

DIODE LASER USER MANUAL



When operating this machine, please read the manual of its instrument carefully.



Before testing the machine to work properly, do not throw away any package: to avoid losing the accessories in the foam;

Special Note

1-1: Check the package:

The machine cannot be inverted, and the package cannot be damaged. If there is any damage, please notify DHL and the seller and register it;

1-2: Installation of the machine:

After receiving the new machine, it is recommended to place it in a warm room for 24 hours to prevent the residual water in the water tank from freezing and damaging the machine; (In winter, due to the different temperatures in each country, the residual water in the water tank will freeze on the road if the temperature is very low);

1-3: Check the machine accessories:

When you open the package, please check all the accessories, and you can provide pictures for the seller to check;

It is recommended to start assembling the machine when you open the package. Some accessories are in the foam. When you open the box, the foam may be stuck in the box. If you throw the box away, sometimes the accessories will be lost;

1-4: Machine safety: The manual has guidance

1-4-1: Install the hanger firmly (securely install the screws);

1-4-2: Install the handle correctly. All handles must be installed before the machine can be started;

1-4-3: Add purified water or distilled water to the machine. Do not add mineral water;

1-4-4: Store the extra accessories and use it in the future;

1-4-5: When starting the machine for the first time, connect the power cord and turn the emergency stop device to the right. The red button pops up; then turn the key;

1-4-6: After using the machine, turn the key to turn off the machine;

1-4-7: When the machine is working and encounters danger, press the emergency stop device to cut off the power immediately;

1-4-8: When the machine encounters a malfunction, please use pictures and videos to show the problem of the machine, contact the seller to solve it, and do not open the machine for inspection by yourself;

Chapter 1 Read before operating

1,1Notes

Please read the user manual carefully before operating the machine!

- 1) Make sure the device is in normal status, avoid unnecessary harm.
- 2) Don't put the equipment into a strong electric current and magnetic field, otherwise it may cause a fault.
- 3) Check whether the power supply voltage matches the equipment. Don't use AC current more than 240V.
- 4) Don't operate the equipment in a high temperature or humidity place, avoid electric shock or fault.
- 5) Make sure that the equipment is connected to the power supply before work.
- 6) Before work, make sure that connection is good between circuit and accessories.
- 7) Don't shake or strike the equipment during the operation.
- 8) Don't use the equipment if cables or connections are damaged, fall to the ground, water, or other damage.
- 9) Don't put the cover board and electric wire to be used as a carrying handle.
- 10) Electric wire and hose should get away from the heat source.
- 11) It's better to operate the equipment in a dry place, don't use it outdoors.
- 12) Only use accessories provided by our company.
- 13) Please turn off the power supply after work/before cleaning / maintenance.
- 14) Don't clean it with detergent, solvent or chemicals.
- 15) Don't use machines with aerosol products.
- 16) Avoid water spraying on machines.
- 17) Never use the modified or remolded equipment.
- 18) Don't use the machine if your skin feels uncomfortable or hurt.
- 19) Pregnant women are forbidden to use it.
- 20) Please consult a doctor before working with it if you have any questions.
- 21) When the emergency happens, please press the emergency button (red button) to turn off the device.

Note: Only personnel trained by the dealer have the right to maintain the internal facilities of the instrument. Any unauthorized handling may cause damage to the instrument and invalidate the warranty.

1.2 Operator training

Only personnel who have undergone professional training, understand the effects of treatment and possible risks can use the equipment. The operator must read the user

manual carefully before operating the equipment. The success of treatment depends mainly on the experience of the operator and the understanding of professional knowledge.

1.3 Electrical and equipment safety

The power supply used by the equipment is 200V~240V (50/60Hz) single-phase power supply, international standards (120cV~260V, 50/60Hz); 20A (90~130V, 50/60Hz) single-phase three-wire socket.

The equipment is in contact with the ground through three wires. The ground wire must be reliably grounded. Only authorized personnel can repair the equipment, otherwise the warranty will become invalid

Note: Avoid using flammable materials such as acetone and alcohol within the operating range.

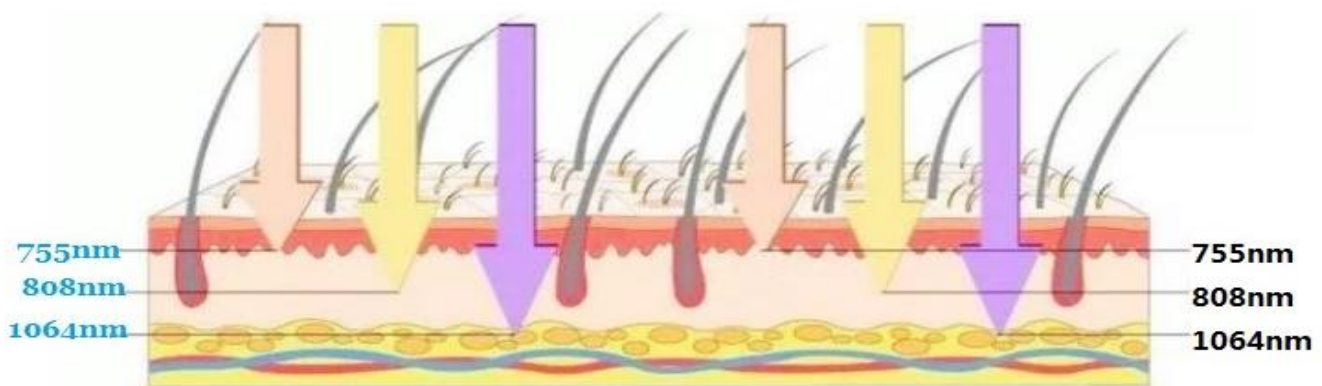
Chapter 2 Basic Introduction

2-1 : Theory: Basic Introduction

The Golden Standard for laser hair removal machine - 755nm, 808nm , 1064nm integrated into one device.

2-1-1. Diode laser hair removal technology is based on the selective dynamics of light and heat.

2-1-2 The laser goes through the skin surface to reach the root of the hair follicle; light can be absorbed and converted into heat damaged hair follicle tissue, so that hair loss regenerates without injury to surrounding tissue. It provides less pain, easy operation, the safest, technology for permanent hair removal now.



The bar in the diode laser handle emits light of different wavelengths, which are absorbed by the melanin groups in the hair follicles, thereby destroying the melanin groups and stopping the supply of nutrients to the hair, causing the hair to fall out. After several treatments, the effect of permanent hair removal is achieved.

2-2 Bar wavelengths of handle to treat different hair color :



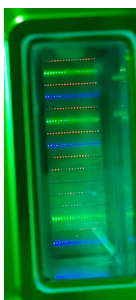
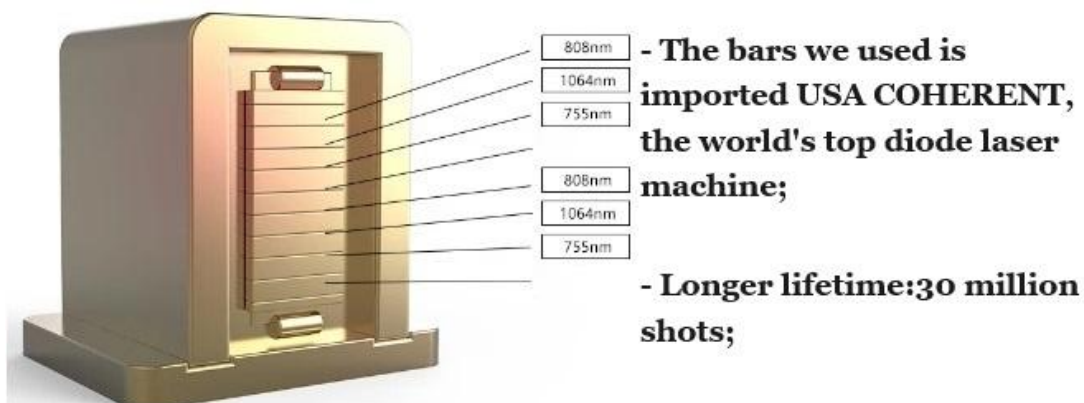
2-2-1: 755nm wavelength :

Recommended for treating fair skin types(Skin I~III) with fine hair. The 755nm laser is characterized by more powerful melanin absorption, making it suitable for the light-colored and thin hair. In this way, this wavelength aims to remove the hair on such areas as eyebrows, upper lip, etc.

2-2-2: 808nm wavelength :

Recommended for treating all skin types, particularly patients with greatly dense hair at the first session. The 808nm laser can penetrate into the subcutaneous fat tissues as well as deep dermis so as to act on various body parts, making hair removed at any depth in an express and thorough way.

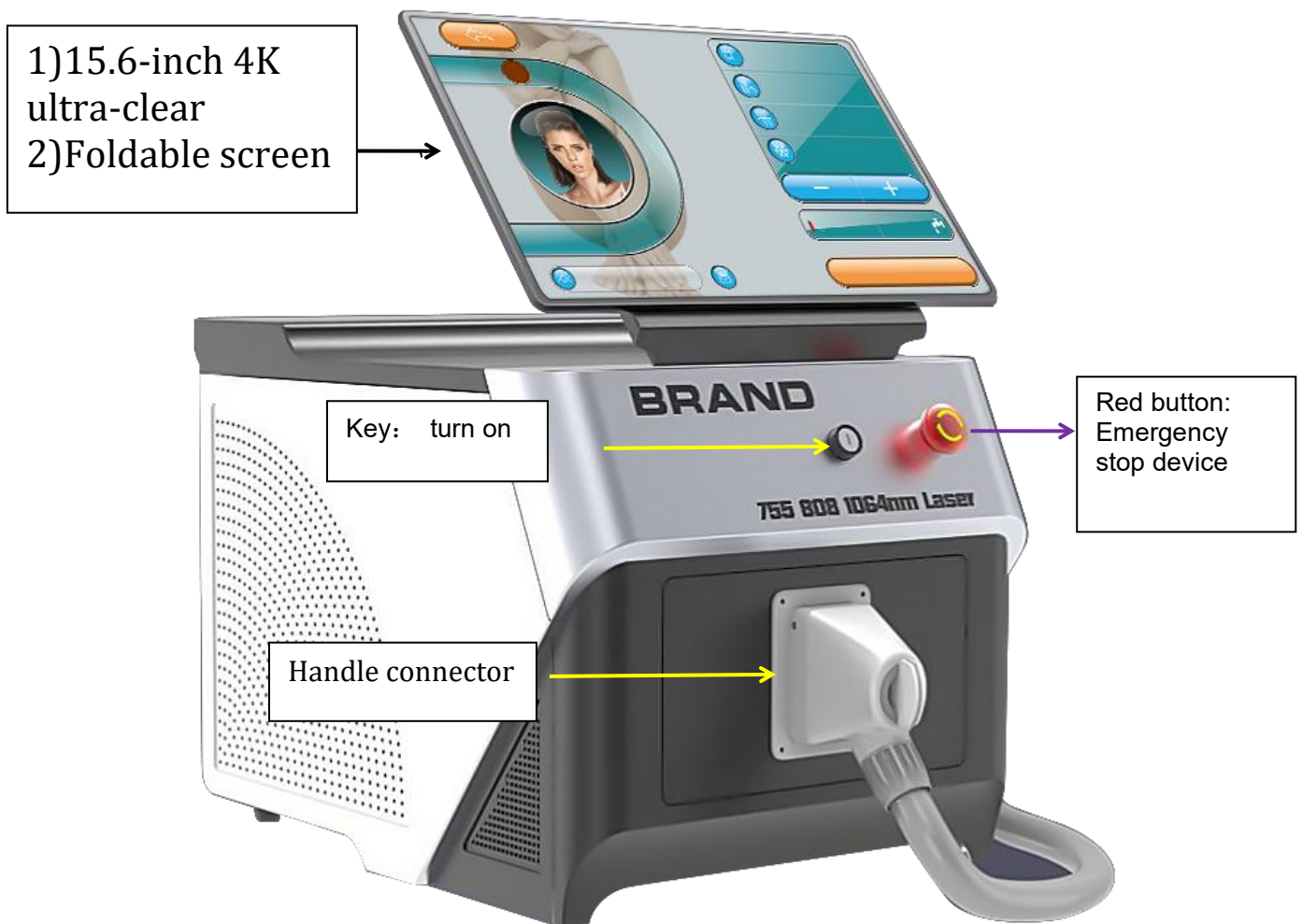
2-2-3: 1064nm wavelength: Recommended for treating dark skin types(Skin IV-VI). With the features of lower melanin absorption yet deeper penetration in follicles. The 1064nm laser mainly provides solutions for dark hair color. In other words, this longest wavelength focuses on the treatment areas like scalp, armpits, bikini line, etc.



Different wavelength
is different color

- (1) Hair of different colors has a relationship with the absorption coefficient (light absorption capacity) of light of different wavelengths;
- (2) Production cost: 1064nm wavelength bar and 755nm wavelength bar are more expensive than 808nm wavelength bar;
- (3) The bars in the handle are modularly assembled in a dust-free workshop. When working, all the bars work at the same time;
- (4) The light colors of bars of different wavelengths are different. You can use OD+7 glasses to see different colors (you cannot distinguish them directly with your eyes, so please pay attention to safety); some companies use a single wavelength of 808nm to pretend to 3 wavelengths to reduce the price, so please pay attention;

2-3: Machine configuration introduction



Picture 2-2-1

Diode laser is mainly composed of host, control module and handle. The control module includes an emergency stop switch, a key switch, and a control screen; the control screen is a 15.6-inch LCD screen

2.3.1 Main machine

Diode laser main machine composition:

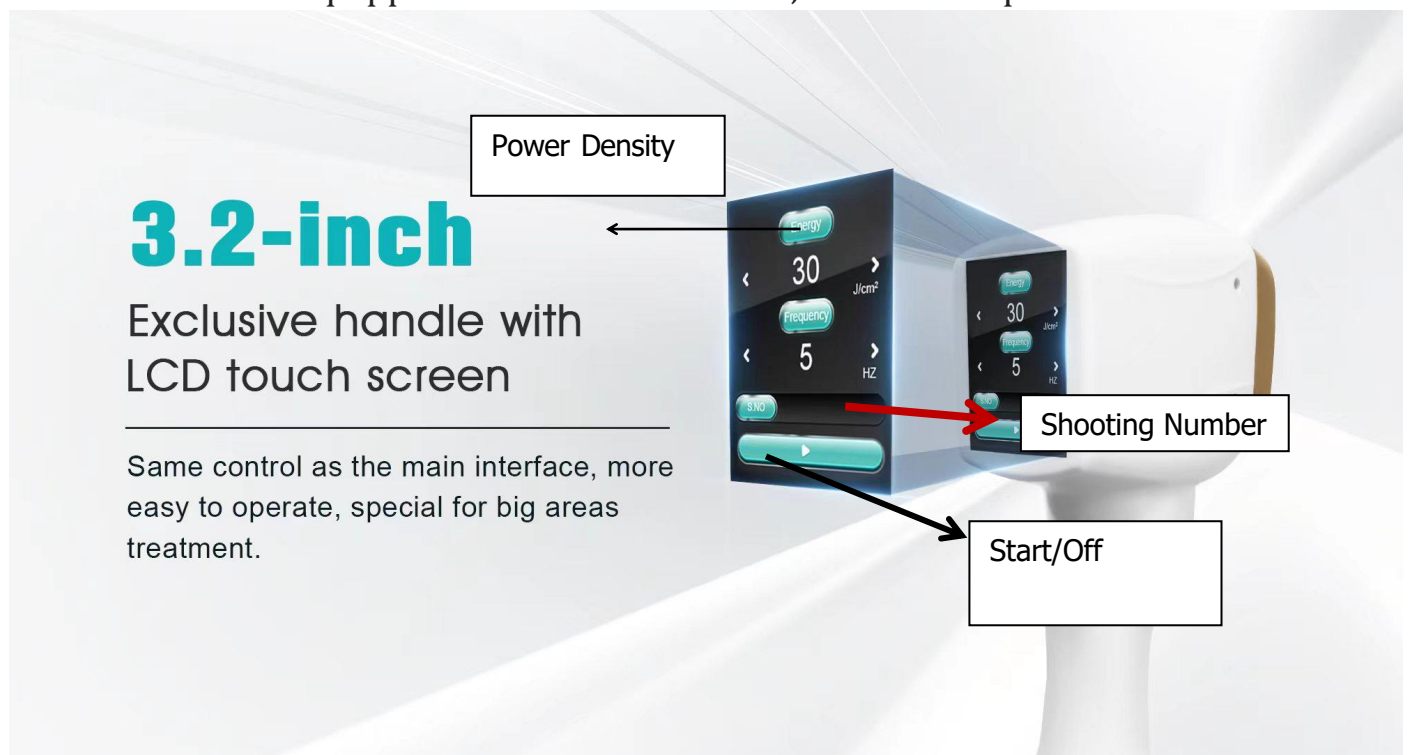
Power module: The power supply to the entire equipment system is the power source for the equipment to work.

Control module: as the control center of the device, through the acceptance and function of the input information, the output control device realizes the various functions required by the design and realizes the user's needs.

Display module: As a human-computer interaction interface, it displays various information of the system and accepts user instructions.

2.3.2 Handle





Diode handle is the main body for operation and includes as bellows and a treatment head. The bellows are equipped with power lines and data lines; the treatment head is equipped with a control switch, as shown in picture 2-2-2.









2.4.1 Specifications

Specification	Data
Light source	Diode laser
Screen size of the device	15.6 inch
Wavelength	808nm/755nm/1064nm
Spot size	15mm*15mm,15mm*20mm,15mm*30mm, nose tip
Cooling system	water cooling+wind cooling+TEC cooling
Screen size of the handle	3.2 inch
Machine power	3000W
Energy density	0-50J/cm ²
Laser power	1200W
Voltage	100-240V/50-60HZ

2.4.2 Accessories list:

Part picture	Part name	Quantity/set or pics
	Host	1 set
	Handle	1 pic
	Power Cable	1 pic
	Keys and screws	2+4

	Operating glasses	1 pic
	Protective goggle (to be worn by the customer)	1 pic
	Handle hanger	1 set
	Water funnel, tube: insert into the water injection hole, add water	1 set
	Water pipe: 1) When adding water, insert into the overflow hole; 2) When changing water, insert into the discharge hole;	1 set
	Filter: one in the machine, extra as spare	1 pic

2.5 Handle Configuration:

1600W with large spot 15*35mm

Cooling system: Semiconductor + Wind + Microchannels water outlet + Sapphire + TEC, guarantee a painless and comfortable hair removal experience.



2.6 Application

- ❖ Permanent hair removal for all kinds skin types (I, II, III, IV, V, VI.).
- ❖ Apply for almost of body areas such as lip, beard, chest, armpit, back, arm, legs, etc.

NOTE:

- ❖ SKIN TYPE I: This is a very fair complexion. Those with light-colored eyes and blonde or reddish hair color. Very sensitive to the sun and easily be burned whenever exposed to the sun, but never be tanned.
- ❖ SKIN TYPE II: This is a light complexion, light-colored eyes, blonde,reddish or light-brown hair color. Very sensitive to the sun, and easily burned and gradually be tanned.
- ❖ SKIN TYPE III: This is a medium complexion. Those with light or dark eye color and usually brown or darker hair color. Sensitive to the sun, rarely be burned and always be tanned.
- ❖ SKIN TYPE IV: This is a dark complexion. Those with dark eyes, usually dark brown to black hair color. Moderately sensitive to the sun, rarely be burned and always be tanned.
- ❖ SKIN TYPE V: This is a darker complexion. Middle Eastern, Indian skin. Dark eye color, usually black hair color. Minimally sensitive to the sun and always be tanned.
- ❖ SKIN TYPE VI: This is a black complexion. Those with black eyes and hair color. The least sensitive to the sun and never be burned.



2.7 Contraindication

- (1) History of keloids and photosensitivity disorders;
- (2) A skin infection in the area to be treated or a history of herpes simplex;
- (3) Those who have used other forms of hair removal within 6 weeks;
- (4) Those who are allergic to hydroquinones or other bleaching agents;
- (5) Women during pregnancy;
- (6) Those with malignant tumours;
- (7) Prohibited for heart disease, hypertensive disorders;
- (8) History of use of 13-cis-retinoic acid (Isotretinoin) within 6 months.

Chapter 3 Installation

3.1 Procedure of Installation

The device should be installed in an environment free of corrosive gas, dust, and particles. Corrosive gas will damage the electronic and optical components and connecting wires of the device. More dust and particles in the air can cause damage to filters and electrical components. The temperature and humidity range of the equipment installation environment should meet the performance parameters of the equipment.

Equipment installation process:

- 1) Take out the device.
- 2) Leave the removed device for one day in 1 warm room to avoid excessive humidity or freezing caused by long-distance transportation.
- 3) Assemble the components of the device to ensure that the connections at each interface are stable.
- 4) Fill the water tank with distilled water.
- 5) Connect the handle of the device to the power supply of the device.

After all components and power connections are complete, turn on the device and test its performance and system parameters while ensuring that the device is connected correctly.

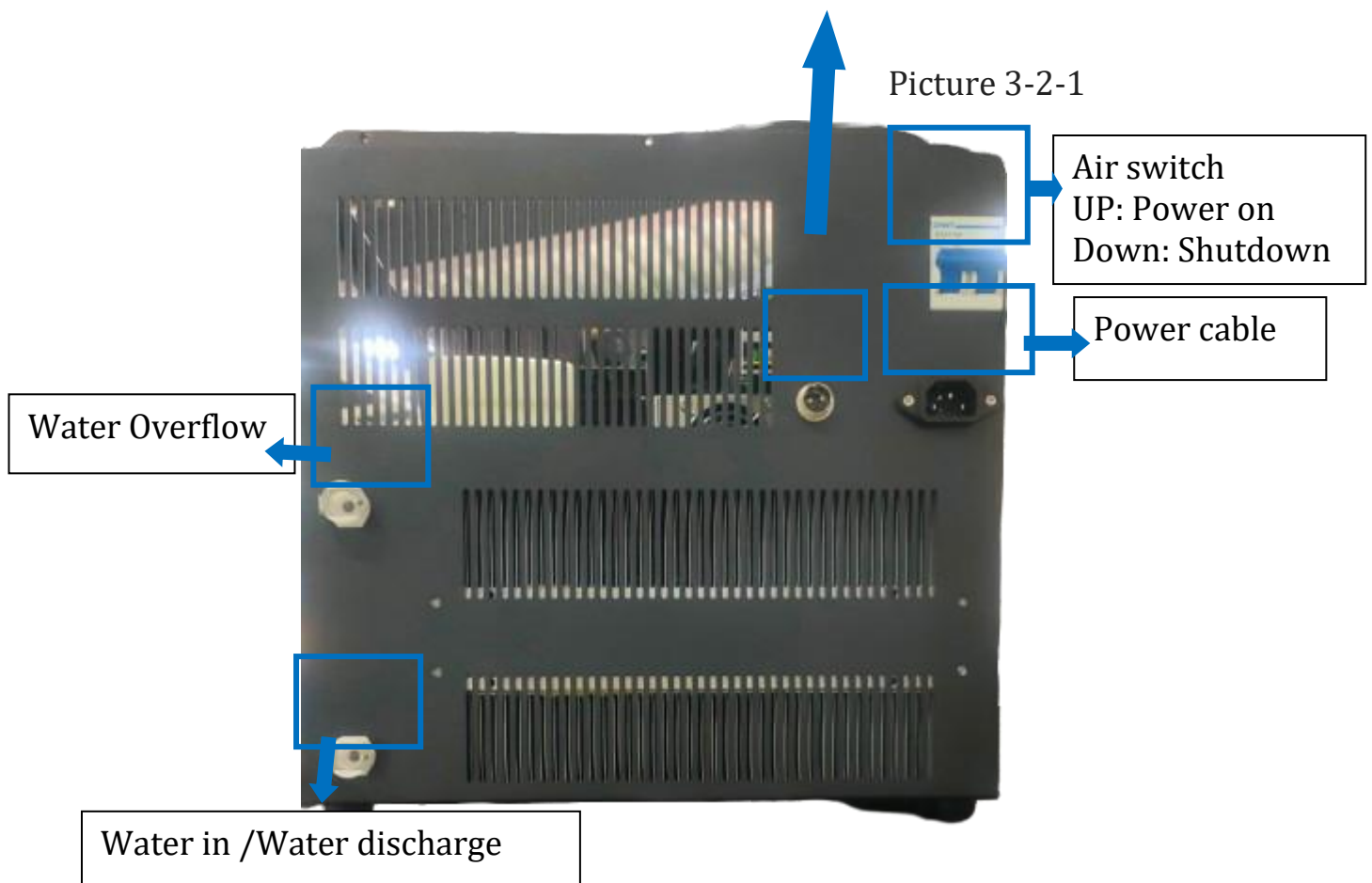
3.2 Installation Requirements & water input

When installing equipment parts, the first thing to do is the water injection operation of the equipment. Before each operation of the equipment, you must first check whether the water level of the water mark of the equipment accounts for more than 90% of the water column. If it does not reach, you must add distilled water.

3.2.1 Instruction of water input

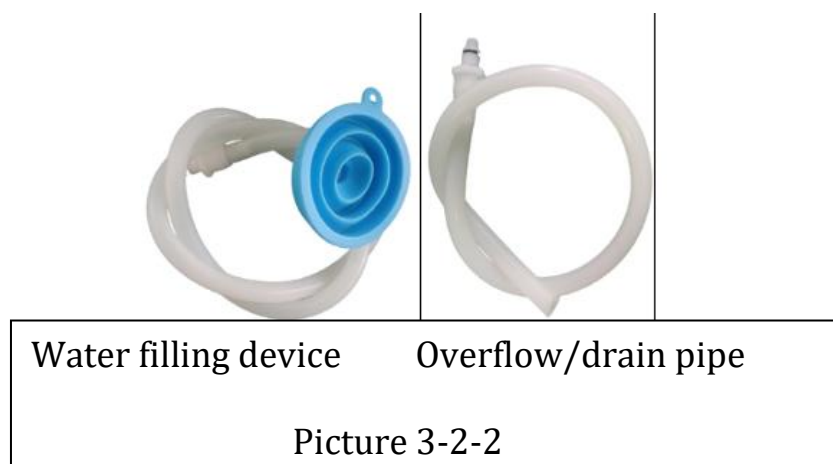
The temperature of the environment should be 5°C~40°C; Humidity should be lower than 80%, the Therapy room should be clean.

Before injecting water, Make sure the overflow hole is open and the handle is installed well (3.2.3 Installation of the therapeutic handle), otherwise water injection cannot be performed, as shown in picture 3-2-1

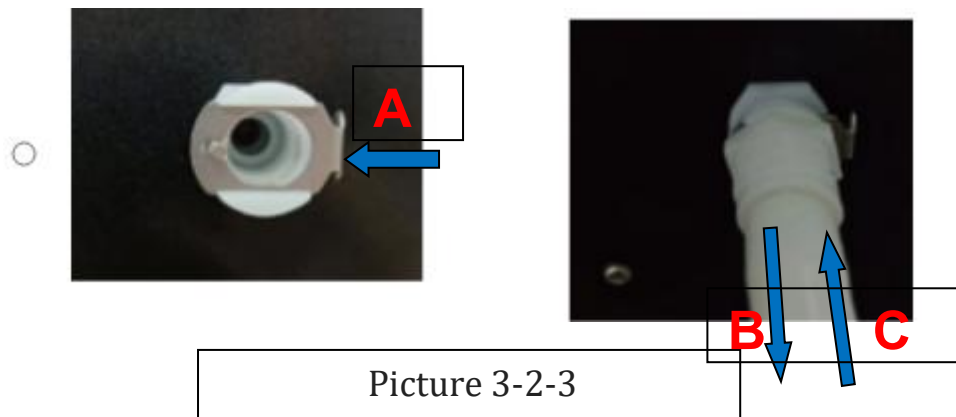


Water in:

- (1) Insert the white pipe connector into “water overflow” hole, place a basin underneath;
- (2) Insert the white connector port of the water injection funnel into the “water in” hole, and inject water into the device through the funnel.
- (3) when water flow from “water overflow” hole, stop add water, machine water is enough;



(4)After the water injection is completed, use hand press the (A) iron piece of: "Water in" hole / "water overflow" hole / "water discharge" hole;
Then insert the tube: C to add the water injection device from the "water in" hole.
Then remove the tube B to remove the water injection device from the "water in" hole.
As shown in



3.2.2 Water circulation testing

After the equipment is filled with water, connect the power cord . After the connection is completed, perform water cycle debugging on the equipment.

The steps of water cycle operation debugging are as follows:

- 1)Before starting the equipment, you must ensure that the emergency stop switch is in the bouncing state. If the emergency stop switch is pressed, turn right the emergency stop button to make it pop up.
- 2)Turn the circuit breaker switch on the back of the device to the "ON" position.
- 3)Turn the key switch clockwise to automatically operate the water circulation cooling system inside the device.
- 4)Observe whether the water circulation of the equipment is normal.

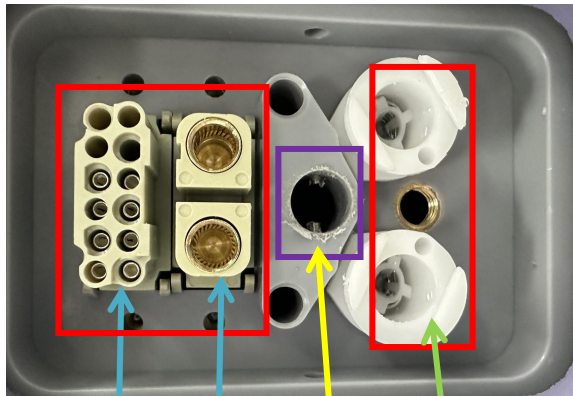
If there is no water leakage, water flow alarm, etc., let the device run automatically for more than one minute before it can be used.

Note: Change the water every 2-3 months . Please use purified water or distilled water. Drain as much water as possible from the cooling system.

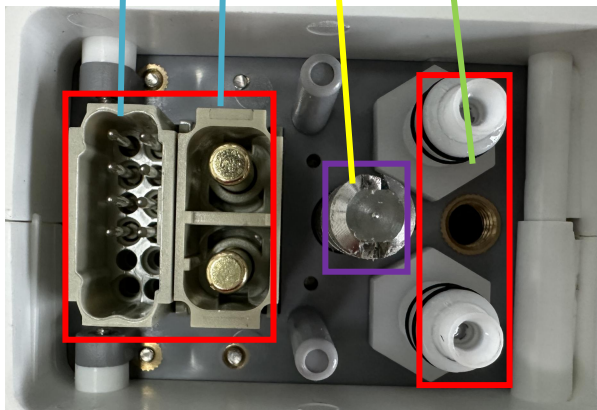
3.2.3 Installation of operation handle

When installing the therapeutic handle, the handle should be placed lower than the main unit, so that the air bubbles in the handle can be discharged. After the installation

is complete, start the equipment and allow the water cycle to run for at least one minute before performing related treatments.



- 1) Align the pointer
- 2) after inserting, rotate the button on the handle
- 3) the handle will be installed well.



Chapter 4: software instruction

Before Operation

- ❖ It is necessary that users should read the manual carefully prior to the application of this machine.
- ❖ Consult patients on whether they have any of the contraindications mentioned previously.
- ❖ It is suggested that this machine is operated in a separate room.
- ❖ Make sure the handle and power cable are well connected into the machine.
- ❖ Please do a physical examination to ensure treatment effect and prevent the anaphylactic reaction.
- ❖ Disinfect the probe and other therapeutic devices.
- ❖ Shave the treated area when doing hair removal and keep it clean.

When the water level alarming icon show red color ,and “ ! ” marker is appeared ,that is mean the water is too less .

Solution: please fill water in time.

4.1.2.2 Water tank temperature alarming

Water tank temperature value is too high ,and the“ ! ”marker is appeared ,the system will switch to the standby status automatically .

Solution: Please check whether the water circulation component working normal or not, or whether there are any destroy or broken of the components. If all above problems are not seen, please contact the device producer or distributor.

4.1.2.3Handle water temperature alarming

Handle temperature value is too high ,and the“ ! ”marker is appeared ,the system will switch to the standby status automatically .

Solution: Please stop to use the handle and wait some time, then turn on the device again. If the handle temperature alarming continues, please contact after-service engineer or your distributor.

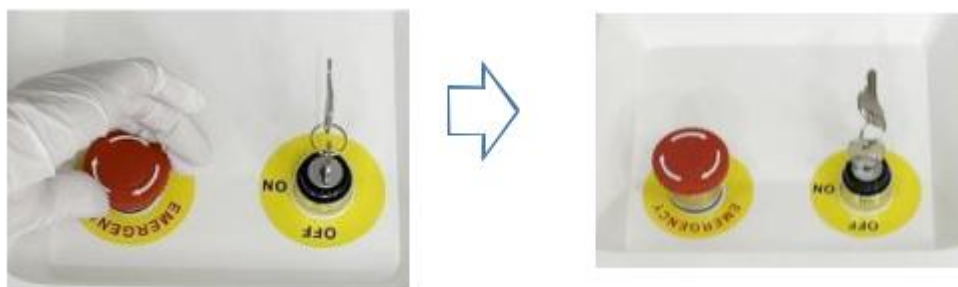
4.1.2.4 Water flow alarming

When the water flow icon value smaller than “2”and the water drop icon is lighted, that is mean the water flow alarming, the device system will switch to the standby status automatically.

Solution: Check the water level to see whether there is enough water. Please check the handle connect well or not, whether there is water leaking. If all above problems are not seen. please contact the device producer or distributor.

During Operation

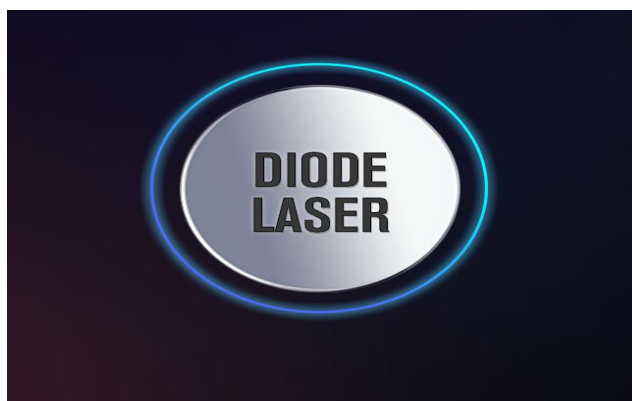
- ❖ Turn on the machine:
 - Lift the emergency button: If the red Emergency Switch is pressed down, the power will be shut off immediately. It should be released when you are trying to start the machine.

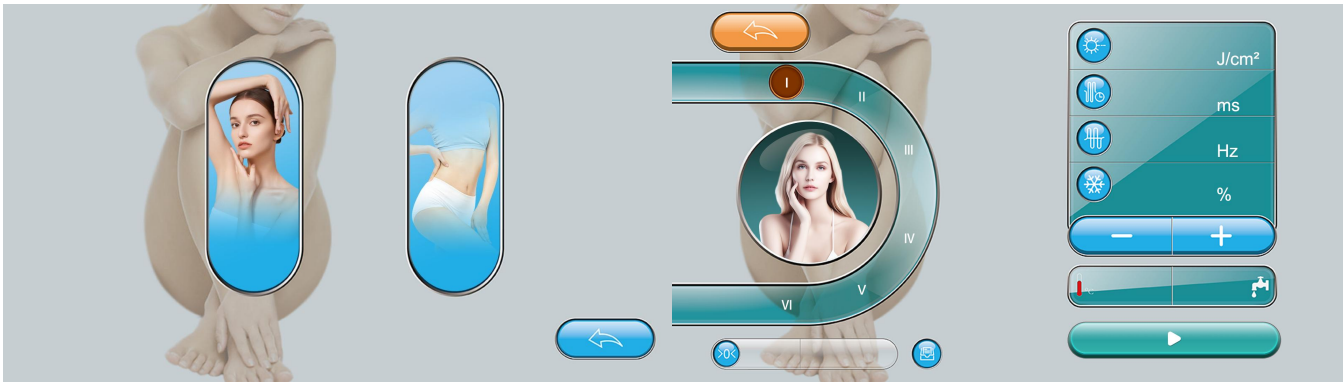


- Turn the start key clockwise and then the machine start to work.
- Ensure good water flow. Switch on and off the machine for 2 minutes respectively. Then repeat this cycle for 3 times to normalize the inside water circulation.

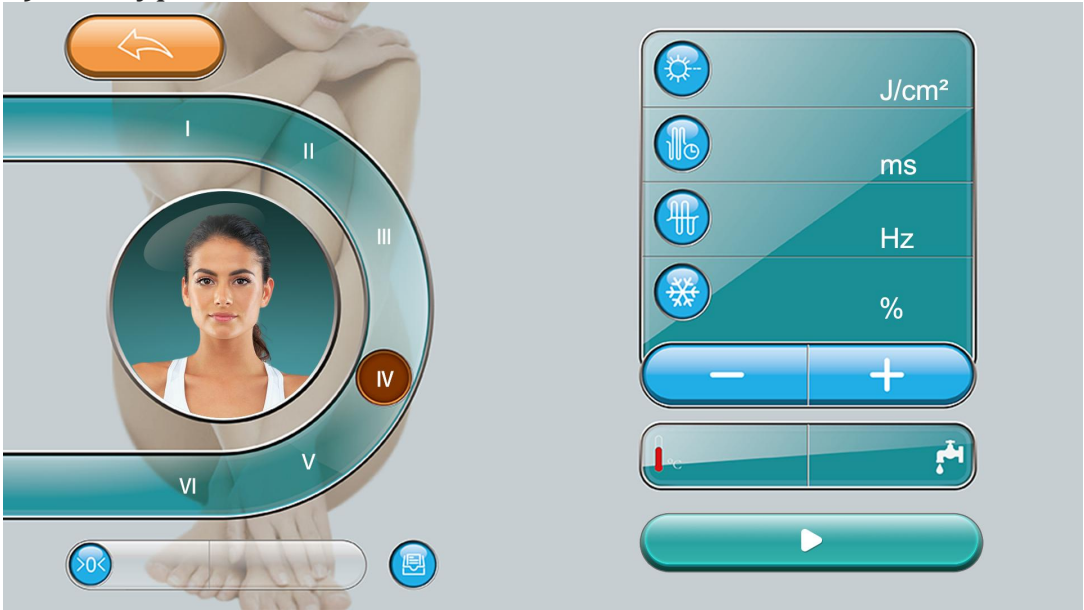
After turning on the machine, into system

The software interface introduction----diode laser system, then click “DIODE LASER”





- 1)Area:face/Body;
- 2) Skin type: I, II, III, IV, V,VI;



Energy : 1-50J

Pulse width:10-300

Frequency: 1-10HZ

Cooling : to 100%

STANDBY

Click Standby to Ready:
Wait start work

READY




Click it to Save parameters

(3) Adjust parameter: “ENERGY”, “PULSE WIDTH”, “Frequency”, “Cooling” according to the actual treatment needs of the patient (Please refer to the recommended parameters in the next part).

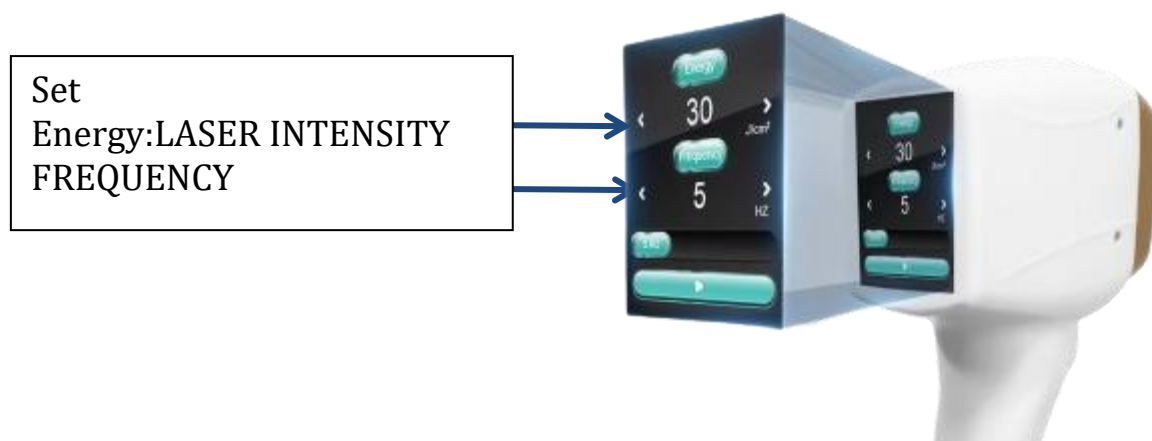
(2) “FLUENCE” is affected by pulse width, frequency and laser intensity. When any one of them changes, it will change automatically.

(3) The intelligent system let the 3 wavelength work together (755nm, 808nm, 1064nm) based on the parameter settings, no manual selection required.

- Click the button “ - ” and “ + ” to reduce and increase the value.

- Click the button “  ” to return to the previous interface.

Just swipe the screen to perform the corresponding operation, efficient and convenient.



Put on protective goggles for operator and patient to protect their eyes from the laser.

Apply the cooling gel approximately 3cm from the treatment area.

Make the treatment tip contact tightly with the skin, and then slide the handle at a constant speed back and forth for about 4 ~ 5 times.

After treatment, clear the gel on the handle and put it back into the machine.

NOTE: Any sudden situations, please press the Emergency Button to stop working.

After Operation

After treatment, there may appear slight bleeding and scabbing which will fall off naturally in several days and shouldn't be torn up by hand.

Avoid chemical or mechanical stimulation for 7 days before and after treatment.

Avoid direct sunlight after treatment. When going out, please apply the sunscreen cream whose SPF is no less than 15 on the body.

Hot baths, massage and aerobic exercises are prohibited within a week.

Use natural moisturizing products instead of cosmetics.



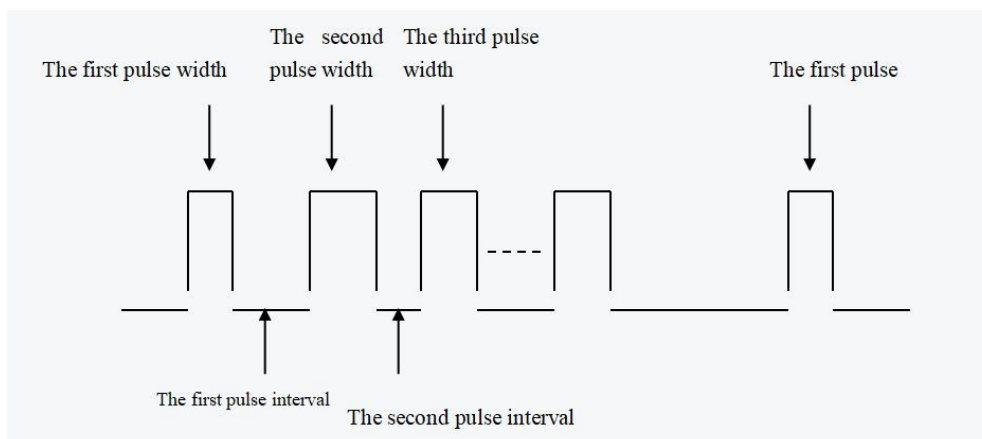
Clinical parameter list

Explain:

Energy: diode laser energy affects the effect and can be expressed as felt heat;

Pulse width: the treatment time generated by each light output;

Frequency: the number of times light is emitted per second;



Energy J/cm ²	Pulse width /ms	Frequency HZ	Cooling	Effect(feeling)
20	70	4	30%-60%	Best(strong)
20	80	3	30%-60%	Best(strong)
20	60	5	30%-60%	Best(strong)
30	60	4	30%-60%	Best(strong)
30	70	3	30%-60%	Best(strong)
30	50	5	30%-60%	Best(strong)
40	60	3	30%-60%	Good(mid-strong)
40	50	4	40%-70%	good
40	40	5	40%-70%	good
50	60	3	40%-70%	Best
50	50	4	50%-80%	Best
50	40	5	50%-80%	Best
50	35	6	50%-80%	Best
50	30	7	50%-80%	Best
50	28	8	50%-80%	Best

Skin Type I				
Treatment area	Energy (J/Cm²)	Frequency (HZ)	(Pulse Width /ms)	Cooling 10-100%
Face	35-40	3--4	40-60	30%-50%
Arms	40-45	4--5	60-80	40%-50%
Armpit	35-40	3--4	70-90	50%-70%
Chest	40-45	3--4	65-95	40%-60%
Shoulder	35-40	4--5	55-85	40%-50%
Abdomen	40-45	3--4	75-95	40%-60%
Legs	40-45	3--4	65-85	40%-60%
Back	40-45	4--5	70-90	40%-50%
Bikini	35-40	2--3	40-60	40%-50%
Skin Type II				
Treatment area	Energy (J/Cm²)	Frequency(H Z)	Pulse Width ms	Cooling 10-100%
Face	30-35	3--4	30-50	30%-50%
Arms	35-45	4--5	55-70	40%-50%
Armpit	30-35	3--4	60-80	50%-70%
Chest	35-45	3--4	60-85	40%-60%
Shoulder	35-40	4--5	50-80	40%-50%
Abdomen	35-45	3--4	65-85	40%-60%
Legs	35-45	3--4	55-75	40%-50%
Back	35-40	4--5	65-85	40%-50%
Bikini	30-35	2--3	35-55	50%-70%
Skin Type III				
Treatment area	Energy (J/Cm²)	Frequency(H Z)	Pulse Width ms	Cooling 10-100%
Face	28-33	3--4	30-40	50%-60%
Arms	38-43	4--6	50-60	30%-50%

Armpit	28-33	3--4	50-65	50%-70%
Chest	38-43	3--4	50-70	40%-60%
Shoulder	33-38	4--6	45-65	40%-60%
Abdomen	38-43	3--4	55-70	30%-50%
Legs	38-43	3--4	45-60	30%-50%
Back	33-38	4--6	55-65	30%-50%
Bikini	28-33	2--3	30-40	50%-70%
Skin Type IV				
Treatment area	Energy (J/Cm ²)	Frequency (HZ)	Pulse Width ms	Cooling 10-100%
Face	25-30	3--4	25-35	40%-60%
Arms	35-40	4--5	40-60	30%-50%
Armpit	25-30	3--4	30-50	30%-50%
Chest	35-40	3--4	40-60	30%-50%
Shoulder	30-35	4--5	40-50	30%-50%
Abdomen	35-40	3--4	45-60	30%-50%
Legs	35-40	3--4	35-50	30%-50%
Back	30-35	4--5	45-55	30%-50%
Bikini	25-30	2--3	20-35	40%-60%
Skin Type V				
Treatment area	Energy (J/Cm ²)	Frequency (HZ)	Pulse Width ms	Cooling 10-100%
Face	20-25	3--4	20-30	40%-60%
Arms	30-35	4--5	20-40	40%-60%
Armpit	20-25	3--4	25-40	40%-60%
Chest	30-35	3--4	30-50	40%-50%
Shoulder	25-30	4--5	30-40	40%-50%
Abdomen	30-35	3--4	35-50	40%-50%
Legs	30-35	3--4	25-40	40%-60%

Back	25-30	4--5	35-45	40%-60%
Bikini	20-25	2--3	15-28	40%-60%
Skin Type VI				
Treatment area	Energy (J/Cm ²)	Frequency (HZ)	Pulse Width ms	Cooling 10-100%
Face	15-20	3--4	15-25	40%-50%
Arms	25-30	4--5	20-35	40%-60%
Armpit	15-20	3--4	20-30	50%-60%
Chest	25-30	3--4	25-40	40%-50%
Shoulder	20-25	4--5	25-35	40%-50%
Abdomen	25-30	3--4	25-40	40%-50%
Legs	25-30	3--4	20-35	40%-50%
Back	20-25	4--5	25-35	40%-50%
Bikini	15-20	2--3	10-20	50%-60%

Frequency and the corresponding maximum pulse width

Frequency/HZ	2	3	4	5	6
Pulse width/ms	150	99	75	60	48
Frequency/HZ	7	8	9	10	
Pulse width/ms	42	36	33	30	

For example

1) the energy is 20J, which is very low and will not feel too hot, so customers can tolerate increasing the pulse width;

2) The energy is 50J and it feels very hot. To shorten the light treatment time (pulse width), the treatment time will be reduced. In order to achieve good results, you can increase the number of times of light per second (frequency) to increase the cumulative treatment time.

Principle: diode laser light destroys the melanin group in the hair follicles, making them unable to provide nutrition to the hair, causing the hair to become thinner, grow slowly, and finally stop growing.

Note:

- **The advantage of the new system:**

The parameters can be adjusted according to skin color, part of body, and hair condition, and the treatment parameters can be automatically stored, which is convenient for the next use.


What we give is only the recommended safety parameters, which are suitable for everyone. The specific parameters need to be adjusted according to the customer's feelings.

- **Adjustment recommendations:**

Sensitive parts, such as face, arm, bikini, need to reduce energy parameters, lower frequency or a smaller pulse duration .

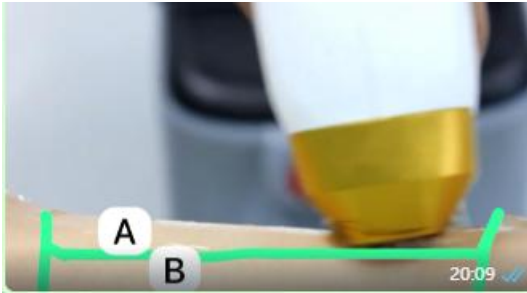
- About skin color: from I to V, lower frequency, energy, a smaller pulse duration,
- Please shave hair 1-2 days in advance, Increase energy based on customer experience, if smells the scorched hair, removes the hair with tweezers, no pain, the best effect.
- Treatment interval: one treatment /per month; course of treatment: continued 3-4 time treatment, suggest increased more 1-2 times until the permanent epilation result is achieved.
- The above parameters are for reference only! Please adjust parameters according to the patient's feelings.
- Generally, the armpits, beards, bikini, and chest areas have abundant hair, which absorbs more energy. It is recommended to increase the cooling, reduce the energy, or the pulse width. The parameters must be adjusted according to the customer's feelings.
- For areas with sparse or fine hair, you can increase the energy or pulse width to achieve better results;
- Increasing the energy, pulse width, and frequency will cause the hair to absorb more energy and increase the treatment effect, but the client should feel warm, not hot, so the parameters must be set according to the client's feelings;
- Because of the skin color and personal physical differences, each person's tolerance is different, and using parameters will be different. They can be appropriately increased or decreased according to the reference value of the table.
When the customer feels that the heat is not obvious, increase the table parameters appropriately.

- When the customer feels that the heat is too high, appropriately lower the table parameters.
- Adjust the parameters according to operating proficiency.
 - When the operation is proficient, the frequency can be appropriately increased.
 - When the operation is not proficient, the frequency can be appropriately lowered.
- Be sure to slide at a constant speed during operation.
- The sliding speed will be faster when the frequency is high, and the sliding speed will be slower when the frequency is low.
- When the energy is strong, you can slide one part repeatedly 3-5 times, and then remove to other parts and repeat the operation until the skin is reddish, the hair follicles protrude, and the hair can be easily pulled out to achieve the best hair removal effect.
- The above parameters are for reference only.
- The specific parameter values need to be flexibly adjusted from low to high according to the customer's tolerance and the treatment area. If the customer feels that the energy is low, you can increase the energy appropriately.
- Generally, you should start with low parameters and increase the parameters according to the customer's feelings. Also pay attention to the sliding speed (pay attention to applying cold gel to help slide and cool down. The customer's treatment area will feel warm, smell of burned hair, and pores will protrude. Like goosebumps, it means a good effect);
- After treatment, use wet wipes or wet towels to gently wipe and clean the cold gel on the treated area; take a shower with warm water for 12-24 hours (bath and very hot water are prohibited, and the use of cleaning products is not recommended; note Physical sun protection, avoid eating spicy and irritating foods);

EFFECT: 

- Use the diode laser handle to slide back and forth on the treatment area as shown in the video. If the customer has a strong tolerance (high parameters, good treatment effect, and fewer sliding times), if the customer has a weak tolerance (dark skin color, low parameters), more sliding times.
- Treatment effect judgment: It is recommended to shave the hair one day in advance when taking a shower (beards need to be shaved again before treatment). If you smell a burning smell, use tweezers to pull out the hair that is out of the skin without pulling the skin! If the skin is red and the pores are raised like goose bumps, it means that the treatment has achieved a good effect!
- In theory, the treatment is performed once a month, and after 3-5 treatments, permanent hair removal can be achieved! The number of treatments required varies for

different treatment areas. The better the effect of each treatment, the fewer treatments are needed!



- For example, you can slide back and forth a few times in area A, treat area B, and then return to area A for treatment. Based on the post-treatment condition, determine whether the treatment is complete.
- There is no set number of times: sliding speed, frequency, energy. During each treatment, the treatment head must be close to the skin, and it will feel hot when it leaves the skin!
- Generally, slide 6-10 times to see the changes in skin and hair (the better the setting parameters are, the better it is based on the customer's feelings)

Pay special attention: the handle treatment head needs touch skin during treatment. It is attached to the skin, and it will feel hot if you leave it; but do not press the handle too hard, rely on the weight of the handle to press on the surface of the skin;



The white skin and lighter Skin	1.Increase the power engery
	2.Decrease the pluse delay=(pluse interval) more cooling
The daker skin	1. Decrease the power energy
	2. Increase the pulse delay (allow more cooling)
The lighter the hair /pigments	1.Increase the power engery
	2. Decrease the pluse delay= (pluse interval)
The darker the hair/ pigment lesion	1. Decrease the power engery
	2.Increase the pluse delay= (pluse interval) more cooling
Fine Blood Vessels (vascular lesion)	1.Increase the power engery
	2. Decrease the pluse delay= (pluse interval)
Thick Blood vessels	1. Decrease the power engery
	2. Increase the pluse delay= (pluse interval)cool more
The smaller the target size / lesion (vascular)	1.Decrease pulse delay
The larger the target size/ lesion (vascular)	1. Increase pulse delay (allow more cooling)
Bony prominences (forehead, molar area, shin, bikini)	1. Decrease the power energy

4.3 Operation Instruction

4.3.1 Parameter setting

When the system in Standby status ,press Ready button the device will switch to the Ready status. When the system in Ready status ,press Ready button the device will switch to the standby status

4.4 Treatment procedure and How to operate the device

Before treatment, the operator communicates with the treatment subject in detail, cleans the treatment area with a mild cleansing milk, simply shaves and shaves the treatment area, and finally applies 1 to 2 mm of cold gel on the treatment area.

Start the system and enter the treatment parameter setting interface;

Select according to the actual situation of the treatment object, set the treatment parameters, click the standby/working button to enter the working state.

4.5

1) 12-24 hours before treatment, use a razor to hang off the hair;

2) Apply 1-2mm of cold gel,

Daub ultrasonic Gel on the skin in 1-2mm thick.



3) handle Contact the skin horizontally, slide first, and then gently press the handle button (without releasing it). When you want to stop treatment, release the handle button first, and then stop sliding.

Pay special attention: the handle treatment head needs touch skin during treatment. It is attached to the skin, and it will feel hot if you leave it; but do not press the handle too hard, rely on the weight of the handle to press on the surface of the skin;



During the treatment process, the operator should observe the treatment status of the treatment subject in real time, and adjust the treatment parameters according to the actual situation if necessary;

During the treatment process, the treatment head should avoid staying in the same treatment site for a long time; the operator and the treatment object should do protective work in real time to avoid injury;

After the treatment, turn off the power switch; wipe the cold gel at the treatment site and apply cold compress to it; cold compress can be performed in the standby state.

Clean the treatment head with a warm towel, then disinfect the treatment head with a cotton ball moistened with disinfectant;
Put the cleaned and disinfected treatment head into the transport box, unplug the power plug of the device, and the treatment process is over.

Precautions after treatment

- 1) During treatment, the residence time of the treatment head at the treatment site should not be too long;
- 2) After treatment, apply a cold compress to the treatment site for 5-10 minutes; the cold compress can be performed in the standby state.
- 3) For the treatment site, do not touch hot water for 24 hours, avoid sweating in sauna bath for 3 to 7 days;
- 4) Avoid high humidity and heat environment;
- 5) Prohibit eating spicy, seafood, irritating food; eat less sensitive vegetables (for example, celery, white radish, spinach, coriander, etc.)
- 5) Pay attention to sunscreen, apply sunscreen more than 30 times. If the UV is strong in summer, you can wipe it up a few times, wear a parasol or wear a sun hat; please use high SPF sun cream and avoid sunburnt .Because strong sunshine will prove the hyperpigmentation happened .
- 6) Within 24 hours after treatment to avoid using hot water to take shower ,avoid to use antiperspirant,avoid to swimming in the pool with High chlorine.
- 7) The use of functional cosmetics on the treatment site is prohibited within the past month.A light make-up is available after the treatment , But the operator suggest to stop the make-up ,once there are any destroy or infection and contact your beautician or doctor to help you.

4.6 Attention after the treatment

During the treatment ,please not stay the handle in one place long time.
Please use the soft neutral cleaning products and warm water to clean skin
Use moisture face masker to supply more water to the skin .

- Use the VC cream or neutral moisture cream to protect the skin .
- Please use the sun cream not less than SPF 30
- In one month after the treatment please use high SPF sun cream and avoid sunburnt .Because strong sunshine will prove the hyperpigmentation happened .
- Within 24 hours after treatment to avoid using hot water to take shower ,avoid to use antiperspirant,avoid to swimming in the pool with High chlorine.
- A light make-up is available after the treatment ,But the operator suggest to stop the make-up ,once there are any destroy or infection and contact your beautician or doctor to help you .
- After the treatment ,therapy can use the handle to cool down the skin 5 to 10 minutes.The machine should be in standby status when do the cooling .

Chapter 5 Device Maintenance

5.1 Main device cleaning

Please use soft wet cloth to clean the main device ,to avoid liquid into the device .

5.2 Operate handle cleaning and replace

- Clean the handle light output place after the treatment ,because during the treatment ,some pigment granules maybe splash to the crystal ,that will be lower the laser output energy .We suggest to use the lens paper to clean .Or the use absolute alcohol to clean .
- Every treatment handle are all with working life .After using half a year (around 30,000,000 times) ,we suggest the customer to replace a new handle .Please contact your distributor or device factory .

5.3 Other Information

1.Put the machine on the flat and stable surface.

2. Check the main machine, accessory and the power cable are intact well before use.
3. The machine is fragile. Do not drop it.
4. Clean the machine with a wet cloth but make sure no liquid penetrates.
5. Do not operate the machine with wet hands.
6. Do not bend or turn the power cable and the wires.
7. Before you clean or transport the machine, make sure that it is switched off and the power cable is unplugged.
8. Put the machine in a ventilated area. Do not cover the fan or the machine nor put any objects on it.
9. Do not use the machine in the toilet or near a microwave or oven.
10. Make sure that the power cable is not worn or broken before you plug it.
11. The operator must be trained to be familiar with the structure and performance of the machine and master how to operate the system.
12. Users under 18 years old are not allowed to use the machine.
13. The machine cannot be used on animals.
14. Do not use the machine for other purposes than those described in this manual.
15. The operating temperature should be in good control.
16. The treatment button should always be pressed by hand.
17. When there is an error, the system will show a message to the operator. No operation is allowed in this case.
18. The continuous working time of this machine is up to 12 hours per day.
19. Turn off the power after the operation. When not in use, be sure to unplug the power cable from the power outlet.
20. Please take good care of the machine. The power cable and accessories should be

carefully inspected before operation. If there are any traces of damage, stop using them and replace them with a new one.

5.4 System trouble shooting

Trouble Phenomenon	Solution
Screen without display	Check the electric wire
	Check the circuit-breaker , fuse wire
	Please check the power supplier switch
	Please contact the distributor or device producer
No reaction of the handle switch button ,and no reaction by key	Please check whether the power supply switch behind the device is on or not .If on ,the trouble is still ,please contact the distributor or device producer
System can not be initialization	Check the power supplier
	Please contact the distributor or device producer
The energy output lower or no laser output	The voltage is too lower result the handle can not work normally
	Please check whether there are dirty thing on the laser reflective mirror ,if yes ,please clean it .
	The handle inner is destroyed ,please replace new treatment handle
	Disassemble the treatment handle to check whether the head reflective mirror are destroyed or not .
	The treatment handle is too hot ,please turn off the machine ,cool down around 30 minutes ,then use again .
	Please check the handle water leaking or not .
Treatment	Please check the handle destroyed or not ,if yes ,please replace

handle dropped out of the handle holder	new handle .
During the treatment .when therapy press the handle button ,there are “zizi “noise	The device is not turned on for too long time .It is hard to motivate.
	The treatment room temperature is too lower ,please higher the room temperature .
	Please check the electric of the device normal or not
	The humidity of the treatment room is too higher .Please lower the room humidity.
Cooling system temperature is too	Turn off the device minutes ,then return on again .If the cooling system is still abnormal ,please contact distributor or device producer
The treatment handle output energy is too lower	Please check whether there are dirty thing on the reflective mirror ,If yes please clean it .
	If the handle is hot ,please turn off the machine 30minutes
	Please check the head of the reflective mirror good or not ,if there are any destroy .Please contact your distributor or device producer .
The treatment handle output energy is too lower	Treatment head the working life is over.Please contact your distributor or device producer .
Laser emitter is broken	Please contact your distributor or device producer .