

Nd yag Q switch laser tattoo removal

e-clear 103

User manual



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Chapter 1 Safety notice

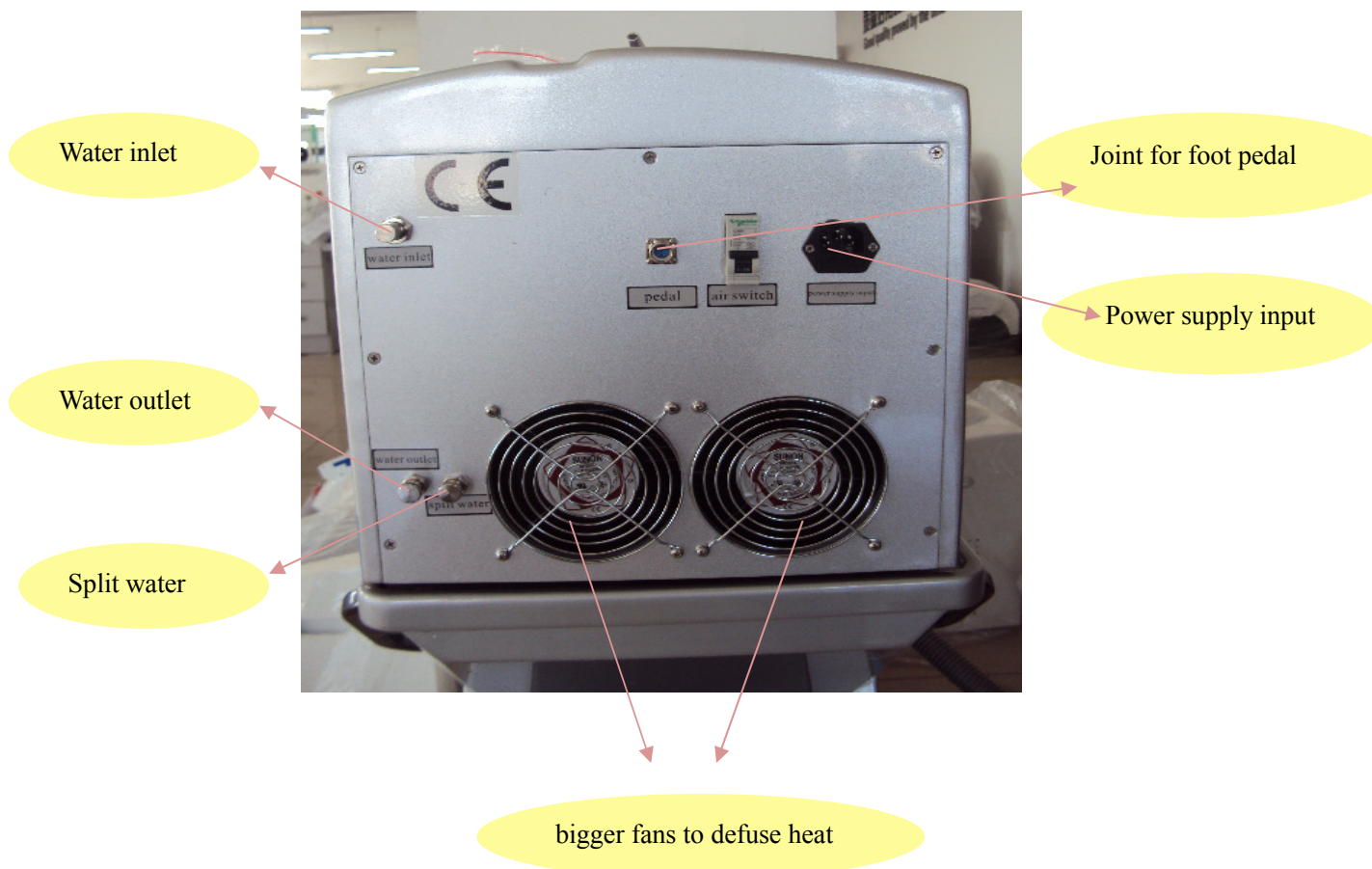


Operator must wear professional protective glasses.

- ✧ Please avoid laser radiate.
- ✧ The protection eyeglasses can not protect you for 100% safe. Because laser is reflected by glass, reflector, smooth surface of metal, etc. So you should better not watch the laser.
- ✧ Stupefacient, liquid, gas, etc. those flammability and explosive things should not appear in the operation room.
- ✧ Operator should not wear watch and necklace .because those things are easy to reflect the laser light.
- ✧ **It may cause harm to customer's eyes if they are not well protected such as keratitis, cornea brushing off even lose sight, and so the customer should wear the eye patch.**
- ✧ Please do not open the shell of the machine even when the power is off, because there is high voltage inside.

Chapter 2 Installation of eCLEAR103

1. Introduction





2.Operation notices:

- 1) Please keep the operation room clean when use the machine.
- 2) Operator should wear white or light color smock to avoid radiate laser.
- 3) Keep enough light to make apple of people's eyes as small as possible.
- 4) Don't allow things with luminant surface or could reflect laser in the room.
- 5) Operator should tell the customer possible reaction during and after the treatment
- 6) During the treatment, operator should not directly shoot other normal skin area.
- 7) Operator should make strict protection to customer's eyeball during eye liner

treatment.



The harm to eyeball can not be recovered.

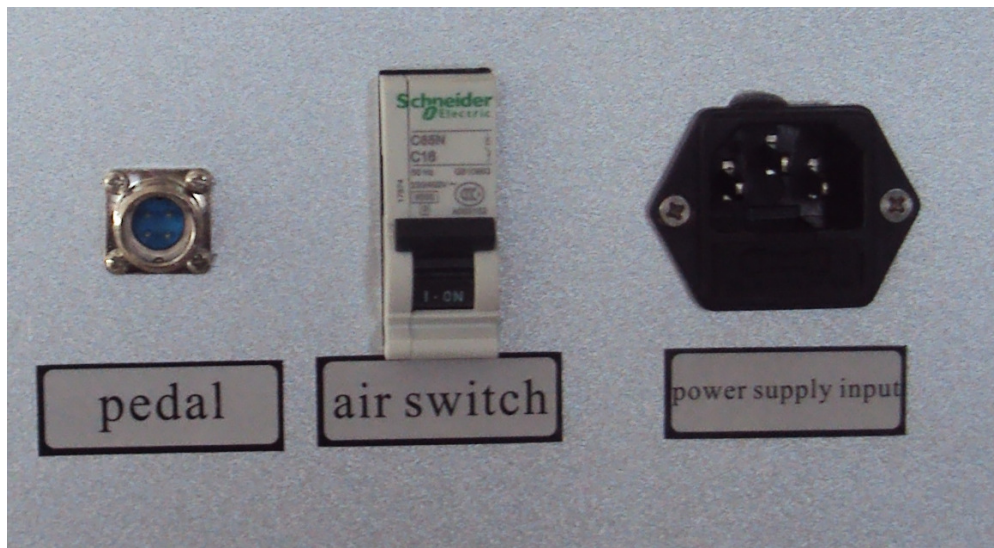
3.Installation:

Open the package, install the machine:



The treatment room
Temperature :22~28℃
Humidity ≤20%

- 1) Join the power line & foot pedal to the machine.



- 2) Input distilled water



3) Make the emergency button on and insert the key to turn it right to open

4) Install the handle



Chapter 3 How to use e-clear103

1. Make sure water circulates normally

First, Turn on the machine



Then, Turn off the machine

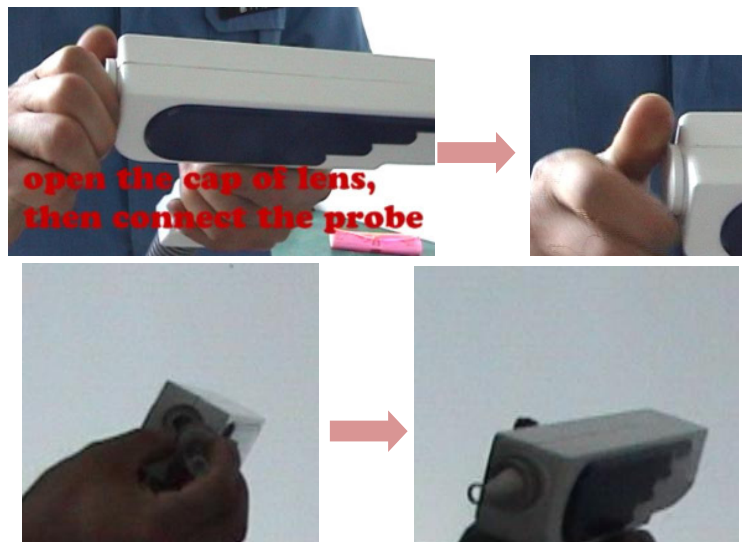
😊 pls repeat this process for totally 3 times

This is to make sure water cycles normally to continue the following steps. otherwise the machine is easy to be broken because of abnormal water cycles.

2. Choose proper probe and Install it on the headpiece

Choose probe according to treatment, fix it well on the joint.

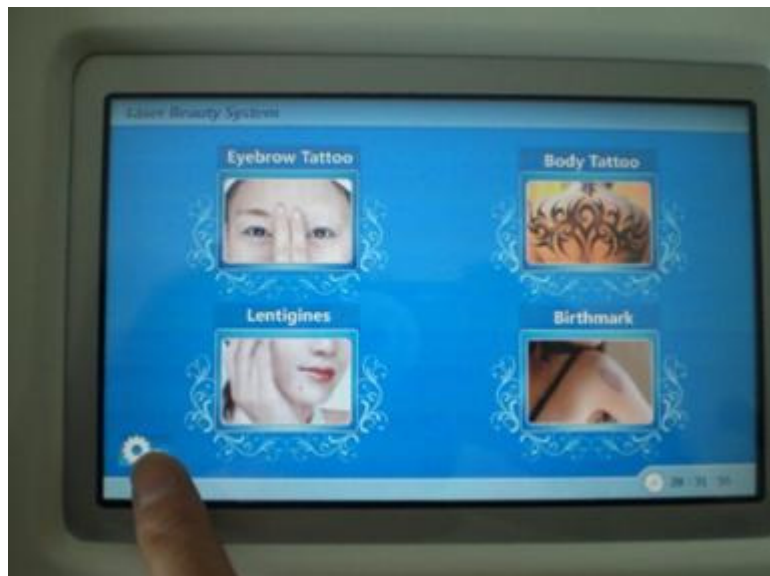
Probe of 1064nm is suitable for blue, black and cyan pigment, while 532 nm probes is suitable for red, green, coffee and brown pigment



3.The operation



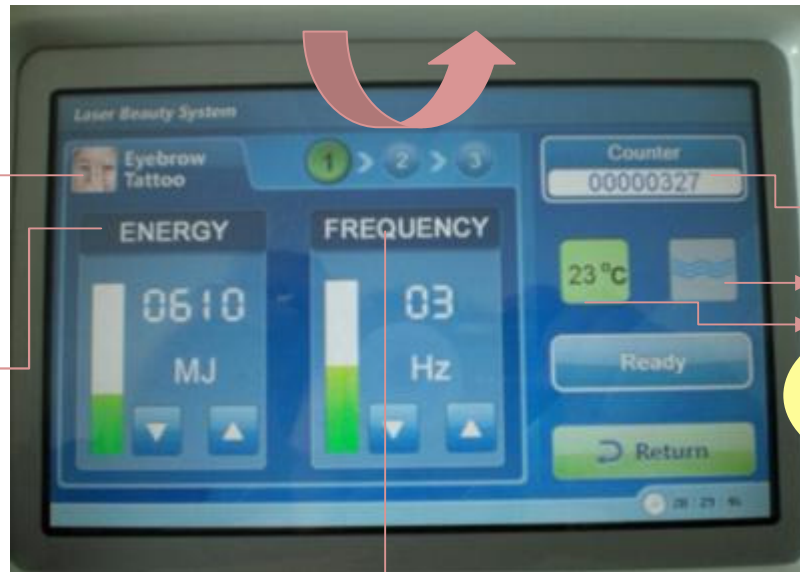
Start the machine



Press the Eyebrow tattoo treatment as example:



1 stands for parameters for black skin.2 for yellow skin .3 for white skin



The name of treatment

The No. of shots used already

It is 100~1600mj. And we suggest 600~700mj for best effect.

Water flow

The temperature of the water inside the machine

It is 1~6 HZ. Usually it is used at 2 HZ. 3 HZ or 4 HZ.

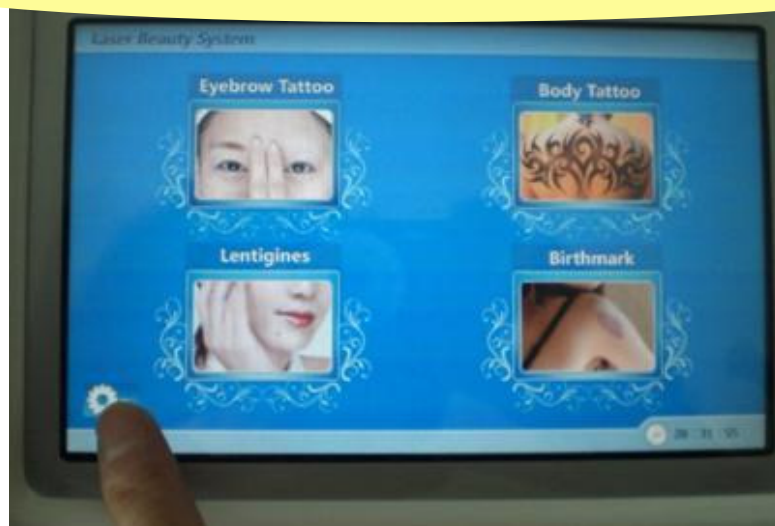
Press "Ready" and there will be shot out from the handle



During this time . you can use the machine .and it can be used for several hours nonstop .and if the inside water is higher than 55 degrees centigrade or if the water cycles abnormally or there is not enough water .there will be alarm and you need to stop the machine immediately to protect the machine thus it can have long life span



After the treatment. You can press “Return” and close the machine.



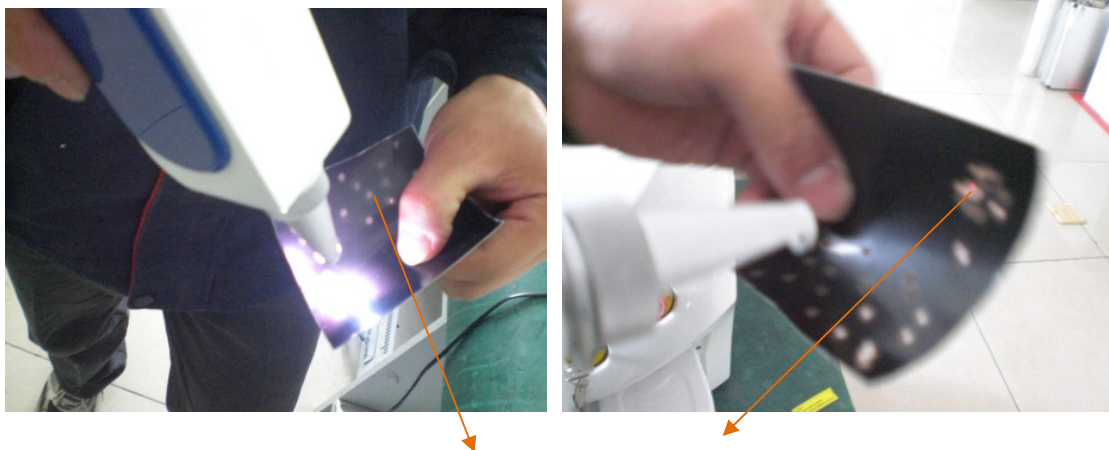
This is the language options..

Press it to save the parameters you have set

4.Find the optimal treatment distance

If the distance between skin and headpiece is too small, the energy of shot is weak .but if you place the headpiece a little father away from skin, you will find that the shot is of highest energy, but if too far away from skin. The energy becomes weak again. So we need to find which distance is the best for the treatment.

For the shorter probe 1064nm, as it is used for blue, black and cyan pigment, let's use a black newspaper to test.



This red point is because there is infrared indicator in this headpiece .this will make the shot more accurately work on the target treatment skin area.



For the longer probe 532nm, as it is used for red, green, coffee and brown pigment, let's use colorful things to test.

5.About the treatment

1) peration skill & technique

Notice:

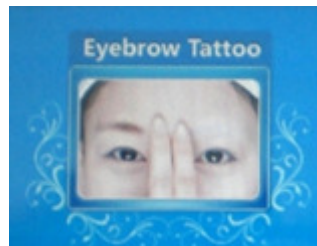
1064nm probe is mainly used for blue, black and cyan pigment treatment.

532nm probe is mainly used for green, red, coffee and brown pigment treatment.

During treatment, operator should make a right angle between handle and treatment area to make sure the light could shot upright and avoid losing energy of light as least as possible. During treatment for tattoo in eyebrow, eye line and lip line, the spot of light should lap over a little to move in line. During treatment for spot or nevus, operator should treat a small area at one time, best result should be that the treatment area seeps a little blood.

2)Operation skill &technique for every treatment

1.treatment for tattoo in eyebrow



Choose this treatment interface.



Customer should not open eyes during treatment, operator should adjust energy according to depth of tattoo color, hold the handle , move it to treatment area slowly to make customer feel acceptable. the speed of flash could be set **3 HZ**,keep head of the handle a two-finger distance to treatment area, start treatment from head of eyebrow to end . treat again in 5-10 minutes if the color of tattoo re-appear.

2.Remove eye line (Notice: a little danger)

Choose this treatment interface.



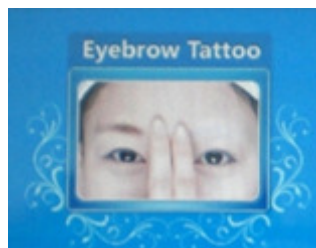
The speed of flashes could be set **4~5 HZ**, adjust the energy of light to minimum energy, keep a one-finger distance between head of handle and treatment area. Operator should strict protect customers' eyes with panel for eyelid or medical pledget (panel for eyelid) of 1cm depth.

Treatment should be started from **down eye line**, patient should deeply close eyes and keep eyeball up-sight inside. Operator should press the pledget (panel for eyelid) with forefinger and push up eyelid, peel down eyelid with middle finger to bare the eye line, treat it with flashes of 4-5Hz.

Then, treat **up eye line**. Patient should close eyes and keep eyeball down-sight inside. Operator should press the pledget (panel for eyelid) with middle finger and push eyelid down, push eyelid up with forefinger to bare the eye line, treat it with flashes of 4-5Hz.

3.Remove lip line

Choose this treatment interface.

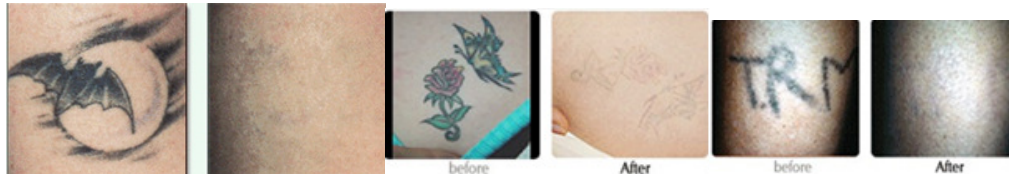
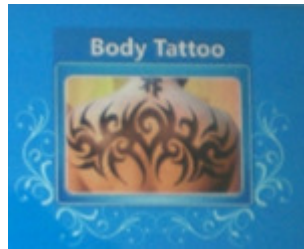


The speed of flashed could be set **5HZ**, keep a 3/4 finger distance between head of handle and treatment area. It is better to remove black, coffee, deep red and brown lip line with 1064nm head at first time and then, treat again with 532 nm head.

Notice: All tattoo in lip should be treated in 6 months after making. OR removal treatment will fail. It should have 45-60 days interval to continue next treatment until remove all.

4.Remove tattoo

Choose this treatment interface.



The speed of flashes could be set **3HZ/5HZ**.It is better to use high energy for treatment until treatment area seeps a little blood. It should have 45-90 days interval to continue next treatment until remove all.

5.Remove spot and Lentigines

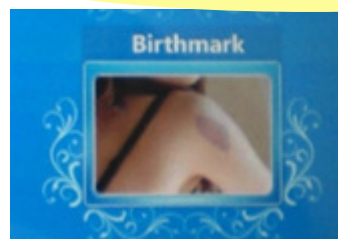
Choose this treatment interface.

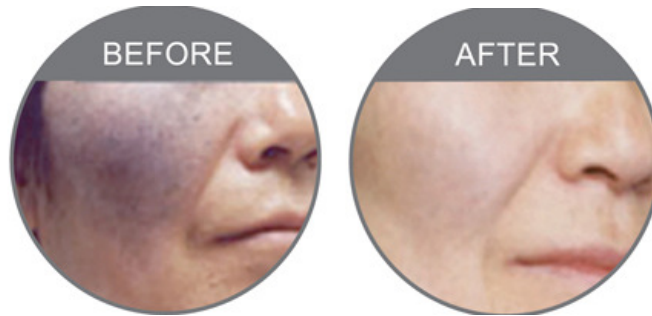


The speed of flashed could be set **3HZ/5HZ**.Keep 3-4 fingers distance between head of handle and treatment area. It is better to use high energy for treatment until treatment area seeps a little blood. It is advised to use 1064 nm head for normal spot and nevus treatment, but for deep color spot and naevus,it is better to use 532nm head for treatment. It should have a 15-30days interval to continue next treatment until remove all.

6. Remove birthmark

Choose this treatment interface.





The speed of flashes could be set **3HZ/5HZ**. It is better to use high energy for treatment until treatment area seeps a little blood. It is advised to use 1064nm head for birthmark treatment, but for red and deep color birthmark, it is better to use 532nm head for treatment. It should have 45-90 days interval to continue next treatment until remove all.

3) Determinant difficulty for pigment removal

1. Pigment of tattoo quality:

It is easy to remove tattoo with foliage pigment and hard to remove tattoo with complex pigment and chemical pigment. Because complex and chemical pigment have iron ion and plumbum ion to make removal treatment difficult.

2. Tattoo color

It is easy to remove light color tattoo, but difficult to remove deep color tattoo.

3. Corporeity difference

It includes age difference, skin difference etc.

Chapter 4 Simple Maintenance of eCLEAR103

1.Maintenance:

- 1) It is needed to check whether the surface of lens is clean after a period. Clean the lens with cosmetic tips dipped Ethanol.
- 2) It needs to change pure water inside every one or three month. Take out 2/3 water from water tank, and then put new pure water into. Watch water level after changing, turn key left to open the machine, check water current conditions until water cycle normally. Press [SIMM] button in 5 minutes.
- 3) It must be pure water or distilled water, medical distilled water is advised.
- 4) It is forbidden to knock down the machine without permission.

2.Indication for some malfunction

1.The machine could not be open until there is power supplying.

- 1) Check whether there is power from electrical source , the power plug is fixed well.
- 2) Check whether red urgent key is open.
- 3) Check whether fuse is well .Please change it at once if it is broken.

2.Water does not cycle after opening machine.

- 1) Water does not flow or not cycle normally.
- 2) Check whether water level is too low inside from hole for watching. Open cover of water tank, put water into up to standard water level, keep handle lower than the machine then, open the machine, press [SIMM] button. It is proved the joint joining well when hear “ba” sound. Right now, water cycle normally and the machines hold for work.

3.There is no flashes when pressing foot-touch.

- a) Check whether the system enter into working condition.
- b) Check whether foot-touch is well.Please change it at once if it is broken.
- c) Check whether press “Work” button.
- d) Check whether it is lower energy output. Please increase energy

4.Laser gets thin or there is no laser.

- 1)Voltage is too low.
- 2)Lens is not clean.
- 3)The handle is broken, Please change it.
- 4)The machine is too hot. Please stop working to rest for about 30 minutes.
- 5)Screw the probe off, check whether the lens is broken, change it at once if it is broken.
- 6)Please check carefully whether there is water leaking out from handle or probe.

5.During operation, the machine is suddenly power off and stop working. Open it

again, there is not laser output yet.

1)Cutting power device automatic open when water temperature is too high.

Water temperature will be too high when using 5Hz for 15 minutes or continuously working with high energy. When it is up to 55°C ,cutting power device will automatic open to prevent from burning the lamp inside.

Resolution:

Take out 2/3 water from water tank, put cold water in and open the machine again to work.

2)Please examine and repair the machine at once if there is electrical damage.

6.There is a sense of getting an electric shock when touch the machine with hand during using.

1)It may caused by static of body because of dry weather.

2)Please use three-phase plug.

3)The voltage is not steady, Please collocate a manostat for the machine.

7.During operation, press “SIMM” button hearing cheep

1)It has a slowly preignition because of long time not using. Please open it repeatly.

2)The circumstance is too cold, Please increase temperature of it.

3)Humidity of room is too high, Please keep the room dry.

4)The lamp is broken, Please change it.

8.The energy gets thin during use.

1)Check whether the lens of probe is clean. Please clean it with ethanol.

2)Check whether the handle is too hot. Please make the machine rest for about 30 minutes or change cold water inside.