Square peg in a round hole?
KARL STORZ designs solutions to fit – from premature to pediatrics
Airway management from KARL STORZ
Airway management in neonatology and pediatrics

Children are not small adults. Their anatomy is different, so treatment requires appropriate experience and – most importantly – the right instrument for every situation.

KARL STORZ, one of the leading companies in the field of airway management, offers solutions for neonatology and pediatrics which fit perfectly.

This EndoWorld presents new possibilities in endoscopic airway management, for example: recommended laryngoscope sets, flexible intubation fiberscopes, and video laryngoscopes specially designed for the treatment from premature to pediatrics.

The range of products for the field of neonatology and pediatrics is being continuously expanded as the latest developments are incorporated. For example, the new BONFILS and BRAMBRINK intubation fiberscopes permit retromolar intubation even when the oral aperture is very small.

For video documentation with outstanding quality, a range of analog and digital 1- and 3-chip cameras are available.

TELE PACK™, together with the DCI video intubation system, is an ideal integrated and highly efficient system for neonatology and pediatrics: high-resolution flat-screen monitors, an integrated light source, documentation facilities, and an efficient image processor are the key features of TELE PACK™. The DCI system incorporates a small, lightweight video camera with an integral cold light cable. Components such as an intubation fiberscope, video laryngoscope, and BRAMBRINK intubation endoscope can be connected to this camera in seconds. It also eliminates the need for adjusting the image size.
Airway management in neonatology and pediatrics

Laryngoscope blades from KARL STORZ
- All the laryngoscope blades conform to ISO 7376 and are autoclavable without any significant reduction in their light intensity
- The handles are available with a choice of halogen lamp or LED technology

PHILIPS laryngoscope blades
- The upward curved blade tip allows the placement of the epiglottis, which permits direct visualization of the vocal cords
- The cold light version is available in sizes 1 and 2

Intubation sets

Pediatric intubation set

- Contains the widely used MILLER and MACINTOSH blades
- The blades are available in sizes 0, 1 and 2 as cold light versions
- The set contains a MAGILL forceps and a pair of ROCHESTER/PEAN artery forceps
- Available in a sturdy, splashproof bag
Emergency intubation set
(DÖRGES laryngoscope blade)

- For use in preclinical and clinical settings in emergency medicine
- The number of laryngoscope blades has been reduced to two: the DÖRGES blade for intubating infants with a body weight of 10 kg and above, and the MILLER blade, size 1, for intubating babies
- Available in a sturdy, splashproof bag
THE POWER OF LIGHT
Impressive brightness

The advantages for you
- Ample light reserves – even under difficult light conditions
- Clearly recognizable structures thanks to excellent contrast and white light
- Safe handling and simple maintenance – also for rescue services
- Virtually no self-discharge of the battery, no bulbs which could become detached, no spare lamps necessary
- Uncomplicated cleaning – the blades and handles are, of course, autoclavable

LED light source
- High-power LED with more than 50,000 lux
- White light with 5,500 K
- Quick to use and maintenance-free
- Operating time of up to 4 hours

Lithium-ion battery
- No memory effect
- No contacts in the charger
- No contacts in the laryngoscope

Inductive charger
- Inductive charging unit with status indicator for 2 units
- No open contacts
- No corrosion or contact problems
- No voltage peaks
- Batteries can be charged with or without the handle sleeve; also in sterile packaging
- For use with LED handles
- Compatible with previous models
KARL STORZ offers a comprehensive range of products for management of the expected and unexpected difficult airway. This includes, not least, a battery light source which meets the high demands of such situations. The BRITE LITE™ LED battery light source sets a new standard.

**Special features:**
- Extremely bright battery light source with more than 50,000 lux
- Available in disposable and rechargeable battery versions
- Absolutely white light thanks to LED technology (5,500 K)
- Optimal light adaptation at the endoscope connection by means of special light focusing
- LED life of up to 50,000 hours
- Available with click connection, coarse thread or fine thread

**Battery model:**
- Burning time 120 minutes at 100% brightness
- Watertight and fully immersible for cleaning and disinfection

**Rechargeable battery model:**
- Burning time 40 minutes at 100% brightness
- Charging time: 60 minutes
- Suitable for wipe-down disinfection
Pediatric video intubation set
Recommended composition for difficult and standard intubation

Special features:
• The compact solution for neonatology and pediatrics
• The ideal unit for training and documentation
• Comprises two coordinated endoscopes with a DCI camera and a TELE PACK™ control unit with integral cold light source, 12” LCD monitor, image memory and image processing module
The BERCI-KAPLAN DCI video laryngoscope

Visualization:
- High-resolution image quality
- Optimal image adjustment: blade tip is in the field of view for better orientation
- Visualization of the introduced tube for quality assurance

Methodology:
- The short visual axis means that less pressure is needed for the displacement of the epiglottis
- The entire intubation procedure can be transmitted to various media for documentation

Advantages:
- Learning by doing in training
- Visualization and early assessment of problem intubations
- Reduction of traumatization risk
- Visualization and fast changeover to the intubation fiberscope, particularly when introducing a double-lumen tube

Hygiene:
- Quick and easy to prepare
- Watertight and fully immersible for cleaning, disinfection and sterilization at up to 60°C
- Sterilizable with EO gas, FO gas, and also STERIS® and STERRAD®
Intubation fiberscopes
with enhanced fiber technology

KARL STORZ intubation fiberscopes are designed to meet the special requirements of fiberoptic intubation.

Special features:
- Extra-rigid sheath
- Sheath markings with 5 cm spacing
- Luer lock access to the working channel
- Enhanced sheath surface for improved ETT guidance and the option of using a smaller ETT outer diameter
- Quick and easy leakage testing in a matter of seconds
- Optimized for use with the new LED battery light source, without the need for an adaptor

Five different fiberscope sizes –
The right size from premature to pediatrics

- The right choice for the expected difficult airway and bronchoscopy
- Flexible tube control with 1.8 mm outer diameter and a sheath length of 35 cm
• Fiberscopes with outer diameters of 2.5, 2.8 and
  3.7 mm
• Sheath lengths of 35, 37, 50 and 65 cm – the right
  length for ventilated patients too

Advantages
• Optimization of the learning curve through learning by
doing in training
• Two pairs of eyes often see better than one: problems
  can be assessed by the entire team
• Visualization and fast changeover to the intubation
  fiberscope, particularly when introducing a double-
lumen tube

Hygiene
• Quick and easy to prepare
• Watertight and fully immersible for cleaning, disinfection
  and sterilization at up to 60°C – also STERIS® and
  STERRAD® compatible
BONFILS and BRAMBRINK retromolar intubation endoscopes
The latest generation

The visual solution for the unexpected difficult airway and for emergency medical care:

- Rigid/semirigid endoscope with 2 or 3.5 mm outer diameter
- Distal angle of 40°
- Small oral aperture is sufficient
- Retromolar or medial insertion technique
- Tube insertion in a few seconds under direct vision is possible
- Suitable for both preclinical and clinical settings in emergency medicine
- Optimal ergonomics and high degree of flexibility in combination with TELE PACK™
- Continuous O₂ flow via tube adapter
- Movable eyepiece for optimal adaptation to the specific situation (only with 3.5 mm OD)
- For integration into the DCI video intubation system with DCI connection

Methodology

- The simplicity of the system means that three different insertions options are predominantly used in actual practice:
  1. The conventional retromolar approach
  2. The lateral approach using a laryngoscope blade
  3. The central approach with the patient’s head hyperextended
- Introduction of the endotracheal tube is controlled up to positioning; blind and semi-blind procedures are no longer necessary
- Oxygen flow via tube adaptor and ETT is possible throughout the entire period of use
# Laryngoscope blade sets

## 8500 C
**Pediatric intubation set 03**

<table>
<thead>
<tr>
<th>Code</th>
<th>Item Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>8537 C</td>
<td>MILLER laryngoscope blade, size 2, cold light</td>
</tr>
<tr>
<td>8537 D</td>
<td>MILLER laryngoscope blade, size 1, cold light</td>
</tr>
<tr>
<td>8537 E</td>
<td>MILLER laryngoscope blade, size 0, cold light</td>
</tr>
<tr>
<td>8541 C</td>
<td>MACINTOSH laryngoscope blade, size 2, cold light</td>
</tr>
<tr>
<td>8541 D</td>
<td>MACINTOSH laryngoscope blade, size 1, cold light</td>
</tr>
<tr>
<td>8541 E</td>
<td>MACINTOSH laryngoscope blade, size 0, cold light</td>
</tr>
<tr>
<td>8547 A</td>
<td>Handle sleeve, ISO 7376, alone</td>
</tr>
<tr>
<td>809020</td>
<td>MAGILL forceps, length 20 cm</td>
</tr>
<tr>
<td>794014</td>
<td>ROCHESTER-PEAN hemostatic forceps, length 14 cm</td>
</tr>
<tr>
<td>8400 A</td>
<td>Bag for intubation set, water-protected</td>
</tr>
</tbody>
</table>

## 8500 D
**DOERGES intubation set**

<table>
<thead>
<tr>
<th>Code</th>
<th>Item Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>8550 B</td>
<td>DOERGES emergency laryngoscope blade, universal size, cold light</td>
</tr>
<tr>
<td>8537 D</td>
<td>MILLER intubation blade, size 1, CL</td>
</tr>
<tr>
<td>8546</td>
<td>Handle sleeve, ISO 7376, alone</td>
</tr>
<tr>
<td>8546 A</td>
<td>Battery, incl. 2 baby cells (2 x 121306) and xenon lamp 8546 XA</td>
</tr>
<tr>
<td>809025</td>
<td>MAGILL forceps, length 25 cm</td>
</tr>
<tr>
<td>794014</td>
<td>ROCHESTER-PEAN hemostatic forceps, length 14 cm</td>
</tr>
<tr>
<td>8400 A</td>
<td>Bag for intubation set, water-protected</td>
</tr>
</tbody>
</table>

## 8535 CA
**PHILIPS laryngoscope blade**, size 1, cold light

## 8547 B
**Battery, rechargeable and lamp 8546 XC**, for use with battery charger 8546 LB

## 8400 A
**Bag for intubation set**, water-protected
## THE POWER OF LIGHT

Handles with LED light source for standard laryngoscopes

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>8546 LD</td>
<td><strong>Rechargeable battery shell</strong> for 8546, with high-power LED, &gt;50,000 lux, with lithium-ion batteries, burning time at 100% brightness &gt;120 mins, charging via inductive charging unit 8546 LE</td>
</tr>
<tr>
<td>8546 LE</td>
<td><strong>Inductive charging unit</strong> for 8546 LD, for two LED battery shells, with integrated power supply and adaptor for EU, UK, USA and Australia, 110–240 VAC, 50/60 Hz, suitable for surface disinfection</td>
</tr>
<tr>
<td>8546</td>
<td><strong>Handle ISO 7376</strong>, only, for use with battery shell 8546 A and rechargeable battery 8546 BB, 8546 LD</td>
</tr>
</tbody>
</table>

### LED battery light source BRITE LITE™

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>11301 D1</td>
<td><strong>Battery light source</strong> for endoscopes, with fine thread, LED technology, &gt;50,000 lux, for all KARL STORZ endoscopes, burning time &gt;120 mins, waterproof, fully immersible for cleaning and disinfection, with 2 camera batteries 121306 P</td>
</tr>
<tr>
<td>11301 D2</td>
<td><strong>Same</strong>, with click connector</td>
</tr>
<tr>
<td>11301 D3</td>
<td><strong>Same</strong>, with coarse thread</td>
</tr>
<tr>
<td>11301 DE</td>
<td><strong>LED Battery Light Source</strong>, rechargeable, with click-connection, can be connected to all KARL STORZ endoscopes brightness &gt;50,000 lux, color temperature 5,500 K, lithium ion batteries, charging time: 60 mins, burning time at 100% brightness: 40 mins, weight: approx 150 g, suitable for surface disinfection</td>
</tr>
<tr>
<td>11301 DF</td>
<td><strong>Same</strong>, with fast screw thread, can be connected to all KARL STORZ endoscopes</td>
</tr>
<tr>
<td>11301 DG</td>
<td><strong>Charging unit</strong> for 11301DE/11301 DF, for two LED battery light sources with integrated power supply and adaptor for EU, UK, USA and Australia, 110–240 VAC, 50/60 Hz, suitable for surface disinfection</td>
</tr>
</tbody>
</table>
## DCI video laryngoscopes

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>8401 C</td>
<td>BERCI-KAPLAN DCI video laryngoscope with DOERGES emergency laryngoscope blade, universal size, angle of view 60°, DCI technology</td>
</tr>
<tr>
<td>8401 D</td>
<td>BERCI-KAPLAN DCI video laryngoscope with MILLER laryngoscope blade, size 0, angle of view 60°, DCI technology</td>
</tr>
<tr>
<td>8401 G</td>
<td>BERCI-KAPLAN DCI video laryngoscope with MILLER, size 1, laryngoscope blade, angle of view 60°, DCI technology</td>
</tr>
<tr>
<td>586093</td>
<td>Suction tube, OD 3 mm, ID 1.7 mm, working length 90 mm, shaft angled 30°, with 3 openings at the distal tip, with side air opening and hose connection at the proximal end</td>
</tr>
</tbody>
</table>

## Pediatric intubation set

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>20043004-020</td>
<td>Pediatric intubation set consisting of:</td>
</tr>
<tr>
<td>200430 11-020</td>
<td>KARL STORZ TELE PACK™, Endoscopic video unit, with integrated image processing module, PAL color system, power supply: 100–240 VAC, 50/60 Hz or 12 VDC, PCMCIA memory card 64 MB, mains cord</td>
</tr>
<tr>
<td>495 DV</td>
<td>DCI fiberoptic light cable, diameter 2.5 mm, length 320 cm</td>
</tr>
<tr>
<td>202620 30</td>
<td>DCI camera head, PAL</td>
</tr>
<tr>
<td>11301 ABD1</td>
<td>DCI intubation fiberscope, 2.8 mm x 50 cm</td>
</tr>
<tr>
<td>8401 G</td>
<td>BERCI-KAPLAN DCI video laryngoscope with MILLER, size 1 laryngoscope blade, angle of view 60°, DCI technology</td>
</tr>
<tr>
<td>586093</td>
<td>Suction tube, OD 3 mm, ID 1.7 mm, working length 90 mm, shaft angled 30°, with 3 openings at the distal tip, with side air opening, Luer-Lock and hose connection at the proximal end</td>
</tr>
<tr>
<td>27677 BL</td>
<td>Case</td>
</tr>
</tbody>
</table>
Intubation fiberscopes

**11605 E**  
Flexible ETT control, BERCI,  
1.5 x 35, O.D. 1.8 mm, working length 35 cm.  
*With standard eyepiece*

**11605 EV**  
Flexible ETT control, BERCI,  
1.5 x 35, DCI, O.D. 1.8 mm, working length 35 cm.  
*With DCI connection*

**11101 SP**  
Intubation fiberscope 2.5 x 37  
Direction of view: 0°  
Angle of view: 90°  
Working length: 37 cm  
OD (distal): 2.5 mm  
The following accessories are included:  
27677 RR  
Case  
13242 XL  
Leakage tester  
11025 E  
Pressure compensation cap

**11301 AB**  
Intubation fiberscope 2.8 x 50,  
Instrument channel: 1.2 mm  
Direction of view: 0°  
Angle of view: 90°  
Working length: 50 cm  
OD (distal): 2.8 mm  
Deflection: 140°/140°  

**11301 ABD**  
DCI intubation fiberscope 2.8 x 50,  
Instrument channel: 1.2 mm  
Direction of view: 0°  
Angle of view: 90°  
Working length: 50 cm  
OD (distal): 2.8 mm  
Deflection: 140°/140°  
The following accessories are included:  
27677 BN  
Case  
13242 XL  
Leakage tester  
27651 A  
Cleaning brush  
11025 E  
Pressure compensation cap
Intubation fiberscopes

11302 BD  Intubation fiberscope 3.7 × 65
Instrument channel: 1.5 mm
Direction of view: 0°
Angle of view: 90°
Working length: 65 cm
OD (distal): 3.7 mm
Deflection: 140°/140°

11302 BDD DCI intubation fiberscope 3.7 × 65
Instrument channel: 1.5 mm
Direction of view: 0°
Angle of view: 90°
Working length: 65 cm
OD (distal): 3.7 mm
Deflection: 140°/140°

The following accessories are included:
27677 C  Case
13242 XL  Leakage tester
11025 E  Pressure compensation cap
27651 AL  Cleaning brush
13272  Bite protector

11605 C  BRAMBRINCK retromolar intubation endoscope, OD 2.0 mm, for ETT 2.5–3.5 mm, usable shaft length 22 cm, distal angling 40°, including tube holder 10332 BA for tube fixation and O₂ application

11605 CV  BRAMBRINCK retromolar intubation endoscope, with DCI connection, OD 2.0 mm, for ETT 2.5–3.5 mm, usable shaft length 22 cm, distal angling 40°, including tube holder 10332 BA for tube fixation and O₂ application

10332 B  BONFILS retromolar intubation endoscope, 35,000 pixel, OD 3.5 mm, for ETT 4.0–5.5 mm, usable shaft length 35 cm, distal angling 40°, with movable eyepiece, including tube holder 10332 BA for tube fixation and O₂ application

10332 BD  BONFILS retromolar intubation endoscope, with DCI connection, 35,000 pixel, OD 3.5 mm, for ETT 4.0–5.5 mm, usable shaft length 35 cm, distal angling 40°, including tube holder 10332 BA for tube fixation and O₂ application
Notes