

TECHNICAL DATA SHEET

TRANBERG® Thermal Therapy Systems

For information about handling and intended purpose of the products listed in this document, please refer to the INSTRUCTIONS FOR USE for each system/product.

Order Information*

Article	Description
No.	Mobile Laser Unit
1001-01	TRANBERG® Mobile Laser Unit
No.	Thermoguide™ Workstation
1100-01	TRANBERG® Thermoguide SW
No.	Laser Applicator Non-cooled – EO sterilized, single use
4012-01	TRANBERG® Laser applicator Non-cooled <i>Radial, 1mm, 1.7mm/15G, 3m, MR Conditional</i>
4012-05	TRANBERG® Laser applicator Non-cooled <i>Radial, 1mm, 1.7mm/15G, 12m, MR Conditional</i>
4017-01	TRANBERG® Laser applicator Non-cooled <i>Diffuser, 15mm, 1.7mm/15G, 3m, MR Conditional</i>
4017-02	TRANBERG® Laser applicator Non-cooled <i>Diffuser, 15mm, 1.7mm/15G, 12m, MR Conditional</i>
4017-03	TRANBERG® Laser applicator Non-cooled <i>Diffuser, 25mm, 1.7mm/15G, 3m, MR Conditional</i>
4017-04	TRANBERG® Laser applicator Non-cooled <i>Diffuser, 25mm, 1.7mm/15G, 12m, MR Conditional</i>
No.	Introducer – EO sterilized, single use
4013-14*	TRANBERG® MR Introducer <i>230mm, 2.1mm/14G, Trocar tip, MR Conditional 1.5T/3.0T</i>
4013-15*	TRANBERG® MR Introducer <i>100mm, 2.1mm/14G, Trocar tip, MR Conditional 1.5T/3.0T</i>
4013-16*	TRANBERG® MR Introducer <i>230mm, 2.1mm/14G, Pencil tip, MR Conditional 1.5T/3.0T</i>
No.	Tissue Temp Probe – EO sterilized, single use
3001-01	TRANBERG® Tissue Temp Probe <i>100mm, blue, 1 sensor, 1.27mm/18G, MR unsafe</i>
3002-01	TRANBERG® Tissue Temp Probe <i>100mm, white, 1 sensor, 1.27mm/18G, MR unsafe</i>
3003-01	TRANBERG® Tissue Temp Probe <i>100mm, green, 4 sensors, 1.27mm/18G, MR unsafe</i>
3004-01	TRANBERG® Tissue Temp Probe <i>100mm, black, 4 sensors, 1.27mm/18G, MR unsafe</i>
3001-02	TRANBERG® Tissue Temp Probe <i>200mm, blue, 1 sensor, 1.27mm/18G, MR unsafe</i>
3002-02	TRANBERG® Tissue Temp Probe <i>200mm, white, 1 sensor, 1.27mm/18G, MR unsafe</i>
3003-02	TRANBERG® Tissue Temp Probe <i>200mm, green, 4 sensors, 1.27mm/18G, MR unsafe</i>
3004-02	TRANBERG® Tissue Temp Probe <i>200mm, black, 4 sensors, 1.27mm/18G, MR unsafe</i>



No.	Accessories
2008-01	TRANBERG® Thermoguide HW and OS
4001-02	TRANBERG® Mobile Laser Unit Mains UK
4001-04	TRANBERG® Mobile Laser Unit Mains CH
4001-05	TRANBERG® Mobile Laser Unit Mains EU
4018-01	TRANBERG® Foot pedal
4019-01	TRANBERG® Door interlock
4020-01	TRANBERG® Laser Control Connection Cable
No.	Others
4002-01	TRANBERG® Protection goggles
4003-01	TRANBERG® Laser warning sign

**Please note that all our products and indications are not yet approved in all markets. Don't hesitate to contact us for up-to-date market approvals in your area.*

Technical Specifications

TREATMENT LASER (DIODE LASER)	
WAVELENGTH	1064±10 nm
MAXIMUM AVERAGE OUTPUT POWER	30 W
MAXIMUM ACCESSIBLE OUTPUT POWER	25 W
POWER AT LASER OUTPUT CONNECTOR	1 to 25 W, in steps of 1 W
STABILITY OUTPUT POWER	+/- 10%
MODE OF OPERATION	5ms to CW (Continuous Wave)
BEAM DIVERGENCE worst case	0.2218 rad
MAXIMUM PERMISSIBLE EXPOSURE (MPE) at cornea	50.61 mJcm ⁻²
MAXIMUM PERMISSIBLE EXPOSURE (MPE) of the skin	1000 mWcm ⁻²
NOMINAL OCULAR HAZARD DISTANCE (N.O.H.D.) worst case	3.92 m
CONNECTOR	SMA
NUMERICAL APERTURE	0.22
FIBER CORE DIAMETER	200 µm
TYPE OF SOURCE	Laser diode

AIMING BEAM (DIODE LASER)	
POWER	5 mW (max)
WAVELENGTH	635±10 nm



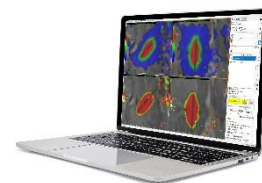
TRANBERG® Mobile Laser Unit

GENERAL TECHNICAL CHARACTERISTICS LASER UNIT	
POWER SOURCE	110-240 V AC / 50-60 Hz Single Phase
CONSUMPTION	54-256W
GENERAL FUSES	2x 5A 250V 5x20 fast acting, low breaking capacity (110-130V) 2x 3.15A 250V 5x20 fast acting, low breaking capacity (220-240V) (5 x 20 mm glass)
INTERNAL FUSES	No internal fuses
PROTECTION AGAINST ELECTRIC SHOCKS	Class I (Class II for applied parts)

OPERATING TEMPERATURE RANGE	15°C to 28°C (59°F to 82°F)
OPERATING ATMOSPHERIC PRESSURE	80.0 kPa to 106 kPa
OPTIMAL TEMPERATURE RANGE	20°C to 24°C (68°F to 75°F)
ENVIRONMENT AMBIENT HUMIDITY	45% to 75%
AVERAGE DIMENSIONS(width, depth, height)	510, 400, 200 mm (1.7, 1.3, 0.7 feet)
WEIGHT	16,4 kg (31 lbs)
PACKAGING EQUIPMENT DIMENSION (width, depth, height)	849, 560, 327mm (2.8, 1.8, 1.1 feet)
PACKAGING EQUIPMENT WEIGHT	13kg (29 lbs)

GENERAL CHARACTERISTICS & FEATURES: THERMOGUIDE THERMOMETRY SW

- Plane orientation: Up to three planes, full flexibility
- Data refresh rate, typically 3-5 sec.
- Workflow guidance due to the software
- B0 field drift correction for maximum T-accuracy
- Quick image-zooming function
- Optional high-resolution background
- Quick screen shots and download of treatment data
- All treatment data easily accessible per-/post-procedure
- Comprehensive research tools available for post-processing analysis



Thermoguide™ Workstation

GENERAL TECHNICAL CHARACTERISTICS FOR LASER APPLICATOR

WAVELENGTH	980 - 1064 nm
MAXIMUM ACCESSIBLE POWER	Up to 25 W depending on model.
NUMERICAL APERTURE	0.22
CORE DIAMETER	550 µm
OUTER DIAMETER	1.7 mm
TOTAL LENGTH	3 m or 12 m
DISTANCE MARKINGS	Every 10 mm
CONNECTOR	SMA
STERILE PACKAGING	Double pouch
STERILIZATION METHOD	EO
SINGLE USE	Yes
NEED FOR COOLING	NO, based on non-cooled technology



TRANBERG® Laser Applicator, diffuser 15 mm, 12m

Article no.	Fiber type	Max power	Max recommended power (manual mode)**
4012-01	Radial, 3m	8 W	3-5 W
4012-05	Radial, 12m		
4017-01	Diffuser 15mm, 3m	20 W	5-8 W
4017-02	Diffuser 15mm, 12m		
4017-03	Diffuser 25mm, 3m	25 W	8-10 W
4017-04	Diffuser 25mm, 12m		

****Please note that recommendations vary for different indications and tissues. For intracranial use values are lower.**


GENERAL TECHNICAL CHARACTERISTICS FOR INTRODUCER

OUTER DIAMETER (catheter)	2.1 mm (14G)
USABLE LENGTH	100 mm or 230 mm
DISTAL MARKING LENGTH	10 mm
TIP TYPE	Pencil or trocar
STERILE PACKAGING	Double pouch
STERILIZATION METHOD	EO
SINGLE USE	Yes

GENERAL TECHNICAL CHARACTERISTICS FOR TEMPERATURE PROBES

TEMPERATURE RANGE	30-70°C
TEMPERATURE ACCURACY	+/-0.5°C
NUMBER OF SENSORS (3001-xx blue, 3002-xx white)	1
NUMBER OF SENSORS (3003-xx green, 3004-xx black)	4
OUTER DIAMETER (needle)	1.27 mm (18G)
STERILE PACKAGING	Double pouch
STERILIZATION METHOD	EO
SINGLE USE	Yes

KEY BUILT-IN SAFETY FEATURES

<p>Laser safety*</p> 	<ul style="list-style-type: none"> • Emergency stop button on the laser unit • Laser protection goggles • Foot pedal • Door interlock • Laser fiber interlock • Acoustic and visual warning signals • Build in laser interruption after a set time
<p>Unanticipated thermal spread</p>	<ul style="list-style-type: none"> • Laser applicators based on non-cooled technology, i.e. cooling is not required • Heat safety guards by using temperature probes, or Thermoguide SW.

*Developed according to IEC60601-2-22 Safety for medical lasers

Link to CLS Products



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TRANBERG®

THERMAL THERAPY SYSTEM