

IPL SHR E-light

Operation Manual



Warning: Unauthorized use and changing is not allowed. Please contact us if you have question and suggestion about the operator manual.

Note: Carefully watching and reading the manual is necessary to the operator before operating or maintaining the equipment.

CONTENT

1. System Description

1.1 Introduction to the equipment

1.2 Indications 4

1.3 Treatment parameter

2. Safety

2.1 Electric Safety

2.2 Movement and transportation safety

2.3 Optical safety

2.4 Hazard information

3. System description

3.1 List of system components

3.2 System components description

4. Installation

5. Specifications

5.1 Specifications

5.2 Environment requirement

CONTENT

6. Operation

6.1 Check working mode & Start the equipment

• 6.2 Energy and parameter setting

6.3 Treatment Procedure

6.4 Skin Test

6.5 Caution

• 6.6 Turn off the equipment

• **7. Principle and feature of the equipments**

7.1 Principle of the treatment

• 7.2 Feature of the equipment

8. Indications and contra- indications

8.1 Indication

8.2 Contra- Indications

9. Post treatment Note

10. Maintenance

10.1 Cleaning of the equipment

10.2 Cleaning of Crystal

11. Contact Us & after sale service

1. System description

1.1. Introduction to the equipment

The equipment includes computer controlling, power supply, water cooling, treatment head and console.

The installed place of the components shows as P-1

The computer controlling includes LCD touch screen, main board and Driving Board.

The power supply includes Charging board, simmer board, power protecting board, discharging board, treatment head switching board, Low electric power supply board, capacitors, and metal cover. Please see 3.2 for details.

Water cooling includes water tank, Water pump, water flow switch, water temperature switch, water tank supporter and radiator. Please see 3.2 for details.

The treatment head includes connectors, pulse counter, connected wire, Crystal, semiconductor cooler, metal cover and lamp. Please see 3.2 for details.

The console includes console, key switch, emergency button, wheels, power switch, water input, water output, Overflow and power plug.

1. System description

1.2. Indications

The system use for the treatment of Hair removal, skin rejuvenation, Acne clearance and improve skin property.

- A, Unexpected hair treatment
- B, Skin rejuvenation
- C, Pigmentation treatment
- D, Acne clearance

1.3. Treatment parameter

The adjustable parameter by the operator is as followed
Energy Density: IPL----- 10-50J/cm²Adjustable continually
E-light-----10-50J/cm² Adjustable Continually
SHR-----1-10J/cm² Adjustable Continually

RF Energy: 1-30W

Treatment head: SR: 560-950nm

HR: 650-950nm

Other wavelength treatment head is for optional treatment.

Pulse mode: Pulse duration, pulsing number and frequency is adjustable.

Please see Chapter 5 for details.

2. Safety

2.1 Electrical 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 220 V (50Hz) or 110v (60Hz)., single-phase power source, the input Current must **between 10A and 20A.**

The use of Voltage-transformer that the power is 2000W can reduce the adverse influence to the system, which is caused by unstable voltage.

Warning: 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.

Note: The system requires international standard three-hole power plug, which is grounded through the grounding conductor in the power cable. This protective grounding is essential for safe operation.

2. Safety

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

1. Intense pulse light with wavelength of 560nm-950nm and 650nm-950nm 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.

2. Intense pulse light emission presents an eye hazard. Take all necessary precautions in areas where the system is being used.

3. Never permit reflective objects such as jewelry, mirrors and watches to reflect the intense pulse light.

4. Never look directly at the intense pulse light emitted from the treatment handle, even when wearing the protective glasses.

2. Safety

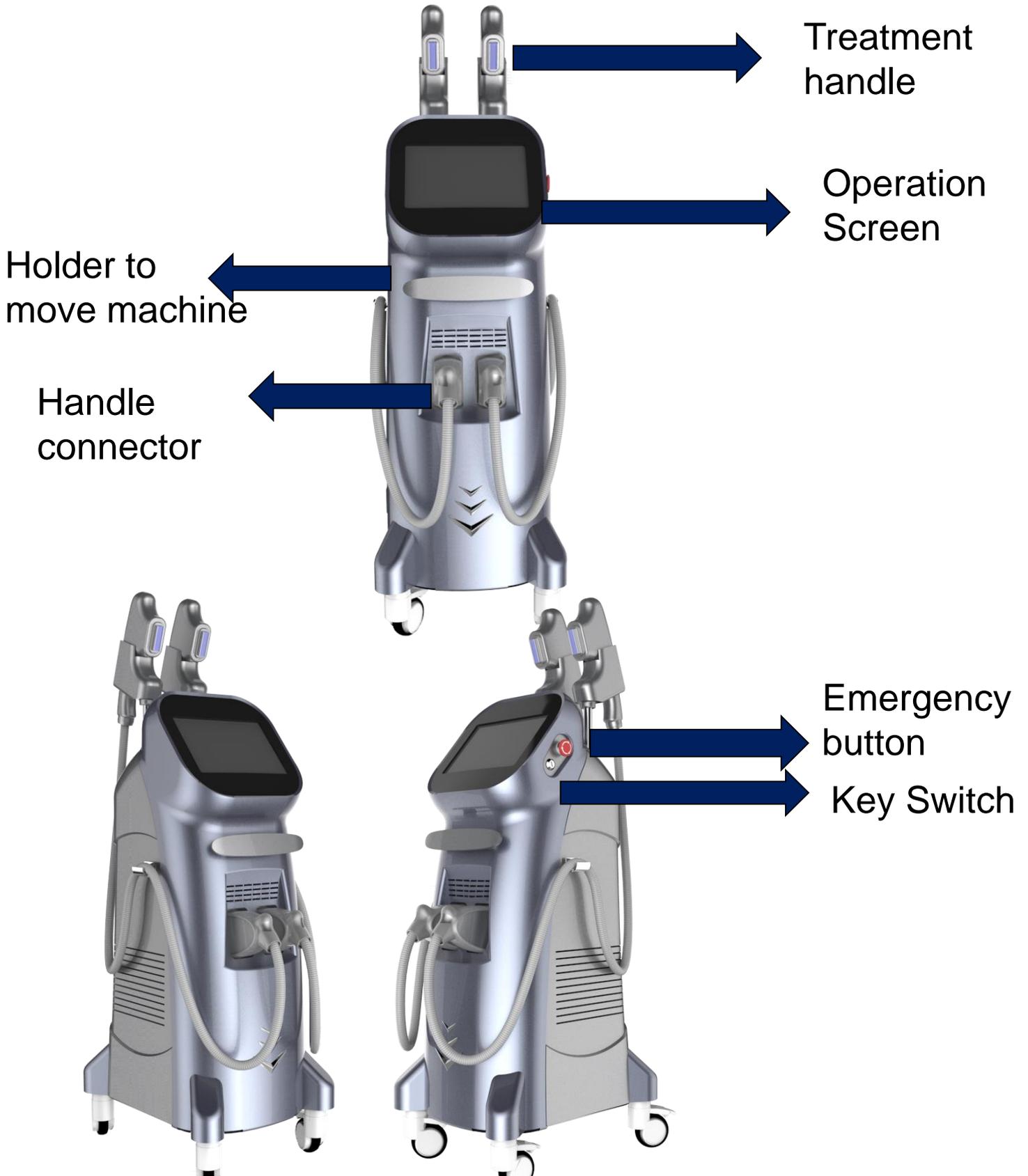
5. Never direct the intense pulse light at any skin except the test patch and the target area.
6. Crystal is dedicating optical components, **cleaning after each treatment is necessary.**

2.4 Hazard information

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

3. System Description

3.1 List of system components



4. Installation

The system is used in hospitals, clinics and beauty salons. Only a little pre-installation preparation is needed. The installation procedures are to be performed under the instruction of the technicians authorized by our company.

The installation procedures include the following content:

4.1 Installation requirement

Examine the treatment area before removing the package as the requirements described in this chapter.

The system should keep enough distance from blocks such as radiators, walls and desks.

The electrical and mechanical requirements of the system are as following:

1. Single-phase 220V \pm 10%, **10A**, 50Hz (standard outlet according to country and area).
2. The system is grounded through the grounding conductor in the power cable. This protective grounding is essential for safe operation.
3. Unstable voltage cause bad influence to the system, the voltage-transformer is necessary to the system.
4. For operation safety, the temperature requirement of the treatment room should be about 20°C, and the relative humidity should be below 80%.
5. During the operation of the system, the thermal power is about 3000W. Air – conditioning device is necessary to the system.

4. Installation

4.2 List of components and accessories

Name	Quantity
Main console	1
Treatment head	2
Keys	2
Protective glasses	1
Eye goggles	1
Power supply line	1
Plastic round against water leakage	5
Treatment head supporter	2
Operator's manual	1

4.3 Install machine

4. Installation

		
<p>1. Take shell out</p>	<p>2. Put handle holder</p>	<p>3. Put handle</p>
		
<p>4. Connect handle</p>	<p>5. Put plug</p>	<p>6. Put key switch</p>
		
<p>7. Put cpc on "water overflow" hole, keep it on always</p>	<p>8. Put funnel on "water input" hole</p>	<p>9. Add water, about 3L</p>

4. Installation

Add water notice:

1. Add Pure water/ Distilled water. Mineral water and pipe water is not allowed.
2. Add around 3.5L (at least 3 L)
3. Add water 2 times: Add first time till water flow from overflow, then turn on machine for 5 minutes, let water circulate into the hand piece, then add water again to let it full.

Warning: When the temperature of the environment and the equipment is much difference, filling the water and turning on the equipment can cause damage to the water cooling system and crystal of the treatment head.

In winter, when you get machine, suggest you put in room for 2 hours, then add water.

Change water:

The cooling water needs to be changed every 1-3 months.
-----Frequency : every 2-3 week change water.
-----Not Frequency : at least 3 moths.

After changing the water, turn on the system and running 5 minutes to observe if the water circle runs normally.

5. Specification

Specification	
Wave Length	HR: 650-950nm SR: 560-950nm
Energy	IPL & E-light: 10-50 J/cm ² SHR: 1-10J/ cm ²
Frequency	IPL & E-light: 1 HZ SHR: 1-8 HZ
RF Power	30W
Input Power	3000W
Power Source:	Pure Sapphire
Lamp	UK lamp, guarantee 30,000 shots
Spot Size	10*40mm for SR, 15*50 for HR
Cooling Temperature	Max -10 degree
Cooling System	Watering Cooling + Air cooling + Semi Conductor cooling
LCD Screen	10.4 inch color touch screen control

Environment requirement:

Operating Temperature: 10-30°C

Relative humidity - operating: Up to 80%

Storage temperature: -20°C-40°C

Relative humidity – storage: Up to 90%

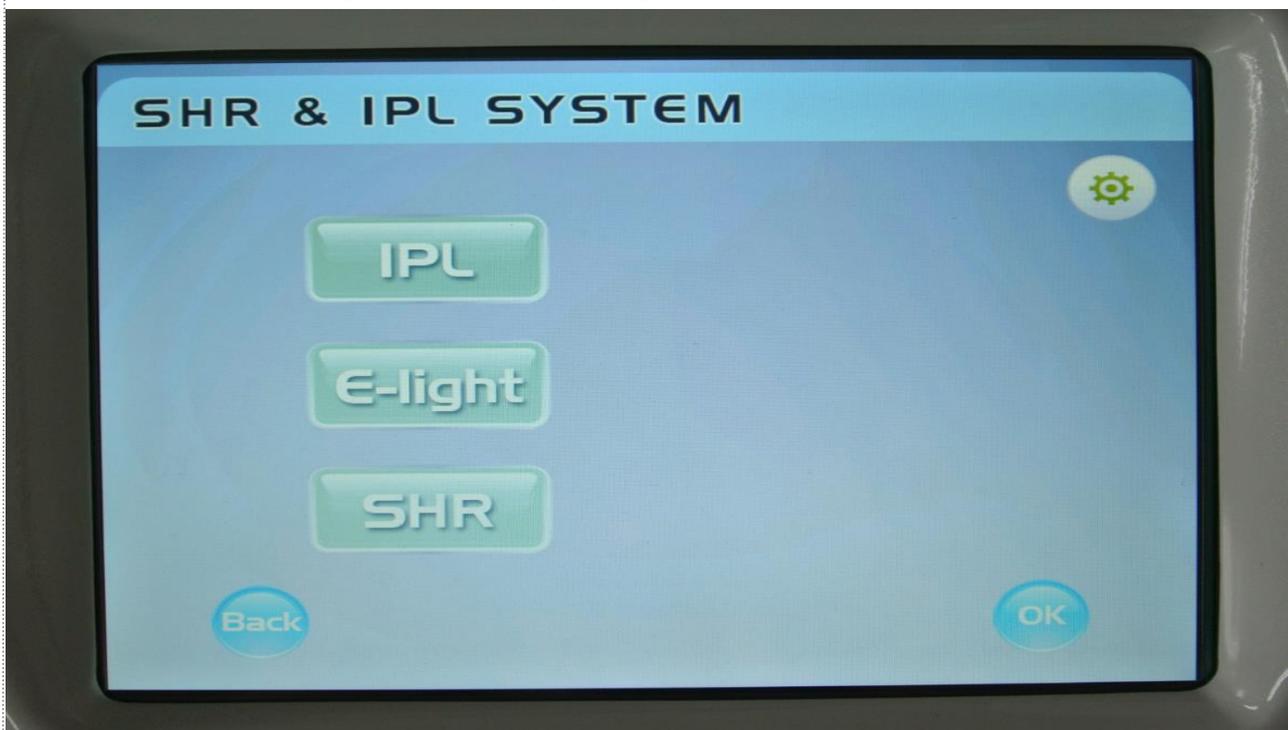
6. Operation

6.1 Check the working mode

1) After filling the water tank, turn on the system and see the screen as following:

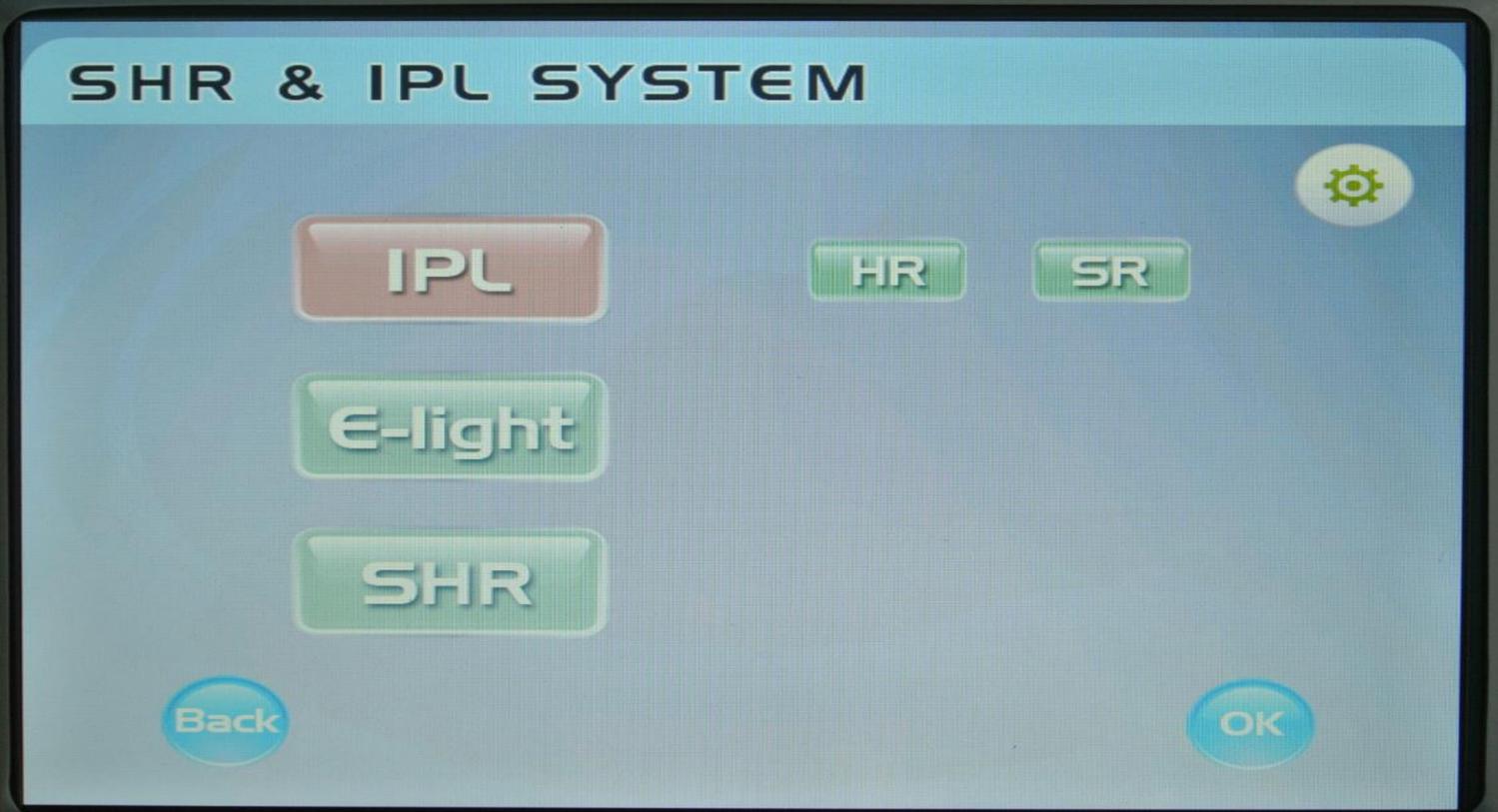


2) After choosing the language, The screen shows as following:

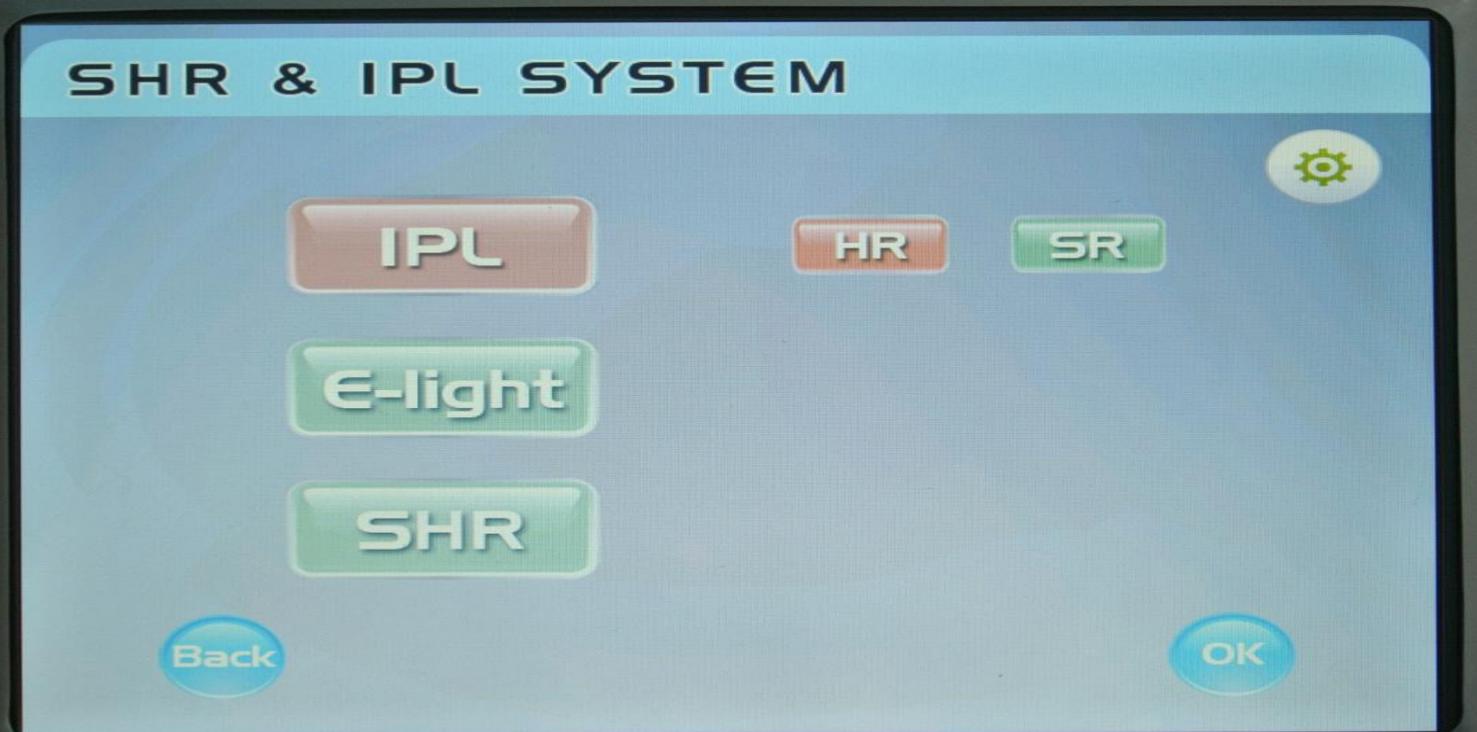


6. Operation

Choose the work mode type, and the selected button will become Yellow. It shows as following:



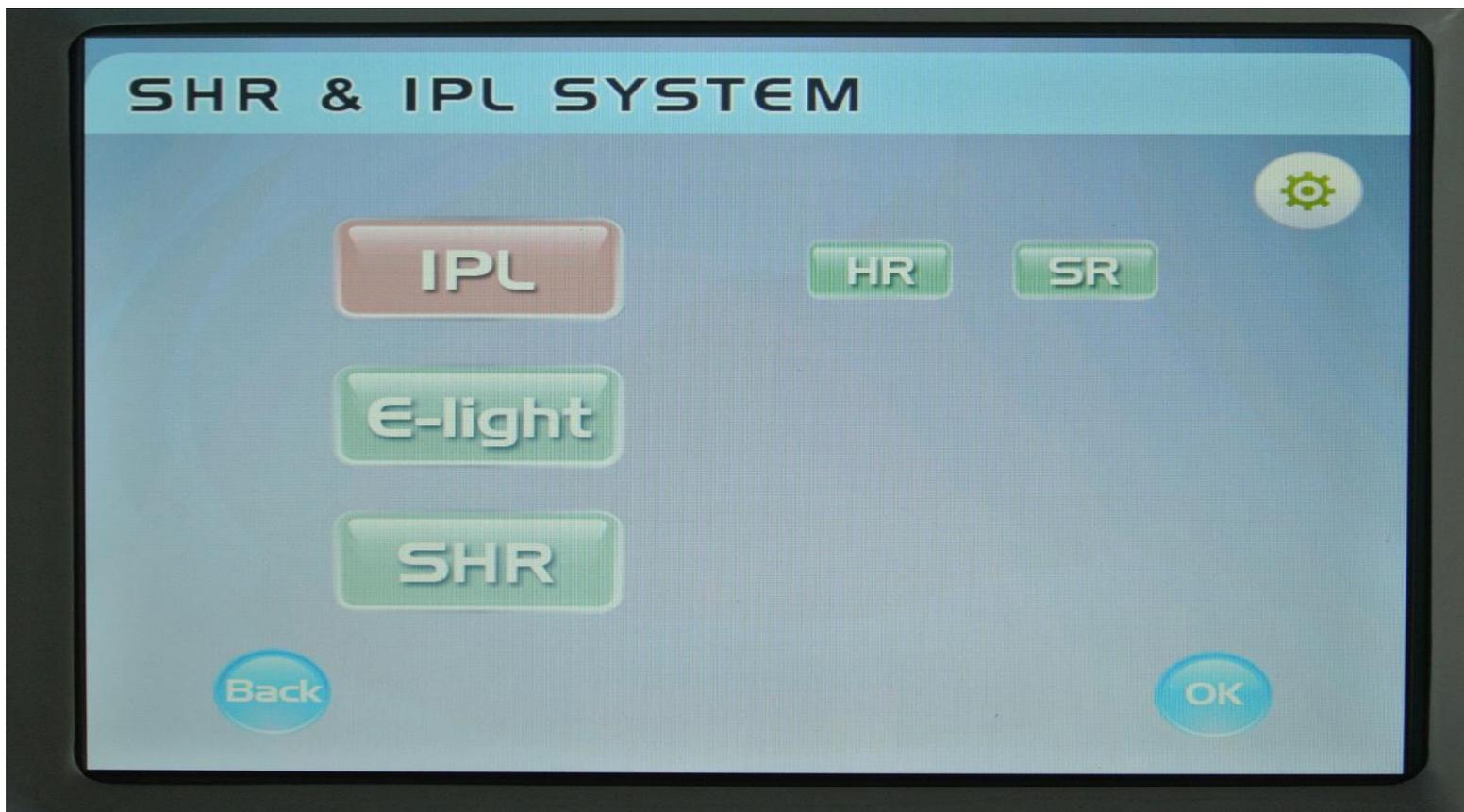
Choose the hand piece type, and the selected button will become Yellow. It shows as following:



6. Operation

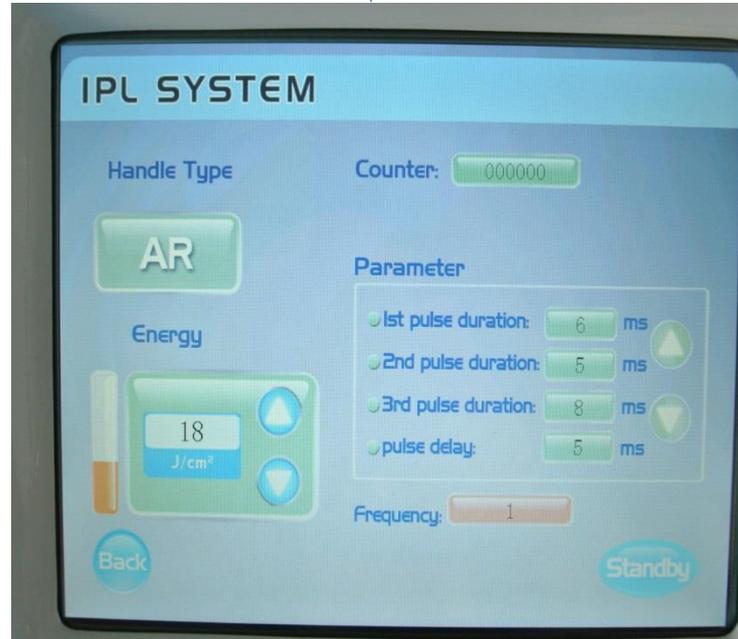
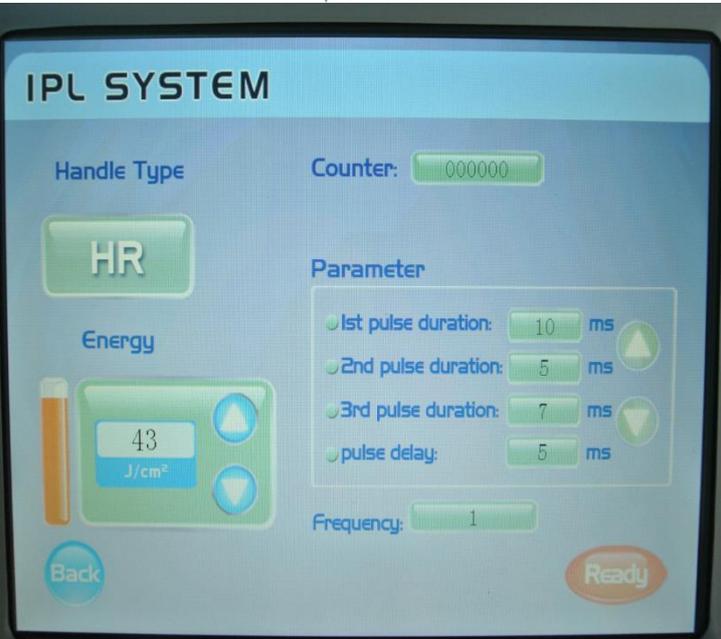
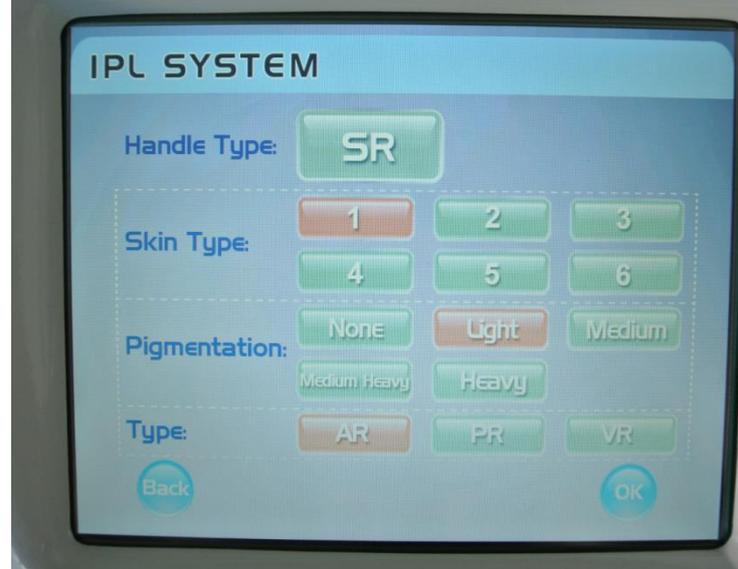
The system includes 3 work modes, it is separately to “IPL”, “E-Light” and “SHR” mode.

IPL mode: Under IPL work Mode, the system works as traditional IPL system. The operation procedure as followings:



Then it has HR (hair removal) and SR(skin rejuvenation)

6. Operation

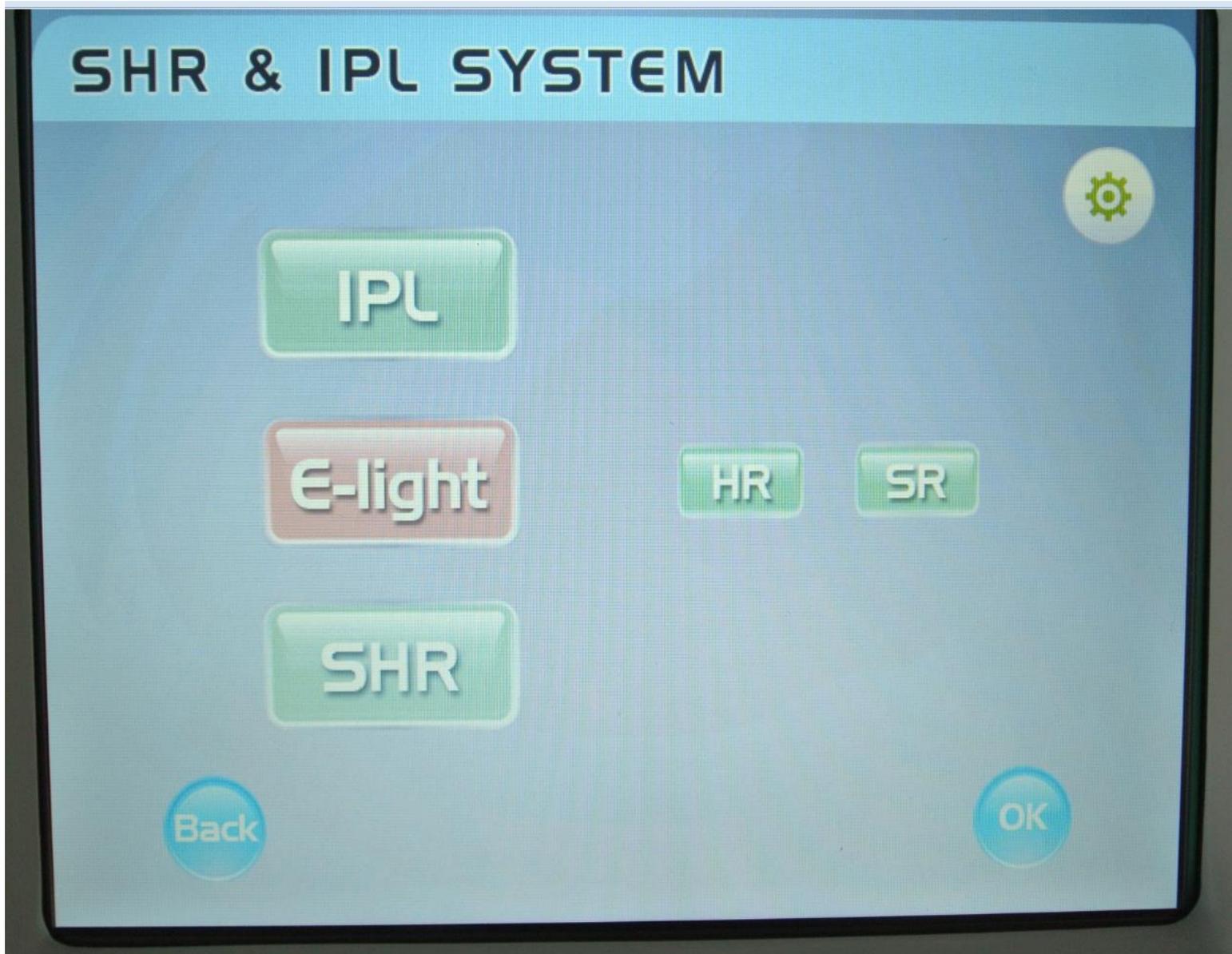


6. Operation

E-light Mode

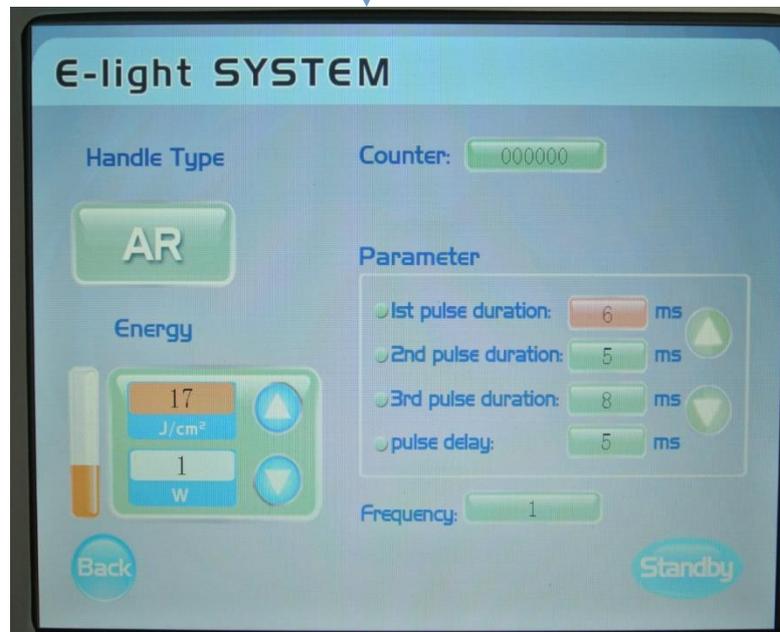
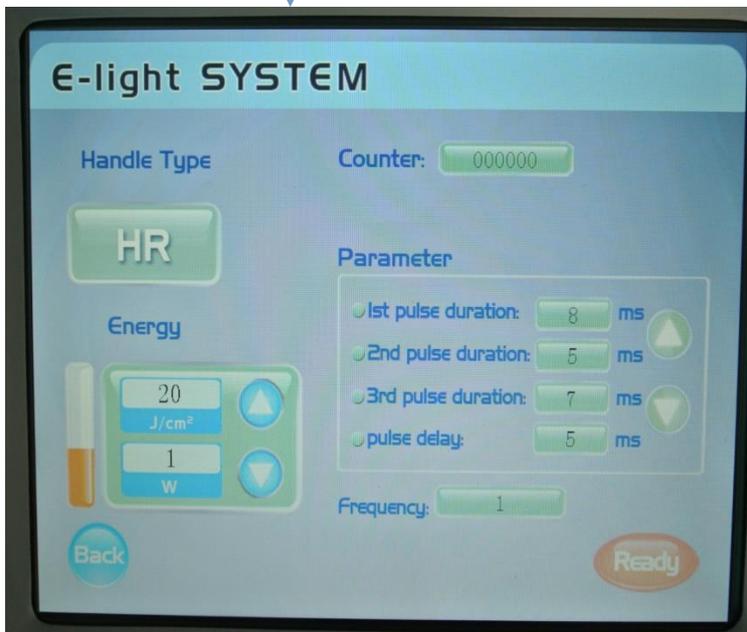
Under E-light work Mode, it add RF.

With RF, the energy go deep skin. Usually for skin rejuvenation, choose E-light system.



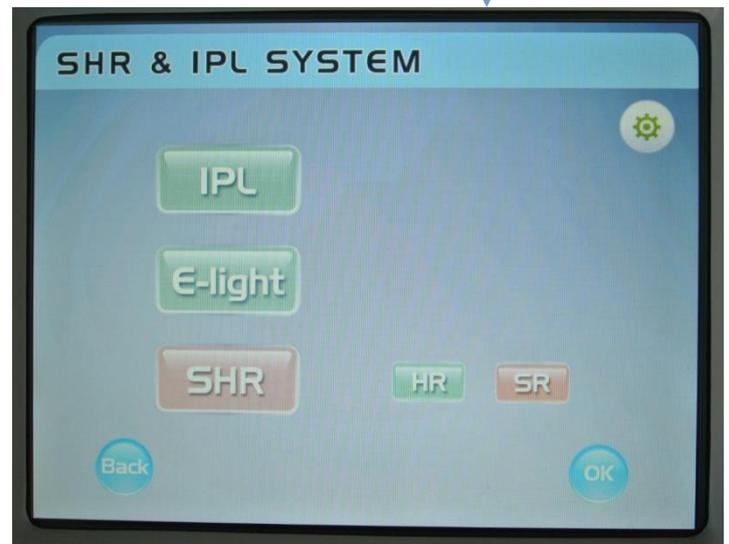
Then it has HR (hair removal) and SR(skin rejuvenation)

6. Operation



6. Operation

SHR Mode----Under SHR work Mode, the system can work very fast, 1-8HZ for your choice:



6. Operation

Screen button Definition:

“IPL”: Intense Pulsed Light working mode.

“E-light”: Intense pulsed light with RF working mode

“SHR IPL”: Super Hair removal working mode

“HR”: Hair Removal

“SR”: Skin Rejuvenation

“Skin Type”: 1-6 skin color degree

“Pigmentation”: pigmentation density in the treatment area

“Hair Type”: Hair thickness degree

“AR”: Acne Removal

“PR”: Pigment Removal

“VR”: Vascular Removal

“Energy”: Energy Level adjustment setting

“Counter”: Count the number of shot pulses

“Frequency”: Shooting speed setting

“Parameter”: Pulse working time and pulse delay time setting

“Timer”: continuous shooting time setting

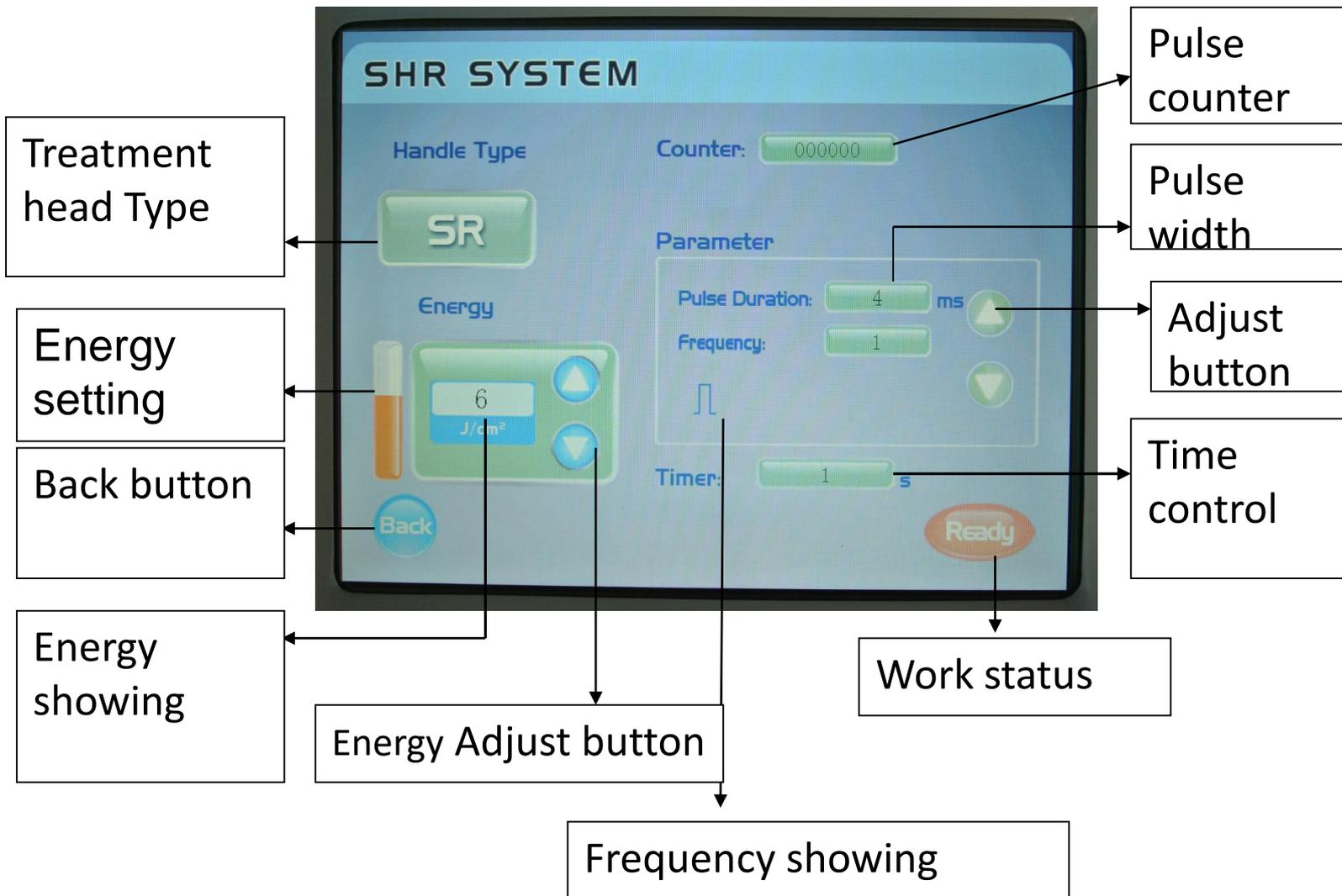
“Standby”: under standby working status, all the parameter can be set and hand piece would not shoot even press emitting button.

“Ready: under Ready working status, only Energy level can be set, other parameter already locked. Then pressing the emitting button, the hand piece can shoot..

“Working”: when pressing emitting button, the working status showing working.

6. Operation

The function of the buttons on the screen is as followings:



6.2 Energy and parameter setting

1. The work status key is to simmer the lamp of the treatment head. When the "Standby" changed to "Ready", the lamp will be lightened.
2. Press the shot button and lamp start to flash after two Beep sound been heard. At the same time, the work status key shows "work".

6. Operation

3. Release the shot button, the work status key shows “Ready”. If the operator keeps pressing down the shot button, the lamp will continually flash.

4. When the operator changes to another treatment head, press the work status key and change it from “Ready” to “Standby”. Then press the Back button to the treatment head selecting interface.

Note: When the system is ready for flashing, 2 Beeps can be heard. After one flashing, 1 Beeps can be heard.

6.3 Treatment Procedure

Only after finishing the setting showed on Chapter 6-2, the treatment can be started.

1. Testing the client’s skin for selecting suitable energy level. Skin test is necessary before the treatment for the client’s safety. (See 6.4).

2. Apply a **1-2mm layer** of cold coupling gel to the treatment site. Light pulses should be triggered on cold gel, so spread gel only on immediate treatment area and treat right away, then spread gel on next area.

6. Operation

3. Direct the light guide at the treatment site, apply minimal pressure and slightly touch the skin, or keep the distance of 1-2mm from the skin. The light guide must be in complete contact with the coupling gel.
4. Press down the shot button that is on the treatment handle and trigger a shot. Every shot accompanied Beep sound, both counters on the treatment head and screen count one time.
5. Wipe off the gel, wait a few minutes and examine the treatment site.

After finishing the treatment, record and file the treatment parameters for every client

Note: The lifespan of the treatment head: one standard treatment head can shot 300,000 times. After shooting 300,000 times, the effect of the pulse light might reduce. The treatment handle getting 300,000 times is out of the service guarantee and need change new treatment head.

Note: Changing the water on time, and keep the operation room and the crystal clean can make the treatment head work longer period.

6.4 Skin-test (Essential)

6. Operation

1. **Skin test** is essential before the treatment for the safety operation. The details are as following:

Skin test should be performed before the treatment for the client when the first time. The test patch should be under the ears or other skins not influencing the facial beauty.

2. Clean the test patch with pure water and wash- milk; apply a layer of cold coupling gel at the test patch. Take the treatment head from the supporter, and direct the light guide to the test patch. Trigger 2-3 shots (1/3 area of the spot size overlapping the treatment site is permitted.), and wait for 2-3 minutes to examine the test patch:

----If lightly swelling and/ or reddening at the test patch appears several minutes later, continue the treatment with the same settings of energy level and pulse type.

----If no visible changes at the patch appear, continue the test with $2\text{j}/\text{cm}^2$ higher energy level. Re-perform the test for several times until the above situation happens.

----If the skin show adverse effect or excessive reddening and/or swelling at the test patch just after shot, continue the test with lower energy level.

6. Operation

3. For hair-removal with the Hair-removal treatment head (650-950nm wavelength):

First, cut off the hair and leave only 1-2 mm. clean the test patch with pure water, and apply a layer of cold coupling gel at the test patch. Take the treatment head from the supporter, and direct the light guide to the test patch. Trigger 2-3 shots (1/3 area of the spot size overlapping the treatment site is permitted.), and wait for 2-3 minutes to examine the test patch:

----If swelling and/or reddening around the hair follicles appear within a few minutes, continue the treatment with the same settings.

-----If no visible changes appear around the follicles, continue the test with $2j/cm^2$ higher energy level.

-----If the skin shows adverse effect such as excessive reddening or swelling), lower the energy level.

6.5 Caution

6. Operation

1. All personnel including clientele must wear **protective glasses** when the system is in use
2. If do skin-rejuvenating for all face, start the treatment from the ear-root, and spread to all face. **One time overlapping** to the pathology site is allowed.
3. Place the treatment head perpendicular to the skin, apply minimal pressure and slightly touch the skin. The light guide should be in **complete contact with the gel**.
4. Leave no blank site and **overlapping 1/3** of the spot size is allowed.
5. Better not shoot the light at upper eyelid
6. When **treat the forehead**, better not overlapping the spot size and make the energy $2\text{J}/\text{cm}^2$ lower than face treatment.
7. Use higher Settings of pulse delay for darker skin, but less energy
8. Use lower settings of pulse delay for light skin

Warning :

It is recommended to always use the low settings in the first treatment.

6. Operation

6.6 Turning off the Equipment

1. Release the shot button
2. Place the treatment handle on the supporter
3. Press the STA//READ. Key to change the work status from Ready to Standby.
4. Turn the power supply key contra clockwise to OFF.
5. Clean the light guide (Crystal) with paper or cotton ball with medical alcohol.
6. Take off the power supply plug from the socket.

7. Principle and advantages

7.1 Principle of the treatment

MONA ONE is multiple functional system, which combines the IPL, E-light and SHR work mode. The operator can use under IPL, E-light and SHR to fit for different treatment requirement.

Traditional IPL can treat the skin with high amounts of Joules (energy), SHR IPL shots multiple shots but at low amounts of Joules. The system gently heats the hair follicle and the clients feeling is only warmth and a tingling sensation, some clients comparing it to a warm massage. The system also utilizes In-Motion technology, where the hand piece is always in motion over the skin.

7.2 Advantages

The SHR IPL combines diode laser hair removal technology with the benefits of the intense pulsating light technology to achieve practically painless results.

The SHR IPL combined with “In Motion” represents a breakthrough in permanent hair removal with light technology. The treatment is more pleasant than with the conventional systems and the skin is better protected.

7. Principle and advantages

The system is suitable for all skin types, even tanners; Unlike traditional Laser and IPL, SHR can be had all year round without having to hide from the sun.

The system utilizes Germany imported flash lamp and has 300,000 shots life span. The treatment head is made of pure sapphire crystal.

The wavelength of 650-950nm for Hair removal and 560-950nm for skin rejuvenation are utilized. The special made crystal filters the violet light and infrared light, which can radiate and absorb lots of water from target skin.

MONA ONE is equipped with water temperature sensor, water level sensor and water flow sensor to ensure safe operation. It can automatically stop working when the machine has a potential problem.

MONA ONE is a multi-pulse & single-pulse IPL machine. "Multi-pulse" works under IPL and E-light mode. "Single Pulse" works under SHR IPL Mode. Only 4-5 times are needed to remove unwanted hair and the client won't feel painful.

7.3 Features of the system and SHR Technology

7. Principle and advantages

Difference	Traditional IPL	MONA ONE	Advantage
Wavelength	650-1200nm(HR) 560-1200nm(SR)	650-950nm(HR) 560-1200nm(SR)	SHR950 filter violet light & infrared light, it can radiate and absorb water from target skin.
Auto identified hand piece	Unavailable	Available	Identified hand piece, HR &SR. The system can enter into correct operation menu directly when you insert the hand piece. Make operation easy
Frequency	0.3-1Hz	1-8Hz	Which can speed up the operation and reduce the treatment time.
Work mode	Stationary mode	Stationary mode & Moving mode	1/8 time is needed for treatment on back, leg and arm comparing with traditional IPL treatment
Water circuit monitor	Unavailable	Available	Water temperature sensor, water flow sensor and water level sensor make sure the machine to work safely without worry about hand piece burned or burning patients.
Stain resistant water circle	Unavailable	Available	Stain resistant water circuit system make sure all the components no rust happens even long time system running. This makes the crystal and filter cleaning and use longer time.
Water lock connector	Unavailable	Available	Treatment head connector with water-lock for safe and easy changing, even with only single treatment head use is allowed.

8. Indications and contra-indications

8.1 Indications

Everlasting Hair Removal: the unwanted hair under arms, legs, lips, or other body parts.

Skin Rejuvenation: shrink pores, tighten skin, improve skin elasticity and glossiness.

Pigmentation Removal: Removal various kinds of pigment such as freckle, aged spots, sunburn, etc.

Acne Clearance

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

8. Indications and contra-indications

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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, sunbathe 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 mean time advise client take some medicine such as VitC, VitE.

9. Post-treatment care

9.4 Food

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

9.1 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 times.

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 using ice bag to cover the treated area for 15-30 minutes.

10. Maintenance

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 light guide

The light guide(crystal) should be kept clean at all times and should be cleaned after each patient.

To clean the crystal , first dry it with a lint-free cloth. Then clean it with a **cloth moistened with water-free alcohol (less than 60%)** and let it dry thoroughly.

After-sale Service

Our company solemnly promises:



We provide **two-year free after-sale (Not including consumable – heads, and man-power damage)**service since the date of signing a contract. However, damages caused by man and consumables are not included. If the equipment fails during the warranty time, our professionals will provide a door to door service. This equipment will have a lifelong maintenance. While if some parts need to be changed, you need to pay.