

Klas-P5

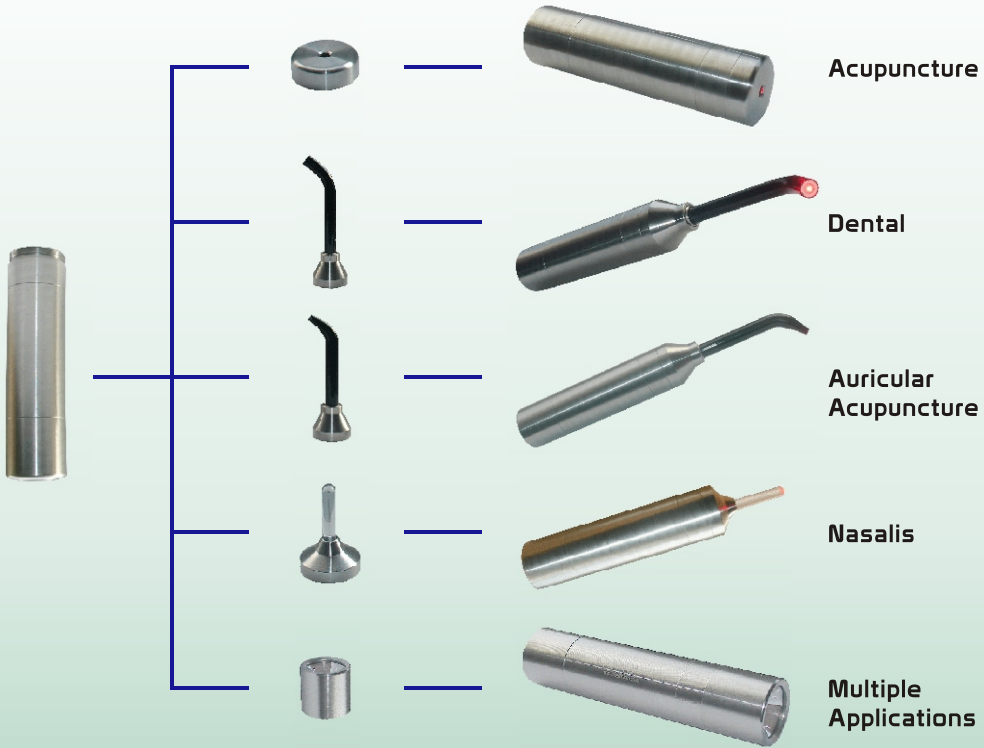
5-in-1 LLLT Unit



User's Guide



5-in-1 LLLT Unit



English

Getting started/ Using Klas	2
Specifications	3
Tips and troubleshooting	8
Safety and cleaning	9

Getting started

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

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.

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.

Specifications

Klas-A Laser Acupuncture Unit

Treatment Time Calculation Table										
Dose (J/cm ³)	Depth of Acupoint (cm)	Energy Loss Factor	Treatment Time (seconds)							
			Model	Klas-A20	Klas-A50	Klas-A61	Klas-A79	Klas-A81	Klas-A82	Klas-A84
			LD Power (mW)	25	50	100	90	110	260	460
End Power (mW)	23	45	90	86	88	208	368			
3	0.5	0.6772		13	6	3	3	3	1	1
	1	0.4586		37	19	9	10	10	4	2
	1.5	0.3105		82	42	21	22	21	9	5
	2	0.2103		161	82	41	43	42	18	10
	2.5	0.1424			152	76	80	78	33	19
	3	0.0964				135	141	138	58	33
	3.5	0.0653					243	238	100	57
	4	0.0442					410	401	170	96
	4.5	0.0299					681	666	282	159
	5	0.0203							462	261
6	0.0093								684	

Remarks: 1) Laser beam spot size 0.13 cm²
 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 ³)	Depth of Acupoint (cm)	Energy Loss Factor	Treatment Time (seconds)						
			Model	<i>Klas-E20</i>	<i>Klas-E50</i>	<i>Klas-E61</i>	<i>Klas-E81</i>	<i>Klas-E82</i>	<i>Klas-E84</i>
			LD Power (mW)	25	50	100	110	260	460
			End Power (mW)	20	40	80	90	180	320
3	0.5	0.6772		8	4	2	2	1	1
	1	0.4586		23	11	6	5	3	1
	1.5	0.3105		51	25	13	11	6	3
	2	0.2103		100	50	25	22	11	6
	2.5	0.1424					41	20	12
	3	0.0964					73	36	20
	3.5	0.0653					125	63	35
	4	0.0442					211	106	59
	4.5	0.0299					351	175	99
	5	0.0203						288	162
6	0.0093							423	

- Remarks:** 1) Laser beam spot size = 0.07 cm²
 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-D Dental LLLT Unit

Treatment Time Calculation Table

Dose (J/cm ³)	Depth of Tissue (cm)	Energy Loss Factor	Treatment Time (seconds)					
			Model	<i>Klas-D50</i>	<i>Klas-D61</i>	<i>Klas-D81</i>	<i>Klas-D82</i>	<i>Klas-D84</i>
			LD Power (mW)	50	100	110	260	460
			End Power (mW)	40	80	90	200	370
1	0.5	0.6772		9	5	4	2	1
	1	0.4586		27	14	12	5	3
	1.5	0.3105		60	30	27	12	7
	2	0.2103		119	59	53	24	13
	2.5	0.1424				98	44	24
	3	0.0964				173	78	42
	3.5	0.0653				298	134	72
	4	0.0442				502	226	122
	4.5	0.0299					376	203
	5	0.0203						333

Remarks: 1) Laser beam spot size = 0.50 cm²

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-N50

Nasalis LLLT Unit

Wavelength : 660nm

Output Power : 50mW (without fiber rod)

< 5mW (with fiber rod; end dispersion)

Power Supply : 3 x AAA Batteries



Specifications

Klas-S Multiple Treatments LLLT Unit

Treatment Time Calculation Table										
Dose (J/cm ³)	Depth of Tissue (cm)	Energy Loss Factor	Treatment Time (minutes)							
			Model	<i>Klas-S20</i>	<i>Klas-S50</i>	<i>Klas-S61</i>	<i>Klas-S79</i>	<i>Klas-S81</i>	<i>Klas-S82</i>	<i>Klas-S84</i>
			LD Power (mW)	25	50	100	90	110	260	460
			End Power (mW)	15	30	60	54	44	104	184
3 J/cm ²	Surface	1.0000		10	5	3	3	3	1	1
3	0.5	0.6772		7	4	2	2	3	1	1
	1	0.4586		22	11	5	6	7	3	2
	1.5	0.3105			24	12	13	16	7	4
	2	0.2103				24	26	32	14	8
	2.5	0.1424							25	14
	3	0.0964								25
Remarks: 1) Laser beam spot size = 3.00 cm ² 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.
- ✓ 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

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 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 alcohol to clean the optic glass.
- ✓ 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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