

1, 1.1, 1.1.1

4K Arthroscope, 30°, 4 mm x 152.5 mm

AR-3350-4031

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Synergy Arthroscopes
Product

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Arthroscopes and Sheath Systems

①

4 mm 4K Arthroscopes 1.1, 1.1.1

- AR-3350-4031 4K Arthroscope, 30°, 4.0 mm x 152.5 mm
- AR-3350-4071 4K Arthroscope, 70°, 4.0 mm x 156 mm
- AR-3355-4031 4K C-Mount Arthroscope, 30°, 4.0 mm x 152.5 mm
- AR-3355-4071 4K C-Mount Arthroscope, 70°, 4.0 mm x 156 mm

4 mm HD Arthroscopes

- AR-3350-4030 HD Arthroscope, 30°, 4 mm x 152.5 mm
- AR-3350-4070 HD Arthroscope, 70°, 4 mm x 155.5 mm
- AR-3350-4030R HD Arthroscope, 30°, Reverse Cant, 4 mm x 152.5 mm
- AR-3355-4030R HD C-Mount Arthroscope, 30°, Reverse Cant, 4 x 152.5 mm
- AR-3355-4030 HD C-Mount Arthroscope, 30°, 4 mm x 152.5 mm
- AR-3355-4070 HD C-Mount Arthroscope, 70°, 4 mm x 155.5 mm
- AR-3355-4000 HD C-Mount Endoscope, 0°, 4 mm x 152.5 mm

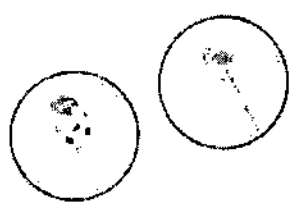
1.2 Sheaths and Obturators for 4 mm Arthroscopes 1.2.3

- AR-3373-4001* Sheath, Hi-Flow Tapfen, 1 Stopcock for 4 mm Scope
- AR-3373-4002* Sheath, Hi-Flow Tapfen, 2 Stopcock for 4 mm Scope 1.2.4
- AR-3375-4001 Conical Obturator for Hi-Flow Tapfen 4 mm Scope Sheath w/ handle
- AR-3375-4002 Sharp Trocar for Hi-Flow Tapfen 4 mm Scope Sheath w/ handle
- AR-3375-4003 Cannulated Obturator for Hi-Flow Tapfen 4 mm Scope Sheath w/ handle
- AR-3375-4004 Blunt Obturator for Hi-Flow Tapfen 4 mm Scope Sheath w/ handle
- AR-3375-4007 Conical Obturator for Hi-Flow Tapfen 4 mm Scope Sheath
- AR-3377-4001* Sheath, Hi-Flow, 1 Stopcock for 4 mm Scope
- AR-3377-4002* Sheath, Hi-Flow, 2 Stopcock for 4 mm Scope
- AR-3375-4011 Conical Obturator for Hi-Flow 4 mm Scope Sheath w/ handle
- AR-3375-4012 Sharp Trocar for Hi-Flow 4 mm Scope Sheath w/ handle
- AR-3375-4017 Conical Obturator for Hi-Flow 4 mm Scope Sheath
- AR-3374-4001* Sheath, fen, 1 Stopcock for 4 mm Scope
- AR-3374-4002* Sheath, fen, 2 Stopcock for 4 mm Scope
- AR-3375-4021 Conical Obturator for fen 4 mm Scope Sheath w/ handle
- AR-3375-4022 Sharp Trocar for fen 4 mm Scope Sheath w/ handle
- AR-3375-4027 Conical Obturator for fen 4 mm Scope Sheath

1.2.2 - Fit the end of the objective lens
1.3 Stainless steel

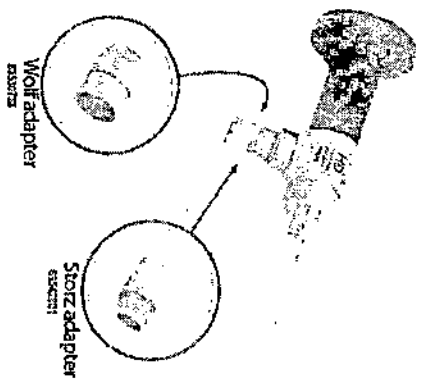


AR-3350-4030
4 mm 30° Arthroscope



Arthroscopes

- » Material: Sapphire Glass
- » field of view: 100, 1°
- » Wide Angle Forward Telescope
- » Stainless Steel
- » Available in two diameters
- » Light Post/adapters to fit ACM, Wolf, Dyonics and Storz type light cable are included
- » Fits Arthrex/Storz style Sheath.
- » Rod lens System Arthroscope visualize overall bright image
- » Fiber optic transmission incorporated
- » Sterilization can be accomplished by ETO, Steris and steam autoclavable or soaked in glutaraldehyde solutions
- » Push lock system with sheath

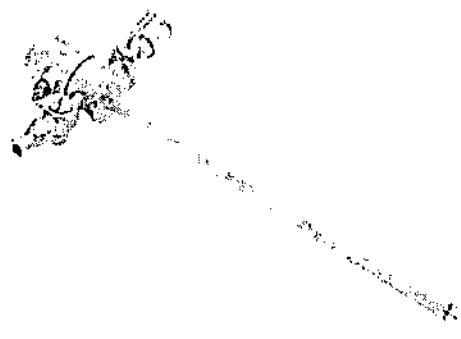


AR-3350-4031
4K Arthroscopa 30°, 4.0 mm x 152.5 mm



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Sheath, High-Flow, Tap/Fen, 2, Stopcock for 4 mm Scope

AR-3373-4002 1.2 , 1.2.1 , 1.2.2

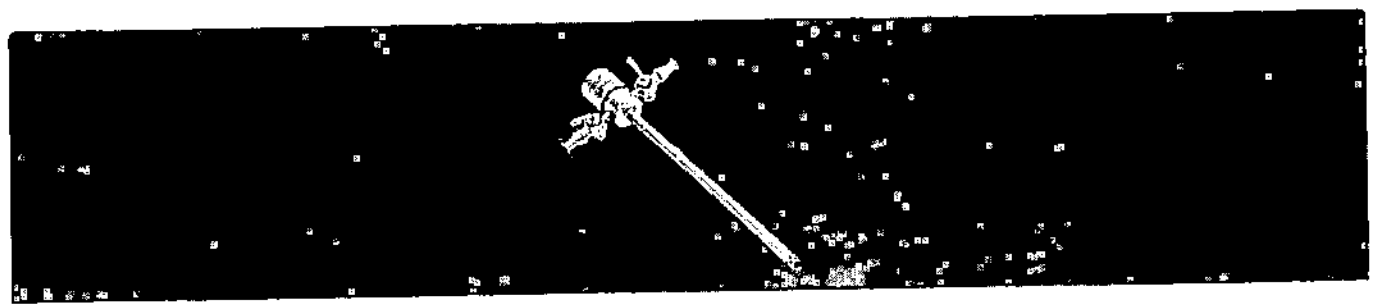
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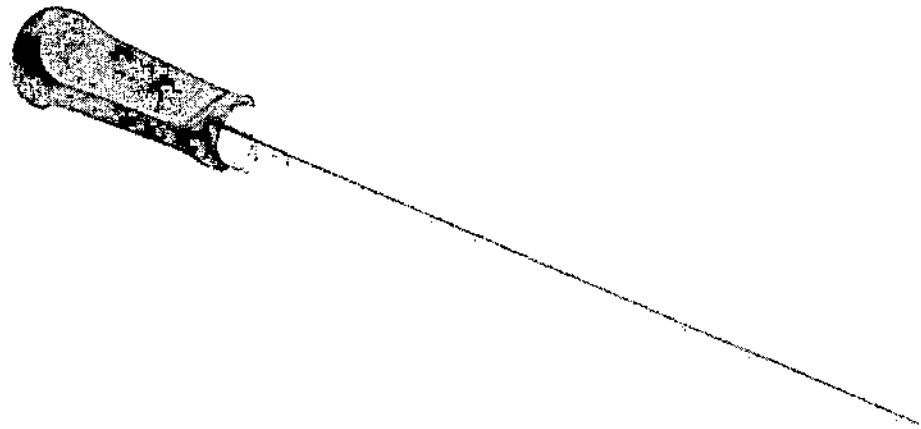
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Conical Obturator for Tap/Fen High-Flow 4 mm Scope Sheath w/Handle

AR-3375-4001 1.3 , 1.3.1.

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2

Synergy^{UHD4} 4K Imaging Platform



1.1.1 The Synergy^{UHD4} Imaging platform was the first endoscopic 4K camera system on the market. The console integrates 3 devices into 1 and revolutionizes endoscopic visualization and image management. The Synergy^{UHD4} system combines the latest technology, true 4K camera heads, LED lighting, image management, and integration with an intuitive tablet controller. One console and a single unique tablet interface simplify use. Programmable individual surgeon/procedure preferences enhance the user experience. The 4K image displayed on the camera monitor has 4 times the resolution of standard HD.

1.1.2

- LED Light Source
- ▣ Solid-state "xenon bright" LED light source comparable to 300-watt xenon light sources
 - ▣ Cost-effective with bulb life >30000 hours
 - ▣ Low heat generation
 - ▣ Automatic brightness adjustment

Synergy^{UHD4} Tablet Controller

Our unique and innovative remote "tablet" interface allows users to remotely and efficiently enter patient information, surgeon preferences, and image management settings once. The Synergy^{UHD4} tablet controller may help reduce cost, shorten OR times, and increase efficiency.

Synergy^{UHD4} Console

Product Description	Item Number
Synergy ^{UHD4} 4K console with Synergy Matrix™ encoder	AR-3200-0020
Synergy ^{UHD4} 4K console (a)	AR-3200-0021
Synergy ^{UHD4} digital documentation tablet (b)	AR-3200-1013

1.1

Product Description	Item Number
Synergy ^{UHD4} digital documentation tablet	AR-3200-1016

Image Management System

- ▣ Still capture and video recording
- ▣ Export to USB, iPad®, and network locations such as PACS or network folder
- ▣ Network-based system allows live video streaming to any authorized remote viewer
- ▣ Export images to the Synergy Surgeon App software:
 - Review and edit still images and videos
 - Annotate on stills
 - Create presentations and postoperative reports for patients



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Synergy UHD4™

4K Vision. LED. Image Management. Integration.

Camera Control Unit (CCU):

- Scan Method: Progressive
- Audio Out: Mini Stereo Connectors
- Ethernet Connector: Isolated 10/100 MB/Sec.
- 2.1.5 } USB Connectors: 4x (2x Front; 2x Back)
- 2.1.10 } USB Tablet Connection: 1x
- RS-232 Connector: Isolated
- 2.1.3 } Image Capture: JPG
- Image Capture Resolution: 1920 x 1080
- 2.1.4 } Video Capture: MP4
- Video Capture Quality: 1080p
- Picture-in-Picture functionality of Video-Input
- Switch between camera image and Video-Input
- Installed printer driver for Sony UP-DR80MD
- Weight: approx.. 8.2 kg
- Dimensions: 40.6 cm [W] x 12.7 cm [H] x 34.3 cm [D]
- 2.1.11 } Power Supply: 100-240VAC; 50/60Hz
- Power Input: 140VA

The Camera System offers Video Live Streaming

- Streaming Codec: H.264 codec with MPEG4 wrapper
- Streaming Bit Rate Options: 1 to 4 Mbit/sec in 3 steps.
- Remote Viewing via a Webbrowser
- Password protected access to Livestream



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Artirex

1.2 Light Source

- Technology: LED (cold light source)
- 1.1.5 • Lifespan: at least 30,000 operating hours
- 7-year-warranty on the LED light source
- Power consumption: 90 W typ. / 94.5 W max. (Not comparable to a standalone light source because the LED does not have a direct power supply!)
- 2.1.6 • Light output/light flux: 1,600 lumen (300W)
- 1.1.7 • Color temperature: 7,000 K nominal
- Color rendering index: 70 CRI, typ. (min. 65 CRI)
- Light color: white
- Spare lamp: N/A (LED technology)
- Automatic light output control: synchronized pulse width modulated light output
- Light guide port turret for connecting the following the cable standards:
 - ACMI™ Standard
 - Storz™
 - Wolf™
 - Olympus™
- Ready to use in < 1 sec.
- User interface
 - CCU button (on/off)
 - Programmable camera buttons (on/off)
 - Tablet graphical user interface (on/off, enable/disable automatic light output control, set max. light output in three steps)

1.3 Camera Control Unit (CCU) / Video Processor

1.3.1 General Information

- 4K/UHD-capable, 2D-capable
- Applied part type CF (cardiac floating)
- defibrillation proof
- White balance button on device
- Image mirror or image rotation
- Video outputs:
 - 2 x DisplayPort 1.1/1.2, MST/SST [2160p max., 10 bit, 59.94 Hz]
 - 4 x 3G-SDI [1080p, 8 bit] or 1 x Quad-SDI 2SI [2160p, 10 bit, 59.94 Hz]
 - 1.1.9 } ○ 2 x DVI-D [1080p, 8 bit, 59.94 Hz];
 - only AR-3200-0020: 1 x Matrix Video Fiber Dual-SFP [2160p, 8 bit, 59.94 Hz]
- Video input: 1 x DVI-D (1080p, 59.94 Hz)
- Picture-in-picture (PIP) functionality of video input

1.3.2 Network streaming and communication functions

- Password-protected access to camera live stream and captured images
- Streaming codec: H.264 with MPEG4 container at 30 Hz
- Streaming quality levels:
 - Standard (640x360 px. at 1 Mbit/s)
 - Medium (896x504 px. at 2,5 Mbit/s)
 - High (1920x1080 px. at 6 Mbit/s)
- Audio streaming
- Remote access via web browser (IP based)



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รวิวิง

1.4 Image Management / Documentation System

1.4.1 General Information

1.1.3

	Resolution	File size	File type	Comment
Photo (HD)	1920 x 1080	1.1 ± 0.3 MB	JPEG	For DICOM also RAW format
Photo (UHD/4K)	3840 x 2160	3.5 ± 1.0 MB		
Video (standard)	640 x 360	9 ± 2 MB/minute	MP4	Video codec: H.264 MPEG-4 AVC Image refresh rate: 30 Hz
Video (medium)	1280 x 720	24 ± 3 MB/minute		
Video (high)	1920 x 1080	44 ± 4 MB/minute		
PDF	corr. photos	≈ photos total	PDF	

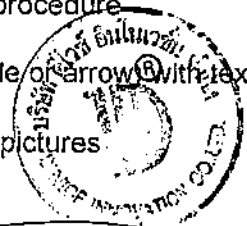
1.1.4

- Possibility to annotate photos at the end of case
- ACC (accessory) ports: 2 x 3.5 mm mini stereo jacks, usable as output or input:
 - Input: allow for control of the Camera Control Unit (CCU) with a footswitch
 - Output: allow for controlling external devices using the camera head buttons
- Audio-in: Mini-Stereo-Connector
- Parallel documentation of two video sources and audio; video recording of 2nd source (DVI input) in qualities „standard“ or „medium“ (cf. table)
- Ethernet connector RJ45 isolated 10/100 MB/s
- Integrated Wi-Fi (Client or Hotspot)
 - Frequency and standard: 2.4 GHz, 802.11 b/g/n
 - Technology: Wireless LAN (IEEE 802.11)
 - Encryption modes: WPA-PSK, WPA2
 - Encryption standards: WPA with TKIP, WPA2 with AES
- 3 x USB 2.0 connectors (1 x front, 2 x back)
- 3 x USB 3.0 connectors (1 x front, 2 x back)
- MFi certified ("Made for iPad[®]")
- USB connector for tablet: 1 x
- RS-232 connector, isolated
- Internal storage: 128 GB SSD
- Automatic or manual export: USB, iPad[®], File server, PACS (DICOM)
- Fileserver export using Samba protocol SMBv1
- DICOM 3.0, EDP link digitally via Ethernet or Wi-Fi, incl. the following functionalities:
 - DICOM Storage (Send/Receive)
 - DICOM Storage Commitment
 - DICOM Query/Retrieve
 - DICOM Worklist Management
- Pre-installed printer driver for Sony UP-DR80MD

1.4.2 Synergy Surgeon App(lication) for iPad[®]

The iPad[®] application provides physicians with tools to manage image and video recordings and perform patient education. Utilizing an iPad[®], physicians can review, edit, annotate and tag still and video recordings, as well as create and instantly transmit images, videos and educational postoperative reports to patients.

- Direct transfer of still images and videos to the iPad[®] during the procedure
- Export of images and videos to the iPad[®] camera roll
- Images: adjust brightness, contrast & saturation; annotation (circle or arrow with text)
- Videos: editing/cutting
- Creation of a report with a predefined text, links, documents and pictures
- Multiple user support
- Can be downloaded free of charge from the Apple App Store



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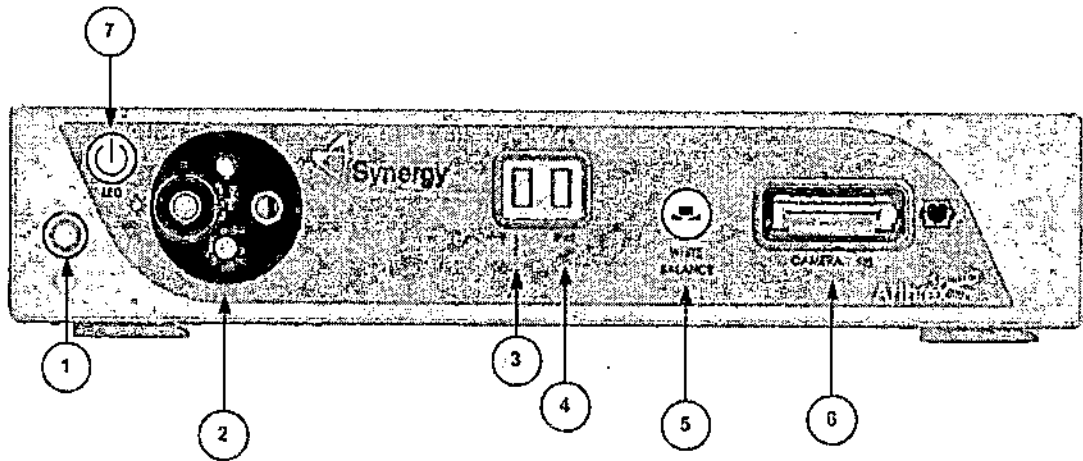


Figure 1- Synergy^{UHD4} Front Panel [AR-3200-002x]

1.9 System Indicators

1.9.1 Synergy^{UHD4} Front Panel

1. **On/Standby Switch**-The On/Standby switch toggles the Camera Control Unit (CCU) between ON [operational mode] and STANDBY. The Green LED will illuminate when the CCU is in the ON mode. Press and HOLD the switch to toggle between ON and STANDBY.
2. **Light Guide Turret**-Turret for Light Guide Input
 - o Wolf Input
 - o Storz Input
 - o ACMI Input
 - o Olympus Input

NOTE: Rotate Light Guide Turret until the appropriate port is aligned with LED INDICATOR then Insert Light Guide.



3. **USB Port**-Connect USB devices here. 2.1.10
4. **IPAD USB Port**-Connect IPAD to this port.
5. **"WHITE BALANCE" Button**-Press to initiate camera white balance.
6. **"CAMERA" Input Connection**-Insert the camera head connector here. The camera head connector and receptacle are specially keyed to prevent the camera head from being improperly connected. Ensure that the "UP" label on the camera head connector is facing upwards when the camera head connector is inserted.

PRECAUTION: Ensure camera head contacts are clean and dry and cooled 15 minutes prior to insertion.

7. **Light Source On/Standby Switch**-The Light Source On/Standby Switch toggles the Light Source between ON [Operational Mode] and STANDBY.

PRECAUTION:

1. Use only FUSED Light Guide to ensure proper operation of LED Engine.

950-0047-01A



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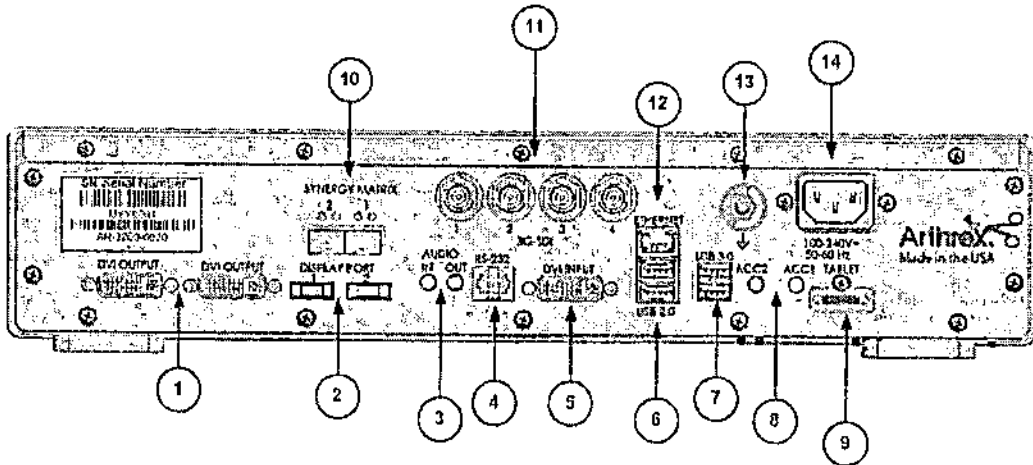


Figure 2- Synergy^{UHD4} Rear Panel

1.9.2 Rear Panel

- 1. "DVI" Video Output Connectors-Supplies a digital video signal output in DVI-D format.
- 2. Display Ports (2X)-Supplies UHD Video Signal output in either 1.1 [dual cable] or 1.2 [MST].

NOTE: Arthrex recommends connecting Synergy^{UHD4} to the primary surgical monitor via multiple output types (e.g., display port and DVI, Synergy Matrix and 3G-SDI) in the event that one type of connection is lost.

- 3. Audio In / Audio Out-Audio In: Line Level Audio input for Microphone. Audio Out: Line Level Audio output to Medical Grade Devices.
- 4. RS-232 Connector-Isolated connection to devices requiring Serial Control.
- 5. DVI Input-1080P/60 Input for Picture in Picture [PIP].

- 2.1.5 6. USB 2.0 (2X)-USB 2.0 Connection.
- 7. USB 3.0 (2X)-USB 3.0 Connection.

8. Accessory Ports (Inputs/Outputs (2X) mini Stereo-Phone Connectors)-Accessory ports allow for control of the CCU with a footswitch or external device or for the CCU to control external devices via the camera head buttons.

2.1.5 9. Tablet Connection-Connection for Tablet Data Input device. Provides for data interchange and tablet charging.

10. Synergy Matrix [Synergy Matrix Only]-Fiber Optic output to Matrix Monitor (point to point or managed) via Custom SFP+ Fiber Transceivers. Use Output 1 and 2 for 4K Video. Custom SFP+ Fiber Transceivers and Matrix License may be obtained from Arthrex Customer Service.

11. 3G-SDI Out-1080P/60 Output.

12. Ethernet Connector-Isolated 10/100 Mb/sec. 2.1.5

13. Potential Equalization Connector (POAG)-Potential Equalization Connector per DIN 42801.

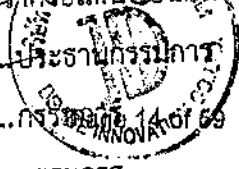
NOTE: The purpose of the Potential Equalization Connector is to equalize the potentials between different metal parts of the various Medical Electrical [ME] equipment which make up a Medical Electrical system, or to reduce differences of potential which can occur during operation between the bodies of the Medical Electrical devices and conductive parts of other objects. The Potential Equalization Connector may be connected directly between any ME Devices, or to a common busbar of the electrical installation. Reference IEC 60601-1 for ME Systems.

14. IEC 320 Power Inlet Module (100-240V~, 50/60 Hz)-The CCU is equipped with a switching power supply that automatically adjusts to the line voltage being used. Accepts the supplied host power cord.

950-0047-01A



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1 Synergy^{UHD4} (AR-3200-002x)

Combined ultra-high-definition camera system, LED light source, and image management system (documentation system)

- All-in-one housing
 - Lean and therefore space saving
 - Improved system stability due to reduced cabling
 - Better hygiene conditions
- Intuitive tablet user interface

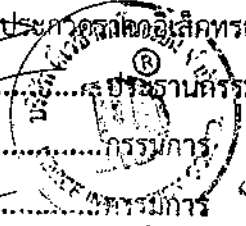
1.1 General Information

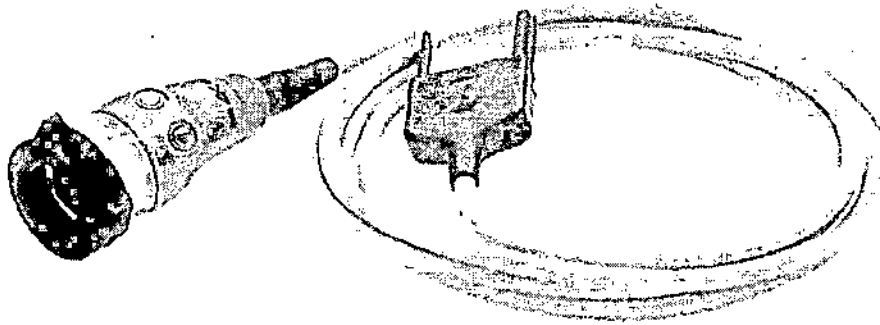
- Computer type: camera control unit (CCU)
- Brand: Arthrex Synergy^{UHD4}
- Operating system: Embedded Linux.
- Access authorization:
 - Normal user login for authentication
 - Administrator login for user management and advanced (system) settings
 - Active Directory (AD) authentication
 - Password for user login can be set
- Remote access:
 - secure management of settings and adding of patient information data by means of a network computer
 - centralized (web browser)
 - compliant with legal/data privacy standards
- Software updates possible via USB (new features and performance improvements)
- System boot time until completely ready for use: approx. 80 sec.
- Standby function (tablet) with readiness for use in approx. 2 sec.
- Measurements: 43.2 cm [W] x 8.9 cm [H] x 34.3 cm [D]
- Weight: approx. 6.8 kg
- Power supply: 100 – 240 V; 50/60 Hz 2.1.11.
- Power consumption: 160 VA resp. 160 W
- Noise level: Startup: approx. 46.5 dB(A); standard operating mode: < 42 dB(A)
- Appliance/protection class: I
- Ingress protection class: IPX0
- Operating temperature: 10 – 35 °C
- Class according to Medical Device Directive: I
- Notified body (CE): 0086
- Manufacturer: Arthrex, Inc. | 1370 Creekside Blvd. | Naples, FL 34108, USA
- Delivery contents: video cables, 1 x power cord, instructions for use



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2.2

4K SynergyUHD4 BB Camera Head, Autoclavable AR-3210-0029

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Cameras

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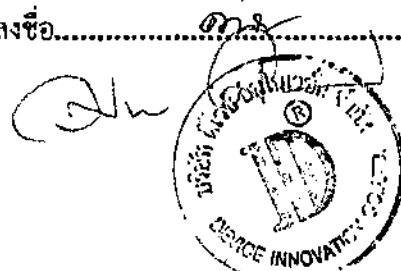


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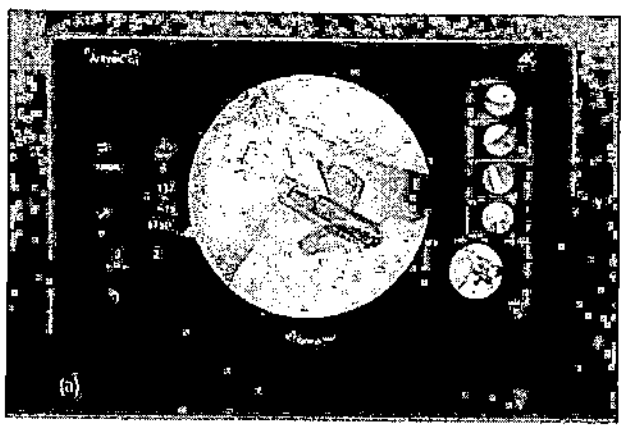
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UHD 4K and 1080p HD Monitors



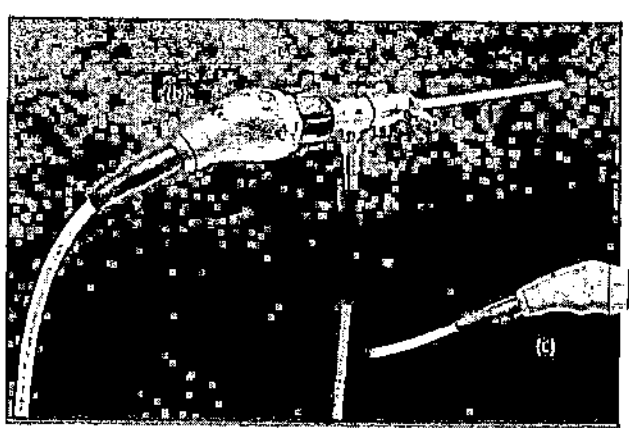
- UHD 4K medical display and 1080p HD medical display options
- Picture-in-picture and side-by-side display modes
- Versatile multiformat signal support
- With and without Synergy Matrix enabled

Product Description	Item Number
HD monitor, OLED, 25"	AR-3250-2602
HD monitor with Matrix decoder, LED, 26"	AR-3250-2604
HD monitor, LED, 26"	AR-3250-2606
HD monitor, LED, 32"	AR-3250-3206
UHD 4K monitor, LED, 32" black (a)	AR-3250-3209
UHD 4K monitor with Synergy Matrix™ decoder, LED, 32", black	AR-3250-3210
UHD 4K monitor, 55"	K9307930
UHD 4K monitor with Synergy Matrix decoder, 55"	K9307931
UHD 4K monitor with Synergy Matrix decoder, 58"	991932207081

Monitor Covers

Product Description	Item Number
Protection cover for 32" monitor, black	703459-15
Protection cover for 26" monitor, black	703458-15
Tablet cover for UHD4, black	703510-15

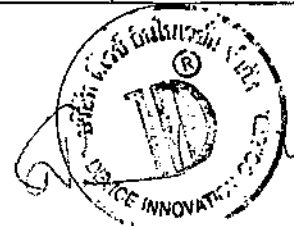
4K and HD Camera Heads



Synergy^{UHD™} camera heads provide true 4K or 1080p HD resolution. With 4 times the resolution and improved color reproduction compared to HD, the picture increases depth perception and creates more precise color. The newly designed, smaller heads still carry the industry-leading standard autoclavable warranty while maintaining the comfortable, ergonomic design started with the Synergy^{HD3™} heads. With multiple configurations, the UHD4 heads are adaptable to multi-specialty accounts and continue to lead the arthroscopy market.

Camera Heads

Product Description	Item Number
HD Synergy ^{UHD4} camera head, autoclavable	AR-3210-0018
HD Synergy ^{UHD4} C-mount camera head, autoclavable	AR-3210-0021
HD Synergy ^{UHD4} C-mount camera head, 0°, autoclavable	AR-3210-0022
4K Synergy ^{UHD4} C-mount camera head, 0°, autoclavable	AR-3210-0026
4K Synergy ^{UHD4} C-mount with 6.1 m cable, autoclavable	AR-3210-0028
4K Synergy ^{UHD4} camera head, broadband, autoclavable	AR-3210-0029
4K Synergy ^{UHD4} C-mount camera head, broadband, autoclavable (b)	AR-3210-0030
4K Synergy ^{UHD4} Ultra camera head, autoclavable (c)	AR-3210-0031
4K Synergy ^{UHD4} Ultra C-mount camera head, autoclavable	AR-3210-0032



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3 Synergy^{UHD4} Camera Heads

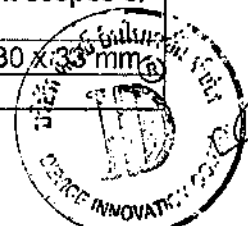
- Image sensor technology: CMOS 2.2.1
- Scan method: progressive 2.2.3
- Aspect ratio/format: 16:9
- 2.2.4 • Image refresh rate: 59.94 Hz (vertical scan)
- 2.2.2 • Digital zoom: 1.5 x
- 2 programmable camera head buttons:
 - number of possible programmable functions: 14
 - number of controllable functions: 5 (incl. white balance at beginning of case) 2.2.2
- Housing / material: welded titanium housing
- Camera cable: copper cable w/ sheath for insulation
- 2.2.6 • Autoclavable, 7-year-warranty on autoclaving
- Anti-glare effect: Tilted window in the front as part of the housing design
- Waterproof and disinfectant-proof (IPX7)
- Applied part type CF for applications near the heart
- Appliance/protection class: I (compare to Synergy^{UHD4}: AR-3200-002x)
- Class according to Medical Device Directive (MDD): I
- Notified body (CE): 0086
- Manufacturer: Arthrex, Inc. | 1370 Creekside Blvd. | Naples, FL 34108, USA

2.2.3

	Broadband	Ultra	HD
Arthrex part number	AR-3210-0029	AR-3210-0031	AR-3210-0018
Number of image sensors	3	1	
Overall resolution	3840 x 2160 (4K/UHD)		1920 x 1080 (HD)
Sensor diagonal (active)	1/3 inch per chip	7.20 mm	1/3 inch
Focal length	19.65 mm		
Signal-to-noise ratio (SNR)	> 52 dB	> 50 dB	> 48 dB
Scope coupling	DIN 58105-compliant Scopes with Standard eye-piece of rigid endoscope connector		
Dimensions (L x W x H)	99 x 46 x 46 mm		101 x 45 x 45 mm
Weight	w/cable: ≈ 570 g ; w/o cable: ≈ 220 g		

2.2.5

	Broadband	Ultra	HD
Arthrex part number	AR-3210-0030	AR-3210-0032	AR-3210-0021
Number of image sensors	3	1	
Overall resolution	3840 x 2160 (4K/UHD)		1920 x 1080 (HD)
Sensor diagonal (active)	1/3 inch per chip	7.20 mm	1/3 inch
Focal length	16 – 34 mm (AR-3210-0005); 14 – 29 mm (AR-3210-0006); 15 mm (AR-3210-0009)		
Signal-to-noise ratio (SNR)	> 52 dB	> 50 dB	> 48 dB
Optical zoom	2 x with AR-3210-0005; 2.07 x with AR-3210-0006		
Endoscope coupling mechanism	C-mount thread: Allows for connection of C-mount scopes or C-mount couplers		
Dimensions (L x W x H)	71 x 42 x 43 mm		69 x 30 x 33 mm
Weight	w/cable: ≈ 480 g ; w/o cable: ≈ 130 g		



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2. 2. 2

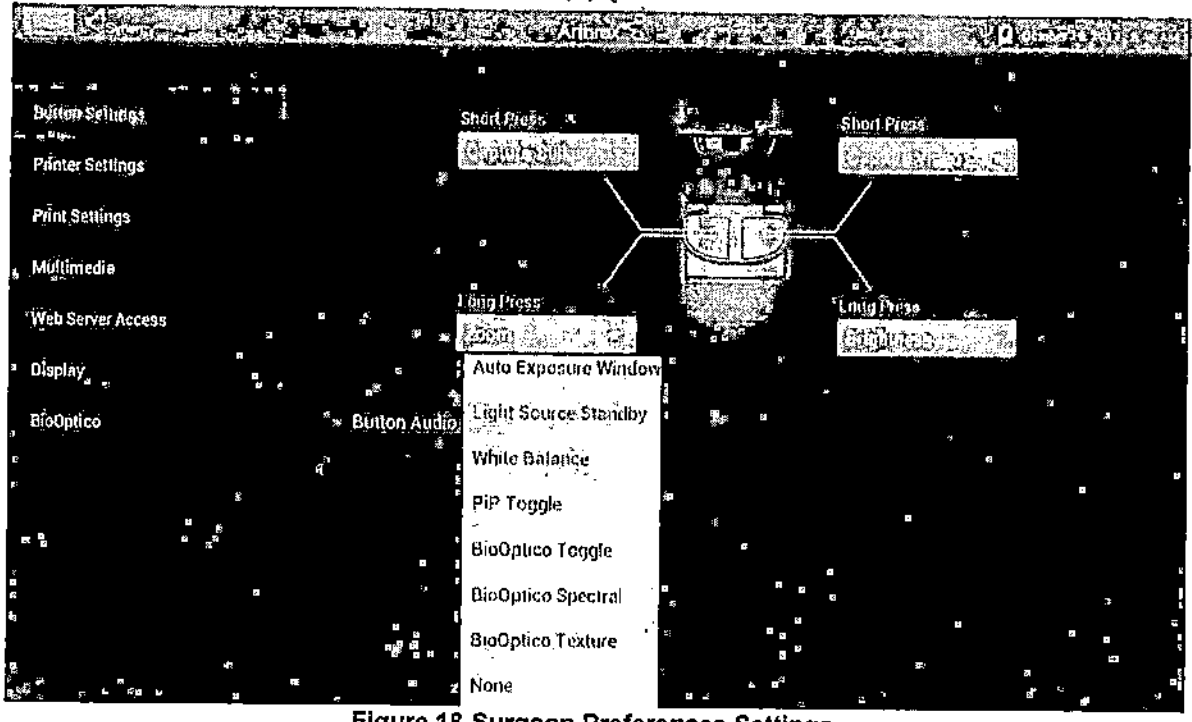
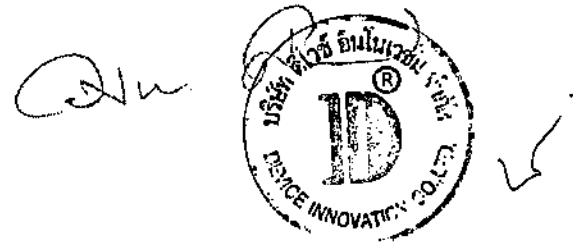


Figure 18-Surgeon Preferences Settings

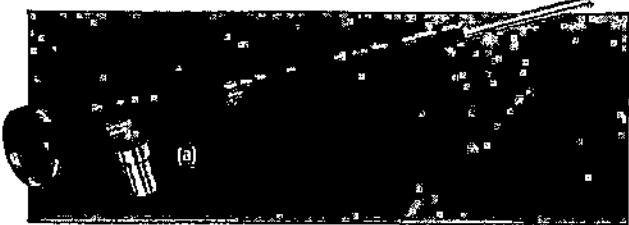
2.3.9 Surgeon preferences can be defined for the following:

- Camera Button Settings
- Printer Settings
- Print Settings
- Multimedia
- Web Server Access
- Display
- BioOptico (Note: BioOptico is optional functionality for Synergy^{UHD4}.)



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4K and HD Sheathless Arthroscopes



The Arthrex sheathless arthroscope will revolutionize the way arthroscopic procedures are performed. By eliminating bulky scope sheaths, obturators, and switching sticks, we've made changes to viewing portals quick and efficient. Fluid extravasation due to repeated portal changes is minimized by maintaining operative cannulas in all portals. The sheathless arthroscope is designed and constructed with additional structural support along its length to stand up to normal stresses without a sheath. The sheathless arthroscope will reduce surgical times by expediting portal changes and ending distention loss.

5.2 mm 4K Sheathless Arthroscopes

Product Description	Item Number
Sheathless 4K arthroscope, 30°, 5.2 mm x 160 mm	AR-3350-5430
Sheathless 4K arthroscope, 70°, 5.2 mm x 162 mm	AR-3350-5070

5 mm 4K Sheathless Arthroscopes

Product Description	Item Number
Sheathless C-mount 4K arthroscope, 30°, 5 mm x 160 mm	AR-3355-5430
Sheathless C-mount 4K arthroscope, 70°, 5 mm x 162 mm	AR-3355-5470

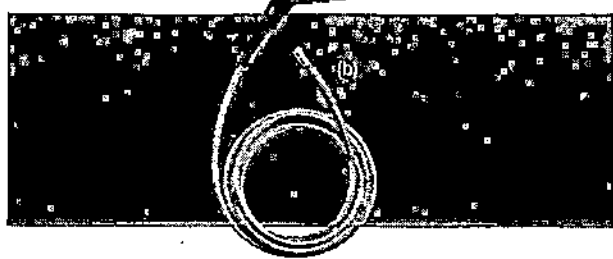
4 mm Sheathless Arthroscopes

Product Description	Item Number
Sheathless HD arthroscope, 30°, 4 mm x 134 mm (a)	AR-3350-5030
Sheathless HD arthroscope, 70°, 4 mm x 138 mm	AR-3350-5070

3 mm Sheathless Arthroscopes

Product Description	Item Number
Sheathless HD arthroscope, 30°, 3 mm x 115 mm	AR-3350-3530
Sheathless HD arthroscope, 70°, 3 mm x 117 mm	AR-3350-3570

Light Guides



Arthrex's light guides are made from hundreds of high-quality fibers. Instead of gluing fibers, we fuse ours at the proximal end to maximize light transmission. The unique handle increases durability and prevents accidental removal of the light guide. Additionally, our transparent casing makes it easier to monitor when to replace light guides.

Product Description	Item Number
Light guide cable, blue, 5 mm x 2.7 m (b)	AR-3240-5027 2.3
Light guide cable, grey, 5 mm x 2.7 m	AR-3240-5028
Light guide cable, blue, 3.5 mm x 2.7 m	AR-3240-3527
Light guide cable, blue, 5 mm x 4 m	AR-3240-5040
Light guide cable, grey, 5 mm x 2.7 m, 90° distal end	SS9-GYW50W108
Light guide cable, grey, universal, 3.5 mm x 2.7 m	AR-3240-3530

Adapters for Universal Light Guide

Product Description	Item Number
Wolf adapter	AR-3240-3530W
Storz adapter	AR-3240-3530S
Olympus adapter	AR-3240-3530O
ACMI adapter	AR-3240-3530A

StarFish Scope Attachment

The StarFish scope rotation attachment connects to the Synergy 4 mm and 3 mm arthroscopes and the 5.5 mm laparoscopes. The StarFish attachment connects proximally toward the camera head, which allows 1-handed directional changes without the use of the light cord.

Product Description	Item Number
StarFish scope attachment	AR-3370-0006
StarFish C-mount scope attachment	AR-3370-0008

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Fiber Optic Cables
Instructions for Use and Processing Instructions

DFU-950-0031-00



Fiber Optic Cables 2.3.1



Made in USA



Sunoptic Technologies®
6018 Bowdendale Avenue
Jacksonville, FL 32216, USA
(904) 737 7611

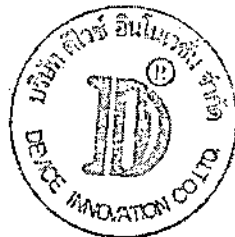
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EC REP

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United Kingdom
TEL: 01275 858891



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LIT-021 ARTHREX 950-0031-00 H IFU Arthrex Light Guides Rev. H
Date of Revision: 10/11/16
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6. Sterilization

6.1 Steam Sterilization 2.3.3.

The cycle selected is dependent on equipment and hospital protocol. General guidelines are:

STERILIZATION PARAMETERS			
Method	Cycle	Minimum Exposure Temperature	Exposure Time
Steam (Wrapped)	Pre-vacuum	132° C (270° F)	4 Minutes
Steam (Wrapped)	Gravity	132° C (270° F)	15 Minutes
Steam (Un-Wrapped)	Gravity	132° C (270° F)	10 Minutes

6.2 Chemical Disinfection

It is recommended that the guidelines below, published by Advanced Sterilization, a Johnson & Johnson company, be followed.

CHEMICAL DISINFECTION PARAMETERS	
Product	High Level Disinfection Sterilization
Cidex Activated Dialdehyde Solution	45 minutes @ 25° C (77° F)
Cidex Plus 28 Day Solution	20 minutes @ 25° C (77° F)

6.3 Hydrogen Peroxide sterilization

(STERRAD® method)

Follow Sterrad (a Johnson & Johnson Company) Guidelines.

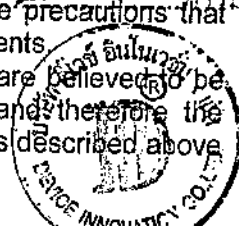
6.4  Special Precaution

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Transmissible Spongiform Encephalopathy Agents..... กรรมการ

- It is outside the scope of this document to describe in detail the precautions that should be taken for Transmissible Spongiform Encephalopathy Agents.
- The agents for transmission of Creutzfeldt-Jakob disease (CJD) are believed to be resistant to normal processes of disinfection and sterilization and therefore the normal processing methods of decontamination and sterilization as described above may not be appropriate where CJD transmission is a risk.

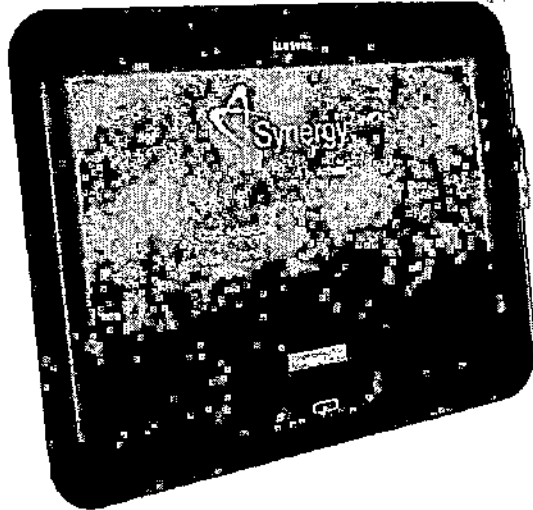


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Synergy^{UHD4} Digital Doc Tablet - AR-3200-1013 2.4



Synergy^{UHD4} Digital Doc Tablet

AR-3200-1013

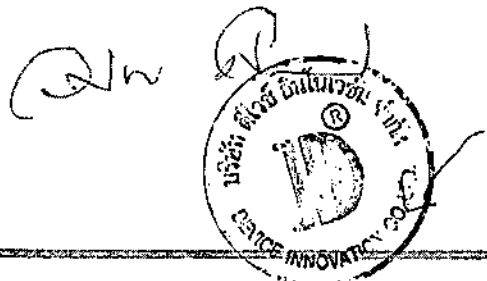
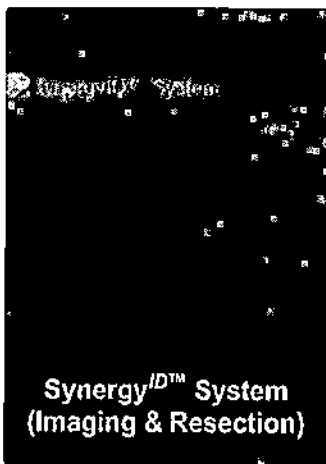
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Synergy UHD4™

4K Vision. LED. Image Management. Integration. 2.4.1

Tablet Control / 2.4.1

Facility, surgeon and procedural specific settings via the Tablet
Facility Specific Settings:

- "Remote Entry" - enables to add patient from an external networked computer
- "Password Access" - required password to enter patients remotely
- "Language Setting": English, German, French, Spanish, Italian
- "Streaming Quality": setting of the live stream bit rate in low, medium, high
- "Print Fields": Setup for the fields that will be included on any prints (Facility Name, Surgeon Name, Patient Name, Patient I.D., Procedure Type, Date and Notes).

Surgeon Specific Settings:

- Create a list of surgeon names with specific settings
- Program the functions of the camera head buttons
- Setting of the max. video recording time
- Printer setup: stills per page, number of copies, auto print, orientation, format and print to pdf.
- Setting on stills and video recording
- Password setting for Video Live Stream
- Selection of standard storage location: IPAD, USB or Network

Procedure Specific Settings:

- Create a list of procedures with specific settings
- Setting of camera settings: Brightness, Zoom, Color Setting, Gain, Auto Exposure Window, Enhancement

Scheduling, starting and ending a procedure via the Tablet

2.4.3
2.4.2
2.4.4
2.4.5

- Selection of Surgeon and Procedure in a drop-down menu
- Entering of patient data (Name, Patient ID, Date of Birth, Sex, Date of Scheduled Surgery, Notes) via the tablet
- Multiple cases can be entered, saved and scheduled for later
- The procedure is started with the white-balance
- After the end of the case stills and videos can be reviewed
- Stills and videos can be exported to multiple locations (USB, IPAD)



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