# EVO Clinical Training

EVO Marketing Team

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EVO Technologies Clinical Training

# Catalogue

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- Fractional photothermolysis
- Biological effects of the nonablative fractional 1550nm Laser

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- Operation / Setup interface
- Each treatment head introduction

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General Trouble shooting

- General Trouble shooting

# Principle of treatment Introduction

NEXT

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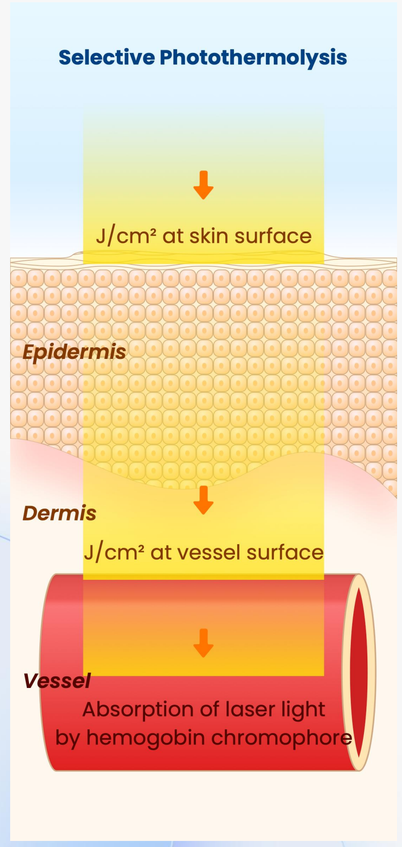
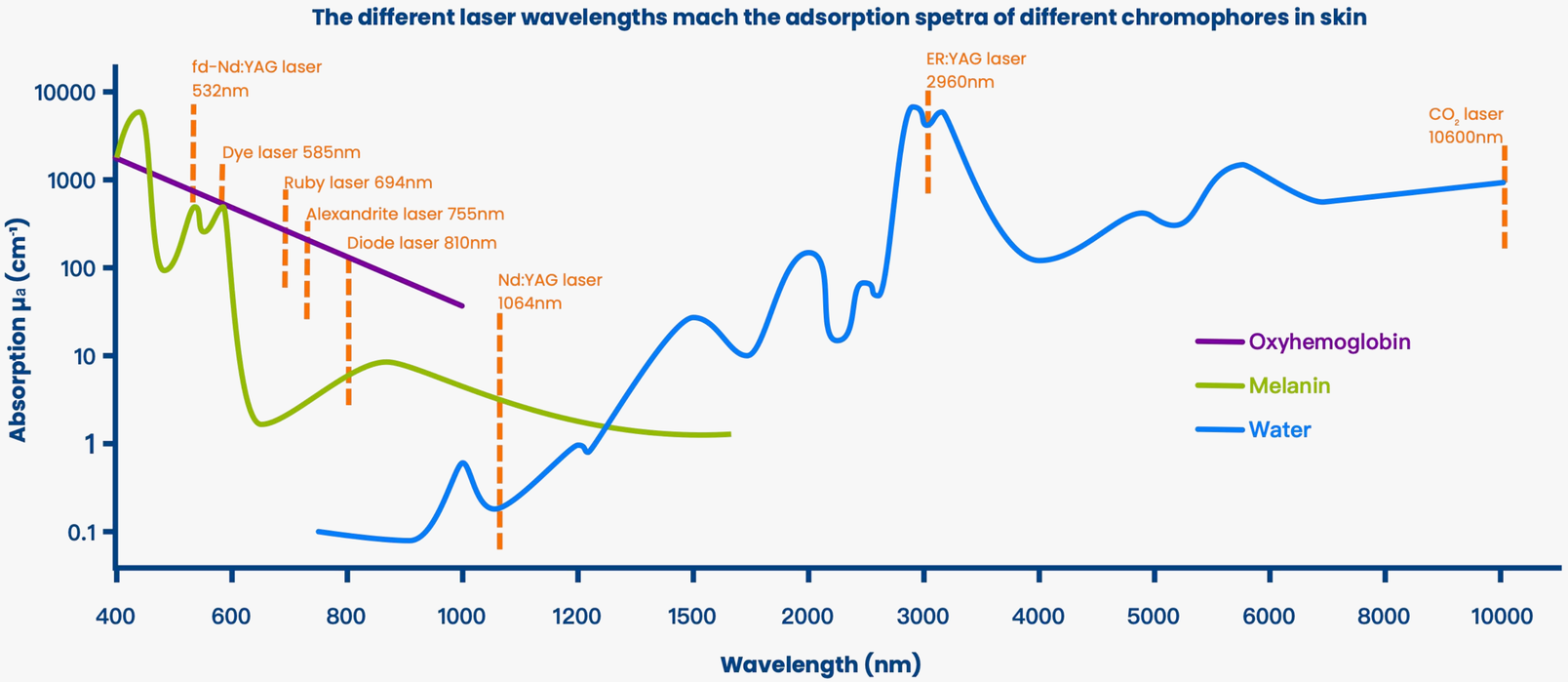
# Selective photothermolysis




It is based on the concept of delivering sufficient energy to heat and destroy a target before it can cool by dissipating thermal energy to surrounding tissue, causing nonselective heating and tissue damage. This principle allows for laser energy to be deposited specifically at a target chromophore in such a manner that the tissue effect or thermal injury is spatially confined to the target chromophore. The laser pulse duration (Tp) thus largely controls the spatial confinement of the laser energy. The thermal relaxation time describes the rate at which a material dissipates absorbed thermal energy. Selecting a pulse duration equal to or less than the thermal relaxation time of the target is necessary to selectively heat the chromophore while avoiding collateral tissue damage. This delivery of laser energy using a specific wavelength and pulse duration to selectively create a spatially confined thermal injury is the operating principle for aesthetic lasers used for treating vascular lesions, pigmentation , tattoos, and hair.

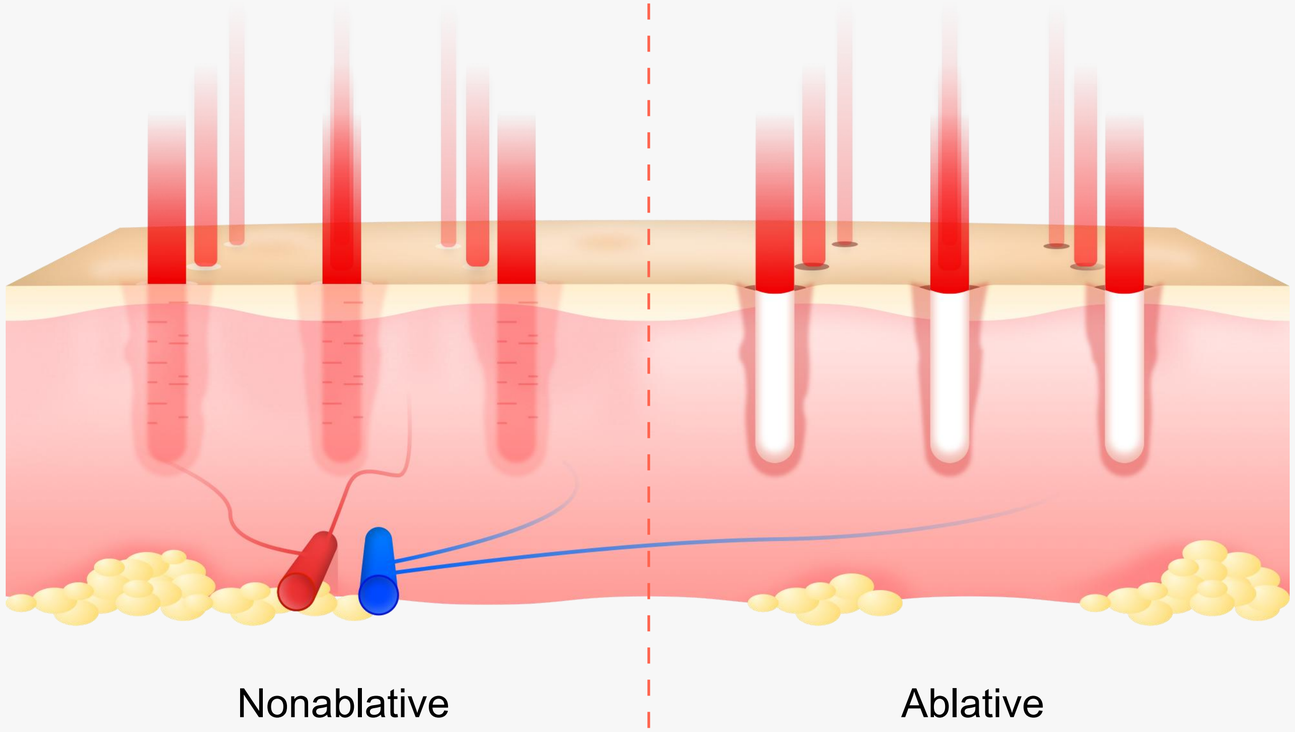
Principle of treatment Introduction

# Fractional photothermolysis

Water is highly absorptive to the infrared laser, and the laser beam can penetrate into the dermis through the epidermis.In this process, the area irradiated by the laser beam becomes a microtherapeutic zone (MTZ). After laser treatment, due to water absorption of laser energy resulting in a certain degree of thermal damage, so the irradiation area will form the so-called columnar small epidermal thermal degeneration necrosis (MEND), or at a certain energy density, the laser penetrates the skin to form a real aperture.

Whether it is MEND formation or real aperture formation, this damage will start the body's programmed trauma healing process.

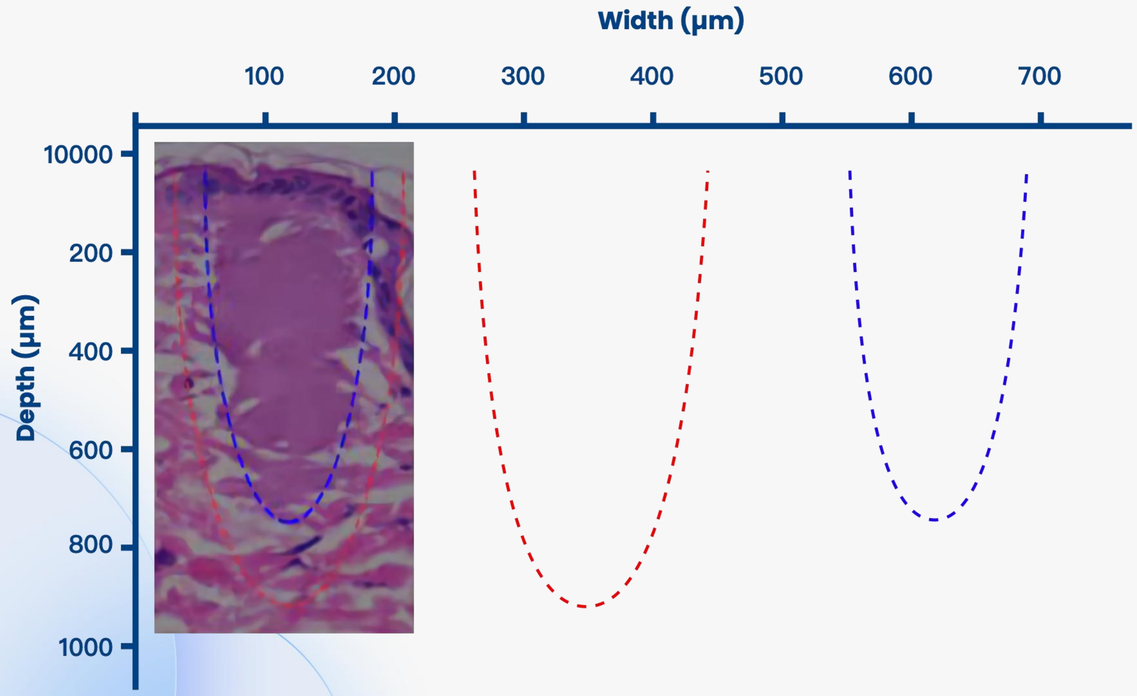
If this beam is arranged into a dot needle, then this dot-array thermal stimulation will evenly start the repair program of the skin and achieve the therapeutic purpose, which is the principle of focal photothermal action.

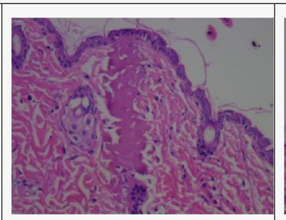
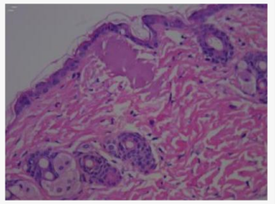
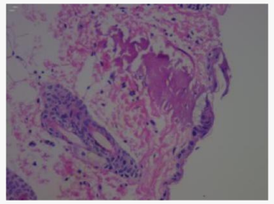
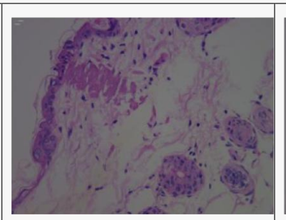
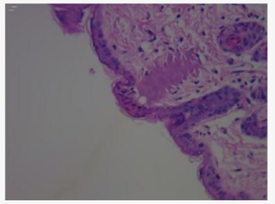
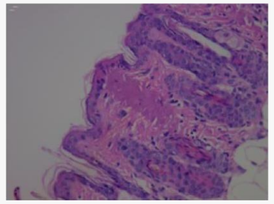
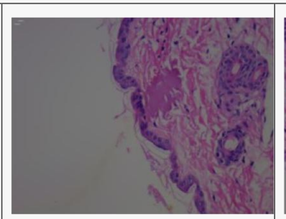
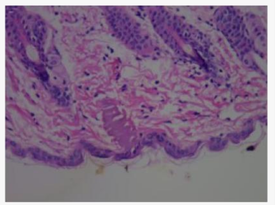
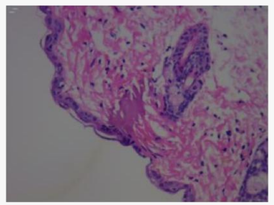


Principle of treatment Introduction

# Biological effects of nonablative fractional 1550nm Laser

- Thermal Damage (70mJ):Max200μm ;DepthMax1000μm
- Thermal Cooling (70mJ):Max190μm ;DepthMax900μm



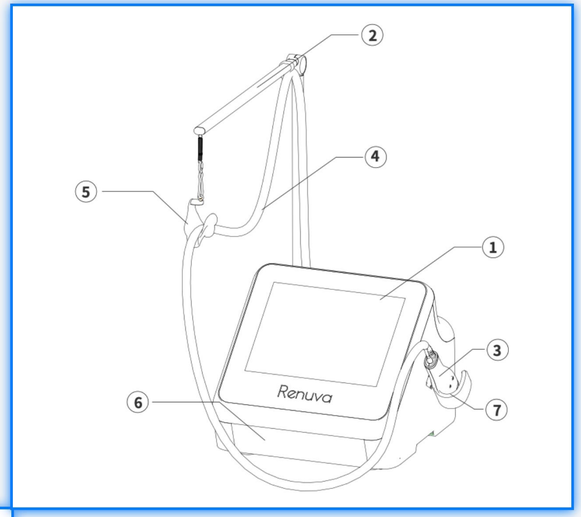

| | | | |
|---|---|---|---|
| Group 1 irradiated with high energy of 70mJ | | | |
| HE staining illustrating |  |  |  |
| Sample names | G1-A | G1-B | G1-C |
| Group 2 irradiated with high energy of 40mJ | | | |
| HE staining illustrating |  |  |  |
| Sample names | G2-A | G2-B | G2-C |
| Group 3 irradiated with high energy of 20mJ | | | |
| HE staining illustrating |  |  |  |
| Sample names | G3-A | G3-B | G3-C |

# System overview

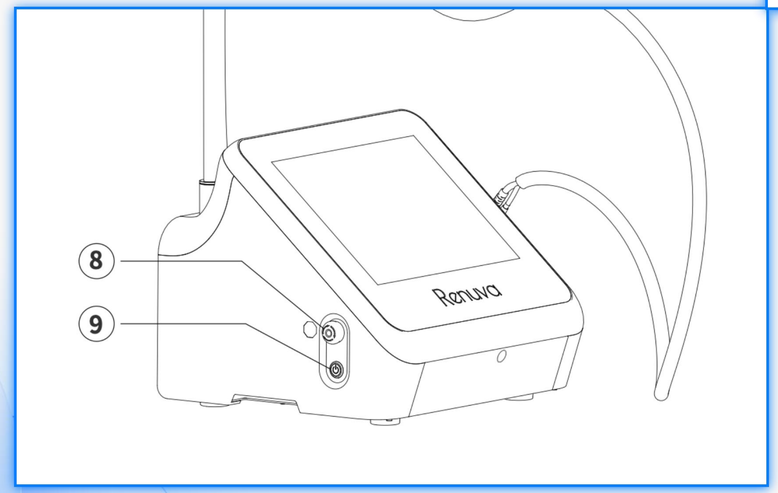
- Introduction of the structure and interface
- Installation
- Operation / Setup interface
- Each treatment head introduction

NEXT

# Introduction of mechanical structure and connectors



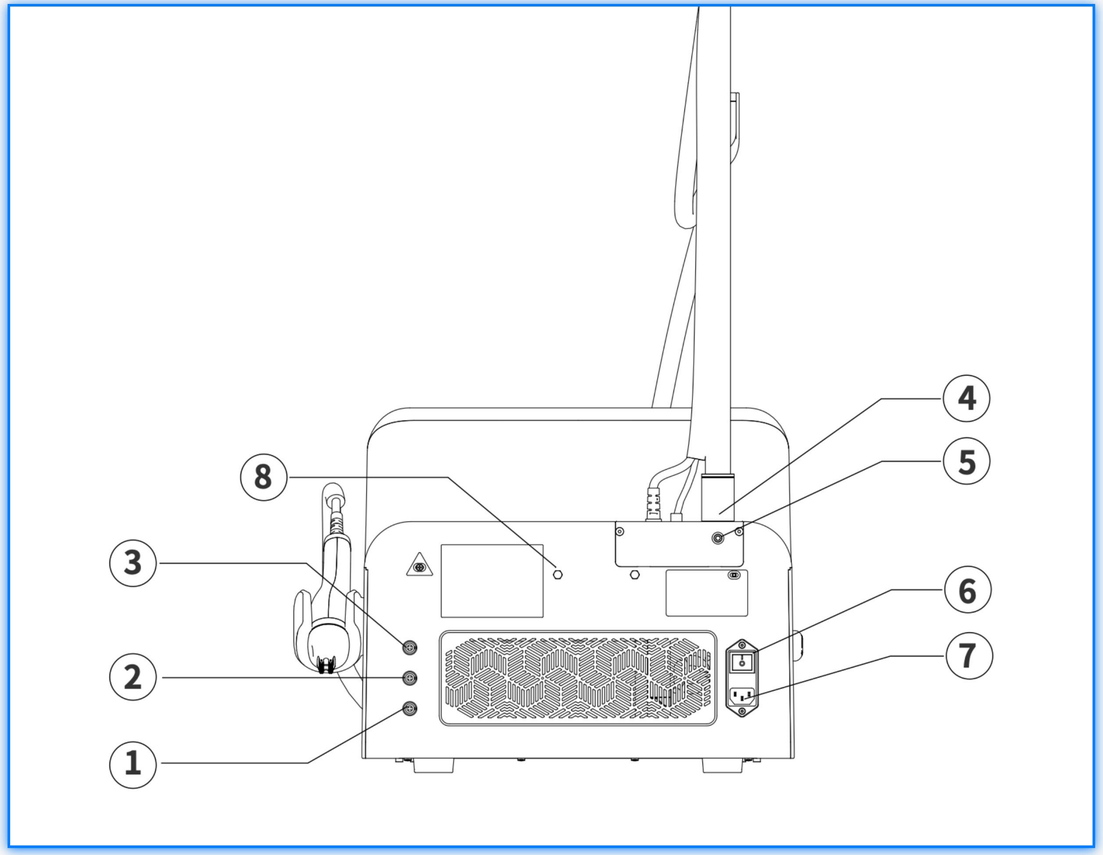

① 15inch touch screen：High-definition capacitive touch screen, with user-friendly UI design, can realize multi-parameter adjustment and storage.
② Handpiece cable bracket：Support handpiece cable, and can be rotated according to operation needs.
③ Handpiece：There is a high-speed pattern generator inside, and the applicator tips are changeable according to the applications.
④ Handpiece cable.
⑤ Hook.
⑥ Container：Press to open or close, store various types of applicator tips.
⑦ Handpiece holder： Hold the handpiece.




⑧ Emergency Stop：Under emergency, press this key to stop the laser output and cut off the power supply.
⑨ Power Switch：Control device power on or off.

System overview

# Introduction of mechanical structure and connectors




① CryoShot interface：Connect Cryoshot by it, the laser system can control Cryoshot automatically through this interface.
② Foot switch interface： Connect the foot switch.
③ Interlock interface：Connect the interlock switch of the laser room.
④ Handpiece umbilical bracket socket： Used to assemble handpiece umbilical bracket.
⑤ Handpiece umbilical bracket locking hole：Use the hexagon wrench to lock the handpiece umbilical bracket.
⑥ Power Inlet：Device power supply interface.
⑦ Power switch： “I” Power on, “O” Power off.
⑧ Foot switch hook：used to hang up the foot switch.

Accu Tip

Scanning area： 10mm×10mm

Effi Tip

Scanning area： 20mm×20mm

Grow Tip

Scanning area： 10mm×20mm

System overview

# Each treatment head introduction

OST-15

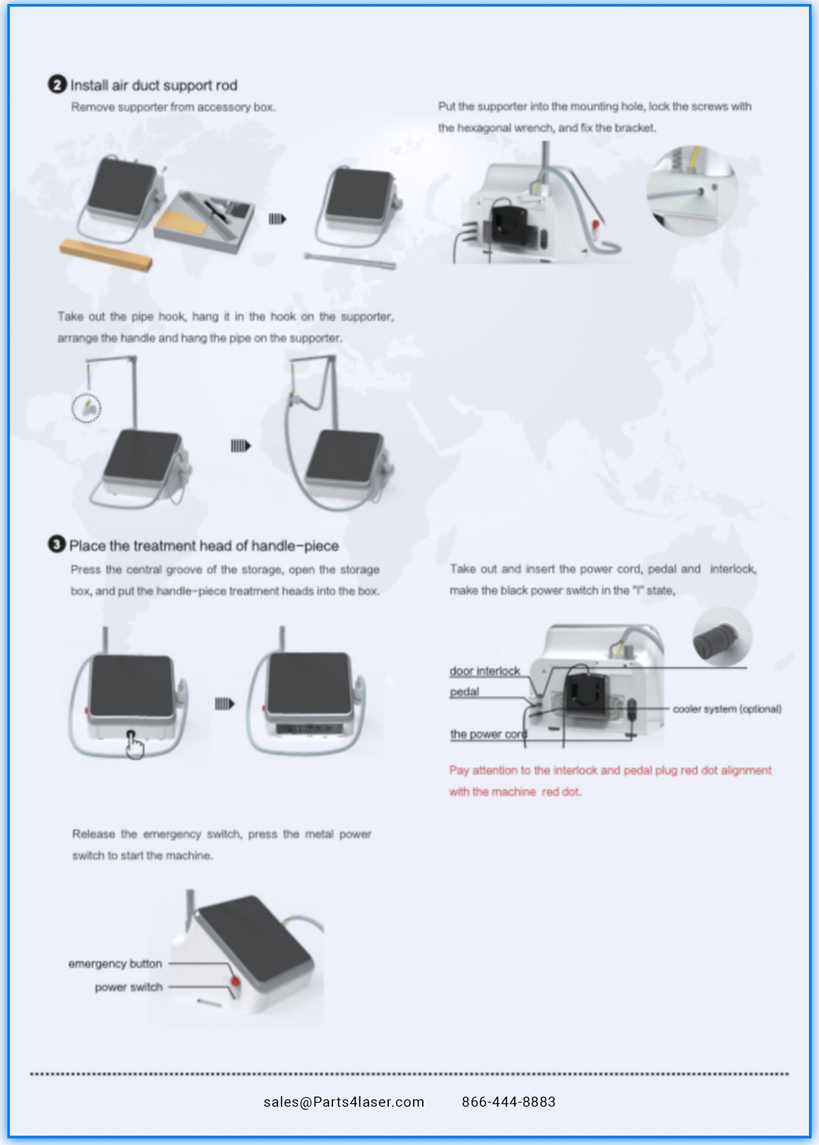
Scanning width ： 15mm

OST-7

Scanning width： 7mm

System overview

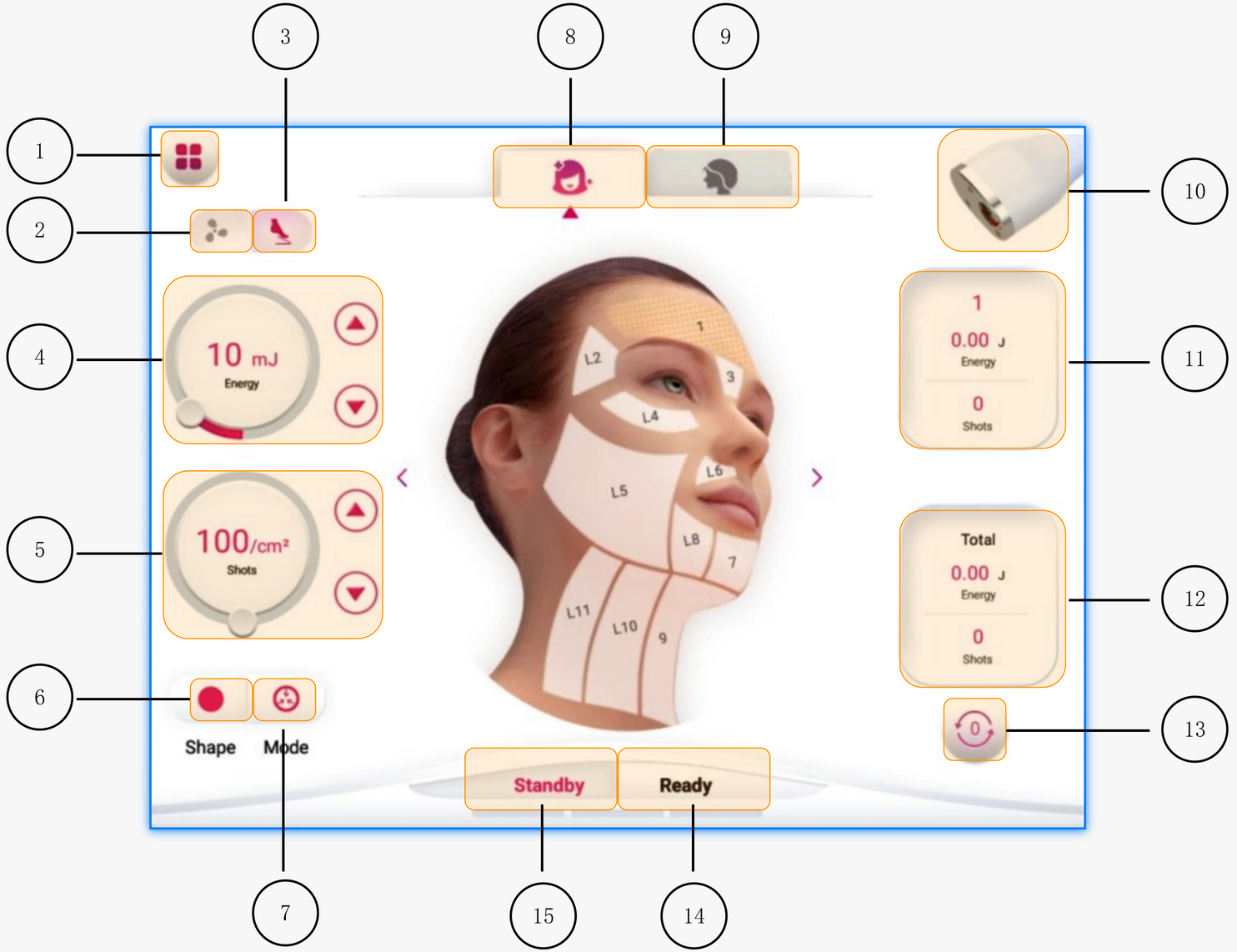
# Installation



System overview

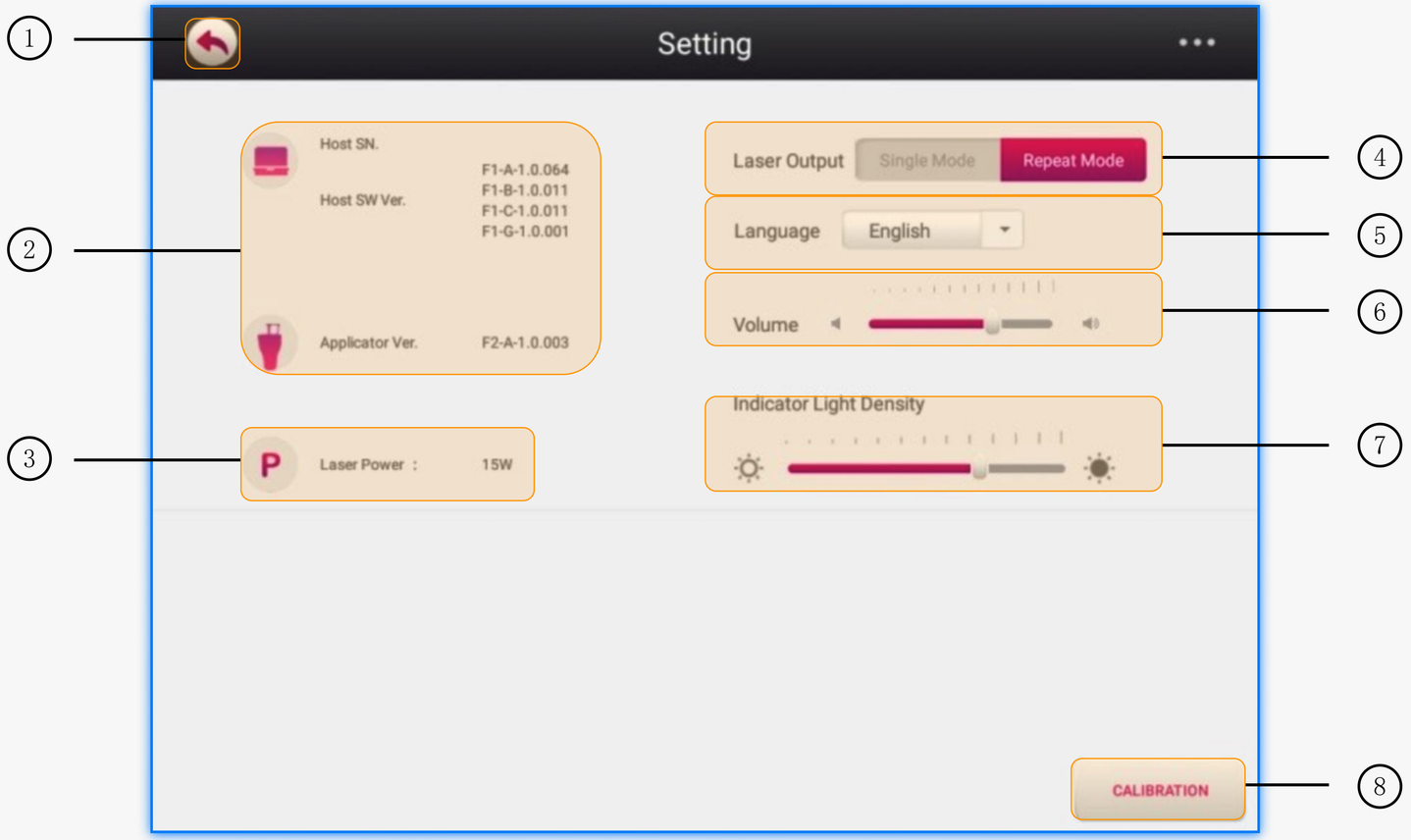
# Operation / Setup interface

①Menu
②③CryoShotand pedal
④Single pulse laser energy
⑤Shots density
⑥Treatment shape
⑦Scan mode
⑧⑨Face, scalp
⑩Applicators
⑪Part energy
⑫Total energy
⑬Clear
⑭⑮Standby /Ready



System overview

# Settings interface introduction




①return to the operation interface
②display the SN and software version of the device
③Laser power of the device
④Laser output
⑤Language
⑥Volume
⑦Indicator light density
⑧Calibration

# Clinical operation

- Indication
- Pre-treatment
- Treatment (parameters, course setting, and handle selection)
- Post-Treatment
- Clinical Efficacy evaluation and reference

NEXT

Clinical operation

# Indication

EVO Technologies  can be operated and used only by properly trained personnel. Including doctors, nurses, technicians and other professionals.

## MDR：

Medical Non-ablative Fractional Laser Systems (Model: WFA-01) is indicated for treatment of melasma.

## FDA：

The Medical Non-ablative Fractional Laser Systems (Model: WFB-01) is intended for use in dermatological procedures requiring fractional skin resurfacing and coagulation of soft tissue.

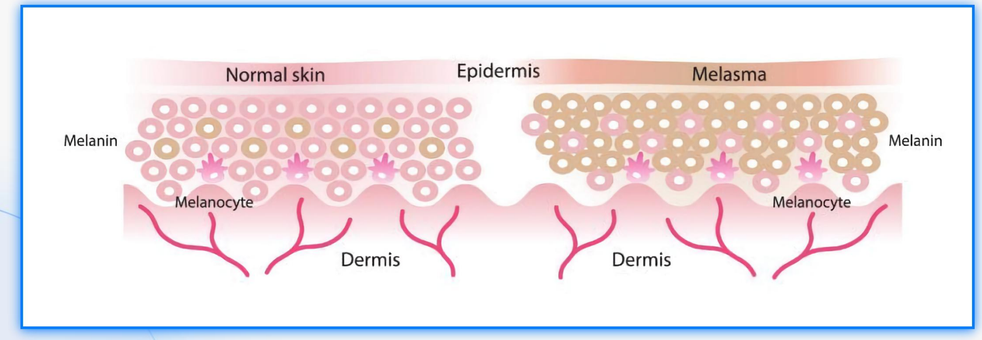
## CFDA：

The Medical Non-ablative Fractional Laser Systerm  is indicated for use in dermatological procedures requiring: Coagulation of soft tissue, Skin resurfacing procedures, Treatment of dyschoromia such as, but not limited ot melasma, Treatment of acne scars and surgical scars, Treatment of strae, Treatment of periorbital wrinkles

Clinical operation

# Melasma Introduction

- Melasma is a common and well-described dermatological condition that primarily affects female patients.
- There is currently no definite etiology but multiple factors including ultraviolet radiation, hormonal alterations within the estrogen or progesterone pathways, genetic predisposition, and/or inflammation have all been implicated and recently reviewed.
- Melasma is classified by both location and depth of involvement.The three most common types of melasma are centrofacial, malar,and mandibular, which describe the patterns of facial involvement.
- Melasma can be further characterized by the depth of involvement,which is often assessed by Wood ‘s lamp illumination and divided into three categories: epidermal, dermal, mixed.



Clinical operation

# Clinical Efficacy evaluation and reference

FIG. 1 Typical case
Before treatment VS after 1 time treatment VS after 4 times treatment

FIG. 2 Typical case 2: a 40-year-old female. Comparing the area and severity of melasma on the left side (A, B) and right side (C, D) before and after treatment, the patient's MASI score decreased from 18.5 to 6.5. MDR was 64.9%.

Melasma area and severity index, MASI was used .

MASI score =0.3A (f)[D(f)+H(f)]+0.3A (lm)[D(f)+H(f)]+0.3A (rm)[D(f)+H(f)]+0.1A (c) [D (c) + H (c)]

A represents the area, with score values of 1~6,1 <10%, 2=10%~29%, 3=30%~49%, 4=50%~69%, 5=70%~89%, and 6=90%~100%
D and H indicate the depth of color and pigment dispersion, respectively, and the scoring criteria were as follows: 0= no, 1= mild, 2= severe, 3= significant, and 4= severe.
The f indicates the forehead, lm indicates the left face, rm indicates the right face, c indicates the jaw, and the total area of 30%, 30%, 30%, 10%, respectively.
Take "MASI score decline rate before and after treatment (Decline rate of MASI, MDR)" as the effectiveness index.
MDR= (pretreatment MASI score-post-treatment MASI score) / pre-treatment MASI score of 100%

Effectiveness evaluation: Basic recovery: MDR 90%; significant effect: 60% MDR <90%; general effect: 20% MDR <60%; the effect is not obvious: MDR <20%

# Acne Scars

| | Acne Scars Subtype | Clinical Features |
|---|---|---|
| Classification of acne scars as their morphology adapted from | Rolling | Rolling scars occur from dermal tethering of otherwise relatively normalappearing skin and are usually wider than 4 to 5 mm. Abnormal fibrousanchoring of the dermis to the subcutis leads to superficial shadowing and arolling or undulating appearance to the overlying skin. |
| | Boxcar | Boxcar scars are round and oval depressions with sharply demarcated verticaledges, similar to varicella scars. They are clinically wider at the surface thanice pick scars and do not taper to a point at the base. They may be shallow(0.1–0.5 mm) or deep (⩾0.5 mm) and are most often 1.5 to 4.0 mm in diameter. |
| | Ice pick | Pick scars are narrow (<2 mm), deep, sharply marginated epithelial tracts thatextend vertically to the deep dermis or subcutaneous tissue. |

# Acne Scars

| | Level of disease | | Clinical Features |
|---|---|---|---|
| Grades of Post Acne Scarring | 1 | Mild | Mild atrophy or hypertrophy scars that may not be obvious at social distancesof 50cm or greater and may be covered adequately by makeup or the normalshadow of shaved beard hair in men or normal body hair if extra facial. |
| | 2 | Moderate | Moderate atrophic or hypertrophic scarring that is obvious at social distancesof 50cm or greater and is not covered easily by makeup or the normal shadowof shaved beard hair in men or body hair if extra facial, but is still able to beflattened by manual stretching of the skin (if atrophic). |
| | 3 | Severe | Severe atrophic or hypertrophic scarring that is evident at social distancesgreater than 50cm and is not covered easily by makeup or the normal shadowof shaved beard hair in men or body hair if extra facial and is not able to beflattened by manual stretching of the skin. |

# Other Treatment

| | |
|---|---|
| Dyshromia Treatment | • Pigmentation<br>• Acne Scars Treatment |
| Surgical Scar Treatment | • Atrophic<br>• Flat |
| Skin Treatment | • Skin Resurfacing<br>• Periorbital Wrinkles |
| Striae Treament | • Rubra<br>• Alba |
| Hairloss Treatment | • Hairloss |

Clinical operation

# Pre-treatment

## Contraindications

- Patients who have had prior problems with laser therapy should be carefully screened before treatment.
- Treatment should not be attempted on patients with the following conditions in the treatment area:
- Active infections
- Dysplastic nevi
- Significant concurrent skin conditions or any inflammatory skin conditions.
- Active cold sores, open lacerations or abrasions.
- Chronic or cutaneous viral. fungal or bacterial diseases.
- Exposure to sun in the 4-6 weeks pre-op, or artificial tanning in the past 2-3 weeks pre-op, remaining suntan, sunburn or artificially toned skin.
- Tattoos
- Permanent deniial implants
- Treatment should not be attempted on patients with a history of skin cancer or pre-cancerous lesions on the treatment area.

## Cautions

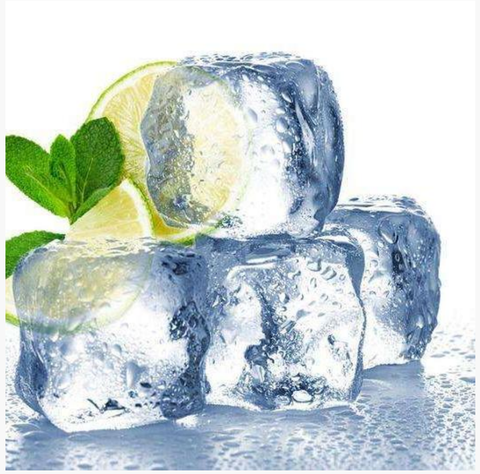
- Patients with the following conditions should be treated with caution and per the physician's discretion.
- Medical history or presence of:
- Bleeding coagulopathies
- Concurrent inflammatory skin conditions (dermatitis, active acne, rosacea, etc.).
- Keloid scarring
- Herpes simplex; treatment can trigger a herpes outbreak; prophylactic antiviral therapy inay be prescribed at the physician's discretion.
- Koebnerizing isomorphic diseases (vitiligo, psoriasis).
- Uncontrolled systemic diseases such as diabetes, epilepsy or congestive heart disease.
- Photosensitivity in general, or any sensitivity to the sun that causes a rash or an allergic reaction.
- Use or intake of:
- Oral Isotretinoin (such as Accutane) within six months of initial treatment (skin must regain its normal degree of moisture prior to treatment).
- Immunosuppressive diseases, including AIDS and HIV infection or use of immunosuppressive medications.
- Fillers or volumizers (within three months).
- Skin treatments such as chemical peel (especially phenol-based) or recent dennabrasion (within three months)
- Anticoagulants; avoid usage of anticoagulants prior to treatment, at the Physician's discretion.
- Photosensitive medications and/or herbal supplements, perfumes or cosmetics that may affect sensitivity to 1565nm laser wavelength.
- Following conditions:
- Damage to natural skin texture and/or very dry skin
- Post- inflammatory hyperpignientation

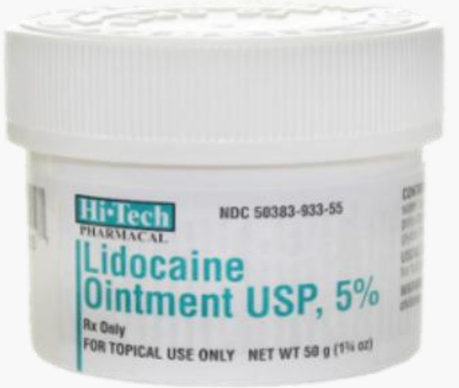
Clinical operation

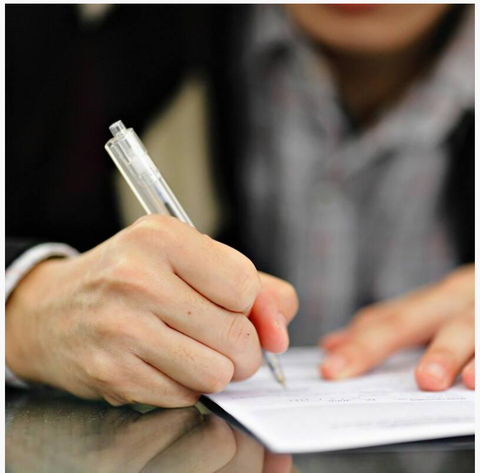
# Pre-treatment

Tool Preparation ：

- The eye shield
- Anesthetic lidocaine
- Paper and pen to record parameter and
- Camera
- Mask
- Medical adhesive
- Ice pack
- …





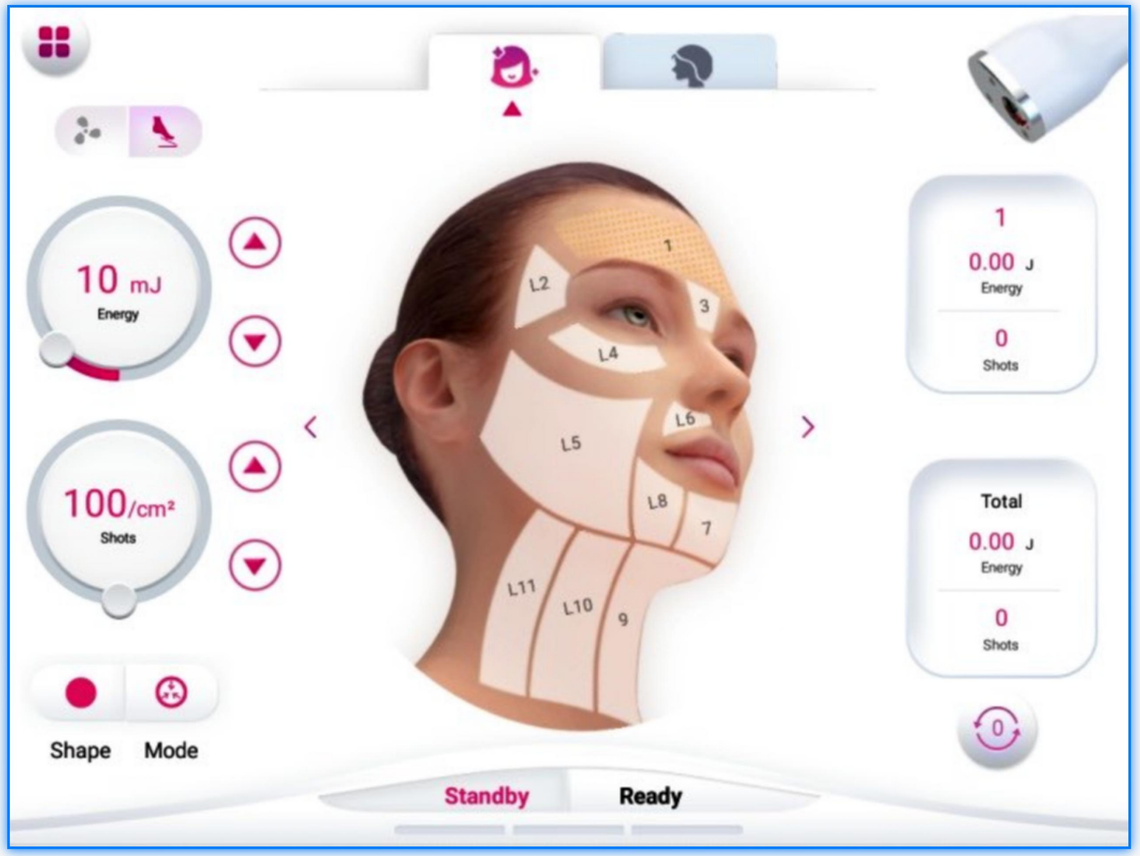



Clinical operation

# Pre-treatment

Parameter definition：

- Energy (mJ) : Energy per pulse, max. 70mJ.
- Scanning density: max. 500 spots /cm2
- Scan modes: Sequential, Random, Scrambled scanning
- Scan shapes: Circle, triangle, Rectangle, Hexagon, Ellipse.
- Scan size: 20mm x 20mm



Clinical operation

# Pre-treatment

Treatment site preparation：

1. Remove hair by razorIt from the treatment site;
2. Clean skin, such as anesthetics to ensure clean, dry;
3. Medical adhesive covering nevus;
4. Skin test behind ear or under jaw;
5. Anesthetize with lidocaine for 30-40 minutes

# Treatment

1. Select needed hand piece
2. Set the required parameters, including shape, area, scan mode, energy, spot density, and treatment site; The energy and light spot quantity of each site can be tracked through the selection of treatment sites; If follow-up is required, pay attention to zero clearance before treatment.
3. External cooling unit for skin cooling, **EVO** recommended **COOLSKIN**, it can automatically adjust the wind speed according to the set energy;
4. Click the Ready button in the treatment interface;
5. Allow no more than 10% of the laser repetition area during treatment;

Clinical operation

# Treatment

One course includes 3-5 treatment, due to treatment areahas a slightly different

It determines whether to terminate the treatment based on the physician's opinion and patient’s satisfaction with the effect

During laser treatment, the results are better if combined with some of the targeted melasma drugs (subject to the doctor's medication)

**Suggested Treatment heads:**

Effi Tip

Scanning area：
20mm×20mm

Accu Tip

Scanning area：
10mm×10mm

*Please select the suitable graphic mode according to the actual indication area and shape

| Disease | Skin type | Degree of depth | Energy 【mJ】 | Density* |
|---|---|---|---|---|
| Melasma Treatment | I | Epidermis | 25 | 450 |
| | | Intersection of dermis and epidermis | 30 | 400 |
| | | Dermis | 35 | 400 |
| | II | Epidermis | 25 | 450 |
| | | Intersection of dermis and epidermis | 30 | 400 |
| | | Dermis | 35 | 400 |
| | III | Epidermis | 20 | 450 |
| | | Intersection of dermis and epidermis | 25 | 400 |
| | | Dermis | 30 | 400 |
| | IV | Epidermis | 15 | 350 |
| | | Intersection of dermis and epidermis | 20 | 300 |
| | | Dermis | 25 | 300 |
| | V | Epidermis | 10 | 300 |
| | | Intersection of dermis and epidermis | 15 | 250 |
| | | Dermis | 20 | 250 |
| | VI | Epidermis | 10 | 250 |
| | | Intersection of dermis and epidermis | 15 | 200 |
| | | Dermis | 20 | 200 |

Clinical operation

# Post-treatment adverse

| Possible side effects of treatment | The most common treatment side effects are |
|---|---|
| Discomfort | When pulse sed, some patients have different degrees of discomfort. Some describe it as tingling, while others compare it to a rubber-band elastic sensation.The burning / itching sensation may last for 1 hour after treatment. Most patients can tolerate this discomfort, but some patients may need local anesthesia, especially with the larger treatment surface. |
| Erythema | Erythema and edema (redness and swelling) are the most common side effects, occur immediately after laser treatment and usually relieve within 24 to 48 hours. |
| Damage to the normal skin texture | In rare cases, which take 5 to 10 days to heal.Small scattered hazel spots may appear for about 10 days.These spots can be easily covered by light makeup. |
| Changes in skin tone | The treatment area may change in skin color.Most cases of hyperpigmentation or hypopigmentation occur in patients with dark skin color, or with sun exposure in the treatment area before and after treatment. Pigmentation occurs even in some patients. This skin color change usually disappears from 3-6 months, but in rare cases, the pigment change (mainly hypopigmented) may last longer or be permanent.The choice of treatment parameters should be carefully considered, to reduce the post-inflammatory response, and to perform pre-treatment trial spots in an adequate time frame according to the skin type. |
| Scarring | The chance of scarring is very small, like a large, hyperplastic scar.In rare cases, abnormal, large, raised keloids may occur. Careful implementation of all post-treatment instructions as well as the exclusion of patients with a genetic scar tendency is important to reduce scar formation. |
| Excessive swelling | Especially in peripheral areas or additional facial areas (e. g., neck or chest and shoulder), transient swelling may occur in the skin immediately after treatment.The swelling usually resolves over hours to a maximum of 7 days. |
| Skin fragile | The skin in and around the treatment site may become vulnerable. If this happens, avoid makeup and do not rub this area, because this can cause peeling. |
| Fire burn | Very small chance of developing skin burns.To reduce the possibility of burns, it is most important to follow all treatment manipulation guidelines, especially for experimental spots. |
| | Trial sites were always performed in the expected treatment area of the first session. |

Clinical operation

# Treatment Parameter recommendation

*Number of micro-beams per cm2

## Suggested Treatment heads:

Effi Tip
Scanning area：
20mm×20mm

OST-15
Scanning width：
15mm

*Please select the suitable graphic mode according to the actual indication area and shape

| Condition | Skin Type | Depth | Energy[mJ] | Density* |
|---|---|---|---|---|
| Pigmentation Treatment | I | Epidermal | 30 | 350 |
| | II | Epidermal | 30 | 350 |
| | III | Epidermal | 30 | 300 |
| | IV | Epidermal | 25 | 250 |
| | V | Epidermal | 20 | 250 |
| | VI | Epidermal | 15 | 150 |

Clinical operation

# Treatment Parameter recommendation

*Number of micro-beams per cm2

## Suggested Treatment heads:

Effi Tip
Scanning area：
20mm×20mm

Accu Tip
Scanning area：
10mm×10mm

*Match to the lesions’ shape to set the parameter
“doughnut” is a special one which should set Shape “Circle”, scan mode “Inward”, stop laser shooting according to intention

| Condition | Skin Type | Scar Type | Severity | Energy[mJ] | Density* |
|---|---|---|---|---|---|
| Acne Scars Treatment | I | Rolling | Mild | 20 | 350 |
| | | | Medium | 30 | 350 |
| | | | Severe | 40 | 300 |
| | | Boxcar | Mild | 25 | 350 |
| | | | Medium | 35 | 300 |
| | | | Severe | 45 | 300 |
| | | Icepick | Mild | 35 | 300 |
| | | | Medium | 45 | 250 |
| | | | Severe | 50 | 200 |
| | II | Rolling | Mild | 20 | 350 |
| | | | Medium | 30 | 350 |
| | | | Severe | 40 | 300 |
| | | Boxcar | Mild | 25 | 350 |
| | | | Medium | 35 | 300 |
| | | | Severe | 45 | 300 |
| | | Icepick | Mild | 35 | 300 |
| | | | Medium | 45 | 250 |
| | | | Severe | 50 | 200 |

Clinical operation

# Treatment Parameter recommendation

*Number of micro-beams per cm2

## Suggested Treatment heads:

Effi Tip
Scanning area：
20mm×20mm

Accu Tip
Scanning area：
10mm×10mm

*Match to the lesions’ shape to set the parameter
“ doughnut ” is a special one which should set Shape “Circle”, scan mode “Inward”, stop laser shooting according to intention

| Condition | Skin Type | Scar Type | Severity | Energy[mJ] | Density* |
|---|---|---|---|---|---|
| Acne Scars Treatment | III | Rolling | Mild | 15 | 350 |
| | | | Medium | 25 | 350 |
| | | | Severe | 35 | 300 |
| | | Boxcar | Mild | 20 | 350 |
| | | | Medium | 30 | 300 |
| | | | Severe | 40 | 300 |
| | | Icepick | Mild | 30 | 300 |
| | | | Medium | 40 | 250 |
| | | | Severe | 45 | 200 |
| | IV | Rolling | Mild | 15 | 350 |
| | | | Medium | 25 | 350 |
| | | | Severe | 35 | 300 |
| | | Boxcar | Mild | 20 | 350 |
| | | | Medium | 30 | 300 |
| | | | Severe | 40 | 300 |
| | | Icepick | Mild | 30 | 300 |
| | | | Medium | 40 | 250 |
| | | | Severe | 45 | 200 |

Clinical operation

# Treatment Parameter recommendation

*Number of micro-beams per cm2

**Suggested Treatment heads:**

Effi Tip
Scanning area：
20mm×20mm

Accu Tip
Scanning area ：
10mm×10mm

*Match to the lesions’ shape to set the parameter
“ doughnut ” is a special one which should set Shape “Circle”, scan mode “Inward”, stop laser shooting according to intention

| Condition | Skin Type | Scar Type | Severity | Energy[mJ] | Density* |
|---|---|---|---|---|---|
| Acne Scars Treatment | V | Rolling | Mild | 15 | 300 |
| | | | Medium | 20 | 250 |
| | | | Severe | 25 | 200 |
| | | Boxcar | Mild | 20 | 250 |
| | | | Medium | 25 | 200 |
| | | | Severe | 30 | 150 |
| | | Icepick | Mild | 25 | 200 |
| | | | Medium | 30 | 150 |
| | | | Severe | 35 | 150 |
| | VI | Rolling | Mild | 20 | 250 |
| | | | Medium | 25 | 200 |
| | | | Severe | 20 | 150 |
| | | Boxcar | Mild | 25 | 200 |
| | | | Medium | 30 | 150 |
| | | | Severe | 25 | 150 |
| | | Icepick | Mild | 30 | 150 |
| | | | Medium | 35 | 150 |
| | | | Severe | 20 | 150 |

Clinical operation

# Treatment Parameter recommendation

*Number of micro-beams per cm2

## Suggested Treatment heads:

Effi Tip
Scanning area：
20mm×20mm

Accu Tip
Scanning area ：
10mm×10mm

*Please select the suitable graphic mode according to the actual indication area and shape

| Condition | Skin Type | Severity | Energy[mJ] | Density* |
|---|---|---|---|---|
| Surgical Scar Treatments: Atrophic | I | Mild | 35 | 350 |
| | | Medium | 40 | 350 |
| | | Severe | 45 | 300 |
| | II | Mild | 35 | 350 |
| | | Medium | 40 | 350 |
| | | Severe | 45 | 300 |
| | III | Mild | 30 | 350 |
| | | Medium | 35 | 350 |
| | | Severe | 40 | 300 |
| | IV | Mild | 25 | 250 |
| | | Medium | 30 | 200 |
| | | Severe | 35 | 200 |
| | V | Mild | 20 | 250 |
| | | Medium | 25 | 200 |
| | | Severe | 30 | 200 |
| | VI | Mild | 15 | 200 |
| | | Medium | 20 | 150 |
| | | Severe | 25 | 150 |

Clinical operation

# Treatment Parameter recommendation

*Number of micro-beams per cm2

## Suggested Treatment heads:

Effi Tip

Scanning area：
20mm×20mm

Accu Tip

Scanning area：
10mm×10mm

*Please select the suitable graphic mode according to the actual indication area and shape

| Condition | Skin Type | Severity | Energy[mJ] | Density* |
|---|---|---|---|---|
| Surgical Scar Treatments: Flat | I | Mild | 35 | 350 |
| | | Medium | 40 | 350 |
| | | Severe | 45 | 300 |
| | II | Mild | 35 | 350 |
| | | Medium | 40 | 350 |
| | | Severe | 45 | 300 |
| | III | Mild | 30 | 350 |
| | | Medium | 35 | 350 |
| | | Severe | 40 | 300 |
| | IV | Mild | 25 | 350 |
| | | Medium | 30 | 350 |
| | | Severe | 35 | 300 |
| | V | Mild | 20 | 300 |
| | | Medium | 25 | 300 |
| | | Severe | 30 | 250 |
| | VI | Mild | 15 | 250 |
| | | Medium | 20 | 200 |
| | | Severe | 25 | 200 |

Clinical operation

# Treatment Parameter recommendation

*Number of micro-beams per cm2

## Suggested Treatment heads:

Effi Tip

Scanning area：
20mm×20mm

OST-15

Scanning width：
15mm

Accu Tip

Scanning area：
10mm×10mm

*Please select the suitable graphic mode according to the actual indication area and shape

| Condition | Skin Type | Severity | Energy[mJ] | Density* |
|---|---|---|---|---|
| Skin Treatments: Skin Resurfacing | I | Mild | 25 | 350 |
| | | Medium | 35 | 350 |
| | | Severe | 45 | 300 |
| | II | Mild | 25 | 350 |
| | | Medium | 35 | 350 |
| | | Severe | 45 | 300 |
| | III | Mild | 20 | 300 |
| | | Medium | 30 | 300 |
| | | Severe | 40 | 250 |
| | IV | Mild | 20 | 250 |
| | | Medium | 25 | 250 |
| | | Severe | 30 | 200 |
| | V | Mild | 20 | 250 |
| | | Medium | 25 | 250 |
| | | Severe | 30 | 200 |
| | VI | Mild | 15 | 200 |
| | | Medium | 20 | 200 |
| | | Severe | 25 | 150 |

Clinical operation

# Treatment Parameter recommendation

*Number of micro-beams per cm2

**Suggested Treatment heads:**

Accu Tip

Scanning area ：
10mm×10mm

OST-7

Scanning width：
7mm

*Please select the suitable graphic mode according to the actual indication area and shape

| Condition | Skin Type | Severity | Energy[mJ] | Density* |
|---|---|---|---|---|
| **Skin Treatments: Periorbital Wrinkles** | I | Mild | 30 | 350 |
| | | Medium | 35 | 350 |
| | | Severe | 40 | 300 |
| | II | Mild | 30 | 350 |
| | | Medium | 35 | 350 |
| | | Severe | 40 | 300 |
| | III | Mild | 30 | 300 |
| | | Medium | 35 | 300 |
| | | Severe | 40 | 250 |
| | IV | Mild | 25 | 250 |
| | | Medium | 30 | 250 |
| | | Severe | 35 | 200 |
| | V | Mild | 20 | 200 |
| | | Medium | 25 | 150 |
| | | Severe | 30 | 150 |
| | VI | Mild | 15 | 200 |
| | | Medium | 20 | 150 |
| | | Severe | 25 | 150 |

Clinical operation

# Treatment Parameter recommendation

*Number of micro-beams per cm2

**Suggested Treatment heads:**

Effi Tip
Scanning area：
20mm×20mm

OST-15
Scanning width：
15mm

*Please select the suitable graphic mode according to the actual indication area and shape

| Condition | Skin Type | Severity | Energy[mJ] | Density* |
|---|---|---|---|---|
| **Striae Treatments: Rubra** | I | Mild | 25 | 350 |
| | | Medium | 30 | 300 |
| | | Severe | 35 | 300 |
| | II | Mild | 25 | 350 |
| | | Medium | 30 | 300 |
| | | Severe | 35 | 300 |
| | III | Mild | 25 | 300 |
| | | Medium | 30 | 250 |
| | | Severe | 35 | 250 |
| | IV | Mild | 20 | 250 |
| | | Medium | 25 | 200 |
| | | Severe | 30 | 200 |
| | V | Mild | 15 | 200 |
| | | Medium | 20 | 150 |
| | | Severe | 25 | 150 |
| | VI | Mild | 15 | 150 |
| | | Medium | 20 | 150 |
| | | Severe | 25 | 150 |

Clinical operation

# Treatment Parameter recommendation

*Number of micro-beams per cm2

## Suggested Treatment heads:

Effi Tip
Scanning area：
20mm×20mm

OST-15
Scanning width：
15mm

*Please select the suitable graphic mode according to the actual indication area and shape

| Condition | Skin Type | Severity | Energy[mJ] | Density* |
|---|---|---|---|---|
| Striae Treatments: Alba | I | Mild | 30 | 350 |
| | | Medium | 35 | 300 |
| | | Severe | 40 | 250 |
| | II | Mild | 30 | 350 |
| | | Medium | 35 | 300 |
| | | Severe | 40 | 250 |
| | III | Mild | 30 | 300 |
| | | Medium | 35 | 250 |
| | | Severe | 40 | 200 |
| | IV | Mild | 25 | 250 |
| | | Medium | 30 | 200 |
| | | Severe | 35 | 150 |
| | V | Mild | 20 | 200 |
| | | Medium | 25 | 150 |
| | | Severe | 30 | 150 |
| | VI | Mild | 15 | 150 |
| | | Medium | 20 | 150 |
| | | Severe | 25 | 150 |

Clinical operation

# Treatment Parameter recommendation

*Number of micro-beams per cm2

**Suggested Treatment heads:**

Grow Tip

Scanning area：
10mm×20mm

*Please select the suitable graphic mode according to the actual indication area and shape

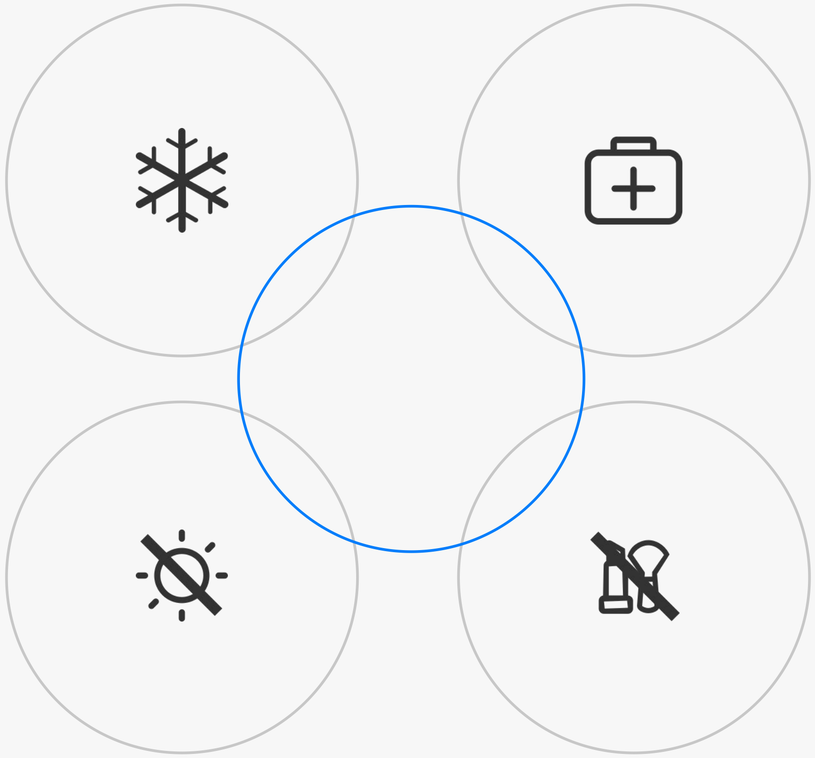
| Condition | Skin Type | Severity | Energy[mJ] | Density* |
|---|---|---|---|---|
| Hairloss | I | Mild | 8 | 250 |
| | | Medium | 9 | 200 |
| | | Severe | 10 | 200 |
| | II | Mild | 8 | 250 |
| | | Medium | 9 | 200 |
| | | Severe | 10 | 200 |
| | III | Mild | 7 | 200 |
| | | Medium | 8 | 150 |
| | | Severe | 8 | 150 |
| | IV | Mild | 7 | 200 |
| | | Medium | 8 | 150 |
| | | Severe | 8 | 150 |
| | V | Mild | 5 | 150 |
| | | Medium | 5 | 100 |
| | | Severe | 6 | 100 |
| | VI | Mild | 5 | 150 |
| | | Medium | 5 | 100 |
| | | Severe | 6 | 100 |

Clinical operation

# Post-treatment

### Skin refrigeration

Cold packs should be applied immediately after treatment
Air cooler skin refrigeration if need



### Prevent trauma

Prevent trauma to the treated area for the first four or five days following treatment: no hot bath, no aerobic exercise, massage, etc.

### Avoid sunlight

Patients should use sunblock and protect the treated area from exposure to sunlight for at least one month following treatment.
Patients should use high factor (30–50 SPF) sun block and protect the treated area from exposure to sunlight for at least one month following treatment.

### Avoid makeup

Advising against the use of makeup for four or five days following treatment.



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# Maintenance of the device.

NEXT

- Maintenance of the device

# Maintenance and inspection

Regular maintenance and inspection
It is very important to check the performance of the device on a regular basis to keep the device in the best working condition. The main inspection items are shown below:

| Checking list | Frequency | Items |
|---|---|---|
| Power cord and power inlet | Once a week | |
| Footswitch, and connection socket | Once a week | No damage or connection problem |
| Front control panel and LCD touch screen | All times | No breakage, unnormal display or uncontrolled touch screen |
| Alignment | Once a Month | |

Cleaning the applicators
The part of the machine in contact with the patient body is the treatment tips. After each treatment, need to use absorbent cotton dipped in 75% medical alcohol to wipe clean;

Warning:
Any unauthorized maintenance，including spare parts replacement is prohibited.

Note：
If there is any problem inside the device, please contact EVO service department or authorized agent.

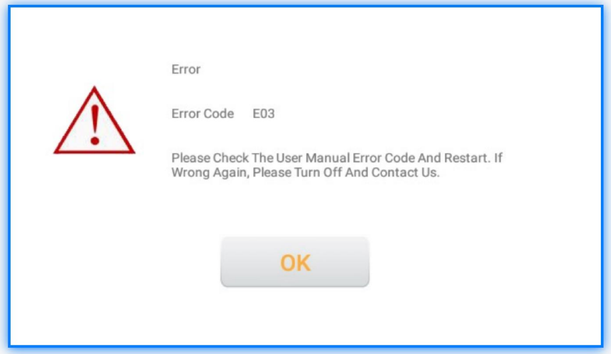
# General Trouble shooting.

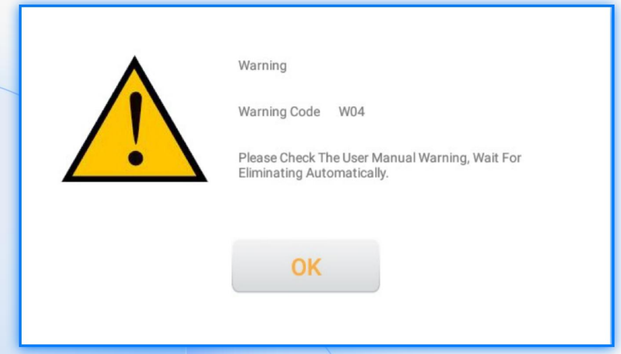
NEXT

- General Trouble shooting

# General Trouble shooting

When the machine detects an abnormality, it will sound an alarm and display a pop-up window similar to the following:




## Warnings and errors

If the machine fails, refer to the following table to find the cause of the failure, and take appropriate measures to eliminate the failure. More information, please contact EVO service department.

| Level | No. | Reason | Solution |
|---|---|---|---|
| Warning | W04 | The door interlock is not connected | Check if the door interlock switch is connected |
| | W05 | Door interlock status | |
| Error | E00 | Mainboard communication is abnormal | Contact EVO service department or refer to service manual |
| | E01 | The galvanometer power supply is abnormal | |
| | E02 | Laser power supply is abnormal | |
| | E03 | Laser power is abnormal | |
| | E04 | Red light is abnormal | |
| | E05 | Laser PWM is abnormal | |
| Error | E06 | Emergency Stop Button is abnormal | Release Emergency Stop |
| Error | E07 | Galvanometer abnormal | Contact EVO service department or refer to service manual |
| | E08 | Monitor Communication abnormal | |
| | E09 | Handpiece Communication is abnormal | |
| | E10 | ChillerCommunication is abnormal | |

# General Trouble shooting

There are solutions about failure phenomenon.

| Failure phenomenon | Causes and troubleshooting |
| --- | --- |
| Nothing is displayed when the machine is powered on | Please check if the machine is not connected to the correct power source?<br>Check whether the power cord is plugged into the power outlet and whether the power switch is in the "I" position?<br>Is the emergency stop switch is pressed on? |
| Foot switch failure | The foot switch is not connected |
| The laser does not fall on the aiming light spot | The laser optical path offset, please check the laser optical path |
| When the foot switch is pressed on, there is no laser emission | The foot switch connection is not good<br>The machine is not in the ready state (please check whether the "Ready" button is pressed) |

EVO Technologies  Clinical Training

# Thank you for watching