital observation	The optical-digital observation can be performed. The endoscope compatible with the optical-digital observation is required. · NBI observation : This observation mode uses the narrow band light. · RDI observation : This observation mode uses the red dichromatic lights. · AFI observation : This observation mode uses the blue light. · TXI observation : This observation mode enhances color, texture and brightness.
	Beginning and ending examination	Beginning and ending examination timing can be set interlock with the particular operation.
	Custom switch	Assign specific functions to the following buttons. · Remote switches (Up to 5) · Foot switches (Up to 2) · Keyboard custom key (Up to 4) · Touch panel custom button of basic functions screen (Up to 3) · Touch panel custom button of custom functions screen (Up to 10)
	MyCV mode	Switch setting values of multiple functions at once.
Documentation	Remote control	The following peripheral device can be controlled (specified models only). · Portable memory · Video recorder · Color video printer · Image filing system · Server
	Patient information	The following data can be displayed on the monitor. · Patient ID · Patient name · Gender · Age · Date of birth · Comment
	Displaying the record state	The recording state of the following peripheral device can be displayed on the monitor. · Portable memory : Remaining capacity · Video recorder : Number of shots / Recording status · Color video printer : Number of shots · Image filing system : Number of shots
	Displaying the image information	The following data can be displayed on the monitor. · Image enhancement · Electric zoom ratio · Color mode · Focus · Observation mode
	Advanced registration of patient information	Up to 50 patient information can be registered. · Patient ID · Patient name · Gender · Age · Date of birth
	Recording format	Standard image quality: TIFF; Low image quality: JPEG
Memory Backup	Memorization of user settings	The settings are held in memory even after the video system center is turned OFF.
	White balance	The white balance that is once set is held in memory (only when using the compatible endoscope).

EVIS X1 VIDEO SYSTEM CENTER OLYMPUS CV-1500

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

Senzor de imagine:

Senzorul de imagine este un dispozitiv care convertește lumina în semnale electrice.

Zoom electronic:

Funcția de zoom electronic modifică raportul de focalizare a imaginii.

Iris:

Funcția iris este utilizată pentru a măsura electric luminozitatea unei imagini endoscopice.

Ajustarea culorii:

Ajustarea culorii ajustează balansul de culoare și saturația cromatică a monitorului.

Înghețare:

Funcția de înghețare realizează o imagine înghețată (în stop-cadru) a unei imagini în timp real.

Pre-înghețare:

Funcția de pre-înghețare este utilizată pentru a afișa imaginea cel mai puțin neclară la înghețarea imaginii.

Eliberare:

Funcția eliberare este utilizată pentru a înregistra o imagine endoscopică.

Imagine index:

Imaginea index este afișată pe monitor atunci când este pusă în execuție funcția de emiterie.

Contrast:

Acesta reprezintă raportul de luminozitate dintre zonele cele mai luminoase și zonele cele mai întunecate ale unei imagini.

Intensificarea structurală:

Intensificarea structurală reprezintă o tehnică de procesare a imaginii care accentuează electric texturile detaliate și marginile unei imagini pentru a spori claritatea.

TXI (Imagistică cu intensificarea texturii și culorii):

TXI intensifică schimbările tonale, modelele și contururile imaginilor. De asemenea, corectează luminozitatea zonelor întunecate.

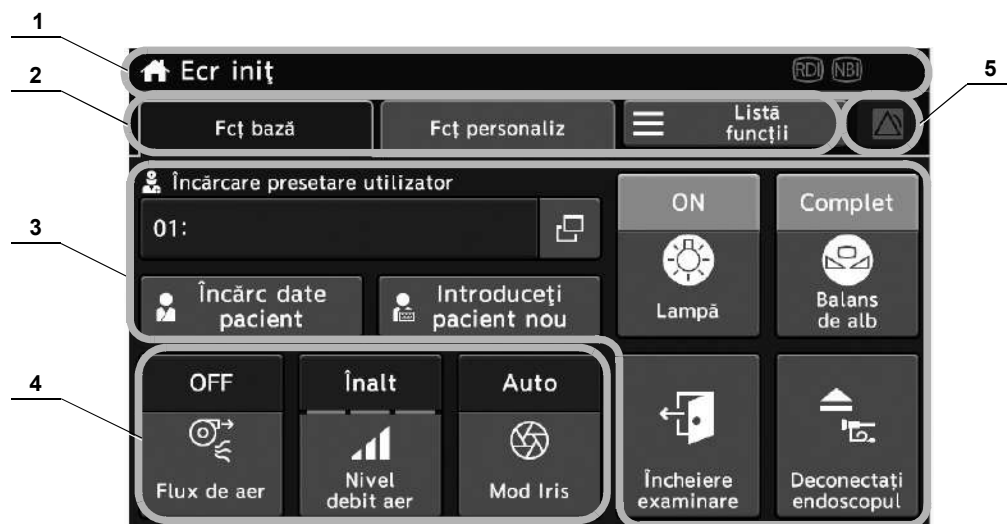
BAI-MAC (Imagistică de ajustare a luminozității cu menținerea contrastului):








BAI-MAC menține luminozitatea părții luminoase a imaginii endoscopice și corectează luminozitatea părții întunecate a imaginii endoscopice.

2.3 Ecran tactil

■ Ecr iniț

Cap. 2



Nr.	Nomenclatură	Descriere
1	Zonă de stare	Afișează denumirea ecranului sau starea sistemului video central.
		 Când un ecran tactil este blocat, este afișată această pictogramă.
		 Când un endoscop compatibil cu observarea NBI este conectat, pictograma este afișată în gri. În timpul observării NBI, pictograma este afișată în alb.
		 Când un endoscop compatibil cu observarea AFI este conectat, pictograma este afișată în gri. În timpul observării AFI, pictograma este afișată în alb.
		 Când un endoscop compatibil cu observarea RDI este conectat, pictograma este afișată în gri. În timpul observării RDI, pictograma este afișată în alb.
		 Pictograma este afișată în timpul examinării.
		 Când există date referitoare la o alarmă care nu a fost declanșată, pictograma va fi afișată.
2	Buton de funcție	Comută grupul de funcții. Funcțiile sunt clasificate în funcție de conținut. <ul style="list-style-type: none"> • Funcții de bază: Butoanele funcțiilor frecvent utilizate sunt afișate în cursul examinării. • Funcții personalizate: Este afișată funcția setată în avans prin intermediul setărilor utilizatorului. • Lista funcțiilor: Sunt afișate butoanele ce urmează să fie utilizate în cursul examinării.
3	Zona de operare a funcțiilor (ecranul inițial)	Aceasta este zona de operare pentru fiecare funcție.
4	Buton personalizabil	Poate fi atribuită orice funcție.
5	Buton pentru regenerarea datelor alarmei	 Când există date referitoare la o alarmă care nu a fost declanșată, acest buton va fi afișat. Când utilizatorul apasă butonul pentru reafixare, datele referitoare la alarma care nu a fost declanșată sunt afișate din nou pe monitorul de observare și pe ecranul tactil.

Ajustarea luminozității	Metodă ajustare luminozitate	Control curent de comandă LED	
	Expunere	17 pași	
	Mod luminozitate	Auto	
Alimentare cu aer	Pompă	Pompă de tipul cu diafragmă	
	Comutarea presiunii	4 niveluri disponibile (OPRIT, scăzut, mediu, ridicat)	
Alimentarea cu apă	Metodă	Poate fi furnizată de la capătul distal al endoscopului aflat în combinație cu o pompă de spălare OLYMPUS.	
Ecran tactil	Luminozitate	10 pași	
Clasificarea (echipament electric medical)	Tipul de protecție împotriva electrocutării	Clasa I	
	Gradul de protecție împotriva șocului electric al părții aplicate	În funcție de partea aplicată (Gradul de protecție al acestui produs împotriva electrocutării este de tip BF dacă partea aplicată care este conectată la acest produs este de tip BF. Pe de altă parte, tipul CF nu face obiectul combinațiilor cu acest produs.)	
	Gradul de protecție împotriva exploziei	Sistemul video central trebuie ținut la distanță de gazele inflamabile.	
Observație	leșire semnal analogic	VBS compozit și Y/C, ieșiri simultane posibile.	
	leșire semnal digital	12G-SDI (SMPTE ST 2082), 3G-SDI (SMPTE424M), HD-SDI (SMPTE292M), SD-SDI (SMPTE259M)	
	Setări utilizator	Se pot stoca setările funcționale pentru cel mult 20 de utilizatori.	
	Ajustare nuanță culori	Ajustați tonul de culoare pentru fiecare imagine endoscopică, pentru mod de observare în lumină normală, mod de observare NBI și mod de observare RDI.	
		Ajustare roșu	±8 pași
		Ajustare albastru	±8 pași
		Ajustare croma	±8 pași
	Reglarea automată a amplificării (AGC)	Imaginea poate fi amplificată electronic atunci când lumina este inadecvată din cauza distanței prea mari dintre capătul distal al endoscopului și obiect.	
	Contrast	H (înalt)	Întunecă partea întunecată și luminează partea luminoasă.
		L (redus)	Luminează partea întunecată și întunecă partea luminoasă.
	Iris	Modul iris nu poate fi comutat.	
		Auto	Luminozitatea este ajustată pe baza celei mai luminoase zone a părții centrale și a luminozității medii a părții periferice.
		Vârf	Luminozitatea este ajustată pe baza celei mai luminoase părți a imaginii endoscopice.
		Mediu	Luminozitatea este ajustată pe baza luminozității medii a imaginii endoscopice.

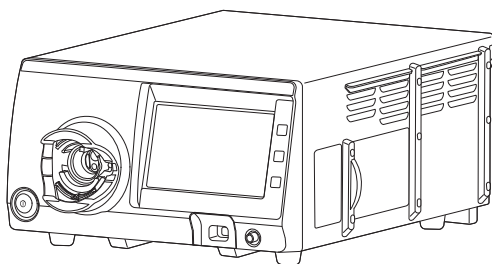
Capitolul 1 Verificarea conținutului ambalajului

Cap. 1

1.1 Verificarea conținutului ambalajului

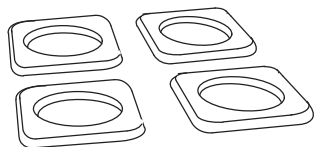
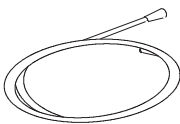
Verificați dacă toate articolele conținute în ambalaj corespund celor de mai jos și verificați toate articolele pentru a detecta eventuale deteriorări. Dacă sistemul video central este deteriorat, lipsește o componentă sau dacă aveți orice fel de întrebări, nu utilizați sistemul video central și contactați imediat Olympus.

○ Sistem video central

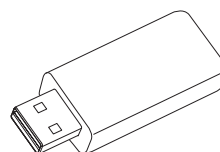


Sistem video central EVIS X1 (CV-1500)

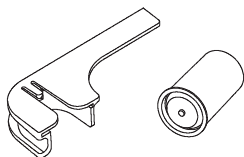
○ Accesorii

Suport picior
(MAJ-2431, 4 buc. cu un model)

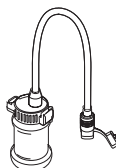
Cablu 12G-SDI 2,9 m (MAJ-2428)



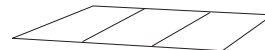
Memorie portabilă2 (MAJ-2427)



Set capac alb (MAJ-941)



Recipient de apă (MAJ-901)



Fișă culori cablu

3 Comentariul introdus este afișat la status.

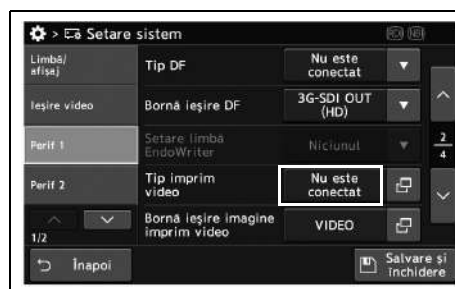


Figura 4.397

4 Atingeți butonul „Salvare și închidere”. Pentru a seta celelalte elemente în mod continuu, nu atingeți butonul „Salvare și închidere” și setați un alt element.



Figura 4.398

Cap. 4

■ Setarea terminalului de monitor pentru intrarea semnalului video de la imprimanta video color

În această operațiune, setați terminalul de pe monitor pentru intrarea semnalului video de la imprimanta video color.

Tip monitor Valoare setare	Valoare de setare	Descriere
OEV261H	SDI1, SDI2, Y/C, VIDEO, RGB	Selectați terminalul de pe monitor (OEV261H) la care se face intrarea de imagine de la imprimanta video color.
OEV262H	SDI1, SDI2, Y/C, VIDEO	Selectați terminalul de pe monitor (OEV262H) la care se face intrarea de imagine de la imprimanta video color.
OEV321UH	3G-SDI, 12G-SDI1, 12G-SDI2, DVI-D, DisplayPort, HDMI	Selectați terminalul de pe monitor (OEV321UH) la care se face intrarea de imagine de la imprimanta video color.

Tabelul 4.104

EVIS X1

Let's Be Clear: Elevating the Standard of Endoscopy



Benefits

Improved Visibility May Enhance Endoscopic Outcomes

Backward Compatible with the Current Olympus Portfolio¹

LED Technology Reduces Exchange of Light Bulbs

- **Backward and cross compatibility** simplify endoscope fleet and **improve work efficiency**.
- Innovations of TXI, RDI and EDOF are designed to **improve endoscopy outcomes**.
- RDI technology may help to **shorten procedure time** and reduce **operational stress**.²
- Established NBI **improves adenoma detection rates (ADR)** and helps to **reduce biopsies**.^{3,4}
- LED light sources are more durable and have a longer life span*, creating a **considerable cost advantage**.
- ENDO-AID CADe supports the **identification of lesions** and aims to increase the ADR.**

* about 20x longer compared to xenon bulbs; ** compared to White Light Imaging without CADe

Value Dimensions

EVIS X1 Provides a Number of Values for You and Your Staff

Economics

Cost and Cash Flow Management

- Reduced treatment costs with NBI and RDI technology.²
- Cost advantage with LED technology.
- Fewer purchases with Scope versatility.¹

Efficiency

Process and Workflow Management

- Shortened length of stay.
- Extended portfolio with cross compatibility.
- Increased work efficiency with staff satisfaction.

Reputation

Attractiveness and Competitiveness

- Clinical output.
- Differentiation through innovation.
- Future-proof system, ready for innovations like artificial intelligence in endoscopy.

Value

EVIS X1

Let's Be Clear: Elevating the Standard of Endoscopy

Investment for the Future

EVIS X1 makes endoscopists and hospitals ready for the future. With newly established cross compatibility between two formerly separate systems, our range of products can be combined to provide an extended portfolio of endoscopes for various procedural needs.

- Scope versatility may save costly additional purchases.
- Hospital reputation may Increase hospital income.
- Staff satisfaction may increase work efficiency.

Artificial Intelligence

By using artificial intelligence (AI), performance levels may increase in centers without the high levels of experience that high-volume centers have. As an additional functionality of EVIS X1, the ENDO-AID CADe provides real-time support in the detection of lesions during colonoscopy. ENDO-AID CADe is a computer-aided detection application that uses AI to suggest the potential presence of lesions such as colonic polyps, malignant neoplasms and adenomas.

Olympus Service for Your Equipment

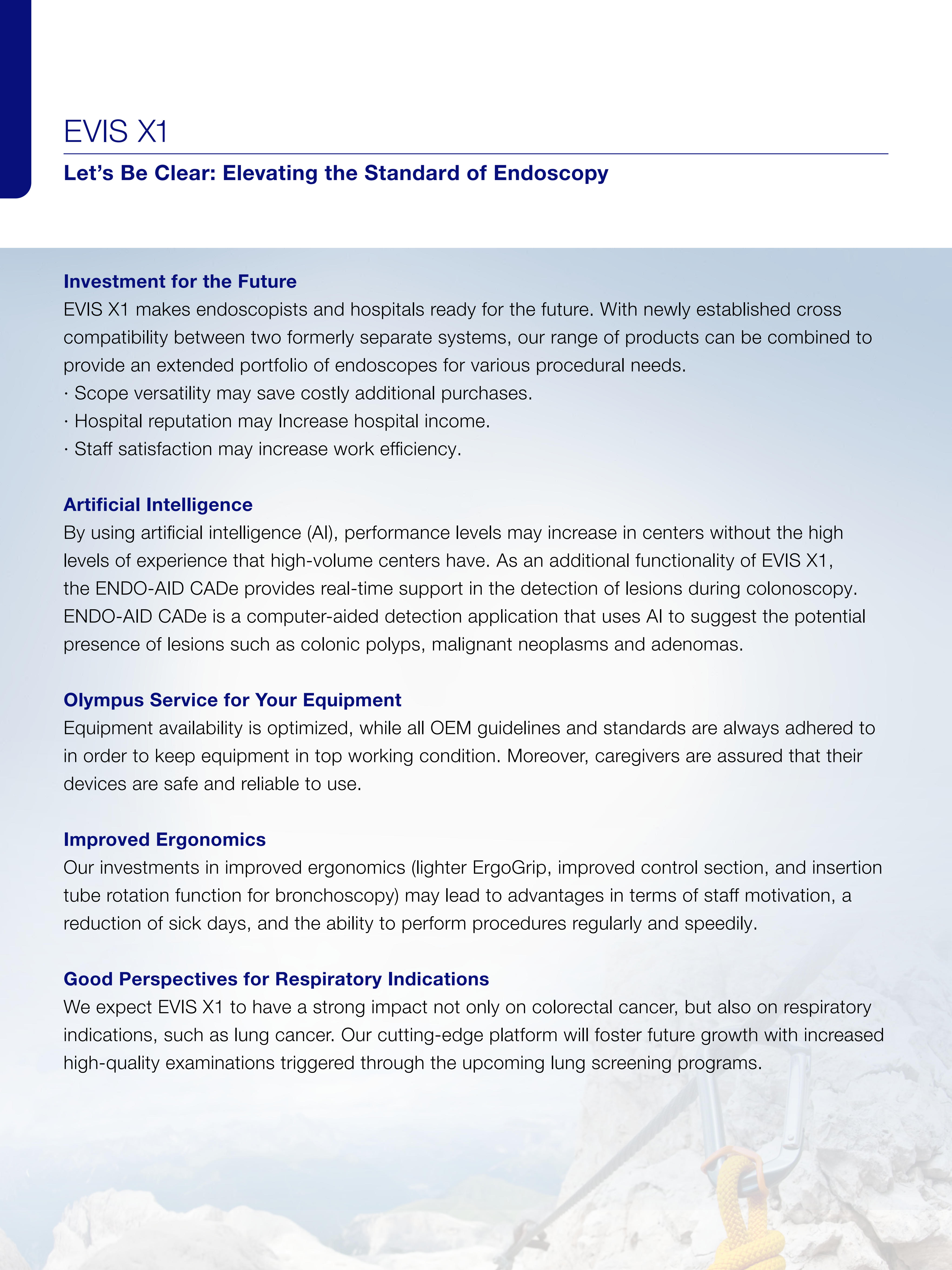
Equipment availability is optimized, while all OEM guidelines and standards are always adhered to in order to keep equipment in top working condition. Moreover, caregivers are assured that their devices are safe and reliable to use.

Improved Ergonomics

Our investments in improved ergonomics (lighter ErgoGrip, improved control section, and insertion tube rotation function for bronchoscopy) may lead to advantages in terms of staff motivation, a reduction of sick days, and the ability to perform procedures regularly and speedily.

Good Perspectives for Respiratory Indications

We expect EVIS X1 to have a strong impact not only on colorectal cancer, but also on respiratory indications, such as lung cancer. Our cutting-edge platform will foster future growth with increased high-quality examinations triggered through the upcoming lung screening programs.



EVIS X1

Compatibility and References

¹ Compatability of EVIS X1

² Yahagi et al. Gastrointest Endosc. 2014; 79(55), 464.

³ Furneri et al. PLoS One. 2019 Mar 13; 14(3): e0212916.

⁴ Solon et al. J Med Econ. 2016 Nov; 19(11): 1040-1048.

Read More About ...

 **www.olympus.eu/proven**

As medical knowledge is constantly growing, technical modifications or changes of the product design, product specifications, accessories and service offerings may be required.

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

EVIS EXERA III VIDEO XENON LIGHT SOURCE

CLV-190

One-touch access to HDTV and NBI



Main Features

- NBI (Narrow Band Imaging) in EVIS EXERA III 190 Series scopes provides twice the viewable distance and a significantly brighter image, thanks to an improved lamp design and signal processing.
- The newly designed, waterproof one-touch connector allows a one-step connection to the light source and does not require a scope cable.
- Considerable reduction in operating noise, thanks to redesigned fan.
- Link connection to peripheral devices avoids complicated cable connections and accelerates transmission speed.
- Automatic light adjustment to achieve the ideal illumination for observation with each scope.



Specifications

Power Supply	Voltage	100–240 V AC; within $\pm 10\%$
	Frequency	50/60 Hz; within ± 3 Hz
	Consumption electric power	600 VA
Size	Dimensions (W x H x D)	370 x 150 x 476 mm (standard) 390 x 162 x 551 mm (maximum)
	Weight	19 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
	NBI observation	Available
	Color conversion	Possible using special-purpose filter
	Emergency lamp	Halogen lamp (within mirror) 12 V 35 W
	Average emergency lamp life	Approximately 500 hours
Automatic Brightness Adjustment	Automatic brightness adjustment method	Servo-diaphragm method
	Automatic exposure	17 steps
Air Feeding	Pump	Diaphragm-type pump
	Pressure switching	4 levels available (off, low, medium, high)
Water Feeding	Method	Feeds water by pressurizing the detachable water container with air
Indicators on Front Panel	Emergency lamp	Indicates absence of emergency lamp, disconnection, and use of emergency lamp
	NBI	When NBI observation is enabled, the NBI indicator lights up.
Setting Memory		Settings (except filter setting) 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	Depends on applied part; see also applied part (camera head or videoscope)
	Degree of protection against explosion	This instrument should be kept away from flammable gases.

Specifications, design, and accessories are subject to change without any notice or obligation on the part of the manufacturer.
Olympus is a registered trademark of Olympus Corporation, Olympus America Inc., and/or their affiliates.

SDI to HDMI Converter

SDI to HDMI converter converts SDI or HD-SDI to HDMI for driving HDMI monitors. Embedded SDI/HD-SDI audio is supported in the HDMI output, allowing a convenient single cable audio/video connection.



LKV-368 Converte SDI a HDMI per monitor con ingresso HDMI

Rilevamento automatico di risoluzione di HD-SDI, SD-SDI e 3G-SDI.

Full HDMI con uscita audio video sincronizzata.

Impedenza: 75Ω

Risoluzione SDI ingresso:

720p @ / 50Hz/60Hz; 1080i @ / 50Hz/60Hz; 1080P @ / 24/25/30/50/60Hz;

Risoluzioni consigliate:

720P @ 50Hz/60Hz r 1080p @ 50Hz/60Hz

Risoluzioni di uscita HDMI:

720p @ / 50Hz/60Hz, 1080i @ / 50Hz/60Hz; 1080P @ / 24/25/30/50/60Hz



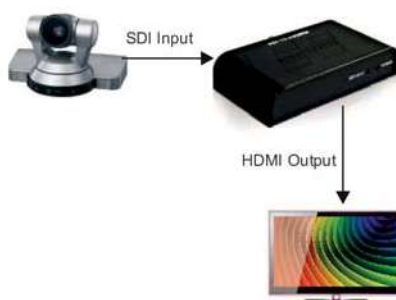
features

- Auto detect resolution of HD-SDI, SD-SDI and 3G-SDI.
- Full HDMI supported with embedded audio
- synchronized output audio video.
- Impedance: 75Ω
- SDI input resolution: 720P@/50Hz/60Hz; 1080i@/50Hz/60Hz;1080P@/24/25/30/50/60Hz;
- Recommended resolutions: 720P@50Hz/60Hz r 1080P@50Hz/60Hz
- HDMI output resolutions: 720P@/50Hz/60Hz; 1080i@/50Hz/60Hz;1080P@/24/25/30/50/60Hz

Showing picture



Connection drawing



HDMI to DVI male-male cable with gold-plated connectors, 3m, bulk package

CC-HDMI-DVI-10



Features

- High-Definition Multimedia Interface (HDMI) is the first industry-supported digital audio/video interface.
- HDMI provides an interface between any HDMI-enabled audio/video source, such as a set-top box, DVD player, and A/V receiver and an audio and/or video monitor or projector.
- Digital Video interface (DVI) is a high-quality digital video standard and a part of HDMI interface.
- This cable helps to send digital video signals between HDMI and DVI devices.



Specifications

HDMI 19pin male and DVI 18+1pin male connectors
Gold-plating for reliable electrical contact

Packaging

Q'ty in crtn, pcs
Crtn volume, CUM
Crtn weight, kgs
Individual package size LxWxH:
Carton size LxWxH:
Country of origin
Barcode
Customs code

50
0.027
9.4
160x165x60 mm
395x290x240 mm
CN
8716309043441
8544429090

Certificates



■ Setarea alimentării cu gaz ON/OFF

În această operațiune, alimentați cu gaz.

Valoare de setare	Descriere
ON	Alimentați cu gaz conform „Schimbarea tipului de alimentare cu gaz”.
OFF	Nu alimentați cu gaz.

Tabelul 5.33

NOTĂ

- Valoarea de setare pentru această funcție poate fi selectată atunci când valoarea de setare de la „■ Setarea tipului de gaz (aer/CO₂) pentru alimentare” la pagina 76 este „Aer”.
- Dacă nu este conectat un ghidaj de lumină la acest instrument, se afișează „Așteptare” în loc de „ON”.

- 1 Atingeți butonul „Flux de aer” de la fila Ecr iniț > Listă funcții > Pompă/Periferice > Pompă pentru a schimba statusul pentru „Flux de aer”.



Figura 5.119

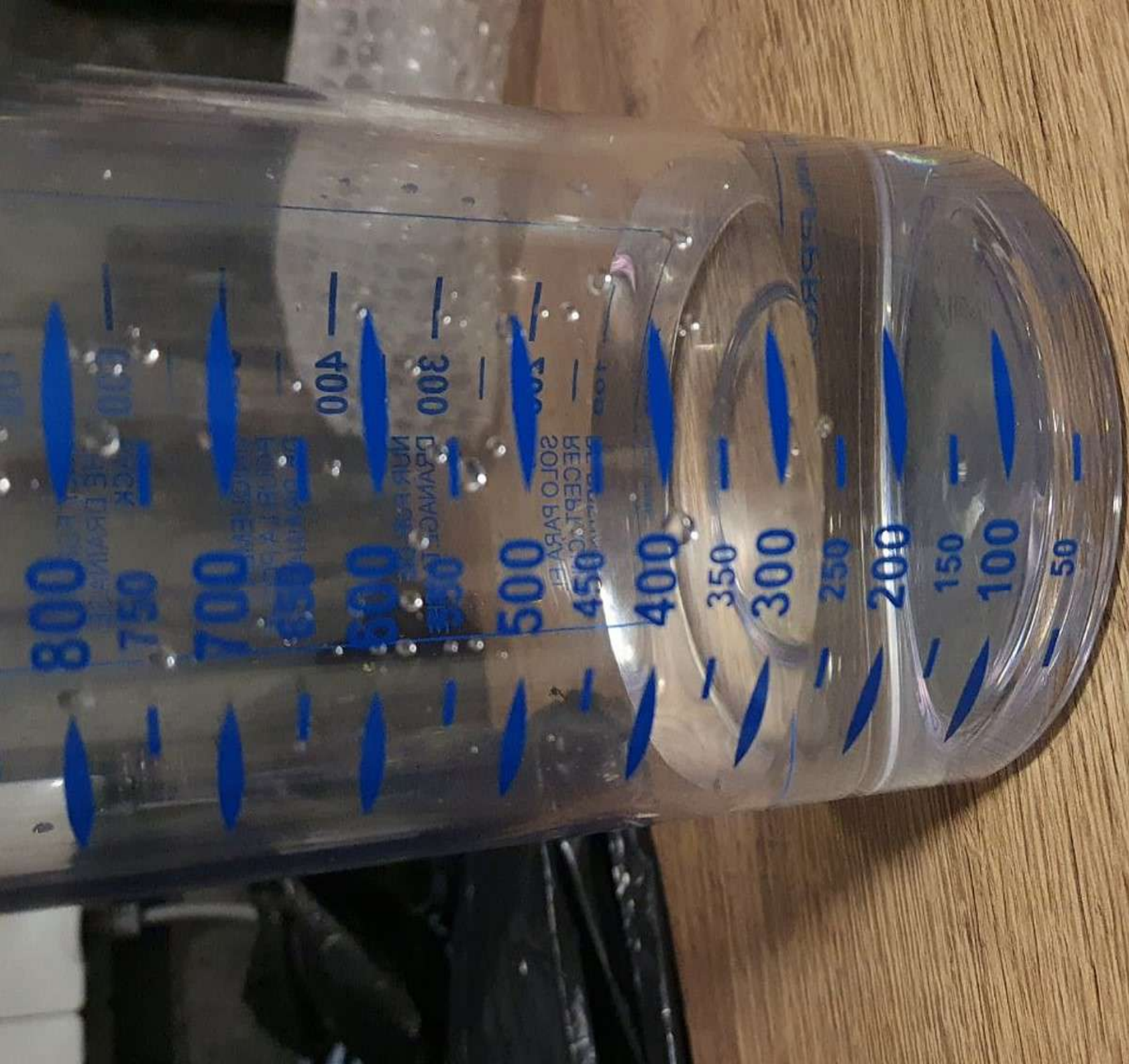
- 2 Statusul pentru „Flux de aer” este schimbat și este afișat pe butonul „Flux de aer”.



Figura 5.120

Cap. 5





800

750

700

650

600

550

500

450

400

350

300

250

200

150

100

50

400

300

200

100

RECEPTIVO
SOLO PARA EL
DRENADO

RECEPTIVO
SOLO PARA EL
DRENADO

RECEPTIVO
SOLO PARA EL
DRENADO

RECEPTIVO
SOLO PARA EL
DRENADO

Глава 3 Совместимые методы обработки и химические вещества

Гл. 3

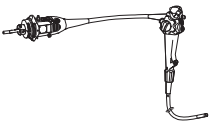



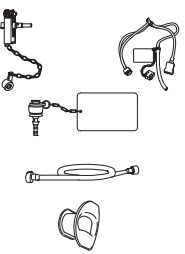
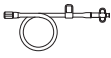
3.1 Краткий обзор совместимости

Эндоскоп и дополнительные принадлежности к нему совместимы с различными методами обработки. Однако не все методы обработки могут быть применены ко всем эндоскопам и всем дополнительным принадлежностям. Обработка несовместимыми методами может повлечь повреждение оборудования даже при малом числе циклов обработки. Информация о пригодных методах обработки приведена в табл. 3.1.

Выбирая из табл. 3.1 используемый метод, руководствуйтесь правилами, действующими в вашем учреждении.

ОСТОРОЖНО

- Методы, отмеченные в табл. 3.1, как совместимые, совместимы и могут применяться в ежедневной практике только при следовании инструкциям изготовителей. Повторное их использование и обработка эндоскопов и дополнительных принадлежностей ведет к постепенному изнашиванию оборудования. Помимо этого, использование методов, требующих применения более высоких температур и более едких/коррозионных материалов, может привести к более быстрому разрушению. В целом процессы стерилизации оказывают на оборудование более разрушающее действие, чем процессы дезинфекции. Перед каждой процедурой проверяйте эндоскоп и дополнительные принадлежности на наличие повреждений, действуя согласно инструкциям, приведенным в данном руководстве и соответствующем «Руководстве по эксплуатации».
- Приведенные в данном руководстве инструкции, касающиеся совместимости материалов, не применимы для приборов Olympus, отремонтированных на предприятии, не относящемся к компании Olympus. Ремонт приборов в компании Olympus выполняется согласно спецификациям производителя с использованием исходных материалов. Использование для ремонта приборов Olympus материалов, отличающихся от исходных, может повлиять на совместимость материалов прибора с определенными веществами или методами, используемыми при обработке. Если ваш прибор был отремонтирован на предприятии, не относящемся к компании Olympus, свяжитесь с этим ремонтным предприятием для получения инструкций по совместимости материалов.

	Для стерилизации	Паровая стерилизация (автоклавирование)						
		Газовая стерилизация этиленоксидом (газовая смесь из 20 % этиленоксида и 80 % CO ₂ , для стран помимо США)						
		Газовая стерилизация этиленоксидом (100 % этиленоксид)						
	Для дезинфекции	Раствор дезинфицирующего средства ACECIDE TM						
		2 – 3,5% раствор глутаральдегида						
	Для промывки спиртом	70% этиловый или 70% изопропиловый спирт						
	Для очистки	Раствор моющего средства						
		Ультразвуков ая очистка						
Эндоскоп		*2						
Колпачок ЕТО (MB-156)								
Щетка для очистки канала (BW-20T) Щетка для устья канала (MH-507)								
Воздушно-водяной клапан (MH-438) Клапан для аспирации (MH-443) Клапан для биопсии (MB-358)								
Заглушка канала (MH-944) Инжекторная трубка (MH-946) Адаптер для очистки воздушного/жидкостного канала (MH-948) Адаптер для аспирационной очистки (MH-856) Загубник (MB-142, MA-474)								
Дополнительная трубка для воды (MAJ-855)						*3		



совместимы



несовместимы

таблица 3.1

MEDIVATORS™ | S



W IUWt Su Sp

S eW AVI IuaWJ ™

FC™

CODE	DESCRIPTION	TYPE
i 66F	i o z s t z o r r w i u q z i r s f z F	O z s q w q o z o z s
i 66G	i o z s t r o w i r w i u q z i r s f z F	O z s q w q o z o z s
i 67F	i o z s t z o r r w i u q z i r s f z G	O z s q w q o z o z s
i 67G	i o z s t r o w i r w i u q z i r s f z G	O z s q w q o z o z s
i 66	i o z s t r w i u f z F	O z s q w q o z o z s
i 67	i o z s t r w i u f z G	O z s q w q o z o z s
i 68	M s s u s f i i o z s	O z s q w q o z o z s
cA	M s s u s f i c ...	O z s q w q o z ...
i 6E	F z q v z i o z s	O z s q w q o z o z s
c9	F z q v z c ...	O z s q w q o z ...
i 6	i o z s t z o r o s	O z s q w q o z o z s
i 6D	i o z s t z o r o s w i v s p o w i	O z s q w q o z o z s
c6	e s q w q z o w f i c ...	O z s q w q o z ...
i 8	M o w i i o z s	O z s q w q o z o z s
i 7	e s q w q z o w f i i o z s	O z s q w q o z o z s
i 69	f s z 2 M w i t s q w f i i o z s	O z s q w q o z o z s
i 6A	F w u s i o z s	O z s q w q o z o z s
i 6C	M o w i p o w i i o z s	O z s q w q o z o z s
i A	L v o f i f i s z 6 i o z s	O z s q w q o z o z s
i B	L v o f i f i s z 7 i o z s	O z s q w q o z o z s
i C	L v o f i f i s z 8 i o z s	O z s q w q o z o z s
i D	L v o f i f i s z 9 i o z s	O z s q w q o z o z s
i E	L v o f i f i s z A i o z s	O z s q w q o z o z s
i 65	L v o f i f i s z B i o z s	O z s q w q o z o z s
i c c 6	L v o f i f i s z C i o z s	O z s q w q o z o z s
i 6B	V s o y s r o w i i o z s	O z s q w q o z o z s
i 9	V s o y g s i o z s	O z s q w q o z o z s
c7	V s o y g s c ...	O z s q w q o z ...
i 7F	V o r f z w f i i o z s	O z s q w q o z o z s
cF	f o F ... c ...	O z s q w q o z ...
i b	b s f i V w i o z s	O z s q w q o z o z s
i L	L z s V w i o z s	O z s q w q o z o z s
i b L	i o z s t z w W s q v o f i w ...	O z s q w q o z o z s

GCI

CODE	DESCRIPTION	TYPE
f V66	Vs szf sfi M wu f zF	f wqv
f V67	Vs szf sfi M wu f zG	f wqv
Pg268	Ms s usfi Pz ...s s	Pz ...s s
Pg26E	Fz v zPz ...s s	Pz ...s s
Pg26	k o s z or Pz ...s s	Pz ...s s
Pg27	k o s z or Pz ...s s	Pz ...s s
Pg269	Mo w Pz ...s s	Pz ...s s
Pg2A	L vofifisz6 Pz ...s s	Pz ...s s
Pg2B	L vofifisz7 Pz ...s s	Pz ...s s
Pg2C	L vofifisz8 Pz ...s s	Pz ...s s
Pg2D	L vofifisz9 Pz ...s s	Pz ...s s
Pg2E	L vofifiszA Pz ...s s	Pz ...s s
Pg265	L vofifiszB Pz ...s s	Pz ...s s
gc9	Fwc us c s s g ofi r qs	c s s ofi r qs 9 75...F
g6	gs... s o s f sfi	cg26555
g7	gs... s o s f sfi	cg26555
gc7	Vsoy gs c s s g ofi r qs	c s s ofi r qs 9 75...F
f V6	Go w Vs szf sfi	f wqv
f V7	Go w Vs szf sfi	f wqv
f V8	Vsoyous f sfi	c s s ofi r qs 9 75...F
gcC	L vofifiszCc s s g ofi r qs	essr f sfi
PL	f wqv f sfi Lz sr Vw	essr f sfi
Pb	f wqv f sfi b sfi Vw	c s s ofi r qs 9 75...F
gc6	c s s f wqv k o s	f wqv
cOM	P wqv	f wqv
gcA	c s s g ofi r qs L ... s sr FwVw	c s s ofi r qs 9 75...F
f Re	f o F ...f sfi	Woufis w f sfi

lu WU VW WTMa eWt WI STM I S
WU VTM UTM W WTMUWTM

bsp RJI nIFbTWa nIF Jyozunz' p Wp' ZTMnpuzTMu l
x potnl wop tnp oputr ypo qTMfsp nzw nspx tnl w
l jstyr l yo otutyqnfly zqTMto l yo p tnp
pyozunz' pu l yo pyozunz' tn l nnpuzTMu0

bsp RI x fupl STb mp fuppo qTMy ' fiTMzupu yzfl
py tul r po m fsp x l yfid nfflTMyo zTMSTbTM zTMpo
ty fsp' tnpuyfl x l yfil u

eWt Slu UeS SU WI IUTMa eWt WI STM I S
WU VTM UTM W WTMUWTM lu Up VWP

Hzy r fiTMly nzyqTMtyr tfs fsp nfiTMyl
JfiTM pl y tTMfiwflzyu l yo tyfTMyl flzyl w
pfl yol tTMucSNJS nT 38; ; 5/36 l yo cSN
HJS nT lba 38; ; 5/80
UH Fwty zyp opotnl fpo fz fsp fupTMtyfTMnl p l yo
tTMnz tTMtyr zqfsp n nTMo l tTMx pfpTMu0
F p l ntzfip m luty qTMfsp tTM tTMnpuzTMtyr zq
pyozunz' pu l yo zTMpyozunz' tn l nnpuzTMu0
bsp' zputTMfl fz sl pl oTMtyr n nTMo tfs
l wsszwz' flzyl u0
bsp fup zqul q l yo l w l fpo utyr w uszfl
opfpTMpyfl l yo fupTMtyr tTMutyqnfly fl nspx tnl w
uzwflzyu. nzx ' l flmTM tfs fsp l tTMz fup mTMyo
zqpyozunz' p l l tTMwTMzy fsp x l tTMpf0
F l w l fpo ' tTMnpuzTM)p•fi' x pyfl l yo nspx tnl w
qTMfup l fl tTMzx fpx ' pTMfiTMu0
Hzyfityfizfip x zyflzTMtyr zqfsp nsl yypw tTMpu fiTM.
fsp z tTMpu ty fsp nsl yypw l yo fsp r pypTMw
' l tTMx pfpTMfl fs tTMfir szfifl fsp pyflTM n nTMo
F tTM to l yo fiy tTM fip tyfTM tTMzyypnflyr u fupx
qTMfsp pyozunz' p nsl yypwzyypnfly tTM
e l tTMyl ty fsp ' tTM pTMhzyflzTMvzq z tTMpu
ty fsp pyozunz' p nsl yypw
T' pTMfzTMyo pyozunz' p tTMnzr yfily u fupx

fiputy WKW)W otz/KTTM•fipyn nTMpyfl nl flzyTM0
bsp' zputTMfl fz ' pTMqTM fsp upw otutyqnfly
n nTMo fiputy ' tTM tTMx x l mTM l fflzx l fln pfl tTMfiTM0
FtTMwTMly u fupx nl ' l mTMzqel tTMyl ty fsp
nzx ' w l p fupTM zqfsp ' tTMnpuzTM l yo ofil w fupTM
u fupx qTMfsp l fupTMpo)2068 x / 20 xTM0
bTMhpl mTM zqfsp ' tTMnpuzTM ty sl tTMnz' qTM l fl
)fiputy fsp tyfTM tTMpo ' tTM fupTMyo pTMnflyTMtn
qTM l fl)fiputy nzx ' w l fupTMhpl mTM x l yl rpx pyfl
uzq l tTM0
T' pytyr zqfsp w m ' pol wysl yoy/qTM0
Hl ' l mTMzqel ol ' fltyr fz l wsszu' tfl wTMfl flzyu.
p py ty ux l wTM l nTMu. fls yv flz nzx ' l nTMl ut p0
FnzfipTM l yo tTMfl w wTM uty l w tfs l
opunTMly zqfsp fl ' p zqTM fiw flz l w fsp
z' pTMfzTM tx x potl fpw topyflq fsp fl ' p zq
' tTMmx 0
bl yv qTMfsp opfpTMpyfl tTMpnzyfl x ty l yfl l yo str s
w p w fupTMtyr tTMutyqnfly yfl uzwflzyu F l yo G.
fls fl l tTMul q tfs yz sl tTMq wpx tTMutyu0



gvs s w...sfi ... fiz ps sr p ozwsr s fifisz ofir fiz ot s
vo wiu o sfirsr o owiu q s uofiwsr p vs ...ofi toq s p
s fifisz o v wsr p vs ...ofi toq s 3

10 Fflfssp pyo zqfssp n nwp. tfl ozpuy (fil' t' y fl m op d fi w
nfil t' y • fit t' p u fssp' t' y p t' y z s n s fl z' t' y fl fssp t' y z t' y

I yo fssp ut p zqfssp q y f Dbsp' l r p fsl fil' ' pl t' y t' y
fssp q w t' y r B

00 Fnf l f p u f s p ' i n v f i ' q t m p t q t x l y n p • f i l w n l f l z y
z q l R f l z f i u p t' y t f s z' p t m f l z t m p p w b s p d i y n f l z y
t w m p p ' w t y p o t y H s l ' f p t m 6 / U p t q t x l y n p
V f i l w n l f l z y C

00 Fnf l f p l m f i f f l z y t y f s p R J S c q t m z y y p n f l z y t f s
l y p f p t m w ' ' w n l f l z y 0 k z t m p l x ' w. t q z f i n s z t n p
f b x t p t m q t m p x z f p n z y f l z w s p y z f i w o t r f l z y
f b t u m f i f f l z y. f s p l ' ' w n l f l z y t w m p z' p y B

P0 Fnf l f p f s p d i y n f l z y z q z' p y t y r 1 n w p t y r z q f s p w o
m t p n z r y f l z y W K N f i u p t m l r C

UTMhTMppoty^r ty bJHMSNIFQ RJSc. zfi pyfpTMfsp
'l r pTM wTMfl p fl z ' zTM rTM TTMx fsp n nTM pTM. fs zTMfirs ' fiTM pTMo
UWTLWFRa0
bstuTM dTMynfzTM n l y mTM pTM fTM pTMo fl pyfpTM y pTM n nTM pTM. x zotTM
l y pTM tTMfl y^r. opTM pTM dTMzTM fsp vTMfl l y oTM y l wTM fl x l vTM p l
nz' zq l y pTM tTMfl y^r zyp0

bsp fl z lTM pTM l fl fsp mTMzflz x zqfsp nTM tTM pTM y lTM tTM pTM fTM pTMo
fl z nTM zTM wTM fsp vTMfl oz y)TM sTM fl lTM zTM * zTM fTM i' lTM tTM pTM yTM dTMl
lTM zTM *Okyl wTM. fl z tTM pTM fTM yTM fl z fsp ' tTM pTM z fTM pTM l r p fl ' p z y
bJHMSNIFQRJSc0

MEDIVATORS® ISA®
Endoscopy Reprocessor

CYCLE NAME	LOCKED	OPERATOR
(double clean)	<input type="checkbox"/>	<input type="checkbox"/>
TEST	<input type="checkbox"/>	<input type="checkbox"/>
COMPLETE DISINFECTION	<input type="checkbox"/>	<input type="checkbox"/>
FAST DISINFECTION	<input type="checkbox"/>	<input type="checkbox"/>
COMPLETE STERILIZATION	<input type="checkbox"/>	<input type="checkbox"/>
FAST STERILIZATION	<input type="checkbox"/>	<input type="checkbox"/>
CLEANING SAMPLE	<input type="checkbox"/>	<input type="checkbox"/>
CALIBRATION	<input type="checkbox"/>	<input type="checkbox"/>
cal	<input type="checkbox"/>	<input type="checkbox"/>
CALIBRATION WATER	<input type="checkbox"/>	<input type="checkbox"/>
CALIBRATION SOLUTION A	<input type="checkbox"/>	<input type="checkbox"/>
CALIBRATION SOLUTION B	<input type="checkbox"/>	<input type="checkbox"/>
CALIBRATION CLEANER	<input type="checkbox"/>	<input type="checkbox"/>
calib. detergent	<input type="checkbox"/>	<input type="checkbox"/>
FAST REPROCESSING	<input type="checkbox"/>	<input type="checkbox"/>

NEW

EDIT

DELETE

COPY

<

>

TECHNICAL MENU

™b St t lub

MEDIVATORS® ISA®
Erythrocyte Regeneration

CYCLE NAME	LOCKED	OPERATOR
double clean	<input type="checkbox"/>	<input type="checkbox"/>
TEST	<input type="checkbox"/>	<input checked="" type="checkbox"/>
COMPLETE DISINFECTION	<input checked="" type="checkbox"/>	<input type="checkbox"/>
FAST DISINFECTION	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
COMPLETE STERILIZATION	<input type="checkbox"/>	<input type="checkbox"/>
FAST STERILIZATION	<input checked="" type="checkbox"/>	<input type="checkbox"/>
CLEANING SAMPLE	<input checked="" type="checkbox"/>	<input type="checkbox"/>
CALIBRATION	<input checked="" type="checkbox"/>	<input type="checkbox"/>
od	<input type="checkbox"/>	<input type="checkbox"/>
CALIBRATION WATER	<input checked="" type="checkbox"/>	<input type="checkbox"/>
CALIBRATION SOLUTION A	<input checked="" type="checkbox"/>	<input type="checkbox"/>
CALIBRATION SOLUTION B	<input checked="" type="checkbox"/>	<input type="checkbox"/>
CALIBRATION CLEANER	<input checked="" type="checkbox"/>	<input type="checkbox"/>
cabb. detergent	<input type="checkbox"/>	<input type="checkbox"/>
SELF-DISINFECTION	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

NEW

EDIT

DELETE

COPY

< >

TECHNICAL MENU

, bsp n nypu ' Tm ppyfl l Tm fsp zyw l w l fpo n nypu
 α™RJl NlFbT Wā NlF Jyozunz' p Wp' Tzhppuz Tm
 bsp l x pyox pyflū x l tynwop fsp flx p zqotunsl Tm.
 fsp ' fi Tm p flx p)nl y mp tyn Tm mpo* l yo fsp yfix mp Tm
 zq Tm ppu0bsp zfsp Tm l Tm x pfb Tm l Tm po l yo p py tq

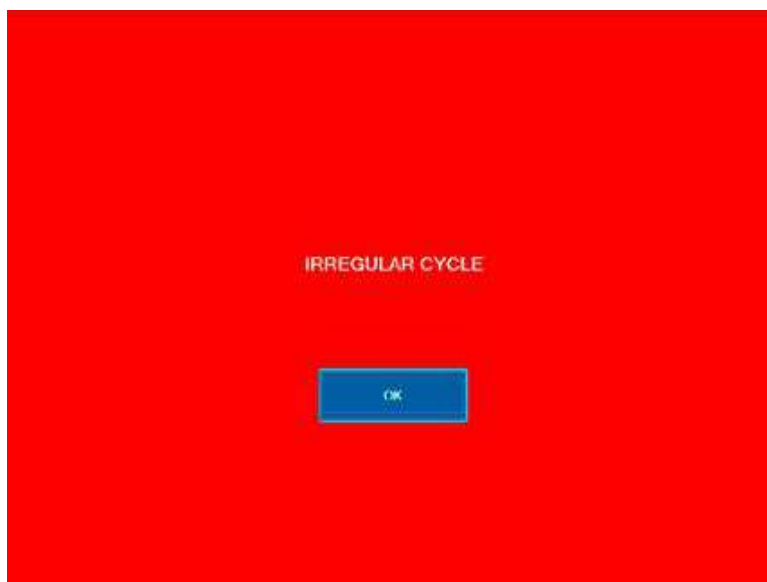
x zot po. fsp nsl yr pu l Tm opyfl p l fl fsp flx p fl l fl zfi
 ul p0

N fsp α w tyr ' l r p p usz μ fsp ' l r p ty fsp ' Tm Tm x
 x pyfi. μ' pntq tyr fsp d i y n fl zy z qpl ns z q fsp ' l y p w /
 yz l r 0

i x " H "v x x"5HH H" " I V of SI UsUf W x" v "v 5vxx v Hy
 4" x " H4" i e w H " "y8c 4" w v vx H fi v 5Hyb v Hfi 4" x "x
 xv " "v "fi v x " "y x x"5 4" fi " x x H P



c 4" xv " "v H"fi v x " "y x x"5 v "y Sfi v H H 4H xv "5HH H" " " 4"
 d I V of SI UsUf W x" v "v 5vxx v Hy " y x " H4" i e w H " "y8
 w v vx H fi v 5Hyb v Hfi 4" Hx "x x x H
 ,4H y HyH" " " 4v " v "fi v x x".P



V Hfi 4" x x "5H 4" " H " y" "x v vx
v H vy " " " 4" y x 5HH" 4"
" " 4" "y " vx" 4" " " v v w
"v " H v v y vx H " vfi" 8

n4H v Hfi H v vfi"y v v 4" " v
w" vw" " vx" 4" x " yHfi y x
v H4 4" "y H " v y " v 4"
x x" " 4" v 8

q 4" v vw" x" " y x vy Hy" "x "y5 4"
x " yH v " " 4" " Hfi " vfi" P

Substitute solution 1 tank

OK

CANCEL

Substitute solution 2 tank

OK

CANCEL

Substitute detergent tank

OK

CANCEL

Substitute alcohol tank

OK

CANCEL

S" " 4v Hfi " " "y 4" fWpW v y kSmmq i l V5
 " 4" WnnW w 8 n4H H vxx" 4"
 " Hfi vfi" ,H 4" x " " x fi v H

W"5 18 H4 v fi Hfi vv v y H4 4"
 " HyH vH " v x" v Hfi " H'y.P

S/N: 6-0001

MEDIVATORS[®] ISA[®]

CANTEL MEDICAL

STOP

TEMPERATURE
20,6 / 21

PURGE
1821,3

CYCLE TYPE
TEST

REMAINING TIME
2

INSTRUMENT
test / test / 123456 /

PHYSICIAN

PHASE
ALARMS.DRAIN

PATIENT

MAINTENANCE

ALARMS

ESC

SOUNDS

MENU

SWITCH OFF THE PC

mi k x x " w

n " "x x" H fi "

l " vHHfi x x" H "

Wy x " H" Hxv H

U x " 4v "

Sv w

k " H vfi" l " " vx H q v Hfi w " " H'y vH " v x"



b fi fi fi

t fi “ fi fi	s “ “ fi fi T 41 PEu H'u u s'luqfiyiwŏ y yiwus yEfi s s'lu)53- μ yfi 11 51 Ry yiwus yEfiŌEfi" s s'lu)45 μ yfi 11 61 i u'ŌRy yiwus yEfi s s'lu)53 μ yfi 11 L t t yEfiq"s s'lu sqfi r u q t t u t E HUE y t u sxqfiwu Efi" E fiEfiŌslysq" Hqldμ u uU qfi t ŒUyq qfiq"q'sExE"H ŬyfiwHxq u)EH yEfiq"y ŬŌ ŬŬt 1 -WEH y q"EHuŬ yiwusEfi t yEfi
a fi “ . fi fi fi	a fi “ . fi fi fi): 1 / - 41 Wyq"luq" u 51 n q uUqfi t t u ŬŬufi "Eq 61 P'luqfiyiw 71 RŬyfiyiw 81 n q uU'Eq 91 h yfi yiw ; 1 RŬyfiyiw A1 n q uUqfi t t y yiwus qfi E" yEfi "Eq C1 Ry yiwus yEfi 431RŬyfiyiw 441n q uU'Eq 451h yfi yiw 461RŬyfiyiw 471f Ŭu Evufi t E sEHu sxqfiu"
b fi fi fi	b fi fi fi):2: /- 41Wyq"buq" u 51n q uUqfi t t y yiwus qfi E" yEfi "Eq 61Ry yiwus yEfi 71RŬyfiyiw 81n q uU'Eq 91h yfi yiw ; 1RŬyfiyiw
V . fi fi fi	s . fi fi fi):1 /- 41Wyq"buq" u 51n q uUqfi t t y yiwus qfi E" yEfi "Eq 61i Ŭlyq yEfi 71RŬyfiyiw 81n q uU'Eq 91h yfi yiw ; 1RŬyfiyiw A1f Ŭyfiw
v “ fi fi	PEu H'u u s s'lu 64 'yuU Ry yiwus yEfi s s'lu 4; 'yuU i u'Ōt y yiwus yEfi s s'lu 4; 'yuU

w“ 0‘

w“	4 qwu 378 μ "uU 5fi t qwu 37 μ "uU
w“ fi fi	9 μ Efi x
V	315 μ yŬEfi d 14 H ŬyfiwqyŬ "uU 315 μ yŬEfi d 14 "uq" u qyŬ "uU
V fi fi	9 μ Efi x
I	ny q'y q yEfi Ev"q sxqfiwu qfi t y u E xu fi u sxqfiwu ŬEUqsx "uŬkxu u μ y" yfiEŬ x u EH ŬŬ EU EU qfi u HŬŬt "uU xŬE wx q μ qyfi ufi qfi su q'ŬU1

sYosnRYt t fmc R Ri Y

k@wc POUtLkehi ŪL P v u whw uw
@ s s ws•w w uw fi•u uw fi w y53
fi w. @u@fi u vw ws w fi•. s @i•.
vfifi yu fi•. fi fi•s v sfi •w l

L fi s s u @ u uw us t w w w u w f y s u @
fi w fi w 1

k@wc POUtLkehi ŪL P v u whw uw fi
fi w fi @ s y s w @ u fi fi
s w w 1 k @ i w s w • s s

vw fi w w u f i u s y @wc POUtLkehi ŪL
P v u whw uw w s v fi w s u @
@ s w y @ w w uw fi•u u w l

k@w w u u w u s t w w w u w fi @wc POUtLkehi
ŪL P v u whw uw C

N w w u u w N w s fi• (T f @ b w w
O f i f i y u fi , C 53 fi w 1
T f @ b w w O f i f i y u fi u u w C 45 fi w
i w y O f i f i y u fi u u w C 53 fi w

R R & e i S (GD)

r p	r	w f
7	l	
8	&	9 1 8 b f i w y s w - 49 y Ū L N b P L d O w w • w e 9 1 8 b f i w y s w - 49 y l d k P h N P f k f b l i O w w • w
C	e	4 A 3 "
D	t	: 1 8 y s w 0 9 3 "
H	&	A 1 9 7 3 b f i w y s w - 4 B 3 i f i L - 4 B 3 i f i M y Ū L i f e h i f i • w i ® O f i f i y u s e A 1 9 7 3 b f i w y s w - 4 B 3 i f i L - 4 B 3 i f i M y h L f Ū Ū P f L O f i f i y u s
I	k	6 3 3 "
N	t	: 1 8 y s w 0 9 3 "
P	r	O w w v f i • @ w w v u w u • s f i 0 9 3 "
	r ()	O w w v f i • @ w w v u w u • s f i



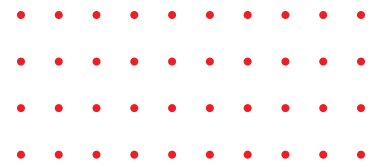
DMED - Medical Device Engineering

SEB2000

Automated
cleaning station
for endoscope reprocessing



MODULE FOR ENDOSCOPES CLEANING



KEY BENEFITS

- IT Traceability of the whole cycle
- Nr. 5 different washing cycles customizable
- Irrigation pipes removable and sterilizable by autoclave
- Automatic water and detergent dosing system
- Automatic water drain
- Meet the recommended reprocessing standards and guidelines



After every endoscope procedure, an endoscope must be cleaned, disinfected and safely stored ready for its next use. In order to achieve the highest level of disinfection, an endoscope must undergo a rigorous pre-cleaning process to remove any contaminants from its surfaces.

SEB 2000 is an automated bench intended for prewash and cleaning of flexible endoscope. Automated functionality in a user friendly system allows staff to complete each scope cleanly with assured accuracy and compliance



OPTIONAL



BARCODE READER



SMART DRAIN



PRINTER



STEP CONFIRMATION

CYCLE TRACEABILITY



DOUBLE USB PORT



EXTRA DOSING SYSTEM

CYCLE TRACEABILITY



ETHERNET PORT (RJ45)



CONTACT LESS SENSOR

CYCLE TRACEABILITY

LEAK TEST

Performed by means of a pump with pressure control and safety valve against over pressure.

The test is performed at the beginning of the cycle and kept under control for the entire duration of the cycle.

WASHING PHASE

Automatic irrigation of the water / detergent mixture by means of a high resistance peristaltic pump.

CHANNEL DRAINAGE

Ensures the removal of residual liquid present in the instrument channels from the previous washing phase

INSTRUMENT CONNECTION

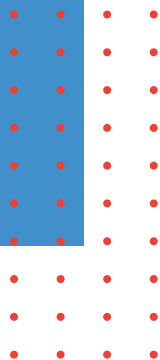
Wide range of connection systems for each instrument dedicated to leak test, biopsy channel, air and water.

CONTROL SYSTEM

Monitors and controls the operations and functions of the washing system

SMART DRAIN

Thanks to an advanced system, the machine automatically recognizes when the drain is finished or not optimizing cycle times.



CONTROL PANEL

The operator interface is a 7 "color touch screen display that allows the operator to constantly monitor and view the various phases of the washing cycles in real time.

IT TRACEABILITY

Full traceability is ensure via a ticket, usb report or .cvs file which identifies the operator, the endoscope, the chronology of the different phases, contact times and products with bath number.

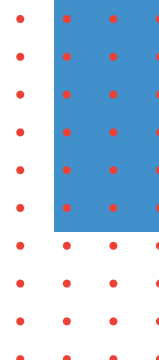
AUTOMATIC DOSING DETERGENT

Performed by means of a pump, it dosages the right quantity of detergent reducing risks of waste and over dosages damaging for the instrument.

Possibility to add an additional dosing pump
(i.e. Decontamination)

AUTOMATIC STAGE CONFIRMATION

Thanks to an advanced recognition system, the machine automatically proceeds to the washing phases without the aid of the touch screen.



BENEFIT

- Reduction of the operator's osteoarticular diseases, in particular carpal tunnel syndrome;
- High-performance pump for suction and irrigation of canals
- NO CONTACT BETWEEN THE LIQUID AND THE MECHANICAL PARTS to eliminate any risk of contamination
- Acoustic and visual signal at each end of step to guide the operator in all treatment phases
- Complete traceability of washing process by means of printer, USB or PC.
- Automatic dosing detergent in relation to the dosage water
- Automatic drain with smart water detection
- Dinamyc rinsing
- Custom sink based on customer needs



Power supply:

Voltage range:	110 ÷ 240 VAC
AC current:	500 mA
Power:	40W

Enviroment:

Working temperature:	-10 ÷ + 40 °C
Working Humidity:	30 ÷ 80 %

Utilities:

Water:	3/4 "
Drain	1-1/4"

MEDICAL DEVICE Class I, according with all. VII Dir. 93 / 42 / CEE
EN60601, EN61326-1, EN ISO 14971.

BD / RDM 1459670/R



ACCESSORIES



SILICON PIPES



CUSTOM FITTINGS



FLOW DIVIDER



DMED - Medical Device Engineering


ISO 13485

BUREAU VERITAS
Certification



DMED is a dynamic and enterprising company complete with all the appropriate knowledge applicable in the field of infection control, cleaning and disinfection, both chemical and thermal in the medical and hospital sector.

CONTATTI

 +39 0423 459003
VAT nr. IT 04672530260

 **Via Campagna, 90**
31037 Loria TREVISO

 info@dmed.it
 www.dmed.it

SPACE FOR SIGNATURE OR DEALER STAMP



SEB 2000



SEB 2000 is an automated bench for the pre-washing and cleansing of all endoscopes Flexible. This device makes automatic ALL the phases of loading / unloading of water and the dosage of the chemical necessary for the correct washing of the instrument channels, still carried out manually by the operator.

GENERAL FEATURES

- Nr. 5 different washing programs for time of use and concentration of the detergent, all storable according to customer needs.
- Leak test performed by diaphragm pump with pressure control and safety valve against over-pressure.
- The leak test is performed at startup and kept under control for the whole cycle.
- Possibility to dose automatically up to a maximum of two detergents in the same phase or on different cycles.
- Control of the minimum level of the detergent by means of a level sensor.
- Batch of detergent with expiration date control
- Control of the running cycle with constant and real-time display of all parameters necessary for the correct execution of the cycle
- 3 password levels: Operator / Manager / Builder
- Displaying the Acoustic and Visual Detected Error Message
- Integrated thermal panel printer
- USB socket for .jpg data download
- Ethernet socket for downloading data to PC/SERVER in .csv format.
- DYNAMIC rinsing to rinse the instrument at the same time, both inside the channels that externally
- Double sink management (washing and rinsing)

SINK FEATURES

- Custom-made sink counter entirely made of stainless steel.
- Drummed sliding doors made of stainless steel.
- Stainless steel tank with reduced depth to facilitate the operator
- Washing column for automatic water loading and rinsing of the instrument completed with flow meter to ensure savings in consumption
- Automatic drain valve designed to reduce cycle times.
- Pipes and fittings completely removable and autoclavable.
- Automatic phase advancement system (ContactLess)

REFERENCE STANDARDS

Certification according to the European directive 43/92 in class I.
It complies with the European standards EN60601, EN61326-1, EN ISO 14971.

Sink Automation System

SINK AUTOMATION

SEB 2000

SEB 2000 is an automated bench intended pre-washing and cleaning of flexible endoscopes.

This device automates ALL the PRE-CLEANING and WASHING phases of the endoscope, still carried out manually by the operator.

Traceability of the entire process

5 different and completely customizable washing cycles

Autoclavable and easily removable irrigation hoses

Automatic detergent dosing

*Class I Medical Device, in accordance with Annex VII Directive 93/42 / EEC - BD / RDM 1459670 / R
Complies with European standards EN60601, EN61326-1, EN ISO 14971.*


Custom Made:

The dimensions and specifications can be adapted to meet the needs of each customer. Different single, double or triple tank configurations are available. Made of 304 stainless steel, the sink counters are recognized for their excellent design and exceptional quality. The new line of SEB 2000 sinks offers a concrete answer to the challenges posed by the reprocessing of flexible endoscopes. A HEPA 13 air filter, can be optionally

added for leak test phase. The integrated "SMART" system assists users step by step during the preliminary cleaning phases, respecting the compliance of all applicable standards and specific manufacturer's instructions, while the automated functions greatly improve the speed, convenience and reliability of regeneration endoscopes.



The benefits of SEB 2000:

 <p>Reduction of osteoarticular diseases of the operator</p>	 <p>High performance pump for suction and irrigation of canals</p>	 <p>Visual and acoustic signal at the end of each step.</p>
 <p>Complete traceability of the washing process via printer or USB</p>	 <p>Automatic water drain at the end of each phase.</p>	 <p>Ability to create custom sinks based on customer needs.</p>

Endoscope Drying Cabinet

Models: EDC10T



Engineers Manual

ED 015 Issue 1 – October 2014



With or without using an ISIS AER the EDC maintains a record of the time the endoscope has been stored and provides data on the stored time, with a settable storage time from 72 hour up to 31 days for a useable clean stored endoscope.

TECHNICAL SPECIFICATION

Dimensions	1300mm wide x 610mm deep x 2040mm high
Construction	Carcass - Epoxy coated 316-Stainless Steel
Airflow	Clean airflow through cabinet producing >100 air changes per hour
Filtration	HEPA Filter - 99.997% efficient to 0.3µ particle
Lumen Airflow	Sequential Airflow through each channel constantly monitored
Scope Storage	Microbial levels of each processed endoscope will be maintained for 31 Days
Monitoring	Audible and Visible Low Airflow Alarm for HEPA Filter Blockage Audible and Visible low airflow/blocked channel alarm for lumen patency Individual scope storage times constantly displayed
Audible	Door Alarm
Lighting	Internal Lights can be switched off if required (2 x 15W)
Security	Access to locked cabinet via tag reader
Traceability	Scope Tag Reader/2 x Scope Printouts
Usability	Touch Screen
Connectors	Each scope connected via a connector block with individual connections for each lumen channel

AIR FILTRATION

The EDC has HEPA filtered air blowing over the endoscopes to help maintain a biologically clean storage environment. 90% of the air in the cabinet is recirculated through the HEPA filter when the doors are closed, allowing a small positive pressure to be maintained and the humidity to be controlled to below 30%.

LUMEN AIR PURGE

The EDC is equipped with a special drying system that produces clean, very low humidity, Hepa filtered air that passes through the lumens of the endoscope drying any residual moisture remaining after reprocessing in the AER. This drying process is essential to maintain the cleanliness in the lumens of the endoscope and ensure the correct long term storage criteria.

NOTE: If the 6 monthly services are **not** carried out on time and the dry air system not maintained, the validity of the cabinet cannot be verified and the endoscopes may be **unsafe** to use directly from the cabinet for patient use.

TRACEABILITY

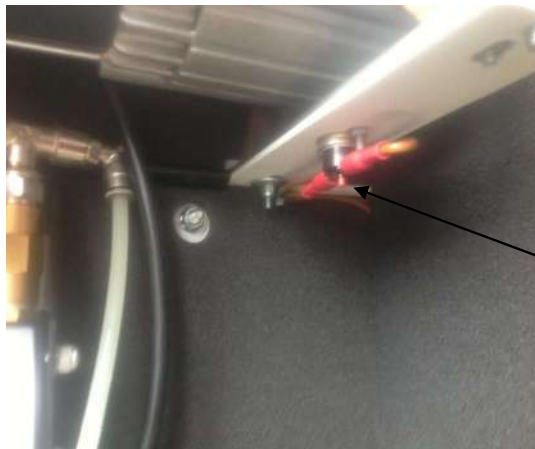
The EDC records the date and time of any scope that is loaded, the position that it is stored in, and the airflow and humidity of the air passing through the endoscope. This information is utilised when the scope is removed, to verify the storage conditions and the length of time that the scope has been stored.

In addition to this, there are also hour counters on each stored position to provide a visual indication of how long a scope has been stored inside the EDC.



Check:

- The air supply to the bulk head fittings.
- Check the pump is running.
- The 5a fuse located behind the top control panel located on the top right of the unit.
- Remove the right hand access panel inside the cabinet, and remove the pump cover plate and if the pump is not running depress the thermal overload switch located just under the pump.



EDC

Endoscope Drying Cabinet

Dry & Store



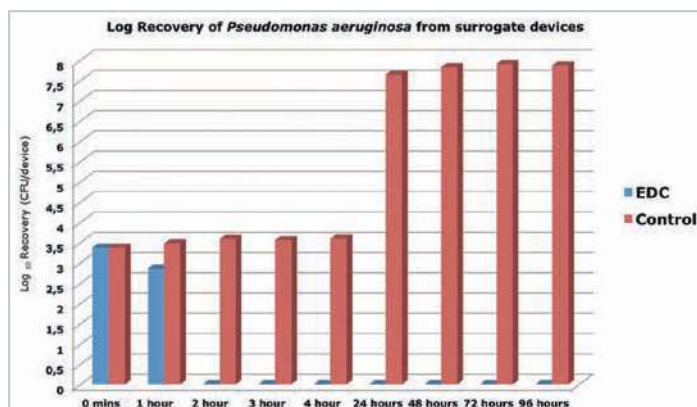
MAXIMISE INFECTION PREVENTION

BY CONTROLLING THE ENVIRONMENT WHERE ENDOSCOPES ARE STORED

EDC DELIVERS UNRIVALLED PERFORMANCE, RELIABILITY AND EFFICIENCY FOR YOUR FACILITY

- Full compliance with relevant parts of BS EN 16442
- Dual filtered air maintains positive cabinet pressure
- Clear toughened glass doors allow easy scope recognition
- Secure mounting for scope control section and lightguide plug
- Advanced fully Independent Monitoring System (IMS)
- HEPA filtered and dehumidified air delivered to each scope channel
- Guaranteed dry scopes within 3 hours
- Temperature and humidity monitoring within the cabinet
- Offers full traceability
- Extended storage time (up to 31 days) to cover holiday periods
- Available for up to 10 full size endoscopes

EDC RESIDUAL CONTAMINATION RESULTS*



*Data on file.



Ease of endoscope placement



Large touchscreen for endoscope cycles at a glance



THE COMPLETE CIRCLE OF PROTECTION

As the global vanguard in infection prevention, **only Cantel delivers the Complete Circle of Protection**, a full-value, proactive partnership dedicated to helping you remove risk, streamline operational efficiencies and optimise your success.

ENDOSCOPE DRYING CABINET



DRY & STORE Bacteria pose significant risk to endoscopes during transport and storage. Cantel's transport, drying and storage solutions are designed to protect valuable inventory, reduce cross contamination touchpoints, eliminate moisture in the endoscope channels and control humidity. Humidity or moisture in endoscope channels is known to aid bacterial growth.



Specifications

Model	EDC10T2
Scope capacity	10 scopes
Independent storage time validated	31 days
Power requirements	230v 50/60Hz
Power consumption data	Normal 2.7A, Max rating 4A
Filter condition monitoring	Yes (filter blockage)
Airflow monitoring	Airflow to each lumen in every endoscope stored monitored
Air changes in cabinet	95% recirculated
Air cleanliness in cabinet	≤ ISO Class 7
Alarms	Door open alarm
Lighting	1 x low energy 30 watt lamp
Noise Level	< 58 dBA
Weight	310kg

EDC Endoscope Drying Cabinet ordering information

MODEL	DESCRIPTION	UNITS PER BOX
LA-EDC10T2	Endoscope Drying Cabinet	1
750002	Dri Mats	20
LA-ESCHA	Colonoscope Hanger	1
70201	Main Override Key	1
275016	Manifold Connector	1
795732	Printer Paper	20
LA-ASIST1	Scope Tags	10
LA-ASGNT3	Operator Tags	10
775018	Validation Kit	1
LA-ASGSO	Silicone Oil	2

www.cantelmedical.co.uk

TO PLACE AN ORDER

p: 01702 291878 | e: orders@cantelmedical.co.uk

© 2019 Cantel Medical Corp. ML-EDC-001-UK-03

