



LASER HERO



USER MANUAL

INTRODUCTION

Thank you for putting your trust in Laser Hero,
the hair growth system!

This user manual is included with your new device so that you can learn how to use it as quickly and easily as possible. Please read all of the included materials that came with the device before you use it for the first time.

Our goal is to continuously improve the quality and performance of our products to meet the demands of the market and the needs of our customers.

We welcome your comments if any errors are found in this manual.

Thanks again for purchasing your new Laser Hero!

IMPORTANT NOTICE FOR USERS

Please carefully read all sections of this manual before using your new Laser Hero.

If you encounter problems or need help using this device, please contact our customer service team. We will answer all of your questions as soon as possible.

Using the device correctly means extending its lifespan and maximizing its value.

WARNING: If the hair growth system is not used correctly, it could result in damage to the device or a person.

Our company does not assume the related liability if there is device damage or personal injury caused by not following the instructions specified in this user manual. We also assume no liability related to decreased device performance, reliability, and safety caused by incorrect use. We will not offer free repair for device failures caused by incorrect use.

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1 SAFETY REQUIREMENTS AND PRECAUTIONS

1.1 Safety Requirements

- The Laser Hero can only be connected to a power outlet with a protective earthing system to prevent circuit hazards. Don't use the socket if you are unsure about the integrity of the protective earth conductor.
- When in use, the light source on the Laser Hero will emit laser radiation which can irritate the human eye. There should be no light source output when the helmet is not in use. If the light source is not turned off when not in use, do not look directly at it. If this occurs, turn off the power, remove the battery, and contact the manufacturer or supplier.
 - Laser output optical density (by calculation): KN-8000B: $\leq 2.76 \text{ mW/cm}^2$
KN-8000C: $\leq 1.08 \text{ mW/cm}^2$
 - The irradiance or radiation exposure level at which the light source may be incidentally on the surface of the eye protection device: $\leq 0.1 \text{ mW/cm}^2$
- To start the device, set the time.

1.2 Notes

- Do not use in any environment with flammable or explosive materials.
- Do not open the device yourself; otherwise, there may be a risk of electric shock. Repairs or upgrades must be performed by a person who was trained or authorized to do so.
- To prevent electric shock and reduce device failure, do not put the Laser Hero in or near water. Do not get the device wet. If it does get wet, stop use immediately.
- To ensure the safe operation of the device, please use only the products provided by our company or the specified model for various replaceable parts, accessories, and consumables.
- The service life and storage life of this device is five years. After the end of its life, the device and its accessories should be disposed of in accordance with the relevant regulations. If you have any questions, please contact us.
- To ensure the continued use and safety of this device, the instructions provided by our company must be followed.
- Please keep this manual near your Laser Hero so that it can easily be obtained when needed.

1.3 Home Use

- The system should be used under the guidance of a doctor or specialist.
- Contact your doctor immediately if you notice any negative side effects.
- User should read the entire manual before beginning use at home.
- Keep out of the reach of children.

2 SUMMARY

The 655nm red light could change the hemorheological properties of local skin, promote hyperplastic blood vessels, reduce the viscosity of whole blood, and enhance the deformability of red blood cells to adjust the immune status of the body. Improves blood circulation and microcirculation in the bald area and promotes hair growth.

2.1 FUNCTIONAL OVERVIEW

2.1.1 Intended Application

The Hair Growth System is a prescription-use device intended for the promotion of hair growth in females with androgenic alopecia who have Ludwig-Savin Classifications I- II, and in males with androgenic alopecia who have Norwood Hamilton Classifications IIa-V; and both genders having Fitzpatrick Classification of Skin Phototypes I to IV.

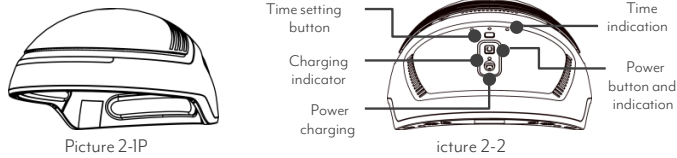
2.1.2 Instrument Characteristics

- LLLT low energy soft laser irradiation technology, physical therapy is safe and reliable.
- The laser source is arranged in a dot matrix arrangement, and the spot 5 distribution is more balanced, which could take into account every hair follicle and promote rapid hair growth.
- deal for home use. Small size, lightweight, and easy to use.
- Using zoned irradiation technology to meet different hair loss level requirements and effectively achieve differentiated treatment.
- Soft silicone locating system to ensure the illumination distance and make it more comfortable to wear.
- User-friendly technology adapts to different head shapes and sizes.
- Intelligent sensing device ensures safety and effectiveness during treatment.
- Increase real-time scalp detection for temperature and humidity to maximize user experience and clinical outcomes.
- Has two working modes: continuous irradiation and pulse irradiation in order to meet different clinical needs.

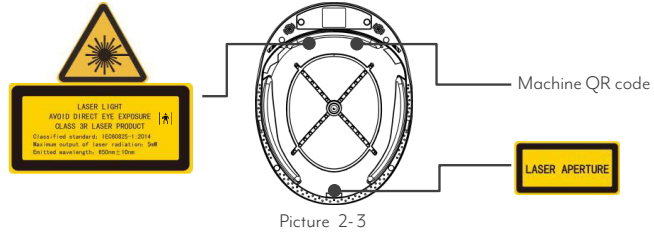
2.2 STRUCTURE AND COMPOSITION

The instrument is mainly composed of a host and a power adapter.

2.3 IDENTIFICATION DESCRIPTION



The labels are pasted as follows:



	Note! Please check the instrument file of this instrument.
	Warning: there is laser radiation output
	Refer to the instructions for use
	Power button
	Time setting
	Class II equipment
	BF type
	Power adapter interface, connected to DC9V
	Scrapped electronics recycling sign
	Production Date

2.4 INSTRUMENT CHARACTERISTIC PARAMETERS

2.4.1 Instrument Type

- Classified by type of electric shock: Class II; Internally Powered ME Equipment.
- Classified according to the grade of protection against electric shock: BF
- Classified by operating mode: short-time loading continuous operation
- Ordinary equipment (closed equipment that does not prevent liquid ingress).
- Equipment that cannot be used in the presence of flammable anesthetic gases mixed with air or flammable anesthetic gases mixed with oxygen or nitrous oxide.

2.4.2 Main Technical Indicators of the Laser Hero

2- 1 Product Model Comparison

Mode	Data	LD		LED		Input power (VA)
		Wave length	quantity (piece)	Wave length	quantity (piece)	
KN- 8000B		655± 5nm	204	--		35
KN- 8000C		655± 5nm	80	655± 20nm	30	35

- Adapter model number: Input: 100-240V a.c. 50/60Hz, 0.8A max.; Output: 9V d.c. 3A
- Main unit input: 9V d.c. 3A / Internal battery: 7.2Vd.c. 2100mAh
- Charging time: 6 hours (electricity reaches 85%)
- Battery power supply time: 1.5 hours (KN-8000B); 2 hours (KN-8000C)
- Working environment:
 - TEM: 5-30°C
 - Relative humidity: ≤85%
 - Atmospheric pressure: 700hPa ~ 1060hPa
- Structure: helmet type
- Display mode: LED display
- Effective irradiation area: 370cm²±10%
- Laser classification: 3R laser products
- The maximum output of laser radiation ≤5mW
- Timing and function:
 - The device has a timer; timing error is no more than ±2% of the set value;
 - The device has the function of manually stopping the radiation output.

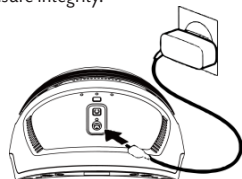
3 INSTALLATION AND CONNECTION

3.1 PRE-INSTALLATION CHECK

Remove the parts of the device from the box and place it in a safe, stable position. Check the accessories according to the packing list to ensure integrity.

3.2 CHARGING METHOD

When the Laser Hero is charging, the power indicator is yellow; when fully charged, the power indicator turns blue. The charging time reaches 85% for about 6 hours.



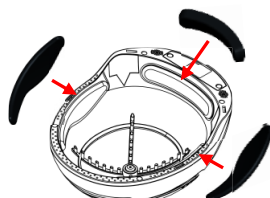
Picture 3-1

NOTICE:

- For first time use or if the device has not been used for a long time, it is recommended to fully charge the battery before use.
- Prevent bumps and drops when the instrument is held or placed
- Use only our company approved power adapters and batteries that meet the safety standards of IEC60601-1. Unauthorized power adapters can cause the device battery to explode or damage the device.
- The device can be used while charging; This may extend the battery's full charge time.
- If the power supply voltage is unstable during charging, and the light source cannot be started normally, the charger can be unplugged from the device.
- The device generates a certain amount of heat when it is charged, which is a normal phenomenon and does not affect the performance and service life of the device. However, if the battery is abnormally overheated, stop charging immediately.
- If the battery does not charge properly, please contact our customer service department.
- Disconnect the device from the charger after fully charging. Unplug the charger from the device and unplug it from the power outlet.
- To save power, unplug the power adapter when not in use. When charging, the charger should be in full contact with the outlet.
- The instrument should be installed and operated to ensure normal working environment, power supply, and electromagnetic compatibility requirements. Refer to the data provided in Appendix F to ensure a normal working environment.

3.3 INSTALLING THE INNER LINER

Paste the inner liner of the appropriate thickness according to the size of the head.



Picture 3-2

4 OPERATION OF INSTRUMENT

4.1 PREPARATION BEFORE TREATMENT

Before treatment, clean the scalp and dry the hair. .

4.2 OPERATION OF LASER HERO

4.2.1 Instrument operation method

- 1) Effective irradiation zone of the light source is shown in the FIGURE 4-1.
- 2) According to the patient's head circumference, a suitable inner liner is pasted on the inner side of the hair loss therapy helmet (adjustable sizing).
- 3) Press and hold the "⏻" button until lighting and the working mode prompt voice will say "Welcome".
- 4) Press the "⏮" button to select the treatment time (25 min, 30 min, 35 min, unit: minutes). If not, the default treatment time is chosen. Press the "⏻" button to flash and the voice prompt "Treatment begins, please wear the helmet" will be sent out. Once the helmet is placed on your head, the laser is turned on and the treatment begins. The prompt voice "The remaining treatment time is 5 minutes" will be sent out when there is 5 minutes treatment time remaining. When the treatment ends, the prompt voice "Treatment has ended,thank you for using" will be sent out.
- 5) It is recommended to irradiate every two days.
- 6) In the course of treatment, if pressing the "⏻" button again, the treatment will be stopped and the "⏻" button will stop flashing.
- 7) In the course of treatment, if the hair loss therapy helmet is removed, the irradiation will be paused and the prompt voice "Treatment stopped,the helmet will be turned off in 3 minutes" will be sent out. If the hair loss therapy helmet is re-worn within 3 minutes, the irradiation will continue.with a prompt voice"Continue for treatment".If the hair loss therapy helmet is not put on within 3 minutes, the instrument will be automatically shut down.
- 8) Press and hold the "⏮" button, voice on or off can be chosen. When the "⏻" button is flickering, the instrument is under the waiting for treatment or working state. At this time,the "⏻" button cannot be operated.
- 9) Press and hold the "⏻" button, indicator lights shut off, and power ends.

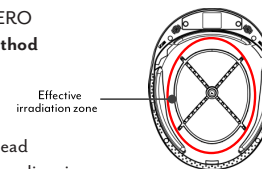


Figure 4-1

5 MAINTENANCE

In order to ensure the normal operation of the Laser Hero and extend the service life of the device, perform the proper maintenance.

Note: *If you do not use the control device or adjustment device, or perform various steps as specified in this procedure, it may cause harmful radiation exposure.*

5.1 PERIODIC INSPECTION

In order to ensure the normal and safe operation of the instrument, a preventive inspection (including performance inspection and safety inspection) and maintenance of the instrument and its accessories should be carried out every six months to confirm that the instrument is working properly.

The inspection items are as follows:

- The environment and power supply meet the requirements.
- The instrument housing is clean and free from contamination.
- The housing, buttons, connectors, and accessories are not mechanically damaged.
- Power cord and connecting wire are wear-free and have good insulation performance
- The inner transparent casing should be free of wear and stains
- Use only specified supplies, attachments.
- Instrument software and indicator function are normal
- If you find any damage or abnormality, please do not use the instrument. In such a case, please contact us immediately.

5.2 MAINTENANCE

1. The instrument case should not be opened without permission so as to avoid undue failure and affect normal use.
2. The accessories attached to the device should be handled gently. Do not drop, touch, pull, do not wipe with corrosive chemicals!
3. It is recommended that the user check the condition of the device and accessories during daily operation to make corresponding treatment. It is also recommended that the user perform a comprehensive technical inspection of the instrument and accessories every six months to check for mechanical damage and cable damage.
4. If the service life of the instrument and accessories expires, follow the relevant disposal regulations for electronic product waste.

5.3 CLEANING

WARNING! // Turn off the power switch and cut off the power adapter before cleaning equipment

- ✓ The instrument should be cleaned regularly, and the frequency of cleaning should be increased in areas with serious environmental pollution or large wind and sand.
- ✓ Clean instrument surface with soft and clean cloth and appropriate amount of water
- ✓ If there is a stain on the surface of the instrument, a proper amount of soap water can be adsorbed and wiped until the surface stain is removed.
- ✓ After wiping, use a soft dry cloth to dry the surface.
- ✓ Place the device in a cool, ventilated environment.

ATTENTION!

- Do not use strong detergents such as acetone.
- Do not use a steel wire brush, metal polishing agent, or abrasive materials.

5.4 DISINFECTION

The inner part of the device that touches the scalp should be wiped with a soft cloth and 75% alcohol before each use.

5.5 STORAGE

If the instrument is not used for a long time, it should be wiped clean and covered with a dust cover. The storage environment should be dry and ventilated.

5.6 TRANSPORTATION AND STORAGE

Transport: The instrument should be protected from rain and snow, and transported by any means of transport without mixing with corrosive substances or gases.

Storage: The packaged product should be stored in a place that is dry, ventilated, non-corrosive, and free of strong magnetic fields. The storage life of the instrument is five years.

Transport and storage environmental conditions:

Ambient temperature: -40 to 55 °C

Atmospheric pressure: 500-1060 hPa

Relative humidity: ≤95%

5.7 REPLACEMENT BATTERY

The replacement method is as follows:

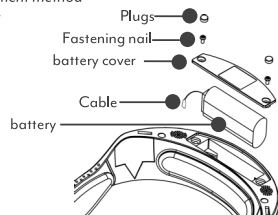


Figure 5-1

WARNING!//

Turn off the power switch before cleaning equipment and cut off the power adapter.

The replacement method is as follows:

- Remove the plug, unscrew the fastening screw, open the battery cover.
- Remove the battery and disconnect the battery from the instrument.
- Connect the new battery to the instrument and fit it into the battery compartment; cover the battery.

NOTICE:

- Dispose of batteries after replacement. Please dispose of in accordance with the relevant provisions of electronic products waste. To avoid environmental pollution, do not discard them freely.
- Do not immerse the battery in water. When it is not in use, it should be placed in a cool and dry environment.
- Do not use or place the battery next to high-temperature sources (such as fire, heater, etc.)
- Please use the special charger provided by our company when charging.
- Do not use the battery after turning the positive and negative poles upside down.
- Do not throw the battery into a fire or heater.
- Do not transport or store batteries with metals such as hairpins, necklaces, etc.
- Do not knock, throw, or step on the battery, etc.
- Do not weld batteries.
- Do not pierce the battery with nails or other sharp objects.
- The battery should be protected from exposure or direct sunlight, avoid extreme radiation, infrared, and ultraviolet radiation, and avoid contact with organic solvents such as mist, dust, and corrosive gases.
- The instrument is equipped with a rechargeable battery, which should avoid permanent damage to the battery caused by excessive battery discharge. Charge battery as soon as possible after it is completely drained.
- If the battery is not used for a long time, it is recommended to take the battery out of the device after it is fully charged and place it in the bag. The removed battery should be placed out of reach of children. The battery is provided with a one-year warranty from the date of shipment from the factory.
- The life-time of the battery depends on the frequency and time of use. If the battery is properly maintained and stored, the battery life is approximately three years. If the battery is used improperly, its life may be shorter. It is recommended to replace the battery every three years.

6 ANALYSIS AND TROUBLESHOOTING OF COMMON FAULTS

The analysis and troubleshooting methods for common faults of the instrument are shown in Table 6-1. If you are unable to judge or solve the instrument failure, please call our company's after-sales service center.

Sheet 6-1 Analysis and Troubleshooting

No.	Fault phenomenon	Possible reason	Method of exclusion
1	Turn on the switch, the indicator light is off	Low battery	Recharge
		Control circuit failure	Notify the manufacturer or local agent
2	Light source is not bright	Instrument leave the head	Re-wearing
		Control circuit damage	Notify the manufacturer or local agent
		Low battery	Recharge
3	The light source turned on before the power turned on.	Control circuit damage	Notify the manufacturer or local agent
4	Time setting cannot be controlled normally	Control circuit damage	Notify the manufacturer or local agent

PACKING LIST

No.	Item	Quantity	Unit
1	Mainframe (contains battery)	1	set
2	Adapter	1	pc
3	Dust bag	1	pc
4	Thick inner packing	3	P c s
5	thin inner packing	3	Pcs
6	Manual	1	pc

Hair loss and regrowth timelines:



*Results are subjective and continuation of use is recommended to maintain and enhance results.

	LASER HERO – PREMIUM	LASER HERO - STANDARD
Wave length	Laser LD 655nm	Laser LD 655nm LED Red light 655nm
Light source	204 medical grade lasers 0 Red Luminous LEDs	80 Medical-Grade Lasers and 30 Red Luminous LEDs
Rated Power	35VA	35VA
Power/single LD	5mW	5mW
Total mW output	1020mW (=5mWx204 lasers)	550mW (=5mW x 80 lasers) + 150 mW Red light (5mW x 30)
Irradiation area	370cm	370cm
Density of light	2.76mW/cm2	Laser 1.08mW/cm2 Red light .0405mW/cm2
Laser technology	LLLT low-energy soft laser irradiation technology	LLLT low-energy soft laser irradiation technology.
Laser arrangement	Dot matrix arrangement of laser light source	
Size – one size fits all	Adjustable	Adjustable
Outer dimensions (helmet)	10.5”x8”x5”	10.5”x8”x5”
Weight (helmet)	1.5lb	1.5lb
Power duration	1.5 hours	1.5 hours
Charging time	6 hours	6 hours
Hands-free operation	Audio commands – intelligent sensors	Audio commands – intelligent sensors
Treatment time	20min continuous	20min continuous
Timer	25, 30, 35min	25, 30, 35min



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