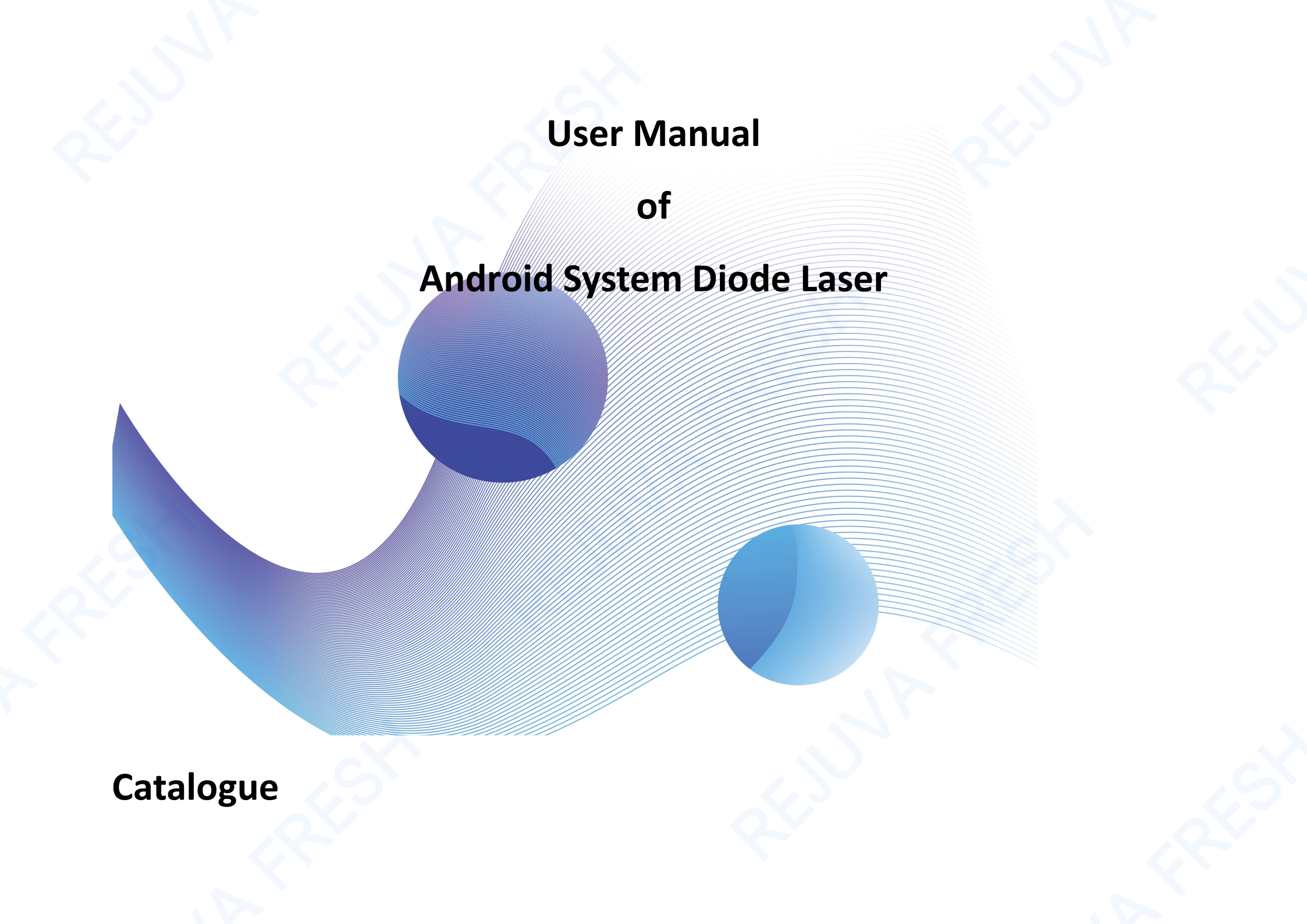


**User Manual
of
Android System Diode Laser**

Catalogue



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Chapter 1 The users instructions

Please read the user's manual carefully before the operation! 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.

1.1 Safety

The device is with self-testing function. When the device is turned on, the system processor will self-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: Only those who have been trained by the distributor have the right to maintain the internal facilities of the instrument, any unauthorized treatment may cause damage to the instrument and invalidate the warranty.

1.2 Operator training

Only people who had professional training, knowledge of treatment effectiveness and possible risks can use the equipment. The operator must read the user manual carefully before operating the equipment. When the treatment room is in the process of treatment, the words "non-relevant personnel are not allowed to enter" should be marked. Prior to the operation, the operator must inform the patient of the possible risks of the treatment, and the patient must make a written agreement about the treatment. The success of the treatment depends mainly on the operator's experience and professional knowledge. During the treatment, the operator must wear protective glasses, and the treatment object should wear goggles. Protective glasses and goggles are specially equipped by the instrument company, so do not wear protective glasses that cannot meet the safety requirements.

1.3 Electrical and equipment safety

The electric source used for the equipment is 200V~240V (50/60HZ) for the international standard of single-phase power supply (120V~260V, 50/60Hz); 20A (90~130V, 50/60Hz) single-phase three-wire socket. The equipment is in contact with the ground through three wires, which must be reliably grounded. Only authorized personnel can repair the equipment, otherwise the warranty will expire.

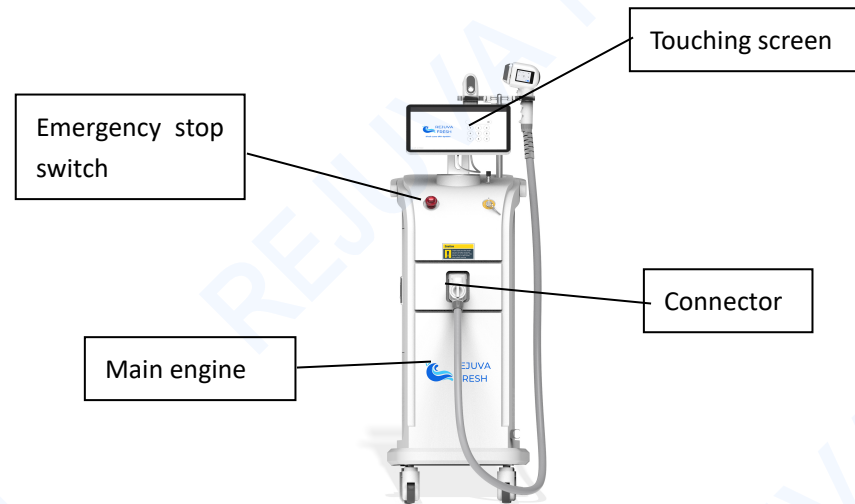
Note: Avoid using flammable substances such as acetone and alcohol in the operating area. When disinfecting equipment with alcohol-based products, make sure the alcohol evaporates completely before operating the equipment.

2 Product Introduction

2.1 Product description

Android system Alpha3 is a type of semiconductor laser hair removal device. It is the equipment which realizes the conversion of electricity, light, and heat, to complete disease treatment by high-energy continuous semiconductor laser. It is a collection of laser technology, electronic technology, and computer technology. Laser treatment products that integrate surgery and medical technology. The working principle of the hair removal device: the microprocessor controls the laser power supply to provide an adjustable constant current for the laser module. The high-power laser diode inside the module converts electrical energy into light energy, and the output wavelength is 755nm+808nm+1064nm. The continuous laser, the laser beam irradiates the tissue to be depilated through the light guide crystal, passes through the skin surface to reach the hair follicle. The light energy is absorbed and converted into heat energy that destroys the hair follicle tissue, so that the hair falls off and loses the ability to regenerate, achieving permanent hair removal.

2.2 Product structure and performance



It can be seen from the figure that Android-Alpha3 is mainly composed of host, control module and treatment handle. The control module includes emergency stop switch, switch and control screen; Control screen is 12 inch color touch screen. The treatment handle is the laser handle.

2.2.1 Structural composition

2.2.1.1 Main machine

For a device, the host is all it looks like, and it is also the carrier of other components of the product.

The Android-Smart DEPI TM host is generally composed of the following parts:

Power supply module: The power supply to the whole equipment system is the power source of the equipment.

Control module: as the control center of the equipment, it outputs the control equipment by receiving and acting on the input information To realize the design needs of each function, to achieve user requirements.

Display module: as the interface of human-computer interaction, it displays various information of the system and receives instructions from users.

2.2.1.2 Control system

Android-Smart DEPI TM control system mainly composition as below :

Switch key: Turn on /off machine

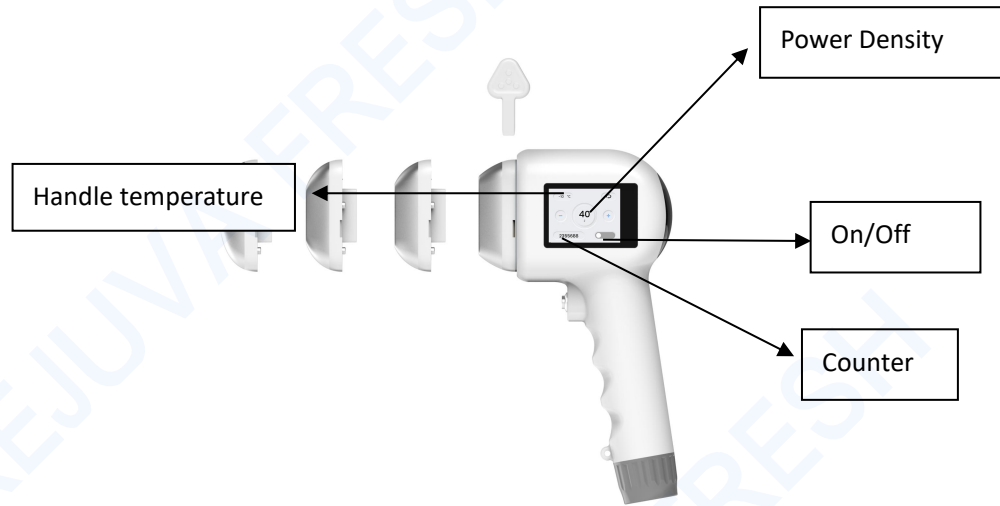
Emergency button: Turn off machine immediately when there are accident or abnormal appeared .To protect machine safe .

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 2-2-2 is the treatment handle .



Picture 2-2-2

The LCD of the handle showing: the power density, handle cooling temperature, handle temperature, On/Off switch and counter. The power could be adjust by this LCD, and use the On/Off to control the laser.

Specification of Android-Alpha3

Form 2-2-1 Specification of device

Specification	Data
Light source	Diode laser
Laser emitter	1200W/1500W optional
Wavelength	755nm, 808nm, 1064nm $\pm 10\%$

Electrical current	15-100A
Energy density	10-120J/cm ²
Frequency	1-10Hz
Pulse Width	10-300ms/±30%
Light output size	15*15/15*20/15*30/15*40
Laser Shots	20 millions
Cooling system	Close-cycle water cooling; fan cooling and semi-conductor cooling
Operator display screen	13.3 inch Android Operation System

2.3 Treatment application

Android Alpha3 used for permanence hair removal

2.4 Accessories of Device

Accessories list of Android Alpha3 as below

Form 2-4-1 Accessories list of Android-Alpha3

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

3. Installation

3.1 Equipment installation process

Equipment should be installed in the environment of non-corrosive gas, dust and less particles, corrosive gas will cause damage to the electronic and optical components and connection wires of the equipment. Damage caused by components and connecting wires. More dust and particles in the air can also cause damage to filters and electrical components.

The temperature and humidity range of the equipment installation environment shall meet the requirements of the equipment performance parameters.

*unpack the equipment,

*Put the equipment in room for one day to avoid excessive humidity and equipment damage caused by long distance transportation.

*When the humidity of the equipment is appropriate, assemble all parts of the equipment to ensure that the connections are stable.

*Fill the tank with distilled water.

*Connect the device's treatment handle to the device's power supply.

*After all parts and power supply are connected, open the device and test its performance under the condition of ensuring the device is connected correctly and parameters

3.2 Installation requirement & water input

When installing equipment components, the first operation is to inject water into the equipment. Before each operation of the equipment, it must be done first

Check whether the water mark at the water injection site of the equipment is more than 90% of the water column. If it is not reached, it must be filled with distilled water.

3.2.1 instruction of water input

When the equipment is working, the external environment temperature should be 5°C~40°C. Humidity should not be higher than 80%; The treatment room should be kept clean at all times.

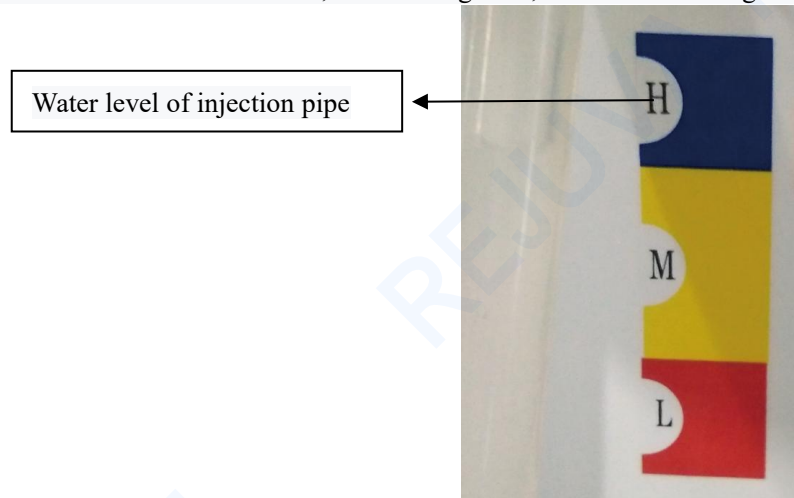
Before water injection, make sure the air vent is open and the hand tool is assembled properly (see 3.2.3 installation of treatment handle), otherwise water injection

cannot be performed, as shown in the figure.



Insert the white connector port of the funnel into the water injection hole and inject water into the device through the funnel when the water injection pipe. According to the water

When the position reaches H or there is water overflow, water filling ends, as shown in the figure.



After water injection is completed, press the iron plate on the drainage hole to remove the water injection device from the water injection hole, as shown in the figure.



3-2-3

3.2.2 Water circulation testing

After the equipment is filled with water, connect the power line and foot line. After completion of the connection, water cycle commissioning of the equipment.

The steps of water cycle commissioning are as follows:

The emergency stop switch must be in the unpressed state before the equipment is started. If the emergency stop switch is in pressed state, please click the emergency stop button to make it in unpressed state.

Set the circuit breaker switch ON the back of the device to the "ON" position.

Turn the key switch clockwise, and the water circulation cooling system inside the equipment will run automatically.

Observe whether the water circulation of the equipment is running normally.

If there is no water leakage, water alarm, etc., let the equipment run automatically for more than one minute, then it can be used.

Note: The water should be changed every 2-3 months. The filter should be changed when the water is changed. Remove as much remaining water from the cooling system as possible.

3.2.3 Treatment handle installation

When the treatment handle is installed, the handle should be placed below the host machine so that bubbles can be discharged from the handle. After installation, start the device and allow the water cycle to run for at least one minute before treatment.

Align the handle with the interface as shown in the figure, then turn the button to the right until it is tightened and can't be turned to the right any more.



When the handle needs to be removed, turn it to the left until it becomes loose and pull it out. Then the treatment handle can be removed.











4. software operating instructions





4.1 Work interface

4.1.1 instruction of working display





List 4-1-1 Work interface

Image	Name	Function
	System settings	Enter background settings

	Water temperature	Real-time display of water tank temperature
	Handle temperature	Real-time display of Handle temperature
	Water flow	Real-time Display water flow
	Water level	Real-time Display Water level
J	Energy Density	Real-time Display Energy Density
MS	Duration	Real-time Display duration
Hz	Frequency	Real-time Display Frequency
	Work preparation	Work ready to start
	Machine preparation	Machine preparation
	Hair removal image	Display during Hair removal function
	Skin rejuvenation image	Display during Skin rejuvenation function

	Rental mode	Rental mode status display
	Host and screen communication	Shows the connection status of host and screen
	Cooling level selection	5 gears to adjust the cooling effect adjustment
	User login	User login

List 4-1-2 Work interface

	Water temperature warning	When the value shown in the water tank temperature graph is too high, the image turns red
	Handle temperature warning	When the value shown in the handle tank temperature graph is too high, the image turns red
	Water flow warning	When the value shown in the water tank temperature graph is too high, the image turns red
	Water tank warning	When the value displayed in the water tank indicator image is too high, the icon turns red

4.1.1 Work interface Description

4.1.2.1 Water level warning

When the image in the water level warning is displayed in red, it means that the water level is alarmed and the water level of the water tank is too low. Treatment method: add water in time.

4.1.2.2 Water tank warning

When the value displayed in the water tank temperature indicator image is too high, the image appears red, indicating that the water tank temperature alarms and the system automatically switches off Switch to standby state. Treatment method: Check whether the components of the water circulation system are working properly and are damaged. If the above situation does not occur, please contact the Dealer.

4.1.2.3 Treatment temperature warning

When the water flow indicator icon shows a value less than "1" and the water droplets in the icon are lit, it means that the water flow alarms and the system automatically switches to the standby state.

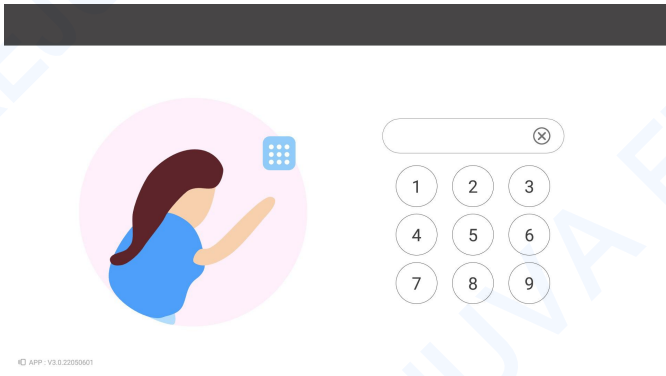
Treatment method: Observe the water mark to see if the water is sufficient or check if the connection between the treatment handle and the device is leaking. If none of the above occurs, please contact after-sales maintenance personnel.

4.1.2.4 Water flow warning

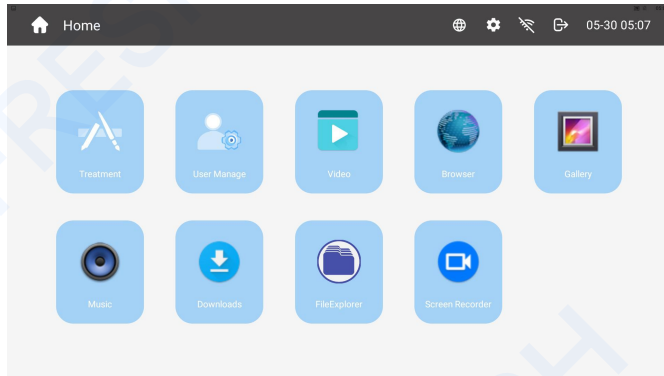
When the value displayed in the temperature indicator icon of the treatment head is too high, and "!" appears in the icon, it indicates that the treatment head temperature alarms and the system automatically switches to the standby state.

Solution: Restart the device after the treatment handle stops using for a period of time. If the treatment head temperature alarm still exists, please contact after-sales maintenance personnel

4.2 Before treatment interface display and description



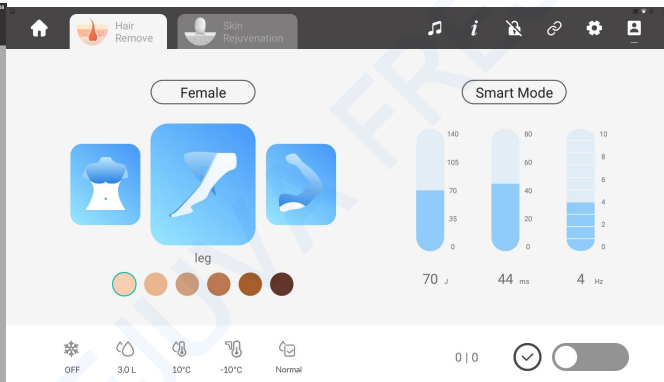
Interface of Password login



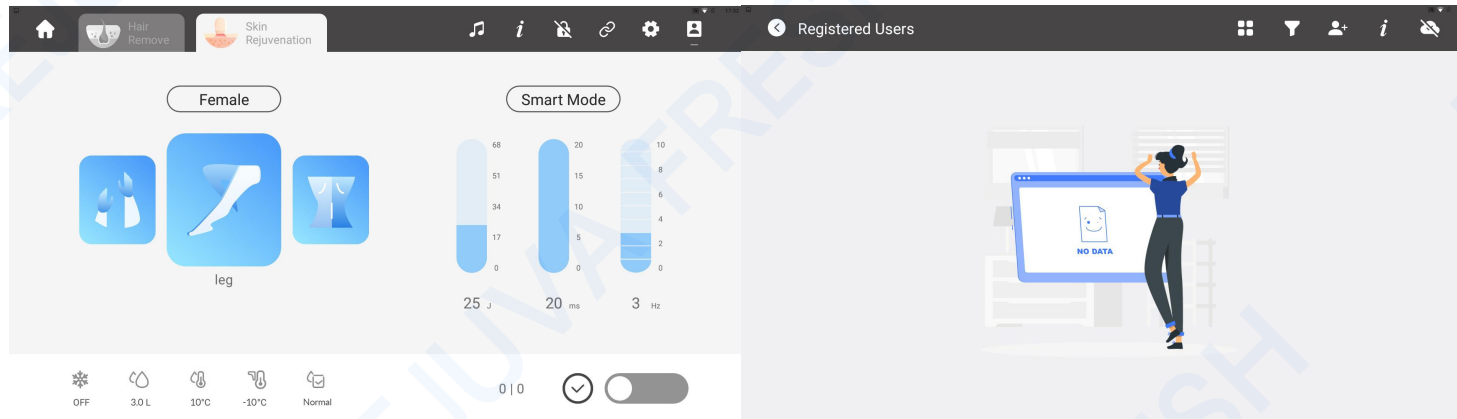
Interface of App selection



Interface of WI-FI connection

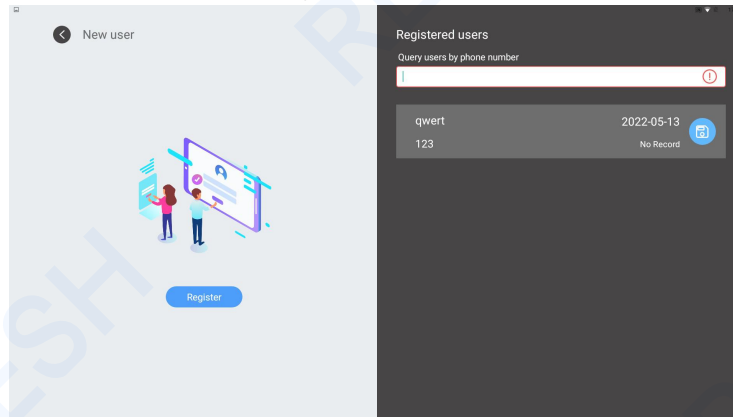


Interface of hair removal treatment

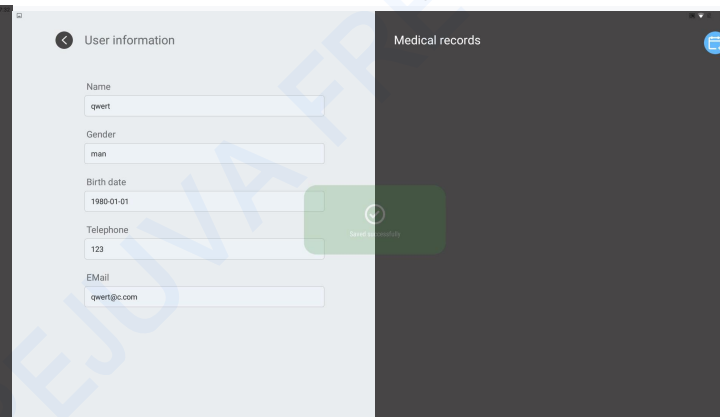


Interface of skin rejuvenation treatment

Interface of users registration



Interface of new user registration and searching

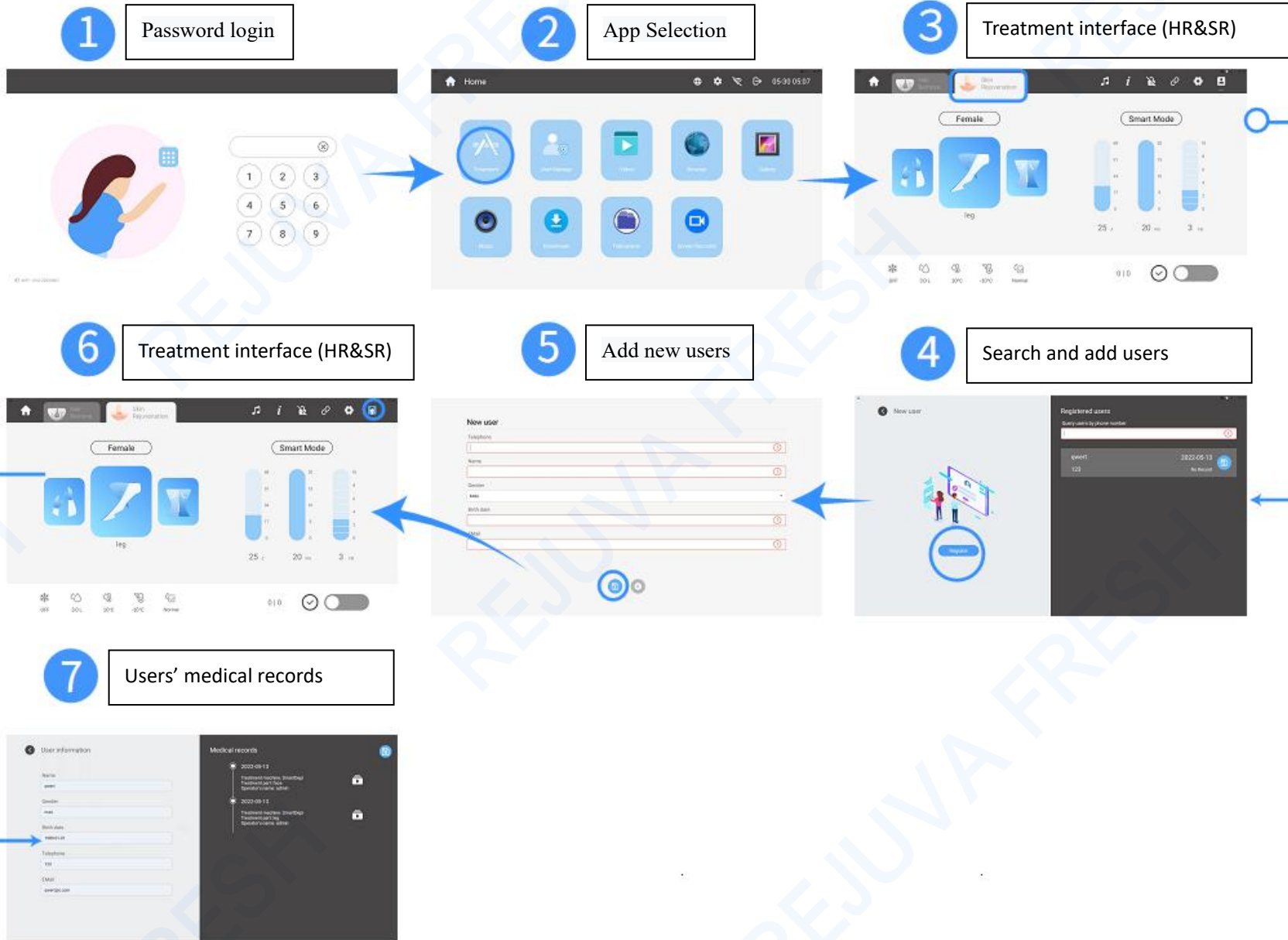


Interface of patients' medical records




Interface of the list of Registered Users

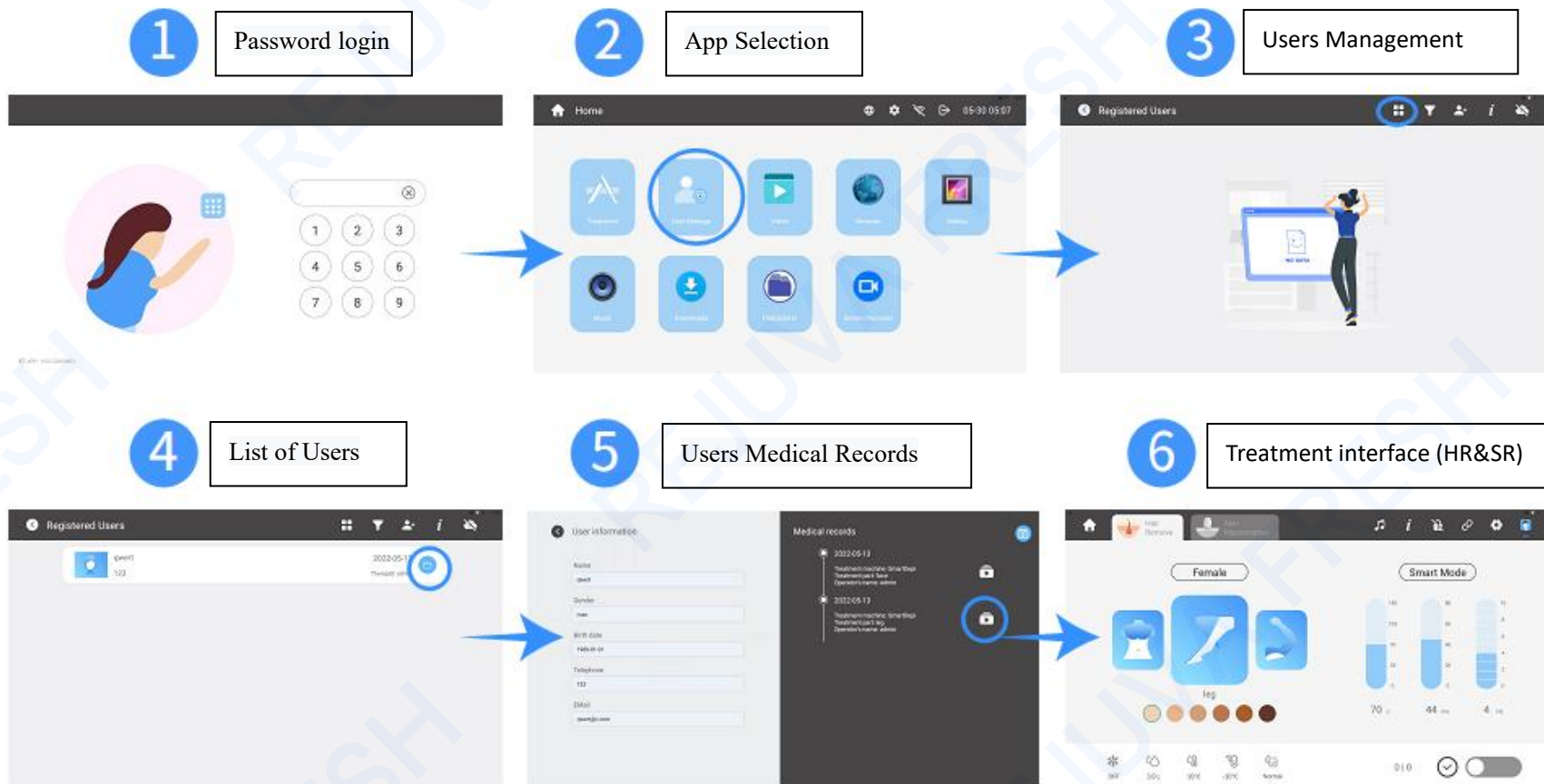
4.2.1 Added user and treatment history query UI interaction process




As shown in the figure, first log in to the password interface → enter the program selection interface, select "Treatment" APP → enter the main operation

Operation interface → Click  User to enter the user query and add interface, select "Register" → enter the user add interface → Click Save, and a treatment record will be generated for each treatment. Click the avatar icon in the upper right corner, → to enter Enter the user therapy history interface.

4.2.2 UI interaction process for old users and treatment history query

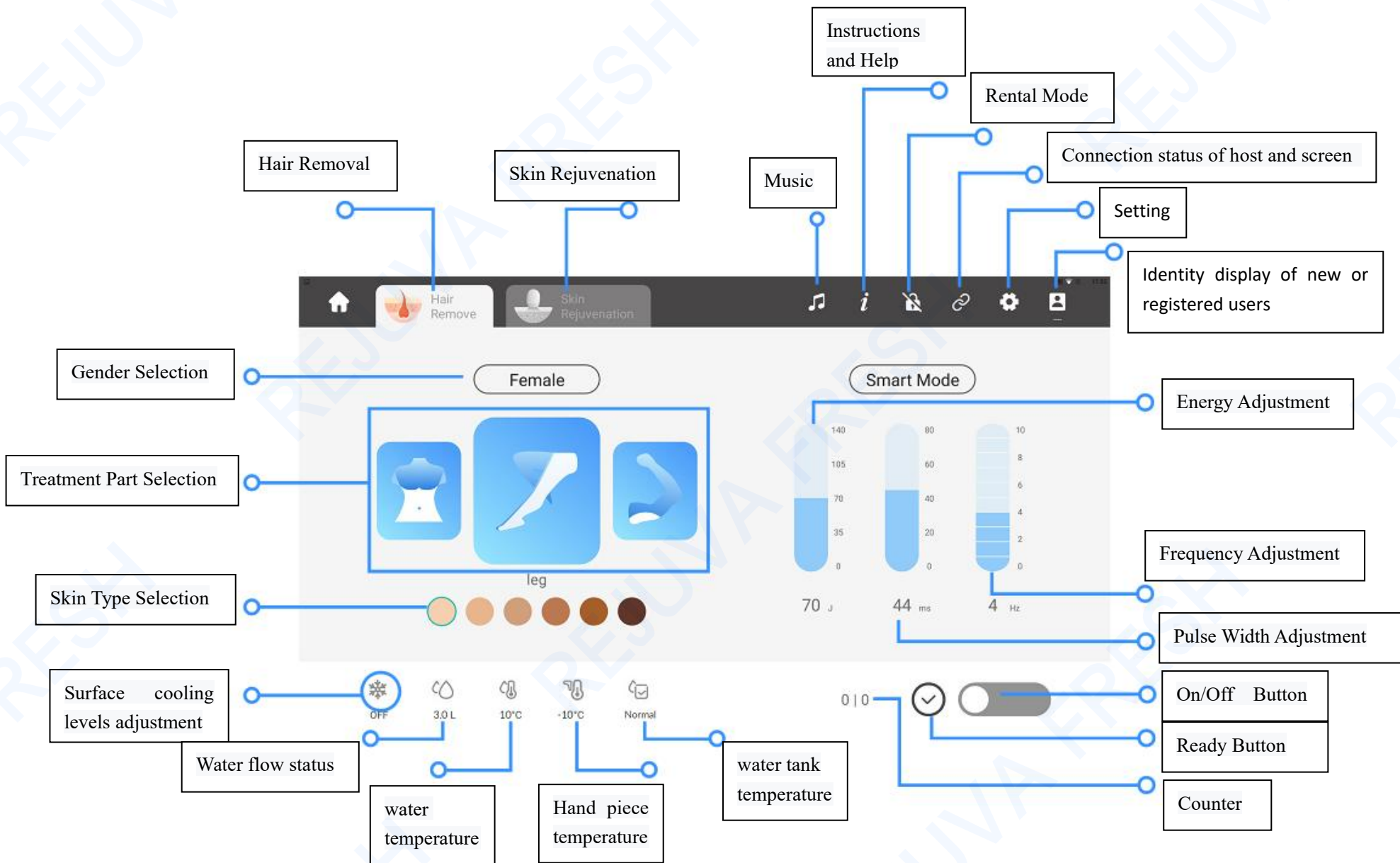


As shown in the figure, first log in to the password interface → enter the program selection interface, select "User Manage" APP → enter the user interface

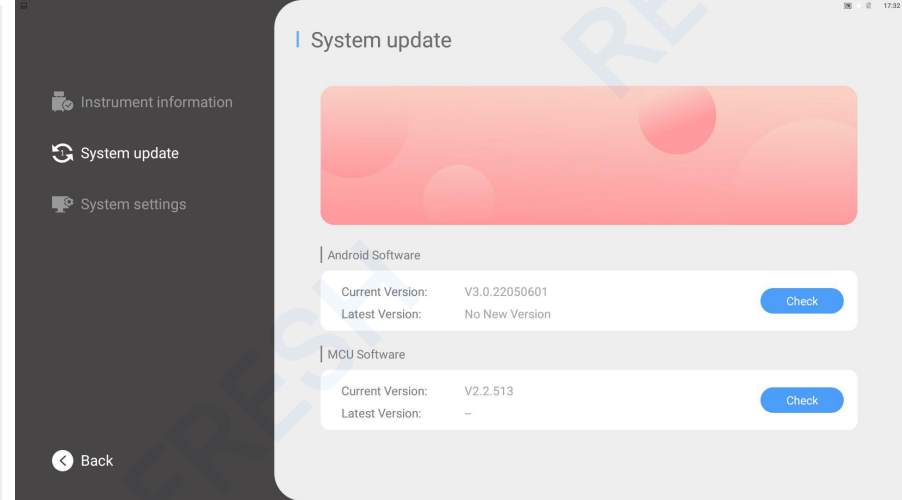
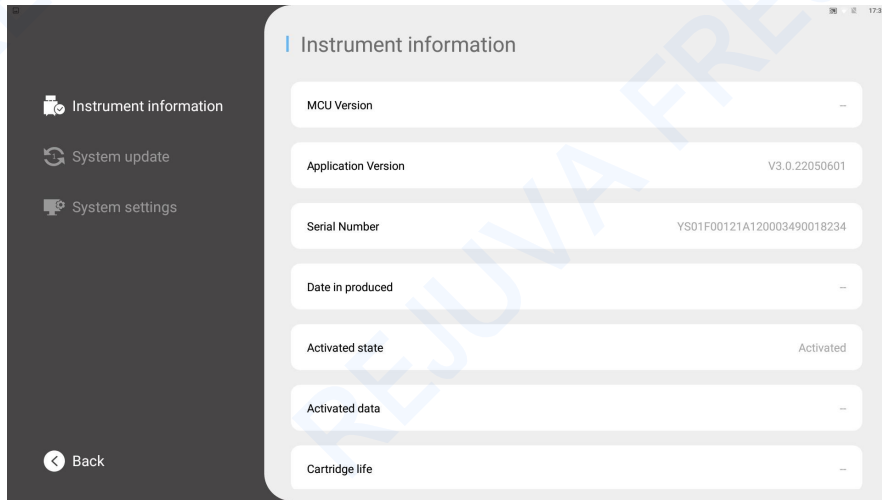
User management interface → click  to enter the user list interface → enter the user treatment history interface → enter the user operation

The parameters can be automatically generated according to the customer's historical operation records.

4.2.3 Interface description

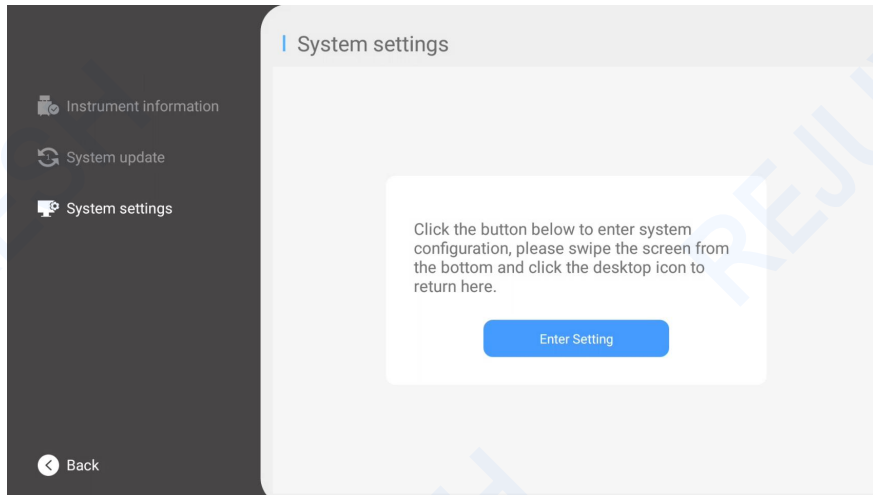


4.3 User background interface display and description



Instrument Description




System Upgrade



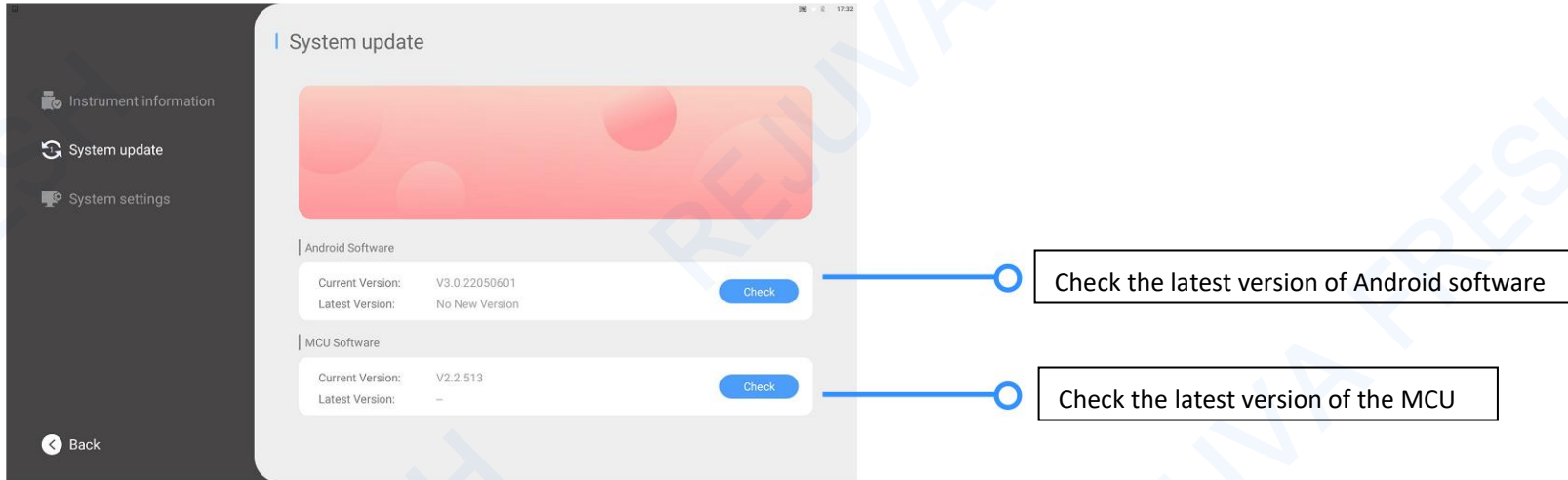
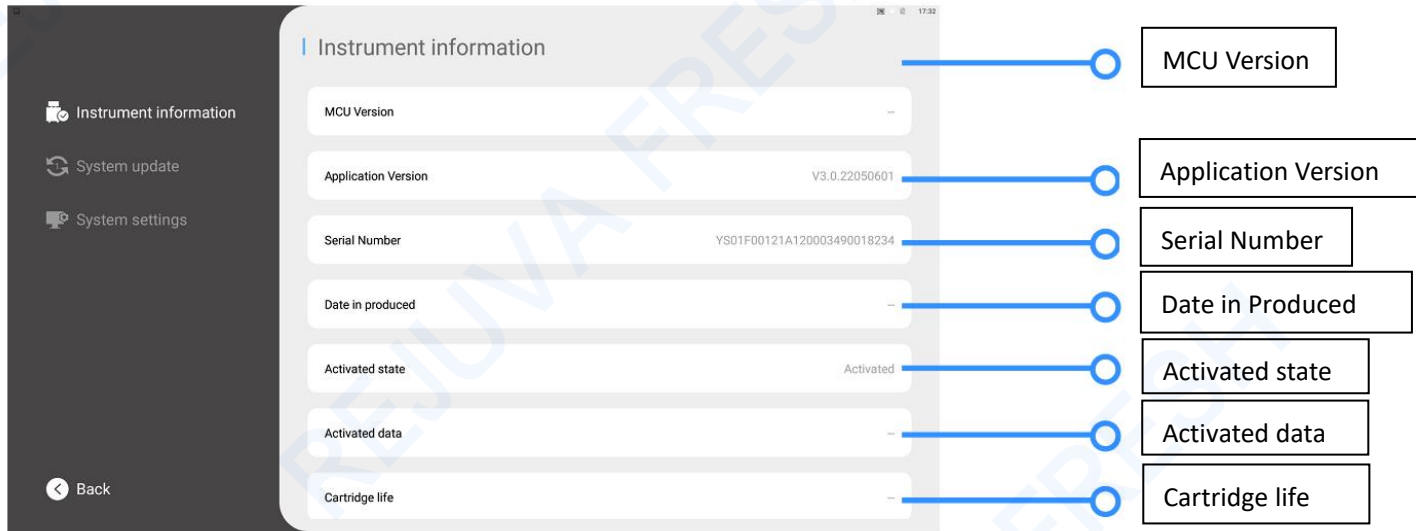
System Setting

4.3.1 Background core interface display and description

List 4-3-1 background function according to description

Icon	Name	function
	<p>The icon of instrument parameter description</p>	<p>Detailed description of the basic parameters of the instrument</p>
	<p>The icon of system settings</p>	<p>Customers can change the background settings according to their needs</p>
	<p>The icon of system upgrade</p>	<p>The software automatically recognizes the latest software version, and customers can connect to the network in the background to automatically update the version</p>

4.3.2 Interface description



4.4 Operation Instructions of diode laser Hair Removal Treatment Interface

4.4.1 How to operate the device

Before the treatment, the therapist should communicate with patient in details.

Use the mild cleanser to clean the treated area and shave the area simply. And smear the cooling gel about 1-2mm beyond the skin.

Start the system and enter the treatment parameter setting interface;

- Select according to the actual situation of the patient, set the treatment parameters, and click the standby/working button to enter the working state;
- The indicator light of the handle is yellow in the standby state, the pre-combustion state is green, and the light output state is red.
- During the treatment process, the operator should observe the treatment situation of the patient in real time, and adjust the treatment parameters according to the actual situation if necessary;
- During the treatment process, the treatment head should avoid staying at the same treatment area for a long time; the operator and the patient should complete the protective measure in real time to avoid injury;
- After the treatment is over, turn off the power switch; wipe off the cold gel on the treatment area and apply a cold compress to it; the cold compress can be performed in the standby state.
- Use a warm towel to clean the treatment head, and then use a cotton ball moistened with disinfectant to disinfect the treatment head;
- Put the cleaned and disinfected treatment head into the transport box, unplug the power plug of the equipment, and the treatment process ends.



4.5 Treatment parameter reference





4.5.1 Smart mode-hair removal(male)

Smart mode-hair removal (male)							
part	frequency	skin color	Recommended energy	part	frequency	skin color	Recommended energy



	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	24-24			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	33-46
		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)

Smart mode-hair removal (Female)							
part	frequency	skin color	Recommended energy	part	frequency	skin color	Recommended energy
	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

	3-5Hz	Type VI	22-32		3-5Hz	Type VI	30-40
		Type I	33-43			Type I	38-48
		Type II	34-41			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 mode

Skin rejuvenation mode					
part	frequency	Recommended energy	part	frequency	Recommended energy
	3-5Hz	28-38		3-5Hz	28-38

	4-7Hz	32-42		5-8Hz	35-45
	4-7Hz	32-42		4-7Hz	35-45

4.6 Attention after the treatment

During treatment, the treatment head should not stay at the treatment area for too long;

- After treatment, apply a cold compress to the treated area for 5-10 minutes; cold compress can be performed in standby mode.
- For the treatment area, do not touch hot water for 24 hours, and avoid sauna bathing and sweat steam within 3-7 days;
- Avoid high humidity and heat environment;
- Avoid spicy, seafood, and irritating food; eat less photosensitive vegetables (for example, celery, white radish, spinach, Dishes etc.)
- Pay attention to sunscreen, apply SPF 30+ sunscreen. If the ultraviolet rays are strong in summer, you can apply more times, play a parasol or wear a sun hat;
- It is forbidden to use functional cosmetics on the treatment area in one month.

5. Faults handle of the system

5.1 Cleaning of the device

Clean the device with a soft damp cloth, but Avoid liquid flowing into the instrument

5.2 Cleaning and replacement of treatment handle

Clean the lens of the treatment handle regularly (a few pigment particles will splash on the treatment lens during the treatment, which will affect the laser output), and

wipe the treatment lens with lens paper or cotton balls containing absolute ethanol

Each treatment handle has a certain life, and the treatment head must be replaced about 20 million times. At this time, you need to contact the dealer to buy it again

5.3 system fault handling

Faults	processing method
Screen does not display	Check the power cord
	Check the circuit breaker and fuse
	Check the power switch
	Please contact the seller
The power button is not responding	Please contact the seller
System failed to initialize	Please check the power supply
	Please contact the seller
Output weak laser energy, or no laser	The voltage is so low that the treatment head cannot be used normally
	Check whether there is dirt on the laser reflector, if so, wipe it
	Replace the treatment head if it is damaged inside the treatment handle
	Remove the treatment head to check whether the front mirror is damaged
	The treatment head is overheated, turn it off and cool for half an hour before using
	Check if the handle or treatment head is leaking
During treatment, after clicking the button on the handle piece it appears "squeak" sound	Check whether the laser treatment head is damaged and replace it if damaged
	The device has not been used for a long time and it is difficult to trigger
	The indoor temperature is too low, increase the indoor temperature
	Check whether the circuit is malfunctioning
	Indoor is too humid, reduce indoor humidity
	Krypton or The xenon lamp is damaged, replace the lamp
Temperature of refrigeration system is too high	Shut down the system and let the system cool down for a period of time. If it still fails after restarting, please contact the dealer
The energy of treatment handle is very low	Check if there are impurities on the surface of the reflector, if there are, please wipe

	If the treatment handle is too hot, turn it off for half an hour before using it
	Check whether the front mirror is intact, if it is damaged, please contact the dealer
The energy of treatment handle is too low	The life of the treatment head is up, please contact the dealer
The laser generator was damaged	Laser bar replacement, the treatment head is damaged, please contact the dealer

6.Specification

This chapter describes the most important system parameters and the system categories of the treatment system

List 6-1 System Specifications

Parameter	Data
Electronically connected data	
Line voltage	110/220V VC \pm 10% (See system label)
Line frequency	50/60 Hz
System category	
Electric shock protection type	Class I equipment
Electric shock protection degree	BF type equipment
Degree of harmful flooding protection	Ordinary equipment
Climatic conditions (during operation)	
Ambient temperature	+15°C to 30°C
relative humidity	30%-80%
Atmospheric pressure	86.0kpa to 106.0kpa
Climatic conditions (during rough storage during transportation)	
ambient temperature	+5°C to +55°C
Relative humidity	30%-80%

Atmospheric pressure	86.0kpa to 106.0kpa
Size and weight	
Machine size	41*58*110cm
Packing box size	64x47x130cm
weight	75KG