

SYSTEM OPT



USER MANUAL

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I . Brief Introduction

OPT applies three core technology, IPL, RF, and epidermis cooling. It combines the advantage of IPL and RF, in one hand, the skin absorbs IPL energy selectively, and the skin also absorbs RF energy, on the other hand, the RF-surface-touch cooling technology removing the discomfort and complications by high heat of IPL. Therefore, the effect and safety of E-light makes a breakthrough.

1.Principle

Applying the technique of IPL and Bi-polar Radio Frequency, the equipment acts on the entire skin corium and connective tissue, stimulates the collagens of different depth to realign and grow, then gets treatment effect. Bio-polar RF release energy at the same time, with the selective absorption for the skin to light energy, various pathological tissues of corium and epidermis creates Photothermolysis effect. Since light energy is far below conventional IPL, the pigment tissue and vascular pathological tissue of the corium and epidermis would absorb more energy without injuring the epidermis, and then remove these pathological tissues better and get the effect.

2. Application:

1. Hair removal;
2. Skin rejuvenation;Wrinkle removal, fact lifting;
3. Removing freckle, age spots, sun spots, chloasma, pigmentation troubles, etc;
4. Vascular removal;
5. Acne treatment.

3. System Self-checking

The circuit of system entering the self-checking situation when the machine starts, leave the machine carry on the self-checking for 5-10 seconds, then continue the operation.

4. System Classification

Electric shock protection: Grade1 BF Grade

Corrosion prevention liquid: ordinary

Do not use the machine in the environment mixed of flammable narcotic and air or nitrogen

oxide mixture.

5. Equipment Consist, Specification, and Accessory List

1. Equipment Consist:

1.1. Mainframe

- A. Power supply system
- B. Microcomputer system
- C. Monitor
- D. Cooling System

1.2. E-light Handpiece

- A. Intense pulsed light source, xenon lamp
- B. Reflector and filter
- C. Sapphire wave guide

2. Technique Specification

- IPL power: 1000W
- Light Energy: 15—50J/cm²
- RF energy: 1-30
- Cooling: water+air+semi-conductor
- Spot size: 15×50mm
- N.W.: 45kg
- Voltage: 220V ± 10%, 50~60Hz

3. Accessory List

No.	Item	Unit	Qty	Remark
1	Main frame	set	1	in the main case
2	Handpiece	pc	1	in the lateral foam box
3	Power Cord	pc	1	in the lateral foam box
4	Key Switch	pc	2	in the lateral foam box
5	Goggles for Operator	pair	1	in the lateral foam box
6	Goggles for Patient	pair	1	in the lateral foam box
7	Spare Water Plugs	pc	1	in the lateral foam box
8	Spare fuses	pc	1	in the lateral foam box
9	User Manual	pc	1	in the lateral foam box
10	Gel	pc	2	in the lateral foam box

II. Standard Treatment Process

2.1 Form filling

Fill in the blanks of the Client File, confirm the treatment program, remind the client pay attention to some points before and after treatment.

2.2 Face cleaning

Clean the face with gentle face cream for 3 minutes.

Remind: clean the hands of operator and the handpiece with bromogeramine.

2.3 Preheating

Start the equipment after face cleaning, preheat for not less than 3 minutes (without lighting the xenon lamp).

2.4 Shaving

Shave the unwanted hair of the treatment area(2 minutes).

2.5 Gel coating

Coating the gel evenly (2-3mm) on the skin.

Effect: light guide, cooling, anaesthetisin.

Attention: no coating on eyes, eyebrows, lips.

2.6 Eye protection

Operator: wear the safety goggles.

Patient: close the eyes, wear professional safety goggles or cover the eyes with eye patch.

2.7 Allergic test

Emit 2 or 3 light spots in the bottom of ears in safe parameter, observe for 3 minutes.

Effect: do not continue to operate if there is a allergic phenomena.

2.8 Operation

Carry on the operation with a suitable parameter to the operatee.

Attention:

2.8.1 Inform the operatee that there will be a slight pricking in operation before operating, to avoid panic.

2.8.2 Start the operation with a low energy grade, adjust the parameters in operating while asking the feeling of the operatee.

2.8.3 Move the light spot by one spot overlapping the upper 1/3 part of the previous spot.

No emitting one area repeatedly, otherwise may cause inflaming or burns.

2.8.4 The handpiece should touch the skin vertically, no over pressing or leaving the skin.

2.8.5 Observing the reaction of skin while operating.

2.9 Cold compress

Keep gel coating for 20 minutes after operation ending; carry out cold compress in obvious slight reddish reaction till reddish fading away.

2.10 Cleaning

Clean the gel with cold water, coat corresponding cosmetics.

2.11 Treatment Course

Skin Rejuvenation Program: 30-45 days/time 4 times/course

Hair Removal Program: 2-3months/time 3times/course

2.12 **Special reminding**

2.12.1 Ask the client before treatment: is there a allergic or not; is there a bad reaction before for similar operation; fill the Client File concretely. Adjust the parameters on the basis of full acquaintance of the condition of operatee. Inform the operatee the possible reation in operation before operating.

2.12.2 In large area treatment or long time continuous operating, the water inside the equipment will warm up and the handpiece will be hot, interrupt the operation to refresh the water or leave the water cool down to continue operating.

2.12.3 Refresh the circulating water in one month; use purified water or medical distilled water.

III. Operation Instruction

3.1 Before starting the machine

3.1 Accessories connecting:

3.1.1 Connect the handpieces, filters, and probes:

3.1.1.1. Put the handpiece on the hanger

3.1.1.2. Connect the handpiece:

Connect water pipes (2), signal wires (2, black-to-black, red-to-red), xenon lamp wire, and RF wire to the corresponding jacks on the backboard tightly.

3.1.2 Check the water holes of the backboard, make sure the water outlet hole is plugged well.

3.2 Water infusing:

3.2.1 pull out the plug of the water inlet hole, insert the water funnel

3.2.2 infuse water till water spill out from the spillway hole.

3.3 Checking

3.3.1 Make sure there is no water leaking;

3.3.2 Make sure there is no moisture or wet for electricity connecting parts;

3.3.3 Make sure the key switch is in the off position;

3.3.4 Make sure the emergency stop switch is in the on position.

3.4 Starting the equipment

3.4.1 Connect the power cord, turn on the key switch;

3.4.2 Double confirm there is no leaking of water circulation, fold the protective cover by turning it right.

3.5. Debugging

3.5.1. Make sure water and electric circuit is correct connected; then turn on the power to start the machine.

3.5.2. Turn on the master power switch on the backboard;

3.5.3. Turn on the emergency switch (clockwise turn) in the front side of the mainframe

3.5.4. Turn on the key switch (clockwise turn);

3.5.5. Check is there any leaking of the water connectors.

3.5.6. If the above is checked OK, put the wire cover into the neck on the backboard then turn deasil to get fixed.

3.6. Operation

Enter operation condition after debugging and no abnormalities found.

3.6.1. Treatment Selecting Interface

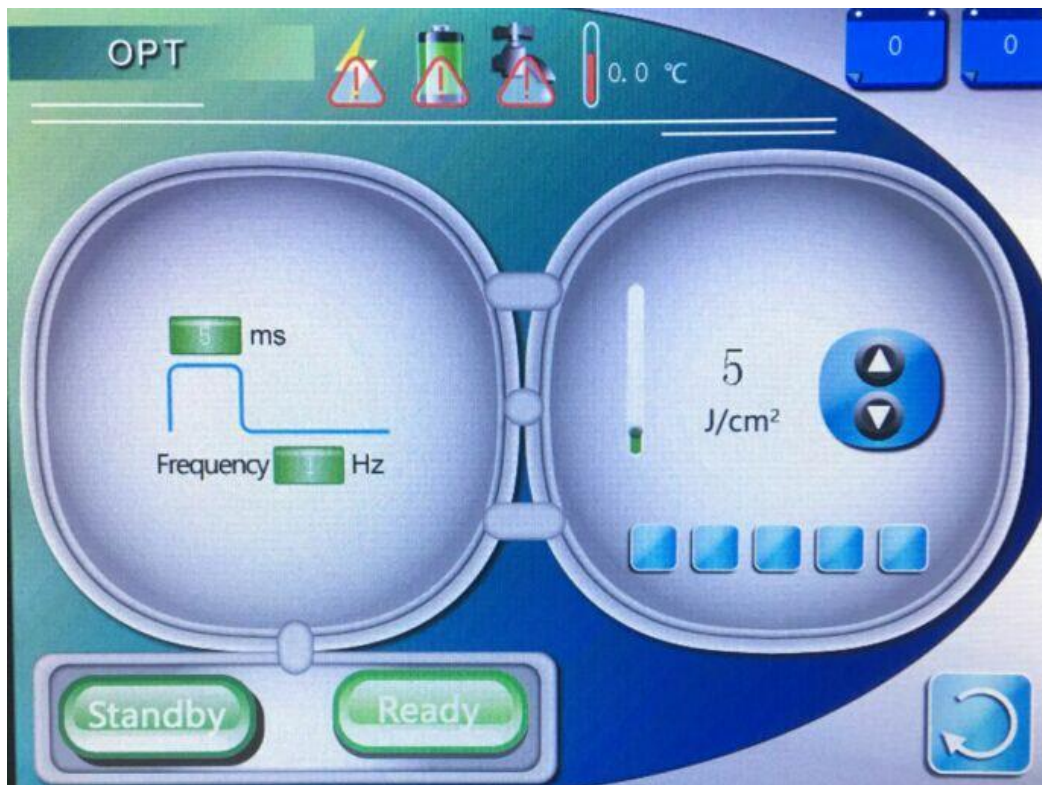
1. Treatment Program Selecting Interface



2. Parameter Adjusting Interface



V. Safety Notice



4.1. Safety of E-light

The equipment takes maximum consideration of the safety of both operator and operatee in the designing, the following are some safe measures of it:

- Circuit self-checking after machine starting;
- Using filter/light guide crystal, strong pulse light comes out only from the front side of the handpiece.
- Designed with independent safety circuit, electricity could be shut down automatically when the IPL power is too high;
- Emergency stop switch, shut down the power in emergency;
- Key switch to avoid starting the machine by any people;
- Use high quality engineering plastic frame, preventing electricity creepage.

【Alarm】

All strong pulsed light device may cause hurt by improper handling. Operators should keep vigilant and take necessary protection measures according to the manual.

Operatee: Carry out the treatment in the professional treatment room; take effective eye protecting measure;

Operator: wearing protective glasses;

Treatment room: marked the treatment room clearly with in operating of IPL.

To ensure to the safe use of the equipment, please read the following instructions carefully.

- No one except technician authorized by the manufacture could dismantle or repair the equipment, especially for the power source, handpiece; high voltage electricity inside;
- Voltage rating: 220-230V;
- Maintaining the equipment after disconnecting the power cord;
- Keep the handpiece clean all the time; do not let the gel leaking into the handpiece;
- In case leaking of the handpiece, do not start the equipment; already started, turning off immediately;
- No emitting light to one area repeatedly, otherwise may cause inflaming or burns, and may leave pigmentation.

【Alarms of Strong OPT】

- OPT may hurt the eye or cause burns or fire, take all necessary prevention measures before

operating;

- Emitting too much light to one part may burn the skin which may cause pigmentation;
- Do not watch the IPL light directly from the handpiece even wearing protective glasses;
- Do not emit the light to the air; keep the handpiece on the hanger when not using it.

4.2. Electricity & Machinery Safety

- Keep all the boards closed, open the board may bring danger;
- There is high voltage electricity inside, some parts still carry electricity even after turn off the power, therefore, do not dismantle the backboard without under supervising by our technicians;
- Do not move the equipment by pulling the handpiece;
- Do not use the equipment in inflammable and explosive environment;
- Do not use alcohol or acetone before treatment;
- Do not start operating before the handpiece dry enough after clean the handpiece or other parts of the equipment.

VI. TABOO

The following people is not suitable to be operated by the machine:

1. pregnant, high blood pressure, heart attack, diabetic;
2. allergic to IPL;
3. open wound parts;
4. people who could not avoid strong sun light;
5. scar, birthmark, or mole higher than the skin.

VII. Attentions After Treatment

1. Not using irritative makeups;
2. No hot water face wash or sauna in 7 days;
3. No stimulating food or pigmentary food as chocolate, coffee; no smocking; no drinking;
5. No scratch in case of scabbing;
6. Make a water replenishing care in 10 days.

VIII. Warranty Policy

The warranty of equipment is one year from the date of supply. During the warranty period, we undertake to repair free for the equipment supplied against all manufacturing and workmanship defects.

The standard of operation and environment should comply with the product specification and user manual.

The warranty does not extend to any equipment that:

- a. Malfunctions caused by abused operation
- b. Malfunctions caused by modification or repair by anyone except EASYLASER or not authorized by EASYLASER; from which EAYLASER original serial number tag or product identification markings have been altered or removed
- c. Malfunctions caused by other artificial factors like move or tear down in proper motion, or collision, etc.
- d. Malfunction caused by uncontrollable natural force
- d. Energy reduce caused by wet environment and dust
- f. Consumable parts of the equipment: handpieces.