



USER MANUAL

808nm/808nm+755nm+1064nm user manual

Suitable is the best; Effective is the Best;

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Chapter No.1 The users instructions

Please read the user' s manual carefully prior to operate the machine! To make sure the device are in working status .Avoid unnecessary harm.Please read carefully of the peripheral unit manual ,if the operator want to connect the device to the other peripheral unit.Or contact factory .

1.1 Safty

- ✓ The device is with self-testing function.When the device is turned on ,the system processor will seft-test .Besides,during the device working period , the system processor will self-test ongoing and intervals .
- ✓ When the emergency accident happened ,please press the emergency button (red button) to turn off the device .
- ⚠ Attention:The persons had accepted the distributors' training .They have the right to do the device inner maintenance .Otherwise,un-professional person made wrong maintenance may result the warranty in-valid .

1.2 用户培训

People who had accepted the professional training can use the diode laser device .Please ensure proper use our products, we recommend that you read this manual carefully prior to operate.Please . If the therapy is in the treatment process ,please identify with the words " relevant personnel no admittance". Before the treatment ,please clear the possible treatment risk to the patient . We suggest to make an agreement regarding the treatment . Treatment success or not mainly depends on the experience of the operator and understanding of professional knowledge.In the treatment process ,the therapy should wear the professional protection glass .The patient should take the professional goggle . The glass and goggle are both specially configured by device producer . Please do not wear the glass and goggle without professional advice.

1.3 Electrical and equipment safety

Equipment used in power source is 200 v to 240 v (50/60 hz) single-phase , International standards (CV 120 ~ 260 v, 50/60 hz); 20 a 50/60 hz) (90 ~ 130 v, single phase 3 line socket. Device through three electric wires to contact the ground . Please make sure that the ground wire touch the ground totally . Only authorized person can repair the device , other contrary repair or maintenance will result the warranty in-valid .

⚠ Attention : Strictly prohibit to use flammable items, such as acetone, alcohol. If disinfect the device by alcohol, please not turn on the device . Only when the alcohol evaporates completely , people will be allowed to use the device .

Chapter 2 Electrical and equipment safety

2. 1 Features of device

Diode Laser is one device that can transform the electricity , light and heat to be one kind of continuous high energy laser. Diode Laser integrate the laser technology, electronics technology and computer technology make a good performance on the permanent Hair Removal.

Diode Laser theory of hair removal : Diode Laser Hair Removal is the safest and fastest at the present. However, the primary chromophore for laser hair removal is melanin residing in the hair shaft. Secondly, melanin residing in the inner and outer root sheath may also act as a secondary chromophore. Based on selective photothermolysis principle, through specific wavelength, penetrate epidermis into dermis, optical energy was absorbed and translated into heat energy with restraining hair follicle tissues, and produce photothermal effect. It takes laser energy in hair follicle with rich in melanin, surrounding tissues absorb less even no energy, reach to restrained melanin of hair follicles and remove hair.

Meanwhile, don't hurt around tissues and virtually pain-free remove surplus hair; eventually, reach to permanent Hair Removal.

2.2 Structure and performance of device



Through Diode Laser is mainly composed of machine ,control system and treatment handle. Control system including emergency button ,key switch ,control screen ; Control screen is 10.4 inch color touch screen .The treatment handle is the laser handle .

2.2. 1 Structural composition

2.2.1.1 Main machine

Diode Laser main machine Composition as below :

- ✓ Power Module :Supply the electric to the whole machine .
- ✓ Control system module:As Diode Laser CPU ,carry out the different task by accepting information input ,then as operator' s order to output the real function .
- ✓ Display screen module: Display the system information ,and accept the operator' s working demands .

2.2.1.2 Control system

Diode Laser control system mainly composition as below :

- ✓ Switch key:Turn on /off machine
- ✓ Emergency button:Turn off machine immediately when there are accident or abnormal appeared .To protect machine safe .
- ✓ Display screen :Input and show the system setting .
- ✓ Foot switch:Step down the foot switch ,device will be on;Released the foot switch ,the device will be off .

2.2.1.3 Treatment handle

Treatment handle is main implementation of treatment ,including pipe ,head. The electrical wire and data line are all in the pipe .Picture is the treatment handle .



Diode Laser Specification of device

Specification	Data
Light source	Diode laser
Laser emitter	10bar/800W/50A
Wavelength	808nm+755nm+1064nm
Electrical current	15-50A
Energy density	1-140J/cm ²
Frequency	1-10Hz
Width of light	10-400ms/±10%-40%
Light output size	15*15/15*20
Cooling system	Close-cycle water cooling; fan cooling and semi-conductor cooling
Operator display screen	10.4" TFT True Color LCD

2.3 Treatment application

Diode Laser used for permanence hair removal

2.4 Accessories of Device

Accessories list of Diode Laser as below

Accessories list of Diode Laser

Name	No	Name	No
User manual	1	Power line	1
Treatment handle	1	Foot switch	1
cross screwdriver	1	Funnel	1
Plastic pipe	1	Therapy glass	1
goggle	1	500ml measuring glass	1

Chapter 3 Installation

3. 1 Procedure of Installation

Before unpacking the machine, ensure that working environment conforms to the requirements of this section The device should be place in the environment without etchant gas , less dust,etc.The etchant gas will make a bad destroy to the wires , Equipment of the electronic and optical components.Dust in the air will make a badly destroy to the filters and electronic components .The equipment installation environment temperature and humidity range should be accord with the requirement .

Procedure of Installation:

- ✓ Unpacking the device. Checking whether all the accessories are all correct .
- ✓ Staying the device for 24 hours, in order to avoid destruction by high humidity during long distant transportation.
- ✓ Assembly of its components and ensure that all connections are firmly in place.
- ✓ Fill the water tank with distilled water only.

☑ Make sure every parts and accessories are connected firmly and correctly ,then turn on device ,testing the functions and parameters .

☑ If every above are all proper ,treatment procedure is available .

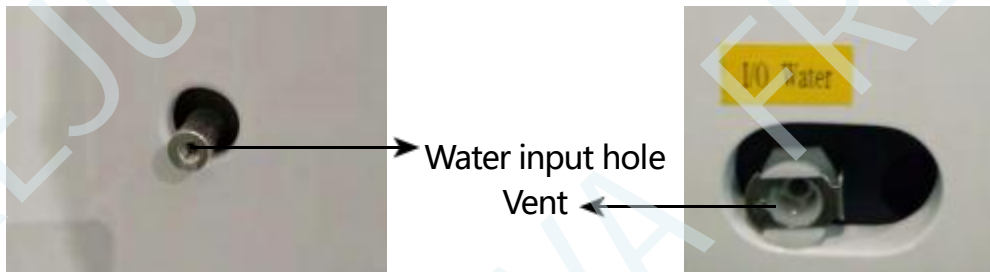
3.2 Installation Requirements & water input

Before operate the machine,please fill distilled water .Every time before operation or turn on the machine ,Please check the water measure to be sure there are enough water (90% of the water meter line) Otherwise ,please fill the distilled water .

3.2.1 Instruction of water input

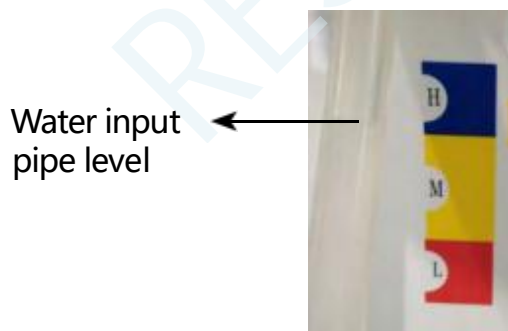
☑ The temperature of the environment should be 5°C~40°C;Humidity should lower than 80%, the Therapy room should be clean .

☑ Please keep the vent hole open ,when people input water.Please keep the treatment handle installed proper (3.2.3 handle installation),otherwise the water input is unavailable.



☑ Connect the funnel to the plastic pipe ,then connect to white play and plug , then put into the water input hole (picture 3-2- 1).Input water by funnel .

When the input water pipe show that the water level to the "H" marker or there are water overflow ,the water inputting is finished .



- ✓ After the water input, press the metal plate, the water input pipe will be able to remove.



3.2.2 Water circulation testing

Please connect the foot switch when operator finish the water input and power electric wire connect .Please testing the water circulation as below :

- ✓ Please make sure the emergency button is up before turning on the machine .
- ✓ The circuit breaker is behind the machine .Please turn the circuit breaker on
- ✓ Turn on the key ,the water circulation will be working automatically .
- ✓ Please observe whether the water circulation working normal or not .
- ✓ If there are no water leaking or water circulation alarming ,Please let the machine to be working one min ,then turn off the machine.
- ⚠ Attention :If the water is distilled water .We suggest the customer change the water one month once .When operator change water ,please take off the vent cover and water input hole cover .Please out put the old or dirty water as more as possible .

3.2.3 Installation of operation handle

When customer install the treatment handle.Please put the handle lower than main device ,aim to let the gas out from the handle . After the handle installation, Let the device turn on about one minute,keep the water circulation enough .

- ✓ Take the handle connector to the device ,install right firstly then left .When there are "kaka" sound ,the connect work finished .












- ☑ When customer want to take off the handle, Please press the button up and down ,then pull the handle .

Chapter 4 Software instruction




4.1 Working display

4.1 . 1Instruction of working display

Instruction of working display

	Icon	Name	Function
Us er Se tt in gs bu tt on		System Settings frame	Enter into the factory setting display
		Water temperature frame	show water tank water current temperature
		Treatment handle temperature frame	Show the treatment handle temperature
		Water flow frame	Show the current water flow status
		Water level frame	Red color show water lacking , green color show normal
		Energy density frame	Show the current energy density
		Sound icon	Sound attention
		Ready button	Ready to work
		Data save frame	Six files for data save

Instruction of working display

	Icon	Name	Function
Us er Se tt in gs bu tt on		Water temperature alarm icon	When the water in the tank temperature is higher ,there will be “! ” icon show.
		Handle tempera- ture alarm icon	When the handle temperature value is too high “! ” marker will appear.
		Water flow alarming	When the water flow frame show the value is too high .The “! ” marker will appear

4.1.2 Instruction of alarming indicator icon

4.1.2.1 Water level alarming

When the water level alarming icon show red color ,and “! ” marker is appeared ,that is mean the water is too less .

Solution : please input water in time.

4.1.2.2 Water tank temperature alarming

Water tank temperature value is too high ,and the “! ” marker is appeared , the system will switch to the standby status automatically .

Solution:Please check whether the water circulation component working normal or not ,or whether there are any destroy or broken of the components .If all above problems are not happen.Please contact the device producer or distributor .

4.1.2.3 Treatment handle water temperature alarming

Treatment handle temperature value is too high ,and the “! ” marker is appeared ,the system will switch to the standby status automatically .

Solution:Please stop to use the treatment handle and wait some time ,then turn on the device again .If the handle temperature alarming is continue ,please contact after-service engineer or your distributor .

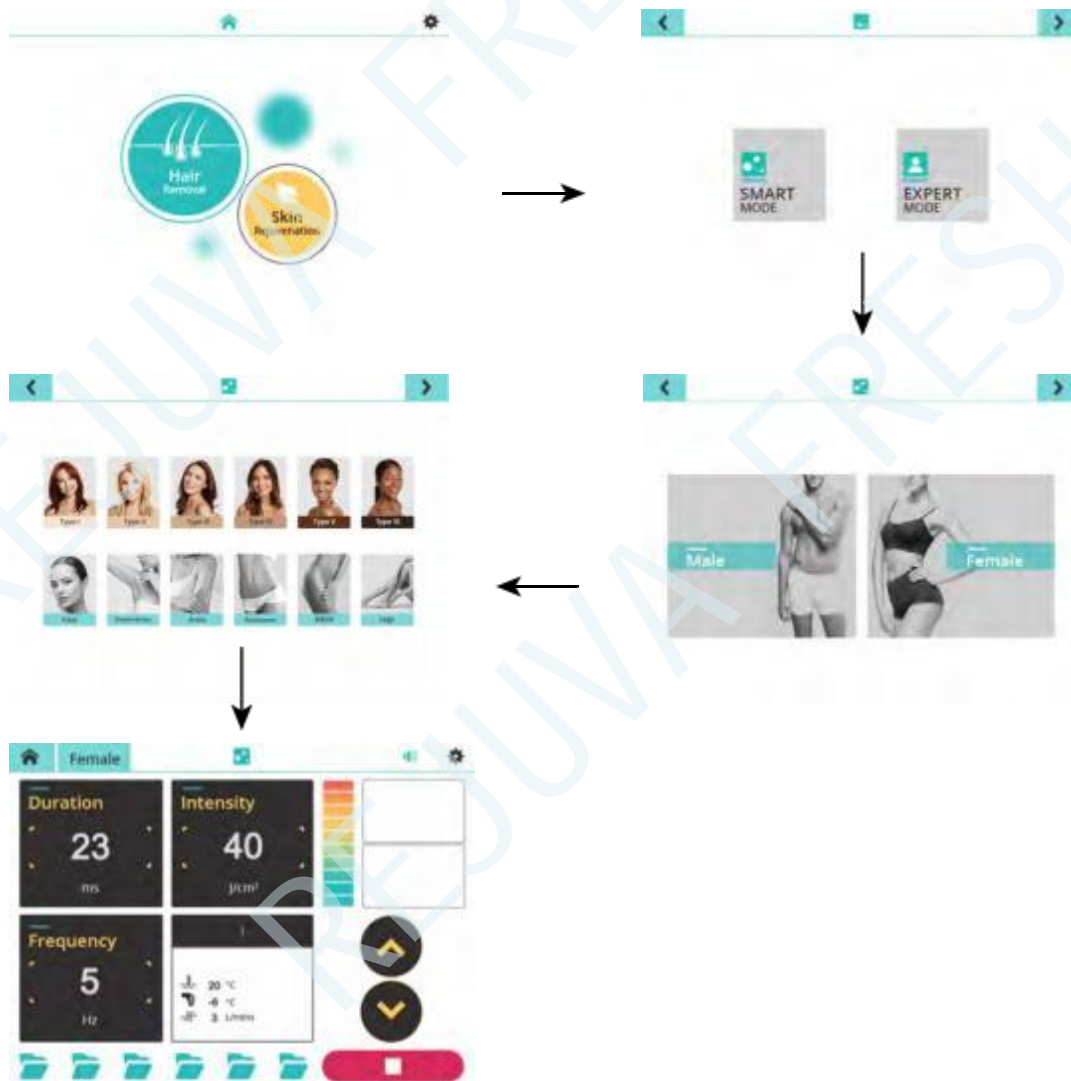
4.1.2.4 Water flow alarming

When the water flow icon value smaller than “2” and the water drop icon is lighted ,that is mean the water flow alarming ,The device system will switch to the standby status automatically .

Solution: Check up the water level to see whether there are enough water . Please check up the treatment handle connect well or not .Whether there are water leaking .If all above problems are not happen.Please contact the device producer or distributor .

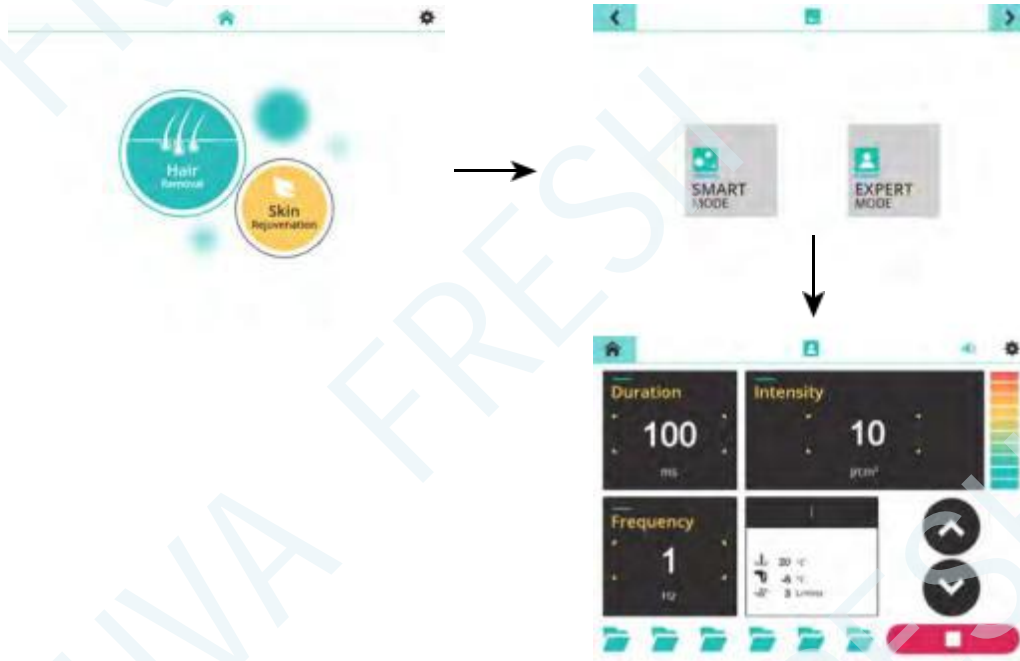
4.2 The software interface introduction

4.2.1 Hair removal(Smart Mode)



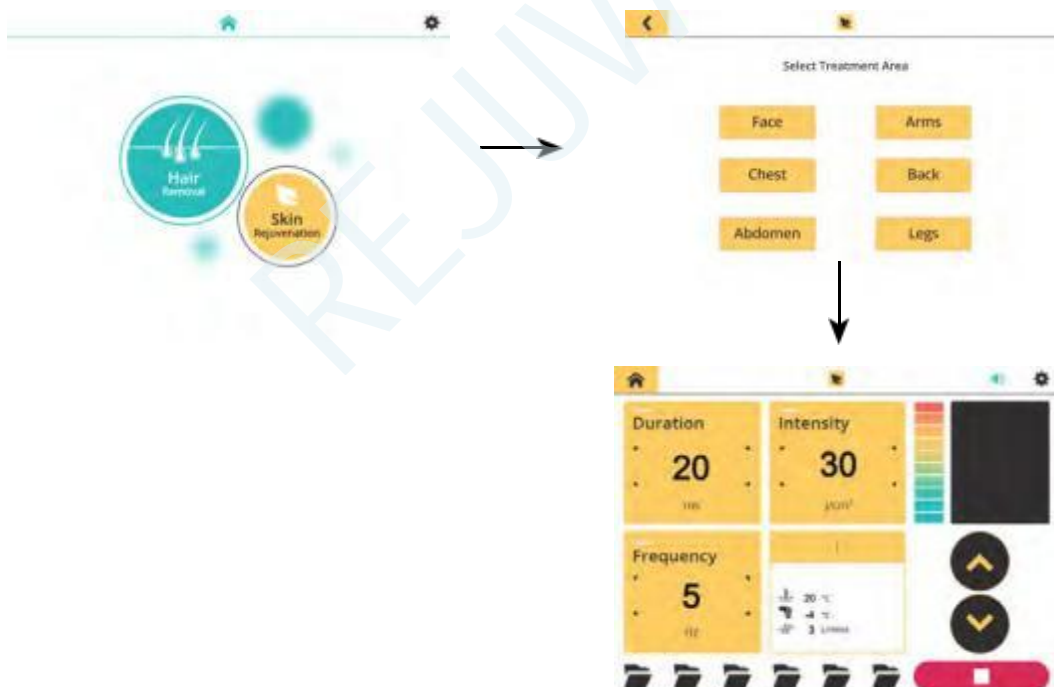
Press the hair removal, get into the mode option interface, using the smart mode, choice male/female , decide the treatment area, the clinic data will be auto generated. Press working.

4.2.2 Hair Removal (Expert Mode)



Press the hair removal, get into the mode option interface, using expert mode, the operator base on the customers' situation, setting the parameters. Press the working.





4.2.3 Skin Rejuvenation Interface



Get to the skin rejuvenation, the clinic data will be auto generated, press working.

4.2.4 Instruction of system setting display

Time date setting list

Icon	name	Function	Remarks
	language settings	Language option	-
	Value limitation	Max value and alarming value	-
	Alarming record	Record alarming	-
	Safe setting	Safe setting	-

4.3 Software operation explanation

4.3.1 Standby/Ready switch

When the system in "Standby" status ,press " Ready" button the device will switch to the "Ready " status . When the system in "Ready" status , press " Ready" button the device will switch to the "standby " status . When the device is in the "standby" status ,the handle indicator light will be in yellow color ,when the device is in the "Ready" status,the handle indicator light will be in green color .

4.4 Treatment procedure and How to operate the device

- ☑ Prior to treatment, the physician must first get a detailed history, rule out any disorders that may contraindicate this treatment and finally physically inspect the treatment area. (Especially regarding the dark skin patient ,we suggest doctor to make the inspect testing before the treatment)
- ☑ Before do the treatment please make a communication .Please Shave the hair ,then clean the treatment place by neutral cleaner .Please not use any cosmetics .Then smear 1 to 2 mm get .







- ✓ Turn on the device ,enter into the parameter setting display .
- ✓ Setting proper parameter regarding different patients .Press “Standby /ready ” button into the working status .
- ✓ When the device is in the standby status ,the handle indicator light will be yellow color .When the device is in the Ready status ,the indicator light will be green .When therapy press the handle button ,the indicator light will be in red color .
- ✓ During the treatment ,therapy should adjust the parameter regarding the patient’ s feedback.
- ✓ During the treatment ,the handle should not stay long time in one treatment place ;Please take glass and goggle to avoid risk .
- ✓ Turn off the power supply after the treatment ;remove the gel ,cool down the treatment place .The cold compress can be done when the device is in Standby status .
- ✓ Clean the head of treatment handle by warm wet towel .Then use the cotton ball pick up the disinfectant to clean the head again .
- ✓ After the disinfectant ,please place the treatment handle into the professional box .Turn off the power supply ,finish the treatment .

4.5 Treatment parameter setting reference







4.5.1 Smart mode---hair removal (Male)

Smart Mode (Hair Removal)								
Area	HZ	Skin type	Energy reference	Area	HZ	Skin type	Energy reference	
	2-4hz	Type I	30-40		5-8hz	Type I	35-45	
		Type II	28-38			Type II	33-43	
		Type III	26-36			Type III	31-41	
		Type IV	24-34			Type IV	29-39	
		Type V	22-32			Type V	27-37	
		Type VI	20-30			Type VI	25-35	
	3-5hz	Type I	28-38		3-5hz	Type I	33-43	
		Type II	26-36			Type II	31-41	
		Type III	24-34			Type III	29-39	
		Type IV	22-32			Type IV	27-37	
		Type V	20-30			Type V	25-35	
		Type VI	18-28			Type VI	23-33	
	4-7hz	Type I	45-55		5-8hz	Type I	55-65	
		Type II	42-52			Type II	52-62	
		Type III	40-50			Type III	48-58	
		Type IV	38-48			Type IV	45-55	
		Type V	34-44			Type V	42-52	
		Type VI	31-41			Type VI	39-49	

4.5.2 Smart mode---hair removal (Female)

Area	HZ	Skin type	Energy reference	Area	HZ	Skin type	Energy reference
	2-4hz	Type I	35-45		5-8hz	Type I	40-50
		Type II	32-42			Type II	38-48
		Type III	30-40			Type III	36-46
		Type IV	27-37			Type IV	34-44
		Type V	25-35			Type V	32-42
		Type VI	22-32			Type VI	30-40
	3-5hz	Type I	33-43		3-5hz	Type I	38-48
		Type II	31-41			Type II	36-46
		Type III	28-38			Type III	34-44
		Type IV	26-36			Type IV	32-42
		Type V	24-34			Type V	30-40
		Type VI	22-32			Type VI	28-38
	4-7hz	Type I	50-60		5-8hz	Type I	60-70
		Type II	47-57			Type II	57-67
		Type III	45-55			Type III	53-63
		Type IV	42-52			Type IV	50-60
		Type V	39-49			Type V	47-57
		Type VI	36-46			Type VI	43-53

4.5.3 Skin rejuvenation

Skin Rejuvenation Mode		
Treatment area	Frequency	Energy reference J/cm ²
	3-5hz	28-38
	4-7hz	32-42
	3-5hz	28-38
	5-8hz	35-45
	4-7hz	32-42
	4-7hz	35-45

4.6 Attention after the treatment

- ✓ During the treatment ,please not stay the handle in one place long time.
- ✓ Please use the soft neutral cleaning products and warm water to clean skin
- ✓ Use moisture face masker to supply more water to the skin .
- ✓ Use the VC cream or neutral moisture cream to protect the skin .
- ✓ Please use the sun cream not less than SPF 30
- ✓ In one month after the treatment please use high SPF sun cream and avoid sunburnt .Because strong sunshine will prove the hyperpigmentation happened .
- ✓ Within 24 hours after treatment to avoid using hot water to take shower ,avoid to use antiperspirant,avoid to swimming in the pool with High chlorine.
- ✓ A light make-up is available after the treatment ,But the operator suggest to stop the make-up ,once there are any destroy or infection and contact your beautician or doctor to help you .
- ✓ After the treatment ,therapy can use the handle to cool down the skin 5 to 10 minutes.The machine should be in standby status when do the cooling .

Chapter 5 Device Maintenance

5.1 Main device cleaning

Please use soft wet cloth to clean the main device ,to avoid liquid into the device .

5.2 Operate handle cleaning and replace

- ✓ Clean the handle light output place after the treatment ,because during the treatment ,some pigment granules maybe splash to the crystal ,that will be lower the laser output energy .We suggest to use the lens paper to clean .Or the use absolute alcohol to clean .
- ✓ Every treatment handle are all with working life .After using half a year (around 100,000,000 times) ,we suggest the customer to replace a new handle .Please contact your distributor or device factory .

5.3 System trouble shooting

Trouble Phenomenon	Solution
Screen without display	Check the electric wire
	Check the circuit-breaker , fuse wire
	Please check the power supplier switch
	Please contact the distributor or device producer
No reaction of the handle switch button ,and no reaction by key	Please check whether the power supply switch behind the device is on or not .If on ,the trouble is still ,please contact the distributor or device producer
System can not be initialization	Check the power supplier
	Please contact the distributor or device producer
The energy output lower or no laser output	The voltage is too lower result the handle can not work normally
	Please check whether there are dirty thing on the laser reflective mirror ,if yes ,please clean it .
	The handle inner is destroyed ,please replace new treatment handle
	Disassemble the treatment handle to check whether the head reflective mirror are destroyed or not .
	The treatment handle is too hot ,please turn off the machine ,cool down around 30 minutes ,then use again .
	Please check the handle water leaking or not .

Treatment handle dropped out of the handle holder	Please check the handle destroyed or not ,if yes ,please replace new handle .
During the treatment .when therapy press the handle button ,there are "zizi" noise	The device is not turned on for too long time .It is hard to motivate.
	The treatment room temperature is too lower ,please higher the room temperature .
	Please check the electric of the device normal or not
	The humidity of the treatment room is too higher .Please lower the room humidity.
Cooling system temperature is too	Turn off the device minutes ,then return on again .If the cooling system is still abnormal ,please contact distributor or device producer
The treatment handle output energy is too lower	Please check whether there are dirty thing on the reflective mirror ,If yes please clean it .
	If the handle is hot ,please turn off the machine 30minutes
	Please check the head of the reflective mirror good or not ,if there are any destroy .Please contact your distributor or device producer .
The treatment handle output energy is too lower	Treatment head the working life is over.Please contact your distributor or device producer .
Laser emitter is broken	Please contact your distributor or device producer .

Chapter 6 Standard

This chapter details the most important technical parameters and treatment system of categories

System standard list

Specification	item
electrical connections data	
Electrical voltage	110/220VAC \pm 10%
Electrical frequency	50/60Hz
Device type	
Against electric shock protection type	Type I
Against electric shock protection level	BF
Harmful water invade type	Normal
Weather condition(during the operation)	
Temperature around	+15°C to +30°C
Relative humidity	30% to 80%
Atmospheric pressure	86.0 kpa to 106.0kpa
Weather condition(during the transport of device)	
Temperature around	+5°C to +55°C
Relative humidity	30% to 80%
Atmospheric pressure	86.0 kpa to 106.0kpa

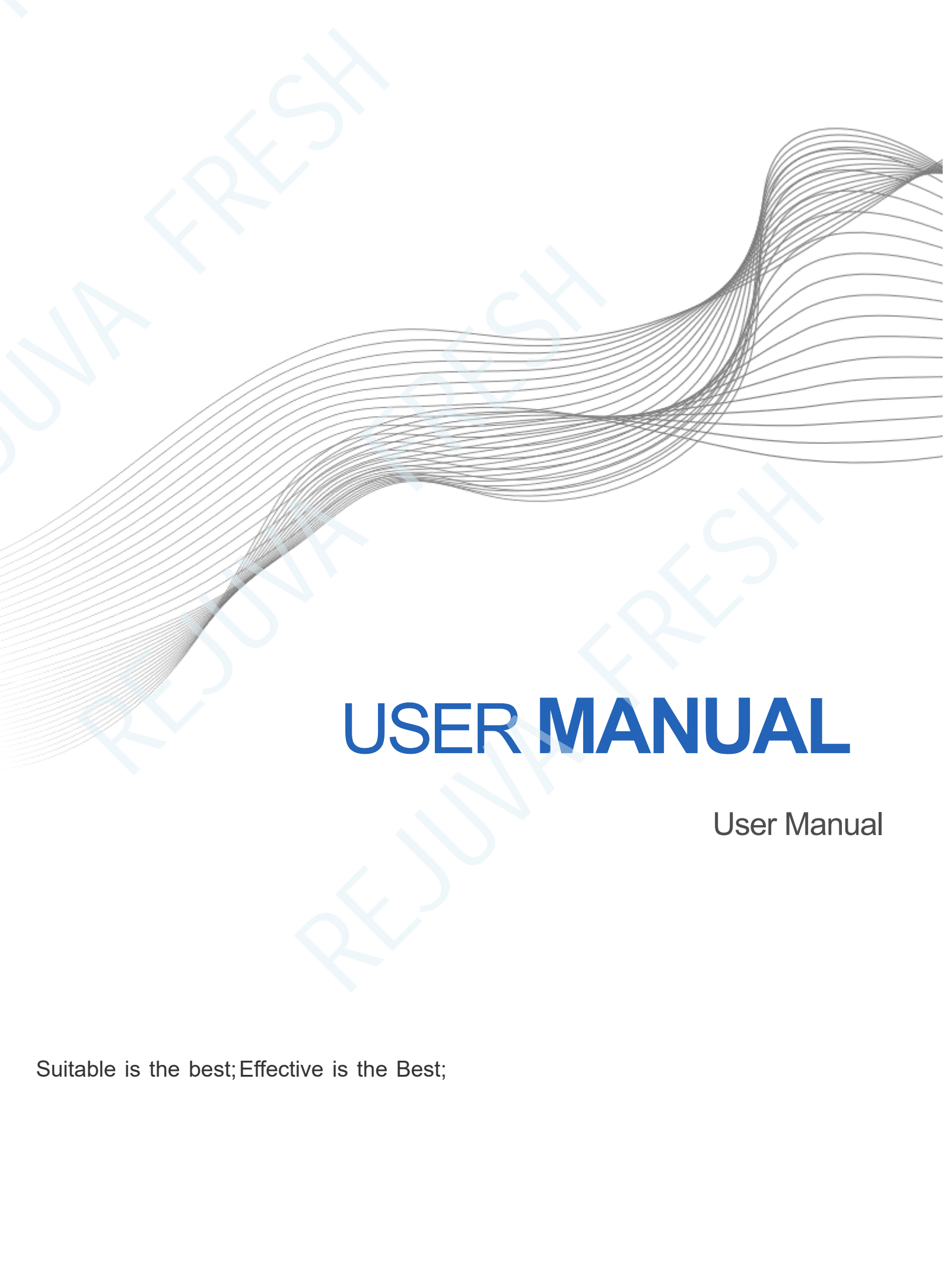
Dimension and weight	
Device length/packing length	450mm /570mm
Device width/packing width	360mm/490mm
Device height/packing height	530mm/590mm
Gross weight/net weight	30Kg/48Kg

How to return the device back to factory :

Owing to the problem of equipment is properly work, and you has simple maintained it according to above methods, Equipment is still abnormal, please contact our after -sales service center.

⚠ Attention:

- 1、 Please put the bill fax to after-sales service center of our corporation quickly when the equipment mailed it. And in order to ensure that repair timely, please note it on the fax: Rely on fax to pick up.
- 2、 Before mailing, please contact after-sales service center to certain contact phone, pick up address and receiving person.
- 3、 When called after-sales service center, to investigated for responsibility when the service is not reach to the satisfied, please asking for job code and name of answering person.



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