Laser Cap 272

Precision Zonal Laser

USER MANUAL



2.4.01.01.167901R

Welcome

Thank you for choosing our Laser Hair Growth System.
For best results,
please read this User Manual carefully before using the device and keep it for future reference.
If you experience any issues while using the device, please contact us.

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Safety Precautions

Please read these safety precautions first and follow the instructions in this User Manual before operating the device. This section is intended to ensure safe and proper operation of the product and to help prevent personal injury or property damage.

1.1 Warnings and Precautions

◆ Do not stare directly at the laser light or its reflection in a mirror, as it may temporarily irritate your eyes. Prolonged exposure may cause eye damage. Never use optical instruments such as magnifiers or microscopes while using the device, as this may increase the risk of eye irritation.

◆ Avoid direct eye exposure to laser light.

◆ Keep the device out of reach of children.

◆ Discontinue use of the device if scalp itching or tingling occurs and lasts for more than one hour after completion of a treatment session. If the problem continues for more than one hour after treatment, discontinue use and consult with a physician.

◆ Do not get the device or adapter wet, as this may result in electric shock.

◆ Do not drop the device into water, as this may result in electric shock. If the device is damaged by water, please contact Customer Service promptly.

◆ Never use the device while sitting in a bathtub or swimming pool. Doing so may result in electric shock, injury, or even death.

◆ Do not use the device when your hair is wet after showering, swimming, or bathing. Dry your hair thoroughly with a towel before use. Wet hair may result in electric shock or prevent the laser light from reaching the scalp.

◆ Do not use the device near heated surfaces, as this may affect proper operation and may cause electric shock. If the device does not work properly, please contact Customer Service.

◆ Do not operate the device if the cable, controller, or helmet is damaged. If you notice any damage, please contact Customer Service.

◆ Always unplug the device before cleaning. Failure to do so may result in electric shock or injury.

◆ Do not modify this equipment without authorization from the manufacturer.

◆ This device is intended for single-user use only. Do not share with others.

◆ During continuous operation, the temperature of the applied part (laser device) may rise, but it will not exceed 46 °C (114.8 °F). If you feel excessive heat or discomfort, please turn it off and allow it to cool down before continuing use.

1.2 Contraindications

The Laser Hair Growth System is contraindicated in the following situations:

◆ Do NOT use if you have any medical condition or are taking medications that cause skin sensitivity to sunlight or light.

◆ Do NOT use if you are allergic or sensitive to the 645–660 nm wavelength. Sensitive skin or allergic reactions may cause scalp itching or sunburn-like redness. Seek medical care if this occurs.

◆ Do NOT use the device if you suffer from severe diseases such as cancer, hematological (blood) diseases, severe diabetes, or heart disease.

◆ Do NOT use if you have any scalp injury.

◆ Do NOT use if you are pregnant, menstruating, or breastfeeding (lactating).

◆ Do NOT use on individuals under 18 years of age.

◆ Do NOT use within 1 month after a perm.

1.3 EMC Statements

◆ This device complies with applicable electromagnetic compatibility (EMC) standards.

◆ The device should be installed and used in accordance with the EMC information provided in this manual.

◆ Avoid using the device in close proximity to strong electromagnetic sources, such as mobile phones, routers, or microwave ovens, as these may affect performance.

◆ Detailed EMC information is provided in Appendix II of this manual.

Indications For Use

The Laser Hair Growth System is indicated to promote hair growth in males with androgenetic alopecia classified as Norwood-Hamilton IIa–V, and in females with androgenetic alopecia classified as Ludwig-Savin I–II, with Fitzpatrick Skin Phototypes I–IV.

Product Introduction

The Laser Hair Growth System is a dome-shaped Low-Level Laser Therapy (LLLT) device designed to promote hair growth in both men and women by delivering photobiostimulation evenly across the entire scalp.

3.1 Product Components



Outer cap

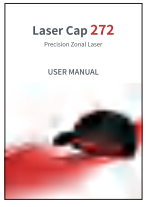


Inner laser cap

(Images are for reference only)



Box



user manual



Controller



or

Adapter+Cable

1)Outer Cap: Enhance aesthetics and fix the inner laser cap.
2)Inner laser cap: with 272 pcs lasers to make treatment.
3)Controller: control the cap.
4)Power Adapter: for charging.
5)Charging cable: To connect the power adapter and controller.

CW Mode: Steady energy output
PW Mode: Pulsed energy output
Battery : Current power level

Time display: Show the treatment time.
On/Off button: turn on/off the device.
M Timer&Mode: 15 Min continuous mode(CW)/30 Min pulse mode (PW).
T Treatment Area: F(Forehead); C(Crown); L(Lower Back); H(Full Scalp).



3.2 Package Contents

When opening the Laser Hair Growth System box, you will find the following components:

- ◆ Inner laser Cap *1
- ◆ Outer Cloth Cap * 1
- ◆ Controller *1
- ◆ Power Adapter *1
- ◆ User Manual *1

How It Works

4.1 How the Laser Hair Growth System Works



The Laser Hair Growth System delivers low-level laser energy to stimulate hair follicles and support natural hair growth.
For optimal results, the laser should have direct contact with the scalp and should not be blocked by hair.

4.2 What To Expect

The Laser Hair Growth System should be used 3 times per week, 15 minutes or 30 minutes per session, on non-consecutive days (e.g., Monday, Wednesday, Friday).

Use for 17 weeks for initial results. After that, use as needed for maintenance, not exceeding 30 minutes per day.

Select one mode per session.

How To Use

Before Use:

◆ The Laser Hair Growth System has been tested to meet international safety standards and is safe for normal use. However, do not look directly into the laser beam.

5.1 Preparing for Use

Before using the device, identify your hair loss classification and Fitzpatrick skin type.

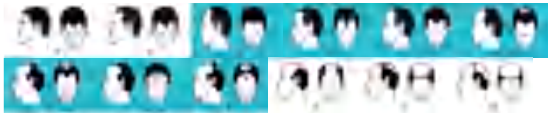
1) Hair Loss Classification

The Laser Hair Growth System is suitable for men and women with thinning hair or pattern hair loss caused by hereditary factors, including color-treated hair. Hair loss is classified using the Norwood-Hamilton Scale for men and the Ludwig-Savin Scale for women.

Applicable Range

• Men: Norwood-Hamilton IIa–V • Women: Ludwig-Savin I–II

The shaded areas in the chart indicate the treatment range.

Applicable: IIa~ V Hamilton Scale for MEN	
Applicable: I~II Ludwig Scale for WOMEN	

2) Fitzpatrick Skin Types

Use the Fitzpatrick Scale to determine your skin type.The Laser Hair Growth System is intended for users with Fitzpatrick Skin Types I–IV.



3) Treatment Eligibility

The device is designed for:

◆ Males with Norwood-Hamilton classifications IIa–V

◆ Females with Ludwig-Savin classifications I–II

5.2 Directions

1) Unpack: Remove all components from the packaging.

2) Preparation: Ensure the cap is clean, dry, and undamaged. Use a soft, slightly damp cloth to wipe the inner cap. The outer fabric cover is washable.

3) Mode/Time Selection: Press the power button until the display lights up.

Press "M" to select the treatment area (F/C/L/H).

Press "T" to select your session (15 m CW / 30 m PW).

PS: Using it 3 times per week, 15 minutes or 30 minutes per session, on non-consecutive days (e.g., Monday, Wednesday, Friday).

4) **Placement:** Place the cap comfortably on your head.
5) **In-Use:** The screen will countdown. A "Beep" sounds and lights turn off automatically when the session ends.
6) **Power Off:** Press the power button until the device turns off, then remove the cap.
7) **Cleaning:** Wipe with a medical alcohol pad or a slightly damp cloth after each use.
8) **Charging:** The Controller equipped with rechargeable battery, please charge it when power off.
9) **How to charge?**



Connect the cable to the Charging Port. Connect the other end to the power adapter. The battery icon will show the charging status.



Important Information:

◆ Do not look directly at the laser beam, as this may cause eye injury.

◆ It is normal to experience a mild warming sensation on the scalp during use.

◆ Warning: Do not modify this device without authorization from the manufacturer.

Product Maintenance

6.1 Maintenance

Power Off

◆ Press the power button until the controller turns off.

◆ Disconnect all power cables from the controller and adapter.

Cleaning

◆ Wipe with a soft cloth and 75% alcohol.Ensure contact time is at least 1 minute.

◆ Do not use acetone or solvents.

◆ After cleaning, visually check that no dirt remains on the surface.

Storage

◆ Keep device dry. Do not immerse in water.

◆ Clean before storage.

◆ Store in original box or protective case after each use.

6.2 Troubleshooting

If you experience any issues with the Laser Hair Growth System, please check the following:

Problem	Solution
Device will not turn on	◆ Ensure the cap, cable, and power adapter are properly connected.
Device turns off during use	◆ Ensure all connections between cap, cable, and power adapter are secure.
Cap does not light up	◆ Please contact Customer Service to determine if a replacement is required
Controller does not light up	◆ Please contact Customer Service to determine if a replacement is require

Still having issues?

Please contact Customer Service for further assistance.

Additional Information

7.1 Technical Specifications

Product Name	Laser Hair Growth System
Model	Laser cap 272
Wavelength	650nm
Number of Laser Diodes (5 mW)	272 * 5mW
Treatment time	15/30 minutes
Type of Light	Low Level Laser Therapy (LLLT)
Laser Power for Classification	<5 mW, Laser Class 3R
Power Adapter	Model:LXCP12X-050200DH (AC100-240 V), 50/60 Hz, 0.5 A Max DC5 V, 2 A
Input	100-240 V
Laser Power for Classification	<5 mW, Laser Class 3R
Battery Capacity	7.4 V, 5200 mAh
Operating Environment Temperature	50 °F~86 °F(10 °C~30 °C)
Operating Environment Humidity	15 %~90 %
Operating Environment Pressure	70 kPa~106 kPa
Storage & Transportation Temperature	14 °F~140 °F(-10 °C~60 °C)
Storage & Transportation Humidity	15 %~93 %
Electrical Safety Classification	Class II, Type BF, IP22
Life Time	5Years

7.2 Disposal Instructions



Do not dispose of this device with household waste at the end of its service life.Please take it to an official collection or recycling center. Contact your local authorities for disposal instructions.Proper disposal helps protect the environment.

7.3 Warranty

1-year warranty from date of purchase.Excludes misuse or physical damage.

Symbols and Explanations

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)
	3R Laser Safety Symbol	MD	Medical device
UDI	Unique device identifier		

Annex II: Manufacturer's EMC Statement

Guidance and manufacturer' s declaration – electromagnetic emissions		
It is intended for use in the electromagnetic environmentspecified below. The customer orthe user of the device should ensure that it is used in such an environment.		
Emissions	**Compliance**	**Electromagnetic environment-- guidance**
RFemissions ClSPR 11	Group 1	Laser cap 272 uses RF energy only for its internal function. Therefore, its RF emissions are very low and are not likely to cause any interference in nearby electronic equipment.
RFemissions ClSPR 11	Class B	Laser cap 272 is suitable for use in all establishments, including domestic establishments and those directly connected to the public low-voltage power supply network that supplies buildings used for domestic purposes.
Harmonic emissions lEC61000-3-2	Class A	
Voltage fluctuations/ flicker emissions IEC 61000-3-3	Complies	

Guidance and manufacturer' s declaration – electromagnetic immunity			
Laser cap 272 is intended for use in the electromagnetic environment specified below. The customer or the user of Laser cap 272 should assure that it is used in such an environment.			
Immunity test	**IEC 60601 test level**	**Compliance level**	**Electromagnetic environment -guidance**
Electrostatic discharge (ESD) IEC 61000-4-2	±8 kV contact ±15 kV air	±8 kV contact ±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 %.
Electrical fast 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 typical commercial or hospital environment.
Surge IEC 61000-4-5	±1 kV Differential mode ±2 kV common mode	±1 kV Differential mode ±2 kV common mode	Mains power quality should be that of a typical commercial or hospital 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 typical commercial or hospital environment. If the user of Laser cap 272 requires continued operation during power mains interruptions, it is recommended that Laser cap 272 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 typical commercial or hospital environment.
NOTE U_T is the a.c. mains voltage prior to application of the test level			

Guidance and manufacturer' s declaration – electromagnetic immunity			
Laser cap 272 is intended for use in the electromagnetic environment specified below. The customer or the user of the Laser cap 272 should assure that it is used in such an environment.			
Immunity test	**IEC 60601 test level**	**Compliance level**	**Electromagnetic environment – guidance**
Conducted RF IEC 61000-4-6	3 Vrms 150 kHz to 80 MHz 6 Vrms in ISM and amateur radio bands between 0.15 MHz and 80 MHz	3 V 6 V	Portable and mobile RF communications equipment should be used no closer to any part of Laser cap 272 including cables, than the recommended separation distancecalculated from the equation applicable to the frequency of the transmitter. **Recommended separation distance** $d=[3,5/V_1]\times P^{1/2}$ $d=1.2\times P^{1/2}$ 80 MHz to 800 MHz $d=2.3\times P^{1/2}$ 800 MHz to 2.7 GHz
Radiated RF IEC 61000-4-3	10 V/m 80 MHz to 2.7 GHz	10 V/m	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 meters (m). 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:
NOTE 1 At 80 MHz and 800 MHz, 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.			
a. 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 Laser cap 272 is used exceeds the applicable RF compliance level above, the Laser cap 272 should be observed to verify normal operation. If abnormal performance is observed, additional measures may be necessary, such as re-orienting or relocating the Laser cap 272. b. Over the frequency range 150 kHz to 80 MHz, field strengths should be less than 3 V/m.			

Recommended separation distances between portable and mobile RF communications equipment and the MODEL and MODEL Laser cap 272			
Laser cap 272 is intended for use in an electromagnetic environment in which radiated RF disturbances are controlled. The customer or the user of the Laser cap 272 can help prevent electromagnetic interference by maintaining a minimum distance between portable and mobile RF communications equipment (transmitters) and the Laser cap 272 as recommended below, according to the maximum output power of the communications equipment.			
Rated maximum output power of transmitter W	**Separation distance according to frequency of transmitter m**		
	150 kHz to 80 MHz $d=1.2\times P^{1/2}$	**80 MHz to 800 MHz** $d=1.2\times P^{1/2}$	**800 MHz to 2.5 GHz** $d=2.3\times P^{1/2}$
0.01	0.12	0.12	0.23
0.1	0.38	0.38	0.73
1	1.2	1.2	2.3
10	3.8	3.8	7.3
100	12	12	23
For transmitters rated at a maximum output power not listed above, the recommended separation distance d in meters (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.			

