LINDER and HÜRTGEN Instrument Set for Video Assisted Thoracic Surgery (VATS)

Complete Solutions from KARL STORZ
Objective
High-quality instruments adapted to meet specific needs allow smooth minimally invasive surgery without complications. In addition, instrument sets should be clearly arranged for both the operating and scrub nurse and avoid frequent instrument exchange during an operation.

Following 20 years of video-assisted thoracic surgery (VATS), we still lack instrumentation specially designed for VATS which fulfills our expectations as surgeons and also meets modern hygiene and cost-effectiveness standards.

Our objective was, in cooperation with KARL STORZ, to design such an instrument set for thoracic surgery. This set should contain as few instruments as possible and still be suitable for all standard VATS procedures. Special instruments for specific intraoperative situations or indications are avoided whenever possible. Our experience shows that nearly all operative problems can be mastered with a few different instruments.

Principles

Trocars and Cannulas
In contrast to laparoscopy, insufflators are not used in VATS. Gas loss is not a problem and cannulas do not require valves. Flexible cannulas allow a smooth insertion of angled instruments.

A thread profile on the sheath’s exterior secures the position of the port cannula in the chest wall. The flexible cannulas only need to protrude slightly into the thoracic cavity; nevertheless the cannulas do not slip out unintentionally.

Blunt trocars are obligatory and prevent injuries to a lung that is not fully collapsed or to intercostal vessels.

Sheath Geometry and Instrument Diameter
Intercostal nerve damage is the main cause of postoperative pain, even after VATS procedures. Slender instrument sheaths minimize the risk of intercostal nerve damage arising from pressure. A 5 mm instrument diameter has proven to be an ideal compromise between stability and the smallest possible diameter.

Angled instruments increase the reach of the instrument tip as regards rigidity and the specific geometry of the thorax. In the interests of low frictional resistance and direct coupling of the handle with the jaws, the instrument jaws are angulated whenever possible and the sheath itself is straight.

Organ Grasping Forceps
The size, profile and shape of the jaws are all designed to accommodate the sensitivity of the lung tissue and the specific needs of the thoracic surgeon. In addition to the double curved parenchymal forceps employed for lung wedge resection in the widely used 3-port technique, a single curved parenchymal forceps allows insertion parallel to the stapler when using the 2-port technique (see Figure on page 9).

To extract the specimen without coming into contact with the chest wall and to save time and costs, an extraction bag can be attached to the same parenchymal forceps.

Y-Handle, Geometry
The Y-handle we selected is more suitable for the various working positions in VATS than the widely used pistol-grip handle as it has a more universal and ergonomic use.

The non-insulated handle of the grasping forceps has integrated geometry. Increased closure of the handle increases the closing force of the instrument jaws slowly and gradually. This protects the tissue and allows a better distribution of force than with standard handles.
This effect is not required for scissors and dissectors with insulated handles.

Telescopes

The high quality of HOPTIKS® telescopes and the sensitivity of modern video systems allows switching from the widely used 10 mm telescopes to 5 mm telescopes, which reduces pressure on the intercostal nerves. However, the 10 mm telescopes are still superior as regards illumination, stability, and spoiling of the front lens.

In the thorax, only telescopes with an angle of view of 30 or 45° should be employed. Straight forward telescopes (0°) may be easier to handle for the novice, however, they are not suitable for the various requirements of VATS.

Future Prospects

This instrument set is in the early stages of development. Continuous and extensive testing with hundreds of surgical interventions performed each year aim to optimize design. A few perfected instruments are preferable to a wide range of poorly designed ones. Following careful consideration and extensive testing, we plan to add further instruments to the set. Anyone still unable to find the right instrumentation is sure to find a suitable instrument in the comprehensive catalog offered by KARL STORZ. We are open to any comments or suggestions for improvement.

Albert LINDER, MD
Klinikum Bremen-Ost GmbH, Germany

Martin HÜRTGEN, MD
Katholisches Klinikum Koblenz, Germany
HOPKINS® II Telescopes
Enlarged view

Size 5 mm
Trocar, size 6 mm

Size 10 mm
Trocar, size 11 mm
Trocars with Flexible Cannulas

Size 6 mm

40120 NAL  Trocar, size 6 mm, autoclavable, color code: black
consisting of:
40120 A  Trocar only, with blunt tip
40120 NL  Cannula, flexible, working length 8.5 cm

30120 X  Plastic Cannula, autoclavable, for use with flexible trocars size 6 mm, package of 5

Size 11 mm

40123 NAL  Trocar, size 11 mm, autoclavable, color code: green
consisting of:
40123 A  Trocar only, with blunt tip
40123 NL  Cannula, flexible, working length 8.5 cm

30123 X  Plastic Cannula, autoclavable, for use with flexible trocars size 11 mm, package of 5

Note: Instruments with curved jaws or distally curved sheath have to be used with trocars with flexible sheath.
<table>
<thead>
<tr>
<th>Part No.</th>
<th>Description</th>
<th>Special Feature</th>
</tr>
</thead>
<tbody>
<tr>
<td>33144 P</td>
<td>CLICKline® MOURET Axial Metal Handle, with 4 locking positions, hemostat style ratchet, one detachable spreading spring 33137 MF included</td>
<td>When the grasping branches are closed, the special geometry absorbs the developing force before the full clamping power is transferred to the jaws. The user can, therefore, grasp sensitive structures by exerting less, yet firm, pressure on the jaws.</td>
</tr>
<tr>
<td>33144 PF</td>
<td>CLICKline® Axial Metal Handle, with 4 locking positions, one detachable spreading spring 33137 MF included</td>
<td></td>
</tr>
<tr>
<td>33137 PF</td>
<td>Metal Y-Handle, with geometry, with 4 locking positions for CLICKline® Outer Sheaths with Working Insert</td>
<td></td>
</tr>
<tr>
<td>33137 PR</td>
<td>Metal Y-Handle, with ratchet, with 4 locking positions for CLICKline® Outer Sheaths with Working Insert 33137 MF included</td>
<td></td>
</tr>
<tr>
<td>33131 P</td>
<td>Metal Handle, without ratchet, with 4 locking positions for CLICKline® Outer Sheaths with Working Insert</td>
<td></td>
</tr>
<tr>
<td>33131 PS</td>
<td>Metal Handle, without ratchet, with lateral locking button, with 4 locking positions for CLICKline® Outer Sheaths with Working Insert</td>
<td></td>
</tr>
<tr>
<td>33133 P</td>
<td>Metal Handle, with ratchet, with 4 locking positions for CLICKline® Outer Sheaths with Working Insert</td>
<td></td>
</tr>
</tbody>
</table>
Insulated Metal Handles

CLICK'liné – with connector pin for unipolar coagulation

When the grasping branches are open, the outer sheath with working insert can be separated from the handle at a simple push of a button. Conversely, reassembly to one of the 4 locking positions on the handle is fast and safe. This enables the user to secure the jaws in a specific locking position as required.

Please Note: Constructive Safety Measures!
For electrical safety reasons, insulated metal handles can only be assembled with insulated outer sheaths.
Forceps
CLICKliné – without connector pin for unipolar coagulation

**size 5 mm**

<table>
<thead>
<tr>
<th>Working length</th>
<th>Handle</th>
</tr>
</thead>
<tbody>
<tr>
<td>28 cm</td>
<td>33144 P</td>
</tr>
</tbody>
</table>

**Trocar size 6 mm**

<table>
<thead>
<tr>
<th>No. of outer sheath with working insert</th>
<th>Catalog number of the complete instrument</th>
</tr>
</thead>
<tbody>
<tr>
<td>43210 LH</td>
<td>43244 LHP, 43244 244 LHF, 43237 LHF, 43237 LHR, 43231 LHP, 43233 LHF</td>
</tr>
</tbody>
</table>

NEW

CLICKliné Lung Forceps, atraumatic grasping at distal end, curved jaws, single action jaws

| 43210 LG                               | 43244 LGP, 43244 LGF, 43237 LGR, 43231 LGP, 43233 LGF |

CLICKliné Parenchymal Forceps, atraumatic, straight jaws, single-action jaws

**Trocar size 11 mm**

| 43210 LS                               | 43244 LSP, 43244 LSF, 43237 LSR, 43231 LSP, 43233 LSF |

CLICKliné Parenchymal Forceps, atraumatic, double curved jaws, single-action jaws

| 43210 LL                               | 43244 LLP, 43244 LLF, 43237 LLR, 43231 LLP, 43233 LLF |

CLICKliné Lung Forceps, atraumatic, fenestrated, curved jaws, single-action jaws

**Percutaneous Approach**

| 43210 LR                               | 43244 LRP, 43244 LRF, 43237 LRR, 43231 LRP, 43233 LRF |

CLICKliné Lung Nodule Forceps, atraumatic, fenestrated, curved jaws, single-action jaws
Forceps for Linear Stapler

CLICKline – without connector pin for unipolar coagulation

Size 5 mm

Special Features:
- Lateral locking button on the handle does not interfere with the linear stapler
- Secure atraumatic grasping

<table>
<thead>
<tr>
<th>Working Length</th>
<th>Handle</th>
</tr>
</thead>
<tbody>
<tr>
<td>28 cm</td>
<td>33131 PS</td>
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</table>

Trocar, size 6 mm

<table>
<thead>
<tr>
<th>Number of outer sheath with working insert</th>
<th>Catalog number of the complete instrument</th>
</tr>
</thead>
<tbody>
<tr>
<td>43210 LV</td>
<td>43231 LVS</td>
</tr>
</tbody>
</table>

CLICKline Parenchymal Forceps, atraumatic, curved jaws, single-action jaws, for use with Linear Stapler

The Disposable Extraction Bag is marketed by mtp.

For additional information, please apply to:

mtp medical technical promotion gmbh,
take-off GewerbePark 46
D-78579 Neuhausen ob Eck
Tel.: +49 / 74 67 / 9 45 04-0
Fax: +49 / 74 67 / 9 45 04-99
www.mtp-tut.de - info@mtp-tut.de
Insulated Dissecting Forceps, Scissors and Biopsy Forceps

**CLICKline – with connector pin for unipolar coagulation**

### Size 5 mm

<table>
<thead>
<tr>
<th>Working Length</th>
<th>Handle</th>
</tr>
</thead>
<tbody>
<tr>
<td>28 cm</td>
<td>33125 P</td>
</tr>
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</table>

### Trocar, size 6 mm

<table>
<thead>
<tr>
<th>Number of outer sheath with working insert</th>
<th>Catalog number of the complete instrument</th>
</tr>
</thead>
<tbody>
<tr>
<td>43210 LK</td>
<td>43225 LKP</td>
</tr>
<tr>
<td>CLICKline Dissecting Forceps, curved jaws, double-action jaws</td>
<td></td>
</tr>
</tbody>
</table>

| 43210 LM                                   | 43225 LMP  | 43227 LMP |
| CLICKline Scissors, curved scissors blades, straight jaws, double-action jaws |

| 43210 LU                                   | 43225 LUP  | 43227 LUP |
| CLICKline Scissors, distally angled outer sheath, double-action jaws, scissor blades open parallel to angulation |

| 43210 MT                                   | 43225 MTP  | 43227 MTP |
| CLICKline Scissors, distally angled outer sheath, double-action jaws, scissor blade opens parallel to angulation |

| 43210 DU                                   | 43225 DUP  | 43227 DUP |
| CLICKline CUSCHIERI Biopsy Forceps, distally angled outer sheath, single-action jaws |
Dissecting and Grasping Forceps

**CLICKline** – without connector pin for unipolar coagulation

**Recommended Additional Instruments**

### Size 5 mm

<table>
<thead>
<tr>
<th>Working length</th>
<th>Handle</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>33144 P</td>
</tr>
<tr>
<td>28 cm</td>
<td><img src="image1" alt="Image" /></td>
</tr>
</tbody>
</table>

**Trocar size 6 mm**

<table>
<thead>
<tr>
<th>No. of outer sheath with working insert</th>
<th>Catalog number of the complete instrument</th>
</tr>
</thead>
<tbody>
<tr>
<td>43210 LP</td>
<td>43244 LPP 43244 LPF 43237 LPF 43237 LPR 43231 LPP 43233 LPP</td>
</tr>
<tr>
<td><a href="image7">Image</a></td>
<td><strong>CLICKline KELLY</strong> Dissecting and Grasping Forceps, curved jaws, double-action jaws</td>
</tr>
<tr>
<td>43210 MF</td>
<td>43244 MFP 43244 MFF 43237 MFF 43237 MFR 43231 MFP 43233 MFP</td>
</tr>
<tr>
<td><a href="image8">Image</a></td>
<td><strong>CLICKline MAHNES</strong> Dissecting and Grasping Forceps, atraumatic, straight jaws, single-action jaws</td>
</tr>
</tbody>
</table>

**Trocar size 11 mm**

<table>
<thead>
<tr>
<th></th>
<th>43244MAP</th>
<th>43244 MAF</th>
<th>43237 MAF</th>
<th>43237 MAR</th>
<th>43231 MAP</th>
<th>43244 MAP</th>
</tr>
</thead>
<tbody>
<tr>
<td><a href="image9">Image</a></td>
<td><strong>CLICKline MAHNES</strong> Dissecting and Grasping Forceps, “Cobra-Jaws”, 1 x 2 teeth, straight jaws, single-action jaws</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Suction-Coagulation Cannulas
with connector pin for unipolar or bipolar coagulation

Size 5 mm
Trocar, size 6 mm

Unipolar Coagulation

40170 LB
Suction-Coagulation Cannula, with connector pin for unipolar coagulation, with Luer-Lock connector, distally angled sheath, size 5 mm, working length 28 cm

Bipolar Coagulation

40270 LB
Suction-Coagulation Cannula, with connector pin for bipolar coagulation, distally angled sheath, size 5 mm, working length 28 cm

30804
Handle with Trumpet Valve, for irrigation or suction, for use with Suction-Coagulation Cannula 40170 LB and 40270 LB

Dissecting Electrode
with connector pin for unipolar coagulation

Size 5 mm
Trocar, size 6 mm

40775 LF
Dissecting Electrode, L-shaped, with connector pin for unipolar coagulation, distally angled, size 5 mm, working length 28 cm
Suction and Irrigation Cannulas

Size 5 mm
Trocar, size 6 mm

Suction and Irrigation Cannula, with lateral holes, distally angled, size 5 mm, working length 28 cm

Size 10 mm
Trocar, size 12 mm

Suction and Irrigation Cannula, with lateral holes, distally angled, size 10 mm, working length 28 cm

Handles for Suction and Irrigation

Handle with Two-Way Stopcock, for irrigation and suction, for use with Suction and Irrigation Tube 40360 LH

Handle, straight, with pinch valve, for irrigation and suction, autoclavable
Tubing sets
for use with KARL STORZ Handles

- **031133-10** Tubing set for one-time use, to be used with KARL STORZ handles 37112 A, sterile, package of 10

- **031134-10** Tubing set for one-time use, to be used with KARL STORZ handles 37112 A, in combination with irrigation tubing sets with patient-side silicone tube (ID 5 mm), sterile, package of 10

Palpation Probe and Knot Pusher

Size 5 mm
Trocar, size 11 mm

- **40175 LT** Palpation Probe and Knot Pusher, distally angled, size 5 mm, working length 28 cm

KOH Macro Needle Holder

Size 5 mm
Trocar, size 6 mm

- **26173 FAL** Dismantling KOH Needle Holder, ergonomic axial handle with disengageable ratchet, ratchet release on the right side, straight jaws, with tungsten carbide insert dia. 5 mm, length 33 cm consisting of:
  - **30173 F** Insert
  - **30173 A** Outer Tube
  - **30173 AL** Handle

Tubing sets for use with KARL STORZ Handles

- **031133-10** Tubing set for one-time use, to be used with KARL STORZ handles 37112 A, sterile, package of 10

- **031134-10** Tubing set for one-time use, to be used with KARL STORZ handles 37112 A, in combination with irrigation tubing sets with patient-side silicone tube (ID 5 mm), sterile, package of 10

Palpation Probe and Knot Pusher

Size 5 mm
Trocar, size 11 mm

- **40175 LT** Palpation Probe and Knot Pusher, distally angled, size 5 mm, working length 28 cm

KOH Macro Needle Holder

Size 5 mm
Trocar, size 6 mm

- **26173 FAL** Dismantling KOH Needle Holder, ergonomic axial handle with disengageable ratchet, ratchet release on the right side, straight jaws, with tungsten carbide insert dia. 5 mm, length 33 cm consisting of:
  - **30173 F** Insert
  - **30173 A** Outer Tube
  - **30173 AL** Handle
Cold Light Fountain XENON 300

consisting of:

- Cold Light Fountain XENON 300, with KARL STORZ-SCB®, power supply 100 – 240 VAC, 50/60 Hz
- Mains Cord 400 A
- Silicone Tubing Set, length 250 cm 610 AFT
- SCB Connecting Cable, length 100 cm 20090170

- XENON Spare Lamp Module, 300 W, 15 V 20133027
- XENON Spare Lamp, 300 W, 15 V 20133028

For Telescopes, size 5 mm:
- Fiber Optic Light Cable, diameter 3.5 mm, length 230 cm 495 NA

For Telescopes, size 10 mm:
- Fiber Optic Light Cable, diameter 4.8 mm, length 250 cm 495 NCS
DUOMAT®
Suction and Irrigation System

DUOMAT® Set
consisting of:
203210 20  Duomat
400 A  Power Cord
031020-03*  VACUsafe Pack Suction
Power Supply:
100-120/230-240 VAC, 50/60 Hz

HAMOU ENDOMAT®
Suction and Irrigation System

HAMOU ENDOMAT®
consisting of:
263310 09-1  HAMOU ENDOMAT®
26331020-1  HAMOU ENDOMAT® with
KARL STORZ-SCB®,
power supply 100 – 240 VAC, 50/60 Hz
400 A  Mains Cord
3x mtp*  HYS Tubing Set, for single use
3x mtp*  LAP Tubing Set, for single use
200901 70  SCB Connecting Cable, length 100 cm
mtp*  VACUsafe Promotion Pack Suction, 2 l

* This product is marketed by mtp.
For additional information, please apply to:

mtp medical technical promotion gmbh,
take-off GewerbePark 46
D-78579 Neuhausen ob Eck
Tel.: +49 / 74 67 / 9 45 04-0
Fax: +49 / 74 67 / 9 45 04-99
www.mtp-tut.de - info@mtp-tut.de
# AUTOCON®II 400

**Recommended System Configurations**

## AUTOCON®II 400

**consisting of:**

- **20 5352 20-11x** AUTOCON®II 400 with KARL STORZ-SCB®, power supply: 230 VAC, 50/60 Hz
- **400 A** Mains Cord
- **20 0901 70** SCB Connecting Cable, length 100 cm

## AUTOCON®II 400 Set | AUTOCON®II 400 | Socket position |
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Standard</strong></td>
<td></td>
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</tr>
<tr>
<td><strong>20 5352 01-111</strong></td>
<td><strong>20 5352 20-111</strong></td>
<td><strong>1</strong></td>
</tr>
<tr>
<td>Bipolar</td>
<td>Bipolar</td>
<td>Unipolar 3-pin</td>
</tr>
<tr>
<td></td>
<td></td>
<td>and Erbe</td>
</tr>
<tr>
<td><strong>20 5352 01-112</strong></td>
<td><strong>20 5352 20-112</strong></td>
<td><strong>1</strong></td>
</tr>
<tr>
<td>Bipolar US-2-pin</td>
<td>Bipolar US-2-pin</td>
<td>Unipolar 3-pin</td>
</tr>
<tr>
<td></td>
<td></td>
<td>and Bovie</td>
</tr>
</tbody>
</table>

## High-End

## AUTOCON®II 400 Set | AUTOCON®II 400 | Socket position |
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>20 5352 01-115</strong></td>
<td><strong>20 5352 20-115</strong></td>
<td><strong>1</strong></td>
</tr>
<tr>
<td>Bipolar</td>
<td>Bipolar Multifunction</td>
<td>Unipolar 3-pin</td>
</tr>
<tr>
<td></td>
<td></td>
<td>and Erbe</td>
</tr>
<tr>
<td><strong>20 5352 01-116</strong></td>
<td><strong>20 5352 20-116</strong></td>
<td><strong>1</strong></td>
</tr>
<tr>
<td>Bipolar US-2-pin</td>
<td>Bipolar Multifunction</td>
<td>Unipolar 3-pin</td>
</tr>
<tr>
<td></td>
<td></td>
<td>and Bovie</td>
</tr>
</tbody>
</table>
Maximum resolution and the consistent use of the 16:9 aspect ratio guarantee FULL HD. Endoscopic camera systems have to be equipped with three-CCD chips that support the 16:9 input format as well as capturing images with a resolution of 1920 x 1080 pixels.

The benefits of High Definition Technology (HD) for medical applications are:

- Up to 6 times higher input resolution of the camera delivers more detail and depth of focus
- Using 16:9 format during image acquisition enlarges the field of vision and supports ergonomic viewing
- The brilliance of color enables optimal diagnosis
- Lateral view is enhanced by 32% when the endoscope is withdrawn slightly, providing the same image enhancement as a standard system. Any vertical information loss is restored and the lens remains clean.

SDI – Serial Digital Interface: optimized to display medical images on flat screens, routing with OR1™ and digital recording with AIDA-DVD-M

ICM: USB-connector for recording video streams and stills on USB storage media or for connection of USB printers for direct printing of the recorded stills.
IMAGE 1™ HD
HD Camera Head

Specifications:

<table>
<thead>
<tr>
<th>Image sensor</th>
<th>3x 1/3&quot; CCD-Chip</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pixel output signal H x V</td>
<td>1920 x 1080</td>
</tr>
<tr>
<td>Dimensions</td>
<td>Diameter 32-44 mm, length 114 mm</td>
</tr>
<tr>
<td>Weight</td>
<td>246 g</td>
</tr>
<tr>
<td>Min. sensitivity</td>
<td>F 1.4/1.17 Lux</td>
</tr>
<tr>
<td>Lens</td>
<td>Integrated Parfocal Zoom Lens, f = 15-31 mm</td>
</tr>
<tr>
<td>Grip mechanism</td>
<td>Standard eyepiece detector, Non-detachable</td>
</tr>
<tr>
<td>Cable</td>
<td>300 cm</td>
</tr>
</tbody>
</table>

KARL STORZ HD Flat Screens
Color systems PAL/NTSC

<table>
<thead>
<tr>
<th>Version</th>
<th>Order No.</th>
<th>Screen diagonal</th>
<th>Max. screen resolution</th>
<th>Video input</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wall mounted with VESA 100-adaption</td>
<td>9524 NB</td>
<td>24&quot;</td>
<td>1920 x 1200</td>
<td>● ● ● ● ● ● ●</td>
</tr>
<tr>
<td></td>
<td>9526 NB</td>
<td>26&quot;</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Desktop with pedestal</td>
<td>9524 N</td>
<td>24&quot;</td>
<td></td>
<td>● ● ● ● ● ● ● ●</td>
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<tr>
<td></td>
<td>9526 N</td>
<td>26&quot;</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The following accessories are included:

- 400 A Mains Cord
- 9523 PS External 24VDC Power Supply
- 9419 SF Pedestal
Data Management and Documentation
KARL STORZ AIDA® compact NEO (HD/SD)
Brilliance in documentation continues!

AIDA compact NEO from KARL STORZ combines all the required functions for integrated and precise documentation of endoscopic procedures and open surgeries in a single system.

**Data acquisition**
Still images, video sequences and audio comments can be recorded easily during an examination or intervention on command by either pressing the on screen button, voice control, foot switch or pressing the camera head button. All captured images will be displayed on the right hand side as a “thumbnail” preview to ensure the still image has been generated.

The patient data can be entered by the on-screen keyboard or by a standard keyboard.

**Flexible post editing and data storage**
Captured still images or video files can be previewed before final storage or can be edited and deleted easily in the edit screen.

**Reliable storage of data**
- Digital saving of all image, video and audio files on DVD, CD-ROM, USB stick, external/internal hard-drive or to the central hospital storage possibilities over DICOM/HL7
- Buffering ensures data backup if saving is temporarily not possible
- Continuous availability of created image, video and sound material for procedure documentation and for research and teaching purposes.

**Efficient data archiving**
After a procedure has been completed, KARL STORZ AIDA® compact HD/SD saves all captured data efficiently on DVD, CD-ROM, USB stick, external hard-drive, internal hard-drive and/or the respective network on the FTP server. Furthermore the possibility exists to store the data directly on the PACS respective HIS server, over the interface package AIDA communication HL7/DICOM.

Data that could not be archived successfully remains in a special buffered procedure until it is finally saved. A two-line report header and a logo can be used by the user to meet his or her needs.

**Multi-session and Multi-patient**
Efficient data archiving is assured as several treatments can be saved on a DVD, CD-ROM or a USB stick.
Specifications:

| Video Systems | - PAL  
|---------------|------  
| Signal Inputs | - NTSC  
|               | - S-Video (Y/C)  
|               | - Composite  
|               | - RGBS  
|               | - SDI  
|               | - HD-SDI  
|               | - DVI  
| Image Formats | - JPG  
|              | - BMP  
| Video Formats | - MPEG2  
| Audio Formats | - WAV  
| Storage Media | - DVD+R  
|              | - DVD+RW  
|              | - DVD-R  
|              | - DVD-RW  
|              | - CD-R  
|              | - CD-RW  
|              | - USB stick  

Features and Benefits

- Digital storage of still images with a resolution of 1920 x 1080 pixels, video sequences in 720p and audio files with AIDA compact NEO HD
- Optional interface package DICOM/HL7
- Sterile, ergonomic operation via touch screen, voice control, camera head buttons and/or foot switches
- Auto detection of the connected camera system on HD-SDI/SD-SDI input
- Efficient archiving on DVD, CD-ROM or USB stick, multi-session and multi-patient
- Network saving
- Automatic generation of standard reports
- Approved use of computers and monitors in the OR environment as per EN 60601-1
- Compatibility with the KARL STORZ Communication Bus (SCB) and with the KARL STORZ OR1™ AV NEO
- KARL STORZ AIDA® compact NEO HD/SD is an attractive, digital alternative to video printers, video recorders and dictaphones.

20040910  KARL STORZ AIDA® compact NEO SD Communication, documentation system for digital storage of still images, video sequences and audio files, power supply 115/230 VAC, 50/60 Hz

20040911  KARL STORZ AIDA® compact NEO HD Communication, documentation system for digital storage of still images, video sequences and audio files, power supply 115/230 VAC, 50/60 Hz

20040610  KARL STORZ AIDA® compact NEO SD, documentation system for digital storage of still images, video sequences and audio files, power supply 115/230 VAC, 50/60 Hz

20040611  KARL STORZ AIDA® compact NEO HD, documentation system for digital storage of still images, video sequences and audio files, power supply 115/230 VAC, 50/60 Hz
29005 LAP

**Basic Videocart,**
rides on 4 antistatic dual wheels, 2 equipped with locking brakes, 3 fixed shelves, one with handles, main switch at vertical beam, integrated cable conduits in vertical beams, drawer unit with lock, 3 horizontal cable conduits, one with cable winding, two with 4-times electrical sub-distributor, 1 set of non-sliding stands for units, 1 TFT-Monitor arm (VESA 75/100), 1 camera holder, 8 power cords (50 cm), 1 power cord (2 m), 2 equipment rails, 1 CO₂-bottle holder, max. diameter 155 mm, isolation transformer 230 VAC (50/60 Hz) with 8 sockets and earth potential and earth leakage monitor (2000 VA),

Dimensions:
Videocart 730 x 1470 x 716 mm (W x H x D)
Shelf: 630 x 480 mm (W x D)
Caster diameter: 150 mm