

LLLT - Low Level Laser Therapy

PBM – PhotoBioModulation

Laser Equipment



Akeda Laser ApS

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Product	PERSONAL-LASER™ L200	PERSONAL-LASER™ L400	ENERGY-LASER™ L500 PRO (Bluetooth)	ENERGY-LASER™ L800 PRO (Bluetooth)	ENERGY-LASER™ L2000 PRO (Bluetooth)
Wavelength	660 nm	808 nm	808 nm	660 nm	808 nm
Max power	200 mw	400 mw	500 mw	4x200mw	4x500mw
Max total power	200 mw	400 mw	500 mw	800 mw	2000 mw
Operations mode (CW continus wave)	CW	CW	CW	CW	CW
SPOT/BEAM (divergence), approx.	Spread 20°x30°	Spread 10°x10°	Spread 10°x10°	Spread 4x20°x30°	Spread 4x10°x10°
Guide LED red	No	No	Yes	No	Yes
Laser Class	3B	3B	3B	3B	3B
Energy pr. 10 sec.	2 joule	4 joule	5 joule	8 joule	20 joule
Laser Penetration, approx.	1-2 cm	3-4 cm	3-4 cm	1-2 cm	3-4 cm
Cooling	No	No	No	Air	Air
Bluetooth	No	No	Yes	Yes	Yes
Battery Li-Ion	650 mA	650 mA	650 mA	1300 mA	1950 mA
Treat. time per charging	3 h	2 h	1,5 h	1,5 h	1 h

LASER CLASS

PERSONAL-LASER and ENERGY-LASER PRO are all in Laser Class 3B according:

Standard IEC 60825-1:2014

Laser Class 3B:

Lasers in which the power exceeds class 3R (5 mW) but does not exceed 500 mW. Direct exposure to class 3B laser radiation can result in eye injury and in some cases skin damage.

Protective eyewear should therefore always be worn where the risk of direct illumination of the eye.

Most LLLT – Low Level Laser Therapy / PBM - PhotoBioModulation laser products are all fitted with laser diodes which emit energy by dispersion (divergent). I.e. that the laser energy falls with the square of the distance.

The further away you view the laser light, the lower the level of laser energy which strikes the eye.



PERSONAL-LASER and **ENERGY-LASER PRO** are all fitted with window lens – (flat optics)!



Technical data Laser Diodes

PERSONAL-LASER L200

Laser output max.:	200 mW
Wavelength:	660 nm / Visible red
Divergence degrees:	20 x 30
Irradiance (E):	0,2 W / m²
Irradiation (H):	0,2 Joule / m ² per sec.

PERSONAL-LASER L400

Laser output max.:	400 mW
Wavelength:	808 nm / Invisible IR
Divergence degrees:	10 x 10
Irradiance (E):	0,4 W / m²
Irradiation (H):	0,4 Joule / m ² per sec.

ENERGY-LASER L500 PRO

500 mW
808 nm / Invisible IR
10 x 10
0,5 W / m²
0,5 Joule / m ² per sec.

ENERGY-LASER L800 PRO

Laser output max.: Wavelength:	4 x 200 mW 660 nm / Visible red	
For each laser diode:		
Divergence degrees:	20 x 30	
Irradiance (E):	0,2 W / m ²	
Irradiation (H):	0,2 Joule / m ² per sec.	

ENERGY-LASER L2000 PRO

Laser output max.: Wavelength:	4 x 500 mW 808 nm / Invisible IR		
For each laser diode:			
Divergence degrees:	10 x 10		
Irradiance (E):	0,5 W / m ²		
Irradiation (H):	0,5 Joule / m ² per sec.		

Laser diodes without lens:

PERSONAL-LASER L	400
ENERGY-LASER L500	PRO
ENERGY-LASER L200	
Laser output max.: Wavelength: Divergence degrees:	500 mW 808 nm / Invisible IR 10 x 10
PERSONAL-LASER L	200
ENERGY-LASER L800	PRO
Laser output max.:	200 mW
Wavelength:	660 nm / Visible red
Divergence degrees:	20 x 30

Laser diodes with Window lens – (Flat optics):



Akeda Laser recommends the following safety precautions for workspace:

The laser light emitted by the PERSONAL-LASER and ENERGY-LASER PRO is scattered (with divergence), and is therefore not dangerous to the eyes or the skin, as long as the laser light is not looked directly at a very short distance (-10 cm), or if the laser is held directly on the skin for a very long time, (more than 5 minutes).

But especially because the visible red laser light from the PERSONAL-LASER L200 and ENERGY-LASER L800 PRO is very powerful to look at, therefore Akeda Laser recommends that some Workbench cover of wood or plastic shield in black or white color, be made, so that no visible red laser light is emitted out from the work area, which can be very disturbing to look at.

All personnel working with PERSONAL-LASER and ENERGY-LASER PRO must be instructed in proper handling of the laser during adjustment and testing!

Put Laser warnings label on the cover, so everyone can clearly see that here are work with laser light!



Adjustment and testing of the PERSONAL-LASER and ENERGY-LASER PRO lasers must always be performed without the Flat lens attached to the laser!

The laser should always be kept in the Power Meter fixture while adjusting the laser Power and testing!



While working with laser adjustment and testing, do never look directly at the laser light and If the laser light needs to be examined more closely, always wear protective glasses!









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