

# RUIKD

Your Beauty, We Create!

## OPT (Optical Pulse Technology)



## USER MANUAL

Please be sure to read this USER MANUAL carefully before operation.

All responsibilities will be undertaken by yourself, if you don't operate it according to the following information.

## 1.Safety Notice Items



### **Special Notice:**

Before operation, the water plugs have to be gotten off, and add the Distilled Water.  
Before transportation, the water plugs have to be inserted well.



### **Warn:**

There are precision, fragile optical device in the hand piece of the machine. When lay aside and use it, please be careful, not let it fall.

During operation, must be sure the machine is inserted full of distilled water.

### **1.1 Electric Safety**

- ◆ OPT adopts one-phase 220V /110V power supply, the maximum input current is 8A.
- ◆ Make sure the power line is fit for the country stander, has three lines power socket, specification is at least 8A.
- ◆ When the OPT running, there is high pressure in the machine. After turning the power off, the high pressure devices may yet has residual voltage. Open the case of the machine at will, you may be at the risk of high voltage electric shock.

### **1.2 Carrying Safety**

- ◆ The OPT is vertical, it allows the users moves it at will. The hand piece of OPT is installed with precision optical system. When transport, please use the cushioning package the factory provides. Otherwise, it may cause the optical system disorder, affects the output energy and even damage.



Before transportation, the water plugs have to be inserted well.

### **1.3 System Safety Device**

In order to make safely use, OPT has designed the safety protection devices as follows:

- ◆ Lock Switch: the operation qualification limit.
- ◆ Emergency Switch: it is convenient to stop the machine when it happens some accident.
- ◆ Standby/ ready control: When standby state, it is the security state of the system, thus, it is inhibited the pulse light output.

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## 2. Machine Introduction

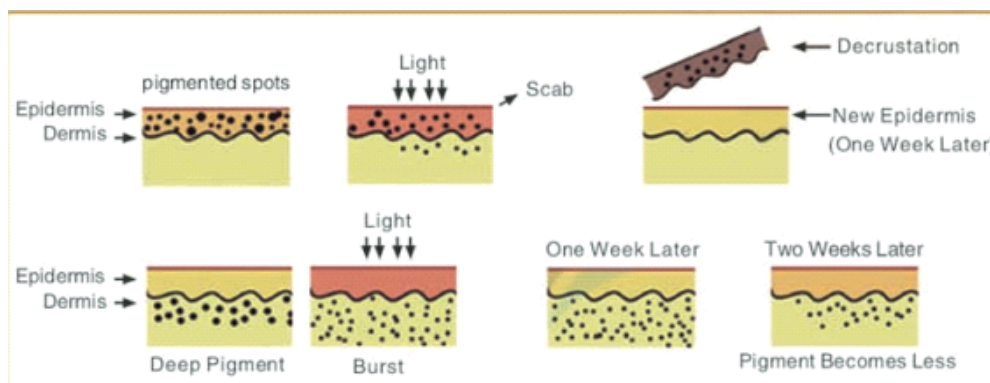
### 2.1 Brief Introduction:

Optimal Pulse Technology (OPT) is the upgrade of E-light. Because of its good treatment effect, and less postoperative complication, it is the best choice for Beauty Salon.

### 2.2 Treatment Principle:

#### Freckle Removal Treatment Principle:

OPT adopts the “Selectively Thermal Absorption of Laser” principle. When the specific wavelength of light acting on the skin will be absorbed selectively by the melanin of diseased tissue ( the content of melanin in diseased tissue is much more than that of normal tissue.). Some of melanin in the deep layer will be cracked for fine particles, and the particles will be swallowed by the phagocyte and expeled from body with lymphatic system. Some of melanin in the superficial tissue will be popped out of epidermis, then, the color of epidermis pigment will be deeper. The melanin will drop with the skin cuticle metabolism. Thus, the freckle will be faded away. However, the normal skin absorbs less energy, and there is the strong epidermis cooling technology to protect it. Therefor, the normal skin won’t be hurt, at the same time, the skin will be improved.



#### Skin Rejuvenation Treatment Principle:

OPT adopts the Optothermal Principle, the optical energy will penetrate effectively the skin deep layer to release heat and light mechanical effect, which will stimulate the collagen regeneration, facilitate the papilla in dermis and epidermis incassation. Thus, it can achieve the effect of improving superficial wrinkles, skin tone improvement, shrinking pores, to make the skin exquisite and smooth in young state.

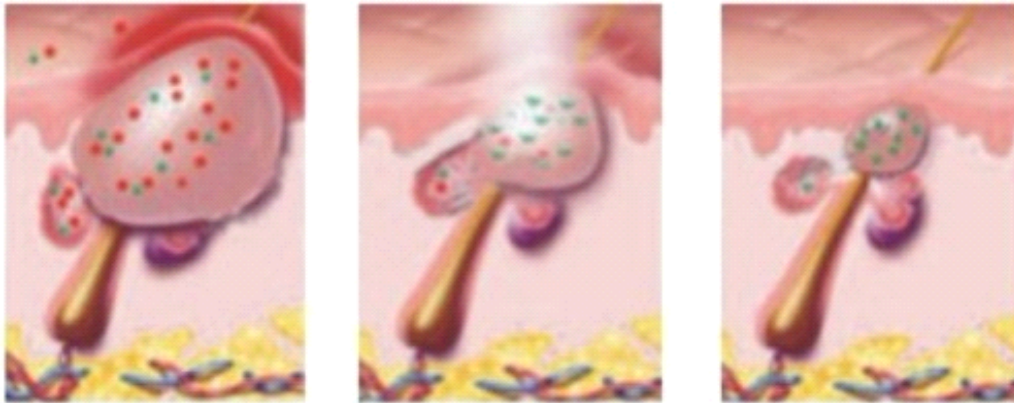


**LEFT: Collagen Arrangement Situation of Loose Skin Before Treatment**

**RIGHT: After treatment, the Collagen becomes shrink and compact because of heat**

## Acne Removal Treatment Principle:

OPT adopts the Photodynamic and Optothermal Principle. When the specific wavelength optical energy irradiate the skin, it will stimulate effectively the porphyrin to release Singlet Oxygen, which can kill Propionibacterium Acnes (also named anaerobic bacteria, to completely eradicate the bacteria source. At the same time, by phototherapy, it will heat up the sebaceous gland, improve its function, balance the excretion of oily, to reach the treatment effect.



**LEFT: Acne Skin Sebaceous Glands**

**MIDDLE: Photodynamic acts in the sebaceous glands**

**RIGHT: After photodynamic, the sebaceous glands recovery to normal value**

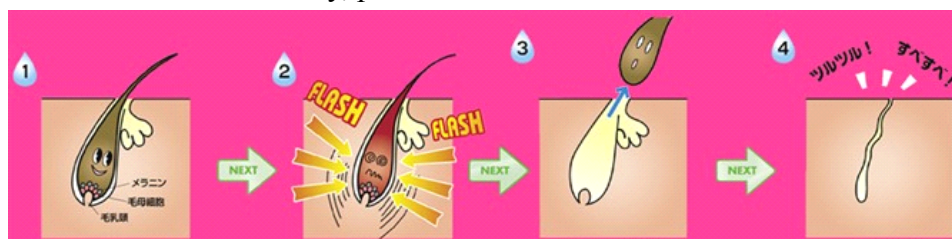
## Hair Removal Treatment Principle:

OPT adopts the “Selectively Thermal Absorption of Laser” principle. When the specific wavelength light penetrates the skin epidermis to reach the root of hair follicle. The melanin of hair shaft and hair follicle under the state of Anagen absorbs optical light and produces heat energy to reach the whole hair follicle volume. After the hair follicle stem cells and target goals are thermal damaged, the hair under the state of Anagen will fall off automatically. At the same time, the hair matrix which provide melanin for the hair shaft, will produce photothermal effect with the hair papilla which provide nutrition, to restrain the melanin and nutrition provision. Therefore, the regeneration capacity of hair will be decrease.

The super refrigeration system for skin cold anesthesia, it can protect the normal tissues without any damage. Thus, the treatment process is safe and comfortable.

After the treatment, the hair individual becomes smaller, the color becomes shallow, the quantity will be reduced.

It can achieve real healthy, permanent hair removal in medical.



## 2.3 Treatment Scope

Color Spot: Freckle, Aestates, Cafe-au-lait Spots, Pigmentation.

Telangiectasis: Anti Redness, Spider Angiomatas, Wine Tank Nose, Nevus Flammeus, such as Red Birthmarks.

Wrinkle Removal, such as face, neck and hand wrinkle, stretch marks and growth lines

Facial Whitening Rejuvenation, Shrinking Pores, Anti-sallow, Removal Blackhead and Whitehead.

Category of Hair Removal: chest,leg,mustache,armpit,bikini line, forearm and so on.

## 2.4 Technology Advantage:

8.4 inch color Multi-touch screen, sensitive operation, simplicity, convenience and fastness, time and labor saving, high safety and the like.

Flat Wave Power, more stable output, more uniform energy, therefore it has less of loss, long lifetime.

Ultrastrong refrigeration, the treatment head can reach freeze within 5 minutes, to reduce the pain,protecting the skin at every moment.

OPT, the upgrade of E-light, has become the fist choice of Beauty INC,Medical Care.

## 2.5 Curative Effect Contrast Figures



## 3. Packing List

Name	Picture	Quantity
Main Body		1 set
Hand Piece		1 set
Handpiece Pole		
Funnel		1 set
Water In/Out Pine		1 set
Air Outlet Pine		1 set
Filler of OPT (650nm, 540nm, 480nm)		1 set (3pics)
Patient Goggles (White/ Blue)		1 set
Operator Goggles		1 set
Power Lead (European Stander)		1 set
Main Body Keys		1 set (2pics)
Carton Case		1 set

## 4. Instrument Operation

### 4.1 Operation Guide

#### 4.1.1 Handpiece Pole Installation

Insert the Handpiece Pole into the hole for the machine, like the pictures.



Step 1



Step 2



Step 3



Step 4

#### 4.1.2 Hand Piece Installation

Press the two round buttons down then insert the Hand Piece into the socket.



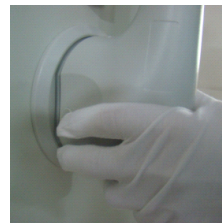
Notice: Make sure the position is correct, then two “PA” sounds occur, and check if they are tightly connected.



Step 1



Step 2



Step 3



Step 4

#### 4.1.3 Hand Piece Disconnection

Press the two buttons on both sides of the Hand Piece hardly, then pull it out.



Step 1



Step 2



Step 3

#### 4.1.4 Air Outlet Pipe Installation

Insert the shoulder pipe into Air Outlet of the machine.



Notice: “PA” sound occurs to be sure the pipe is tightly connected. Please pull it



out during shipping.



Step 1



Step 2



Step 3

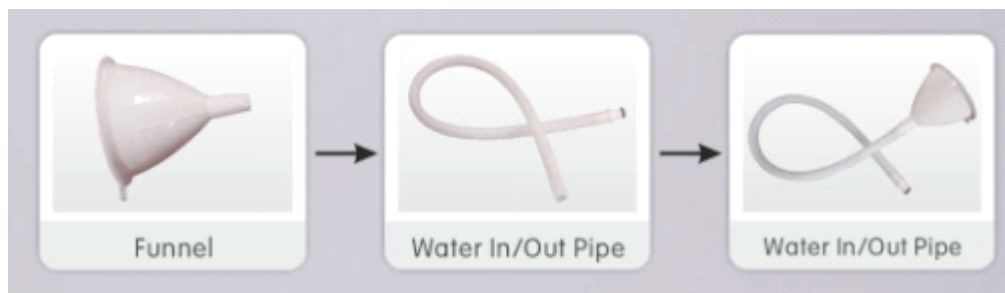
#### 4.1.5 Water In/ Out Pipe Installation (Adding Distilled Water)

Insert the longer Water Pipe in Water In / Out of the machine, make sure “PA” sound occurs., it means it is tightly connected. then put the Funnel on the water pipe holder. Please pull it out during shipping.

When **adding Distilled Water**, place the Water In/ Out Pipe higher than the machine, until there is some water flowing out from the Air Outlet Pipe. It means the machine is full of water.

When **draining Distilled Water**, place the Water In/ Out Pipe lower than the machine. If the water doesn't flow out, please put the Funnel to the Air Outlet Pipe holder, then blow the Air Outlet Pipe.

During adding or draining Distilled Water, please insert the short pipe Air Outlet Pipe into the Air Outlet of the machine.




#### 4.1.6 Water In/Out & Air outlet Pipes Disconnection

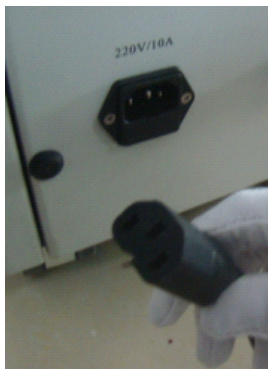
Press down the metal parts on Water In/Out & Air Outlet holes of the machine, then Water In/ Out & Air Outlet Pipes will be popped out.



## 4.1.7 Power Lead Installation

Insert Power Lead into the Power Lead Socket.

 Notice: Push hardly to ensure well connection.



Step 1



Step 2

## 4.1.8 Fuse Replace

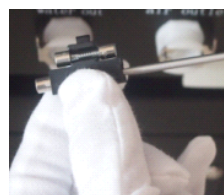
 Notice: Open the lid in the power lead socket to replace the fuse.



Step 1



Step 2




Step 3



Step 4

## 4.2 Interface Set-up

### 4.2.1 Boot-up

 Notice: Please twiseswitch Key towards right direction (clockwise) quickly. After turning off the machine, please wait at least 5 minutes until turn on the machine. Otherwise, it will damage the power supply.



Step 1



Step 2

## 4.2.2 Emergency Switch

If something urgent or abnormal happens, please press down the Emergency Switch immediately to cut off power supply. Twist it clockwise to loosen it, then the switch is connected.



Step 1



Step 2

## 4.2.3 Interface Introduction



**SR mode:** This mode is mainly used for Skin Rejuvenation.

**Parameter Adjustment:** Pulse NUM: 3--5; Pulse: 4--5ms; DELAY:1--2ms, Energy:25--30J/cm<sup>2</sup>; RF energy:10; Refrigeration: 10; Filter: 480nm or 540nm

**HR mode:** This mode is mainly used for Hair Removal.

**Parameter Adjustment:** Pulse NUM: 4--5; Pulse: 4--6ms; DELAY:1ms, Energy:25--35J/cm<sup>2</sup>; RF energy:10--15; Refrigeration: 10; Filter: 650nm

**Pigment:** This mode is mainly used for Pigment Removal, such as Freckle Removal, Acne Removal.

**Parameter Adjustment:** Pulse NUM: 3--4; Pulse: 3--4ms; DELAY:1ms, Energy:25--35J/cm<sup>2</sup>; RF energy:10; Refrigeration: 10; Filter: 540nm

**Vascular:** This mode is mainly used for Anti Redness treatment.

**Parameter Adjustment:** Pulse NUM: 4--5; Pulse: 4--5ms; DELAY:1ms, Energy:25--35J/cm<sup>2</sup>; RF energy:10--15; Refrigeration: 10; Filter: 540nm or 650nm



Notice: All the Parameter Adjustment above need to be set according to the practical condition. Any way, it should be tested in a small part of the treatment area firstly, and the Parameter should be set from low to high.

#### 4.2.4 Insert Filter

Notice: Before insert filter, please choose the wanted filter



Step 1



Step 2



Step 3



Step 4



Step 5



Step 6

## 4.2.3 Filter Disconnection



Step 1



Step 2



Step 3



Step 4



Step 5



Step 6

## 4.3 Management after Treatment

4.3.1 Apply a moisturizing mask or regeneration cream and sun block lotion. We recommend the Gold Stem Mask which has the function of antiphlogosis, analgesia and relieving redness and EGF DEESSE Skin Care Products, which are Super Repairing, Super Wrinkle Smoother and Super White.



## 4.3.2 LED Photon Dynamical Instrument

Photon Dynamical Nurse Therapy is a new technology, using the photon power to do skin maintenance and treatment, transfer light energy to cell energy. After the treatment of Freckle, Acne, SR, Hair Removal, adopting the LED Photon Dynamical Instrument for 10--30mins, it can increase the repair of skin.

## 4.3.3 XUEFU Cryo Beauty Machine

XUEFU CRYO exploits the “Cryo” technique, energizing the cure parts by

lowering the skin temperature. After the treatment of Freckle, Acne, SR, Hair

Removal, it can low the temperature of the skin and relax the skin, at the same time,

RUIKD Photoelectric Technology Co., LTD.

It can derive the dirty things from the skin and help input the nutrient solution of cosmetics into the skin.

As to the response of treatment, such as equanimity, red and swollen vanishing, antiallergy, it has obviously effect.

#### 4.3.4 Fractional RF Microneedle Beauty Machine

After the treatment of OPT, adopting the Fractional RF Microneedle, the relevant treatment effect will be twice as much.

### 5. Maintenance

#### 5.1 Briefly Maintenance

##### 5.1.1 Clean Filter

After doing the treatment every time, please check whether there is splash things attached on the surface of the filter, and then use the cotton swab or lens tissue with some absolute ethyl alcohol to clean the filter gently.

##### 5.1.2 Changing Cooling Water

If the Cooling Water is too dirty, it may lead to happen instrument failure, such as waterway jam.

Usually it needs to change the water after use of 2 or 3 weeks. Under the state of shutdown, turn on the the screw of WATER OUTLET to draw the water off. Then, add the new Distilled Water again until there is some water flowing out from WATER OUTLET.

Notice: The Cooling Water have to be Distilled Water or Pure Water.

#### 5.2 Warranty Commitment

The warranty period is one year, and maintenance period is lifelong.

#### 5.3 Maintenance Contact

Company Tel: 86-020-36041500

After-sales-service: 86-13922299659

#### 5.4.Fault Phenomenon and Elimination Method

Fault Phenomenon	Elimination Method
When Switch On the machine, nothing is displayed on the screen.	① Check if the power cord is connected to power socket, if not, please connect it well. ② Check whether the Emergency Switch is

	<p>turned on or not.</p> <p>③ Check if the fuse in power socket. Please open the power box in power socket, if the fuse broke, please replace the fuse.</p> <p>④ Please use a multimeter to check if the power socket has power.</p> <p>⑤ Doing above operation, the problem is not be settled, please contact our maintenance department.</p>
When the machine cannot enter the “Ready”	<p>① Check if the water pump is running, the water circulation is normal or not.</p> <p>② Check if the water level is too low or not.</p>
When Press the Handpiece Switch, there is no power.	<p>① Check if the system enter the “Ready” or not.</p> <p>② Check if the Handpiece Switch is normal or not.</p>
When the power becomes weak	<p>① Check if the power is too low or not.</p> <p>② Check if the output window is clean or not.</p> <p>③ Check if the cooling water circulating or not.</p>

## 6.Specification

Power	800W
Sopt Size	10*40MM
Wavelength	640nm, 580nm, 530nm
Refrigerating System	High Power Semiconductor Refrigerating Tablet
Cooling System	Totally Closed Internal Recycle Water Cooling
Power Supply	Single Phase 220V/8A
Weight	57.55KG
Volume	Carton Box 116*61*54CM