

IPL System

User Manual

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Chat One IPL Instruction

I. Instruction

Production Name: **IPL-MINI60**

II. Product Instruction

Main parts: Light system, Power system and Cooling system

III. Functions:

1. IPL system

- 1.1 The treatment head, which material is even, can emit intensive pulsIPL, directly transferring to the skin effectively, preventing the over-high light power from injuring the skin.
- 1.2 The surface of treatment head plated with high counter-membrane. The output light can transfer to skin effectively and evenly.
- 1.3 The treating head has semi-conductor cooling system, which is effective to cool on the surface of treatment head during treatment and to lower the skin temperature, making sure the skin tissue can not be injured during treatment.

2. Power system

- 2.1 Input Pressure: AC220v, 50Hz/60Hz
- 2.2 Input current: 10A
- 2.3 Drive Power: 1000W

3. Cooling system

- 3.1 Closed water cooling system
- 3.2 Assistant wind cooling
- 3.3 Semi-conductor cooling on the treatment head

IV. Treatment Scope

- 4.1 Effectively treat facial red blood streak (angiotelectasis), remove the red face symptom;
- 4.2 Effectively shrink rough pore, eliminate or decrease the Acne Scar.
- 4.3 Thicken the skin collagen ,recover the skin elasticity ;

- 4.4 To most extent , remove or eliminate freckle, age spot, etc. ;
- 4.5 To most extent , remove or eliminate pigment sediment caused by sunburn, whiten the skin.
- 4.6 Removes the hair, which can function on hair shaft and hair follicle. No matter of the hair color. The System can remove effectively even for white hair.

V Parameters:

Spectrum range: 560-1200nm, 640-1200 nm and other spectrum with more wavelength

Light spot area: 8mm x 40mm

Cooling system: semiconductor cooling system, Closed recirculation water cooling system, forced air cooling system

Power supply: 110v/220v ($\pm 10\%$), 60HZ, 12A(selective)

Package dimension: 44*46*49 (CM)

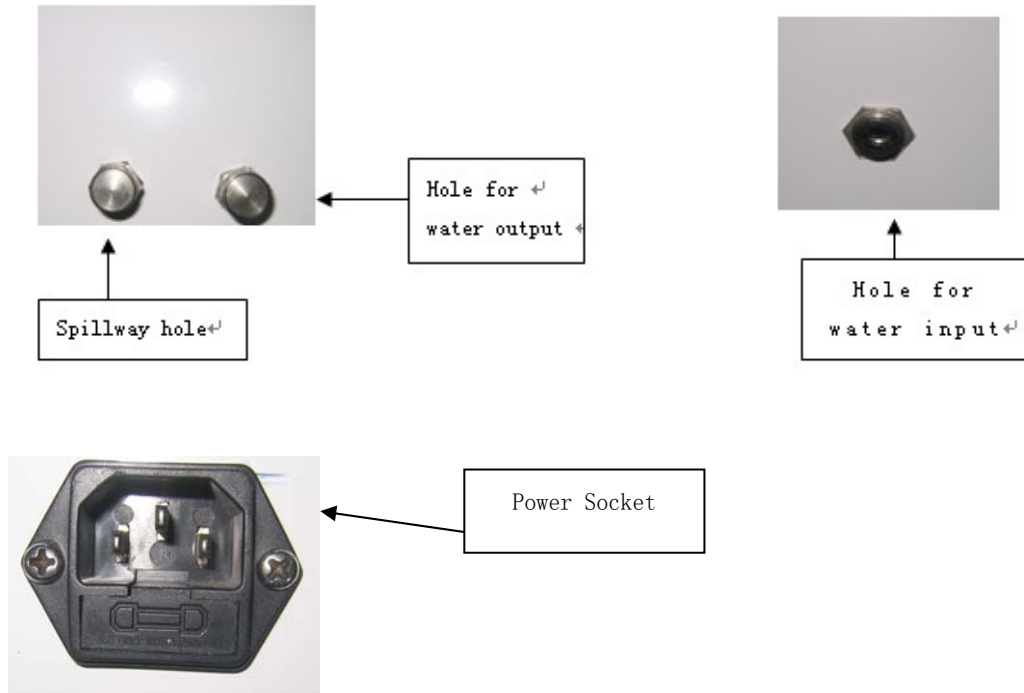
Actual weight: 35kg

Chapter Two Name of External Components with

Picture & Illustration



- 1. Switch:** To open the power of IPL machine
- 2. Urgent stop:** The red mushroom shaped button can stop the machine urgently. When u presses it, no matter what condition it is, the power will be cut off immediately. Turn the button clockwise, then the machine will be released.
- 3. Touch screen:** The touch screen is very sensitive which need to touch lightly . Don't press the keys too quickly.



4. **Hole for water output** : Renew or release water, you need to loose the tap, after that, retighten the screw. This hole is at the bottom part of the machine together with the water-input hole.

5. **Spillway hole**: unscrew the screw of spillway hole when input water. The machine is filled with water when it comes out of this hole. Screw the device again.

6. **Hole for water input** :used for machine water input. Add water through this hole until it comes out from the spillway hole after connecting pipe and funnel. Screw on the screw to finish this step. This hole is at the upper part independently.

7. **Power socket**: AC 220v/110v voltage input to connect randomly equipped power line.

8. **Treatment handle**



IPL handle

9. **Filters for IPL handle**



Chapter Three Operating Instruction

I Contraindication

1. Pregnant women
2. Diabetes Patients
3. Those suffered from keloidosis
4. Those who are taking isotretinoin by mouth
5. Those who has or about to exposed to strong sunlight
6. Photosensitive skin or those who are using photosensitive medicine

II Announcement

1. Please check whether the circuit is correctly connected before use.
2. Inject deionized water or purified water into machine through water input hole before use until water comes out from the water outlet hole.
3. Mineral water or tap water is forbidden. Use deionized or purified water instead.
4. Do not open machine without water! Add water till it comes out from the water outlet hole before use. Any damage due to such inappropriate operation is for the user's account.
5. Do not irradiate eyes directly.
6. Any dismantling of the machine is strictly forbidden without permission of the manufacturer.
7. Epoxy resin is required in treatment. Apply the treatment head gently to faces and DONOT depart from faces during treatment in case of IPL burning skin.
8. The treatment head should be placed in the fixed mount when nonuse. Protect it from falling broken.
9. Renew cooling water regularly(it depends in the quality of the water)
10. Operate the machine one minute after the water system circulates so as to ensure a full circulation of the system.
11. Ensure well grounding of the machine in operation.

[Indications for caution]

1. Strong light hurts eyes or cause fire or burnt. It should have the prevention measure when use it. Protective glass is suggested.
2. Make sure the tank is filled with water before use.

III Manner of Practice

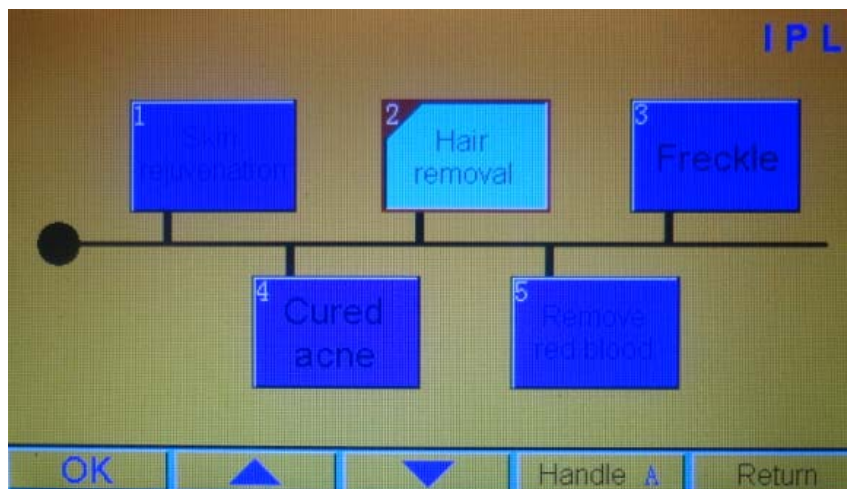
1. Take test in small skin area for treatment at first, and then carry out treatment in large area. Avoid limitation caused by unfamiliar technique.
2. Practice with newspaper or black paper firstly from left to right and bottom to top. Other ways that the beautificians are familiar with are acceptable either. Undertake such treatment with clients when you are familiar enough to finish. Each affected area needs one to two times of treatment (depends on detailed condition). Treatment should be carried out in order. DONOT operate it when you are not familiar enough in case of any unnecessary trouble.

IV Treatment Preparation

1. Preparation tools: epoxy resin that is transparent and highly viscous (it can be put into refrigerator if not used), facial tissue, protective eyewear (for operator), cold injection machine or ice bag, sun cream, camera.
2. If condition permits, apply heated towel to the treated area to ensure dehydration not going to happen (dehydration often causes dermatorrhagia).
3. Clean the treated area with clean water. No cosmetic is left.
4. Use scraper to raze unwanted hair for hair removal (e.g. Female beard or forehead hair)
5. Apply epoxy resin to treated area.
6. Take photos before operate treatment so that a contrast between before and after can be made.

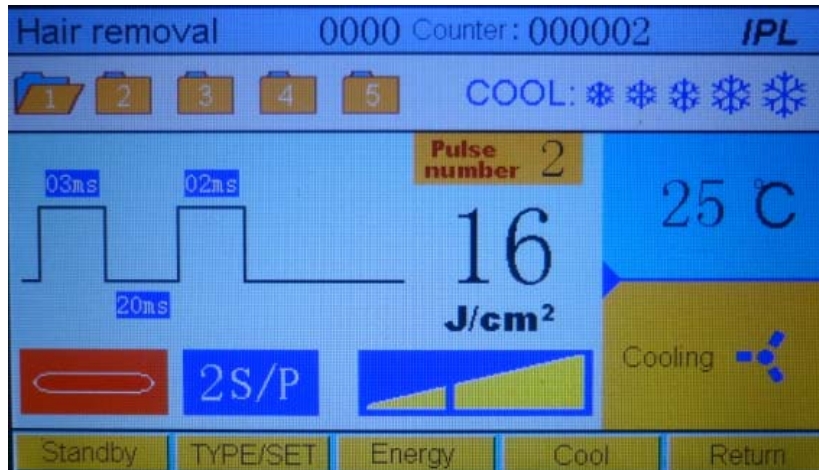
V. Pictures and Illustration of Screen Interface

5.1 Select IPL treatment on step 3 and press “OK” to enter as shown below



5.2 HANDLE A & B: select to choose between 530nm and 640nm

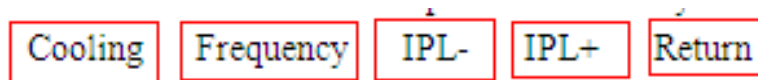
5.3 Press “UP” or “DOWN” button for given treatments and press “OK” to enter.



5.4 STANDBY BUTTON: Press “STANDBY” to simmer. Machine works with light outputs when press the switch on handpiece; push STANDBY again to return and the handpiece shuts down

5.5 ENERGY BUTTON: press this button you will see what’s shown below:

Cooling Frequency IPL- IPL+ Return



Cooling

Cooling intensity of crystal sapphire on IPL handpiece, divided into 5 levels

Frequency

Frequency/time of effective discharge between discharging gap in unit time/interval

IPL-

Decrease of IPL

IPL+

Increase of IPL

Return

Regain last interface

5.6 TYPE/SET BUTTON: to choose different pre-stored parameters.



5.7 RETURN BUTTON: to regain the previous step

5.8 PARAMETER: same adjusting method as in 4.1.9

5.9 Reference for parameter setting under each mode

Skin Parameter	Item	Skin Rejuvenation	Speckle Taking	Red Blood Streak Removal	Acne Removal	Hair Removal
	White Skin, Small area of pigment is a little sensitive to spot test	Pulse With	5 / 4/4	6/5/5	6/5/5	6-/5/5
Pulse Duration		7-10	6-10	8-14	8-10	10-15
Frequency		2	2	2	2	2
Pulse Number		4	5	4	5	5
Dark Skin , Medium size of pigment is a little sensitive to spot test and it will turn red	Pulse With	5/3/3	6/4/4	6/4/4	6/4/4	7/5/5
	Pulse Duration	10-15	10-15	10-15	10-15	15-20
	Frequency	2	2	2	2	2
	Pulse Number	3	4	3	4	4
Darker Skin, Relative large area of pigment is sensitive to spot test and it will swell soon.	Pulse With	5/2/2	6/3/3	6/3/3	6/3/3	7/4/4
	Pulse Duration	15-20	15-20	15-20	15-20	20-15
	Frequency	2	2	2	2	2
	Pulse Number	3	3	3	3	3

Remarks: A. Cooling energy doesn't need to adjust

B. Principle to adjust parameters: adjust pulse width according to color of pigment, adjust pulse interval according to tone of skin, adjust therapeutic parameters by small degree, adjust energy by large degree.

Operation experience

Skin rejuvenation rule:

1. Darker skin 、 longer delay 、 lower energy
2. Whiter skin、 shorter delay、 higher energy
3. Rougher vein、 longer pulse width .
4. Smoother vein、 shorter pulse width .
5. Thicker vein、 longer pulse width; thinner vein 、 shorter pulse width;

Hair removal rule:

1. Darker hair, longer pulse width; Lighter hair, shorter pulse width.

2. Thicker hair, longer delay, lower energy
3. Thinner hair, shorter delay, higher energy
4. Denser hair, lower energy; rarer hair, higher energy
5. Darker skin, longer delay. Whiter skin, shorter delay, higher energy.

Remarks: when extend the pulse width, it will increase the energy or the energy is the same, but it can not lower energy

When shorten the pulse width, the energy will be reduce or the same, but it can not improve energy.

4.2 IPL Energy Adjustment

Chapter Four Postoperative Management of IPL

I postoperative care of IPL

Summary

Blain or ulcer on skin produced after surgery can be treated with antibiotics or ointment for burn. Low chroma ointment can be applied as well. If blain gets scab, use Vaseline to keep the skin moistening.

Suntan

Patients shall use highly factor light-shielding ointment to keep the treated skin from the sunlight. Sunlight may cause dark pigment to repeat production, which may lead to excessive pigment precipitation.

Make-up

Most doctors permit patients to use cosmetics after surgery. But they demand that if any scab or breakage on the treated skin is found, patients shall inform the hospital immediately and shall stop make-up. Generally, the risk of low energy skin tendering surgery by IPL system is very tiny, which enables patients to go back to normal life safely after surgery.

Continuous treatment

The following are the suggestions regarding the continuous treatment, which can be referred to by doctors.

Patients shall further consult with the doctor within 3-5 weeks after each therapy period (3-6 times of treatment), and are advised to keep long-term treatment. Generally, pathological change such as grog blossom may take as long as one year to be in control.

Side effect

If any side effect is found during treatment, stop treatment. It can not be carried out until the side

effect disappears or the actual reason is found.

Therapy over

It depends on the actual effect achieved. Generally, if the reddish dot, capillary vessel expansion or pigment precipitation on the skin decreases, or the skin texture, sunlight burn or light aging grade has been improved, the therapy is over.

II table for course of treatment

Case \ Time	Treatment needed (times)	Interval between treatments	Remarks (Requirements)
Red blood streak (red face/spider vein)	1-4	21-45 days	1,Meet for the patient's request 2,Clean the treatment area 3,Non-sensitiveness of patient 4,Match with recovery after treatment 5,Without skin changing recently
Marking by acnes	1-3		
Acnes	2-5		
Lesion of elastic tissue	2-6		
Thick pore, solar elastosis	1-3		
Dark skin Facial pigment sediment.	1-3		
Freckle, Age pigment	2-5		
tiny wrinkle around eyelids dark pouches	2-4		
Skin tightening	2-5	6-7 days	Use RF only
Permanent hair removal	2-5	14-21 days	Shave the hair of treatment area

Remarks : The parameters should be changed according to reaction of patient.

III Postoperative skin condition

1. Phenomenon

There is some a scalding hot feeling or little blood on treatment department for some patients after the treatment. This is the normal phenomenon, but no scab. But for some special patient, the IPL energy should be adjusted a little higher, then the scab will appear, but it will fall off after 7-10 days. It must be sure that do not blow the scab with finger eliminates. It's the best that the scab falls off naturally. About two weeks later, the skin will restore to be normal.

After the scab skin falling off, the treatment area will be pink, then coffee color after 2-3 weeks and restore normally in 1-2 month.

2. care for treated area

Use clean water or non- irritant skin-care goods wash face. If the energy was adjusted excessively high in the course of treatment carelessly, it would be slight hypodermic hemorrhage. Under this condition, spread sterilize

Ointment (erythromycin ointment or sterilization ointment which has the same function), until the scab falls off, do not use other medicines or cosmetics.

If the treatment the trouble department is inflamed, use ice to spread.

After the scab falls off, stop using the ointment, change to ointment that can avoid being sunburn (above SPF15), also in the room, against injury of ultraviolet UVA/UVB. The treatment area is extremely sensitive to the sunlight; therefore avoid being sunburn for 3 months to half year. To achieve the best effect, use some oil against sunshine and take an umbrella as far as possible. Take diagnosis after 1-2 week. if there is any abnormal phenomenon, you should take a medical examination as soon as possible. Vitamin C is necessary to promote the metabolism of melanin.

The IPL treat the trouble department with specific wavelength light, the ache is extremely slight with every bunch of light. The doctors usually take a skin test in the trouble the trouble department, if good, and then treat the trouble department completely.

Chapter Five Maintenance

I Use Notice

- ◆ Mineral water or tap water is forbidden. Inject deionizer water or purified water only. Renew water per month. When the machine continuously works for a long time which leads to a heated hand piece, we suggest you change water for the machine.
- ◆ Do not open machine without water! Add water till it comes out from the water outlet hole before use. Any damage due to such inappropriate operation is for the user's account.
- ◆ Do not irradiate eyes directly.
- ◆ Any dismantling of the machine is strictly forbidden without permission of the manufacturer.

II Maintenance Method

- ◆ Renew water after one-month use to avoid decreased light output rate.
- ◆ Use medical alcohol with standard concentration to disinfect the treatment head of the handpiece before and after each treatment. Use clean water to wipe IPL-output head to avoid contaminates the treatment head or infects clients.
- ◆ DON'T shine on the machine with its light in case of any damage to the machine.

III Method of Storage and Service Life

- ◆ Preserve at 5°C-40°C storage temperature to avoid cooling water detrimentally freezing parts like treatment head.
- ◆ Direct sunlight should be avoided. Keep at relative humidity less than 80%.

- ◆ Atmospheric pressure should be within 70Kpa and 106Kpa.
- ◆ Service life: light output less than 50,000 times which is shown on the operational interface. When use of it exceeds 49,500, attention should be paid to light output of the treatment head. If energy decreases in a significantly great degree, xenon lamp should be replaced.

IV General Error and Countermeasures

English Prompt	Reasons
PLEASE CHECK FOOTSW	Foot switch (handpiece switch) is on
SIMMER ERROR	Lamp got wrong or simmer got fault
NO FLOW	No water in tank or no water cycle
PLEASE CHANGE WATER	Dirty water in tank
80°C (high temperature)	Continuous use for too long or environment temperature too high
ERROR NO. **H	Refer to code list

Other errors:

1. No power supply for starting the system
 - (1) Examine the power supply on the power line, and the connection
 - (2) Red emergency switch is not on. Please turn it right to the uplift position.
2. No light output
 - (1) Examine whether “WORK” is pressed down
 - (2) Whether handle switch is right. If it is broken, please change it immediately.
Judgment: open the key switch, and press the switch on the handle without simmer on and at non-work status. If no periodic sound like suction can be heard, the switch is broken.
3. Reduction of light output
 - (1) Low energy, which disables the system
 - (2) Output window is clean, and clean the lens head accordingly.
 - (3) Any leakage with handles or head. If so, change it accordingly.
 - i. Use life is expired. And change the handle.
4. Power supply cut without reason

Turn off the system and restart it. If no intensivIPL output or the electric circuit malfunctions, contact us for maintenance.
5. During operation, feel of electric shock
 - (1) Dry weather may cause static electricity due to body friction. Be advised to wear costume with less chemical fiber.
 - (2) Please change to three pin socket if not. Electric wire and power socket shall be equipped with grounding wire.

- (3) Please provide stable power supply if not.
6. Water leakage
 - (1) Water leakage with handle.
 - (2) Water leakage caused by severe shake during transportation.
 - (3) Water leakage with water tank and water pump.
7. No simmer

Please extend simmer time for a few more minutes after start-up. If still, please contact us to change the gun head.

If any of the above mentioned arises, please contact us immediately.

Chapter Six Service documents for Cosmetology application (For reference only)

I Information for customer

IPL

IPL system is a new technology, without peeling off and with accurate contact, designated for cosmetology industry. This technology adopts intensive pulsIPL with energy density at 20-40 J/cm² to achieve a better result of skin tendering.

At present, IPL system is the leading advanced skin tendering system worldwide, which transmits intensive pulsIPL with spectrum at specific wavelength to penetrate skin. The intensivIPL can be absorbed by blood vessel and pigment tissue so as to condensate the capillary vessel and dissolve the pigment group. Meanwhile, it can stimulate the collagen tissue to reorganize and proliferate to restore the skin elasticity. IPL system can remove all kinds of facial blemish, drive out or lighten the damage caused by erythematic and pigment of facial blood vessel. And no bad reaction towards face after surgery has been reported so far, and it will not interfere with your daily work and study.

II Cosmetology Agreement

Notice before Surgery

1. Fully understand the introduction of IPL system.
2. The cosmetologist has tried his/her best to achieve the best result. Due to personal taste for cosmetology and the current the limitation of cosmetology, the surgery may not satisfy your needs entirely. Our clinic will take all measures to improve the cosmetology effect.

3. At present, IPL system is the most advanced and safe cosmetology solution, but it is not omnipotent. Due to personal characteristics, the following side effect may occur before or after the surgery:
 - A. Partial rube faction or putrescence
 - B. Excessive or insufficient pigment precipitation
 - C. Partial facial scab or blain
 - D. Alleviate symptom by some degree to those severe skin blemish
 - E. Some patients may feel abnormal with the treated skin
 - F. Fragile skin texture
 - G. Blue putrescence
4. To achieve the best cosmetology effect, patients shall strictly abide by the oral or written notice of cosmetologist. If any discomforts, please come to the hospital for further check-up immediately. And the patients shall take full responsibility of any consequences arising out of any delay of further check-up.

Notice after surgery

1. Prevent from suntan
2. No spicy food within three days
3. No scratch on the treated skin
4. No medicine such as aspirin, Vitamin A and other baldheaded-like.

Customer signature: _____

Cosmetologist signature: _____

III SR/HR File Record

First treatment date : ___ Mon. ___ Day ___ Year

Name : _____ Age : ___ Gender : ___ Profession _____

Address : _____

Tel. :

Skin type :

Treatment type (Freckle, Skin care, Hair removal):

Symptom Description before treatment. :

1, Whether the patient had used skin changing or other types of skin care :

2, The sensitiveness history : _____ Medicine that takes often : _____ Medicine that is taking now : _____

3, Make photo before treatment # _____

4, The skin care before treatment

5, Parameters used in the treatment : Energy ___ J/cm² Pulse number : _____

RF : _____

First pulse width : _____ First pulse delay : _____ Second pulse width : _____

Second pulse delay : _____ Times of flash : _____

The feeling of the patient in the treatment : () Comfortable () Slight pain
() very pain

Skin immediate reaction : () slightly turn red () turn red excessively
() pigment becomes darker () Skin turns white () vein becomes fewer ()
partial water blister () partial wound.

The illustration about the reaction of treatment area :

No. ____ Treatment

The improving situation since previous treatment .

The symptom or side effect of previous treatment :

The parameters used in the treatment : Energy ____J/cm² Pulse number : _____

RF : _____

First pulse width : _____ First pulse delay : _____ Second pulse delay : _____

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