



EXO-GROW™

**L.E.D. & LASER CAP**

User Manual



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## 1. General Device Information

### 1.1 Description of the Device

The Hair Regrowth Cap is a non-invasive, hands-free device designed to treat androgenetic alopecia in both men and women. It utilizes both LED and laser technology through Modulated Light Therapy to promote hair regrowth with a recommended 10-minute daily treatment. The HRC system includes a wearable soft textile cap with integrated driver electronics, a rechargeable battery, and a flexible printed circuit board incorporating both LED and laser components. Designed as an over-the-counter (OTC) home-use device, the HRC controller is located on the cap.

### 1.2 Indication for Use

The Hair Regrowth Cap is intended for Red LED & Laser light therapy. It is clinically designed to stimulate hair growth, and promote thicker, healthier hair. With easy and convenient home use, this cutting-edge cap provides benefits to the scalp, enhancing blood circulation and revitalizing hair follicles.

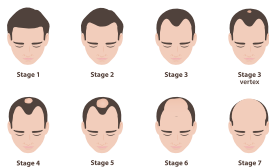
#### In medical terms:

The Hair Regrowth Cap is indicated to treat Androgenetic Alopecia and to Promote Hair Growth in males who have Norwood-Hamilton Classifications of IIa - V patterns of hair loss and to treat Androgenetic Alopecia and Promote Hair Growth in females who have Ludwig-Savin Scale I-1 to I-4, II-1, II-2 or frontal patterns of hair loss; both with Fitzpatrick Skin Types I - IV.

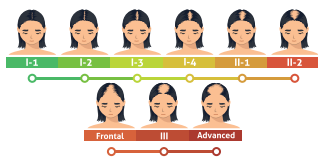
### Fitzpatrick Scale

					
<b>I</b>	<b>II</b>	<b>III</b>	<b>IV</b>	<b>V</b>	<b>VI</b>
<b>Very Fair</b>	<b>Fair</b>	<b>Medium</b>	<b>Olive</b>	<b>Brown</b>	<b>Dark Brown</b>
Always burns Cannot tan	Usually burns Sometimes tan	Sometimes burns Usually tan	Rarely burns Always tan	Rarely burns Tans easily	Never burns Always tans


### Norwood-Hamilton Scale of Androgenetic Alopecia



### Ludwig Scale Androgenic Alopecia (From stages I to III)



### 1.3 Device Specifications

LED wavelengths	620, 650 and 660nm $\pm$ 10 nm (Red)
LED Optical power density	Max 5 mW/cm <sup>2</sup>
LEDs (Emission Aperture)	202 Red LEDs at the inner part of the cap.
Laser wavelengths	650 $\pm$ 10 nm (Red)
Laser Optical power density	Max 5 mW/cm <sup>2</sup>
Laser (Emission Aperture)	72 Lasers at the inner part of the cap.
Max. Optical Radiation	3900 mW/(sr.m <sup>2</sup> .nm)
Laser Classification	Class II
Operating temperature	10°C to 40°C   50°F to 104°F
Storing and transport temperature	-5°C to 55°C   23°F to 131°F
Operating humidity	30% to 95% without condensation
Storage and Transport Humidity	20% to 95% without condensation
Charging supply	5V  1A
Charging port	USB-C
Charging cable	USB-C to USB-A
Charging cable length	1 meter / 3.28 feet
Charging adapter power output	1A
Battery	3.7V, 1800 mAh
Battery type	Lithium-ion
Charging time	240 minutes / 4 hours
Recommended use	Once in 24 hours
Treatment time	10 minutes
Dimensions of the device	29.5cm x 22cm x 15cm
Weight of the device	400g

## 1.4 Device Accessories

- Hair Regrowth Cap
- Charging cable
- Manual

## Adverse Reaction

If you have any adverse reaction, such as discomfort, skin discoloration, skin irritation or other concerns, from using this Device, stop using it immediately and consult your Healthcare Provider.

Skin irritation, bruising, contact burns, dizziness, nausea, and headaches are rare but possible side effects. Immediately stop using the device and contact your Healthcare Provider.

If you experience a persistent headache and/or other persistent painful sensation during use of this device, stop using the device and consult with your Healthcare Provider.

## 1.5 Contraindications

- **DO NOT** use the device if you have any active cancer or cancerous lesion.
- **DO NOT** use the device if you are pregnant, planning on becoming pregnant, or breastfeeding.
- **DO NOT** use the device on people under the age of 18.
- **DO NOT** use the device over areas with phlebitis, thrombophlebitis, and varicose veins.
- **DO NOT** use the device if you have a known allergic reaction to Plastics or Neoprene. The device contains Plastics, Fabric and Metals that come into contact with the skin during use. When in doubt about allergies first contact your Healthcare Provider before using the device.
- **DO NOT** use the device if you have a photosensitivity disorder (sensitization to light).
- **DO NOT** use the device if you are taking any medication or drugs that can cause photosensitivity. If you are not sure about your medication contact your Healthcare Provider.
- **DO NOT** use the device if you experience recurrent or severe headaches.
- **DO NOT** use the device if you have a medical history of seizures or epilepsy that was triggered by light.

**Note:** We highly suggest taking caution when taking any (skin related) damaging medications. If in doubt, consult your Healthcare Provider.

**Note:** If you are under the care of a Healthcare Provider, consult your Healthcare Provider before using this device.

## 1.6 Warnings

- **STOP** using the device and consult your Healthcare Provider if you experience an adverse reaction from using the device.
- **STOP** using the device if you experience symptoms of hypotension (dizziness or light-headedness) while using the device.
- **STOP** using the device if it is overheating. Turn off the device immediately.
- **STOP** your treatment if it feels hot or your skin feels uncomfortably warm.
- **DO NOT** machine wash the device.
- **DO NOT** let children play with the device. Cleaning and charging the device shall not be done by children.
- **DO NOT** use the device to treat rosacea, moles, warts, open sores, cancerous lesions, or any skin condition.
- **DO NOT** shine the light from the LEDs directly into your eyes or someone else's eyes. This may cause temporary loss of sight.
- **DO NOT** stare directly at the EXO-GROW Cap as it contains Class II lasers that may cause harm to the retina and eye irritation if the lasers are pointed directly at the eyes.
- **DO NOT** place the device over any open wounds.
- **DO NOT** sit, lie down or step on the device. This will break the device.
- **DO NOT** drop or insert any object into any openings of the device.
- **DO NOT** use the device if it is not working properly, or if it has been dropped or damaged. For warranty and repairs contact customer support.
- **DO NOT** use or store the device near hot surfaces.
- **DO NOT** charge the device when it is close to or might get in contact with water.
- **DO NOT** submerge the device in water.
- **DO NOT** store the device in extreme heat or cold.
- **DO NOT** place the device in direct sunlight.
- **DO NOT** attempt to modify the device in any way. Modifying or opening the device will void your warranty. THE DEVICE CONTAINS NO SERVICEABLE PARTS. THIS DEVICE CONTAINS BATTERIES THAT ARE NON-REPLACEABLE.
- **DO NOT** perform maintenance or take apart the product. In case of malfunction or damage, contact customer support.
- **DO NOT** use the device if damaged or when the charging cable is damaged.

- **DO NOT** use the device with non-manufacturer-approved accessories.
- **DO NOT** use solvents or abrasive cleaners on the device.
- **DO NOT** use the device in any other way than specified in this manual.
- **DO NOT** use the device if you have had a recent surgery or other surgical procedures.
- **DO NOT** use the device over a bacterial infection as this may result in the worsening of symptoms.
- **DO NOT** use the device on painful areas. Consult your Healthcare Provider when you experience painful area's during use.
- **DO NOT** use the device on, near, or by children or those with reduced physical and mental abilities. Close supervision is necessary when this device is used, cleaned, or stored near children or those with reduced physical or mental abilities.
- **DO NOT** use the device with any other USB-C cable than provided by Dermapenworld
- **DO NOT** use the device with any other topical other than specified by Dermapenworld

**Note:** The device should only be supplied with 5V DC low voltage. If any part of the main adapter or cable is damaged, discontinue use. Contact Exo-Grow Hair Regrowth Cap customer support to arrange a cable replacement. ([www.DermapenWorld.com](http://www.DermapenWorld.com))

## 1.7 Precautions

- It will void your warranty if you do not operate the device in accordance with the instruction in the manual.
- Read all instructions carefully before using this device.
- Store the device according to the protocol worked out in this manual.
- This device is intended to be used by one person; we recommend not sharing it with anyone else for reasons of hygiene.
- The device is designed for cosmetic use only, for individuals with good health. Please contact your Healthcare Provider if you are unsure about your health status.
- The battery of the device is not removable by the user. If the device is to be disposed of, do not put it into a fire. Dispose of the device per local regulations.
- Inspect the device and do not use the device if you see any signs of damage such as internal battery leaks. Contact our customer support.
- The device should only be supplied with 5V DC low voltage. If any part of the main adapter or cord is damaged, discontinue use. Contact customer support to arrange a replacement.

- Consult your Healthcare Provider before using the device if you have a fever, acute inflammation, a severe circulatory disorder, light sensitivity, anesthetic, or desensitized areas.

## 1.8 Travel and International Use

The device's lightweight design makes it a perfect travel companion. Here are some travel tips for you:

- If you are travelling to a different region of where you bought the Device, please assure that the device is only supplied with a 5V DC Low Voltage.
- Confirm with the steward that the Device can be carried and/or used on the airplane prior to flight.

## 1.9 Disclaimer

This Device is not intended to diagnose, cure or prevent any disease. Dermapenworld makes no claims, representations, or warranties regarding the ability of this Device to cure any physical, skin, or mental condition. A qualified Healthcare Provider should be consulted regarding any condition requiring medical attention.

# 2. Risks and Benefits

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## 2.1 Potential Risks

- Immediately after treatment skin may appear red. Skin should return to normal within 1-2 hours.
- Temporary headaches immediately following the light treatment. Headaches can be treated with an appropriate pain killer and rehydration.

## 2.2 Potential Benefits

- Hair growth stimulation by increasing local blood flow
- Strengthening of hair follicles
- Unlike hair transplantation or other surgical procedures, light therapy is non-invasive.

# 3. Light Sensitivity Test

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We highly recommend users perform a light sensitivity test before their first use of the device.

1. Place the device on the inner forearm
2. Turn on the device to start the therapy.

3. Keep the device in forearm for 5 Minutes. After 5 minutes visually check the area.
4. Remove the device and wait for at least 24 hours.
5. If your skin feels hot or uncomfortable during the treatment directly stop! You might be sensitive to light.
6. Monitor your skin throughout the 24-hour period. If you notice any redness or itching, the device may not be suitable for you. If you experience light sensitivity, please contact our customer support team for assistance.

## 4. How to use the Device

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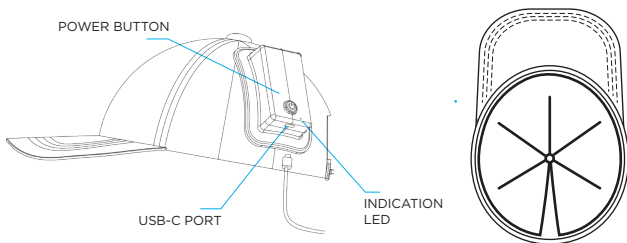
### 4.1 General Use

1. Prior to using the device, make sure it is fully charged.
2. Remove any gels or creams from your hair and scalp, make sure your hair and scalp is completely dry.
3. Make sure the device is unplugged before using.
4. To turn on the device, Press and hold the power button until you feel a vibration. Bluetooth will turn ON simultaneously. You may stop the therapy at any time by pressing the Power button for 2 sec.
5. Press & release the power button to activate the Red LED lights before wearing the cap. Wear the cap and you will feel the vibration indicating Red LASER lights are turned ON automatically. (Red LASER will turn off automatically when not worn on head and turn back ON when worn on head).
6. Cap will provide therapy for 10 minutes and will automatically turn OFF post session. \*Timer will start when device is worn and it will pause when device is not worn.  
Note: If device/therapy is ON and not worn till 5 minutes, then device will turn OFF to save battery.
7. Clean the device using a water-based wipe or a damp clean cloth. Ensure the Device is NOT connected to the power supply when cleaning.
8. Repeat these steps based upon the therapy protocol described in the next part.

**\*Note:** When the battery is Low, the therapy will turn OFF followed with vibration for indication, and LED indicator will blink white.



For Mobile App related queries, please scan the QR code.



## 4.2 Protocol

Use the device once every day for a minimum of 2 to 3 months. For daily maintenance, use the serum 3 to 4 times a week following the treatment, which should be repeated every 3 months. Based upon your lifestyle. It is not recommended to use the device more than once a day.

## 4.3 Charging

Charge your device fully for 4 hours before your first use. Only use a 5V adapter or computer USB port (avoid fast chargers as they can damage the battery).

To charge the device insert the USB-C cable into the device. Insert the USB-A side of the cable into a USB power supply. The LED indicator on the device will start to blink White LED to indicate charging. Indication LED will turn Blue when device is fully charged.

Before charging, make sure that the plug and socket are completely dry. Failure to do so may result in electric shock, short circuit, or fire.

**Note:** Always unplug the device before use, the device will not work while being charged. \*

## 4.4 Care and Storage

- The lifetime of the Lithium battery can be maximized by allowing it to fully charge and then fully discharge during regular use.
- Store the device at room temperature in dry conditions.
- Avoid storing the device in dusty conditions, in direct sunlight or in damp and humid conditions.
- This device contains no serviceable parts.
- Before each use, with the device switched off, clean the Device following the cleaning instructions below.

### IMPORTANT

- The product has a limited lifecycle of two years under nominal use. Following the treatment protocol for two years is considered as nominal use.
- The device must be handled with care

#### 4.5 Cleaning

- Clean the Device with a water-based wipe or damp clean cloth. Stubborn stains can be removed by wiping gently with 70% alcohol.
- **DO NOT** use any other cleansing Devices as these may damage the Device.
- **DO NOT** clean the device while it is turned on.
- **DO NOT** clean the device while charging.

#### 4.6 Troubleshooting

If the actions suggested fail to fix the problem, or the problem reoccurs, and your device is within the warranty period please return to Dermapenworld or one of their distribution partners.

- **DO NOT** attempt to investigate any further.
- **DO NOT** attempt to modify the device in any way. The device has NO parts you can repair yourself.

Problem	Cause	Solution
The device doesn't switch on.	The device is not fully charged, because the charging cable was not properly inserted into the power outlet.	Insert the charging cable properly into the power outlet.
	The device is not fully charged, because the charging cable was not properly inserted into the device.	Insert the charging cable properly into the device and charge the device.
	The power outlet didn't work during charging.	Try a different power outlet.
	The on/off button has not been pushed one full second.	Push the on/off button for 1 second straight.
The device switches off unexpectedly.	The battery level is too low.	Charge the device.

## 4.7 Disposal

DO NOT dispose of the device with household waste. The Device should be recycled. The Device contains a Lithium-ion battery. For protection of the environment, please safely dispose of the device following your local guidelines.

## 5. Warranty

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The device is warranted to be free from defects in materials and workmanship for 24 months from its original purchase date under normal use. This warranty extends only to the original retail purchaser with original proof of purchase and only when purchased from an authorized retailer or reseller.

This warranty only extends if the device is used in conjunction with authorized device accessories. If the device should become defective within the warranty period, contact the retailer from whom you purchased the device. This warranty does not cover devices damaged by:

- Accident, misuse, abuse, or alteration.
- Use with unauthorized accessories or use other than as instructed.
- Connecting to incorrect current and voltage.

DermapenWorld will not be responsible for any incidental, special or consequential damages resulting from the use of this device. All implied warranties, including but not limited to implied warranties of fitness and merchantability are limited in duration to one year from the date of original purchase.

This warranty gives you specific legal rights, and you may also have other rights that vary from country to country. Some countries do not allow the exclusion or limitation of incidental or consequential damages, or limitations on how long an implied warranty lasts, so some of the above limitations and exclusions may not apply to you.

This warranty is given in lieu of all other warranties, written or oral, whether expressed by affirmation, promise, description, drawing, model, or sample. Any and all warranties other than this one, whether expressed or implied, including implied warranties of merchantability and fitness for a particular customer purpose, are hereby disclaimed.

If the device is defective within the warranty period, please contact the Customer Service Team.















## 6. Safety











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The Device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

- IEC/EN 60601-1 Medical electrical equipment. General requirements for basic safety and essential performance.
- IEC/EN 60601-1-2 Medical electrical equipment. General requirements for basic safety and essential performance. Collateral standard. Electromagnetic compatibility. Requirements and tests.
- IEC 60601-1-6 Medical electrical equipment - Part 1-6: General requirements for basic safety and essential performance - Collateral standard: Usability.
- IEC/EN 60601-1-11 Medical electrical equipment -- Part 1-11: General requirements for basic safety and essential performance -- Collateral standard: Requirements for medical electrical equipment and medical electrical systems used in the home healthcare environment.
- IEC/EN 60601-2-57 Medical electrical equipment. Particular requirements for the basic safety and essential performance of non-laser light source equipment intended for therapeutic, diagnostic, monitoring and cosmetic/aesthetic use.
- ISO 10993-5 Part 5: Tests for in vitro cytotoxicity.
- ISO 10993-10 Part 10: Tests for skin sensitization.
- ISO 10993-23: Test for irritation.
- ISO 15223-1 Medical Devices – Symbols to be used with medical device labels, labelling and information to be supplied – Part 1: General requirements.
- ISO 14971 Medical devices - Application of risk management to medical devices.
- IEC 62471: Photobiological safety of lamps and lamp systems.
- IEC 60825-1: Safety of laser products.

## 7. Symbols

	<p>Indicates the Device is CE Marked and authorized to sell in Europe. (Lower-Voltage-Directive)</p>
	<p>The Waste of Electrical and Electronic Equipment (WEEE), Indicates the Device may not be discarded as household waste (2012/19/EU).</p>
	<p>Indicates that the electromagnetic radiation from the device is below the limits specified by the Federal Communications Commission and the manufacturer has followed the requirements of the Supplier's Declaration of Conformity authorization procedures.</p>
	<p>RoHS directive 2011/65/EU - Restriction of the use of certain hazardous substances in electrical and electronic equipment.</p>
	<p>This symbol on the device label means: Read the user manual before you start using the device.</p>
	<p>This symbol implies conformity to UK Directives on health, safety and environmental protection standards. UKCA stands for UK Conformity Assessed.</p>
	<p>This symbol means "Manufactured by" and provides the name and address of the legal manufacturer.</p>
	<p>Country of Manufacture.</p>
	<p>This symbol means keep the Device dry.</p>
	<p>This symbol indicates the USB connector.</p>
	<p>This symbol means that the device uses a Lithium-ion Polymer battery.</p>
	<p>This symbol means keep the device away from direct sunlight.</p>
	<p>This symbol means the upper and lower operating temperatures that the device can be safely used at.</p>
	<p>This symbol means the upper and lower operating humidity that the device can be safely used at.</p>

	This symbol means that the cardboard packaging that the device came in can be recycled.
	Type BF Applied Part, B indicates it is used for the body and F indicates that it is not connected to the mains voltage.
	Product is nonsterile.
	Batch/Lot number of the product.
	Serial number of the product.
	Date of manufacture.
	Unique Device Identifier.
	Warning; Laser beam
	This warning symbol on the device label is a warning to read the enclosed documents before use and take all safety precautions required
<b>IP22</b>	The device is protected against a solid object greater than 12.5mm such as a finger and against vertically falling drops of water at up to 15 degrees from vertical.
	Do not look directly at the laser beam, which could cause serious eye damage



Manufactured by  
Light Tree Technology India Pvt.Ltd.

Address: GP-47, Sector-18, Maruti Udyog,  
Gurugram, Haryana, 122008 India

## **8. Contact Information**

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### **Dermapenworld**

13 Narabang Way, Belrose NSW 2085, Australia

**Ph:** +61 298 893 636

**Dermapenworld™**



[www.DermapenWorld.com](http://www.DermapenWorld.com)



[www.dermapenworld.com/contact-us](http://www.dermapenworld.com/contact-us)