

Manual

Model: DPL+ picosecond



Directory

I. Product profile.....	1
II. Principles of treatment.....	1
III. Scope of application.....	2
IV. Technical parameters.....	2
V. Random accessories.....	
VI. Installation and commissioning.....	3
VII. Operational instructions.....	4
General knowledge of operations.....	8

IX. Points for attention..... 10

X. Maintenance and services..... 12

Before starting the machine must add pure water, add to the overflow outlet until the water is filled. You can start using it.

Please install the instrument first, then add water to the instrument to start up

The steps of adding water are as follows :1 There are water injection holes under the back of the instrument

Unscrew water injection and overflow holes

Twist the funnel into the water hole and add pure to the funnel

Water or distilled water until the overflow outlet

The instrument water is full.

The nuts of the 3 water filling and overflow holes do not need to be screwed

It is beneficial to the air permeability and heat dissipation of the instrument.

The instrument suggests changing water once half a month. When changing water, unscrew the discharge hole, let the water flow naturally, then screw on the nut, and add water according to the above steps.

I. Product profile

This product is a collection of DPL and picosecond in one of the multi-functional medical beauty equipment. The control system adopts Linux embedded technology, and the core board adopts the Micro2440 core board with more powerful function, faster operation speed and more stable operation, which makes the upgrade and operation of the instrument truly intelligent. The 10.4 inch super color display interface allows customers to enjoy luxury beauty services.

II. Principles of treatment

Using D PL and RF dual-stage radio frequency technology, the whole dermis and connective tissue play a role, stimulate collagen at different depths, rearrange and grow, so as to achieve therapeutic effect. Using the selective absorption of light energy by skin, various pathological tissues of epidermis and dermis can produce photolysis effect. Because its requirement for light energy is far lower than that of the traditional IPL, it can make the epidermis, dermis, various pigmented and vascular lesions absorb more energy without damaging the epidermis, and better

remove these lesions and achieve the therapeutic effect.

RF technology —— first ensure skin comfort and no damage, then use radio frequency waves to produce heat conduction, accurate direct to the deep skin, stimulate ions in the body, charged colloidal particles to produce rapid movement or vibration, friction to produce heat energy, when the skin deep collagen tissue heat energy reaches 45-60°C, naturally produce immediate contraction, stimulate the secretion of more new collagen to fill the atrophy and loss of collagen gap, and rearrange, rebuild the skin soft support, finally achieve the effect of tightening the skin, filling wrinkles, restoring skin elasticity and luster.

Picosecond —— the use of laser instant emission of high energy to effectively crush the pigment in the diseased tissue, so that the irradiated pigment particles absorb energy expansion and rupture, some fission into smaller particles out of the body, Some are swallowed by human macrophages and excreted through the lymphatic system to remove pigments. Because the normal tissue does not absorb the fixed wavelength laser, it maintains the integrity of the cell frame and has no scar condition.

DPL is an intelligent and non-stripping skin reconstruction system which integrates epidermal cooling technology and multi-band strong pulse light therapy technology. According to different skin types and different skin problems of patients, the targeted treatment scheme is given. If the epidermis is fully protected (epidermal cooling technology), the DPL

technology can be used to decompose the spotted pigment in the epidermis and dermis, so that the energy can be focused to the collagen tissue of the dermis and the hair papilla of the hair follicle to the maximum extent. The selective photothermal principle of magneto-optical can strengthen the effect of skin rejuvenation, freckle removal and depilation, and easily realize skin reconstruction and depilation without obvious pain and side effects.

III. Scope of application

DPL:

1. painless hair removal: permanent hair removal, indecent hair throughout the body (growing hair), including lighter fine hair.
2. freckle: remove freckles, brown spots, sun spots, senile spots, acne marks, facial defects.
3. skin: improve pores, rough skin, fine wrinkles, restore skin elasticity.
4. treatment of telangiectasia: red blood, flushed face.
5. improve the dark complexion, make the skin white, uniform color

Picosecond:

- Special removal of red, brown, brown and other color tattoos.
- Effectively remove all kinds of eyebrow, embroidered eyebrow, lip immersion, tattoos, eyeliner and lip line.
- treatment of pigmented skin lesions and mixed pigmentation, such as senile plaques, birthmarks, nevus ota, nevus nigra, etc.

IV. Technical parameters

L i g h t s o u r c e	Strong pulse light	S p e c t r a l r a n g e	480/530/640–1200 nm[Standard]
Spot area	12*30 mm	IPL energy	1–50 J/cm ²
P u l s e w i d t h a d j u s t a b l e	ms 1–99	N u m b e r o f p u l s e s	1–5
RF energy	1–50 J/cm ³	RF frequency	5Mhz bipolar (3 therapeutic probes)
L a s e r w a v e l e n g t h	nm/532nm 1064	T y p e o f l a s e r	Q switch Nd: YAG
L a s e r e n e r g y	J/cm ² 30–1500	L a s e r f r e q u e n c y	1–10 Hz
D i s p l a y s c r e e n	10.4 inch Color Touch	C o o l i n g s y s t e m	Water cooling + semiconductor refrigeration + air cooling
T o t a l p o w e r	2000W	V o l t a g e	AC220V

V. Random accessories

Name of name	Unit	Quantit y	Remarks
DPL hand	The	1	
Leather arms	The	1	
Power cord	Articl e 12	1	
Open key	The	2	
Water injection funnel	A	1	
Eye mask	Deputy	1	Guest use
DPL glasses	Deputy	1	Operator use

Laser glasses	Deputy	1	Operator use
Insurance	Support	2	Standby
Instructions	This	1	

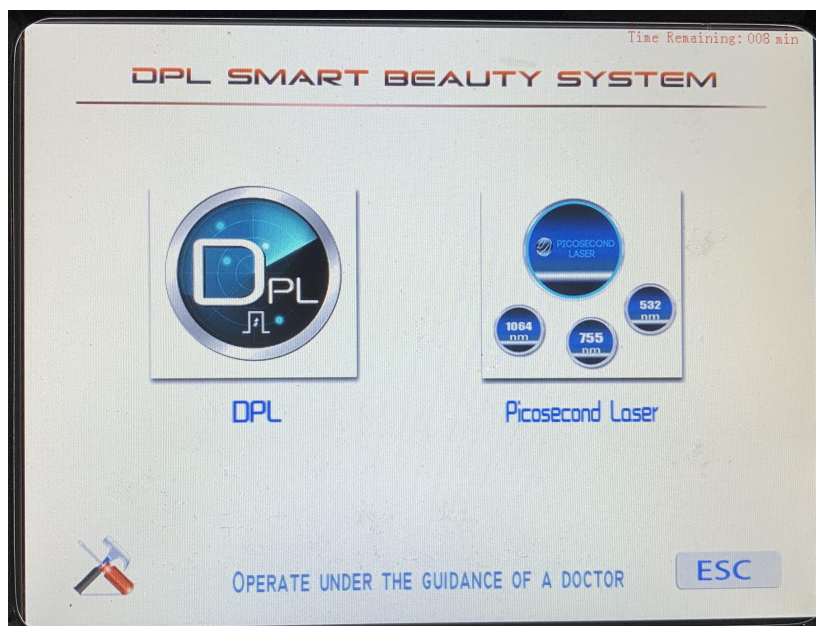
VI. Installation and commissioning

Open-box inspection	Open the outer packing box and check the accessories according to the packing list
Hand mounting	<ol style="list-style-type: none"> 1、 Unscrew the water nozzle seal cap on the hand tool interface 2、 Connect the corresponding joint of the hand tool to the hand tool interface 3、 Put the hand in the hanger
Instruments Water injection	<ol style="list-style-type: none"> 1. unscrew the sealing cap of water injection hole and overflow hole on the back plate of the main engine 2. screw the water funnel into the water injection hole and inject water into the instrument (pure water or medical distilled water) until the overflow hole has a flow out <p>After 3. water injection, screw the cap of the overflow hole</p>

Instru ments Debug ging	<ol style="list-style-type: none">1. check that there is no connection error in the waterway circuit and no leakage at the water nozzle connection, insert the power cord to start debugging2. turn the front stop switch clockwise3. turn the key switch clockwise
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VII. Operational instructions

1. Select DPL Treatment Project



2. into the treatment mode selection interface



3. the corresponding treatment model

Treatment record: display the current treatment record, can record different treatment parameters, in order to facilitate the treatment of different customers, click can change the treatment record, there are three options.

Treatment mode: displays the currently selected operation item.

Number of pulses: refers to each trigger discharge, the number of strong pulses issued by the system, the increase in the number of pulses to enhance the depth of light acting on the skin, direct click can be adjusted, the adjustment range is 1-5.

First pulse width: refers to the first strong pulse for the skin working time, click can directly enter the adjustment interface to set.

Child pulse width: the working time of the child pulse for the skin, the

single pulse application is not displayed, click can directly enter the adjustment interface to set.

First pulse interval: refers to the interval between the first pulse and the sub-pulse, click can directly enter the adjustment interface to set.

Glowing interval: refers to the interval between two luminescence, can be adjusted by direct point selection, the adjustment range is 1-5 s.

Total number of luminescence: the total number of times the hand glows.

The number of times of luminescence: show the number of times for this hand.

Status indicator bar: displays the status of the light, charging, water level, water temperature.

Return button: used to return the treatment mode selection interface.

IPL energy adjustment: adjust the IPL energy output of the hand, the energy display window will display IPL current output energy value during the adjustment process.

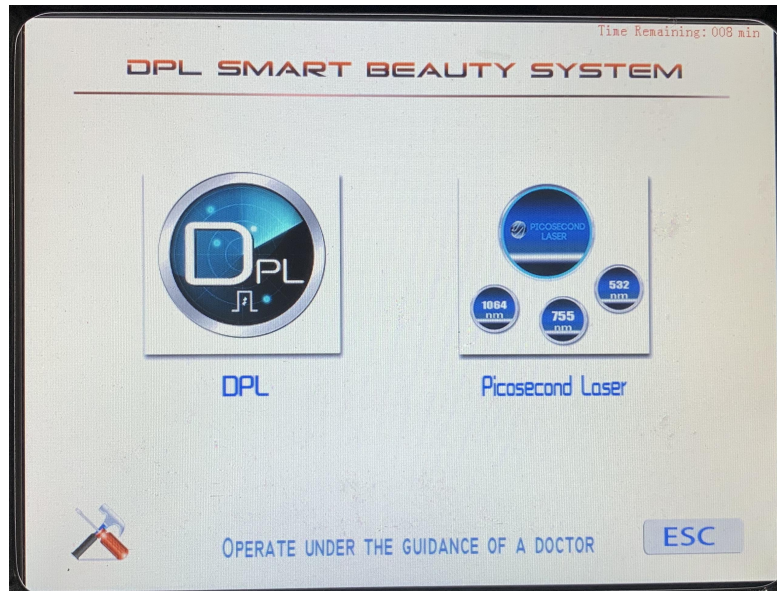
Refrigeration regulation: used to adjust the treatment temperature of the treatment hand, a total of 5 adjustable, the more blue snowflakes refrigeration stronger, blue snowflakes disappear refrigeration closed.

Start / stop button: press start to trigger the hand and automatically charge the capacitor, when the charge is complete, you can enter the treatment state. Press stop to exit the treatment state.

Continue / pause button: when displayed as "continue ", for rest state,

parameters can be set, at this time the hand is light state but press the hand button will not shine.

4. select picosecond therapy



4.1 Access to the interface





Note: the laser window should point to a safe place before and after the machine is running


1. 1064 Laser head effectively removes dark tattoos, eyebrows, lips, eyeliner and traumatic pigmentation and freckles.

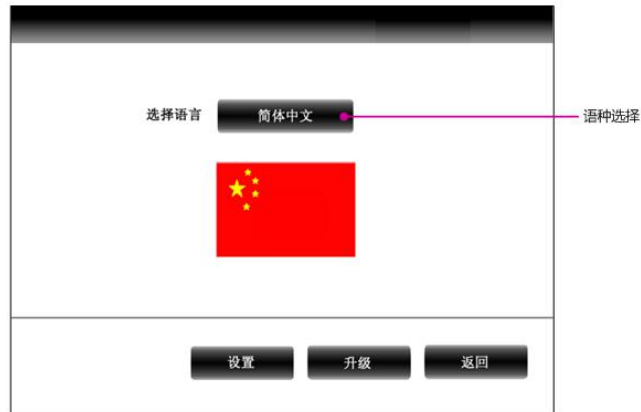
2. 532 Laser head for treatment of red or tan tattoos, eyebrow, lip line, eyeliner. And ² can effectively desalinate red or brown birthmark and all kinds of shallow spots and so on.

3. Black face doll head whitening skin, ^{1.} shrink pores. ⁴

4. 755 Hive skin second head sunburn, freckles, chloasma, elderly spots, dry spots, dermis spots and other stubborn spots.

Pregnancy spot, red nevus.

4.3. In the lower right corner of the function selection interface, click the settings button to enter the background settings: 



- Click the "language selection" button to switch the language.
- "Settings" and "Upgrade" buttons are prohibited for non-engineering personnel.

General knowledge of operations

1. contraindications

- Patients with heart disease and hypertension
- Pregnant women, epilepsy patients
- Patients with hypertension and diabetes
- Photosensitive customers
- Long-term working in strong light, recent sunburn skin
- Short-term skin change customers
- Customers taking antioxidants or hormones

2. preparation before physiotherapy

1. Pre-operative consultation, file filling.

Preparation: Condensate, Scraper, Protective Mirror, Preheat Instrument

Operation steps: remove makeup —— clean face —— scrape off excess

hair —— apply condensate —— spot test for treatment —— cold

compress, water supplement —— smear repair product

Attention 3. physiotherapy

Strict and effective eye protection measures must be provided to customers (e. g. gauze, eye mask)

During physical therapy, it is recommended that the gel thickness be 2-3 mm, skin head is the best fit, do not press too heavy or suspended.

During physical therapy, the skin will have a slight tingling, fever sensation, but within the customer's tolerance

Energy parameters according to the individual's capacity to bear and skin response can be adjusted in turn about 2-3, after the end of physical therapy has red, hot, tingling feeling, are normal phenomenon, through cold compress can be removed within 30 minutes. After heat dissipation, some pigments are decomposed into fine particles and extracted to the skin surface.

The customer of red blood silk, need to operate between 15-18 J/cm² of energy of red blood silk part first ,5 minutes later ,25 J/cm² or so operate again, can repair horniness desalinate red blood silk. After the operation will become slightly clearer than before, ten days later will slowly fade.

After a few minutes of physical therapy with freckles and nevus, the pigment has been extracted from the epidermis and will gradually fade away with metabolism for about three to seven days.

After physical therapy, the skin will still have a hot feeling, the skin is slightly red, generally about half an hour will recede (individual skin, especially sensitive skin in an hour or two are normal phenomenon); after physical therapy a few days will have a feeling of itching, is a normal skin metabolic response, water will ease.

Attention after 4. physiotherapy

Heat dissipation, can be cold compress, cold spray, natural heat dissipation methods.

2, water, it is recommended that the use of water mask in seven consecutive days, do not steam sauna, steamed noodles ,10 days with cold water clean face.

3, sunscreen, after a month should use more than SPF20, do not contain foundation sunscreen, avoid strong light direct operating parts, when going out recommended to use sunshade and other sunscreen.

4, a week prohibited to eat spicy, seafood and other irritant food, celery coriander and other photosensitive food do not eat, high pigment content of food eat less, avoid alcohol and tobacco.

5. It is forbidden to use functional cosmetics and to use hormone cosmetics during treatment.

The interval between two treatments was 28-45 days and the interval between hair removal was 2 months.

IX. Points for attention

1. handling safety

This instrument memory precision device, the user tries not to move far away. Before transporting the machine, the water in the instrument must be cleaned, all the water holes must be blocked strictly, and the shock absorber package provided by the original factory must be used in the transportation process, otherwise it may lead to the imbalance of the optical system and affect the energy output.

2. Electrical Safety

The charging voltage of high voltage —— energy storage capacitor can reach 450 V; after the power supply is turned off, the high voltage device may still have residual voltage, open the chassis at will will have the danger of high voltage electric shock!

3. operation safety

The machine must be filled with water before turning on, otherwise it will burn down the treatment gun!

Check the circuit and waterway of the instrument immediately after boot, and observe the safety of the circuit and waterway from time to time during the whole operation.

Never look directly at the bright light coming from the front end of the bareheaded hand.

4. Reflective substances such as watches, mirrors, jewelry, etc. are forbidden in treatment rooms

Keep the light guide system clean at all times and ensure that the condenser does not contaminate the light guide system

4. System Safety Device

In order to ensure the safety of use, the instrument is designed with the following safety protection devices:

Standby, pause control: in standby state and pause state to prohibit strong light output, is the system security state.

Lock switch: Operator qualification limit.

Emergency stop switch: convenient for emergency shutdown when an accident occurs.

X. Maintenance and services

1. this instrument from the date of purchase (by bill) mainframe warranty 12 months, within 6 months instrument failure (non-artificial phenomenon) free repair. Those who exceed the warranty period may also be responsible for maintenance and charge the cost of spare parts and consumables in accordance with company regulations (transportation costs to be borne by customers). If you need to supplement or purchase, please contact us.

2. does not provide free maintenance warranty services for the following user's personal causes:

Failure caused by unauthorized disassembly and modification of this product;

Failure caused by the use of adapters not distributed by the Company;

3. Failure caused by careless use, beatings and falls;

Failure due to lack of proper maintenance;

Failure to use correctly according to the instructions.

3. product warranty

Product warranty card

Product name		Customer name	
Product model		Telephone contact	
Date of purchase		Contact address	

Maintenance date	Cause of failure	Maintenance content	Maintenance personnel