

808 Laser Comprehensive Instrument

Model: D101 User Manual

User Manual



Important Notice

Dear User,

Thank you for choosing the instrument carefully designed and manufactured by our company. To better exert the product's efficacy, we sincerely suggest:

Before using the instrument, please read this user manual carefully and keep it properly for future reference and inquiry.

Please install, use and operate the instrument correctly in accordance with the requirements in the manual.

Do not disassemble the machine or modify any parts.

Except for authorized personnel of our company, no one is allowed to open the machine cover and the main unit.

Unauthorized maintenance and modification by non-professionals are strictly prohibited.

In case of malfunction during operation, please contact us.

**This product is not a medical device and shall not be used for
disease treatment!**

Product Advantages

1. Laser: Employs a world-class vertical array laser.

(1) Ultra-long service life: can continuously emit light 5 million times;

2. Highly efficient and stable refrigeration system

The laser cooling system uses constant temperature cooling , ensuring continuous operation of the entire system 24/7. The commonly used air-cooling + water-cooling method in the market can only operate continuously for 2-3 hours .

3. Employs a contact sapphire cooling system with highly efficient cooling conduction, making the skin more comfortable during treatment.

4. Intelligent water temperature control system: Prevents water temperature from becoming too high and damaging the handle.

5. The unique shape and color combination make the product more beautiful and fashionable.

6. The honeycomb picosecond laser travels an extremely short distance, meaning it offers greater selectivity, higher safety, and stronger therapeutic effects with fewer treatment sessions! The honeycomb picosecond laser can break down pigment fragments into fine sand, significantly increasing absorption efficiency and greatly shortening treatment time and number of sessions, resulting in more noticeable pigmentation removal.

1 second (s) = 1000 milliseconds (ms)

1 millisecond (ms) = 1000 microseconds (us).

1 microsecond (μ s) = 1000 nanoseconds (ns)

1 nanosecond (ns) = 1000 picoseconds (ps)

1 秒 s=1,000,000,000,000 皮秒 ps

1. Laser: Adopts the world's top vertical array laser

(1) Ultra-long service life: Can continuously emit light 5 million times;

2. Efficient and stable cooling system

The laser cooling system adopts constant temperature cooling, which can ensure the entire system works continuously 24/7. The air cooling + water cooling method commonly used in the market can only work continuously for 2-3 hours.

3. Adopts contact sapphire cooling system with high-efficiency refrigeration conduction efficiency, making the skin more comfortable during treatment

4. Intelligent water temperature control system: Prevents excessive water temperature from damaging the handle.

5. Unique shape design and color matching make the product more beautiful and fashionable.

6. The travel distance of the honeycomb picosecond laser is very short, which means the treatment has stronger selectivity and higher safety. It can produce stronger curative effect with fewer treatment sessions! The honeycomb picosecond laser can shatter the pigment into fine sand, which greatly improves the absorption efficiency of pigment fragments, significantly shortens the treatment time and number of sessions, and achieves more obvious spot removal effect.

1 second (s) = 1000 milliseconds (ms)

1 millisecond (ms) = 1000 microseconds (μ s)

1 microsecond (μ s) = 1000 nanoseconds (ns)

1 nanosecond (ns) = 1000 picoseconds (ps)

1 second (s) = 1,000,000,000,000 picoseconds (ps)

Functional Principles

808nm semiconductor laser hair removal system: Utilizes its unique long-pulse laser to penetrate the epidermis to the hair follicle. Based on the principle of selective light absorption, the laser energy is preferentially absorbed by the melanin in the hair, thereby making the hair lose its regenerative ability. Meanwhile, during the treatment, the system's unique sapphire dynamic cooling technology anesthetizes the epidermis in a short time to ensure the epidermis is not burned, achieving painless, fast and permanent hair removal effect.

Picocare & Picowon adopt the most cutting-edge technology to treat pigmented diseases. Through fast and powerful energy, the pigment in the skin is crushed more finely and then excreted from the body through the lymphatic system, thereby completely removing tattoos and spots. Therefore, the treatment process is shortened from the original 10 sessions to 2-3 sessions, without damaging the dermis, reducing the possibility of side effects and improving the success rate of the operation.

According to the principle of selective photothermolysis, the shorter the laser action time, the less likely the laser energy absorbed and accumulated in the target tissue will diffuse to the surrounding tissues. The energy is confined to the target to be treated to the greatest extent, protecting the surrounding normal tissues, thus making the

treatment more selective. The pulse width of picosecond laser is only one percent of that of traditional Q-switched laser. Under this ultra-short pulse width, the light energy has no time to convert into heat energy, producing almost no photothermal effect. After being absorbed by the target, its volume expands rapidly, generating photomechanical effect to be blasted into fragments with stronger selectivity. It can make pigmented skin lesions produce stronger curative effect with fewer treatment sessions. In a word, "picosecond laser crushes pigment particles more thoroughly and causes less damage to surrounding tissues."

If we compare the original pigment particles to rocks, the traditional Q-switched laser can crush these rocks into pebbles, while the picosecond laser can crush them into fine sand, which greatly improves the absorption efficiency of pigment fragments.

Application Scope

I. 808 Semiconductor Laser

1. Hair removal: Effectively removes excess hair from various parts of the human body, such as armpit hair, beard, lip hair, hairline, bikini line, and limb hair.
2. Skin rejuvenation: Shrinks pores and brightens the skin.

II. Small Picosecond Laser

1. 532nm: Removes light-colored eyebrow tattoos, body tattoos, lip tattoos such as red, coffee, and brown; fades red or brown birthmarks, freckles, sunspots, age spots and other superficial spots.

2. 1064nm: Removes dark-colored eyebrow tattoos, body tattoos, eyeliner such as blue and black; traumatic pigmentation and dermal spots, etc.

3. 755nm: Fades chloasma, dry spots, dermal spots and other stubborn spots; skin rejuvenation.

4. 1320nm: Whitens skin, removes blackheads and acne, shrinks pores, and balances oil secretion.

Technical Parameters

Screen size: 15.6 inches

Operating languages: English, Russian, German, French, Spanish, Portuguese

Light type: Semiconductor laser

Laser wavelength: 808nm;

Operating frequency: 1-10Hz (adjustable)

Pulse width adjustment: 10-400ms (adjustable)

Energy adjustment: 1-10J/cm²

Laser power : 6 bar:

300W

808 power supply wattage: 600W

Spot size: 13x27mm

YNG laser power: 300W

Output laser frequency: 1-10Hz continuously adjustable

Energy adjustment: $\geq 50-2000\text{J}/\text{cm}^2$

Laser wavelength: 1064nm, 532nm, 1320nm

Total power: 1200W

Output mode: Pulse output

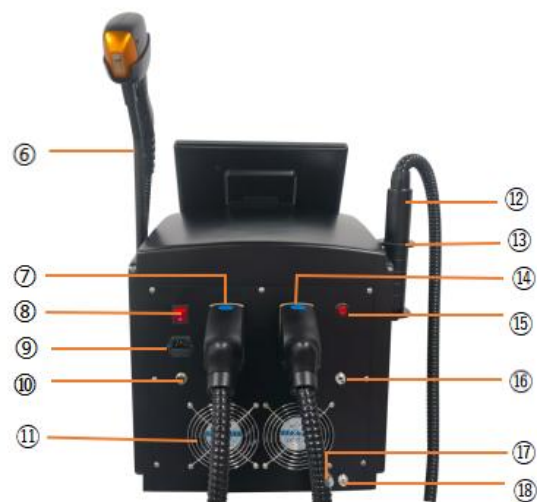
Cooling system: Semiconductor cooling + water cooling + air cooling

Constant temperature cooling

Shell material: ABS plastic

Power supply voltage: AC220V; AC110V (customizable)

Handle temperature: -6~1°C



Instrument Composition

①. 808 Handpiece ②. Display Screen ③.indicator light ④. trip breaker ⑤. key switch ⑥. 808handle hanger ⑦.808 handle plug-in interface ⑧. power button ⑨. power cord socket ⑩. Foot switch interface ⑪. thermovent ⑫. Laser handle ⑬.Picosecond Handpiece Hanger ⑭.Laser handle plug-in interface ⑮. Red sight switch⑯. Water inlet ⑰. Water outlet ⑱.Overflow outlet

Attachment List

1. 2 handles
2. YAG laser probes: 3 (532nm, 1064nm, 1320nm)
3. 2 sets of handle brackets
4. Glasses: 1 pair
5. Eye mask: 1 pair
- 6.One water-filling funnel
- 7.1 power cord
- 8.1 foot switch
9. Fuse: 2 (spare)
10. 2 keys
11. 1 instruction manual

Installation

1. Unpack and inspect

(1) Carefully remove the instrument and accessories from the packaging box, and preserve the packaging materials for future transportation or storage. Check the accessories against the accessory list.

(2) Check for any mechanical damage.

2. Install handle bracket and handle

(1) Install handle bracket

(2) Connect the handle to the instrument; then place the handle on the stand.

Note: When connecting the handle, make sure the upper and lower blue buttons on the connector are fully extended, otherwise it may cause water flow obstruction!

(3) Foot switch connection cable insertion interface

3. Instrument water filling

(1) Take out the water funnel and connect it to the water inlet on the back of the instrument;

(2) Pour in pure water or distilled water until water flows out of the overflow outlet.

Note: You must use purified water or distilled water. Tap water or other types of water must not be used.

4. Power-on operation

(1) Connect the power cord and turn on the main switch of the instrument;


(2) Turn on the emergency stop switch and the key switch.

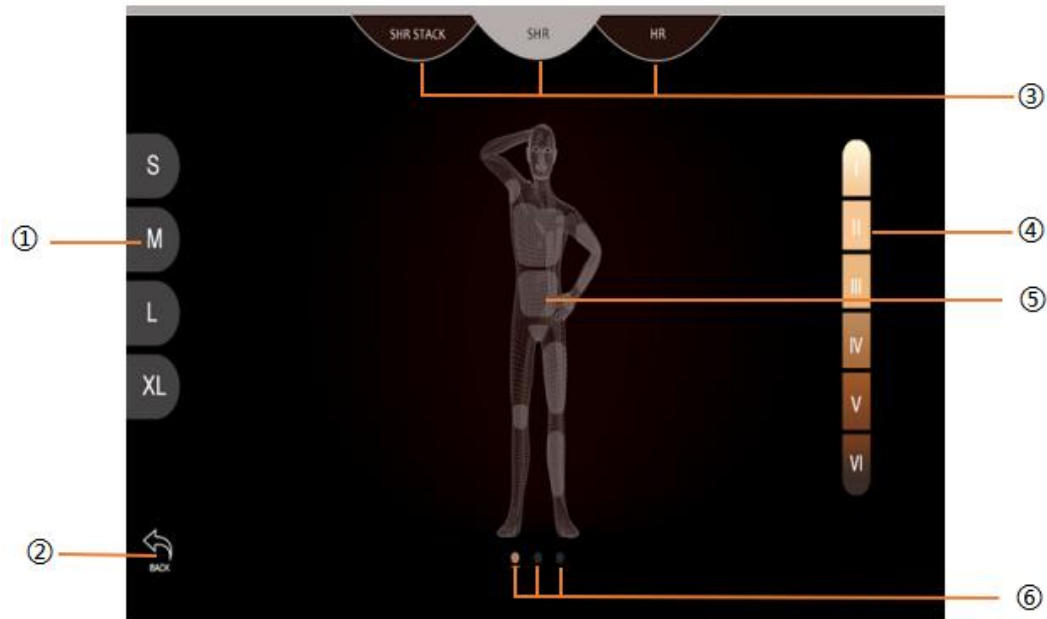
Interface Introduction

Boot screen; options screen displayed after booting

Click Start to enter the main interface of the operation project: Select the corresponding operation mode to enter the interface.

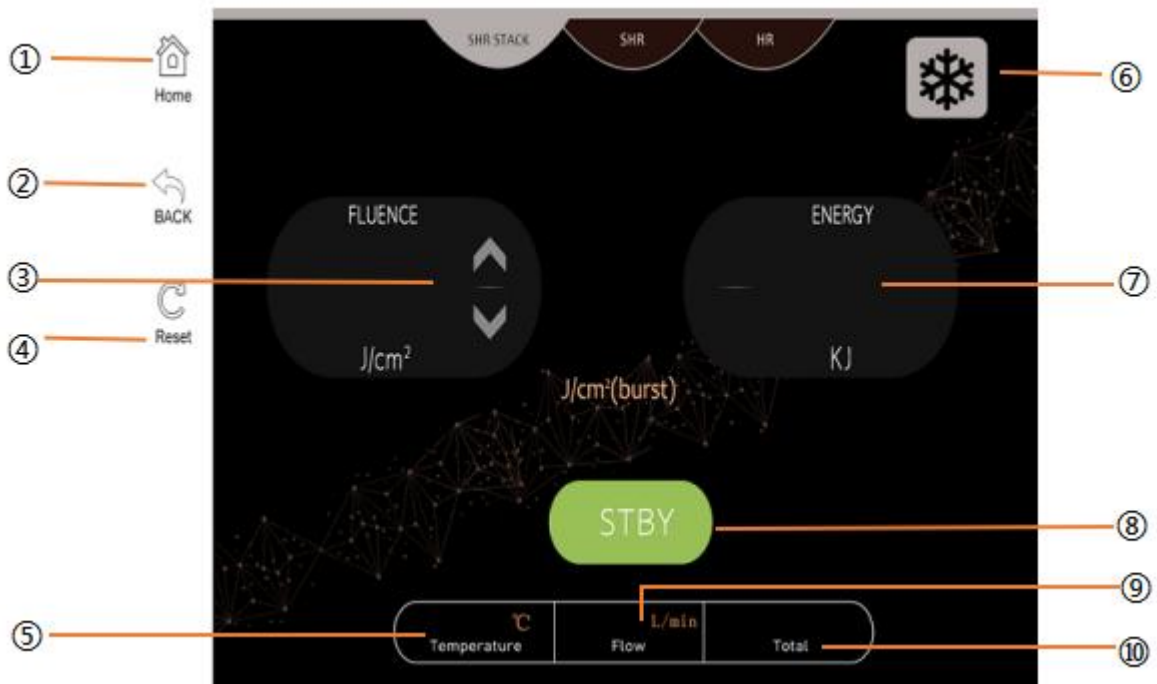


Click  to enter the 808 interface



- ①. Size Selection
- ②. Back Button
- ③. Mode Selection (SHR STACK/ Skin Rejuvenation Mode SHR/ Regular Mode HR/ Quick Mode)
- ④. Skin Tone Selection
- ⑤. Click Area Selection
- ⑥. Area Mode Selection |

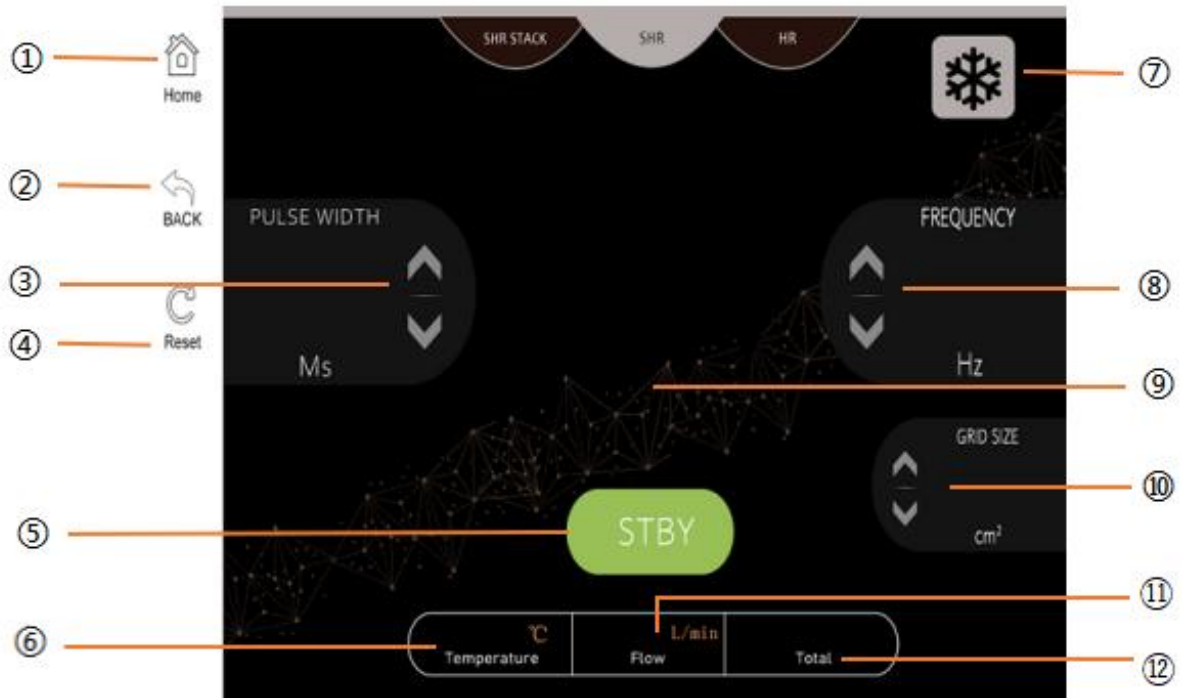
Click SHR STACK to enter the operation interface, as shown in the figure:



- ①. Return to main interface
- ②. Return
- ③. Energy adjustment
- ④. Reset
- ⑤.

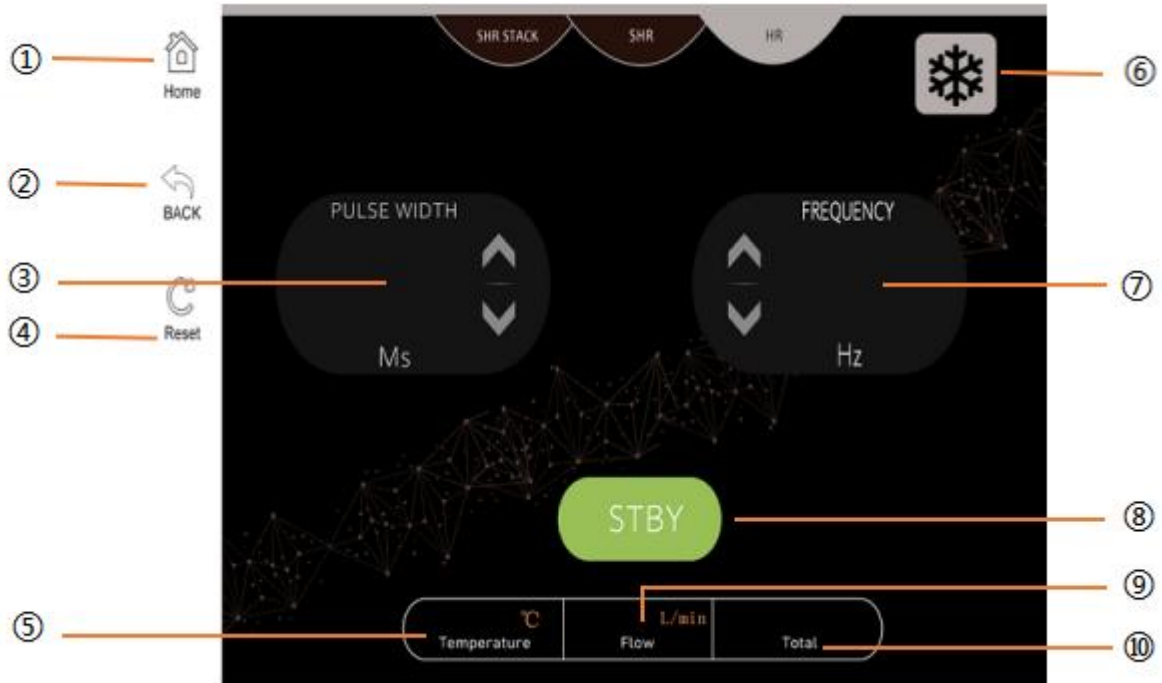
Temperature display ⑥. Cooling adjustment ⑦. Total display ⑧. Start/Pause ⑨. Water flow display ⑩. Cumulative count

Click SHR to enter the operation interface, as shown in the figure:




②. Return to main interface ②. Return ③. Pulse width adjustment ④. Reset ⑤. Start/Pause ⑥. Temperature display ⑦. Cooling adjustment ⑧. Frequency adjustment ⑨. Time display ⑩ . Energy adjustment ⑪. Water flow display ⑫. Cumulative count

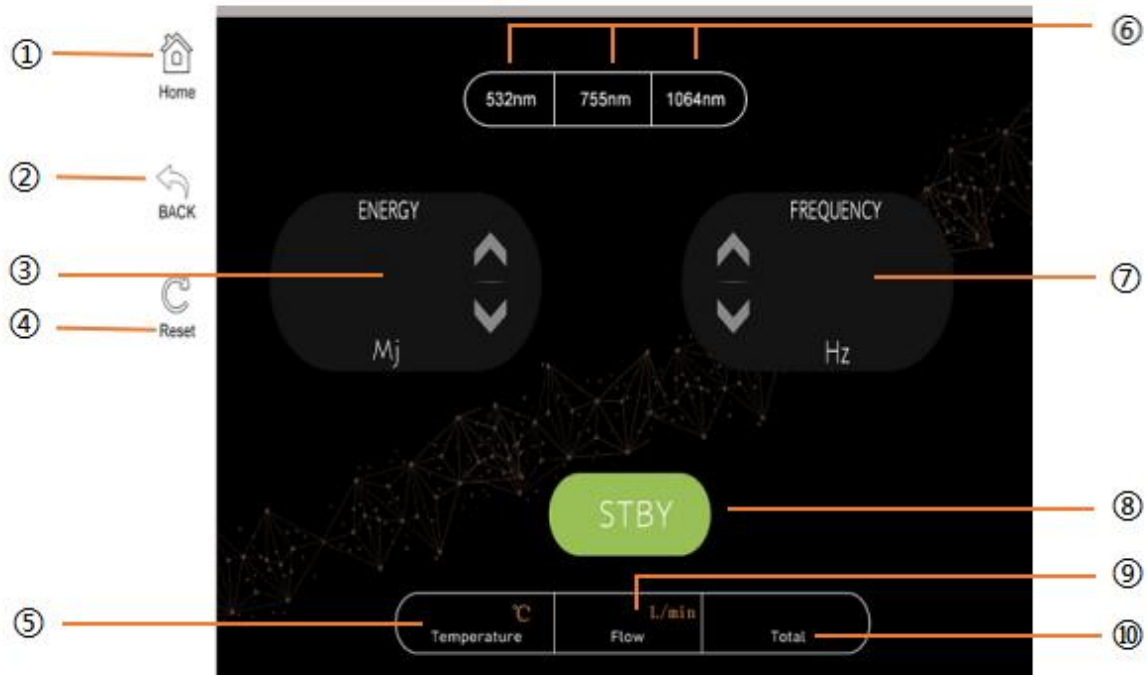
Click on HR to enter the operation interface, as shown in the figure:



- ① Return to main interface
- ②. Return
- ③. Pulse width increase/decrease
- ④. Reset
- ⑤. Temperature display
- ⑥. Cooling adjustment
- ⑦. Frequency adjustment
- ⑧. Start/Pause
- ⑨. Water flow display
- ⑩. Cumulative count



Return to the main interface; click  to enter Pico Laser, select the operation mode to enter the interface.



- ① Return to main interface ② Return ③ Energy adjustment ④ Reset ⑤ Temperature display ⑥ Mode selection ⑦ Frequency adjustment ⑧ Start/Pause ⑨ Water flow display ⑩ Cumulative count

808 Operating Procedures

1. Shaving

Before the procedure, a shaving process is performed, leaving 1-2mm of hair to facilitate light absorption.

2. Apply cooling gel

Apply a small amount of cooling gel to the treatment area, about the thickness of a coin.

Do not apply too thickly, otherwise it will affect the effect.

3. Adjusting treatment parameters

The appropriate treatment parameters are selected based on the client's skin tone, hair thickness, and the area to be treated, and should be adjusted flexibly according to the

client's experience.

4. Operation process

4.1 To ensure a close fit to the skin and prevent light leakage, slowly slide the probe on the handle for operation.

4.2 Energy adjustment: Start operating from the system default energy. If the user feels too much heat, reduce the energy. If there is a slight feeling of thermal expansion, it means that the melanin is absorbed by the 808nm wavelength laser, and the light energy is converted into heat energy, destroying the melanin in the hair follicle. At this time, the effect is the best.

4.3 Operation time: approximately 10-15 minutes for leg hair removal, 5-10 minutes for arm hair removal, about 5 minutes for underarm hair removal, and about 3 minutes for lip hair removal (for reference only, the specific time should be determined according to the changes in hair and the size of the hair removal area). The clinical endpoint is when the hair follicles are observed to be red, raised, the hair is slightly curled, and the hair follicles are hot and swollen.

5. Skin cooling

5.1 After the procedure, use the handpiece probe to cool the treated area for 3-5 minutes without applying energy, or allow it to cool naturally.

5.2 Cleanse skin

Remove the gel and apply a moisturizing product or body lotion.

Operating Precautions

1. Never look directly at the intense light emanating from the front of the laser handle.

When operating on the face, you must wear an eye shield to completely cover your eyes.

2. When operating, slide the handle slowly and do not stop in one place to emit light continuously, so as not to cause discomfort to the customer.

3. Treatment interval: 20-28 days.

Post-hair removal precautions

1. Avoid taking hot showers for 7 days after hair removal; lukewarm water is sufficient.

2. Avoid spicy, alcoholic, and stimulating foods.


3. Avoid prolonged exposure to the sun, and take precautions against sun exposure by applying sunscreen and a makeup base.

4. Avoid manually pulling or tugging at the hair after hair removal. Complete the full course of hair removal treatment.

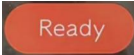
Pico Laser Operation Steps

- Select treatment wavelength 755-1064-532



- After selecting the mode, click  to adjust the value.
- Adjust the treatment energy to 755 mJ at 50 mJ, gradually increasing to a maximum of 2000 mJ.
- Adjust the therapeutic energy to 532 mJ at 50 mJ, gradually increasing to a

maximum of 2000 mJ.

- Adjust the therapeutic energy to 1064 mJ at 50 mJ, gradually increasing to a maximum of 2000 mJ.
- The treatment frequency can be adjusted from 1 to 10.
- After adjusting the parameters, press the bottom center corner of the screen  to start (it won't turn green if you're not ready).
- **Note: Do not step on the foot switch during setup.**

Energy

50-2000 mJ in 1064 mode , 100-2000 mJ in 532 mode, and adjustable from 100-2000 mJ at 755 nm.


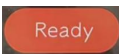
Wavelength conversion

If you select 532nm, the mode will switch to 532nm ; if you select 1064nm , the mode will switch to 1064nm; and if you select 755nm, the mode will switch to 755nm (switching is manual).

Frequency

Adjusted from 1 to 10 Hz . Clicking on an option will operate at the frequency of that option.

Pre-ignition standby

Click  the button to switch; after pressing the red  button, the device enters working mode. In this mode, pressing the foot pedal will activate the power switch.

Click  to switch to green.  Then it returns to standby mode.

All parameter adjustments must be made when the foot pedal switch is off. No

parameter adjustments are permitted while the foot pedal is depressed.

2) Treatment

After setting all the parameters, align the output port of the articulated arm vertically with the area to be treated. Control the distance between the output port of the articulated arm and the treatment area to control the size of the light spot diameter, and step on the foot switch to start the treatment.

Note: Failure to operate according to the instructions in the manual may result in laser radiation!

1. Indications

This instrument is mainly used clinically to remove some exogenous and endogenous blue, black, and brown pigmentation lesions on the skin, such as: tattoos, eyebrow tattoos, freckles, melasma, age spots, dermal spots (external and internal pigment residue), and for skin whitening, resurfacing, and brightening.

2. Treatment interval

Two treatments should be spaced about 1-2 months apart to allow sufficient time for the broken-down pigment particles to be absorbed.

3. Number of treatments

In most cases, multiple treatments are required to achieve satisfactory results. The number of treatments for a specific patient depends on factors such as the concentration and depth of pigmentation at the affected area, the composition of the pigment, the laser dose used in each treatment, and the absorption of pigment particles by macrophages in the patient's body. Generally, exogenous pigmentation requires more than 3 treatments, while

endogenous pigmentation requires more than 5 treatments to achieve satisfactory results.

A small number of patients still do not achieve ideal results after multiple treatments.

Instrument maintenance precautions

1. the water to purified or distilled water every month .
2. The instrument should be placed in a clean and well-ventilated indoor environment with a temperature of 5-40 °C and humidity not exceeding 80%, avoiding direct sunlight.
3. During use, ensure that the instrument's ventilation openings are not blocked and that there is at least a 5cm gap around the instrument.
4. Do not move the instrument over long distances ; before transportation, the water inside the instrument must be drained completely, all water holes must be sealed tightly, and the original shock-absorbing packaging must be used during transportation .

Ban avoid people group

1. Patients with heart disease or high blood pressure
2. Pregnant women and patients with epilepsy
3. Patients with hypertension and diabetes
4. Customers with photosensitivity
5. People who work in strong sunlight for long periods of time, and those with recently sunburned skin.
6. Clients who need short-term skin resurfacing
7. Customers currently taking antioxidants or hormone medications

Quality quantity Save certificate

This instrument is covered by a 12-month warranty on the main unit from the date of purchase (with receipt). Faults (excluding those caused by human error) within the warranty period will be repaired free of charge. Repairs are also available after the warranty period, with charges based on the cost of spare parts and consumables (shipping costs are borne by the customer). Please contact our company for any additional supplies or purchases.

Free repair and warranty service will not be provided for malfunctions caused by the following user-related reasons:

- ① Malfunctions caused by unauthorized disassembly or modification of this product;
- ② Malfunctions caused by using hand tools not supplied by our company;
- ③ Malfunctions caused by careless use, dropping, or impact;
- ④ Malfunctions caused by lack of proper maintenance;
- ⑤ Malfunction caused by failure to use the product correctly according to the instructions.

Product Warranty Card

Product Name		Customer Name	
Product Model		Contact number	
Purchase date		Contact address	
Repair date	Cause of the fault	Repair content	Repairman