



Laser Therapy Hair Growth Comb OPERATOR' S MANUAL



2.4.01.01.068100R Version: A/0 By 6/28/2023



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Model: Lasercomb-001/Lasercomb-002

Welcome to use our Laser Therapy Hair Growth Comb

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⚠ This product is a laser instrument. Users are required to read the manual carefully before operation to ensure efficient and safe use of all the functions and maintenance of the product.

Warnings:

1. Do not make direct eye contact with the laser light diodes or its reflection in a mirror because it can temporarily irritate your eyes. If you stare at the light for too long, it could harm your eyes. Also, never use a magnifying glass when using the product because it can cause temporary irritation to your eyes.
2. Keep out of reach of children at all times.
3. Do not drop the product in water because you may get an electrical shock.
4. If the component or structure is damaged of the device, do not use the device because you could get an electrical shock. If the component or structure gets damaged, contact our company.
5. This is an ESD sensitive device, do not touch charging contacts.
6. If you are taking any medications or products that make you sensitive to light, you should test the device to make sure you do not have a reaction. Some of the things that can cause increased sensitivity to the device could be medicines for colds, allergies, pain medicine and drugs to treat infections. To test the device for sensitivity, please refer to "Section Testing the Laser Comb for Sensitivity".
7. Handle the device with care. Keep away from heat and liquids, because this could cause the device not to work properly and may cause an electrical shock.
8. Ensure to keep the light emitting ports clean. Otherwise, the laser light intensity output will be affected, adversely affecting the therapeutics effects of the comb.
9. Do not charge the comb while it is being used.
10. Turn off the comb while cleaning it or after use.
11. Do not use the comb in the bathroom to avoid damaging its components with moisture/conduction.
12. Only use the included Charger to charge the comb.
13. If the comb is not used for a long period of time, charge it at least every 4-6 months to preserve its battery life.
14. Only use the comb as directed. Do not try to change the way the comb operates. Changes may result in harmful laser exposure.

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I. Working Principle

Lasercomb-001 & Lasercomb-002 works by providing laser energy to stimulate hair follicles. For optimal results, the laser must not be blocked by the hair and must have an unobstructed path to the scalp.

Lasercomb-001 & Lasercomb-002 has teeth that part the hair and allow the maximum amount of laser energy to reach the scalp.

II. Performance Parameter

Technical Information

Trade name/Common name: Laser Therapy Hair Growth Comb

Laser medium: GaAIAs Semiconductor

Laser wavelength: $650\text{nm} \pm 10\text{nm}$

Power: $<5\text{ mW}$

Laser diodes quantity: Lasercomb-001:7pcs; Lasercomb-002:9pcs

Input voltage: $100\text{V} \sim 240\text{VAC}$

Input AC frequency: $50/60\text{Hz}$

Input power: less than 100VA

Working environment:

- Temperature: $5^{\circ}\text{C} \sim 40^{\circ}\text{C}$
- Relative humidity: $\leq 80\% \text{RH}$
- Atmospheric pressure: $860\text{hpa} \sim 1060\text{hpa}$

Service life: 5 years

Electrical safety classification: Class II, Type BF, Continuous operation

IP classification: IP22

Treatment area for each spot size: $10\text{mm} \pm 10\%$

III. Package Content

1 Laser Therapy Hair growth comb (Model: Lasercomb-001 or Lasercomb-002)

1 Power adaptor including charging cable and charging plug

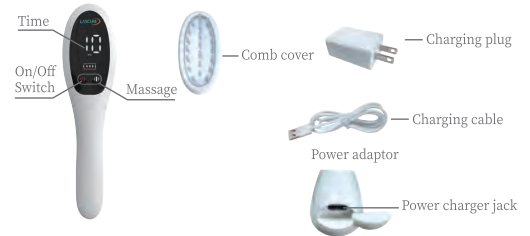
1 EVA Bag(Lasercomb-002)

1 User Manual

IV. Structure and Components

Main Structure

The treatment instrument consists of host, comb cover, power adaptor and power charger jack.



V. Indications and Contraindications

1. Indications

Laser Therapy Hair Growth Comb is indicated to treat Androgenetic Alopecia, and promote hair growth in females who have Ludwig (Savin) I-4, II-1, II-2, or frontal patterns of hair loss and in males who have Norwood Hamilton Classifications of IIa to V and who both have Fitzpatrick Skin Types I to IV.

2. Contraindications



Pregnancy, cancer and hemorrhagic diseases are prohibited to use this product.

Forbidden for use by individuals with pacemakers since the Laser Therapy Hair Growth Comb may interfere with the operation of the pacemaker.

Before operation, please note the following:

- The System should never be connected directly to the wall charger and only be powered by the adapter.
- How do you know if the Laser Therapy Hair Growth Comb is right for you?

Laser Therapy Hair Growth Comb can be used by men and women with thinning hair (including color treated hair) or pattern baldness caused by a hereditary condition. Doctors use a system known as the Norwood Hamilton Classification (men) and the Ludwig-Savin Classification (women) to describe the degree of hair loss. Below are the pictures of the scales. The shaded areas show the type of hair loss that can be treated with the Laser Therapy Hair Growth Comb.

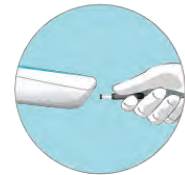
Norwood Hamilton Classification - Males	
Ludwig-Savin Classification - Females	 <p>The Laser Therapy Hair Growth Comb has not been clinically tested for hair loss outside of the shaded areas.</p>

- Before you use the Laser Therapy Hair Growth Comb, please check whether the power is sufficient.



Charging Options

Charge the Laser Therapy Hair Growth Comb by placing the charging cable directly into the power charge jack of the Laser Therapy Hair Growth Comb and the other end into an electrical wall outlet. The indicator light on the power button will flash white during the charging process. Once charging is complete, the white light will stop flashing and remain on. During use, the indicator light will indicate the battery level. A steady, non-flashing light indicates the battery is full. When the battery power diminishes, the light will blink slowly. When the battery is getting low and needs to be recharged, the light will start to flash rapidly.



Note: During charging, the device only can be charged and does not operate. During operating mode, please disconnect the charging cable from power charge jack.



VI. Operation

1. Long press the ON/OFF switch  to turn on the device. As the device turns on, the buzzer will make a “tick” sound and all the icons on the LED screen will illuminate briefly. The default working time of Lasercomb-001, and 11 minutes of Lasercomb-002 will be displayed on screen.
2. There are two vibration power levels, you can press the “massage” button to change between the power levels.
3. Short press the ON/OFF switch  again to begin the treatment.
4. Treating time of Lasercomb-001 is 15 minutes, one day and 3 times a week; treatment time of Lasercomb-002 is 11 minutes one day and 3 times a week; the device automatically shut down after end of countdown.

Note: The device has an automatic shutdown function to save energy; the device will also automatically shut off after 2 minutes if not in use.

5. Hold the comb handle and start combing your hair back from the top of your hairline and down to your ends. The suggested frequency for combing your hair should be 20-30 brush strokes per minute, or until you feel a hot or tingling sensation on your scalp.
6. To use the massage function while combing your hair press the massage button . To turn off the massage function hit the massage button  again.

VII. Testing the Laser Therapy Hair Growth Comb for Sensitivity

Testing the Laser Therapy Hair Growth Comb for sensitivity Before beginning treatment, be sure to test the Laser Therapy Hair Growth Comb for sensitivity. Turn the device on, hold the Laser Therapy Hair Growth Comb on one spot, shining the light on your forearm. After two minutes, turn the device off and set aside. Look at the spot where you held the laser light over the next five minutes. If you see any reaction such as redness or rash, do not use the Laser Therapy Hair Growth Comb and contact Agent. If you don't experience any reaction, proceed with the treatment instructions.

VIII. Product Maintenance


1. Maintenance

- (1) Wipe the dust off of the device's surface with a soft dry cloth.
- (2) If stained with dirt or oil, use a soft brush to gently remove the stain and then wipe down with a dry soft cloth.
- (3) To disinfect the device, moderately wet a cotton ball/square with disinfecting ethyl alcohol until moist. Use the cotton ball/square to wipe down the surface of the device and allow to air dry until the ethyl alcohol smell is gone.
- (4) Keeps stored in a cool and dry area away from direct sunlight.
- (5) Storage and transport environment:
 - a) Ambient temperature: -40°C~+55°C
 - b) Relative humidity: 10%-80% RH
 - c) Atmospheric pressure: 860hpa-1060hpa

2. Cleaning your Laser Therapy Hair Growth Comb

- (1) Keep your Laser Therapy Hair Growth Comb clean.
- (2) Turn off the Laser Therapy Hair Growth Comb by pressing and holding the power button (lower button) until the light turns off.
- (3) Unplug the power cord from the device and from the electrical wall outlet.
- (4) Clean the laser window with a soft, slightly moistened cloth.
- (5) To clean the comb teeth, gently remove any hairs or dust with a slightly moistened towel.

- (6) Don't use any acetone, soap or detergents, only warm water or ethyl alcohol.
- (7) Visual inspection for residual soil and an additional repeat cleaning instruction in the event that residual soil is visible on the device.

 Warning: Do not modify this equipment without authorization of the manufacturer.

IX. Environmental Statement

DISPOSAL NOTE

Earth is our homes, we replying on each other for environmental protection, please do not discard arbitrarily for the host and accessories of this therapeutic apparatus after use! Please contact the local authorities to determine the proper method of disposal of product and accessories.

The disposal of batteries is regulated. Spent batteries are collected at the collection points provided by battery dealers and the communities.

Disposal of the equipment or its accessories according to the local regulations, IE at the a collection point for electrical scrap.

X. Electromagnetic Compatibility

 Attention:

- The Laser Therapy Hair Growth Comb needs special precautions regarding EMC and needs to be installed and put into service according to the EMC information provided, and this unit can be affected by portable and mobile RF communications equipment.
- Do not use a mobile phone or other devices that emit electromagnetic fields, near the unit. This may result in incorrect operation of the unit.
- Cable information

NO.	Description	Cable Length(m)	Whether shielding	Remark
1	Charging cable	1.5m	No	

 Warning:

- Use of this equipment adjacent to or stacked with other equipment should be avoided because it could result in improper operation. If such use is necessary, this equipment and the other equipment should be observed to verify that they are operating normally.
- Use of accessories, transducers and cables other than those specified or provided by the manufacturer of this the Laser Therapy Hair Growth Comb could result in increased electromagnetic emissions or decreased electromagnetic immunity of this equipment and result in improper operation.
- Portable RF communications equipment (including peripherals such as antenna cables and external antennas) should be used no closer than 30 cm (12 inches) to any part of the Laser Therapy Hair Growth Comb, including cables specified by the manufacturer. Otherwise, degradation of the performance of this equipment could result.

Note: Please refer to Appendix for details.

XI. Product Service

Dear customer,

Thanks for your purchase of our product. Our service aim is "customer's satisfaction is our only standard". Our company makes bellowing warranty so as to protect your legal right, benefits and avoid worries after purchase and use. Meanwhile the standard and perfect after sale service will be provided for you according to the warranty.

1.The scope of exchange or warranty:













If quality problem exists within one year since the date of purchase under normal operation, we will fix the fault and replace the damaged parts which are not artificially caused for free if the user can provide warranty bill and warranty card. If the surface of the equipment is damaged, no free repair or replacement will be provided.

Our company providing free repair service after 1 year, but material costs is charged on some extent.

2. Repair fees will be charged on some extent under the following cases which out of scope of exchange and warranty:

- (1)Product warranty bill and warranty card are not stated.
- (2)Damage made by improper or wrong use (the user do not operate the device under the user manual instruction)
- (3)Failure made by personal disassembling
- (4)Damage made by natural disaster
- (5)Material costs are charged on some extent if warranty date is exceeded
- (6)Failure or damage made by accident factor or human factor (scratch, immersion or replacing parts personally)
- (7)Attachments such as housing of the apparatus, user manual, package and warranty card

XII. Symbol Explanation

Symbol	Explanation	Symbol	Explanation
	Date of manufacture		Manufacturer
	Type BF applied part	IP22	IP Classification
	Follow instructions for use		Dispose of the device in accordance with the directive WEEE (Waste Electrical and Electronic Equipment)
	Serial number		Keep dry
	3R Laser Safety Symbol		Keep away from sunlight
	Avoid exposure-Laser radiation emitted from this aperture		This way up
	Fragile, handle with care		

XIII. Contact Us

Hubei YJT Technology Co., Ltd.
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Appendix:


Guidance and manufacturer's declaration – electromagnetic emission – for all EQUIPMENT AND SYSTEMS

Guidance and manufacturer's declaration – electromagnetic emission		
The Laser Therapy Hair Growth Comb is intended for use in the electromagnetic environment specified below. The customer or the user of Laser Therapy Hair Growth Comb should assure that it is used in such an environment.		
Emissions test	Compliance	Electromagnetic environment - guidance
RF emissions CISPR 11	Group 1	The Laser Therapy Hair Growth Comb uses RF energy only for its internal function. There for, its RF emissions are very low and are not likely to cause any interference in nearby electronic equipment.
RF emissions CISPR 11	Class B	The Laser Therapy Hair Growth Comb is suitable for use in domestic and connected to the public mains network that supplies buildings used for domestic purposes.
Harmonic emissions IEC 61000-3-2	Class A	
Voltage fluctuations flicker emissions IEC 61000-3-3	Complies	

Guidance and manufacturer's declaration – electromagnetic immunity – for all EQUIPMENT and SYSTEMS

Guidance and manufacturer's declaration – electromagnetic immunity			
The Laser Therapy Hair Growth Comb is intended for use in the electromagnetic environment specified below. The customer or the user of the Laser Therapy Hair Growth Comb should assure that it is used in such an environment.			
Immunity test	IEC 60601 test level	Compliance level/test level	Electromagnetic environment - guidance
Electrostatic discharge (ESD) IEC 61000-4-2	± 8 kV contact ± 2 kV, ± 4 kV, ± 8 kV, ± 15 kV air	± 8 kV contact ± 2 kV, ± 4 kV, ± 8 kV, ± 15 kV air	Floors should be wood, concrete or ceramic tile. If floors are covered with synthetic material, the relative humidity should be at least 30 %.
Electrostatic transient / burst IEC 61000-4-4	± 2 kV for power supply lines ± 1 kV for input/output lines	± 2 kV for power supply lines	Mains power quality should be that of a home use environment.
Surge IEC 61000-4-5	± 1 kV differential mode ± 2 kV common mode	± 1 kV differential mode	Mains power quality should be that of a home use environment.
Voltage dips, short interruptions and voltage variations on power supply input lines IEC 61000-4-11	0 % UT; 0,5 cycle g) At 0°, 45°, 90°, 135°, 180°, 225°, 270° and 315° 0 % UT; 1 cycle and 70 % UT; 25/30 cycles Single phase: at 0° 0 % UT; 250/300 cycle	0 % UT; 0,5 cycle g) At 0°, 45°, 90°, 135°, 180°, 225°, 270° and 315° 0 % UT; 1 cycle and 70 % UT; 25/30 cycles Single phase: at 0° 0 % UT; 250/300 cycle	Mains power quality should be that of a home use environment. If the user of the Laser Therapy Hair Growth Comb requires continued operation during power mains interruptions, it is recommended that the Laser Therapy Hair Growth Comb be powered from an uninterruptible power supply or a battery.
Power frequency (50/60 Hz) magnetic field IEC 61000-4-8	30 A/m	30 A/m	Power frequency magnetic fields should be at levels characteristic of a typical location in a home use environment.
NOTE		UT is the a. c. mains voltage prior to application of the test level.	

Guidance and manufacturer's declaration – electromagnetic immunity – for EQUIPMENT and SYSTEM

Guidance and manufacturer's declaration – electromagnetic immunity			
The Laser Therapy Hair Growth Comb is intended for use in the electromagnetic environment specified below. The customer or the user of the Laser Therapy Hair Growth Comb should assure that it is used in such an environment.			
Immunity test	IEC 60601 test level	Compliance level	Electromagnetic environment - guidance
Conducted RF	3 Vrms	3V	Portable and mobile RF communications equipment should be used no closer to any part of the Laser Therapy Hair Growth Comb, including cables, than the recommended separation distance calculated from the equation applicable to the frequency of the transmitter.
IEC 61000-4-6	150 kHz to 80 MHz	150 kHz to 80 MHz	<p>Recommended separation distance</p> $d = \left\lfloor \frac{3,5}{V_1} \right\rfloor \sqrt{P}$ $d = \left\lfloor \frac{12}{V_2} \right\rfloor \sqrt{P}$ $d = \left\lfloor \frac{3,5}{E_1} \right\rfloor \sqrt{P}$ $d = \left\lfloor \frac{7}{E_2} \right\rfloor \sqrt{P}$ <p>where p is the maximum output power rating of the transmitter in watts (W) according to the transmitter manufacturer and d is the recommended separation distance in metres (m).^b</p> <p>Field strengths from fixed RF transmitters, as determined by an electromagnetic site survey,^a should be less than the compliance level in each frequency range.^b Interference may occur in the vicinity of equipment marked with the following symbol: </p>
Radiated RF	6 V in ISM and amateur radio bands between 0,15 MHz and 80 MHz 10 V/m	6 V in ISM and amateur radio bands between 0,15 MHz and 80 MHz 10 V/m	
IEC 61000-4-3	80 MHz to 2.7 GHz 385MHz-5785MHz z Test specifications for ENCLOSURE PORT IMMUNITY to RF wireless communication equipment (Refer to table 9 of IEC 60601-1-2:2014)	80 MHz to 2.7 GHz 385MHz-5785MHz Test specifications for ENCLOSURE PORT IMMUNITY to RF wireless communication equipment (Refer to table 9 of IEC 60601-1-2:2014)	

NOTE 1 At 80 MHz and 800 MHz, the higher frequency range applies.

NOTE 2 These guidelines may not apply in all situations. Electromagnetic is affected by absorption and reflection from structures, objects and people.

a. The ISM (industrial, scientific and medical) bands between 150 kHz and 80 MHz are 6,765 MHz to 6,795 MHz; 13,553 MHz to 13,567 MHz; 26,957 MHz to 27,283 MHz; and 40,66 MHz to 40,70 MHz. The amateur radio bands between 0,15 MHz and 80 MHz are 1,8 MHz to 2,0 MHz, 3,5 MHz to 4,0 MHz, 5,3 MHz to 5,4 MHz, 7 MHz to 7,3 MHz, 10,1 MHz to 10,15 MHz, 14 MHz to 14,2 MHz, 18,07 MHz to 18,17 MHz, 21,0 MHz to 21,4 MHz, 24,89 MHz to 24,99 MHz, 28,0 MHz to 29,7 MHz and 50,0 MHz to 54,0 MHz.

b. Field strengths from fixed transmitters, such as base stations for radio (cellular/cordless) telephones and land mobile radios, amateur radio, AM and FM radio broadcast and TV broadcast cannot be predicted theoretically with accuracy.

To assess the electromagnetic environment due to fixed RF transmitters, an electromagnetic site survey should be considered. If the measured field strength in the location in which the Laser Therapy Hair Growth Comb is used exceeds the applicable RF compliance level above, the Laser Therapy Hair Growth Comb should be observed to verify normal operation. If abnormal performance is observed, additional measures may be necessary, such as reorienting or relocating the Laser Therapy Hair Growth Comb.

c. Over the frequency range 150 kHz to 80 MHz, field strengths should be less than 3V/m.

Recommended separation distances between portable and mobile RF communications equipment and the EQUIPMENT or SYSTEM -for EQUIPMENT and SYSTEMS

Recommended separation distances between portable and mobile RF communications equipment and the LIGHT-C1 LED treatment instrument

The Laser Therapy Hair Growth Comb is intended for use in an electromagnetic environment in which radiated RF disturbances are controlled. The customer or the user of the Laser Therapy Hair Growth Comb can help prevent electromagnetic interference by maintaining a minimum distance between portable and mobile RF communications equipment (transmitters) and the Laser Therapy Hair Growth Comb as recommended below, according to the maximum output power of the communications equipment

Rated maximum output of transmitter W	Separation distance according to frequency of transmitter/m			
	150 kHz to 80 MHz outside ISM and amateur radio bands	150 kHz to 80 MHz in ISM and amateur radio bands	80 MHz to 800 MHz	800 MHz to 2.7 GHz
	$d = [\frac{3.5}{V_1}] \sqrt{P}$	$d = [\frac{12}{V_2}] \sqrt{P}$	$d = [\frac{3.5}{E_1}] \sqrt{P}$	$d = [\frac{7}{E_1}] \sqrt{P}$
0.01	0.12	0.20	0.035	0.07
0.1	0.38	0.63	0.11	0.22
1	1.2	2.00	0.35	0.70
10	3.8	6.32	1.10	2.21
100	12	20.00	35	70

For transmitters rated at a maximum output power not listed above the recommended separation distance d in metres (m) can be estimated using the equation applicable to the frequency of the transmitter, where P is the maximum output power rating of the transmitter in watts (W) according to the transmitter manufacturer.

NOTE 1 At 80 MHz and 800 MHz, the separation distance for the higher frequency range applies.

NOTE 2 These guidelines may not apply in all situations. Electromagnetic propagation is affected by absorption and reflection from structures, objects and people.