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Intense Pulsed Light Therapy Device (IPL)

(QITM-01)

User Manual



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Chapter 0 Intended application

Intended use

The QITM-01 Intense Pulsed Light Therapy Device (IPL) is intended to treat hypertrichosis, permanent hair reduce, applied in all skin types.

Contraindications

The physician's education, training and professional judgment must be relied upon to choose the most appropriate device and treatment Conditions presenting an increased risk of failure include:

- Inflammatory dermatosis
- Cutaneous Infections
- Immune system defect.
- History of keloid formation.
- Psychologically ill patients or has had the high expectations.
- Pregnancy
- Skin cancer.
- Bleeding disorders
- Photodermatoses
- Herpes simplex
- Taking of drugs, which increases sensitivity to light
- Treatment of cellulites (wait a few weeks)
- Patients with sun-tanned skin should postpone IPL Hair remove by two or three months!
- A certain delay is also recommended where waxing or plucking have been used (the target chromophoric is not available)

Warnings

- Prior to treatment, the physician must first get a detailed history, rule out any disorders that may contraindicate this treatment and finally physically inspect the treatment area.

- Cosmetics should be removed with non-alcohol containing neutral cleansing agent such as Bactolin Cetaphil Gentle Skin Cleanser or Celeteque Facial Wash.
- Apply a generous amount of cooled gel (non-tinted) on the treatment area.
- A slight erythema may appear after the procedure. This is normal and will fade gradually in a few minutes to hours.
- Always record the parameters, fluence, shots and the area treated after each treatment.
- Apply a cold compress prior to proceeding to the next treatment area.
- Avoid use of cosmetics for 24 hours after each treatment.
- Avoid sun exposure after each treatment

Precautions

- Only distilled water is to be used in the cooling system.
- When using the system for the first time, rinse the cooling system with distilled water.
- Ensure that the water level is adequate before treatment to prevent overheating.
- Distilled water is added periodically specially when working in warmer climates and when the treatment handpiece at head is firmly secured and the screw caps are firmly screwed into place prior to operation.
- Replace water and water filter every 2-3 months
- Ensure that the electric voltage rating of this instrument (AC230V refer to system labeling) matches the electric voltage of the outlet.
- If the instrument is to be moved outside the hospital, please contact your dealer.

Chapter 1 System Overview

Thanks for your purchasing QITM-01 Intense Pulsed Light Therapy Device (IPL)! Believe that the machine can give you a believable, reliable function and satisfied repay.

This is the introduction of QITM-01 machine in this chapter.

Note: The person operating or keeping it must read this manual carefully before using.

1-1 System Introduction

Name: Intense Pulsed Light Therapy Device (IPL), skin rejuvenation, vascular removal, spot, skin Whitening, hair removal etc. The treatment theory is the selective absorption effect.

The system is controlled by MCU. It is composed of mainframe, touch screen, handles.

Operation and controlling part is in the mainframe. The controller in it can monitor the machine continuously.

Controlling system: TFT touch screen, key switch and emergency stop etc

Power source: Supply the voltage (the core part of the machine)

Waterway: Help the treatment handle cooling

Power warehouse: store and release voltage

Screen: Display and adjust working mode and parameter

Treatment handle: Xenon, crystal, switch and transfer tools

Chapter 2 Safety

2.1. Electrical and mechanical safety

Considerable thought was given during the design and producing of the system, to minimize the hazard for both operator and clientele.

The system requires 230 V, single-phase power source, the strongest output Current is not beyond 20A.

On the maintenance panel, Automatic electric leakage was installed, when electric is leaking, it will protect the system. Open the machine again, you need raise up electric leakage device.

Dangerous voltage presents inside the console during course of the treatment. After turning off the system, dangerous voltage still left. Removing the covers creates a safety hazard.

2.2 Movement and Transportation safety

The unit contains delicate components and no allowance of long transportation after first installation and adjustment. During the movement, the shock-absorbing package originated from the manufacturer must be used. Otherwise it might cause adverse effect to the system.

2.3 Optical safety

- Intense pulse light with wavelength of 420-1200nm sourced from the system, can create safety hazard. All personnel including clientele in the treatment room must wear protective glasses whenever the unit is in use
- Intense pulse light emission presents an eye hazard. Take all necessary precautions in areas where the system is being used.
- Never permit reflective objects such as jewelry, mirrors and watches to reflect the intense pulse light.

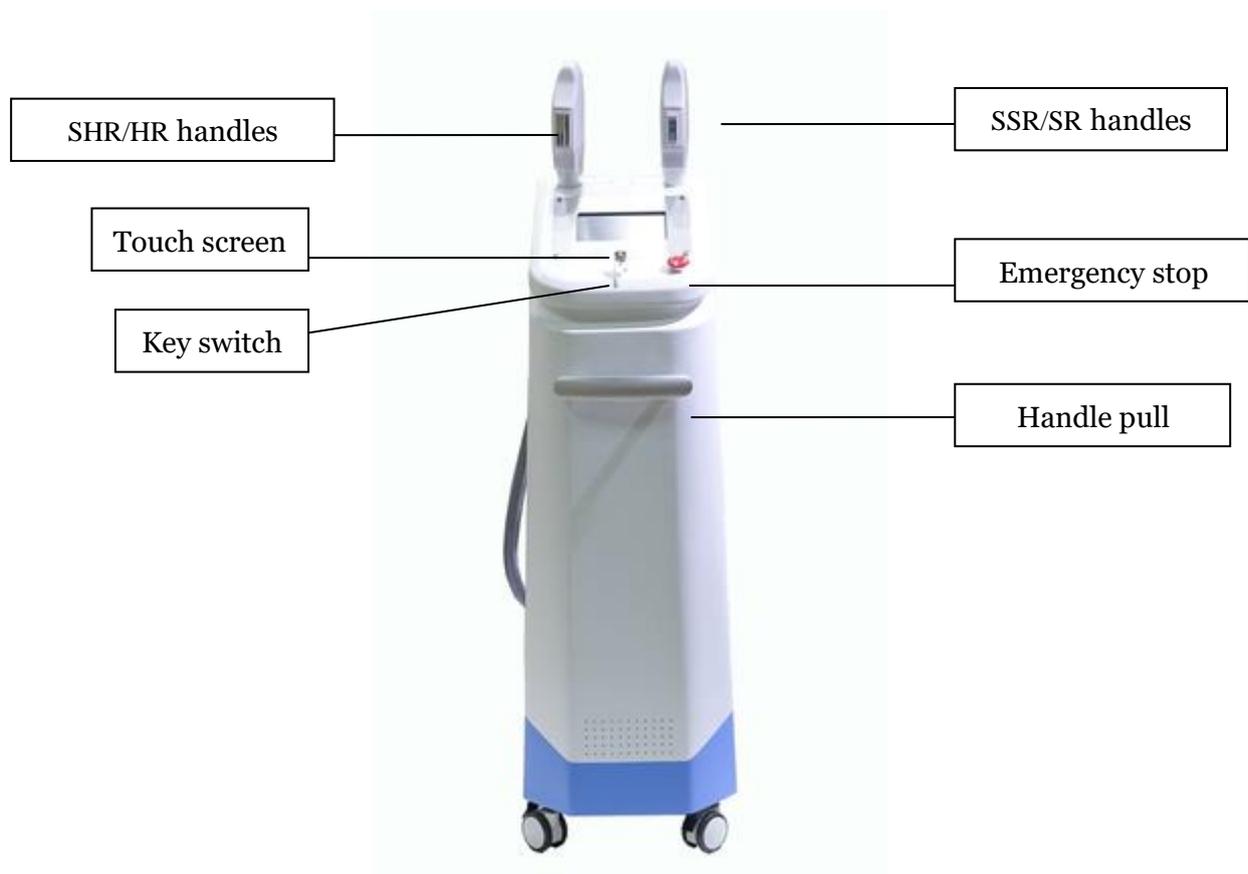
- Never look directly at the intense pulse light emitted from the treatment handle, even when wearing the protective glasses.
- Never direct the intense pulse light at any skin except the test patch and the target area

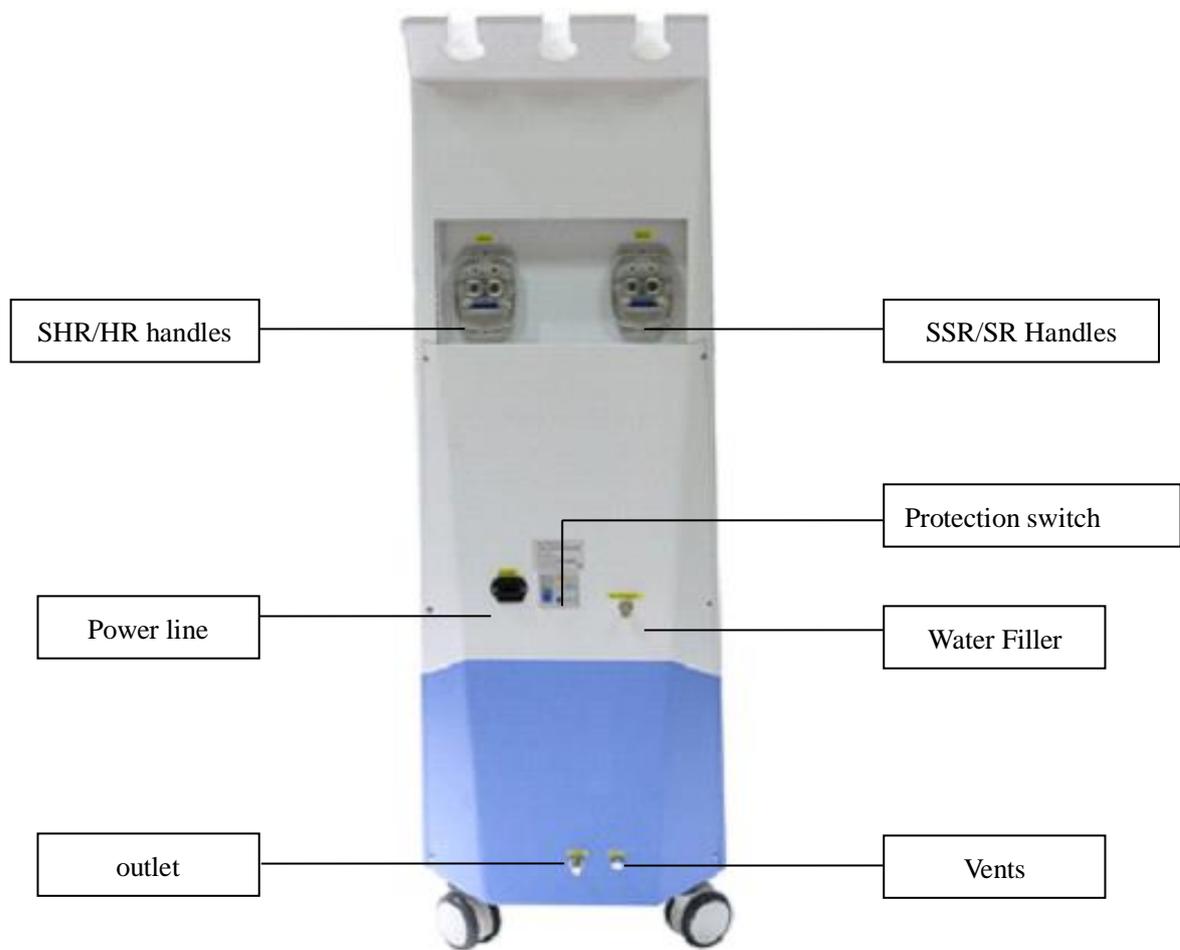
2.4 Warnings

- Allow access to the treatment room only to those essential to the procedure and well trained in the required safety procedures.
- Make sure that all treatment room staffs are familiar with the system's control and know how to shut down the system instantly.
- Clear identify that no igniting combustible materials present in and around the treatment area.
- Make sure the caution signs are posted in a prominent place of the treatment room.

Chapter 3: System Description

3—1 Main Structure





The structure is shown above: touch screen, emergency stop, key switch, treatment handles etc.

3 - 2 Component Description

Touch screen: show and adjust the info of operation system

Emergency stop: Close the power source when urgent thing happened

Key switch: open or close the machine

Handle pull: carry the machine

Main engine: cooling system, power supply, controlling system, integrated circuit etc.

SHR/HR Handle: changeable, painless, remove all kinds of hair

SSR/SR Handle: changeable, skin rejuvenation, skin tightening

Water Filler: add pure water into the machine

Water level observation window: monitor the water yield

Vents: adding/drawing off the water, open it, then you can add water.

Outlet: let out the water

Power line connection: connecting the power line, change fuse

Protection switch: protect the safety of the machine

SHR/HR Handle: install HR handle

SSR/SR Handle: install SR handle

Chapter 4 Installation and Commissioning

4-1, installation

The system can be installed in hospitals, medical clinics and beauty salons, little preparation is needed before installation. When you purchase our company's instruments, you can enjoy our free onsite installation and commissioning services.

The system should be installed and commissioned by professional and technical personnel authorized by our company.

Installation work includes:

4-1-1, check equipment list:



Equipment lists:

Mainframe (1)

SHR/HR handle (1)

SSR/SRSR handle (1)

Switch key (2)

Protective glasses (1)

Power cord (1)

Rubber ring (4)

Spare fuse (2)

Package box (1)

Water funnel (1)

4-1-2, Be familiar with the installation requirements:

4-1-2, Be familiar with the installation requirements:

Before unpacking the Instrument, you should check whether the accessories are

complete, the installation location meets the requirements of this section.

The system should be installed away from heat vents and keep an appropriate distance from other objects, the temperature should keep about 20 °C.

The instrument is preset the rated voltage of the installation place before delivery according to the user's requirements. The corresponding electrical equipment requirements are as follows:

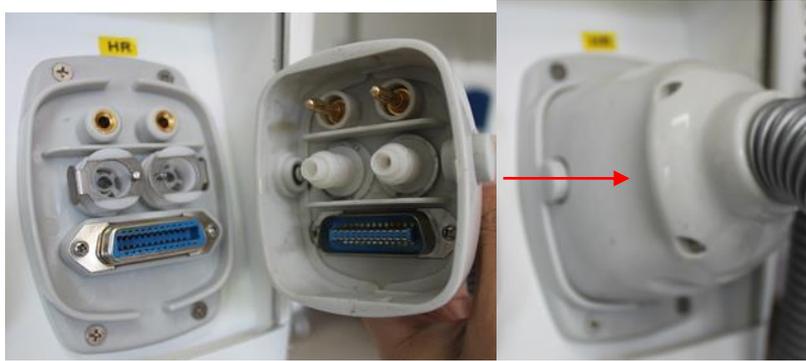
- ◆ Single phase 230V, 10A 50Hz
- ◆ The equipment lands the ground through the ground wire of the power sheath, passing the wall line. Good ground connection is essential for safe operation.
- ◆ The input voltage cannot have transients, voltage and current spikes, collapse or surge.
- ◆ To ensure that the system is in the best condition, the room temperature should be maintained at about 20 °C, relative humidity should not exceed 80% .The thermal power of the system is about 200W during work, so it's the best if the treatment rooms are air-conditioned.
- ◆ Do not allow the instrument being irradiated by prolonged direct sunlight, nor being placed near a heater.

4-1-3 installation steps

- 1) Carefully open the package of the machine, place the machine in a preselected position



- 2) Take out the handle bracket, and install it in the corresponding position, check whether the connection is good or not, shown as below picture,



Note: install the handles first, and then adding water.

3) Plug in the power cord.



4) Insert the switch key and the Chassis key.

5) Fulfill water

A First prepare 8 liters distilled or purified water. Running water or mineral water is not allowed.

B Unscrew the water inlet of the machine.



C Unscrew the overflow(vents) at the back of the machine. You can fill in water only when the overflow(vents) is open.



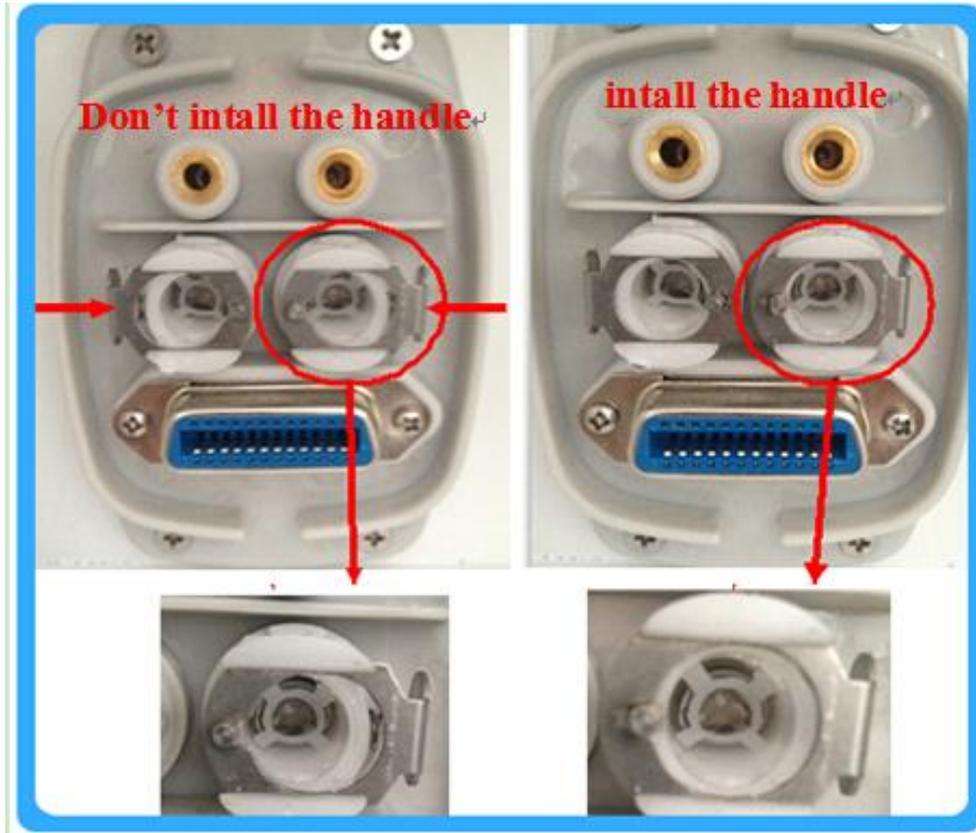
D. Fill in water with the water funnel delivered along with the machine.



E. Do not tighten the overflow mouth at first, please wait until the machine finish debugging, then tighten the overflow mouth. The inside of the machine is a closed water loop, if tighten overflow mouth at first, there will be air inside the water tank, which will make water do not circulate, cause machine failure.

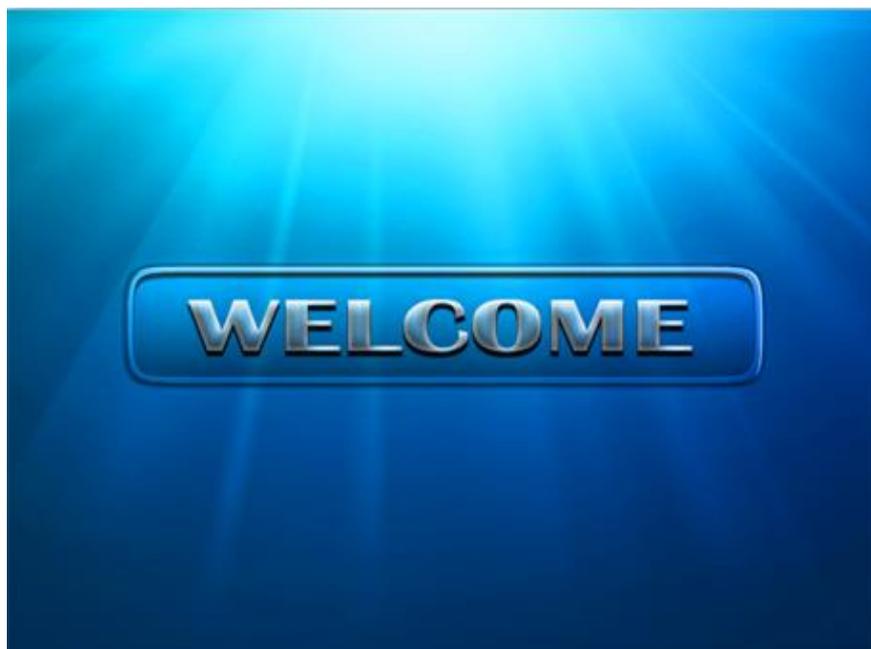
After the above water filling steps, please start power and commission.

Note: Please install the treatment handles as shown below. Press the Spring as the arrow pointed in order to avoid the rubber ring leaking water. During the use, dragging the handle is strictly prohibited.



4—2 Commissioning

1) Make sure the emergency shut-off knob is Upward bounce. Turn right the key clockwise to start the system, then the system starts to work. (you can hear the sound of water circulating if normal) The touch play screen shows as following (picture 1):



Pic 1

Pic 1 shows the initialization process of the machine, please check whether the the

connecting place between the machine and treatment handles is leaking or not. If there is water leakage, stop the commissioning of the machine immediately. Take off the treatment handles, check whether the rubber ring inside the handle joint is good or not. If broken, please replace a new one.

Note 1: Make sure the handle in place before commissioning.

Plug out handles is strictly prohibited during treatment.

Note 2: Make sure the red emergency stop button is up, or the machine cannot supply power.

2) Click “welcome “in pic-1, enter into interface of pic-2. The left one is SHR super hair removal model, the right one is normal IPL hair removal model. Take SHR as example, select SHR button.



Pic- 2



3) 、 Click button , enter into SHR model, as following pic-3. Please clinic SHR or SSR button, then into the corresponding interface.



Pic- 3

4)、the system into the SHR operating interface: pic-4



Pic- 4

Notice:

1) If the actual water flow is smaller than the set water flow, the system will alarm "xx 1 xx"; it means the water flow is little and can't reach to normal data.

2) If the working temperature is higher than the set temperature alarm, the system will alarm, "xx 4 xx"; indicating the temperature is too high, not suitable for

treatment.

3) If the temperature sensor is broken or no temperature data, the system alarm“xx 5 xx”;

4.1、 The picture 4 is operation interface, show the running state and parameters(including working model, water flow, energy, pulse quantity, and pulse width), also can set the system running parameters, change system running state. The client can set the parameters as following:

4.1.1、 **Energy adjust:**

At working state, click the adjust button “+” the up arrow representative increase, “-” the down arrow representative decrease. the adjusting rage is 1-15J/cm2。

4.1.2、 **frequency setting:**

At working state, adjust “frequency” button



, the light frequency output rage is 1-10Hz。

4.1.3、 **Width parameters adjust:**

This button represent light frequency output:



4.1.4, After you set the right treatment parameters, press the



button, if the system doesn't work, the system will

indicate“xx 2 xx”, the precombustion indicator  has no change, precombustion button return to the original state, click precombustion button again. If success, precombustion indicator and

Charging indicator icon will be like this , then you can enter into treatment state.

At this time, you cannot change the parameters, press the trigger button on the treatment handle, the corresponding handle will flash according to the set parameter and the buzzer will beep. The total count and single count will be increased on the screen. When you release the trigger button, the

flashes will stop. Press the button , the system will enter standby status, when you can modify the treatment parameters if you need.

5、 click return button , return to the working model option interface.

5)、Select IPL model, the system enter into operation interface: pic-5

Notice:

When water circulation has problems, the system will alarm, “xx 1 xx” will appear, which shows the water circulation is not smooth or little, and the equipment cannot work

normally. The pic  in the operation interface show the actual flow size, if it is "0." It means that the water circulation is not smooth at all.

If the working temperature is higher than the set temperature alarm (set alarm temperature is 50 °C), the system will also alarm, “xx 4 xx” will appear, indicating the temperature is too high, not suitable for treatment.



Pic 4

The picture 4 is operation interface, show the running state and parameters (including working model, water flow, energy, pulse quantity, and pulse width), also can set the system running parameters, change system running state. The client can set the parameters as following:

Energy adjust: in the state of “standby” click the adjust button “+” to increase the energy

and click “-” to reduce the energy. energy adjust, the adjusting rage is 10-60J/cm2.



Pulse width adjust:

P_AMT. : numbers of pulse (1-15) **P1** : width of first pulse (1-30ms)

D1 : delay of first pulse (5-50ms) **P2** : width of second pulse (1-30ms)

D2 : delay of second pulse (5-50ms) **CYCLE** : time between each flash (1S-3S)

Please click “+” and “-” to adjust the parameters above



Set parameters: Press the set button , in the operation interface, then goes into the parameter set interface. Shown as Pic 4.



Pic 4

This interface is “adjustment of the same pulse width”. The button



is water flow regulation. The set range is 0-10. There will be “xx 1 xx” appearing if the actual water flow is less than the set amount.

Note: Please do not adjust the Water flow alarm value.



Press button to save the changed parameters and get back to the previous interface.



Press button not to save the changed parameters, get back to the previous interface directly.



Counting display: refer counting display button, the “Total Couner” is for the total count, “Clear” is for single count. Press “Clear” can clear the single count.



System information display : refers system information button, used to show all warning information. Including:

- xx 1 xx: Water circulation has problems
- xx 2 xx: Precombustion fails. (you need cancel the Precombustion and Precombustion again)
- xx 3 xx: Charging of the machine is not finished
- xx 4 xx: Water temperature is overheating, not suitable for further treatment.
- xx 5 xx: acquire Temperature fail



The system status display: from left to right, they are charging button, precombustion button.

Precombustion button: when you click precombustion button will appear when the Xenon lamp precombusting successfully.

Charging complete button: after the Xenon lamp precombuste successfully, the machine is

charging, while finish charging, you will see this the button 

Start working: After you set the right treatment parameters, press the “Work” and turn to “Standby”, When the machine finishes precombusting and charging, the button you will see is  then the system enters the treatment status. At this time you cannot change the parameters, press the trigger button on the treatment handle, the corresponding handle will flashes according to the set parameter and the buzzer will beep. The total count and single count will be increased on the screen. When you release the trigger button, the flashes will stop. Press the button “Standby” to “Work”, the system will enter standby status, when you can modify the treatment parameters if you need.

Note: If the machine is not flashing, prohibit staying in the working state for a long time.

Shut down: when the treatment is completed, click , button, the system will return to the initial interface, then turn off the key switch is OK.

Note: Do not force the machine shut down during working.

Chapter 5 Technical Parameters

5 - 1 Technical specifications

This system has multi-pulse and multi-wavelength; its technical specifications is:

| | |
|---------------------------------|---|
| Laser Type | Intense Pulse light |
| Wavelength | 560-1200 nm,690-1200nm |
| Output mode | Pulsed |
| Control mode | Touch |
| Transmission | Crystal light system |
| Safety class | Class I type B |
| Screen size | 8.0 inch |
| Energy Density | IPL mode: 10-60J/cm ² (deviation $\leq\pm 2\%$) |
| | SHR mode: 1-15 J/cm ² |
| SHR/SSR Light frequencfy | 1-10Hz, STE: 1 |
| Pulse width | 1-10ms |
| HR/SR continuous light interval | 1-3S, STE: 0.5S |
| Spot size | 8*34mm (SSR/SR) 16*57(SHR/HR) (deviation $\leq 0.2\text{mm}$) |
| Crystal temperature | 0-30°C |
| Cooling system | Semi-conductor+water+Air |
| Dimension | 50*40*121cm |
| Net weight | About 47kg |
| Fuse | Ø5×20 20A |
| Input power | 2500W |
| Power supply | AC230V 20A 50Hz, |

5 - 2 Relevant Requirements

Running environment of this system:

Environmental temperature: 10°C~30°C

Relative humidity: no more than 80%

Storage environment of this system:

Environmental temperature: 0°C~40°C

Relative humidity: no more than 80%

Chapter 6 Operating Procedures

Before receiving treatment, a low energy skin test should be done first. After selecting the appropriate energy, covering the treatment area with a thin layer of gel, and then making the treatment handle work at the target area, pushing the button switch to do treatment repeatedly. The output frequency is generally 1p/3s. After treatment, it is better to build a treatment file for your clients to improve the effects during the following treatments.

6-1 Skin test

Before receiving treatment, the client has to do a skin test. The content is as the following:

1) If do whole face treatment, pls choose ear root part as the test area. If it is chest, neck or other body areas, pls choose the parts that will not affect appearance as the test area.

2) When the testing area is chosen, pls clean it and cover a thin layer of gel, and then make the treatment handle fully touch the testing area, shooting 2-3 light spots. 1/3 light spots overlap is acceptably. After 2-3 minutes, pls observe the testing area. If a slight redness could be seen, it indicates that the used energy is suitable, and the operator could use this energy and parameter to do treatments for the client. If nothing happens on the testing area, it indicates a lower energy, and the operator should increase energy, 1-2J every time. If an excessive redness occurs immediately, it indicates a super high energy and the operator should reduce the energy.

3) If doing hair removal, a cut of hair to 1-2mm is a first thing, and then clean the target area. Shooting the treatment area with trial light spots, if a slight redness and a burning of the hair on the whole area occur, it indicates the energy is suitable; if no redness and a burning of the hair on the part area occur, it indicates the energy is low and the operator should enhance energy. Generally, the energy of trial light spots starts from 15J/cm².

6 - 2 Treatment Course

- 1、 It is suggested to do 4-6 courses, every 28 days a course according to hair growth cycle and different treatment areas.
- 2、 After a month, the patients can provide their feedback to the clinics.
If needed, a further treatment could be done to achieve better results.

Notes: After the hair is removed, it will have some burning sensation within 3 hours. However, pls do not worry. It does not need any special care; generally, it will disappear after 3 hours.

6.2.1、 Recommended parameters for Hair Removal

Note : Reference parameters are applied to the yellow race

| IPL Energy scope | | |
|------------------|---------|----------|
| Treatment areas | HR Mode | SHR Mode |
| Face | 10-25 | 3-7 |
| Lower arms | 12-27 | 3-9 |
| Upper arms | 12-28 | 3-8 |
| Knees | 11-25 | 3-7 |
| Front shinbones | 12-25 | 3-7 |
| Calf | 12-28 | 3-9 |
| Thighs | 12-28 | 3-8 |
| Oxter | 11-25 | 3-7 |

SHR Mode:

- 1) SHR Mode uses sliding operation, the operation speed should be uniform. The duration of stay should be short between each treatment.
- 2) When dark skin, light color hair or large area need to be treated, 4-6Hz frequency is recommended.
- 3) When white skin, coarse hair or small area need to be treated, 2-3Hz frequency is

recommended.

- 4) It is suggested to use 3Hz frequency to avoid the non-uniform operation speed, and overlaps of lights shots on treatment area, causing burns etc. adverse reactions.
- 5) Operation speed: Sliding back and forth 2-4 times within 105mm skin, making 14-21 light shots or so, and letting each light shot repeat 2-3 times.
- 6) After each treatment, Gel should be supplemented timely to make sure there is enough gel on the treated area and avoid skin burns. The operators need a complete and utter focus, when they operate the fast sliding mode, to avoid skin burns caused by a tight touch between treatment head and skin.

HR Mode:

- 1) HR mode uses fixed-point operation. Generally, it is used to small area or the areas with thick and coarse hair.
- 2) Pulse parameters: It is consisting of pulse number, Pulse width and pulse interval 3 parameters.
- 3) Pulse number: Each Ipl Pulse can be divided into 1, 2 or 3 continuous small pulses. This unique design could ensure the target tissues have a full absorption of light energy. Usually we use 3 pulses.
- 4) Pulse width: The discharge time of each pulse, is specified in milliseconds. Under HR mode, each pulse width can be set independently.
- 5) Pulse interval: The interval time among pulses, is specified in milliseconds. Under HR mode, it can be set independently, providing the necessary cooling time to protect skin. When using 3 pulses, the 2 interval time both can be set independently.

Note: In view of the sensitive body part, we should pay attention to the skin changes at any time. The above parameters are just for reference; the practical situation should be given priority to.

6.2.2、 Recommended parameters for Skin Rejuvenation

Note : Reference parameters are applied to the yellow race

| IPL Energy scope | | |
|------------------|---------|----------|
| Treatment area | SR Mode | SSR Mode |
| Face | 10-23 | 3-6 |

SSR Mode:

- 1) Sliding operation: (Frequency 3HZ, Energy 4-6 or so, 3 times);

Note : If dark skin, energy could be 3-5.

- 2) Upward operation:

Jawbone—Below cheekbones: Vertical sliding operation, starting from front ear to chin

Forehead—Hairline: fan shaped operation, fast sliding mode should be used.

Nose wings—fixed point operation

Note : The area with thin skin could be treated 2-3 times.

SR Mode :

- 1) SR mode uses fix-pointed operation, generally it is used to small areas.
- 2) Pulse parameters: It is consisting of pulse number, Pulse width and pulse interval 3 parameters.
- 3) Pulse number: Each Ipl Pulse can be divided into 1, 2 or 3 continuous small pulses. This unique design could ensure the target tissues have a full absorption of light energy.
- 4) Pulse width: The discharge time of each pulse, is specified in milliseconds. Under SR mode, each pulse width can be set independently.
- 5) Pulse interval: The interval time among pulses, is specified in milliseconds. Under SR mode, it can be set independently, providing the necessary cooling time to protect skin. When using 3 pulses, the 2 interval time both can be set independently.

6-3 Features of effective operation

- 1) Hair removal effective features: Skin has a hot, prickled and burned process. The skin will be reddish, and there will be red pimples around deep and coarse hair follicles (generally it will disappear within 12 hours). Hair will grow in 3 days, and after a week hair will fall off on their own.
- 2) Skin rejuvenation effective features: Skin has a hot, prickled and burned process. The skin will be reddish, bright and smooth. Pores shrinks, Skin tighten and lift.
- 3) Spots removal effective features: The color of spots becomes deep and the surrounding skin is reddish.

6-4 Discomforts

- 1) There may be some pain when use.
- 2) There may be a temporary redness/edema after use, usually in 3 to 7 days the swelling will reduce.
- 3) There exists a minor risk of temporary pigmentation and skin texture changes etc side effects.
- 4) It may occur scabs or bubbles, needing 5-10 to heal.
- 5) The skin of the treated area or nearby may become fragile temporarily (do not make up or rub skin).

6 - 5 Attentions

- 1) Completely protect the client's eyes when doing treatment
- 2) When doing treatment, pls starts from the thicker skin and then extends to the surrounding.

- 3) A second scan on the lesion area is acceptable.
- 4) It's better to avoid eyelashes, and do not repeat the light spots when treat forehead
- 5) When doing treatment, pls touch the treatment area tightly, but avoid pressure on the area.
- 6) When doing treatment, the light spots should be continuous. 1/3 overlap is acceptable.
- 7) It is allowed to change the direction of treatment handle to achieve full treatment.
- 8) For darker skin, D1 and D2 should be lengthened appropriately
- 9) For whiter skin, D1 and D2 should be shortened appropriately

6 - 6 Power off

- Put the treatment handle back to its place
- Push the button "Ready" to "Standby", turning off the handle light
- Turn the key switch to "OFF"
- Clean the light guide crystal with cotton or soft cloth

Chapter 7 Treatment principle and features

7—1 Treatment principle

The Intense Pulse light delivered by SHR 212 can penetrate into deep skin, and take effects on the targeted tissues. After an absorption of energy, the pigment cells will be broken and absorbed by the body gradually. When the blood vessels are exposed to intense light, the hemoglobin will selectively absorb the energy. The photo-thermal effect makes the blood vessels closed and then absorbed by the body gradually. The normal skin seldom absorbs the delivered energy, so the normal skin will not be hurt. The Intense Pulse light takes effects on pigments and blood vessels. Meanwhile, it can stimulate the proliferation of collagen and improve the rearrangement of elastic fiber, finally achieving the purpose of skin rejuvenation, wrinkles removal and pores shrinking

Intense pulse light hair removal is different from laser hair removal. The delivered light is broad spectrum(560-1200nm) intense pulse light. Its adjustable scope is wide, so it can do permanent hair removal to different colors and different depth of skin hair. Its principle is that the pigments in hair follicle and hair shaft has a selective absorption of light, and the photo-thermal effect will increase the temperature of hair follicles, make the hair cells dead and achieve the effects of permanent hair removal.

SHR 212 has a breakthrough aiming at the common problem of burning skin. During

treatment, each light spot is made of soft pulsed lights; the maximum pulse width is 20ms. The long pulse width ensures the treated area has a longer time to absorb the light and heat. Then a soft treatment can be achieved to improve the treatment effects and greatly reduce the skin burning, which can avoid the chromatosis and improve the treatment safety.

SHR 212 has 2 working principles:

Biological stimulation: when the intense pulsed light applies to the skin, the produced photochemical effect can make a molecular structure chemical change inside the dermis collagen fibers and elastic fibers to restore its original elasticity. In addition, its photo-thermal effect can strengthen the function of blood vessels and improve its circulation so as to achieve the therapeutic effects of removing wrinkles and shrinking pores.

Photo-thermal effect: The pigments group of the diseased tissue is much more than the normal tissues. Its temperature rises after an absorption of lights is higher than normal skin. Using the temperature difference between them to close diseased blood vessels and break down pigments without hurting normal tissues.

SHR212 Treatment scopes

Vascular disease: telangiectasias, reddening of skin and red nose caused by rosacea

Pigmentary changes: freckles, skin spots, poikiloderma, sun damage and skin aging, pores, rough skin, lack of elasticity and acne.

Improve facial skin aging, restore skin's luster and elasticity and regain youth.

This machine could be used to treat black spots and black eye, shorten the recovery time of laser resurfacing.

This machine could do hair removal.

This machine could treat face, neck, chest, hands and 4 limbs.

7 - 2 Features

1. SHR Hair removal is the less pain compared with all the other hair removal methods. Clinical cases indicate most patients just feel like they are being beating by a rubber band.
2. The advantage of SHR Hair removal is its permanent hair removal. Using the theory that Intense pulse light could penetrate into dermis and subcutaneous fatty tissue, take effects on the deep hair follicles of different areas to remove the hair on any area.
3. SHR Hair removal has the advantage of no injury to skin.
4. SHR Hair removal has the advantage that its pigmentation after hair removal is closing to our skin.
5. The long pulse adjustments of SHR Hair removal can protect epidermis and remove thin and thick hairs.
6. Square large spot can remove hair quickly, and increase treatment speed.

Chapter 8: Indications and contra-indications

8.1 Indications

Pigment removal: Speckles, age spot, sun-induced freckles and all kind pigment sourced from cosmetics (most effective).

Blood vessel removal: Red blood streak, bottlenose, erythematic spot and so on

Anti-ageing: Wrinkles, acne scar, low skin elasticity, Tricolored and so on

Hair removal on limbs, body, face and lips

8.2 Contra-indication

- Pregnant woman
- Using photosensitive medicine
- Recently tanned skin (within the last month)
- History of keloid scarring
- Diabetes, unless under control
- Cancer, particular skin cancer
- Heart disease, epilepsy

Chapter 9: Post-treatment care

9.1 No exposure to sunlight

Clients should use highest factor sunscreen and protect the treated area from exposure to sunlight, sunbed or other artificial tanning for one month following treatment. Tanning after treatment sessions may enhance melanin regeneration, which may result in hyper-pigmentation

9.2 Free from always touching and pressing

Clients must do not press and scratch the treated area against infection.

9.3 Makeup

Makeup immediately after the treatment is not allowed for better curative-effect, advising no use of makeup for four to five days following treatment. The skin is sensitive during this period. Remove the makeup when swelling and reddening appearing at the treated site against infection and pigmentation. In the meantime, advise client take some medicine such as VitC, VitE.

9.4 Food

Advising not eat the hot and spicy food because the skin is sensitive during this period.

9.5 Other

Advise that improve other causes of disease, such as adjusting the endocrine situation by taking Chinese herb of medicine, taking few medicines that include VitC and Vit E.

Caution:

According to the normal physiological process, clients should take the next treatment 21 days later. The whole treatment needs 3-5 sessions.

Due to physical difference between individuals, a few of clients may have temporary discomfort such as blister, deposit of pigment, swelling and so on. Advise you to use ice bag to cover the treated area for 30 minutes right after treatment. No makeup in 5 days after treatment.

Chapter 10 Maintenance and troubleshooting

10.1 Cleaning the unit

Clean the system exterior at least once a week. Wipe all surfaces with soft, damp, non-abrasive cloth. Mild cleansing solution may be used. Not spill liquids in the unit.

10.2 Cleaning the crystal on hand piece

The crystal on hand piece should be kept clean at all times and should be cleaned after each treatment.

To clean the crystal on hand piece, first dry it with a lint-free cloth. Then clean it with a cloth moistened with water-free alcohol and let it dry thoroughly.

10.3 Troubleshooting

The chart below shows some possible trouble and solution accordingly

| Problem | Solution |
|-------------------------------|--|
| Machine cannot open | Check the power line loose or not Check fuse |
| Water warning | If add enough water Check if the followed the order of adding water Add water mouth, release air inside |
| Handle working but no cooling | Check water cycling |
| Connector leak water | Check rubber ring broken or not |
| Handle no flash | 1 check if you press Work Button on LCD 2, check if the counter work well, if counter not working, the handle button broken |
| Output energy weak | Check whether the power supply voltage is too low clean the crystal check if the energy you chose is too low check if the handle need to be changed |
| Warning in shot time | Check if the setting protecting Temperature is too low(normal 35°C) |

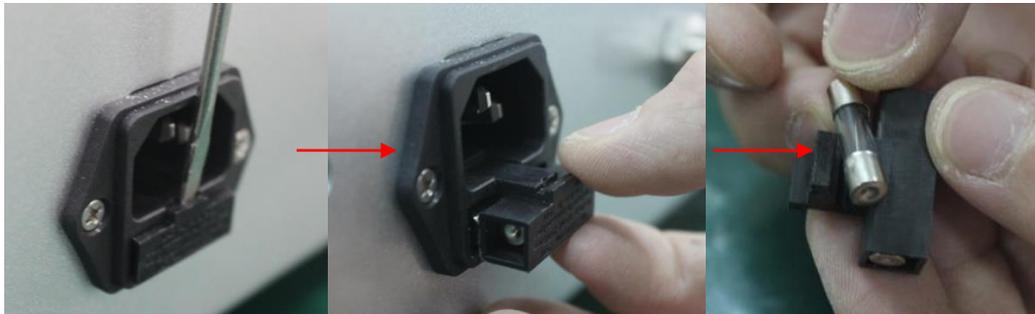
| | |
|---|---|
| | The environment temperature is too high |
| For other problem, please contact us, please don't open the machine yourself | |

10.4 Error information

If the system malfunctions during start-up or normal operation, turn the system off immediately and contact with our service department. Only the technician authorized by our company can service the system. Otherwise, we bear no responsibility.

10-5 Replace the fuse wire:

Turn off all power switch, unplug the power cord; open the fuse holder with a small flathead screwdriver, and then take the fuse wire in the fuse holder. Take out the spare (15A / 250V) fuse wire in the accessories sent to you along with the machine.



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2

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10 - 6 The cooling system maintenance

Change the purified or distilled water once a month by outfall, you may find it at the down back of the unit. You may find 2 parts, one is blue, another is black, push the blue part with your left hand and pull the black part with your right hand, the black part will be taken off the unit, water out then.

Please check the fan regularly, fan damage will cause machines overheating, causing the machine doesn't work or even completely damaged. Regularly check the cooling water, if necessary, please add.

10 - 7 Touch Screen Calibration

Turn on the machine without any operation, continue press the button on the handle 10times, the LCD will appear blue. On the up left corner of the LCD you can find a write +, press the +, it will run to right, press + again, it will run to the bottom, press + 3times, then reopen the machine to finish it.

Chapter 11 Interpretation of labels, symbols, abbreviations, etc

| | | | |
|---|------------------------------------|---|---|
|  | Manufacturer |  | European union authorization representative |
|  | DATE OF MANUFACTURE |  | Expiry date |
|  | Sequence number |  | Type B applied part |
|  | CE mark |  | characters of "Keep dry" |
|  | "Fragile: handle with care" |  | characters and symbol denote "Please follow the instructions" |
|  | characters and symbol of "caution" |  | Waste disposal |



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Dimdi Code DE/0000047791
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