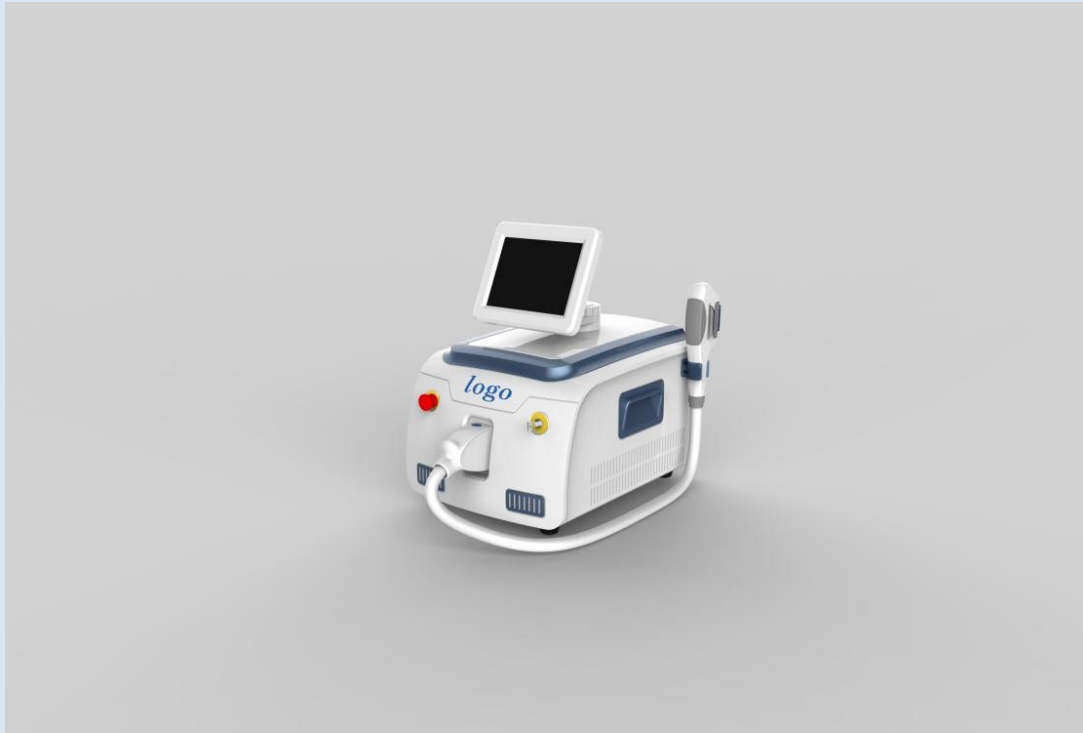


SHR Machine VA-306

User Manual



**Thank you for choosing our machines.
Please read this user manual carefully before operating the machine
and keep it for viewing at any time.**

Chapter 1 System Overview

1-1 System Introduction

E-light consists of IPL and RF. It is a type of intensive, broadband, coherent light source which has a wavelength spectrum of 430nm-1200nm. With these special properties, the E-light has a wide application in non-ablative therapies based on theory of human skin tissue's selective absorption and photothermolysis of light sources. Meanwhile, E-light treatment is more effective, with no downtime and can make the patients get recovered more quickly than conventional therapies.

1-2 operation Introduction

Surplus for limbs all over the body such as the torso armpit hair removal

Changes of aging skin

The treatment of pigment pathological change

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 220 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 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 button, key switch, treatment handles, etc.

3—2 Component Description

1. Touch screen: show and adjust the info of operation system
2. Emergency button: Close the power source when urgent thing happened
3. Key switch: open or close the machine
4. Handle pull: carry the machine

5. Main engine: cooling system, power supply, controlling system, integrated circuit etc.
6. Water Filler: add pure water into the machine
7. Water level observation window: monitor the water yield
8. Vents: adding/drawing off the water, open it, then you can add water.
9. Outlet : let out the water
10. Power line connection: connecting the power line, change fuse
11. Protection switch: protect the safety of the machine
12. SHR Handle:install SHR 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.

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:

- 4) Single phase 220V \pm 10%, 10A 50Hz/110v \pm 10%
- 5) 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.
- 6) The input voltage can not have transients, voltage and current spikes, collapse or surge.

- 7) 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.
- 8) 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,
- 3) Plug in the power cord .
- 4) Insert the switch key and the Chassis key.
- 5) Pedal installation



6) Add 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 he 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.

Note: Please open the vent when you add water.



Water Inlet

Vent



Installation:

1. Insert B into C;
2. Insert A into D (D refers to 4 in Fig 1);
3. Fill water;

At the same time, observe water viewing window, when water reaches the water viewing window of 80%--90% ,Stop filling water.

E. Fill in water until the overflow(vents) overflows, shows the water is enough. You can also observe by the water level viewing window.

F. 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.

Operation Interface Introduction

E-Light .

WAVELENGTH










480nm	530nm	640nm
		
VARICOSIS	FRECKLE	HAIR REMOVAL




E-LIGHT




J/cm²

	200 V	- +
	10 ms	- +
	20 ms	- +
	3	- +
	1500 ms	- +
	30 W	- +
	5	- +

name




  












621 




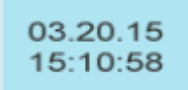




STANDBY

  28  3   



Adjustable Parameter	Description	Maximum	Minimum
	Charging voltage of the energy-storage capacitor will affect the brightness of intense pulsed light, together with the single pulse duration determine the output energy density of a single pulse.	350V	200V
	Single pulse duration and the brightness of intense pulsed light determine the output energy density of a single pulse. The Maximum is affected by the transmitting frequency	15ms	1ms
	Intense pulsed light transmitting frequency	10Hz	1Hz

	Total time of output when you press the button on the handset	30S	1S
	Cooling level of the cooling head	5	1
Display Parameter	Description	Maximum	Minimum
	Output energy density of a single pulse , determined by the brightness and the single pulse duration of intense pulsed light.	26J/cm ²	1J/cm ²
Function Button	Description		
	Ready/stand by button		
	Return to previous menu		
	Main Interface		
	To clean the current count of the transmitting times of intense pulsed light. For example:6866.		
Display Parameter	Description		
	Water temperature,it will alarm when higher than the safety value		
	The flow rate of cooling water, it will alarm when lower than the safety value		
	Energy-storage capacitor is charging		
	The xenon lamp is ready		
10			

	Power-Supply of intense pulsed light is connected.
	The on-off state of handset button
	internal voltage
	Time
Customer Record	Description
	Click here, the key soft keyboard will pop up for you to input the customer name
	Research the treatment record of customer
	Save the current parameter to customer record
	Load the latest customer record

Chapter 5 Technical Parameters

5—1 Technical specifications

Light Source	SHR IPL E-light
Screen	8.4 Inch True Color Touch Screen
Energy density	E-light: 50J/cm ² / SHR: 25J/cm ²
Pulse	1-6 Pulses
Pulse Interval	5-50ms
Pulse Duration	1-15ms
Pulse Delay	1000ms-3000ms

Pulse Repetition Rate	1-10hz
Spot size	15*50mm
Cooling system	Semiconductor + Water Circulation + Air Cooling
Input Power	2000W
Power	AC220V/50HZ , AC110V/60HZ

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.

Recommended parameters for Skin Rejuvenation






SHR

Skin Color	Intensity(Voltage)	Pulse Duration	Frequency
			
White	340	8ms	1Hz
Yellow	320	10ms	1Hz
Brown	280	10ms	1Hz






IPL-430nm

Skin Color	Intensity(Voltage)	Pulse Numbers	Pulse Duration	Pulse Interval	Shots Interv
					
White	290	3	4ms	15ms	2000 ms
Yellow	270	3	4ms	20ms	2000 ms
Brown	240	3	5ms	25ms	2000 ms
Black	230	3	5ms	25ms	2000 ms

IPL-480nm





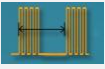
Skin Color	Intensity(Voltage)	Pulse Numbers	Pulse Duration	Pulse Interval	Shots Interval
					
White	290	3	5ms	15ms	2000ms
Yellow	270	3	5ms	20ms	2000ms
Brown	240	3	6ms	25ms	2000ms
Black	230	3	6ms	25ms	2000ms

IPL-530nm






Skin Color	Intensity(Voltage)	Pulse Numbers	Pulse Duration	Pulse Interval	Shots Interval
					
White	300	3	5ms	15ms	2000ms

Yellow	280	3	5ms	20ms	2000ms
Brown	260	3	6ms	25ms	2000ms
Black	250	3	6ms	25ms	2000ms

IPL-560nm

Skin Color	Intensity(Voltage)	Pulse Numbers	Pulse Duration	Pulse Interval	Shots Interval
					
White	300	3	5ms	15ms	2000ms
Yellow	280	3	5ms	20ms	2000ms
Brown	260	3	6ms	25ms	2000ms
Black	240	3	6ms	25ms	2000ms

IPL-640nm

Skin Color	Intensity(Voltage)	Pulse Numbers	Pulse Duration	Pulse Interval	Shots Interval
					
White	320	3	5ms	15ms	2000ms
Yellow	290	3	5ms	20ms	2000ms
Brown	270	3	5ms	25ms	2000ms

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 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 an 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 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 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 rise after a 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.

SHR 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 indicates most patients just feel like they are been 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, Trichopore 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 mean time 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 make up 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 any other problems, please feel free to contact us.	