

The LOTTA® System for Intracranial Neuroendoscopy



The SCHROEDER LOTTA® System for Intracranial Neuroendoscopy

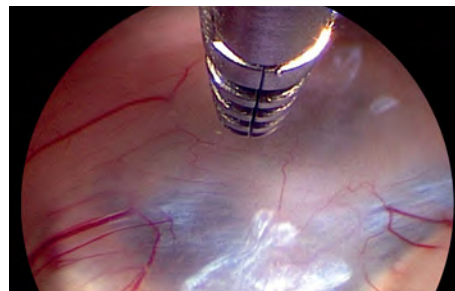
The LOTTA® system has been designed for performing the full range of endoscopic intracranial interventions in adults and children. The cornerstone of the system is based on the two ventriculoscopes Little LOTTA® and LOTTA®. These enable the treatment of all forms of obstructive hydrocephalus, intraventricular tumors and cysts as well as arachnoid and intraparenchymal cysts. An all-round solution, the LOTTA® system offers a free choice between the Little LOTTA® with its smaller diameter, more convenient handling and use in a wide range of applications such as ventriculostomies, septostomies, tumor biopsies and cyst fenestrations and the LOTTA® with its larger dimensions, which is not only suitable for the therapies mentioned above but is also particularly effective for the removal of colloid cysts, tumor resections, stent implantations as well as aqueductoplasties with subsequent stenting.

The somewhat larger diameter of the LOTTA® ventriculoscope allows the surgeon to perform bimanual dissection using two instruments. These can be used simultaneously in separate channels to enable more technically sophisticated procedures. Furthermore, the resection of larger tissue samples is possible, which benefits therapies such as tumor resection or cyst removal.

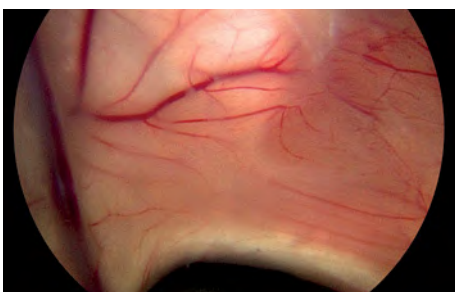
All intracranial procedures can thus be carried out. However, there are situations where a 30° viewing angle proves useful. A 30° viewing angle directed on the working channel allows earlier visualization of instruments. Therefore, the use of the LOTTA® 30° in narrow structures is beneficial. In addition, neighboring structures can easily be viewed during resections of cysts or tumors, for example, during the treatment of colloid cyst of the attachment point at the tela choroidea in the roof of the 3rd ventricle.



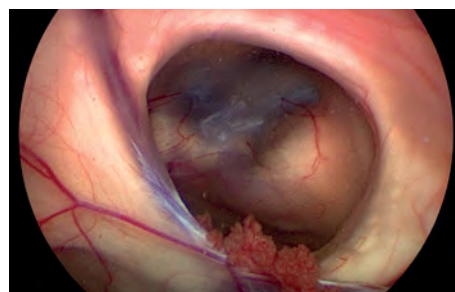
LOTTA® 30°



LOTTA® 6°



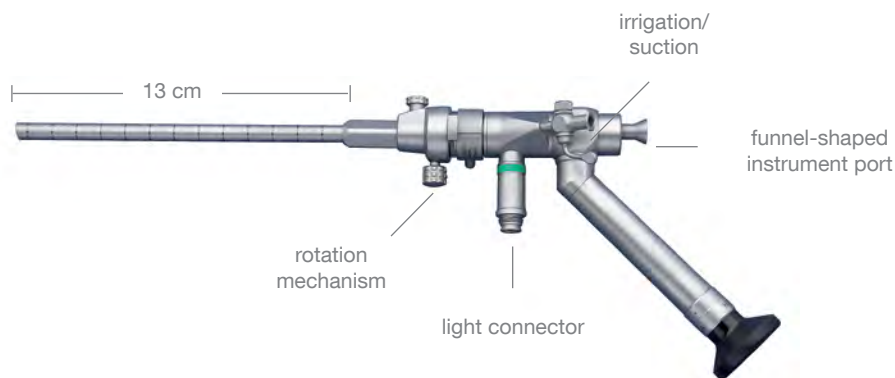
LOTTA® 30°



LOTTA® 6°

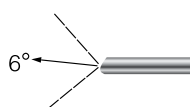
The LOTTA® 30° is particularly recommended for the resection of colloid cysts and intraventricular tumors. It can also be used for all other endoscopic procedures such as ventriculostomies, septostomies, tumor biopsies, cyst fenestrations and stent placements

With a similar, yet more slender design, the Little LOTTA®, with the same viewing angle of 6° as the LOTTA®, proves to be particularly valuable for treating patients with a narrow foramen of Monro. In ventriculostomies in both children and adults, the prepontine cistern can be reached directly through the ventriculostomas and, if necessary, the arachnoid membranes can be transected to establish the cerebrospinal fluid (CSF) flow. Although too slender for the simultaneous use of two instruments, the Little LOTTA® offers the same range of functions as its two larger counterparts.

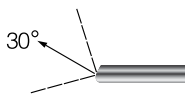


Viewing Angle

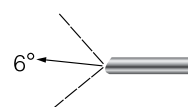
LOTTA®



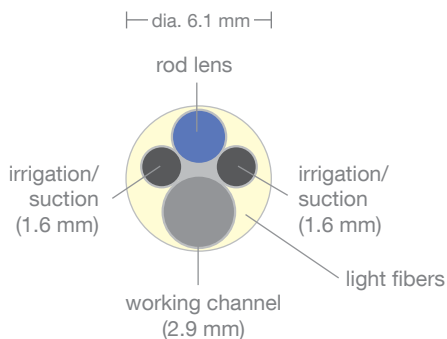
LOTTA® 30°



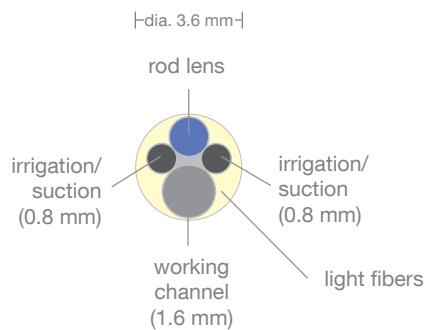
Little LOTTA®



LOTTA and LOTTA 30°



Little LOTTA®



The ventriculoscopes are equipped with a HOPKINS® wide-angle straightforward telescope with a high light-transmitting capacity which delivers unsurpassed image quality and safe orientation, even in protein-rich or bloody CSF fluid. The central working channel is flanked on both sides with two side channels with a smaller diameter. One is used for irrigation/suction and the other for the use of a second instrument.

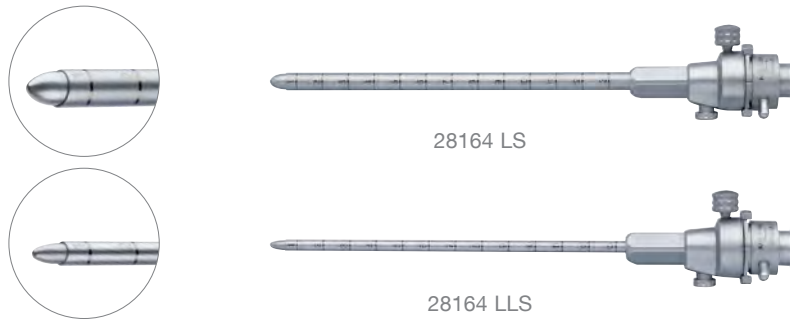
The irrigation function ensures that continuous cleaning is maintained in the area in front of the endoscope, even when visibility is hindered (cloudy CSF in the case of ventriculitis and/or ventricle bleeding). The drainage channel always remains open to prevent critical intracranial pressure increase caused by excessive irrigation. To facilitate insertion of the instruments into the working channel, a funnel-shaped enlargement has been integrated at the entrance to the working channel. Thanks to this stable construction, both ventriculoscopes are less susceptible to damage during cleaning, sterilization and storage.



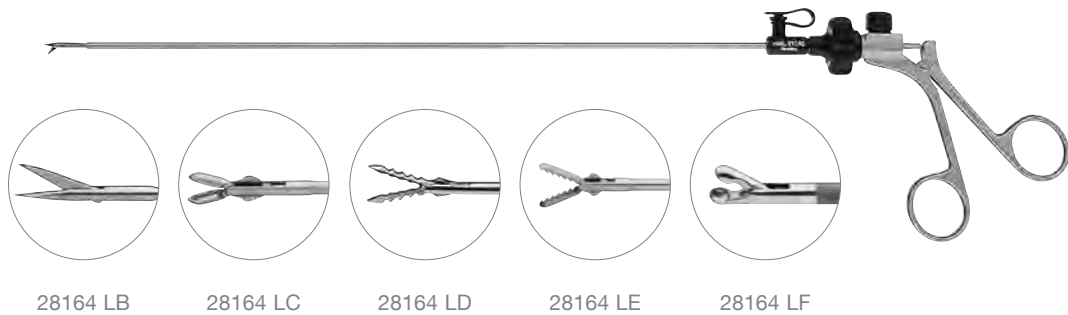
All ventriculoscopes have operating sheaths featuring rotational stability so that they can be fixed to the holding arm to prevent the telescope from sliding down and/or undesired rotational movements where the angle ratios are unfavorable.

However, the ventriculoscopes can still be rotated inside the sheath without having to alter the position on the holding arm – a considerable advantage for bimanual dissection. Furthermore, the operating sheaths can be taken apart for cleaning and sterilization. The LOTTA® system can, of course, be used “freehand”.

An obturator is inserted and locked into the working sheath before introduction. With its atraumatic distal tip, the obturator is required to facilitate introduction of the sheath into the ventricle or cysts. An optical obturator can also be used for this purpose, if necessary. A very slender HOPKINS® 0° telescope is introduced through the obturator in order to position the operating sheath under visual control.



The LOTTA® system is equipped with very stable instruments that can be used through the central working channel. A further feature is the marking on the upper part of the sheath which shows when the distal tip is emerging from the working channel. This minimizes the danger of unintentional and uncontrolled movements during instrument introduction. Furthermore, the jaws can be aligned by rotating the adjustment wheel, without having to rotate the entire instrument.



The instrument section of this brochure offers you a range of different sets containing all the instruments required for performing the most common endoscopic procedures such as, for example, ventriculostomies, aqueductoplasties, septostomies, foraminoplasties, tumor resections and cyst fenestrations. A full set configuration includes additional diagnostic telescopes with different angles of view that ensure better orientation in the ventricular system. Customized sets can, of course, be arranged to suit individual requirements.

Prof. Dr. med. Henry W. S. SCHROEDER
 Department of Neurosurgery
 Universitätsmedizin Greifswald
 Germany

Documentation of Findings LOTTA® Neuroendoscope

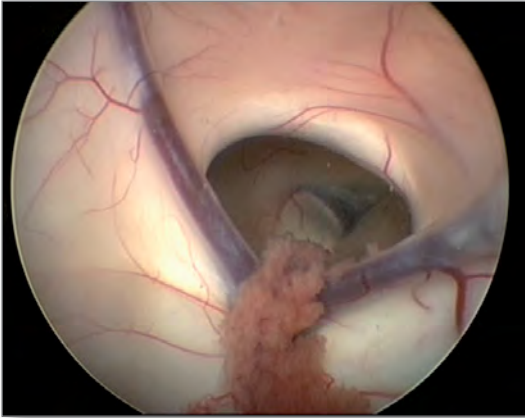


Fig. 7: Foramen of Monro

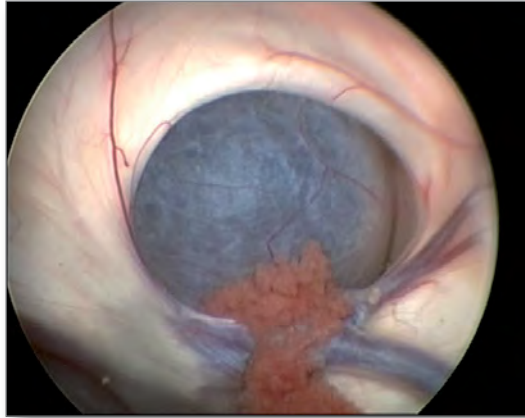


Fig. 8: Foramen of Monro with suprasellar arachnoid cyst

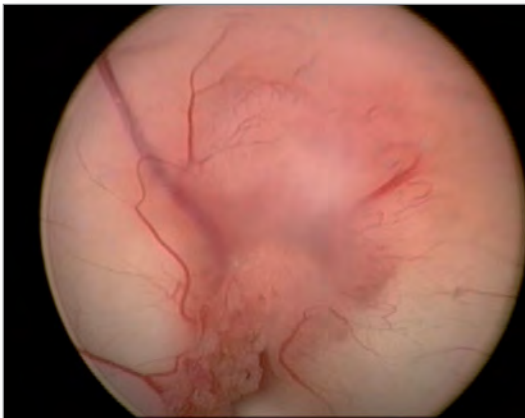


Fig. 9: Tumor in foramen of Monro

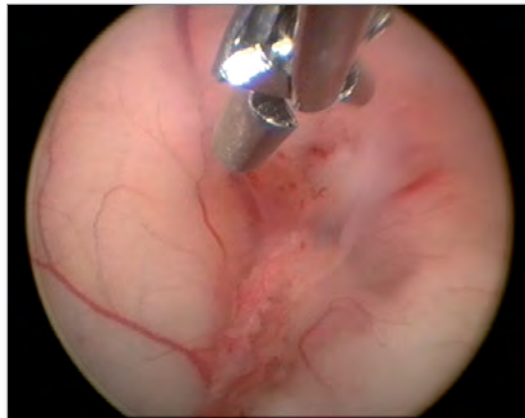


Fig. 10: Biopsy of a tumor in foramen of Monro

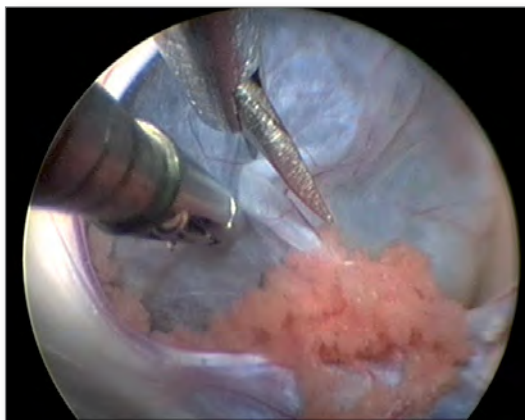


Fig. 11: Bimanual dissection by cutting into the membrane of a suprasellar arachnoid cyst with forceps and scissors

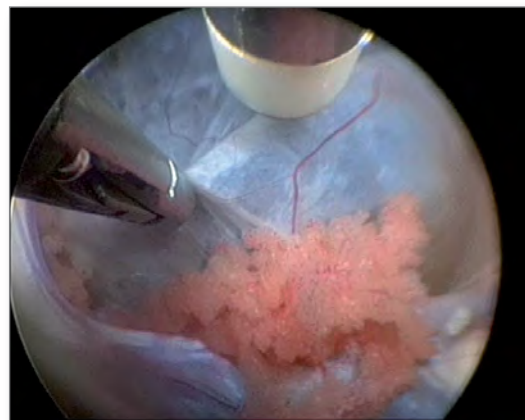


Fig. 12: Bimanual dissection using forceps and bipolar electrode

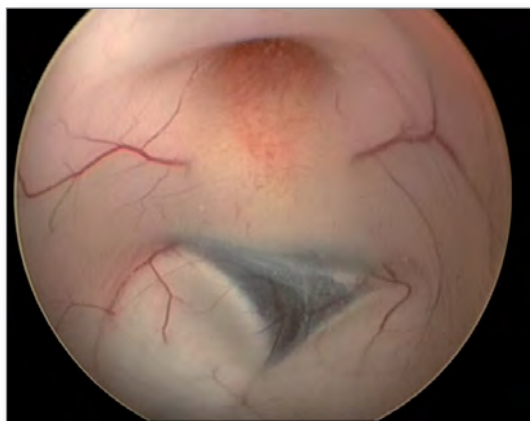


Fig. 13: Floor of the third ventricle



Fig. 14: Choroid plexus in the lateral ventricle

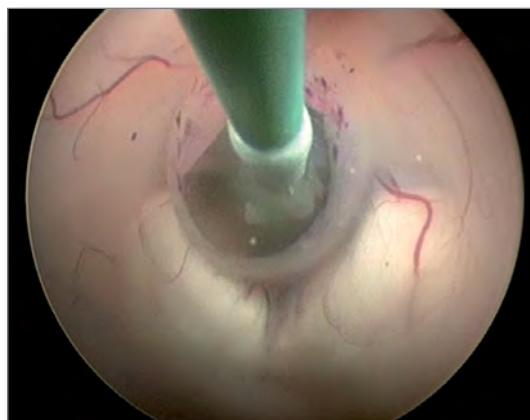


Fig. 15: Ventriculostomy with balloon catheter

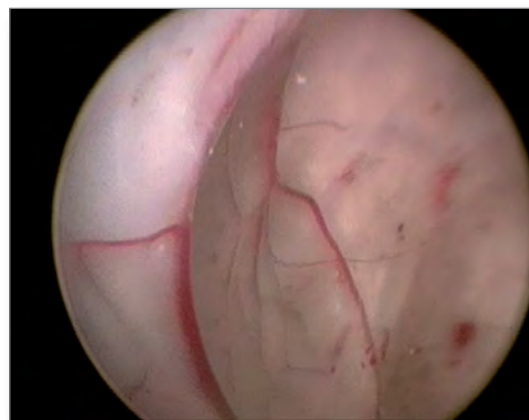


Fig. 16: Pellucid septum

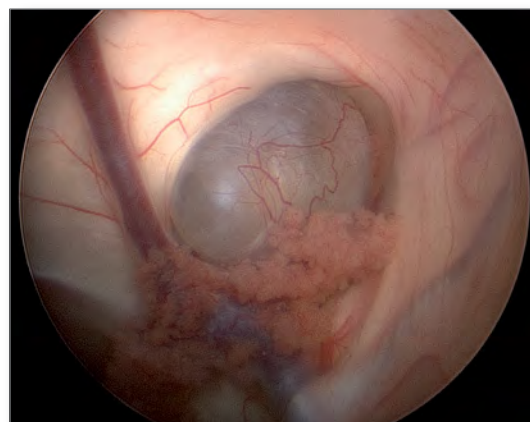


Fig. 17: Colloid cyst

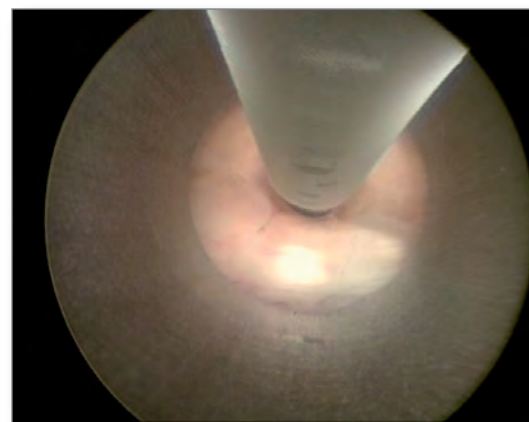
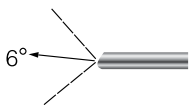
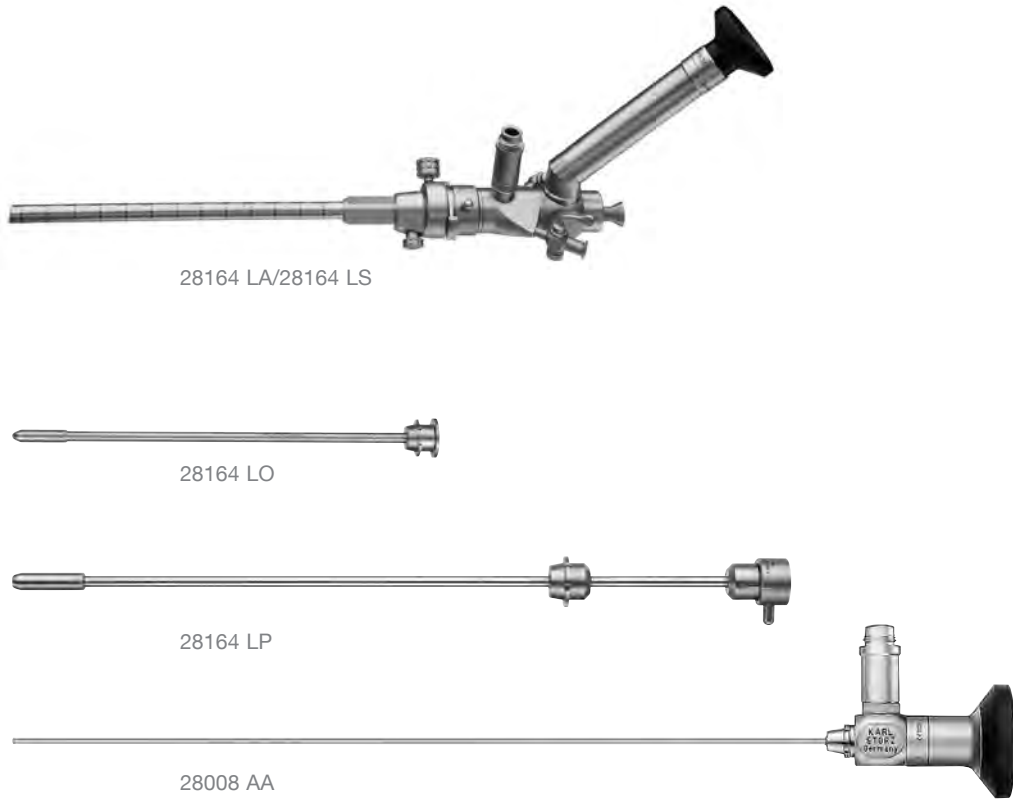


Fig. 18: Stent in the aqueduct

LOTTA® Neuroendoscope

SCHROEDER Recommended Set

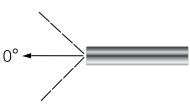


28164 LA **LOTTA® Ventriculoscope with HOPKINS® Wide Angle Straight Forward Telescope 6°**, angled eyepiece, outer diameter 6.1 mm, length 18 cm, working channel diameter 2.9 mm, irrigation/suction channel diameter 1.6, **autoclavable**, fiber optic light transmission incorporated, color code: green

28164 LS **Operating Sheath**, graduated, rotating, outer diameter 6.8 mm, working length 13 cm, for use with LOTTA® Ventriculoscope 28164 LA

28164 LO **Obturator**, for use with Operating Sheaths 28164 LS and 28164 LSB

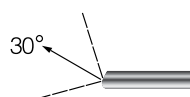
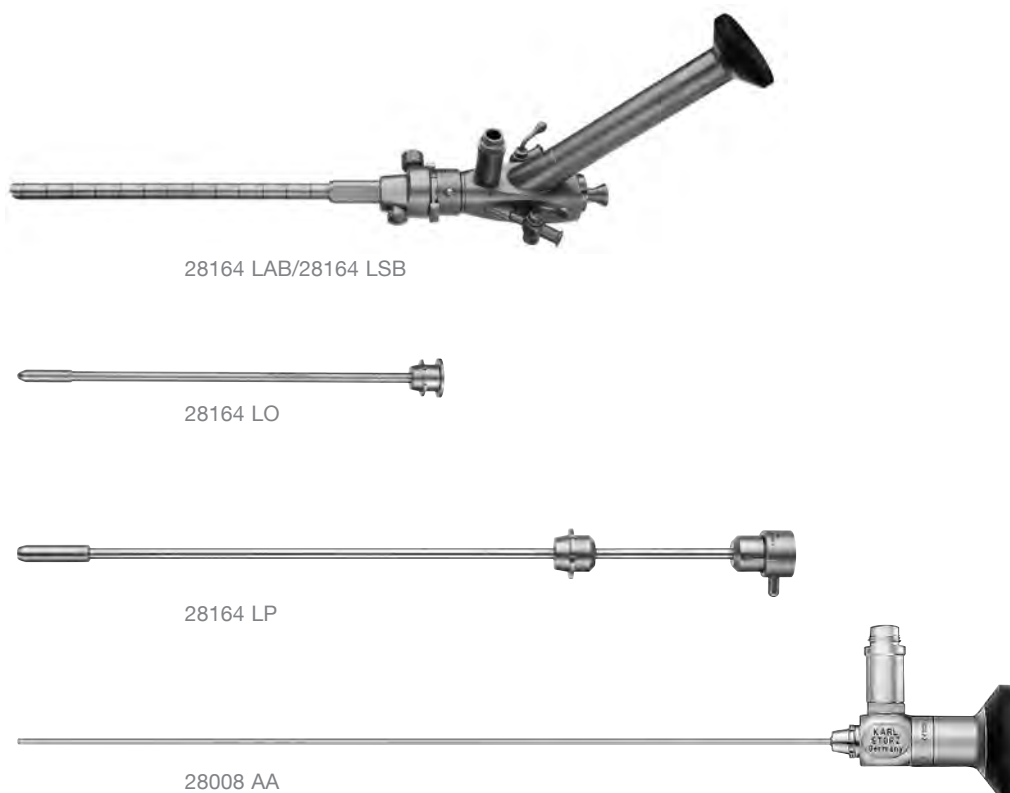
28164 LP **Optical Obturator**, for positioning Operating Sheaths 28164 LS and 28164 LSB under visual control, for use with HOPKINS® Telescope 28008 AA



28008 AA **HOPKINS® Straight Forward Telescope 0°**, diameter 2 mm, length 26 cm, **autoclavable**, fiber optic light transmission incorporated, color code: green

LOTTA® Neuroendoscope 30°

SCHROEDER Recommended Set

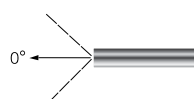


28164 LAB **LOTTA® Ventriculoscope, HOPKINS® wide angle telescope 30°**, angled eyepiece, outer diameter 6.1 mm, length 18 cm, working channel diameter 2.9 mm, irrigation/suction channel diameter 1.6 mm, **autoclavable**, fiber optic light transmission incorporated, color code: red

28164 LSB **Operating Sheath**, graduated, rotating, outer diameter 6.8 mm, working length 13 cm, for use with LOTTA® Ventriculoscope 30° 28164 LAB

28164 LO **Obturator**, for use with Operating Sheaths 28164 LS and 28164 LSB

28164 LP **Optical Obturator**, for positioning Operating Sheaths 28164 LS and 28164 LSB under visual control, for use with HOPKINS® Telescope 28008 AA



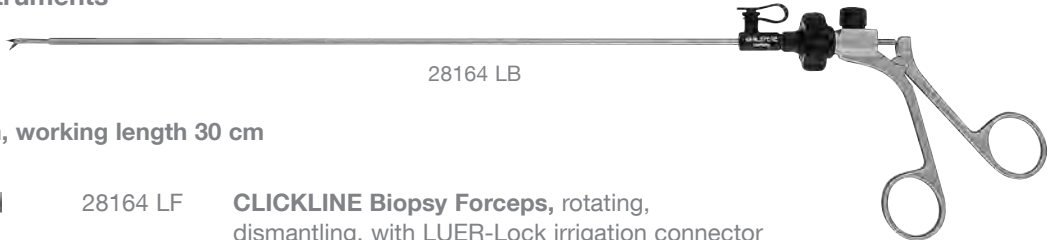
28008 AA **HOPKINS® Straight Forward Telescope 0°**, diameter 2 mm, length 26 cm, **autoclavable**, fiber optic light transmission incorporated, color code: green

Neuroendoscope Operating Instruments

SCHROEDER Recommended Set

For use with LOTTA® Ventriculoscope 28164 LA/28164 LAB and Operating Sheath 28164 LS/28164 LSB

CLICKLINE Instruments



28164 LB

Diameter 2.7 mm, working length 30 cm



28164 LF

CLICKLINE Biopsy Forceps, rotating, dismantling, with LUER-Lock irrigation connector for cleaning, single action jaws, diameter 2.7 mm, working length 30 cm including:
Metal Handle, without ratchet
Outer Sheath, with forceps insert

Diameter 2 mm, working length 30 cm



28164 LB

CLICKLINE Scissors, pointed, rotating, dismantling, with LUER-Lock irrigation connector for cleaning, single action jaws, diameter 2 mm, working length 30 cm



28164 LC

CLICKLINE Biopsy Forceps, rotating, dismantling, with LUER-Lock irrigation connector for cleaning, double action jaws, diameter 2 mm, working length 30 cm



28164 LD

CLICKLINE Ventriculostomy Forceps, rotating, dismantling, with LUER-Lock irrigation connector for cleaning, diameter 2 mm, working length 30 cm



28164 LE

CLICKLINE Grasping Forceps, rotating, dismantling, with LUER-Lock irrigation connector for cleaning, double action jaws, diameter 2 mm, working length 30 cm

Diameter 1.7 mm, working length 30 cm

28160 TV



28162 EM

Scissors, pointed, lightly curved jaws, double action jaws, diameter 1.7 mm, working length 30 cm

Diameter 1.3 mm, working length 30 cm



28162 FP

Scissors, pointed, single action jaws, diameter 1.3 mm, working length 30 cm

Diameter 1 mm, working length 30 cm



28160 TV

Forceps, for ventriculostomy, flexible, double action jaws, diameter 1 mm, working length 30 cm



28160 ZJ

Biopsy Forceps, flexible, double action jaws, diameter 1 mm, working length 30 cm

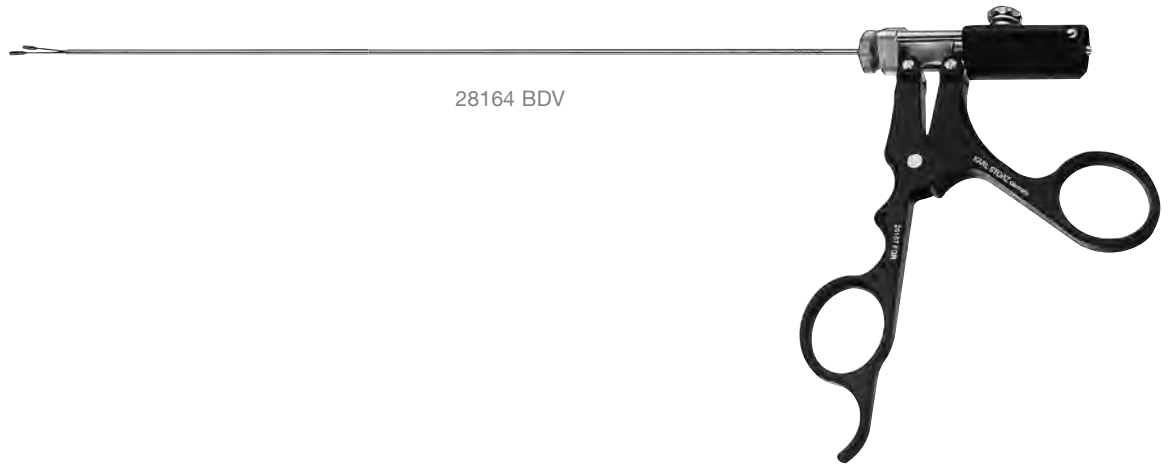
Neuroendoscope Operating Instruments

SCHROEDER Recommended Set

For use with LOTTA® Ventriculoscope 28164 LA/28164 LAB and
Operating Sheath 28164 LS/28164 LSB



Outer diameter 2.4 mm, working length 30 cm



28164 BDV **TAKE-APART® Bipolar Forceps**,
long, flat jaws, outer diameter 2.4 mm,
including
Bipolar Ring Handle
Outer Sheath
Bipolar Insert, for single use, package of 5



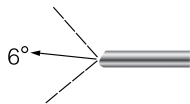
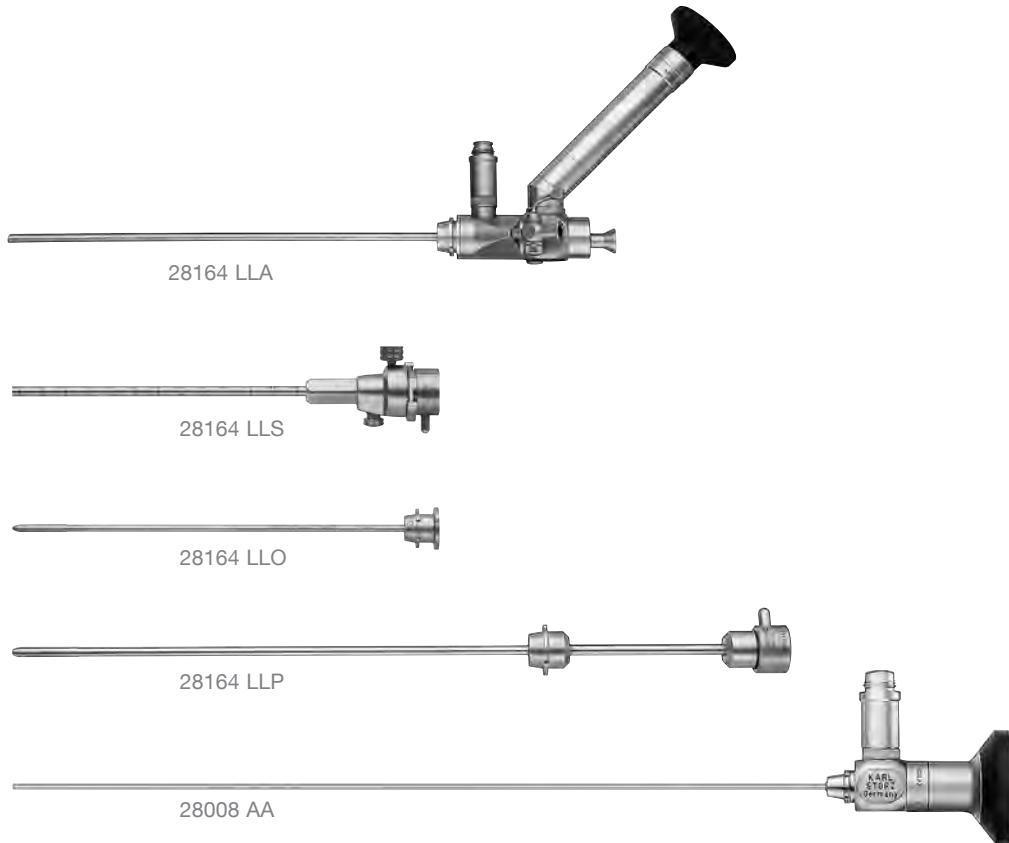
28164 LG **Guillotine Knife**, outer diameter 2.7 mm,
working length 30 cm,
including:
Handle
Guillotine Knife Insert



28762 KB **Bipolar Coagulation Electrode**,
diameter 1.7 mm, working length 30 cm

Little LOTTA® Neuroendoscope

SCHROEDER Recommended Set



28164 LLA

Little LOTTA® Ventriculoscope, HOPKINS® Wide Angle Straight Forward Telescope 6°, small, with angled eyepiece, outer diameter 3.6 mm, length 18 cm, working channel diameter 1.6 mm, with suction and irrigation channel diameter 0.8 mm, **autoclavable**, with irrigation adaptor, fiber optic light transmission incorporated, color code: green

28164 LLS

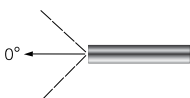
Operating Sheath, small, outer diameter 4.5 mm, working length 13.3 cm, for use with SCHROEDER Ventriculoscope 28164 LLA

28164 LLO

Obturator, for use with operating sheath 28164 LLS

28164 LLP

Optical Obturator, for use with operating sheath 28164 LLS and HOPKINS® Telescope 28008 AA



28008 AA

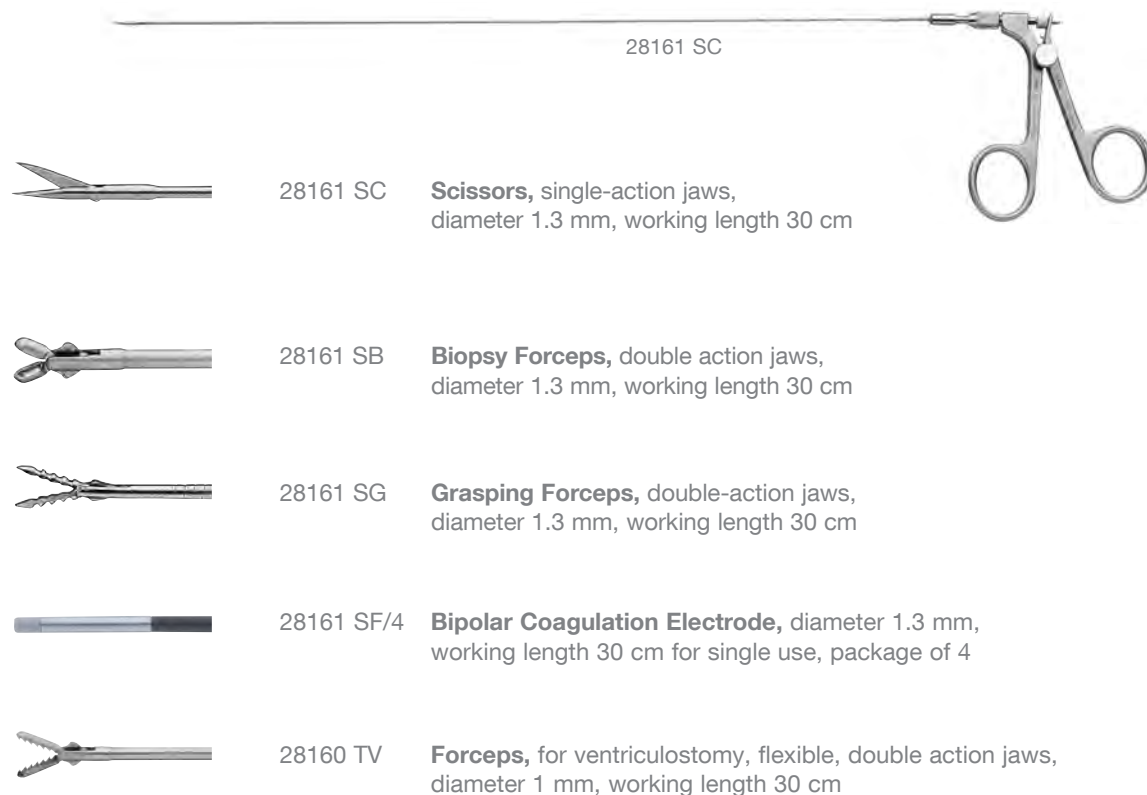
HOPKINS® Straight Forward Telescope 0°, diameter 2 mm, length 26 cm, **autoclavable**, fiber optic light transmission incorporated, color code: green

Neuroendoscope Operating Instruments

SCHROEDER Recommended Set

For use with LOTTA® Ventriculoscope 28164 LLA and Operating Sheath 28164 LLS

CLICKLINE Instruments



Diagnosis Telescopes

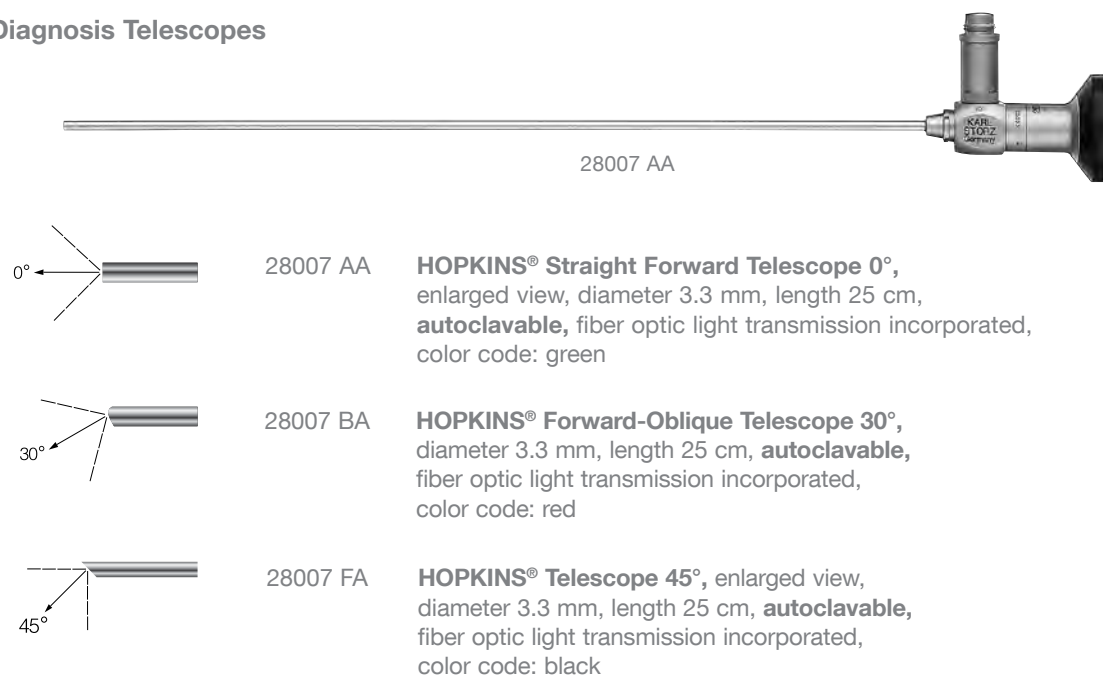


IMAGE1 S™ Camera System



TC 200EN*

IMAGE1 S™ CONNECT, connect module, for use with up to 3 link modules, resolution 1920 x 1080 pixels, with integrated **KARL STORZ-SCB** and digital Image Processing Module, power supply 100-120 VAC/200-240 VAC, 50/60 Hz including:

Mains Cord, length 300 cm

DVI-D Connecting Cable, length 300 cm

SCB Connecting Cable, length 100 cm

USB Flash Drive, 32 GB

USB Silicone Keyboard, with touchpad, US



TC 300

IMAGE1 S™ H3-LINK, link module, for use with IMAGE1 FULL HD three-chip camera heads, power supply 100-120 VAC/200-240 VAC, 50/60 Hz, for use with IMAGE1 S™ CONNECT TC 200EN including:

Mains Cord, length 300 cm

Link Cable, length 20 cm

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

IMAGE1 S™ Camera Heads



TH 100

IMAGE1 S™ H3-Z Three-Chip FULL HD Camera Head, progressive scan, soakable, gas- and plasma-sterilizable, with integrated Parfocal Zoom Lens, focal length $f = 15\text{-}31\text{ mm}$ (2x), 2 freely programmable camera head buttons, for use with IMAGE1 S™ and IMAGE 1 HUB™ HD/IMAGE1 HD



TH 102

IMAGE1 S™ H3-Z FI Three-Chip FULL HD Camera Head, S-Technologies available, for perfusion diagnosis of tissues and organs with indocyanine green (ICG) in conjunction with light source D-LIGHT P, progressive scan, with integrated Parfocal Zoom Lens, focal length $f = 15\text{-}31\text{ mm}$ (2x), 2 freely programmable camera head buttons, for use with IMAGE1 S™ and IMAGE 1 HUB™ HD/IMAGE1 HD

Monitors



9826 NB

9826 NB

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

**External 24 VDC Power Supply
Mains Cord**

Light Sources



20133101-1 Cold Light Fountain XENON 300 SCB, with integrated KARL STORZ-SCB, including an integrated anti-fog pump, a 300 Watt Xenon bulb and KARL STORZ light connection, power supply 100-125/220-240 VAC, 50/60 Hz including:

**Mains Cord
SCB Connecting Cable**, length 100 cm

20133027 XENON Spare Lamp Module, 300 W, 15 V

20133028 XENON Spare Lamp, 300 W, 15 V

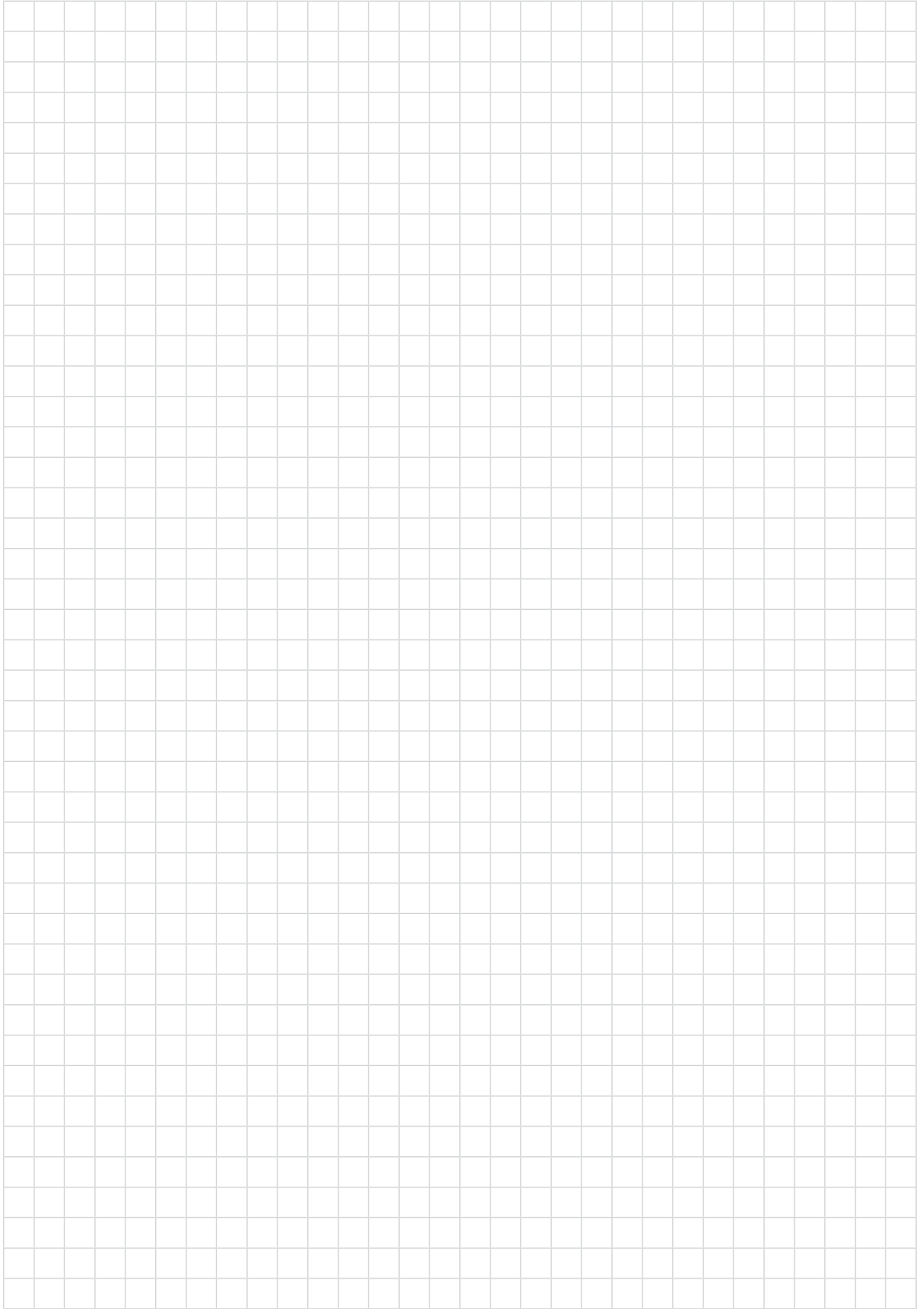


20134001 KARL STORZ Cold Light Fountain XENON NOVA 300, with one 300 Watt XENON lamp and one KARL STORZ light outlet, power Supply 100-125/220-240 VAC, 50/60 Hz including:

Mains Cord

20133028 XENON Spare Lamp, 300 W, 15 V

Notes





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