
Installation and Usage of Vertical VE Light Beauty Equipment

Catalogue

- I Components of the device
- II Installation
- III Treatment Theory and Operation
- IV Remarks
- V Simple maintenances

I. Components of the device

◆ Main machine

- Power supply system
- Computer system
- Cooling system
- Controller

◆ Handle

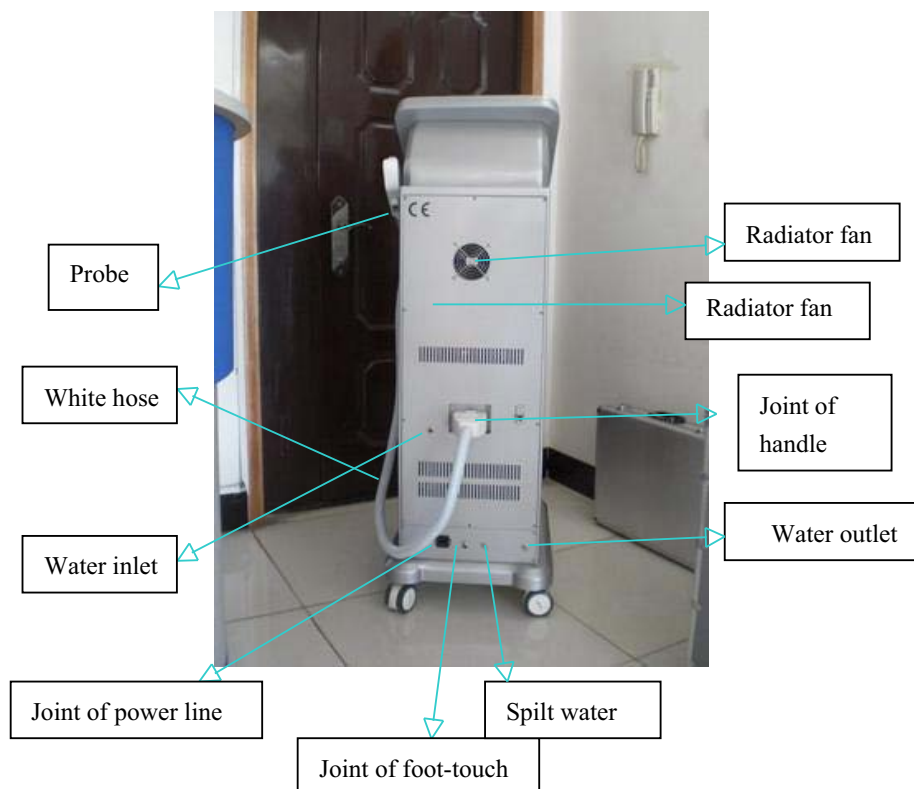
- Probe
- Filters

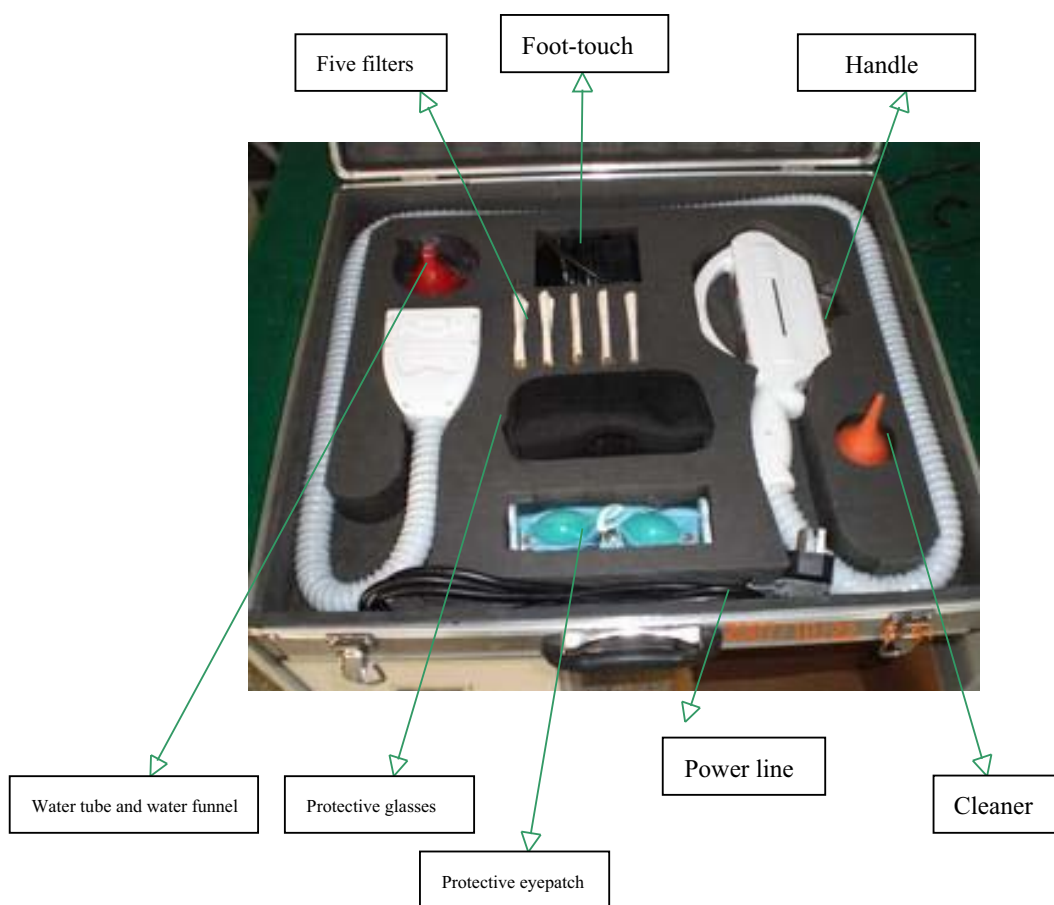
◆ Assembly parts

- K
- € cleaner
- Y Power line
- Water pipe
- Water funnel
- Professional protective glasses
- Professional protective eye patch

II. Installation

1. Illustration





2. Installation

- a. Open the package when receiving the machine, place the device on the level ground. (If there's water on the surface of the device, please wait till dry then input water to test.). Keep 22°C-28°C temperature and the humidity not more than 20% in the treatment room.
- b. Input water (water source: pure water or distilled water): screw off the screw caps of water inlet and spilt water at the same time (clockwise screw to tighten the screw caps, anticlockwise screw to screw off the caps), connect the water tube and water funnel well and insert the inlet to input water; when there's water automatically spilt from the spilt water hole, means the water is enough, show as follows:

Remarks: After inputting the water, please tighten all screw caps on back panel again.

Change the water inside of the machine every 1month or 3 months.



c. Join one end of the handle to the joint, show as follows:



Aim at the joint to push in the plug with level force, following one clicking sound, then this protuberant white button rebound at the same time



When draw out the plug, please press this protuberant white button and draw outside with level force.

d. Join the power line and turn on the power source

Emergency button (when press, the device will be power off automatically; turn right to recover). Usually, it should be under the state of spring

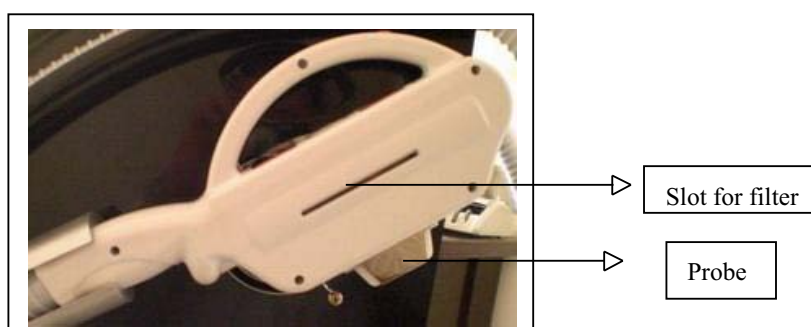
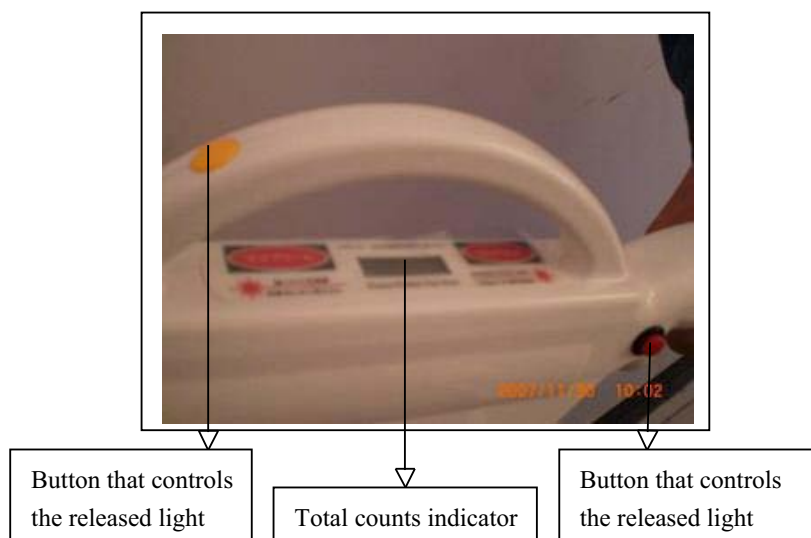


Turn right 90° to turn on the power supply; return to its initial place means turn off.

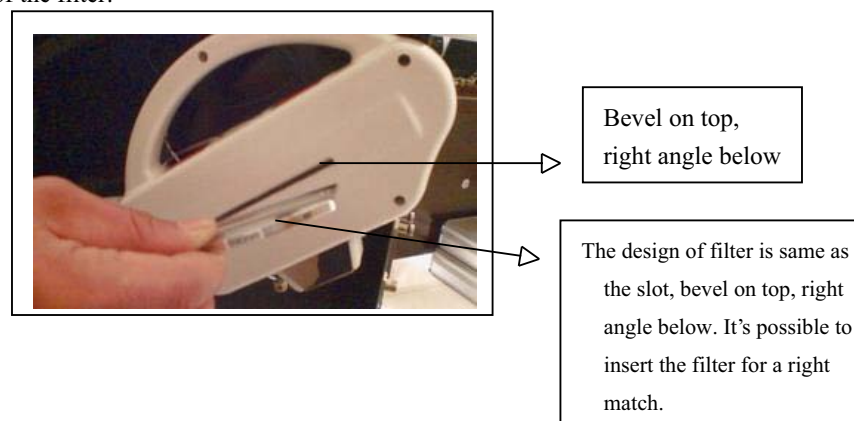
After turning on the power supply, please observe the water circulation inside the device. Normally, you will hear the sound of water flow. About 3-5 minutes later, the probe runs cold, at this time, it's able to insert the relevant filter and start to treat.

If the water doesn't cycle inside the device, or the probe does not cold, it's possible that there is air in the pump. At this moment, please turn on then turn off the device, repeat this action 3-6 times. When every time to turn off the device, then grip the white hose (the hose in handle) to the angle of 90 degrees and slack, then turn on the device again, Which could exhaust the air to the water tank, then the air will exhaust from the hole for spilt water and water inlet (of course, at this moment, should screw off the screw caps of spilt water and water inlet at the same time).

e. introduction and usage of the handle, show as the following picture:



f. Usage of the filter:





g. Treatments of different wavelength:

- 480nm---breast lifting
- 530nm---skin rejuvenation
- 590nm---pigment treatment
- 640nm---hair removal
- 690nm---red blood streak

III. 690nm---red blood streak Treatment Theory and Operation

1. Treatment theory

Skin photo rejuvenation system FG 2000, the skin photo rejuvenation system, directly acts on the deeper skin tissue through the bipolar radio heating, integrating the guide of IPL (intensive pulse light).

IPL treatment, is based on its selective absorbability. When the intensive pulsed light penetrates the epidermis, the energy of light will be greatly absorbed by the pigments in epidermis. High energy and dark color skin will be with high risk in treatment. Moreover, majority of the heat is reflected and refracted at the same time, only 30%-40% of energy is utilizable. Therefore, it needs to increase the energy for a better treatment result. However, majority heat is absorbed by the pigments in epidermis, which directly block to use high energy for treatment, so that affects the single treatment result.

Integrated with the excellence of IPL and RF, the device makes use of selective absorbability of skin, results in the impedance differences between the target skin tissue and normal skin tissue. Even under the state of low energy, it will enhance the absorbability to RF automatically; greatly remove the side effect possibly originating from over light energy and the discomfort. IPL and RF are the most important two technologies in this beauty system. Of which, IPL is mainly applied to adjust the value of impedance, and guide radio frequency energy concentrate acts on the target skin tissue, and enhances its absorbability to radio frequency energy even under the state of low light energy.

Because IPL is not the main energy, then avoids from reflection and refraction of main energy. Based on its characteristic, the heat effect originating from radio frequency heating on skin depends on the current density, which depends on the impedance distribution of skin tissue. the higher temperature of skin tissue, the lower impedance, then the bigger current density and the higher heat effect; vice versa. Therefore, the pigments in epidermis will not affect the radio frequency absorbability of target skin tissue. Radio frequency energy can well act on the target skin tissue and get a best result. At the same time, the exterior contact cooling technologies of probe, removes the over heat energy originating from IPL and increase the impedance of the epidermis, that reduce the epidermis absorbability to the radio frequency. All of these greatly increase the treatment results and safety, even to the treatment results of light skin tissue. Take full advantage of the integration of IPL and RF in this system, offer the best temperature distribution in deep dermis, which helpful to the exact treatment, effective on the deep dermis and connective tissue, that stimulate the renew of the collagen and do not affect the normal epidermis.

2. Features :

- a. Simplicity: Intuitionistic controller, makes the operation more easy. After simple training, the operator could skillfully operate the device. Humanized design of the handle, makes a easiest operation.
- b. Efficiency: Best treatment effect, no side effect, make the treatment more comfortable.
- c. Safety: In this beauty system, IPL and RF can be used together or separately, operator could choose the low light energy or the high radio frequency energy, that greatly reduce the risk of burn epidermis after the treatment. After this system treatment, almost no inflammation on face syndrome etc. So the patients are unnecessary to worry about burning skin in epidermis, which originating from over energy or the probe closely near skin
- d. Economical: best results, low cost of maintenance. Moreover, because of unnecessary higher IPL energy, prolong the lifetime of the treatment head for 2 or 3 years, which greatly reduce the cost. Easy daily maintenance, easy master after the simple training
- e. Big LCD screen, 8.4 inch.
- f. Wide range of treatments, great effect, and with high safety factors.

3. Applications:

- a. Deeply wrinkle removal and face lifting: integrating with the IPL and RF technology, deeply remove the wrinkle and lift face
- b. Unwanted hair removal: take advantage of intensive pulsed light and RF energy (could act on skin below 6 mm), directly act on the hair follicle to remove the thick dark hair, and tiny hair
- c. Pigment and vascular treatments
- d. Skin rejuvenation and breast lifting

4. Taboo:

- a. Pregnant women
- b. Insolation in the sun
- c. Sensitive to light or medicine, or are taking medicine that sensitive to light
- d. Using vitamin within 6 months
- e. Not representative naevi or malignant pathological changes in the treatment area.
- f. Pacemaker or quiver dispelling device user

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- g. Herpes or trauma
 - h. Pimple record
 - i. People who accept Hirudin etc. treatment(should stop using it before 2 weeks).
 - j. Severe diabetes patient, high blood pressure sufferer, and epileptic

5. Security introduction of the intensive pulsed light

VE 2000 equipment is a high technology iatric equipment, for various face blemish elimination and redundant hair removal on body. After eligible training, it's safe to use. Operators and assistants must know the security notice in this chapter. Most important, it's the most safe design for both treatments. All are as following:

- a. Automatical inspection after turning on the device
- b. Adopt the closed filters and crystal of transferring light, and the light only emit from the probe
- c. Independent electro circuit, automatically stop working when super energy
- d. The red pause switch facilitates your urgency

【WARNING】 Any intensive light without incorrect using can injure the body. In the course of working, the device will produce high pressure. So every operator should keep warning, operating according to this introduction.

Patient: it's more important that seasoned operator and appropriate disposal treatment room.

Moreover, the patient should also know the treatment theory and wear the professional protective eyepatch, protecting eyes from burning.

Operator: during the treatment, it's possible to touch the intensive light. So it's necessary to wear the 3 grade blinder.

Treatment room: the room must clear mark "using intensive light"

【MAIN WARNING】

For safe using, should carefully read the warning notice:

- a. Except the authorized mechanic, any others have no right to examine and repair the IPL setup, especially the inside of device that including electrical source, cooling system, optic organs and treatment head. Notice the dangerous high pressure inside.
- b. Make sure whether it's accordant to your resident voltage or not.
- c. Maintenance must after turning off the device and drawing out the electrical source line.
Or it's most possible to injure people and damage the equipment.
- d. Keep the filter and the probe clean. Do not let the cooling gel enter into the probe
- e. Stop turning on when finding slack from treatment head. If turning on, close right

【WARNING ON INTENSIVE LIGHT】

- a. The intensive light is possible to burn eyes or fire. So it's necessary to protect in any way.
- b. Over light energy could burn skin, that results in atrophy or pigment deposit.
- c. Do not directly see the intensive light or laser light during treatment, even wear the protective glasses and eyepatch.
- d. Do not point the treatment head to the air. Generally, hang it in the bracket. Point to the treatment parts when operating.

6. Security introduction of the electricity and equipment

- a. Keep close both panels and cover board.

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- b. High pressure inside the equipment. It's possible to deposit electricity in some parts even after switching off. So it's not allowed to open equipment beyond the authorized mechanics.
 - c. When maintaining, please close power, cover board, and observe in person.
 - d. Total weight is 80 KG, so please take care when moving.
 - e. Safe power line designed with 3 cores.

【PREVENT FIRE】

- a. The temperature will raise after absorbing light energy, so please take actions to reduce the flammable risk on treatment parts or around area.
- b. Do not use ethanol, acetone or other flammable things on skin before treatment. If necessary, please use soap or water.
- c. When listerizing the treatment head or other parts in ethanol, please wait till dry.

【SYSTEM SAFETY SETTINGS 】

- a. There are some safety settings inside equipment, so please know their places and using methods.
- b. Key: it's used to open or close the power, only provide by our company.
- c. Emergency button: the red switch is used to switch off power on emergency. Press it can switch off the power right now. Wrest it clockwise, the device will be go on working. Or the device keeps turning off.

【AUTOMATICALLY INSPECTION】

On turning on the device, it will be inspecting automatically. About 1-3 minutes running automatically, then it enters into the next step.

【CLASS OF EQUIPMENT】

- a. Class of motor protection: I CLASS, BF CLASS
- b. Anti-corrosive liquid: general
- c. Not allowed to use in the air mixed flammable anesthetic and nitrous oxide
- d. Operation manner: continuous operation

7. Operation of the controller:

- a. When turning on the device, the screen will show as the picture one:



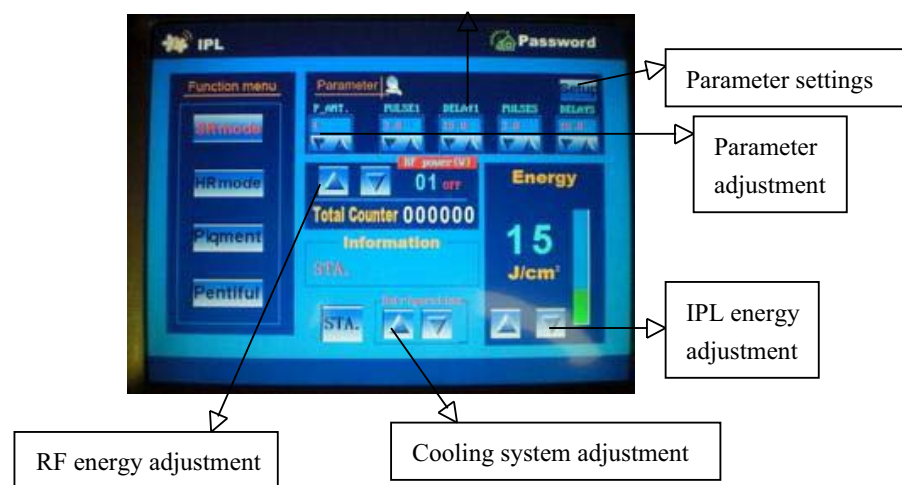
Picture one

Some seconds, the screen will show as this picture:



Touch the “e light” in left above corner to enter into the treatment menu.

c. The treatment menu shows as picture two:



Picture two

d. Touch “STA.” on picture two to start the treatment:



Picture three

- ①. After the successful circulate, it will show “FULL” on down left-hand corner (if failed, it will show failing B). Press the button in the handle to do treatment

- ②. There's not output RF energy when it's within "5". Above "5", it has RF energy output.
- ③. IPL energy parameter is 15J as default when open the machine.
- ④. RF energy parameter is 1 as default when open the machine.
- ⑤. The parameter of cooling is 0 as default, the bigger parameter, the better cooling.

d. Touch "Password" to enter into this unit, show as picture four:



Picture four

After the last operation, touch "Exit" to return to the treatment menu, like picture two

e. Touch "Setup" to change the pulse parameters (as picture five)



Picture five

Adjust the parameter, then touch the key on down right screen and save these parameter settings

Remarks:

- a. During the process of parameter adjustment or parameter settings, do not touch "STA.", after the adjustment or settings and want to start the treatment, then touch " STA.".
- b. When using the RF singly, do not touch "STA." in the unit (show like picture two). Generally, the RF energy value begins from 15, then press the button in the handle or step the foot-touch to start the treatment.

8. Clinic operation

①. Before treatment

- a. Classification of skin: it's safe and effective to the white, brown or yellow skin.
- b. Sign the agreement
- c. Clean the skin, eliminate the perfume and cosmetics.
- d. Use digital camera for memory, take photo from different orientations
- e. If necessary, use external anesthetic one hour before the treatment; if want to remove the hair, please cut the hair to 1mm before treatment.
- f. Before the treatment, please make sure enough water and water circulation inside the device, and must wait for the probe getting cool, then start to do the treatments. If the probe is not cold or became hot, please stop all operation and do not use the device, prevent from damaging the device.

②. In the process of treatment

- a. Patients take the protective eyepatch, at the same time, the operator also wear the professional protected glasses, respirator and medical gloves.
- b. Spread approximate 3mm cooling gel in front the ears and below the chin. Making test of 2-3 spots according to the former parameter designed. After 3-5 minutes, observe the reflection of skin, to make sure the treatment parameter. However, it needs to wait for a little longer time.
- c. When taking the treatment to the protrudent parts in the bone structure (like forehead, mandible and cheekbone). Appropriately adjust the RF energy based on different conditions of patients.
- d. During treatment, vertically slide the bipolar probe on skin with level force, and observe whether it's touched well or not. Overlapped shoot makes sure to good effects of treatment area.
- e. In the process of treatment, continuously stepping the foot-touch, will make symmetrical output energy. Please do not press the button on handle one press by one press, or step the foot-touch step by step.
- f. When ending the treatment or try to change another treatment part, firstly release the button on the handle or foot-touch, avoiding electric shock by chance
- g. The energy can be adjusted according to the actual sense of the patients.

③. Notices of treatments

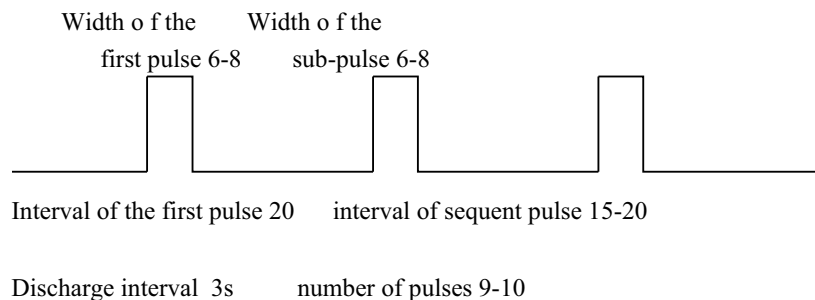
- a. Avoid sunlight and burn before and after the treatment, could use some UV power protector (cream) (SPF>30) to avoid direct sunshine.
- b. Avoid chemical or mechanical stimulation one week before and after the treatment.
- c. Do not take filled things or injection treatment two weeks before and after the treatment.
- d. Avoid direct or indirect heat stimulation to the treatment area 3 days after treatment, especially to those of high pigment deposit.
- e. If taking laser skin care treatment before this treatment, please wait for 3 weeks at least.
- f. After the treatment, patients are not allowed to eat the foods of dark color or very spicy food within two weeks, such as the sauce, coke, sea foods, capsicum etc.
- g. It's not allowed that insolation in the sun before and after the treatment

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- h. It's not allowed to use any cosmetics after the treatment, it is advised to use natural moisturize products.
 - i. Please cool the bad reaction area (like tumescence and causalgiase) after the treatment with small pieces ice.

9. Parameters of each treatment

①. Pigment treatment

- a. 1-3 or 3-6 treatments as one cycle.
- b. Every 3-4 weeks for one treatment. Because the human metabolism cycle is 3-4 weeks, some decomposed pigment cells are phagocytosed by the lymphocyte, and expel from the body along with the metabolism.
- c. Feelings in the treatment: some pain feelings like needle pricking. 3-30 minutes after the treatment, pigment will be darker. Pigment scab will shed 3-7 days later.
- d. Effect of cooling gel: cooling and light transporting
- e. Usage: spread the cooling gel on the treatment area before treatment, about 3mm thickness; 20minutes after the treatment , scrape the cooling gel, or cooling with ice for 10 minutes
- f. Operating sequence: clean skin and spread cooling gel on the treatment area; after the treatment, make ice cooling treatment. Overlapping size of spots: 1-2mm
- g. Parameters:

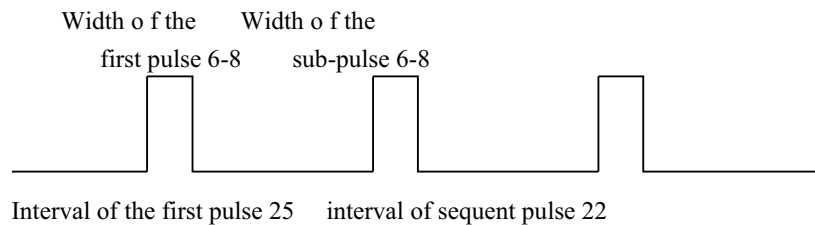


②. Hair removal treatment

- a. 3-5 treatments as one cycle.
Because the hair has its own growth period and dormant period, so it's effective to remove the hair in growth period, 3-5 treatments.
- b. Every 3-4 weeks for one treatment. Because the human metabolism cycle is 3-4 weeks, some decomposed pigment cells of hair follicle are phagocytosed by the lymphocyte, and expel from the body along with metabolism .
- c. Feelings in the treatment: some pain feelings like needle pricking. 3-8 hours after the treatment, a little inflamed feelings on skin. Lightly tweezer the hair root, naturally sheded and no pain, which means the best effect.
- d. Effect of cooling gel: cooling and light transporting
- e. Usage: spread the cooling gel on the treatment area before treatment, about 3mm thickness; 20minutes after the treatment, scrape the cooling gel, or cooling with ice for 10 minutes
- f. Operating sequence:
Clean skin, shave the unwanted hair on the treatment area or shear the unwanted hair,

1mm to the hair root; and spread cooling gel on the treatment area; after the treatment, make a ice cooling treatment for 5-15 minutes

g. Parameters:

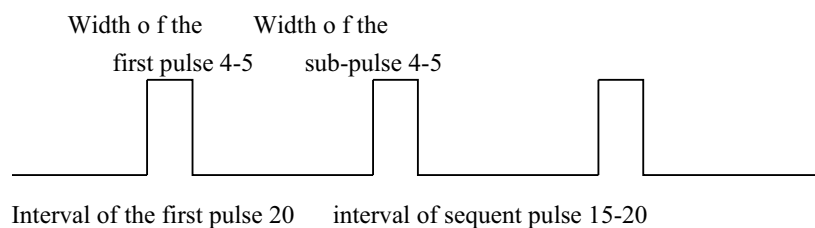


Discharge interval 4s number of pulses 12

③. Wrinkle removal treatment

- 1-3 or 3-6 treatments as one cycle.
- Every 3-4 weeks for one treatment. Because the human metabolism cycle is 3-4 weeks, The stimulated collagen fiber cells and flexibility fiber cells will be growing and renewing along with the metabolism.
- Feelings in the treatment: some pain feelings like needle pricking. Skin will be light red with some swollen feelings after treatment.
Effect of cooling gel: cooling and light transporting
- Usage: spread the cooling gel on the treatment area before treatment, about 3mm thickness; 20minutes after the treatment, scrape the cooling gel, or cooling with ice for 10 minutes.
- Operating sequence:
Clean skin and spread cooling gel on the treatment area; after the treatment, make a ice cooling treatment. Overlapping size of spots: 1-2mm

g. Parameters:



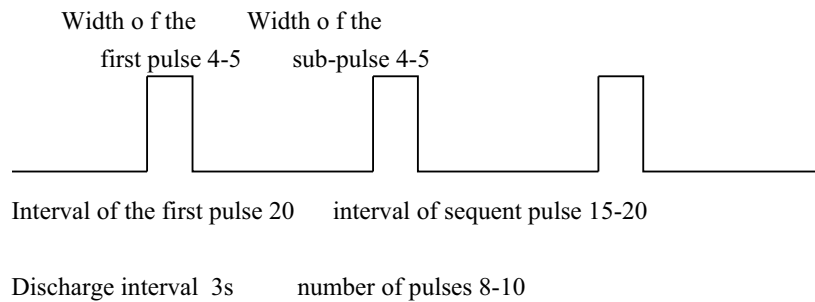
Discharge interval 3s number of pulses 8-10

④. Skin whitening treatment

- 1-3 or 3-6 treatments as one cycle.
- Every 3-4 weeks for one treatment. Because the human metabolism cycle is 3-4 weeks, some decomposed pigment cells are phagocytosed by the lymphocyte, and expel from the body along with metabolism.
- Feelings in the treatment: Swollen feelings inside skin.
- Effect of cooling gel: cooling and light transporting

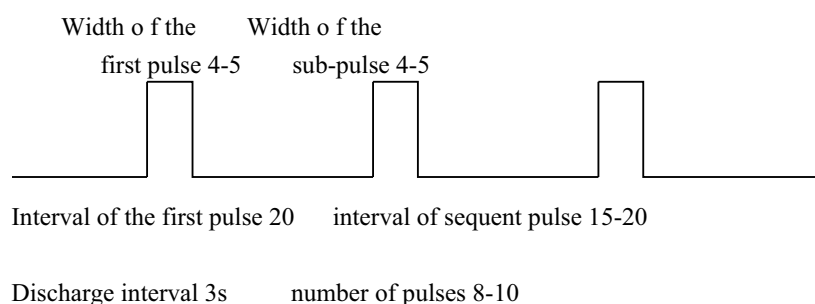
- e. Usage: spread the cooling gel on the treatment area before treatment, about 3mm thickness; 20minutes after the treatment, scrape the cooling gel, or cooling with ice for 10 minutes
- f. Operating sequence:
Clean skin and spread cooling gel on the treatment area; after the treatment, make a ice cooling treatment. Overlapping size of spots: 1-2mm

g. Parameters:



⑤. Skin rejuvenation treatment

- a. 1-3 or 3-6 treatments as one cycle.
- b. Every 3-4 weeks for one treatment. Because the human metabolism cycle is 3-4 weeks, the stimulated collagen fiber tissues and flexibility fiber tissues will be steady along with the metabolism.
- c. Feelings in the treatment: Swollen feelings inside skin.
- d. Effect of cooling gel: cooling and light transporting
- e. Usage: spread the cooling gel on the treatment area before treatment, about 3mm thickness; 20minutes after the treatment, scrape the cooling gel, or cooling with ice for 10 minutes.
- f. Operating sequence:
Clean skin and spread cooling gel on the treatment area; after the treatment, make a ice cooling treatment. Overlapping size of spots: 1-2mm
- g. Parameters:

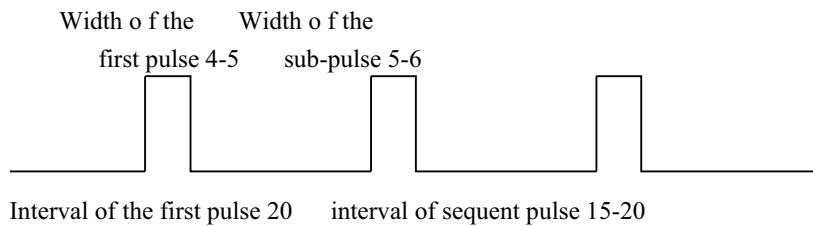


⑥. Vascular treatment

- a. 1-3 or 3-6 treatments as one cycle.
- b. Every 3-4 weeks for one treatment. Because the human metabolism cycle is 3-4 weeks, the stimulated capillary vessel tissues will be shrinking and steady along with the metabolism .

- c. Feelings in the treatment: some pain feelings like needle pricking. A little inflamed feelings on skin after the treatment.
- d. Effect of cooling gel: cooling and light transporting
- e. Usage: spread the cooling gel on the treatment area before treatment, about 3mm thickness; 20minutes after the treatment, scrape the cooling gel, or cooling with ice for 10-20 minutes
- f. Operating sequence:
Clean skin and spread cooling gel on the treatment area; after the treatment, make a ice cooling treatment. Overlapping size of spots: 1-2mm

g. Parameters:

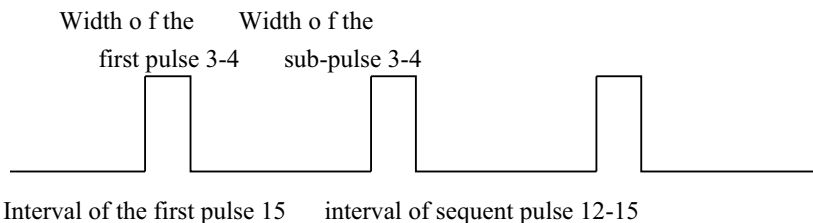


Discharge interval 4s number of pulses 8-10

⑦. Breast lifting treatment

- a. 1-3 or 3-6 treatments as one cycle.
- b. Every 1-2 weeks for one treatment. The treatment theory is that stimulating the renewal of the mammary gland cells, and enhancing the ligament tissue, to plump the breast naturally. Because the human metabolism cycle is 3-4 weeks, the stimulated capillary vessel tissues will be shrinking and steady along with the metabolism.
- c. Feelings in the treatment: Swollen feelings inside breast.
- d. Effect of cooling gel: cooling and light transporting
- e. Usage: spread the cooling gel on the treatment area before treatment, about 3mm thickness; 20minutes after the treatment, scrape the cooling gel
- f. Operating sequence:
Clean skin, spread some essential oil on breast and massage, then spread cooling gel on breast. No overlapping spots.

g. Parameters:



Discharge interval 4s number of pulses 4-5

IV. Remarks:

IPL+RF used together:

- a. Please do not press the button on handle before touching treatment area.
- b. Keep pressing the button in handle as moved it, one shot for one treatment area. At the same time, please keep the probe vertically slide on skin for each movement.
- c. When finish the treatment or try to move to another treatment area , firstly release the button on the handle or foot-touch, avoiding electric shock by chance
- d. IPL parameter in the treatment:
 - White skin: generally start from 15, then increase or decrease the parameter according to the actual sense of the patients
 - Black skin: generally start from 15, then increase or decrease the parameter according to the actual sense of the patients
 - Dark black skin: generally start from 15, then increase or decrease the parameter according to the actual c of the patients
 - Moreover, the IPL parameter to the dark black skin treatment will be 5 lower than the parameter to the black skin treatment.
 - RF parameter in the treatment: generally start from 15
 - Above all operation must consider the actual sense of the patients.

IPL only used:

- a. Please do not press the button on handle before touching treatment area.
- e. Keep pressing the button in handle as moved it, one shot for one treatment area. At the same time, please keep the probe vertically slide on skin for each movement.
- b. When finish the treatment or try to move to another treatment area , firstly release the button on the handle, avoiding electric shock by chance.
- c. IPL value in the treatment:
 - White skin: generally start from 15, then increase or decrease the parameter according to the actual sense of the patients
 - Black skin: generally start from 15, then increase or decrease the parameter according to the actual sense of the patients
 - Dark black skin: generally start from 15, then increase or decrease the parameter according to the actual sense of the patients
 - Moreover, the IPL value to the dark black skin treatment will be 5 lower than the parameter to the black skin treatment.
 - Above all operation must consider the actual sense of the patients.

RF only used:

- a. Please do not press the button on handle before touching treatment area.
- b. Keep pressing the button on handle, parallel vertically slide the probe on the treatment area with appropriate stress, 7-8 times back and forth.
- c. When finish treatment or try to move to another treatment area, firstly release the button on the handle, avoiding electric shock by chance.

-
- d. RF parameter in the treatment: generally start 20, then adjust the parameter according to the actual sense of patients.

V. Simple maintenances:

1. No stress on the touch-LCD, prevent from breaking up
2. Keep the filters clean. It's not allowed to clean the filters with ethanol, prevent from burn when intense pulse light release.
3. The handle is fragile, please take special care when pick up and dropt..
4. Every 1-3 months to change the water. After changing water, please make sure water circulate normally before usage.

Analysis On Simple Malfunction :

1. No power supplied

- ① Check up whether there is power supplied from electrical source.
- ② Check up whether the power line is connected well.
- ③ Check up the fuse, which could be pulled out at the bottom of hole for power plug.

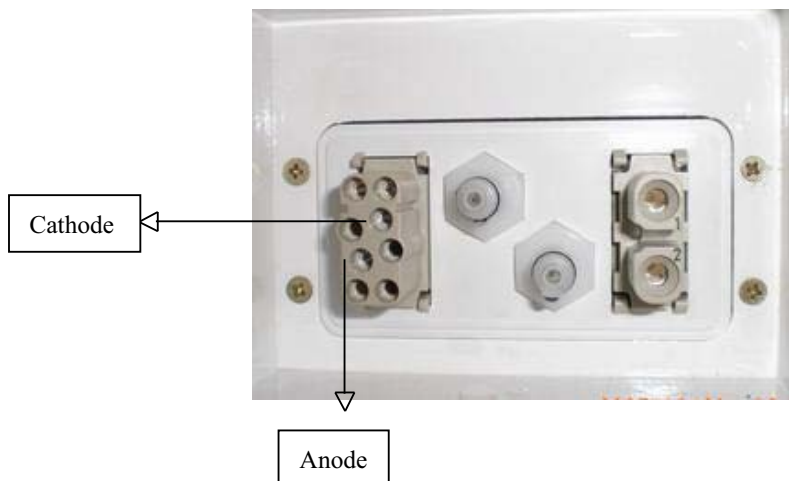


The fuse is
inside this
black part

2 、 Non-Refrigeration of the probe

- ① Check up whether there's water in water tank and water circulation
- ② Check up the direct power supply switch, whether there's 12V direct current output

Reason of Non-Refrigeration :



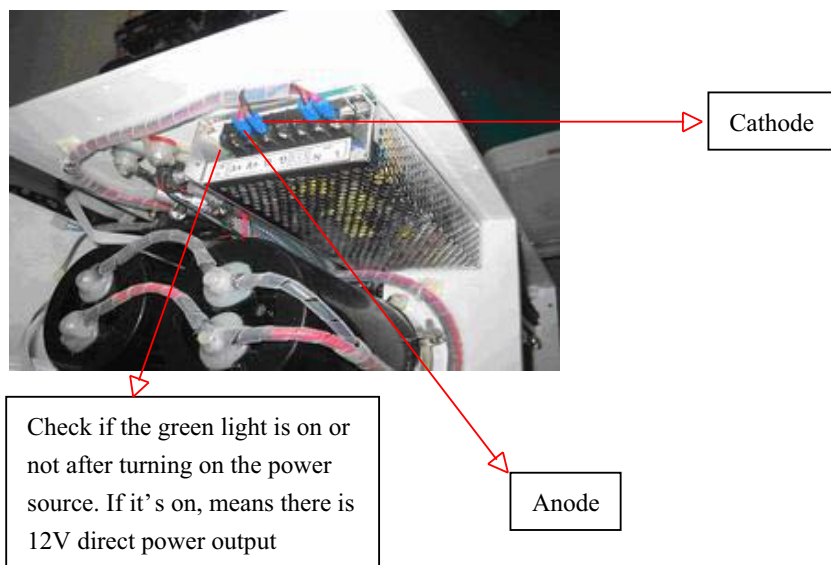
- a. After turning on the machine, you should test the above Anode and Cathode with multimeter. 12V/ DC output means the electrical source is well

b. Check up whether the Peltier is well or not:



Please check up whether this two electrode is well or not, which relate to the Peltier.

c. If above two electrode is well, please disconnect the panel, show as follows:



If there is no output, means that the direct current electrical source part is broken.

Type: 220V/AC input, 12V/ DC/ 9A output or 12V DC/ 10A output

d. Check up whether the water circulation is good: to open the panel of one end of the handle, as follow:

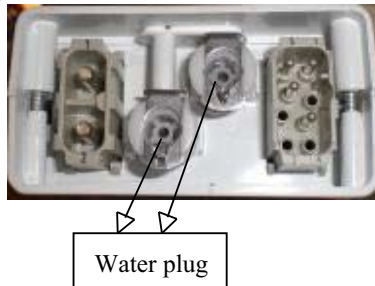
◆ Screw
panel

off these 6 screws, and then disconnect the

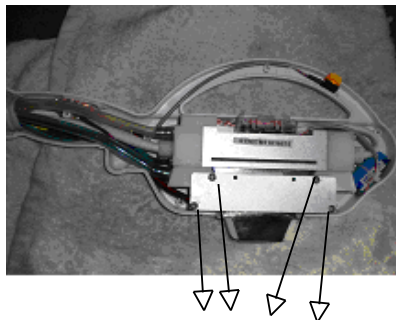


Six screws

◆ Disconnect the water plug with the connected water pipe, then plug these two plugs into the joint on the back panel; blow air inside the water plug with mouth, see whether it is ventilated. Or directly turn on the device, see whether there is spilt water from these two plugs. (Remarks: for the last test method, we suggest that take a basin or other vessel load the spilt water.)



3. The xenon lamp is not on:
 - a. The lamp is exhausted; the lamp broken down.
 - b. Poor contact (anode and cathode line)
 - c. Simmer board broken down
4. Only screen display, but can't enter into the treatment unit.
 - a. Touch screen broken down
 - b. Poor contact between the power supply and the controller
5. Leak from the probe
 - a. The xenon lamp broken down
 - b. Poor connection inside. Please disconnect the panel of the treatment head, and tighten the screws, show as follows:



Tighten these four screws, and another four on opposite side of the above small board