

# FEES – Swallowing Diagnostics

Solutions from KARL STORZ



Scan me!

and access an interoperative video of the product configuration. This QR Code is for product configuration 2: TELE PACK+ and the HD video rhino-laryngoscope  
<https://go.karlstorz.com/96311052-en-2>

## CMOS Video Rhino-Laryngoscope with C-MAC® HD Monitor

Combined with the lightweight and mobile C-MAC® HD monitor, the CMOS video rhino-laryngoscope provides a fast and convenient solution for FEES (Functional Endoscopic Evaluation of Swallowing). The CMOS videoendoscope shown here has a diameter of only 2.9 mm. Control buttons allow convenient capturing of images and video sequences or the activation of still images. Whether in intensive care units, outpatient settings or nursing homes – the all-in-one solution allows great flexibility and mobility.

### Special features of the CMOS video rhino-laryngoscope with C-MAC® HD monitor:

- CMACTouch – the interactive FULL HD touch screen can also be used with OR gloves
- CMACrec – choice between Click-to-Record, Auto-Record or Time Machine Mode\*
- CMACmic – integrated microphone for recording videos with sound
- CMOS Video Rhino-Laryngoscope 11102CM with a diameter of only 2.9 mm
- Integrated LED light source for the best possible illumination
- Still image function for close examination of pathologies
- Additional data transfer from the SD card to the USB flash drive possible
- Direct connection to single-use videoendoscopes
- Optional mobile stand provides storage and safe transport



\* With the new C-MAC® HD monitor, if the "Time Machine Mode" is activated and the record button is then pressed, 60 seconds of video sequence before pressing the recording button is saved automatically.



## HD Video Rhino-Laryngoscope with TELE PACK+

The TELE PACK+ combines every requirement in FEES imaging: Monitor, camera and LED light source. Integrated data management enables comprehensive documentation. As a mobile unit used in conjunction with the HD video rhino-laryngoscope, the TELE PACK+ is especially suitable for use in doctors' offices, for bedside examinations or in outpatient settings. CMOS Videoendoscope 11102CM with a diameter of 2.9 mm can also be combined with the TELE PACK+, however, it is not compatible with the accessories for stroboscopy.

### Special features of the HD video rhino-laryngoscope with TELE PACK+:

- HD Video Rhino-Laryngoscope 11101HD has a diameter of 3.7 mm
- The compact TELE PACK+ features an intuitive user interface with integrated keyboard
- Still image function for close examination of pathologies
- Video recording with sound via microphone input
- Playback of videos in the respective patient mode possible
- 50 GB internal memory capacity
- Optional patient data export and import via SCENARA®
- Optional, modular COR mobile stand guarantees mobility
- As a further option, the accessories for stroboscopy (compatible and ready for immediate use with the TELE PACK+ and the HD video rhino-laryngoscope)



## Video Tower

The video tower from KARL STORZ provides a high-end solution for the diagnosis of dysphagia and other endoscopic examinations in ENT. Together with the IMAGE1 S™ camera system, the HD video rhino-laryngoscope offers the possibility to use advanced visualization technologies. The S-Technologies CLARA, CHROMA, SPECTRA\* A & B can be used to brighten dark areas in the background, to enhance contrast or highlight tissue or vessels through color shifting. Furthermore, the white light image can be be compared to the S-Technologies image side by side on the monitor. The COR equipment cart can be adapted to suit individual needs to ensure continued mobility and flexibility in the medical practice.

### Special features of the video tower:

- In conjunction with the IMAGE1 S™ camera platform, the high-end video tower offers a wide range of examination options for ENT diagnostics
- Possibility to connect rigid or flexible endoscopes
- Side-by-side comparison of S-Technologies for advanced visualization (brightened background, more contrast, color shifting for highlighting vessels and tissues) and a white light image
- Imaging that can be used in many different specialties
- Image and video capture via USB flash drive on the camera control unit
- Playback of data on a PC
- Optional patient data export and import via SCENARA®
- Optional, modular COR equipment cart ensures mobility

\* SPECTRA not for sale in the U.S.





# Single-use Videoendoscopes Compatible with All Three FEES Product Solutions

Situations where the use of single-use videoendoscopes may be recommended:

- Highly infectious patients
- Clinics without in-house reprocessing departments
- Irregular use of flexible endoscopes
- Backup for reusable endoscopes



Single-use videoendoscope



Single-use videoendoscope compatible with C-MAC® HD monitor\*



Single-use videoendoscope compatible with TELE PACK+



Single-use videoendoscope compatible with IMAGE1 S™ \*\*

091330-06

**CMOS Video Rhino-Laryngoscope SSU,**  
direction of view 0°, angle of view 90°, working length 30 cm, outer diameter 3.5 mm, deflection up/down 140°/140°, sterile, for single use, package of 6, for use with E-BOX TP012, E-BOX TC028, TELE PACK+ TP101 and TELECAM C3 TC100



<https://go.karlstorz.com/96311052-en-4>

\*\* Note: To connect single-use videoendoscopes with the IMAGE1 S™ X-LINK, E-BOX for X-LINK TC028 is required.



**Rizwana Zaman, BSc**

Speech & Language Therapist (SLT), UK,  
FEES Trainer (DGN)

“The equipment for FEES diagnosis from KARL STORZ was a real discovery for me. The CMOS video rhino-laryngoscope with the compact C-MAC® monitor and the HD video rhino-laryngoscope combined with the TELE PACK+ offer cost-effective solutions that meet the demands of a modern FEES service. These solutions are ideally suited for the examination of complex neurogenic dysphagia in the intensive care unit and/or stroke unit and also for early neurological rehabilitation or consultation purposes.

The equipment is ergonomic and convenient to use while providing excellent image quality. It is easily transported thanks to its light weight and cleaning is uncomplicated.

The highly portable monitor and the endoscope diameter contribute to patient safety, practical use and very good functionality without compromising the quality of equipment in clinical use. ”



11102CMK endoskopas suderinamas su C-MAC monitoriumi.  
p. 2.2.

Configuration 1		Configuration 2		Configuration 3	
11101HDK with IMAGE1 S™		11101HDK with TELE PACK+		11102CMK with C-MAC®	
Videoendoscopes					
11101HDK HD Video Rhino-Laryngoscope KIT		11101HDK HD Video Rhino-Laryngoscope KIT		11102CMK CMOS Video Rhino-Laryngoscope KIT	
Imaging					
TM220	27" FULL HD Monitor	TP101	TELE PACK+	8404ZXK	C-MAC® Monitor, Set
TC301	IMAGE1 S™ X-LINK				
TC201	IMAGE1S CONNECT® II				
Equipment Carts					
UG010	Base Module, equipment cart, narrow	UG804	Subrack, high	8401YB	Clamp, VESA 75 standard, for fixation of C-MAC® monitor
UG020	Cover, equipment cart, narrow	UG811	Top Cover Monitor Holder	8401YA	Stand, for C-MAC® monitor, height 120 cm
UG051	Beam Package, equipment cart, high	UG854	Stainless Steel Tube		
UG310	Isolation Transformer	UG857	Monitor Module		
UG410	Earth Leakage Monitor	UG860	Drawer, narrow		
UG501	Monitor Holder Adaptor	UG813	Adaptor Set		
UG520	Monitor Holding Arm, long	29005IFH	Holder for Flexible Endoscopes		
UG601	Drawer Unit with Lock, small	11301BC	ProShield Protective Tube		
2x UG603	Shelf, narrow				
UG605	Keyboard Tray, narrow				
2x UG608	Equipment Rail, long				
UG612	Camera Holder				
Holders for Videoendoscopes					
UG813	Adaptor Set COR	UG815	Equipment Rail, COR mobile stand	ET43-304392	Basket Holder
29005IFH	Holder for Flexible Endoscopes	10330BC	Holder, for endoscopes	621C	Quiver Set
11301BC optional	ProShield Protective Tube, for flexible telescopes, for single use	10330BE	Fixation Device, for endoscope Holders 10330BC, 10330BD	621SA	Adaptor, for standard equipment rails
Accessories					
		40160033	TELE PACK Stroboscopy Footswitch		
		40160031	Microphone Set		

## Video endoskopai

### Videoendoscopes



11101HDK

**HD Video Rhino-Laryngoscope KIT**,  
direction of view 0°, angle of view 100°,  
working length 30 cm, outer diameter 3.7 mm,  
deflection up/down 140°/140°

**The following accessories are included in delivery:**

<b>11101HD</b>	<b>HD Video Rhino-Laryngoscope</b>
<b>13242XL</b>	<b>Leakage Tester</b>
<b>11025E</b>	<b>Pressure Compensation Cap</b>
<b>27677SL</b>	<b>Case</b>



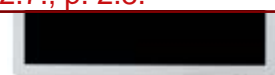
11102CMK

**CMOS Video Rhino-Laryngoscope KIT**,  
direction of view 0°, angle of view 100°,  
working length 30 cm, outer diameter 2.9 mm,  
deflection up/down 140°/140°

**The following accessories are included in delivery:**

<b>11102CM</b>	<b>CMOS Video Rhino-Laryngoscope</b>
<b>13242XL</b>	<b>Leakage Tester</b>
<b>11025E</b>	<b>Pressure Compensation Cap</b>
<b>27677SL</b>	<b>Case</b>

CMOS vide rino-laringoskopas, matymo kryptis 0 laips., matymo kampas 100 laipsn., darbinis ilgis 30 cm, išorinis skersmuo 2,9 mm, lenkimasis a/ž: 140/140 laipsn., komplekte: sandarumo matuoklis, slėgio suvienodinimo kamštėlis, lagaminas. p. 2.1., p. 2.3., p. 2.4., p. 2.4., p. 2.5., p. 2.6., p. 2.7., p. 2.8.



**27" FULL HD Monitor**, screen resolution 1920 x 1080, image format 16:9, video inputs: 2x DVI, 3G-SDI, VGA, S-Video, Composite, video outputs: DVI, 3G-SDI, Composite, power supply 100-240 VAC, 50/60 Hz, 5 V DC (1 A), wall mount with VESA 100 adaptor



TC301

**IMAGE1 S™ X-LINK**, link module, for use with flexible videoendoscopes and one-chip camera heads (up to FULL HD), power supply 100-120 VAC/200-240 VAC, 50/60 Hz, for use with IMAGE1 S CONNECT® TC200 or IMAGE1 S CONNECT® II TC201



TC201EN\*

**IMAGE1 S CONNECT® II**, connect module, for use with up to 3 link modules, resolution 3840 x 2160 and 1920 x 1080 pixels, with integrated KARL STORZ-SCB or KS HIVE® and digital Image Processor Module, power supply 100 – 240 VAC, 50/60 Hz



TP101

**TELE PACK+**, endoscopic video unit with 2 camera inputs (X-LINE and C-LINE) for use with flexible videoendoscopes and one-chip camera heads up to FULL HD), incl. LED light source, digital Image Processor Module with USB and network storage options as well as 18.5" FULL HD touch screen monitor, power supply 100-240 VAC, 50/60 Hz, including Mains Cord 400F

\* Also available in the following languages: DE, ES, FR, IT, PT, RU





8404ZXK

C-MAC monitorius skirtas CMOS endoskopams, ekrano dydis 8", 1200 x 1920 taškų raiška, dvi jungtys kameroms, USB ir HDMI jungtys, lietimui jautrus ekranas, video ir nuotraukų įrašymas realiu laiku į SD kortelę, įrašytų video ir nuotraukų peržiūra, duomenų perkėlimas iš SD laikmenos į USB laikmeną, IP54 apsauga nuo skysčių, tinkama dezinfekcija šluoste, smūgiams atsparus ABS plastiko korpusas, išmanus energijos valdymas su pakraunama ličio jonų baterija.  
p. 1.

**C-MAC® Monitor for CMOS Endoscopes, Set**, screen size 8" with 1200 x 1920 pixels resolution, two camera inputs, a USB and a HDMI port, optimized user interface with touch screen, video and image capture in real time on SD card, playback of recorded video clips and still images, data transfer from SD card to USB flash drive possible, splash-proof according to IP54, suitable for wipe disinfection, shock-resistant ABS plastic housing, intelligent power management with rechargeable Li-ion batteries, VESA 75 mounting option, power adaptor for EU, UK, USA and Australia, power supply 110-240 VAC, 50/60 Hz, for use with CMOS videoendoscopes

consisting of:

8404ZX

8401YSD

8403YZ

8401YCA

ET27-30-0006091

ET27-30-0004697

ET27-30-0004698

ET27-30-0004699

ET27-30-0004700

ET27-30-0004701

ET27-30-0004370

**C-MAC® Monitor**  
**SD Card ULTRA, 16 GB**  
**Protection Cap**  
**VESA 75 Quick Clip**  
**Power Supply**  
**Plug Adaptor EU**  
**Plug Adaptor UK**  
**Plug Adaptor USA/JP**  
**Plug Adaptor AUS**  
**IEC (ROW) Plug**  
**Adaptor Cable USA/JP**



TC028

**E-BOX**, for X-LINK, for use with flexible videoendoscopes (8-pin), for single use, compatible with IMAGE1 S™ X-LINK TC301

## Accessories for Stroboscopy (compatible with HD Video Rhino-Laryngoscope 11101HD)



40160033

**TELE PACK Stroboscopy Footswitch**, footswitch with USB port and integrated activation key for stroboscopy function (plug & play), for use with KARL STORZ TELE PACK X LED TP100 and TELE PACK+ TP101



40160031

**Microphone Set**, for use with KARL STORZ TELE PACK X LED TP100 and TELE PACK+ TP101

consisting of:

20140030

20140030MH

20140030T

**Microphone Fitting**

**Microphone Holder**

**Connector for Microphone Membrane**

# Accessories

for Flexible Intubation Video Endoscopes (FIVE)

## Optional Accessories:



110284-10\*

**Biopsy Forceps**, with oval jaws, coated, working length 120 cm, sterile, for single use, package of 10, for use with flexible endoscopes with working channels as of diameter 2 mm

STERILE



11301 CA\*

**Leaflet Valve**, unsterile, for single use, package of 20



11301 CB1

**Suction Valve**, reusable, for Intubation Video Endoscopy 11302 BDX

Plastikinis konteineris  
lankstiems endoskopams.  
2.8.



39406 AS

**Plastic Container for Flexible Endoscopes**, suitable for gas and hydrogen peroxide (Sterrad®) sterilization and storage, external dimensions (w x d x h): 550 x 260 x 90 mm, for use with one flexible endoscope



11301 BM

**Adaptor**, for leakage test, for Belimed washer-disinfectors



11301 FF2

**Adaptor for MIELE Cleaning Machines**, with safety valve, for automatic leakage test of flexible KARL STORZ endoscopes



11301 GG2

**Adaptor**, for cleaning and disinfecting the irrigation and working channels of flexible endoscopes, for MIELE-ETD washer/disinfectors



11301 HH

**Adaptor for BHT Cleaning Machines**, for automatic leakage test of flexible KARL STORZ endoscopes



11301 KK2

**Adaptor**, for working channel of flexible endoscopes, for MIELE-ETD 03 washer/disinfectors  
Please note: Adaptors 11301 FF2 and 11301 GG2 have to be ordered separately!



ET65-778063

**Flushing Hose Adaptor**, for closing open flushing lines of cleaning machines, for use with 11301 FF2 only



100010-10\*

**Sealing Cap "Endoscopic Seal"**, for working channels of 3 – 7 Fr. instruments, sterile, for single use, package of 10

STERILE

