# **Diode Laser User Manual 808**



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# **Product Description**

Description	Illustration	Position
	Read carefully before operating manual	near scram
4	High voltage danger sign, only allow professional contacts	inside the machine
	Manufacturer	Nameplate area
Ť	Electric protection against Type: portion of the class I applications B	near the part of the application
LASER RADIATION WOLD EVE OR SKIN EXPOSURE TO DRECTOR/DRECATERED RADIATION CLASS 4 LASER PRODUCT	laser products warning	rear of the machine
	laser products warning	rear of the machine
Countrols-Judien reason convinces offer work and the scale defension budget a Judies read-work work offer action of the low defendance in the best of the scale defendance in Defect on scale trades and	Chain Warning	rear of the machine
LASER APER TURE	Laser radiation area	On the handpiece
220V~, 10A, F	Insurance	rear of the machine
Diggin Model: Stream 4   Mar langes (IP: 207 - 40%). Model: Stream 4   Mar langes (IP: 207 - 40%). Model: Stream 4   Mar langes (IP: 207 - 40%). Model: Stream 4   March (IP: 207 - 40%). Model: Stream 4	CE marking	product nameplate

	Electrical connection	inside the machine circuit identification
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### **Configuration of equipment**

1.	808 laser handle/one piece	2	Laser glasses/one pair	3	Laser goggle/one pair	4	Injection bottle/one piece
5	pedal/one piece	6	Power wire/one piece	7		8	

### **Instrument Description:**

#### **Instrument Introduction:**

808 diode laser hair removal can lower energy density mode follicle is heated to 48  $^{\circ}$ C, by treatment with a low energy hand sliding for some time ( at low frequencies ) and growth of the hair follicle stem cells that lost growth activity, so as to achieve permanent hair removal purposes.

#### How it works:

Semiconductor freezing hair removal apparatus having a wavelength of 808nm, the wavelength can effectively reach the target depth of penetration of the target tissue (hair papilla), the appropriate pulse duration sufficient protection of the target tissue and the surrounding tissue thermal damage is hardly affected; amount of energy density protection provided in the appropriate period of time sufficiently strong enough to damage the energy output target tissue and normal tissue is almost unaffected; appropriate protective measures to protect the skin enough to damage the target tissue, and skin almost unaffected, thereby protecting the safety of the treatment

#### **Features and Benefits Work**

1) High-speed hair removal to reduce the pain of frozen environment truly minimally

invasive

2 ) Center Wavelength 808nm dermal papilla higher efficiency than other hair removal hair removal device acts directly through the skin

3 ) the use of 1800W features 500W power supply with high efficiency high-frequency semiconductor laser light handle rapid treatment

4 ) the use of the press to ensure that the condenser cooling thermostat handle without intermittent work , more suitable for professional medical establishments use

5 ) can handle sliding technology features a smooth continuous uninterrupted operation of hair removal without moving from the site of action

#### Precautions

Handling Precautions

1 before any operation to clean the hair area

- (2) When operating on a cold gel applied first
- 3 After the operation attention to the sun

Postoperative Considerations

### **Diet note**

Maintain daily diet, do not need special food supplements.

Make-up skin care products

1 Avoid using hot water to clean the face, and with a mild detergent.

2. Choice of appropriate moisturizer, sunscreen lotion to care.

3 can enhance the use of moisturizing essence, such as hyaluronic acid, and promote

skin repair B5

4 of the best short-term three to five days to avoid irritating skin care products .

Lifestyle

1 Do three to five days to hot places , such as sauna, hot springs , the sun, to avoid skin irritation.

2 lifestyle to the law , do not stay up late , avoid smoking and drinking.

## Maintenance and repair

1, inside the instrument before each turn to ensure adequate cooling water.

2, the handle must be confirmed adequate internal water flow (Note : the handle into the ear side) after turning the key switch in order to carry out the next step.

3, if the water is not circulating, repeatedly boot times (Note: The key switch repeatedly boot, not according to the work key) and lower the handle held high, repeated several times until the water until the full cycle.

4, after changing the water , if the water is not circulating properly , please refer to Section 3 .

5, in the normal use of the instrument, please completely replaced every 7-10 days with distilled water .

6, the operating handle is attached to the shell of the product precision, crumbly laser devices, placement and when to use to prevent fall.

Malfunction	reason	Solution	
		1) change the fuse	
	1) fuse burn-out	2) turn the emergency	
No power	2) emergency button is off	button	
	3) the key is unopen	3) turn the power	
		supply	
	1) cooling power is broken		
	2) core plug contact is not good		
The handle is not	3) semi-conductor cooling is	Contact the seller	
cooling	broken	Contact the sener	
	4) handle with air, the water isn't		
	cycle		
Leak water in	1) the screw is loose in handle	Strike the handle and	
handle	2) pipe shed in handle	contact seller	
nandle	3) lamp or crystal is broken	contact sener	
The light is not	1) the handle is broken		
The light is not	2) the controller is broken	Contact the seller	
light	3) power is broken		
	1) handle swithch is not contact		
there is no light	good	Contact the seller	
shot out	2) wrong operation	Contact the sener	
	3) cotroller broken		

## **Malfunction and Solution**

	<ul><li>4) power broken</li><li>5)the light is too long use, need to change</li></ul>	
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### **Technical parameters**

Type of laser	Continuous semiconductor laser
wavelength	808nm
Output	pulse
Pulse width	10-350ms
Export size	12mm X 10mm
Handle cooling system	semiconductor cooling
Frequency	20HZ
Energy density	40-100J/cm <sup>3</sup>
Cooling	0-4°
Input power	110/220VAC,16A max,50/60Hz
Dimension	770mm*540mm*970mm
Net weight	70kg
Safety	
Note:	

Please read the manual and the learn the operation steps.

Operation according to the required:

Learn the operation steps,

Have the right control procedures and understand the warning signs.

Understand the accident report.

Understand the laser damage of biological response.

The machine is in the condition of power off when no operation. After operation,

remove the key, and keep it in place, forbidden others to use it except operator.

Don't work in a flammable objects environment

Keep the machine clean, clean the machine properly before operation

Make sure it dry before operation if you clean with alcohol.

# Install

connect and prepare



Insert one cpc in overflow hole when watering

Install steps:

- Open the packaging
- Check the machine and parts are OK.
- Watering the pure water or distilled water
- Connect the pedal
- Install the handle correctly
- Insert the key
- Install the power line
- Check all the connections, make sure all is ture.

#### The requirement of environment

- Input voltage: 230V~,50Hz,/ 110V,60Hz
- Don't work in a flammable objects environment

- Metal dust can damage the electrical components, dust particles absorb light and heat. Therefore, the particles of dust should be reduced to a minimum
- The temperature in room should be 20oC-25o(68oF-77oF), and the corresponding humidity can't be less than 80%.



Please don't put water in the machine when temperature less than  $2^{\circ}C(35^{\circ}F)$ .

# **Menu selection**



Opening interface

• skin selection interface: six skin types





n

Button definition

manual



•

Select the hair color

Select Ha	air color
Light brown	Brown
Dark brown	Black

#### Working interface



• Cooling level: adjust cooling, intensity 1-4



Click" cooling level" button:

Select cooling intensity1,2,3 or 4,then press OK; press"ESCAPE" to return cooling

level

7 8 9
4 5 6
1 2 3
0 < ок
ESCAPE

- Current: output energy (40–100)
- Frequence: (1Hz-10Hz)
  - 1Hz, pulse width (20ms-350ms)
  - 2Hz, pulse width (20ms-160ms)
  - ◆ 3Hz–10Hz pulse width fixed 40ms
- Pulse duration:
- Counter display:



• Flow and temperature display



• Work and standby button







• Press "READY", then step the pedal can shot light



According to the following content in the tooltip:

- system standby
- Replace handpiece
- System ready
- Release foot switch!
- No handpiece!
- water flow!
- water temp! Temperater too high than 31°
- 5. System setting interface:

manual

Press "System setting": can check the soft version, ID No., handpiece count,

machien count, time



#### Attention

#### Who is forbidden:

Malignant or pathological changes of pigment

Photosensitive skin

People who are pregnant

The use of the coagulability drugs

Scar constitution

Bacterial infectious diseases

The immune system defects

Scleroderma

Diabetes

Pay attention:

Treatment of orbital area, please use the eyelid board in order to protect the eyeball. Surface anesthesia using the 0.5% tetracaine lubrication eyelid board to avoid corneal infection. Physicians and assistant should wear protective goggles. Please do not wear a reflective decoration, such as: watches, necklace, bracelet, etc. Therapy should have warning labels, and banned from entering.

Choose the right treatment parameters is very necessary for successful treatment.

In general, setting parameters from the lower to high for treatment, gradually increase the energy in order to avoid side effects.Treatment of pale light aging skin, parameter selection and treatment of scar is similar, you can reference the skin type of Patrick grading.

I - Burns, no sun (pale skin)

II – Easy to burn, minimum insolation (white)

III - Moderate burns, equal insolation (light brown skin)

IV –Minimum burns, insolation good (medium brown)

V – Not easy to burn, easy sun (dark brown skin)

VI –No burns (dark)

In addition, the lighter of the skin, the greater of the energy.

#### After treatment.

You can cold but notice for the treatment area.

You'd better avoid the sunlight within two weeks.

After treatment, the skin may become red or erythema, these symptoms will disappear within six months.

Blisters or skin lesions may appear after the treatment, can use antibiotic treatment or burn cream.

Two weeks after treatment, suggest using two to four weeks benzodiazepines

(2-5%) and hydrocortisone cream (1%).

For patients with skin type III or IV, two to four weeks after treatment may occur pigmentation, but three months can disappear.

# **Daily maintenance**

### Clean machine

Cleaning the machine once a week, or to wipe the surface of the machine. Pay attention to avoid the liquid into the machine.

Disinfect the USES tools such as handle, protective goggles etc. every time before and after treatment. When disinfect the machine, you can use 70% of medical alcohol or related disinfection method.