The LOTTA® System for Intracranial Neuroendoscopy
The SCHROEDER LOTTA® System for Intracranial Neuroendoscopy

The LOTTA® system has been designed to perform 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 cysts with attachment points at the tela choroidea in the roof of the 3rd ventricle.
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 ventricles 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.
The ventriculoscopes are equipped with a HOPKINS® wide-angle straight forward 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 ventricular 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 emerges 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**

![Image of LOTTA® Neuroendoscope](image)

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

- **28164 LP**
  - **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

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

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

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

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

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

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, working length 30 cm 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**

533 TVA

**Adaptor, autoclavable**, permits telescope changing under sterile conditions

28762 KB

**Bipolar Coagulation Electrode**, diameter 1.7 mm, working length 30 cm
Little LOTTA® Neuroendoscope

SCHROEDER Recommended Set

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

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

Obturator, for use with operating sheath 28164 LLS

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

Instruments

- **28161 SC** Scissors, single-action jaws, diameter 1.3 mm, working length 30 cm

- **28161 SB** Biopsy Forceps, double action jaws, diameter 1.3 mm, working length 30 cm

- **28161 SG** Grasping Forceps, double-action jaws, diameter 1.3 mm, working length 30 cm

- **28161 SF** Bipolar Coagulation Electrode, diameter 1.3 mm, working length 30 cm

- **28160 TV** Forceps, for ventriculostomy, flexible, double action jaws, diameter 1 mm, working length 30 cm

Diagnostic Telescopes

- **28007 AA** HOPKINS® Straight Forward Telescope 0°, enlarged view, diameter 3.3 mm, length 25 cm, autoclavable, fiber optic light transmission incorporated, color code: green

- **28007 BA** HOPKINS® Forward-Oblique Telescope 30°, diameter 3.3 mm, length 25 cm, autoclavable, fiber optic light transmission incorporated, color code: red

- **28007 FA** HOPKINS® Telescope 45°, enlarged view, diameter 3.3 mm, length 25 cm, autoclavable, fiber optic light transmission incorporated, color code: black
POINT SETTER – Pneumatic Holding System

28172 WKS  POINT SETTER, pneumatic holding arm, set
including:
POINT SETTER Arm
OR Table Adaptor
KSLOCK Adaptor, for KARL STORZ clamping jaws
KARL STORZ Clamping Jaw, large
KARL STORZ Clamping Jaw, small
KARL STORZ Clamping Jaw, for fiberscopes
Pressure Regulator, 7 bar
Cover*, elasticated, 42 x 164 cm, package of 20

Note: Compressed air tubing is required to operate the POINT SETTER arm. Please select the appropriate tubing and add it to your order.

Compressed air tubing and accessories for the POINT SETTER:

28172 WA  Connecting Tube, for POINT SETTER, Dräger,
max. pressure 8 bar/115 psi, length 600 cm
28172 WB  Connecting Tube, for POINT SETTER, Dräger air motor,
max. pressure 8 bar/115 psi, length 600 cm
28172 WC  Connecting Tube, for POINT SETTER, compressor,
max. pressure 8 bar/115 psi, length 600 cm
28172 WN  Connecting Tube, for POINT SETTER, Schrader,
max. pressure 8 bar/115 psi, length 600 cm
28172 WO  Connecting Tube, for POINT SETTER, with open end,
max. pressure 8 bar/115 psi, length 600 cm
28272 CN  Clamping Cylinder, folding, for flexible mounting of 10 mm telescopes to telescope sheath, autoclavable. The clamping cylinder allows vertical movement and rotation of the telescope. For use with Clamping Jaw 28272 UGN and 28272 UGK and POINT SETTER universal adaptor 10-15 mm
041150-20* Cover, elasticated, 42 x 164 cm, sterile, for single use, package of 20, for use with KARL STORZ holding arms
041150-80* Same, package of 80

*
Mechanical Holding System

Clamping Jaw

28272 UKN  **Clamping Jaw**, metal, for use with instrument and telescope sheaths, clamping range 4.8 up to 12.5 mm, with quick release coupling KSLOCK (male)

Articulated Stands

28272 HA  **Articulated Stand**, reinforced version, straight, with one mechanical central clamp for all five joint functions, height 30 cm, swivel range 37 cm, with quick release coupling KSLOCK (female)

28272 HB  **Articulated Stand**, reinforced version, L-shaped, with one mechanical central clamp for all five joint functions, height 48 cm, swivel range 52 cm, with quick release coupling KSLOCK (female)

Rotation Socket

28172 HR  **Rotation Socket**, to clamp to the operating table with one mounted Butterfly Nut 28172 HRS, for European and US standard rails, with lateral clamp for height and angle adjustment of the articulated stand
UNIDRIVE® S III NEURO

40701701-1  UNIDRIVE® S III NEURO SCB,
  motor control unit with color display, touch screen,
  two motor outputs, integrated irrigation pump and integrated SCB module,
  power supply 100-240 VAC, 50/60 Hz
  including:
  Mains Cord
  Irrigator Rod
  Two-Pedal Footswitch
  SCB Connecting Cable, length 100 cm
  Single Use Tubing Set*, sterile, package of 3

High-Speed Micro-Motor

20 7120 33  High-Speed Micro-Motor, max. speed 60,000 rpm, including connecting cable,
  for use with UNIDRIVE® S III ENT/NEURO

Perforator

252640  Perforator Handpiece, max. speed 1200 rpm, without perforator blade,
  Hudson connector, for use with High-Speed Micro-Motor 20 7120 33

* mtp

All items on this page are not available for sale in the USA
Craniotome

252646  Pediatric Dura Protector,
for use with Craniotome Handpiece 252645

The medium dura protector is automatically delivered with the craniotome handpiece.

252647  Medium Dura Protector,
for use with Craniotome Handpiece 252645

252648  Large Dura Protector,
for use with Craniotome Handpiece 252645

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High-Speed Craniotome Burrs, 60,000 rpm, sterile, for single use, package of 5

All items on this page are not available for sale in the USA
## Burrs for High-Speed Handpieces

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## Accessories

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<td>Universal Spray, 6x 500 ml bottles – HAZARDOUS GOODS – UN 1950 including: Spray Nozzle</td>
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<td>031131-10*</td>
<td>Tubing Set, for irrigation, sterile, for single use, package of 10</td>
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* All items on this page are not available for sale in the USA
Wire Trays for Cleaning, Sterilization and Storage

For ventriculoscopes

39501 XP  Wire Tray for Cleaning, Sterilization and Storage, including cleaning adaptor for washer-disinfector, with lid, spare parts basket 39501 XS and silicone telescope holders, external dimensions (w x d x h): 460 x 150 x 80 mm, for instruments with up to 27 cm working length

39501 XRV  Multiport Bridge

For instruments

39502 Z  Wire Tray, for cleaning, sterilization and storage of instruments, stackable, including hole plate walls and foldaway handles, external dimensions (w x d x h): 480 x 250 x 66 mm

39502 L  Lid, for use with 480 x 250 mm wire tray

39100 S  Silicone Grid Insert LARGE DIAMOND GRID, blue, extra wide meshed, external dimensions (w x d): 470 x 240 mm

39100 PS  Fixation Pin, including screw and washer, to screw instruments into position in wire trays, height 38 mm, package of 12, for use with Silicone Tie-Downs 39360 AS

39360 AS  Silicone Tie-Downs, package of 12, for use with Fixation Pins 39100 PS and 39360 AP

Please note that the described products in this medium may not be available yet in all countries due to different regulatory requirements.

It is recommended to check the suitability of the product for the intended procedure prior to use.