

# ***Klas-A, Klas-E*** **Laser Acupuncture Unit**



# **User's Guide**



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# Getting started

Install your Klas with the included battery and begins to get started low level laser therapy (LLLT).

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## Using Klas

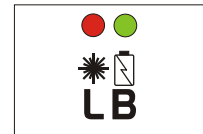
Klas can be used for treatment of diseases and conditions, follow the recommended dosage and treatment time to get the best efficacy. You can also find new information about using Klas on the web [www.konftec.com](http://www.konftec.com).

## Using the battery

- ☑ Use the battery that came with your Klas or any qualified standard battery or rechargeable battery.
- ☑ If you do not use your Klas for a period of time, be sure to take battery out from your Klas.

## Klas-A81 LEDs' indication

- ☑ Klas-A81 emits the infrared laser, which is invisible. For safety operation, two LED indicators are equipped:
  - Red** LED (L) – Laser output
  - Green** LED (B) – Battery power
- ☑ If **Red** LED (L) is OFF and **Green** LED (B) is ON, please replace the batteries.



# Specifications

## **Klas-A** Laser Acupuncture Unit

**Treatment Time Calculation Table**

Dose (J/cm <sup>3</sup> )	Depth of Acupoint (cm)	Energy Loss Factor	Treatment Time (seconds)				
			Model	Klas-A50	Klas-A61	Klas-A79	Klas-A81
			Wavelength	660nm		780nm	808nm
			LD Power (mW)	50	100	90	110
			End Power (mW)	45	90	86	88
3 J/cm <sup>2</sup>	Surface	1		9	4	5	4
3	0.5	0.6772		13	6	7	7
	1	0.4586		19	9	10	10
	1.5	0.3105		28	14	15	14
	2	0.2103		41	21	22	21
	2.5	0.1424				32	31
	3	0.0964				47	46
	3.5	0.0653				69	68
	4	0.0442				103	100
4.5	0.0299				151	148	

**Remarks:** 1) Laser beam spot size = 0.13  
 2) Energy loss is postulated to be linear at 7.5% per mm of tissue.  
 3) Treatment time is calculated by Monte Carlo Simulation method.

# Specifications

## *Klas-E* Auricular Laser Acupuncture Unit

**Treatment Time Calculation Table**

Dose (J/cm <sup>3</sup> )	Depth of Acupoint (cm)	Energy Loss Factor	Treatment Time (seconds)			
			Model	<i>Klas-E50</i>	<i>Klas-E61</i>	<i>Klas-E81</i>
			Wavelength	660nm		808nm
			LD Power (mW)	50	100	110
			End Power (mW)	40	80	90
3 J/cm <sup>2</sup>	Surface	1		5	3	3
3	0.5	0.6772		8	4	3
	1	0.4586		11	6	5
	1.5	0.3105		17	8	8
	2	0.2103		25	12	11
	2.5	0.1424				16
	3	0.0964				24
	3.5	0.0653				36
	4	0.0442				53
	4.5	0.0299				78

- Remarks:** 1) Laser beam spot size = 0.07  
 2) Energy loss is postulated to be linear at 7.5% per mm of tissue.  
 3) Treatment time is calculated by Monte Carlo Simulation method.

## About operating and storage temperatures

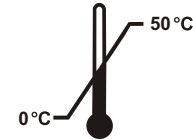
- ☑ Operate your Klas in a place where the temperature is always between 0 and 50° C (32 to 122° F).
- ☑ Store your Klas in a place where the temperature is always between -20 and 85° C (-4 to 185° F).

## Troubleshooting

### My Klas won't turn on

- ☑ Make sure Klas's power switch is on.
- ☑ If that doesn't work, check the position of battery in Klas.
- ☑ If that doesn't work, loosen the bottom cap and fasten again.
- ☑ For Klas-A81 only, if both LEDs' do not light, replace the new batteries.

**If that doesn't work, contact your local sales office.**



## Learning more, service and support

There is a wealth of information about using Klas on the Web. For the latest information on Klas service and support information go to [www.konftec.com](http://www.konftec.com)

## Obtaining warranty service

If the product appears to be damaged or does not function properly, please follow the advice in this booklet, and the online resources. If the unit still does not function, go to [www.konftec.com](http://www.konftec.com) for instructions on how to obtain warranty service.

# Safety

## Important safety instructions

Follow all instructions and warnings dealing with your Klas.



### Warning

- ☑ Avoid direct eye exposure to the laser beam.
- ☑ Operation of this device, must always be supervised by an adult.



### Cleaning

Follow these general rules when cleaning the outside of your Klas and its components:

- ☑ Use a damp, soft, lint-free cloth.
- ☑ Use water or alcohol to clean fiber rod.
- ☑ Don't use aerosol sprays, solvents or abrasives.



### Avoid direct sunlight

Protect your Klas from long time direct sunlight.



### Do not make repairs yourself

No user-serviceable parts are inside.

### About handling

Your Klas may be damaged by improper storage or handling. Be careful not to drop your Klas when treating or transporting the device.



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