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内窥镜设备
ENDOSCOPY SYSTEM

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常州国贸企业
Changzhou Intl. Trade & Enterprises Cooperative Co., Ltd.

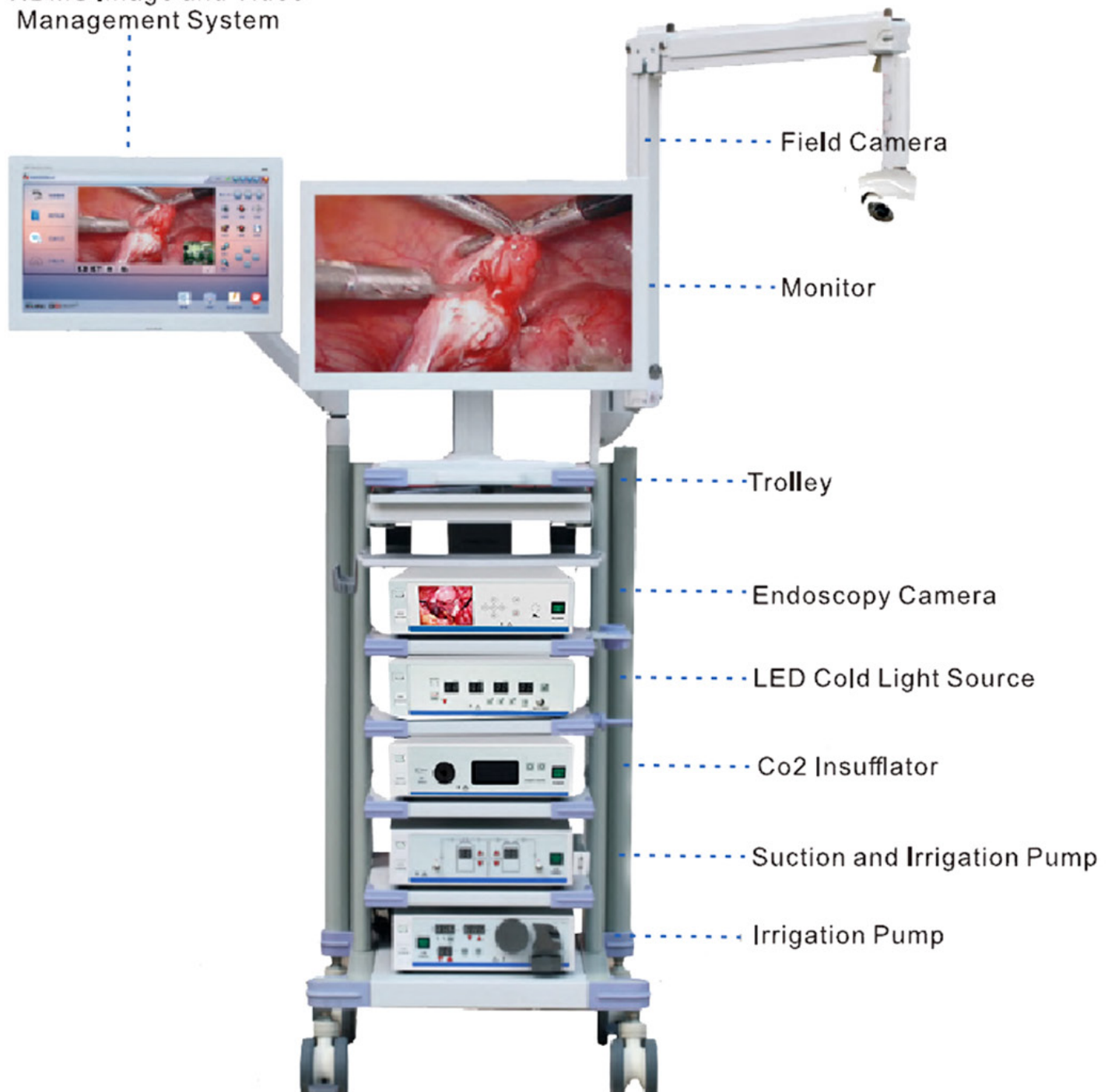
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内窥镜设备

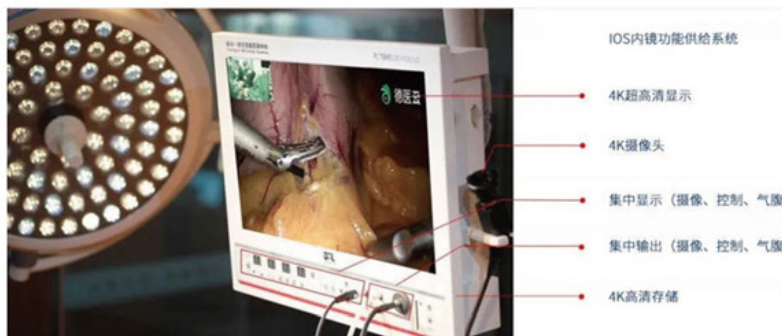
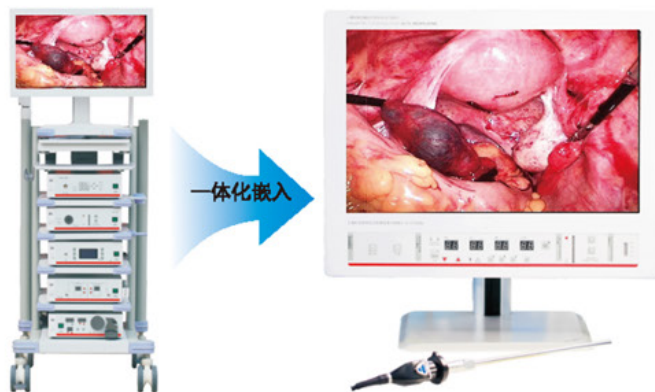
Endoscopy system

HDMS Image and Video
Management System



4K内镜供给系统

4K Endoscopy System



性能特点/Characteristics

- 气腹仪、4K摄像、LED冷光源、4K存储4K超高清显示一体化平板嵌入式设计
- 各项参数一体化直观呈现，手柄智能控制白平衡、增益、存储等功能
- 气腹流量自适应连续输入，通过快速泄气量计算自控输入流量，保证术中快速安全充气
- 4K超高清，智能宽动态背光补偿控制，实时高清存储
- 智能宽动态流量气腹，烟雾清除时持续保证术中腔内压力
- 冷光源LED单珠设计，灯珠寿命5万小时
- Co2 Insufflator, 4K camera, LED coldlight source, recording, ultra-high-definition display are integrated in one flat panel design
- The parameters are integrated and visualized, and the handle intelligently controls white balance, gain, and storage
- Adaptive continuous input of insufflator flow, calculate self-controlled input flow through rapid deflation, and ensure fast and safe inflation during operation
- 4K Ultra HD, intelligent widely dynamic back light compensation control, with real-time HD storage
- Intelligent widely dynamic flow insufflator, continuous intraoperative intracavity pressure during smoke removal
- Coldlight source LED single bead design, lamp life up to 50,000 hours



Description:

The IOS Integrated Endoscopy System is integrated of new type high definition camera, co2 insufflator, LED cold light source, monitor, storage and transmission function. Part of the camera is full hd camera, with full digital CCD camera, representing the highest level of minimally invasive surgery, with a high pixel 1920 x 1080p, Put the smallest, the subtle details appear in front of the user, with the powerful light sensitivity, even under adverse conditions, such as severe bleeding, the camera can also provide a compelling image. This is the first integrated machine with insufflator function in China.

Technical Data:

- Camera head interface: C-Mount
- Image sensor: 1/3 type, CCD sensor (scroll shutter)
- Color filter: RGB mode
- Scanning: Progressive scanning
- Aspect ratio: H16: V9
- Output video signal
 - HD output: HD-SDI(1 Line): 0.8Vp-p/ 75 ohms HD output
 - DVI(1 Line): 1920*1080P 59.94/50/60.
 - SD output: SD-VBS (1 Line): 1.0Vp-p/75 ohms SD output
- Resolution: 1080P
- Signal-noise ratio: ≥ 50 dB
- Sensitivity: standard 2000Lux F7/3200k
- Injection pressure control range: 0.67 kPa ~ 4.00 kPa (5mmHg ~ 30mmHg)
- Injection pressure control accuracy: + 0.13kpa (1mmHg)
- Gas flow range: 0~30 L/min
- Cylinder pressure alarm value: 0.25Mpa (2.5bars, 3kgf/cm²)
- Pressure alarm value: ≥ 33 mmHg(4.40kpa)
- Over pressure alarm: + 2mmHg
- Release time of over pressure: ≤ 10 S
- Supplementary time: ≤ 10 S
- Accuracy of flow display: 10L/min + 2L/min; 20L/min, 30L/min tolerances $\pm 20\%$
- Accuracy of gas consumption: 20%
- Output total luminous flux: at the time of 2.3 m fiber (guide beam), at the outlet of the guide beam, greater than 3501m
- Color temperature: 3000K~7000K
- Color index: ≥ 90
- Light uniformity: 0.8
- illuminance over limit point: ≤ 2
- Volume: 74CM*61CM*31CM
- Weight: 16.5KG

Standard Equipped:

- CCD Camera head with C-mount adapt[☐ 18S ☒ 22S ☐ 28S ☐ ...]
- Coaxial line(Only used for CVBS output, external workstation)
- DVL Cable
- Power Cable
- Fiber optic light cable
- High pressure tube
- Pressure valves unit
- Insufflator tube with co2 filter

3CMOS超高清摄像系统

L9000 HD 3CMOS Endoscopy Camera



Description:

The L9000 HD 3CMOS opens up new dimensions in the world of digital endoscopy. The high-resolution, Fully HD 3CMOS digital sensor (DVI video output) with high definition image format provide the highest levels of surgery field visibility. Due to the high resolution 1920x1080 pixels, the user is able to see even the smallest tissue details with absolute clarity.

性能特点/Characteristics

- 3*1/3寸CMOS逐行扫描传感器
- 1920*1080P超高清分辨率
- 16:9或16:10全画幅图像显示系统
- USB快速高清1080P录像存储
- 手柄按键可以控制高达3个可编程功能
- 5个用户模式可供不同用户或者内镜手术使用
- 超宽白平衡设置范围，180度图像旋转功能
- 具有高达2.5倍数字变焦功能及图像冻结功能
- 通过CFDA EMC检测
- 1/3"x3CMOS progressive scanning 1080p;
- Full HD 1920 *1080 pixels;
- 16:9 OR 16:10 format (Aspect Ratio);
- USB Video recorder(1080P), replay and storage system;
- The handle button can control up to 3 programmable functions;
- Five user settings for different users or endoscopy surgery ;
- Super white balance with 180 degree rotation function;
- UP to 2.5x digital zoom function and freeze function;
- EMC of CFDA approve.

Technical Data:

- Sensor: 1/3"x3 CMOS
- Scanning system: Progressive
- Video outputs: 2xDVI-D; 2x HD/3G-SDI; 1 x Analog RGB or Y/Pb/Pr;
2 x S-video, 2xComposite Video
- Resolution: ≥1000TV lines
- Min illumination: ≤1Lux(F2.0)
- Sensitivity: 1920x1080P
- Signal / Noise ratio(S/N): ≥70dB
- Shutter Auto: 1/50s to 1/50000s
- Shutter Off: 1/50s
- White/Balance(W/B): Auto/Manual
- Opposite Retrieval: Auto/Manual
- Quick coupling: C-Mount
- Power supply: AC110-240V, 50/60HZ; Fuses: Φ5x20mm 250V 2A
- Safety standard: IEC601-1
- Power consumption: approx. 40VA
- Storage temperature: -15°C to +50°C
- Operating temperature: -10°C to +46°C
- Relative humidity: 0 to 90%
- Dims camera head: 34(W) x 42(h) x 58(D)mm
- Weight of camera head: approx. 90g
- CCD cable: ≥3m(extension cable up to 10m)
- Dims of CCU: 335x100x340mm

Standard Equipped:

- | | |
|--------------------------|--------------------|
| • 1 x 75-5 Coaxial cable | • 1 x Power cable |
| • 1 x DVI cable | • 1 x 3CMOS camera |
| • 1 x Y/C cable | • 1 x 3CMOS host |

CMOS超高清内窥镜系统

L9000 HD CMOS Endoscopy System



Description:

The high definition L9000 HD CMOS of the endoscope camera system is a new endoscope camera system developed by our company. The camera is a full HD camera with a fully digital CMOS camera with a resolution of 1920 X 1080 pixels and displayed in real time through the system display device. The system uses high photosensitive sensors, so that the product can provide clear images even under adverse conditions, such as severe bleeding in the area.

Technical Data:

- Sensor: 1/3"CMOS
- Scanning system: Progressive
- Video outputs: 2 x DVI-D; 2 x S-video, 2 x Composite Video
- Resolution: > 1000TV lines
- Min illumination: ≤1Lux (F2.0)
- Sensitivity: 1920 x 1080P
- Signal/ Noise ratio(S/N): ≥70dB(gain 0dB, DNR OFF)
- Shutter Auto: 1/50s to 1/50000s
- Shutter Off: 1/50s
- White/ Balance(W/B): Auto/Manual
- Opposite Retrieval: Auto/Manual
- Quick coupling: C-Mount
- Power supply: AC110-240V, 50/60HZ; ϕ 5 x 20mm 250V 2A
- Safety standard: IEC601-1
- Power consumption: approx.26VA
- Storage temperature: -5°C to +50°C
- Operating temperature: -10°C to +46°C
- Relative humidity: 0 to 90%
- Dims camera head: 30(W)x 32(H)x 74(D)mm
- Weight of camera head: approx.88g
- CCD cable: ≥3m (extension cable up to 10m)
- Dims of CCU: 335x 100 x 340mm
- N.W. of CCU: 5.0kg

Standard Equipped:

- | | |
|---------------------------------|-----------------------|
| • 1 x CCU | • 1 x Composite cable |
| • 1 x CCD head with C-mount-28S | • 1 x Video cable |
| • 1 x DVI-D video cable | • 1 x Power cable |

Q' 750 CCD内窥镜系统

Q' 750 CCD Endoscopy System



Description:

The endoscope camera system Q '750 is composed of the camera and the control part. The camera part is light weight, small size and low power consumption. Due to the high definition and high sensitivity of the sensor, the endoscope camera system Q '750 can also produce a true color image in a hostile environment. The endoscope camera system Q '750 can connect to the usual VIDEO devices and VHS VIDEO connection monitors.

Technical Data:

- CCD-sensor: 1/3"interline CCDx1
- With micro lens and color mosaic filter
- Resolution: ≥ 720 TV lines .
- Min illumination: ≤ 1 Lux(F2.0)
- Signal/Noise ratio(S/N): ≥ 70 dB
- White/Balance(W/B):Auto/Manual
- Gain:Auto/Manual
- Shutter: 1/60s- 1/10,000s
- Video outputs:2xBNC,2xY/C
- User settings:Five user settings (A-B-C-D-E)
- Operating temperature: -10°C-46°C
- CCD Head:
- Size:30x32x74(WxHxL)
- CCD cable: >3m
- CCU:
- Size:335x 100x340(WxHxL)
- Safety standard: IEC601-1
- Power supply: AC110-240V, 50/60HZ
- Fuses: $\phi 5 \times 20$ mm 250V 2A

Standard Equipped:

- | | |
|---------------------------------|-----------------|
| • 1 x CCD head with C-Mount-28S | • 1 x CCU |
| • 1 x BNC cable | • 1 x Y/C cable |
| • 1 x Power cable | |

Q' 7515 LED冷光源

Q' 7515 LED Cold Light Source



Description:

The unit built-in LED bulb, the high energy conservation, no more than 30dB(A) airborne noise, four times quieter than other traditional products, the long life cycle (>50000 hours); The color temperature of approx. 6500K corresponds to sunlight. The cold light source yields a particularly brilliant aperture illumination and colour rendition, providing an unparalleled lighting condition.

Technical Data:

- Power supply:AC110-240V,50/60HZ
- Max.power consumption:approx.100W
- Fuses:Φ5x20mm 250V 2A
- Safety standard:IEC601-1
- Bulbs:30W to 100W LED bulb
- Color temp:approx.6500K
- Illumination(from 2.5m light cable):800.000Lx
- Life cycle of bulb:approx.50,000h
- Storage temp:-15°C to +50°C
- Operating temp:0°C to 45°C
- Relative humidity:30% to 90%
- Safety type:I/B
- Dims:340x335x100mm
- N.W.of unit:6.5kg

According to the test setup by the manufacturer,service life may be shorter when used under unfavorable conditions(e.g.many ON/OFF cycles)

Standard Equipped:

- Light source main unit
- Fiber optic light cable
- Power cable

I' 750 CO₂气腹仪

I' 750 CO₂ Insufflator



Description:

It's the first CO₂ Insufflator ever made in China, The latest technology and the easy operation have come to move the new CO₂ insufflator to the top of the class of the newest generation.

性能特点/Characteristics

- 全自动、静音型
- 3档气体流量选择
- 安全自动报警功能
- 直冲式回流测压、更安全
- 双重气体过滤双重减压设计
- Fully automatic. Quiet operation;
- 3 level flow rate;
- Automatic safety alarm function;
- Direct flush type backflow pressure measurement, for greater safety;
- Dual gas filtering and decompression design.

Technical Data:

- Power supply: AC110/220V $\pm$ 10% 50/60HZ 0.5A
- Fuses: Φ 5x20mm 250V 2A
- Flow rate setting: 101/201/301/min
- Max, gas flow: 301/min, 401/min optional
- Pressure presetting range: 5-30mmHg
- Power consumption: 35W
- Insufflation medium: CO₂ medical grade
- Signal/Noise ratio: $\leq$ 55Db
- Safety standard: IEC601-1
- Storage temp: -15°C to +50°C
- Operating temp: 0°C-45°C
- Relative humidity: 30% to 90%
- Dims: 340x335x100mm
- N.W.: 7.0kg

Standard Equipped:

- High pressure tube
- Power cable
- Pressure valves unit
- Insufflator tube with CO₂ filter

P' 750(II) 负压吸引器

P' 750(II) Irrigation Pump



Description:

P'750 is the device that display rinse, expand and pressuring in cavity, control by open full automatic microcomputer, produced by our company. It will make visual space in cavity use liquid medium expanding and pressurizing, also can clear bloodiness in cavity, make view of observe and operation more clearer. Apply to all kinds of endoscopy operation. The device set a bearable pressure must accord to different operation command. Use specified pressure expand and pressurizing in cavity, For example, in uteroscope operation, set pressure oughtn't to above 140mmHg(18.67kPa), flow rate 0.3L/min, protect safety of patient. When inject liquid into cavity and wash, use larger setting pressure and flow rate in ordinary course of events.

性能特点/Characteristics

- 设有大、小腔体转换功能键, 适合泌尿、骨科和妇科
- 双流体管设计
- 可更换蠕动管
- 高灵敏度蠕动传感器
- With a function key for converting the size of the cavity body, so the same unit is suitable for Arthroscopy, Hysteroscopy and Urology system;
- Double fluid tube design;
- Peristalsis tube is replaceable(5pcs, L: approx. 16cm);
- High sensitivity peristalsis sensor.

Technical Data:

- Power supply: AC110/220V $\pm$ 10% 50/60HZ 0.5A
- Fuses: Φ 5x20mm 250V 2A
- Max. Power consumption: 100W
- Pressure presetting range: 15-600mmHg (2-80kPa, error approx. $\pm$ 2kPa)
- Flow rate: 0.1-1.01/min (error approx. $\pm$ 20)
- Signal/Noise ratio: $\leq$ 55dB
- Safety standard: IE601-1
- Storage temp: -15°C to +50°C
- Operating temp: 0°C-45°C
- Relative humidity: 30% to 85%
- Dims: 340x335x100mm
- N.W.: 11kg

Standard Equipped:

- Main unit
- Sterile tubing sets with sensor
- Shims of sensor (3pcs), Emulsion tube and shim (5pcs, L: approx. 16cm)
- Power cable



Description:

- Wireless 4G connection, simple and quick start remote guidance/Conference,
- Can adapt to a variety of brand high-definition camera signal input
- Intracavitary, surgery field, venue, operating room and other video multi-channel input, all-broadcast
- Quality loss of audio and video real-time interaction, to ensure the operation
- Quality loss of audio and video real-time interaction, to ensure the operation of mobile remote guidance/consultation; teleconference/ teaching
- APP platformmillion push, to facilitate the participation of mobile mobile teleconference/teaching
- Video HD recording storage, with graphic workstation function



Description:

- Progressive scanning-1080P
- High image-quality/high-resolution,real color image can be reproduced
- Natural gray scale,high brightness and speed response.
- Full HD digital output DVI-D
- 16:9 format(Aspect Ratio)
- Simplified installation and operation

性能特点/Characteristics

- | | |
|------------------------|--|
| • 显示尺寸21.5、24、26、27寸 | • Display size: 21.5, 24, 26, 27 inches; |
| • 逐行扫描技术保证了图像的清晰度1080P | • Progressive scanning-1080P; |
| • 优异的色彩还原性保证了图像的真实性 | • Excellent color reduction ensures image authenticity; |
| • 自然灰阶、优质的亮度 and 对比度 | • Natural gray scale,high brightness and speed response; |
| • DVI-D全高清视频输出 | • Full HD digital output (DVI-D); |
| • 16:9全画幅显示 | • 16:9 for mat (Aspect Ratio); |
| • 安装简易、操作灵活 | • Simplified installation and operation. |

Technical Data:

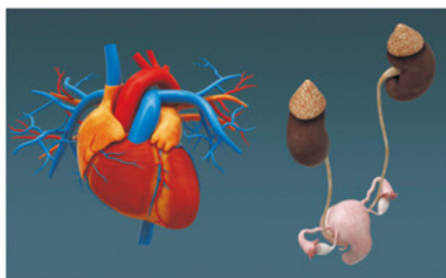
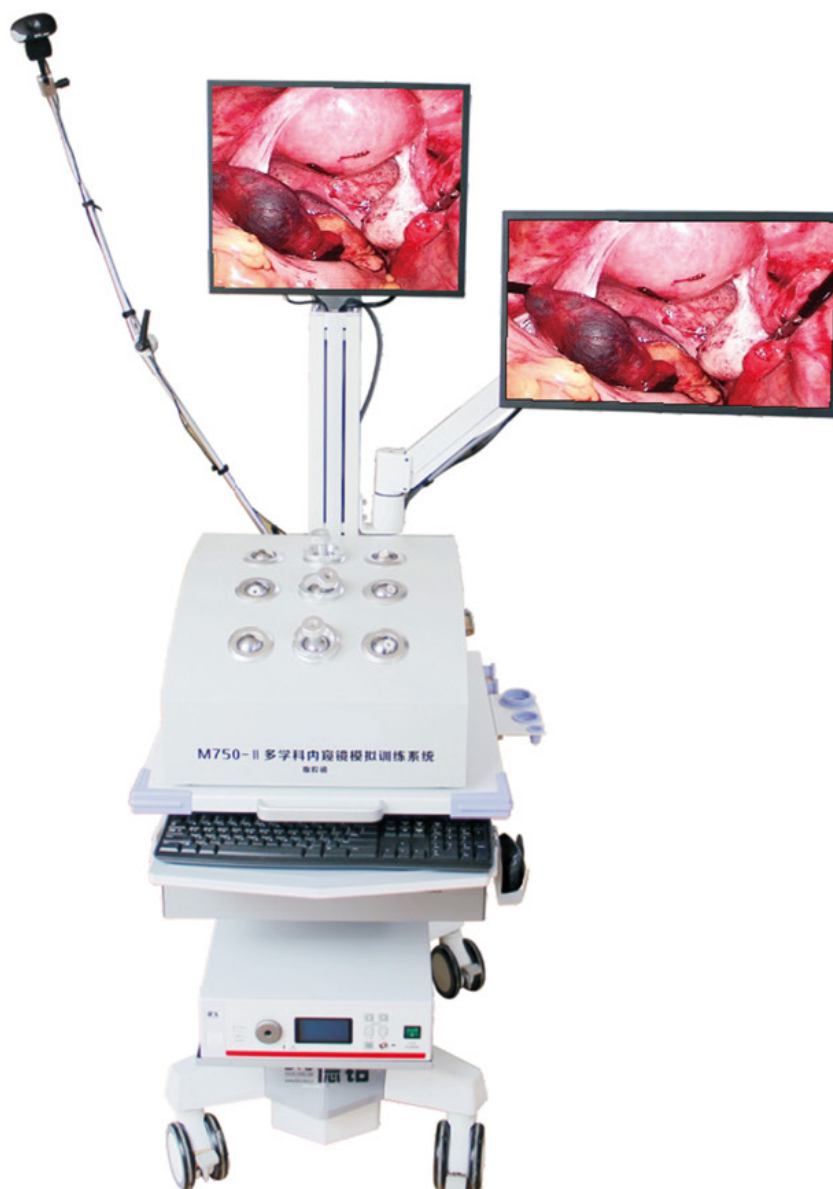
- Size: 19 inch, 21.5 inch, 24 inch, 27 inch
- Screen ratio: 4:3; 16:9
- Pixel: 1920x1080P
- Color: 17.770.000 color(8 bits)
- Scanning type: Progressive scanning-1080P
- View: 89 up/89 down/89 right/89 left, contrast>9:1
- Output: DVI
- Power supply: 100-240V, 50/60 Hz
- Operating temp: 0°-30° suggest 20°-30°
- Relative humidity: 30%-80%
- Storage/transport temp: -20°-60°
- Relative pressure: 700-1060hPa
- Size: 600x380x105mm approx
- N.W.: 8kg approx
- Standard features: Power cable(AC electricity adapter), user manual

Standard Equipped:

- Power cable

M' 750-II多学科内镜模拟仿真训练系统

M' 750-II Endoscopy Training Simulation System



Description

- Multidisciplinary training (general surgery, gynecology, urology, otolaryngology.....)
 - Real endoscope, surgical instrument
 - Can do endoscope hold training
 - Can carry on the main knife and the endoscope assistant cooperation training
 - Real - time training in the teaching cavity and training operators operating images, image collection
 - The function of drawing in the picture, can switch between each other, the function of picture editing and marking
 - Generate report card on site, support report card printing, mobile workstation structure design
 - The integrated endoscopic light source camera system can be used for animal experiments
 - To place all kinds of real teaching materials in pull-out mode, so as to facilitate the replacement of materials of different subjects (patents)
 - An external camera records the entire training process
 - 9 hole design, suitable for various surgical training operations (patent)
-
- 多学科训练(普外科、妇科、泌尿外科、耳鼻.....)
 - 真实内窥镜、手术器械
 - 可进行扶镜训练
 - 可进行主刀和扶镜助手配合训练
 - 实时培训教学腔体内和实训者操作图像、影像的采集
 - 画中画功能,可相互切换;图片编辑标注功能
 - 现场生成成绩单,支持成绩单打印,移动工作站式结构设计
 - 一体化内镜光源摄像系统,可做动物实验
 - 抽拉式放置各种真实教学材料,便于不同科目素材的更换(专利)
 - 外置摄像头,记录学员整个训练过程
 - 九孔设计,适合各种手术训练操作(专利)



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