

PHI Φ LASER

TYPE-H

DIODE LASER HAIR REMOVAL OPERATOR MANUAL



PhiLaser Type-H

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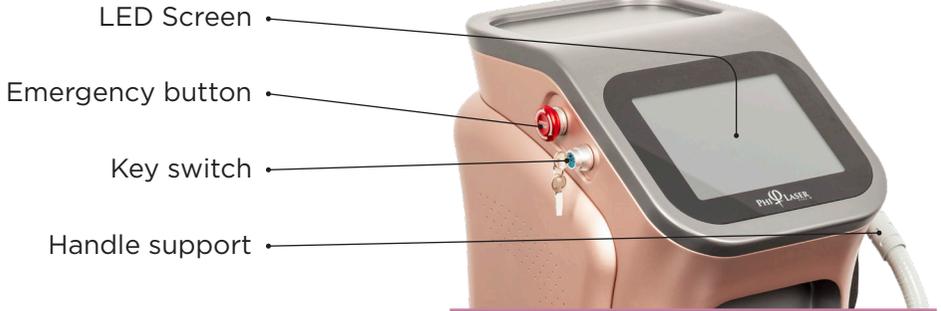
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1 | Machine Description

1.1. System description

Front view



Rear view



1.2 Accessories Description

Name	Number	Unit	Name	Number	Unit
Laser glasses	1	piece	Foot switch	1	piece
Protective glasses	1	piece	Filter element	1	piece
Machine key	2	piece	P-mix handle	1	piece
Power line	1	piece	Handle seat	1	piece
Funnel silicone tube	1	piece	Machine screws	3	piece
White plugs	2	piece			



Treatment handle



Filter



Protective glasses



Foot switch



White plugs and
funnel silicone tube



Power line



Keys

1.3 Installation

The system should be installed away from the heat devices and to have a certain distance from other objects.
Take out all the parts from the package, let it be in room for 30 minutes, then start installation.



► **Step 1:**
Install the hand mount, as shown -
to the appropriate position.

► **Step 2:**
Insert the handle with shaking from
left to right till hear two clicks,
then handle is fixed well.



➤ **Step 3:**

Add water - As shown, insert the plug into the OVERFLOW, fill the water using silicone tube; make plug always inserted into the OVERFLOW while filling device with water. Prepare something to collect water from OVERFLOW part. When water start coming out from OVERFLOW, that' sign that device is full with water and then you can turn it on.



➤ **Step 4:**

Install the foot switch and power line, as shown according to the panel to install.



1.4 Device parameters

Laser power	1200 W
Laser type	Semiconductor lasers
Wavelength	808 nm
Spot Size	12*12 mm (treatment area) 10*10 mm (crystal)
Energy Density	10-80 j/cm ² (Continuous Adjustable)
Pulse Width	10-100 ms (Continuous Adjustable)
Pulse Frequency	1-10Hz
Cooling System	Sealed inner circled water cooling system + Semiconductor refrigeration
Treatment Head Temperature	0 - 4°C
Power supply	AC/220 V, 50-60 Hz, 10 A

2 | System Introduction

2.1 Working principle

The machine emits the 808 nm wavelength which could be absorbed easily by the pigment located in hair follicle while not damaging normal surrounding skin. The light energy is absorbed by the pigment in the hair follicle then it is transformed into heat energy, it rises the temperature of follicle, till the temperature is high enough, the follicle structure is destroyed irreversible, the destroyed follicle will be removed after a period of natural physical process.

2.2 Application

Diode laser hair removal machine is applicable to any skin color.

Contraindication:

- 1) A history of keloid scarring and photosensitivity;
- 2) Treatment zone has a history of skin infections or have herpes simplex
- 3) In 6 weeks used other kind of hair removal.
- 4) Patients with coagulation disorders
- 5) Women during pregnancy, lactating
- 6) Epilepsy patients
- 7) Tanned by the sun

2.3 Advantage

***1200 W Diode Laser:** Germany imported laser bars with precise structure, guarantee steady energy in every shot. High energy up to 1200 W, transfer powerful laser energy to get excellent hair removal result.

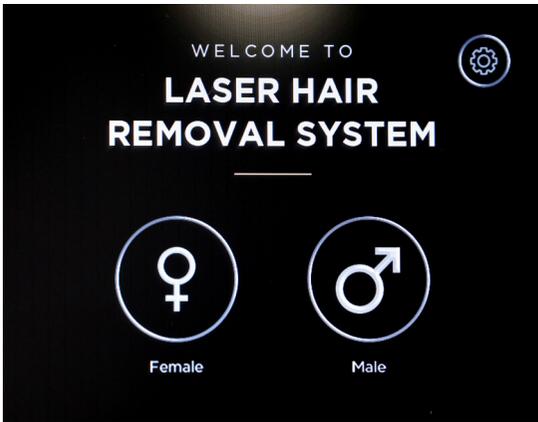
***100 million shots - 2 Year Warranty for Treatment head:** Long life span, one machine can work active 4 - 6 years.
2 years warranty for treatment head.

***10 ms short pulse duration:** 10 ms short pulse duration greatly minimizing the risks of burns.

Advanced technology and sapphire cooling technology is used to keep the cooling temperature under 5°C that properly cool the skin during treatment while ensure zero possibility for burnings.

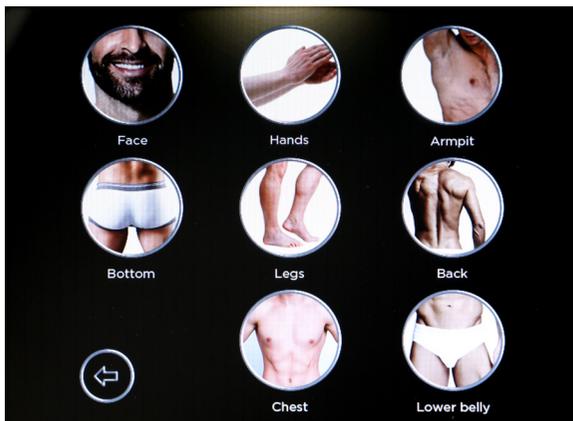
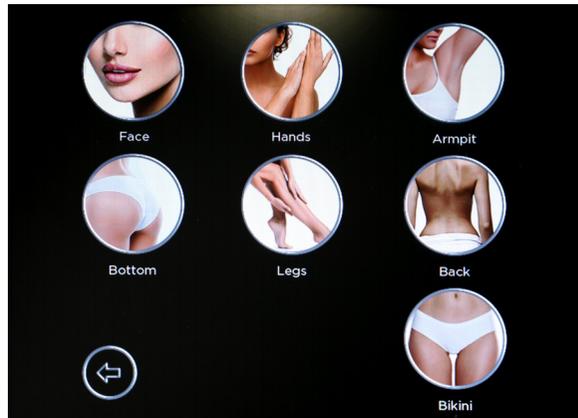
***Over 72 Hours continuous work:** Excellent quality, laser bars keep working stably and continuously for at least 72 hours.

2.4 Interface description

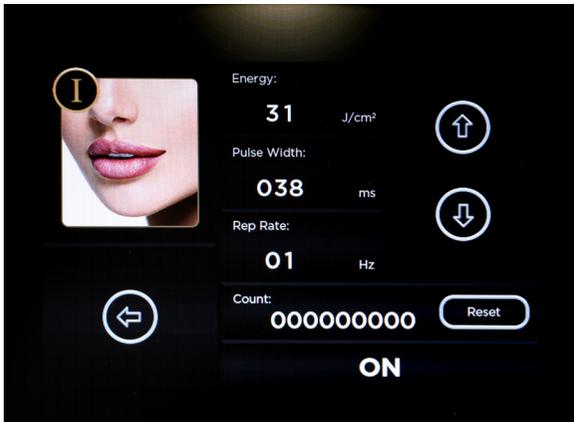


Machine language selection interface, you can choose desired language.

Gender selection interface
Select the option area for women to enter the treatment interface.

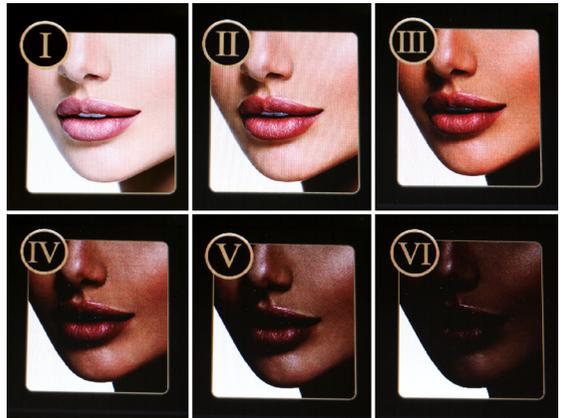


Select the option area for man to enter the treatment interface

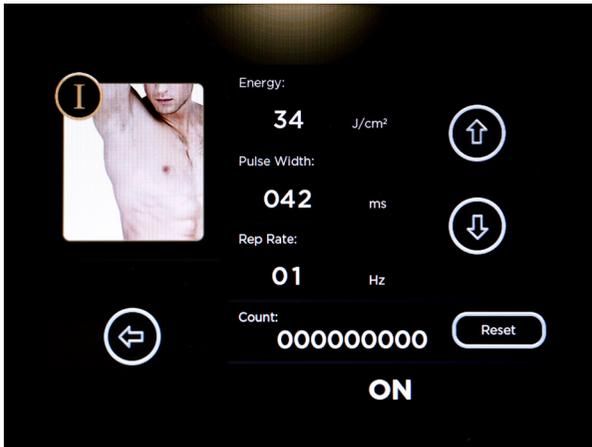


Select the woman treatment site for the face of user interface

Optional range I-VI, skin color is light to dark



- **Energy:** 10-80 J;
- **Pulse Width:** 10-100 ms
- **Rep Rate:** 1-10 Hz
- **COUNT:** the current shot number, click on the "number" to view the total number of the use of the handle;
- **RESET:** clear the current number;
- **ON:** start /stop button, touch the number will see the total number of handle use.
- **BACK:** return to the previous operation interface.



Select the male treatment parts for the armpit of the user interface

Optional range I-VI, skin color is light to dark



- **Energy:** 10-80 J;
- **Pulse Width:** 10-100 ms
- **Rep Rate:** 1-10 Hz
- **COUNT:** current count, click "COUNT" to see the total number of handles used;
- **RESET:** Clear the current count;
- **ON:** start/stop key, select to step on the foot or press the handle button to work
- **BACK:** return key, return to the previous operation interface.

Diode laser background entry: continuous click 10 times





30r/s: water flow 25°C:
 water temperature: ID CODE:
 handle recognition chip ID;

TOTAL COUNT: handle used
 the total number of shots

 :Choose
 different
 languages;

 Rent
 model

 Rent
 start
 button

 Touch screen
 sound button
 start,

 Touch screen
 sound button
 closed;



3 | Treatment

3.1 Safety check

Examine the patient's treatment record.

Recommend to select the appropriate patient parameters based on the patient's condition and clinical treatment guidelines.

The preparation of patient's skin such as cleaning.

All operating program status should be monitored on the screen.

3.2 Treatment procedure

3.2.1 Preparation before treatment

Clients must avoid sun and sunbed 4 weeks before treatment.

Keep the treatment area clean, dry, to shave hair 1 day before treatment

3.2.2 Treatment steps

1. Shave the treatment area hair 1 day before treatment

2. Clean the treatment area and disinfect the skin

Apply a ultrasound gel thickness about 2mm on the treatment area

3. Adjust the treatment parameters; adjust according to the recommended parameters of the system, the general adjustment parameters follow the principle: the maximum value that the customer can endure the treatment (the greater the energy, better the effect) generally in the range that the customer can endure. Generally, it will not burn the skin. Go over treatment area 2 to 3 times.

4. Use protective goggles and goggles for treatment!

One laser beam in the eye is permanent blindness!

3.3 Aftercare and Side effects

After the treatment, clean the skin, apply Skin Candy after laser treatment gel for smaller area and PhiSoothing gel for bigger areas.

Avoid water 1 day.

Avoid sun exposure within two week.

Side effects of laser hair removal are typically short-term and mild. They usually subside within 24 hours, but may last for several days after treatment in some cases. After the laser treatment, the skin may become slightly red and in some cases, slightly swollen for several hours, usually 2 to 3 hours, but not longer than 24 hours. After the treatment, clients should avoid applying chemical products directly to the skin (creams, ointments, deodorants, perfumes, cosmetic masks)

3.4 Suggested Setup Parameters

1. Spot treatment

Low frequency with 1 Hz the machine could supply high energy density.

You can change energy and frequency. The pulse width will be adjusted automatically during the adjustment of energy in this mode.

	Skin type	I White skin energy (j/cm ²)	II-III Yellow skin energy (j/cm ²)	IV-VI Brown skin energy (j/cm ²)
BLACK HAIR	Bikini	10-20	10-18	10-15
	Armpit	12-28	10-25	10-20
	Thigh	15-40	13-35	10-28
	Arm	15-40	13-36	10-28
	Body	15-48	15-42	13-30
BROWN HAIR	Bikini	13-30	13-27	13-20
	Armpit	15-32	15-30	15-25
	Thigh	18-40	18-37	18-30
	Arm	18-40	18-37	18-30
	Body	18-42	18-40	18-35
WHITE HAIR	Bikini	18-37	18-33	—
	Armpit	20-40	20-37	—
	Thigh	22-45	22-38	—
	Arm	22-45	22-40	—
	Body	23-50	23-45	—

For bigger areas use frequency 4 or 5, for smaller go with 1 or 2.

The general operation is adjusted according to the customer's tolerance.

The thicker the hair, the smaller the energy; the finer the hair, the higher the energy.

4 General Precautions

4.1 Installation environment

Working environment:

- a) Ambient temperature: The treatment should be carried out at room temperature around 25 °C, and the room temperature should not be too low or too high.
- b) Relative humidity: ≤ 80%
- c) atmospheric pressure range: 860 hPa - 1060 hPa;
- d) Power supply: 110-220 V+10%, 50/60 Hz.

Shipping and storage conditions:

- a) Temperature range: - 20 ~ 60 ° C
- b) Relative density range: ≤ 100%;
- c) Atmospheric pressure range: 500 hPa to 1060 hPa.

4.2 Caution before treatment

[1] Before starting the machine, the water tank must be filled with water and the handle must be inserted.

[2] Check the buttons to make sure they are working properly.

[3] Make sure the room temperature is above 16 °C.

[4] When using the machine, insert the plug into the exhaust port and discharge the air bubbles.

[5] Each time the water is changed, a small amount of water is discharged from the drain port, and water can flow out.

4.3 Caution during treatment

[1] Remove the hairs before treatment with razor, because the hair absorbs the energy of the laser and generates intense heat, which causes thermal damage to the local epidermis and damage to the laser treatment head.

[2] Start with low-power energy debugging to prevent burns and find the right treatment energy to reach the patient's expected level of treatment.

[3] Make sure the laser output is in contact with the skin.

[4] Be sure to keep the sapphire clean during treatment. Any substance that absorbs laser energy on the treatment head will increase in temperature after absorbing the laser, resulting in damage to the epidermis and pain.

[5] If the water temperature is lower than 17 °C during start-up, water temperature protection will occur. When the machine starts up, the water temperature should be higher than 16 °C. If the machine works continuously, the water temperature will be higher than 35 °C, water temperature protection will occur, and the machine will be shut down.

[6] Press the button continuously, the handle only has sound when the first light is emitted; if the handle has sound every time, the time of pressing the button needs to be more than 1s.

4.4 Caution after treatment

[1] It can be turned off when the handle is working, and the preparation state can be.

[2] The machine must be turned off when pulling the handle.

[3] Water is changed every 3 months and pure water must be used.

[4] Replace the filter element after 6 months.



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