



DL 6000 Pro 4
(Modellbezeichnung: DL-109)



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Laser Wavelength	808nm 755nm+808nm+1064nm 755nm+808nm+940nm+1064nm
Laser Handle Power	3000W Fixed Light Spot
Laser Stack	FL Laser Stack with FAC
Spot Size	12*36mm
Laser Bar Power	3000W
Laser Power Supply	6000W
Energy Density	38J/cm ²
Pulse Duration	3-100ms Adjustable
Operation Interface	15.6 Screen
Pulse Frequency	1-10Hz
Cooling System	Water + Compressor
Power Supply	AC 110-220V 50/60Hz
Packing Size	71*58*135cm
Gross Weight	77kg

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Chapter 1 User Notes

Before operating the machine, please read the user manual carefully! Please ensure that the equipment is in working condition. If the operator wants to connect the equipment to other peripheral devices, please read the peripheral device manual carefully. If you have any questions, contact the factory.

- ☐ ☐ Do not use this equipment with other electrical equipment.
Do not operate the equipment in thunderstorm weather (in thunderstorm weather, current will flow into the equipment and affect normal power).
- ☐ Do not place the equipment in a strong current and strong magnetic field, otherwise it will cause failure.
- ☐ Confirm that the room voltage is consistent with the power supply area of the equipment. Do not use AC power exceeding 240V.
- ☐ Do not operate the equipment in high temperature or humidity, so as to avoid electric shock or failure.
- ☐ Before use, please make sure that the device is connected to power.
- ☐ Before use, make sure that the connection between the circuit and accessories is good.
- ☐ Avoid connecting to a multi-pin outlet.
- ☐ Do not shake or collide the equipment during operation.
- ☐ Do not use the equipment directly if the cable or connector is damaged, the equipment falls, gets water or otherwise damaged.
- ☐ Do not use the wire as a handle.
- ☐ Wires and hoses should be kept away from heat sources.
- ☐ It is best to operate the equipment in a dry place. Do not use it outdoors.
- ☐ Only use matching accessories provided by our company.

- ☐ After use, please turn off the power supply first, and then clean and maintain.
- ☐ Do not use detergent, solvent or chemical to clean.
- ☐ Do not use the device when using aerosol products.
- ☐ Avoid spraying water on the equipment.
- ☐ Children under 11 years old and people with disabilities should not use the equipment alone, and must be guided to use it.
- ☐ Children under 7 years of age are strictly prohibited from using the equipment.
- ☐ Do not use the device if you have any skin discomfort or injury.
- ☐ Do not use in the eyes, glottis, genitals, mouth, ears, nasal mucosa and nipples.
- ☐ Not for pregnant women.
- ☐ If in doubt, consult your doctor before use.
- ☐ Do not use modified or modified equipment.
- ☐ Before operation, please wear professional goggles and glasses to avoid direct light on the eyes.

1.1 Safety

- ☐ The device has a self-test function. When the power is turned on, the system processor will perform a safety test. In addition, during the operation of the device, the system processor will also perform "ongoing tests" and "spaced tests".
- ☐ In case of emergency, press the emergency button (red button) to shut down the equipment.

Note: Those who have received dealer training are entitled to perform internal maintenance of the equipment. Incorrect maintenance by non-professionals may invalidate the warranty.

1.2 Operator Training

This equipment is intended for use by professionally trained personnel. To ensure proper operation, we recommend thoroughly reviewing this manual before use. During treatment sessions, mark the area with "No Unauthorized Personnel Allowed". Before initiating treatment, remove any potential hazards from the patient's environment. All treatment plans should be mutually agreed upon. The success of the procedure depends primarily on the operator's expertise and technical proficiency. Throughout the treatment, wear professional protective eyewear at all times. Patients must use certified medical goggles. Avoid using any other eyewear or protective gear without professional guidance.

1.3 Electrical and Equipment Safety

Power supply for the equipment:

Instrumentation is 220V:220V+10% 50/60HZ, single-phase 3-wire socket

The instrument is 110V:110V+10% 50/60HZ, single-phase 3-line socket.

Use three standard national wires and ensure that the ground wire is fully grounded. Only authorized personnel can repair the equipment.

Note: The use of acetone, alcohol and other flammable items is strictly prohibited. If alcohol is used to disinfect equipment, do not use the equipment. People are only allowed to use the equipment after the alcohol has completely evaporated.

Chapter II Description of Equipment

2.1 Equipment Features

The DL109 Hair Removal Device is a cutting-edge system that converts electricity, light, and heat into continuous high-energy laser beams. By integrating laser technology, electronics, and computer systems, it stands as the safest and fastest hair removal solution available today. Its core mechanism works by destroying hair follicles through melanin absorption of laser energy, effectively eliminating unwanted hair. The device's laser energy remains gentle on surrounding tissues, ensuring nearly painless removal of excess hair while achieving permanent results.

2.2 Structure and Performance of the Equipment

The DL109 hair removal device consists of a main unit, control system, and treatment handle. The control system includes an emergency stop button, key switch, display screen, and a 15.6-inch color touchscreen. The treatment handle is a laser handle.

2.2.1 Structural Composition

2.2.1.1 Host: It is the whole appearance and the carrier of other components.

DL109 hair removal machine host components are as follows:

1. Powermodule: powersupplyforthewholemachine.
2. Control system module: execute different tasks by receiving information input and output practical functions for operators' commands.
3. Displaymodule: displaysysteminformationandaccepttheoperator's work requirements.
4. Cooling system module: water circulation + direct current compressor refrigeration, reduce machine temperature, maintain a long working time.

2.2.1.2 Control system: It is mainly completed by the control module to complete various instructions and operations of the equipment. The main components of the DL109 control system are as follows:

1. Button switch: On/off
2. Emergency button: immediately shut down the machine in case of accident or abnormality to protect the safety of the machine.

Display screen: Enter and display system Settings.

2.2.1.3 Treatment handle: it is the main body of operation and implementation, and the main part of the equipment, including water pipeline, wire and handle head, etc. The water pipeline and wire are connected to the handle head in the handle tube.

2.2.2 Product performance parameters

Total Machine Power	MAX6000W
Energy Density	3000W
	1-38J/cm ²
Pulse Width	3-100 ms
Spot Size	12mm×36mm
Pulse Recurrence Rate	1-10Hz
Screen	15.6 Inch LCD Screen
Cooling Device	Water + Compressor
Cooling Temperature	-20°C

2.3 Therapeutic Functions

The DL109 depilator is used for permanent hair removal.

Chapter III Installation Instructions

3.1 Installation Steps

Before opening the machine packaging, ensure your workspace meets the equipment's requirements. The device should be placed in an environment free from etching gas and dust. Etching fumes can severely damage wires and electronic components, while airborne particles may compromise filter plates and circuitry. The installation area must maintain appropriate temperature and humidity levels as specified.

Installation steps:

Open the equipment package and check that all accessories are correct.

Please leave the equipment for 12 hours to avoid damage from high humidity during long haul.

Assemble its components and make sure all connections are in place.

Fill the tank with pure deionized water.

Ensure that all parts and accessories are securely connected, then open the equipment and test functions and parameters.

If all of the above conditions are true, the treatment program can be used.

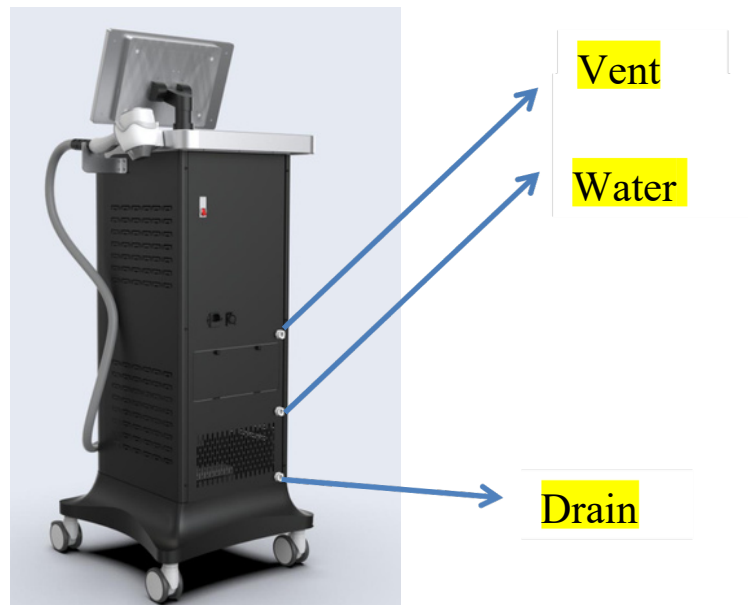
3.2 Inlet Requirements and Water cycle

Before each operation or when turning on the power of the machine, please fill with deionized water first to ensure that there is enough water, otherwise, please replenish deionized water.

3.2.1 Water Injection Description

The external environment temperature of the equipment is best between 15°C and 30°C; the humidity should not be higher than 80%; the treatment room should be kept clean at any time.

When filling water, please open the water filling port and overflow port.



- ☐ Connect the funnel and white connector to both ends of the pipe, as shown in the figure.



- ☐ When water overflows from the overflow port, the filling is complete.
- ☐ After the water is filled, the filling funnel can be removed. Press the stainless steel button on the white connector at the filling port to remove the filling device from the filling port.
- ☐ After the water is filled, do not screw on the overflow hole to ensure smooth water circulation.

Note: If it is pure deionized water, it is recommended that the customer change the water once every 3 months. When the operator changes the water, please remove the hole cap of the drain port and drain the water in the machine. Recharge the new deionized water.

The drainage sequence is the same as the water injection sequence. Just remove the funnel and place the pipe into the receiving container.

3.2.2 Water Cycle Commissioning

After setting the water mark, connect the power cord and foot pedal cord immediately. After the connection is completed, debug the water circulation of the equipment. Before debugging the water circulation, all the treatment head should be properly inserted at the plug-in and removal head to avoid damaging the pump during debugging.

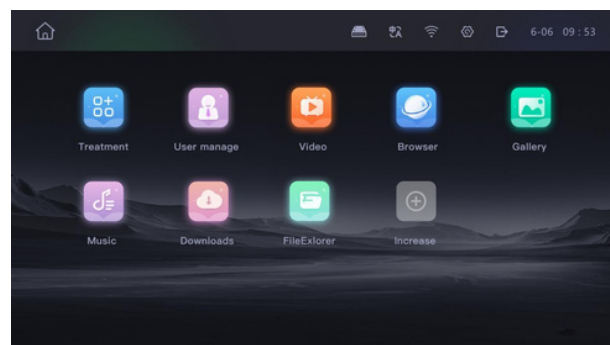
The steps of water circulation operation debugging are as follows:
Before the equipment is started, it must be ensured that the emergency stop switch is in the up state. If the emergency stop switch is pressed, click the emergency stop button to make it in the up state. Turn the circuit breaker switch behind the equipment to "ON". Press the button switch, the internal water circulation cooling system of the equipment automatically runs. Observe whether the water circulation of the equipment is normal. If there is no leakage, water flow alarm, etc., let the equipment run automatically for more than a minute, and then turn off the power. It indicates that the water circulation is good.

3.2.3 Installation of operating handle


When installing the handle, place it below the main unit so that gas escapes from the handle. After installing the handle, let the device run on for about one minute and keep the water flowing adequately.

Chapter IV Software Operation Instructions

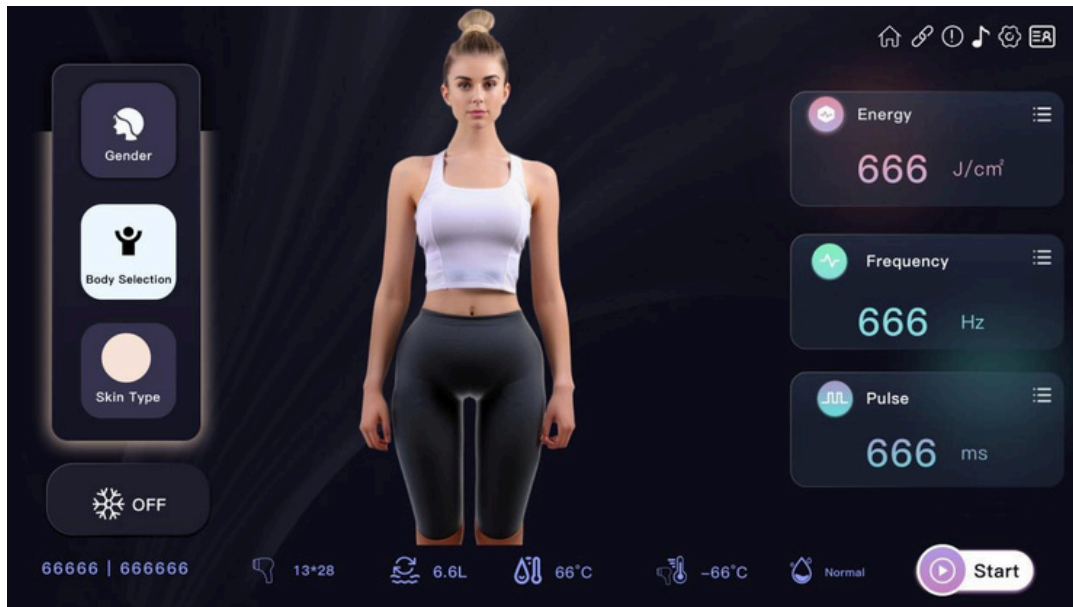
4.1 Startup interface



After the system starts up, the display interface shows the above

startup  interface. Click the startup interface icon to enter the function interface.

4.2 Functional Interface





After the device enters the function  interface, click to return to the startup interface.


4.3 Parameter Selection



Under the functional interface, appropriate treatment parameters can be selected according to the current situation of the therapist.

Gender selection:  Click to switch gender;

Body part selection: Click  to select the body part, according to the body part to be treated, there are six options: face, armpit, leg, arm, chest and abdomen and groin;

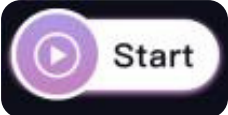

Skin color selection : Click to select the skin color. According to the skin color of the patient, select the skin color pattern similar to the picture. There are 6 skin colors to choose from, including 1-6.

Click  to adjust the refrigeration gear, a total of 5 gears  can be selected;

Click,  then click the left and  right icons in the picture, or drag the bar at the bottom to adjust the energy size. The parameter range is referenced to the energy density in 2.2.2 Product Performance Parameters;

Click,  then click the left  and right icons in the picture, or drag the bar below to adjust the frequency size. Parameter range: 1-10Hz;

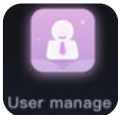
Select , click the left  and right icons in the picture, or drag the long bar at the bottom to adjust the pulse width. The setting range is referenced to the pulse width item in 2.2.2 Product Performance Parameters;

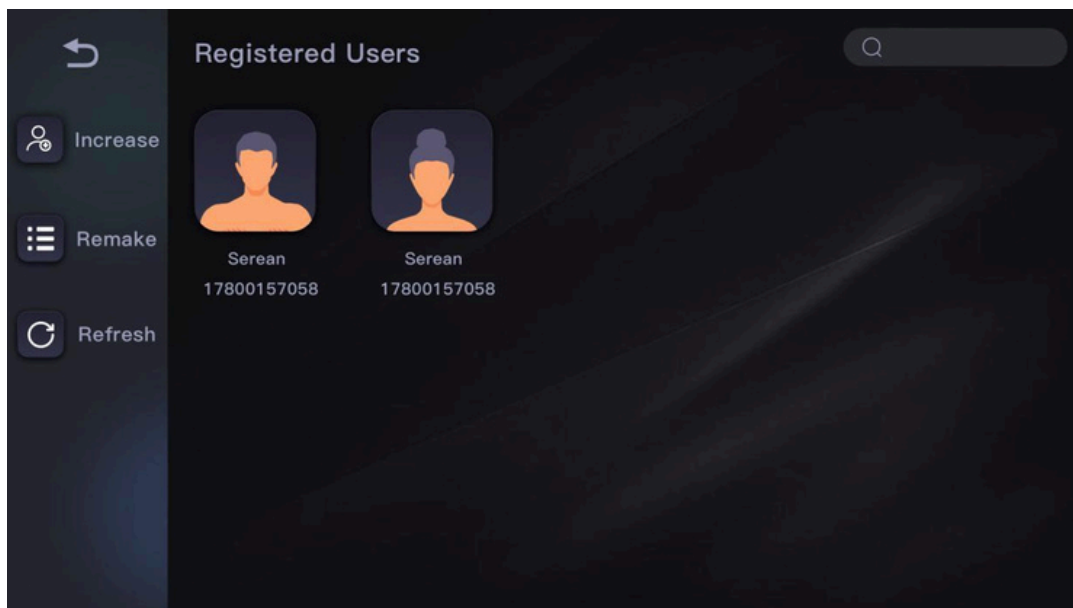
Click,  the handle starts to work, and the operation handle button  can be used to carry out the treatment; click, you can end the treatment.

The icons in the function interface are the total number, current count, spot

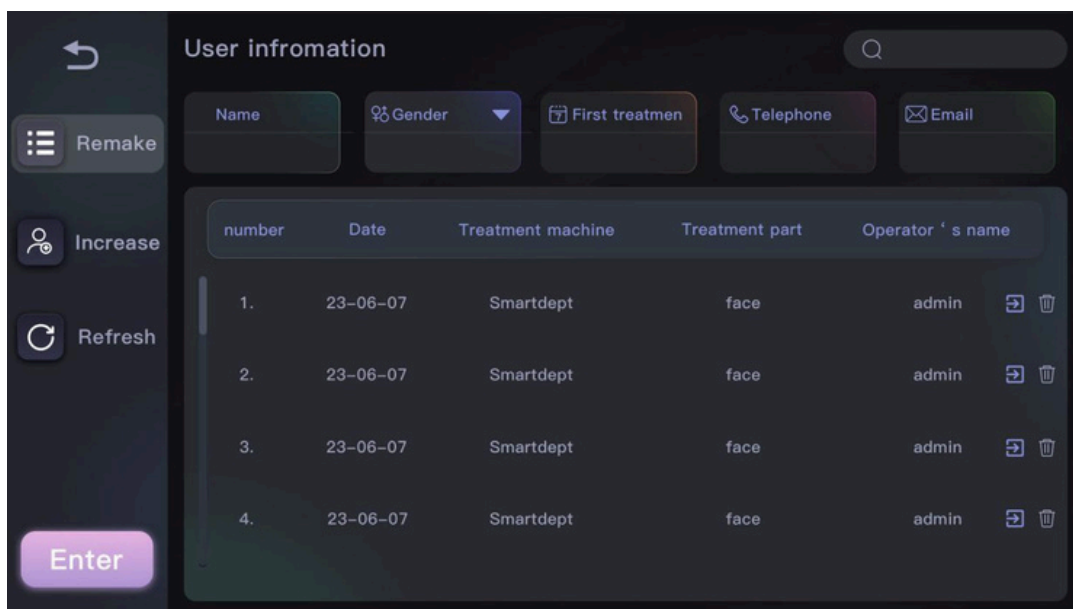
 head size, water flow size, host water temperature, handle temperature, water level;

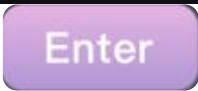
4.4 Customer Records Interface

Click in the startup interface  to enter the member information input interface



Click  to add a new member, click  to search for member information, click  the member profile picture to enter the member treatment record interface



Click on this interface  to enter the member treatment interface.

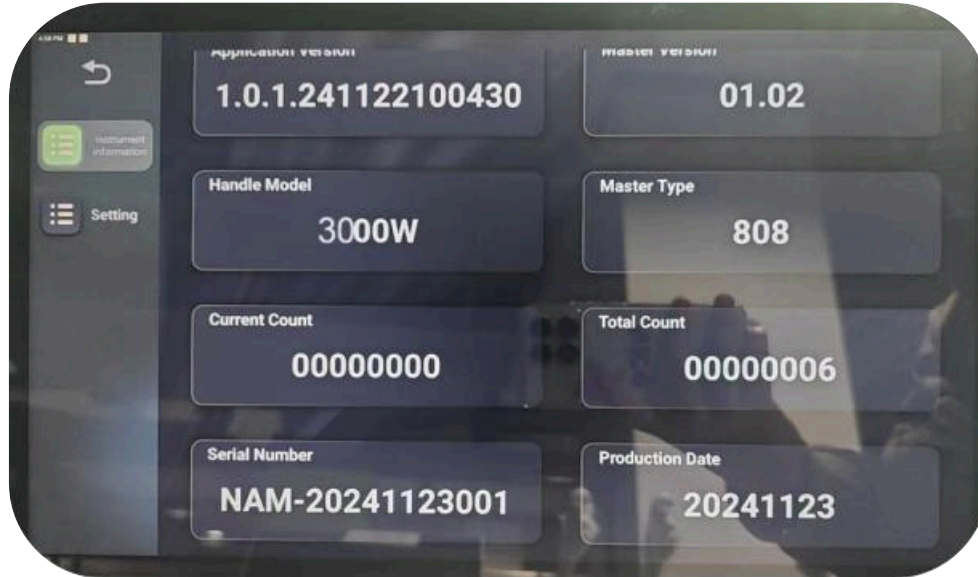
4.5 System Settings Interface

The user setting interface is set by the supplier for confirmation. The customer can view the relevant data, but has no permission to modify it.

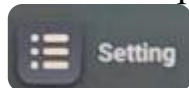


Click in the function interface to enter the host information interface

Host Information Interface



This interface displays information about the host



Click to confirm the system settings. The password of this interface, subsequent interfaces and various parameters are set by the supplier to prevent customers from misoperation, and customers have no permission to modify them temporarily.

Chapter V Equipment Maintenance Instructions

5.1 Host Cleaning

Please use a soft damp cloth to clean the host, so that liquid into the host.

5.2 Treatment Handle Cleaning and Replacement

After treatment, promptly clean the crystal section of the handle. During treatment, pigment particles may splash onto the crystal, which can reduce laser output energy. We recommend using lens paper cleaning or anhydrous alcohol for maintenance. Each handle has a service life. When the service life expires, customers should replace the handle with a


new one. Please contact your distributor or equipment manufacturer for assistance.



5.3 System Troubleshooting

Fault Phenomenon	Method of Exclusion
Thescreenisnotdisplaying	Check the wires
	Checkcircuitbreakers,fuses
	Please check the power switch
Thehandleswitchbuttonis not responsive and the key is device is turned on. If the fault cannot be eliminated, notresponsive	Checkwhetherthepowerswitchonthebackofthe contactyourdealerormanufacturer.
The system cannot be initialized	Checkthepowersupply The handle is not working properly because the voltage is too low Please check whether there is dirt on the laser reflector, if yes, clean it.
Low energy output or no laser output	The handle is damaged inside. Please replace the new treatmenthandle
	Remove the handle and check for damage to the head mirror.
	The treatment handle is too hot. Please turn off the machine, cool for about 30 minutes, and then use again.
	Please check whether the handle is leaking.
The treatment handle fell out ofthehandlebracket	Please check whether the handle is damaged. If so, replacethehandle.
The cooling system is too hot turn it on again. If the cooling system is still abnormal, contact your distributor or equipment manufacturer.	Turn off the equipment and let it cool for a while, then turn it on again. If the cooling system is still abnormal, contact your distributor or equipment manufacturer.
The treatment handle outputs minutes toolittleenergy	Please check the crystal for dirt, if so, clean it.
	If the handle is hot, turn off the machine for 30 minutes
	Pleasecheckwhetherthecrystalheadisingood condition and whether it is damaged. If so, contact your distributor or equipment manufacturer.
The treatment handle outputs Toolittleenergy	The handle head has reached the end of its useful life. Contactyourdistributororequipmentmanufacturer.
Thelaseremitterisbroken	Contactyourdistributororequipmentmanufacturer.



Note: If the above fault cannot be eliminated, please contact your distributor or equipment manufacturer.

5.4 Alarm Indication

Warning Symbols	Meaning
 Pay Attention To	Indicates that improper use may cause injury to personnel or damage to property

	Warn	Indicates that improper use can cause injury
	Danger	The equipment contains high voltage components and high voltage output terminals, which are dangerous.

5.5 Contraindications

<p>1. The following symptoms are prohibited</p> <p>1) Patients with implanted cardiac rhythm regulators, pacemakers or electrocardiography scanners;</p> <p>2) Users of artificial bones;</p> <p>3) silicotic;</p> <p>4) Patients with high fever after alcohol;</p> <p>5) For patients with high sensitivity of psychosis and epilepsy;</p> <p>6) Severe hypertension and severe cardiovascular and cerebrovascular disease patients;</p> <p>7) Metal foreign body in the body, pregnant women, cachexia, malignant tumor patients;</p>	 danger
<p>2. Use under the guidance of a professional in the following cases</p> <p>1) Women who are menstruating;</p> <p>2) children</p> <p>3) Hemorrhagic disease or trauma, inflammation, skin disease, skin infection;</p> <p>4) People who feel numb and are unresponsive to hot and cold</p> <p>5) Defects in the immune system, history of scar formation, and body diseases</p> <p>6) Had plastic surgery and had artificial filler in some areas of the body.</p>	 warn

Note: Consult your healthcare provider to determine suitability

Chapter VI List of Equipment Accessories

Name of Accessory	Quantity	Name of Accessory	Quantity
Eyeglass	1 deputy	Power Line	1 root
Eyeshade	1 deputy	Foot Pedal	1 piece
808 Handle Kit	1 set	Funnel (with water pipe)	1 piece