EMTSF PRO

User manual

Please note

Before operating the instrument, please read the manual carefully and strictly follow the instructions. Our company assumes no responsibility for any accidents or problems caused by improper operation or errors, except for quality defects.

Our company disclaims all warranties, including but not limited to the implied warranties of merchantability and fitness for a particular purpose. Our company assumes no responsibility for errors contained herein or for incidental or consequential damages resulting from the provision, performance, or use of this manual.

The information contained in this manual is subject to change without notice.

Manufacturer's responsibility

The company is responsible for the safety and reliability of the instrument only

when the assembly, readjustment, modification and repair are carried out by personnel approved by the company, the relevant electrical equipment complies with national standards, and the instrument is used in accordance with the operating instructions.

⚠ **warn:**

This is a cosmetic device.

If the cosmetic treatment facility responsible for using this device fails to implement a satisfactory operating protocol, it could result in abnormal device failure and potentially endanger personal health.

Our company will provide circuit diagrams, calibration instructions, and other information upon request to assist users in servicing those parts of the device that our company categorizes as user-serviceable.

ensure

Manufacturing process and raw materials: The company guarantees that the instrument (except accessories) will be free from production process and raw material failure within one year from the date of shipment under normal use and maintenance.

Free services:

Our obligations under this warranty do not include shipping or other expenses. We are not responsible for direct, indirect, or consequential damage or delays caused by improper use, replacement of unauthorized accessories, or repair of the instrument by unauthorized personnel.

Safety, Reliability, and Operation: Our company is not responsible for the safety, reliability, or operation of the instrument in the following circumstances:

▲Components disassembled, stretched, or re-adjusted.

▲Repair or modification of the instrument by unauthorized personnel.

Return method

If a return is necessary, it shall be carried out in accordance with the terms of the contract.

1.1 Intended use

EMTSF PRO is a non-invasive treatment device. The electromagnetic field and laser or red light generated by this device interact with human tissues. The main affected structures are muscle and nerve tissues. The results of interaction with tissues include muscle contraction, depolarization of neuronal cells and the impact on the circulatory system. EMTSF PRO is suitable for pelvic floor muscle strengthening treatment for urinary incontinence, muscle soreness, stiffness, bone healing, postoperative pain, inflammation and depression, helping to improve sleep quality, enhance defense capabilities and boost immunity. At the same time, it has achieved immediate results in treating erectile dysfunction (ED) in men.

The magnetic therapy ring-type coil applicator applies pulsed electromagnetic fields and conducts high-intensity field pulses to body tissues, which can accelerate the healing process of sports injuries, chronic pain and degenerative joint diseases.

1.2 User Profile

This equipment should be operated by personnel with medical education. Its users should be familiar with all safety requirements, operation procedures and maintenance instructions. Pregnant women are not allowed to operate this equipment.

1.3 Operating environment

This device is for professional use only. This device is for indoor use only. Do not use in places where there is a risk of explosion or water intrusion, or in dusty or damp environments.

1.4 Patient Profile

The patient shall not present with any of the conditions defined in Chapter 1.6. Before use, it is necessary to understand the patient's medical history and conduct a thorough examination of the patient to determine whether the therapy is suitable for the patient

1.5 Equipment description

The EMTSF PRO consists of a main unit and a therapeutic device. The main unit is equipped with a wide-angle

color touch screen, which greatly facilitates the use of the equipment. The information on the screen guides users to complete the entire treatment process step by step. The treatment parameters can be easily set using the touchscreen on the device. During the treatment process, the device will display on the screen information about the applied treatment, the remaining treatment time and the main treatment parameters. Treatment can be carried out through clothes.

1.5.1 Therapeutic targeting model

The automatic mode is helpful for locating patients. After enabling this mode, frequency pulses will be continuously generated to target the treatment area. The "AT" on the device screen indicates that the automatic mode is in use.

1.6 Contraindications

- Cardiac pacemaker
- Implantable defibrillator
- Implantable nerve stimulator
- Electronic implant
- Application in the growth plate area
- Pulmonary insufficiency
- In areas where mechanical energy causes tissue damage in the form of vibration, such as metal implants after a fracture
- Medicine pump
- Local infection in the treatment area
- Hemorrhagic disease
- Anticoagulant therapy
- Application in the cardiac area
- Heart disease
- Around malignant or benign tumors
- Fever
- Pregnancy

1.7 Possible side effects and adverse events

Side effects may include but are not limited to:

- Muscle pain
- Temporary muscle spasm
- Temporary joint or tendon pain
- Local erythema or redness of the skin

3 Safety Precautions and Warnings

Read the user manual carefully and follow the safety regulations. Before using the device, read the operating procedures and maintenance instructions. Do not use the device and its accessories in any other way
except in accordance with the user manual. Do not use the device in a manner not consistent with its intended use.

It is strictly forbidden to treat people with pacemakers.

Ensure that individuals with pacemakers are not in the vicinity of the device while it is in operation.

Do not perform treatment on patients with metal implants.

The equipment to which this device is to be connected must be installed and modified in accordance with the current standards for electrical installations in medical locations.

Ensure that the voltage parameters of the power supply grid meet the equipment requirements specified in Chapter 11.

Never operate the device if there is a risk of explosion or water intrusion. Do not expose the device to flammable anesthetics or oxidizing gases (O2, N.O., etc.). This device is not suitable for outdoor use!

During treatment, it is strictly forbidden to place any ferromagnetic or magnetic materials, data carriers (credit or debit cards, USB flash drives eea), electronic devices (mobile phones, tablets, watches, PCs etc.) and other devices, the applicator or accessories, in the vicinity of the EMTSF device applicator (at least 1 meter).

Do not place the device near other devices that generate strong electromagnetic fields (diathermy, X-ray, mobile phones, radio frequency) to prevent mutual functional effects.

Do not place the device in direct sunlight or near a heat source. This may cause overheating and could be dangerous to the patient and the device. The device generates heat during operation and should not be placed near a direct heat source. The device dissipates heat through forced air circulation. The ventilation openings must not be covered. When placing the device, leave at least 10 cm of free space behind the rear panel.

Do not place any heat-generating objects or objects containing water or other ligands on the device.

After moving the device from a cold to a warm environment, wait for the temperature to equilibrate before connecting it to a power source (at least 2 hours).

No modifications are permitted to the device or its accessories. Do not attempt to open or remove protective covers or disassemble the device for any reason. There is a risk of electric shock and serious injury. All repairs must be performed by an authorized HYUNDAI service department; otherwise, HYUNDAI will not be held responsible for further operation of the device.

Never use an accessory's connector or other connectors to plug anything other than what the connector is designed for. There is a serious risk of electric shock and serious damage to the device! This device is equipped with a protection system that prevents the connection of accessories other than those provided by the manufacturer. It is not intended for use with accessories from other manufacturers.

Before starting treatment, always inspect the device and its accessories (cables, applicators, connectors, touchscreen) for possible mechanical, functional, or other damage. If defects or deviations from normal functionality are detected, stop using the device immediately and contact our customer service department. If a defective device is used, the user is fully responsible for any damage caused by the device.

Before starting treatment, please ensure that all settings are in accordance with your requirements. Please observe the treatment contraindications in Chapter 1.6.

The applicator must not be used in positions other than those specified

Do not place the applicator near any part of the device during treatment

The surfaces of the applicator and cable may be hot during operation or during the cooling process after treatment. Never turn off the device until the cooling process is complete.

During treatment, always maintain verbal communication with the patient. Never leave the patient unattended.。

Protect your device from unauthorized use.

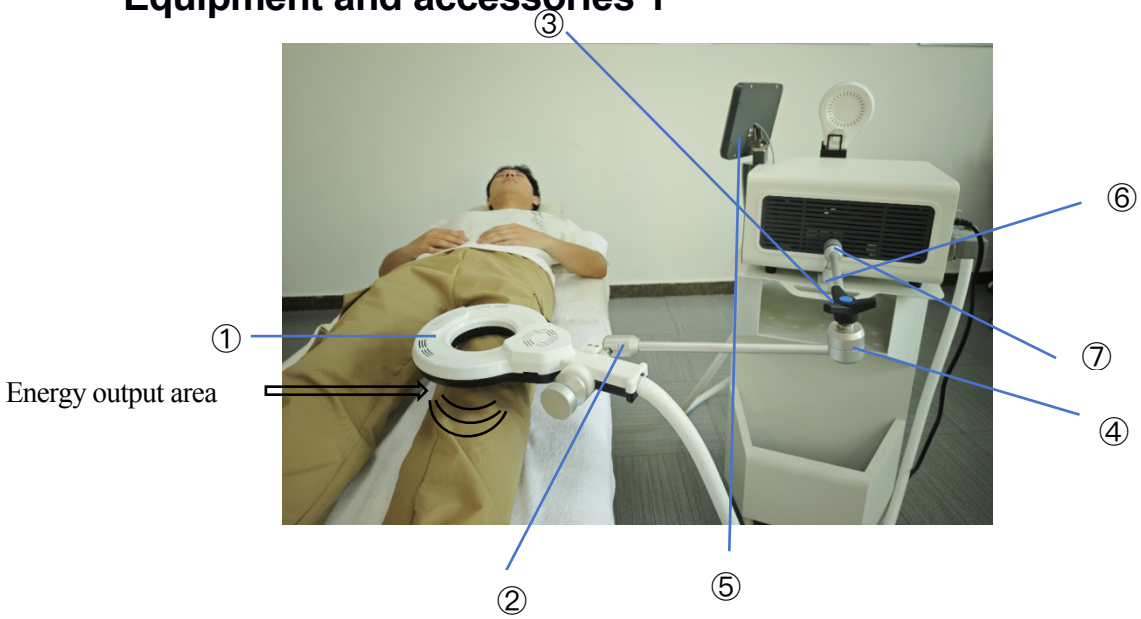
Keep the device out of reach of children.

When transporting the device, the applicator must always be disconnected from the base unit.

The device must be disposed of in the usual manner for electrical and electronic equipment. The lithium battery must be disassembled and disposed of separately according to local hazardous waste disposal requirements. Do not place the device in a municipal waste bin! The device does not contain any toxic substances that could harm the environment if disposed of in an inappropriate manner.

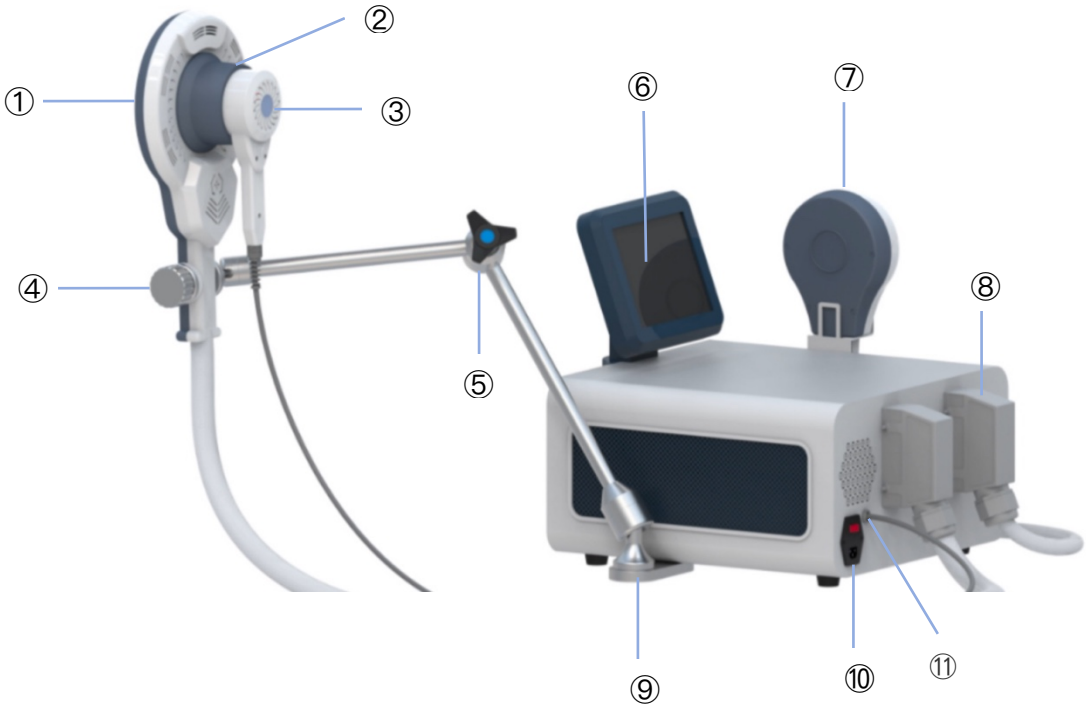
This device does not contain any drugs or substances as part of its components or for delivery to users or patients. Under specified conditions, this device does not use or emit any toxic or radioactive substances during operation, storage, or transportation.

Equipment and accessories 1

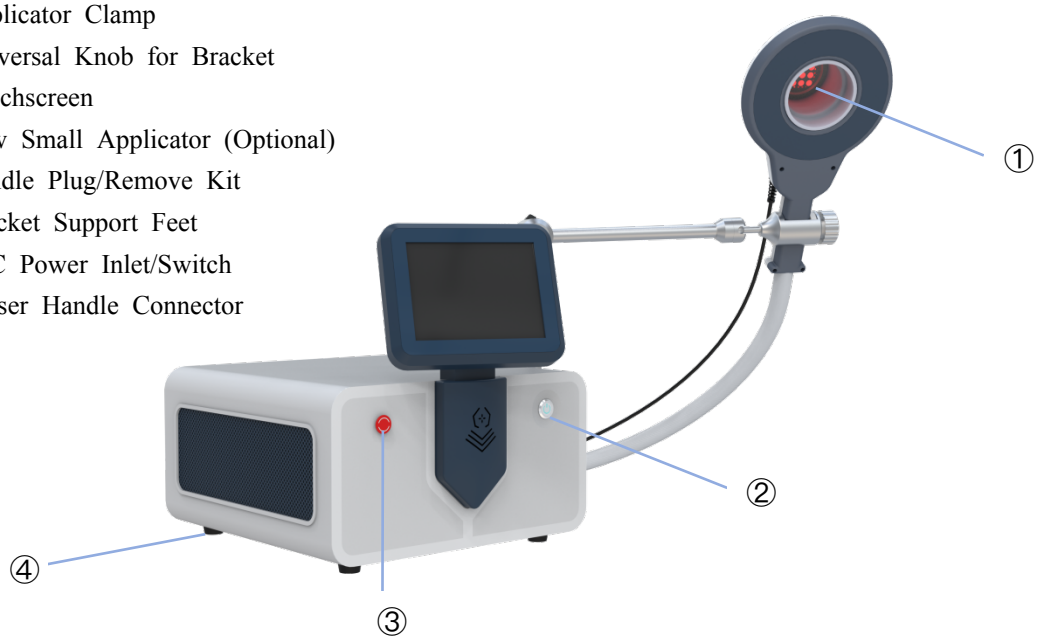


1. Large applicator (magnetic ring handle) 2. Brace piston 1 (adjustable handle angle) 3. Brace firmness adjustment knob 4. Brace piston 2 (adjustable brace angle) 5. Touch screen 6. Brace support foot 7. Brace piston 3 (adjustable brace angle)

Equipment and accessories 2



1. New Large Applicator (Magnetic Ring Handle)
2. Silicone Ring (Secures Laser Handle or Red Light Handle)
3. Laser Handle or Red Light Handle (Optional)
4. Applicator Clamp
5. Universal Knob for Bracket
6. Touchscreen
7. New Small Applicator (Optional)
8. Handle Plug/Remove Kit
9. Bracket Support Feet
10. AC Power Inlet/Switch
11. Laser Handle Connector



1. Sixteen laser light beads (808+650nm), red light NIR light beads: 850+620nm
2. Power button
3. Emergency switch
4. Non-slip mat

Correct use of the support arm is crucial. Always release the center lock before moving the support arm. Failure to do so can damage the threads. Problems caused by improper operation are not covered by the warranty. Please consult your salesperson for a video demonstrating the correct use of the support arm.

If you purchased the optional laser handpiece, it is crucial to have the correct combination of laser handpiece and joint therapy device.

Do not use unmarked treatment tips. Do not aim the treatment surface of the magnetic treatment tip at the laser handle or...
If only pure metal objects are near the treatment area, vibration and heat may occur, depending on the distance of the metal object.

If you have implanted circuits, such as pacemakers or other electronic devices, strong magnetic fields may cause power failure or damage internal chips.

ID cards, car keys, access cards, and other wireless devices near the magnetic ring may be damaged.

Accessories List

(Standard Configuration)

The following list contains all standard accessories that can be supplied with the device

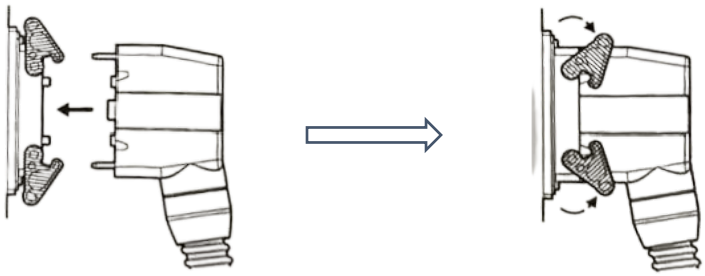
		
Main unit *1	Brace *1	Large applicator *1
		
Power cord *1	Tool and support foot *1	

Do not use unmarked treatment tips. Do not aim the treatment surface of the magnetic treatment tip at the laser handle or...

If only pure metal objects are near the treatment area, vibration and heat may occur, depending on the distance of the metal object.

If you have implanted circuits, such as pacemakers or other circuit devices, strong magnetic fields may cause power failure or damage internal chips. ID cards, car keys, access cards, and other wireless devices near the magnetic ring may be damaged.

Handle connection



As shown in the image, align the handle holes, insert it, and then lock the clip. Before starting the machine, the connector must be securely installed. If the machine is started without the connector installed, power will not be released and the circuit board may burn out. This incorrect operation will not be covered by the warranty.

4.3 Optional accessories list

This device is not intended for use with any accessories or medical devices not described in this manual.

■Optional configuration (the following accessories need to be purchased separately)

			
LED handle*1	Laser handle*1	Small applicator*1	Laser handle holder*1

Device Installation

Always inspect the packaging for damage. If the packaging is damaged, do not proceed with assembly and setup. Take a photo of the device and report it to your dealer to arrange for after-sales personnel to follow up and address the problem. Keep the original packaging to ensure safe future transport of the device.

After bringing the device from a cold environment to a warm one, wait for the device to reach room temperature before connecting it to a power source (at least 2 hours).

Unpack the device and place it on a stable, level surface suitable for its weight.

Always place the device out of direct sunlight. The device will become hot during operation and should not be placed near direct heat sources. The device is cooled by forced air circulation. The cooling vents are

located on the rear panel of the main unit and the applicator and should not be covered. Do not place any heat-generating devices or any containers filled with water or other liquids on the device. Do not place the device near appliances that emit strong electric, electromagnetic, or magnetic fields, or near appliances that emit X-rays, as these may be adversely affected.

If you have any questions, please contact our customer service.

Interface

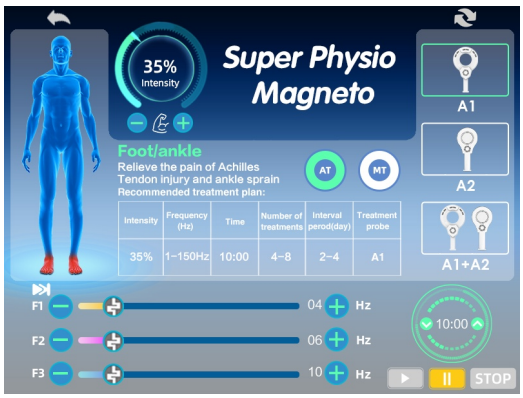
(Figure 1)

When the machine is turned on, the default interface will appear, as shown in Figure 1. Click anywhere to enter the mode interface.

(Figure 2)

AUTO is the fully automatic mode, also known as the beginner mode, designed for operators who lack the ability to develop a plan. Factory-set parameters are pre-set in this mode.

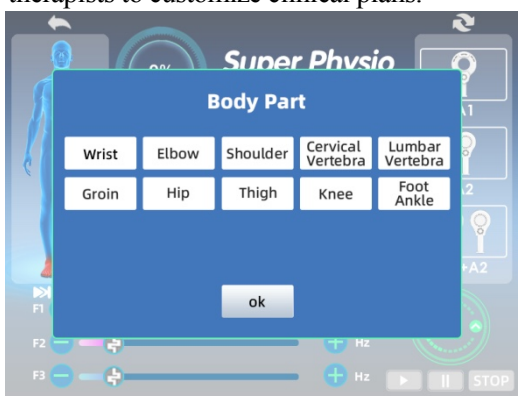
MANUAL is a professional mode with no factory parameter recommendations. This mode provides various data points for therapists to customize clinical plans.



(Figure 3)

Click AUTO in (Figure 2) to enter the interface (Figure 3). Select AT and then click the human figure.

As in (Figure 4), select the corresponding part, click "OK," set the energy [ ] and click Start [ ] to proceed.



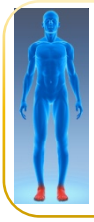
(Figure 4)

Click [ ] to display the interface shown in Figure 3. In "Superconducting" mode, there's no need to set the frequency or location. Simply use the "+ -" key to set the energy [ ] then click Start [ ] to begin operation.

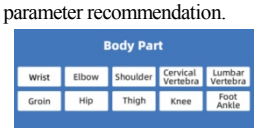
Superconducting mode is used for numbness and other conditions, stimulating nerve recovery and restoring proper sensation to the affected area.

: This is only a suggestion for using the handle combination and cannot be selected by clicking

Recommended instructions for the treatment probe: Install and use the probe according to the parameters "Treatment probe".



Human body part selection and parameter recommendation.



Click " " to adjust the time.

Start button, Pause button, Stop button

Recommended parameters include: energy, frequency of application, clinical time, number of treatments, treatment intervals, and recommended applicators.

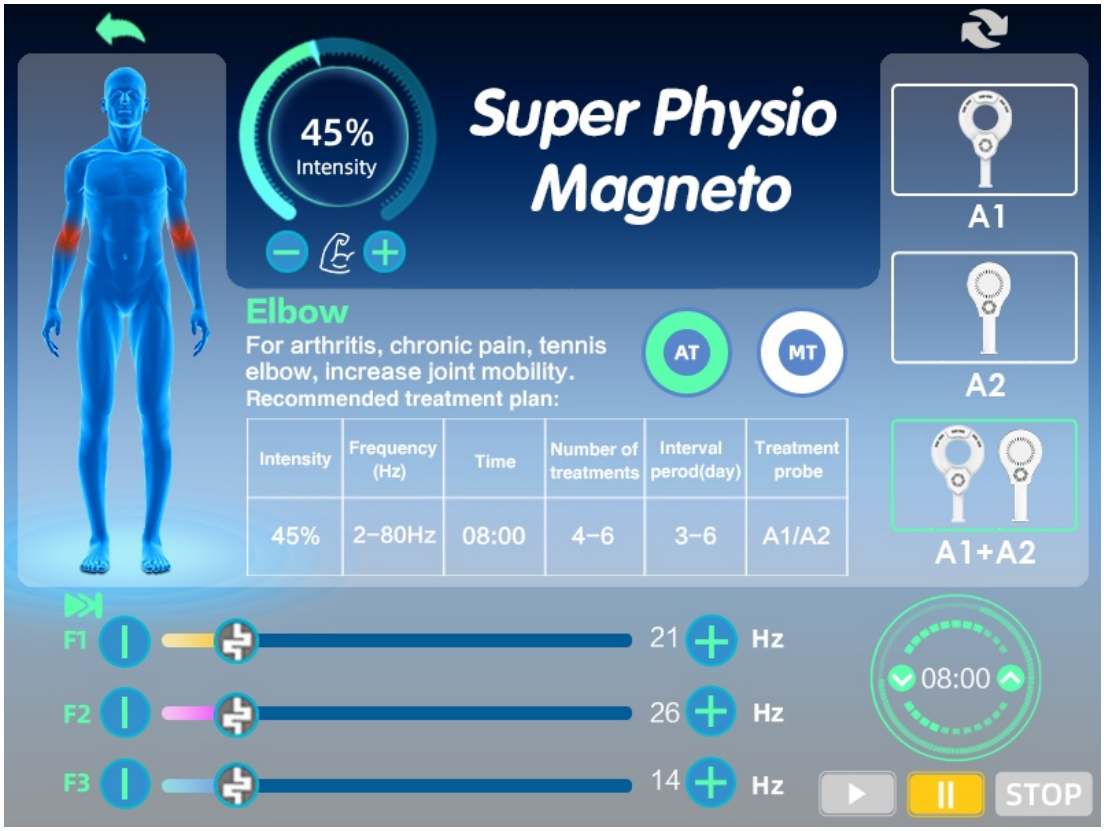
"F1, F2, F3" indicates three frequencies.

In AT mode, the frequency is ignored.

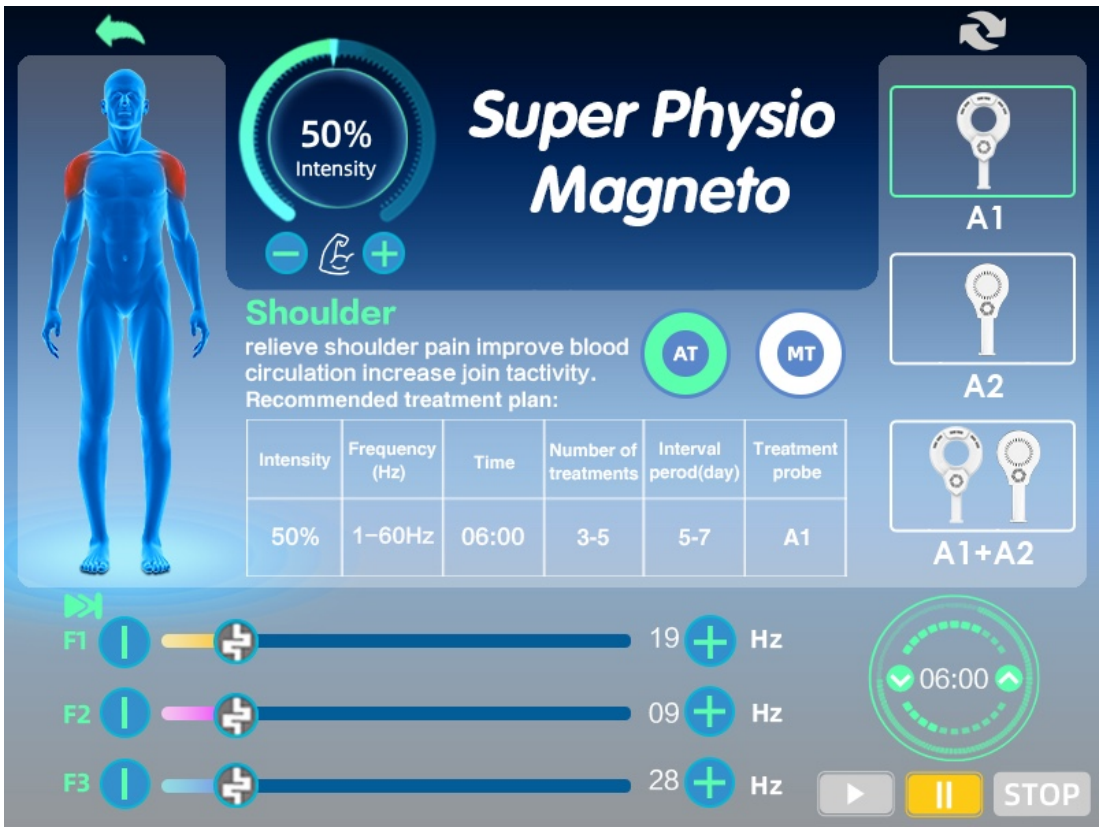
In MT mode, the frequency is fixed and can be skipped or switched using [⏭].

The recommended parameters for hand treatment are shown in the figure:

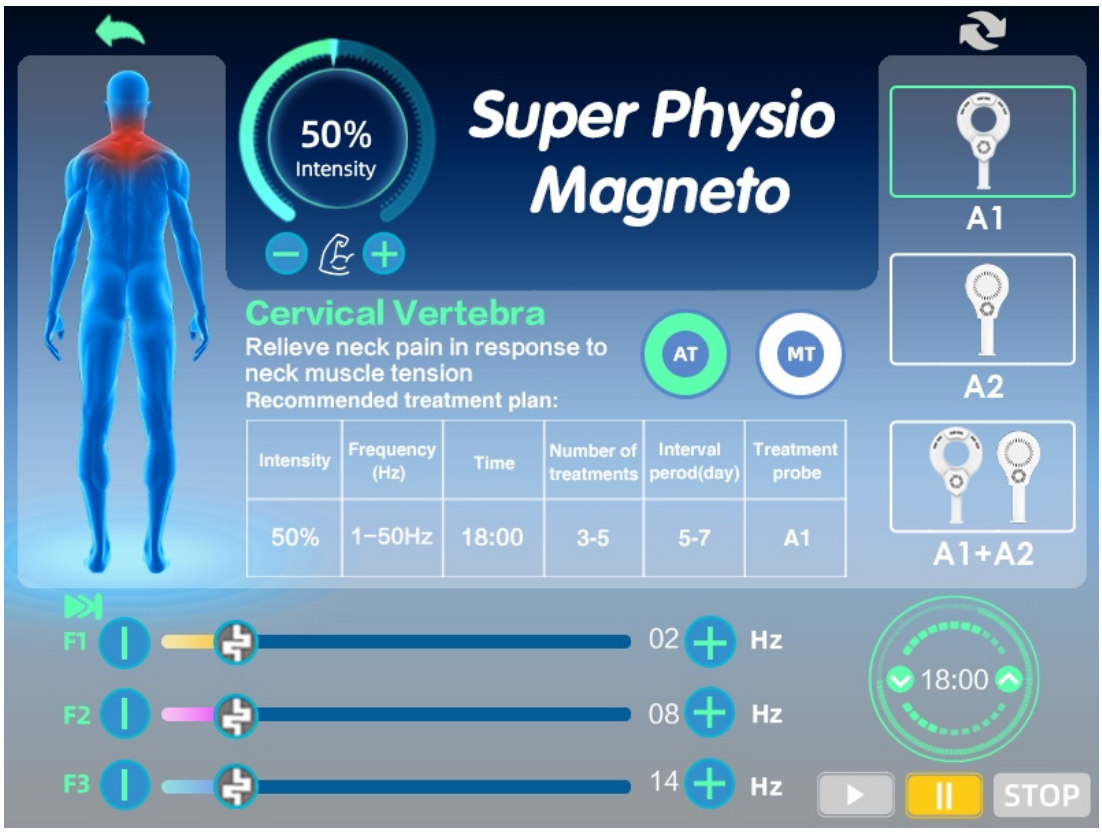
The recommended parameters for arm treatment are shown in the figure:



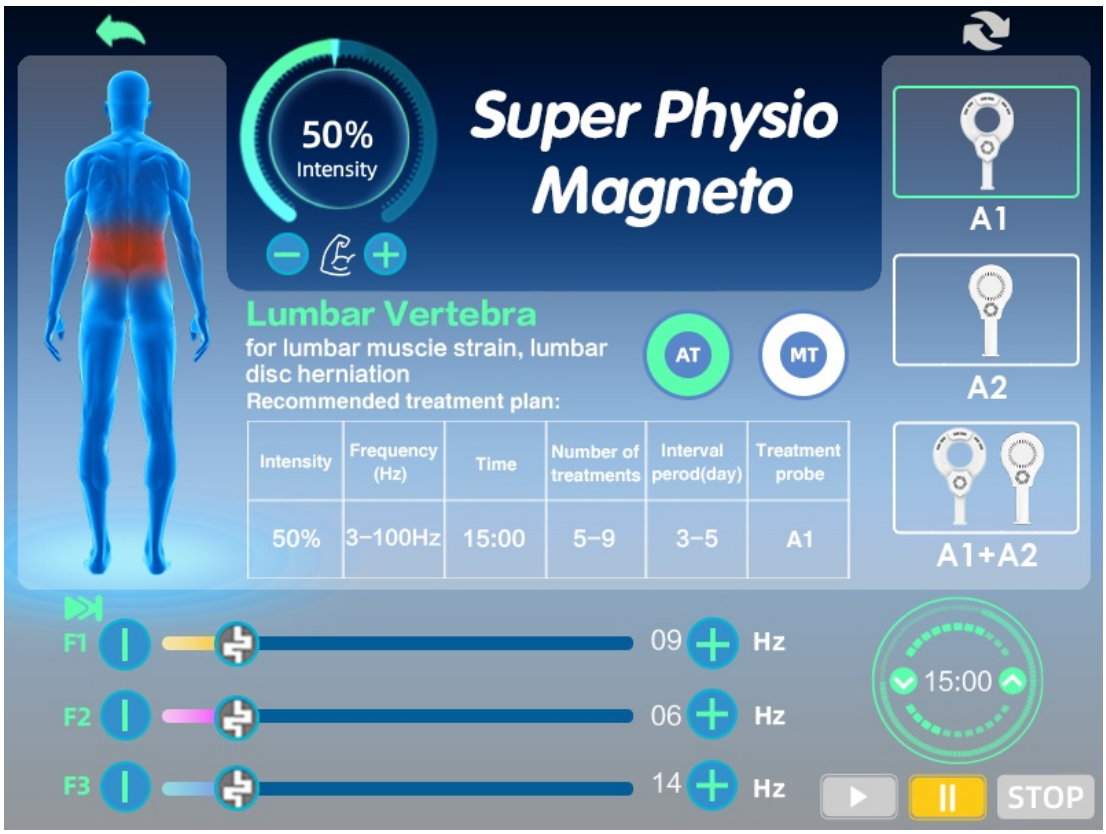
The recommended parameters for shoulder treatment are shown in the figure:



The recommended parameters for neck treatment are shown in the figure:



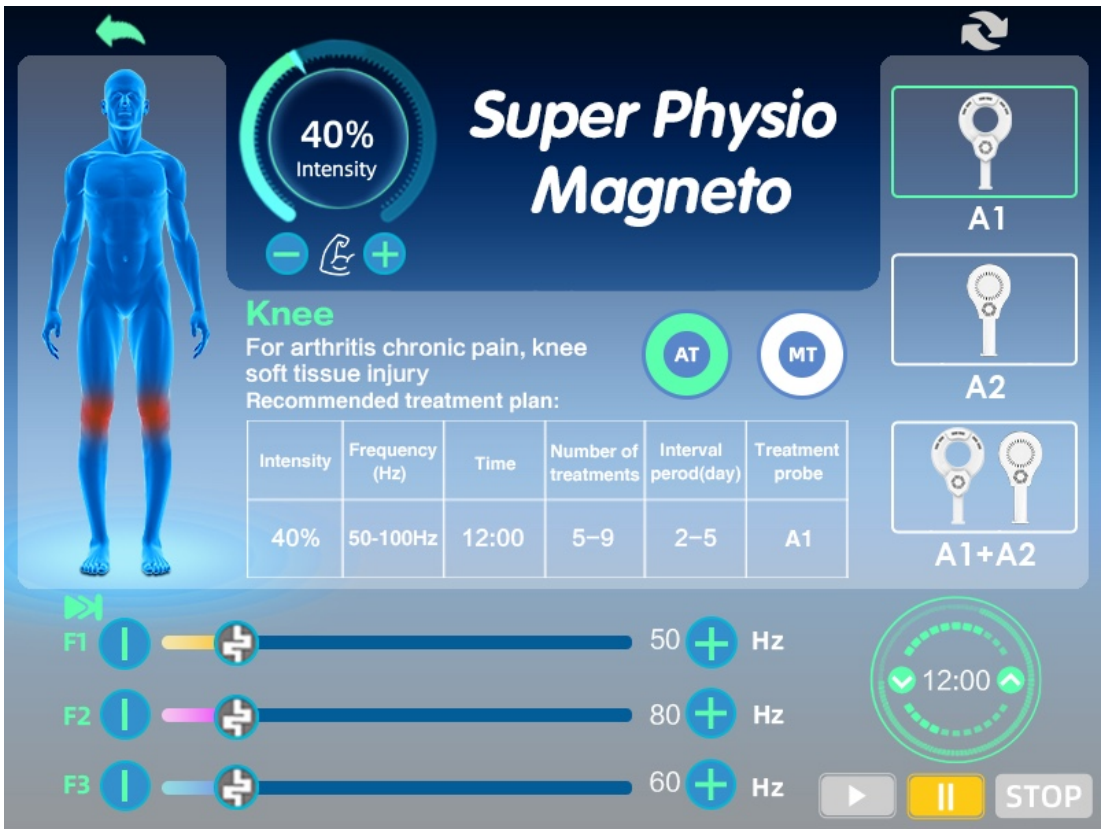
The recommended parameters for waist treatment are shown in the figure:



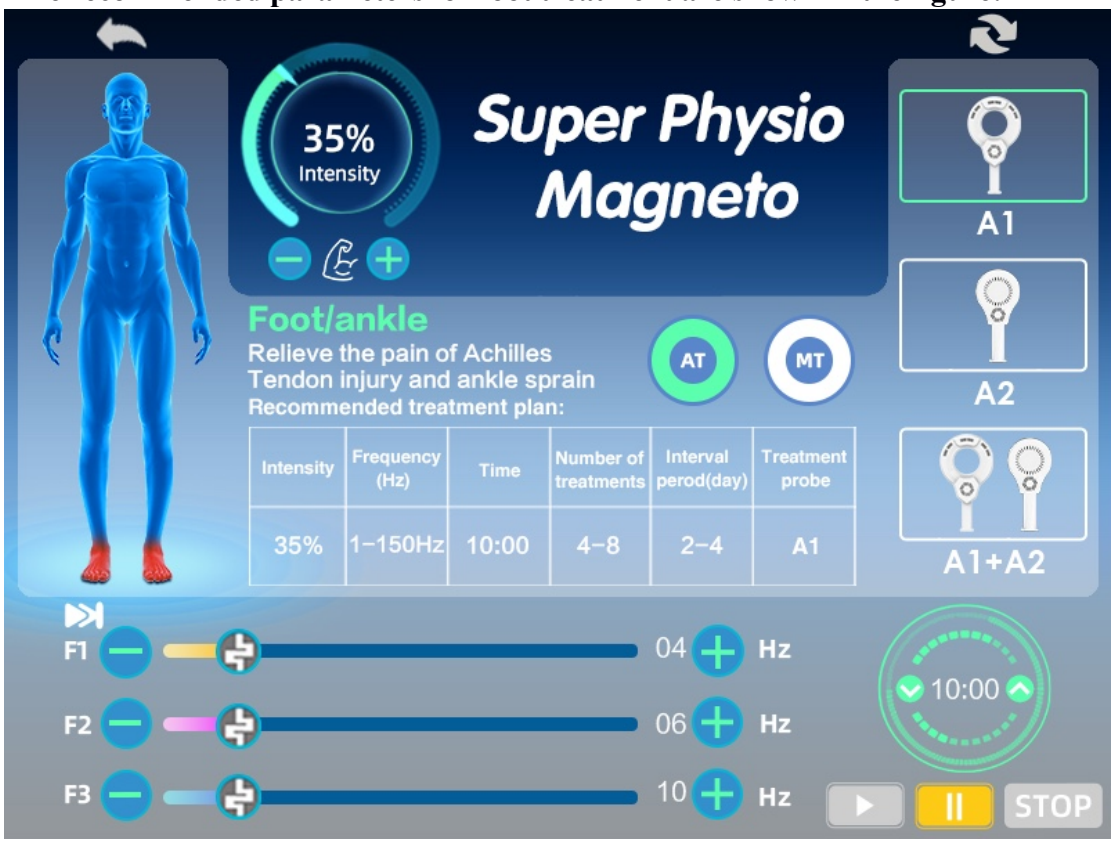
The recommended parameters for hip treatment are shown in the figure:

The recommended parameters for thigh treatment are shown in the figure:

The recommended parameters for knee treatment are shown in the figure:



The recommended parameters for foot treatment are shown in the figure:



650nm Visible light 808nm Invisible light

Click "MANUAL" on (Figure 2) to enter (Figure 5). In professional mode, you can adjust the frequency, amplitude, energy size and set ten parameters for storage. Clic[ ] to enter (Figure 6)

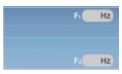
Click[ ] on (Figure 6) to return to (Figure 5)

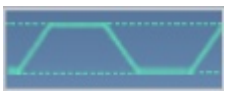
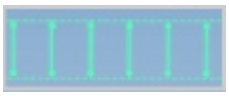
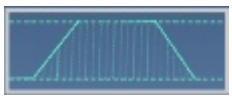
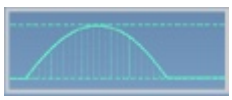
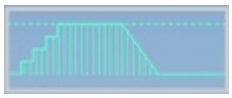
(Figure 6) Laser handle operation interface

激光照射频率“+ -”设置，5、10、25、50、100Hz 可调

Parameter repository: 10 types can be preset. Save by clicking [SAVE]. It is recommended to click on the storage location first, then set the parameters, and finally click Save. You will hear a beep ~ beep ~ interval of two prompt sounds, indicating that the storage was successful。

808/650nm 灯光开关

Symbol	Name	Function
	Amplitude modulation display frame	It represents the selected "amplitude" and the highest and lowest working percentages for viewing it. Click "I1 or I2" to select the Settings through "+ -", such as +1 or -1, etc. Adjustable range: 0 to 100%
	FM display	To indicate the selected "frequency" and view its fastest and slowest frequency (Hz), click "F1 or F2" to select and set it through "+ -", such as +5 or -5, etc. Adjustable range: 1 to 15Hz
	Sequence parameter	As shown in Figure 4: T1 represents the rise time,T2 represents the continuous working time,T3 represents the fall time, and T4 represents the stop time. Click to select
	Digital Editing panel	Three parameters, namely "amplitude, frequency and sequence", can be set to increase or decrease
	Fast forward/skip	You can fast forward to the next preset parameter for treatment
	Channel strength adjustment	The adjustment range is 0 to 100% through the "+ -" setting
	Usage time setting	Set the usage time through the arrow, with an adjustable range of 0 to 99 minutes
	Start key	After all parameters are preset, click to make the handle work
	Pause button	Click during working hours to temporarily pause the work
	Stop button	Click to stop the machine when it is not in use

Frequency modulation		
Type	Symbol	Parameter
Intermittent		F1 is adjustable, while the others are fixed
Alternate		F1, F2, T1 and T2 are adjustable, while the others are fixed
Trapezoid		All adjustable
Sine		F1, F2 and T1 are adjustable
Random		F1, F2 and T2 are adjustable
Amplitude adjustment		
Type	Symbol	Parameter
Intermittent		T2 and T4 are adjustable, while the others are fixed
Trapezoid		All adjustable
Sine		T2 and T4 are adjustable, while the others are fixed
Staircase		All adjustable

MANUAL Steps for using the pattern：

(1) Select frequency and amplitude. Frequency and amplitude can be freely combined and the sequence parameters of the two can be set. Ten parameters can be preset in advance

It will be used in sequence in the following clinical practice.

(2) Set the usage time

(3) Click Start

(4) Gradually increase the energy intensity (with the best value being within your own tolerance

range)
(5) Just fix the applicator on the treatment area and wait for the clinical time to end.

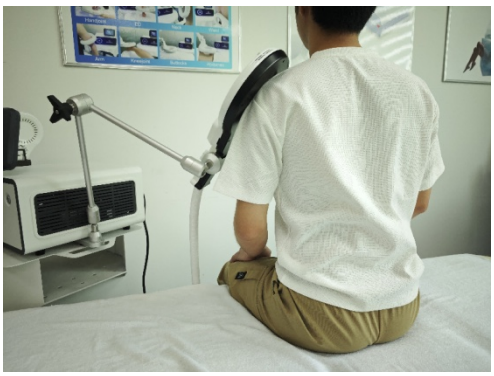
AUTO Mode

Fix the support arm. Select body parts in the interface. Use preset parameters or adjust the intensity and treatment duration according to the patient type and specific treatment conditions.

Press the "Start Button"

Laser handle：

Trigger point, pain point, small treatment area



Small joint applicator：

Elbows, knees, wrists, ankles, shoulders, feet

Trunk large applicator

Back, groin, abdomen, thighs

2. Indications

Degenerative joint disease

Signs of wear and tear, such as arthritis (knee joint, hip joint, hand joint, shoulder joint, elbow joint), intervertebral disc protrusion, and spondyloarthritis.

(2) Pain treatment

Chronic pain, such as back pain, low back pain, tension pain, radiculopathy, and heel pain.

(3) Sports injuries

Chronic tendon and joint inflammation, tendon overload syndrome, pubic osteitis.

Laser therapy

1. Therapeutic principle

During this process, low-intensity lasers of different wavelengths and output powers are directly irradiated onto the target area. The body tissues then absorb the light. Red light and infrared light can cause reactions, and damaged cells will make physiological responses to promote regeneration.

2. Indications

Doctors, dentists, physical therapists and other medical professionals use cold laser therapy in various ways. The main uses of cold laser therapy are to repair tissues, relieve pain and inflammation. Sports medicine and physical therapy institutions often use cold laser therapy to treat minor injuries and sprains, such as:

- ligament sprain
- muscle strain
- tendinitis
- bursitis
- tennis elbow
- neck pain
- lower back pain
- knee pain
- muscle spasis-related pain

Recommended treatment plan

Region	Energy	Frequency	Time	Number of sessions	Interval
Elbow	60~80	100Hz	15Minutes	6-8	Every week 2time
Wrist	60~80		15Minutes		
Shoulder	80~100		20Minutes		
Cervical vertebrae	80~100		20Minutes		
Lumbar vertebrae	80~100		20Minutes		
Groin	70~100		15Minutes		
Buttocks	80~100		20Minutes		
Thigh	50~80		20Minutes		
Knee	60~100		20Minutes		
Ankle	60~100		15Minutes		

Usage steps

(1) Use a silicone fixator to assemble the large magneto-electric applicator and the laser handle

(2) Use two wavelengths and adjust the treatment time and intensity as needed.

(3) Use braces to fix the handle.

(4) Press the "Start" button to begin the clinical practice

Notes：

(1) The body parts undergoing laser treatment must not be covered by clothes. (2) Laser treatment and magnetotherapy can be carried out simultaneously. The naked eye cannot directly look in the direction of the laser beam. (3) The laser handle must not be placed beneath the treatment side of the magnetic applicator.

Contraindications

- Impaired heat sensation of the skin
- arteriocutaneous circulation disorder
- dermatitis or eczema
- tumor
- skin damage caused by ionizing radiation
- tuberculosis
- photosensitivity
- feeling allergic
- intellectual disability
- metal implant
- fever

Technical parameters

Screen size	8 inches
Refrigeration system	Air-cooled
Mode	Fully automatic, manual
Frequency	1~150Hz，1-4KHz
Tesla	1-14T
Power	2000w
Waveform	Four adjustable amplitudes (intermittent, trapezoidal, sinusoidal, and stepped)
Frequency	Five adjustable types (intermittent, alternating, trapezoidal, sine, random)
Preset parameters	Push 10 types of part parameters
Storage mode	Ten kinds