

K-Smart Tecar Pro

Shockwave+Tecar+Ultrasound Therapy Machine

User Manual



Attention

Respected user:

Thank you for choosing the instruments which carefully designed and manufactured by our company.

In order to better utilize the product, we sincerely recommend:

- ◆◆ Please read this manual carefully before using the instrument.
- ◆◆ Please install, use and operate correctly according to the requirements in the manual.
- ◆◆ Do not disassemble or modify any parts of this machine.
- ◆◆ Except for authorized personnel of the company, it is strictly forbidden to open the cover and disassemble the host.
- ◆◆ Non-professionals are strictly forbidden to carry out repairs and renovations.
- ◆◆ If there is any malfunction during the operation, please contact us.

Due to continuous improvement, update, and replacement of the product, the products received may not be exactly same as the illustration in the manual. We sincerely apologize.






Notice : Please read this manual carefully before operating this machine.

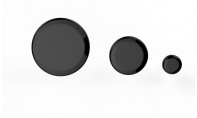







Shockwave+Tear+Ultrasound Therapy Machine

【1】 Product Appearance (For reference only, subject to the actual product)



【2】 Part lists

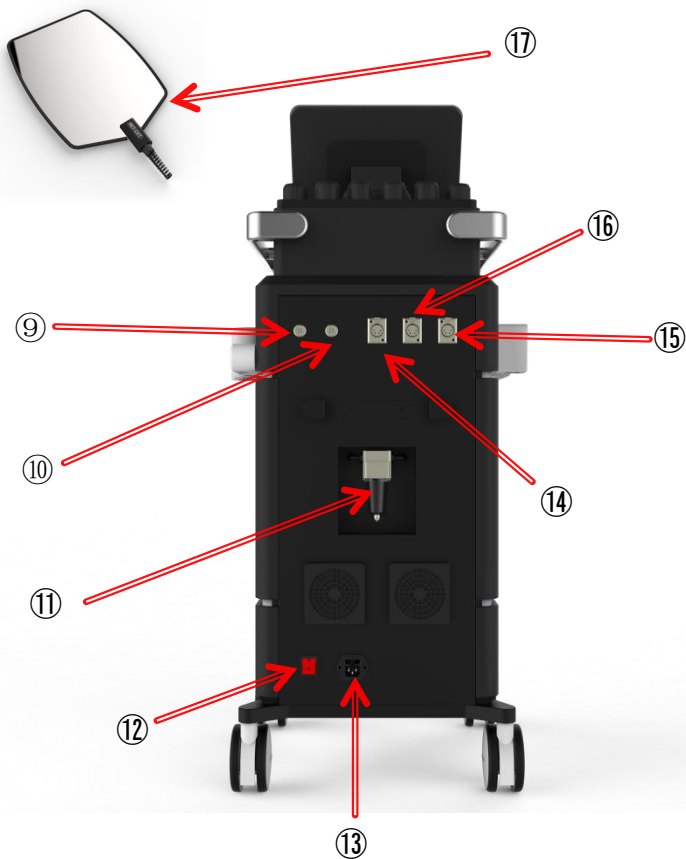
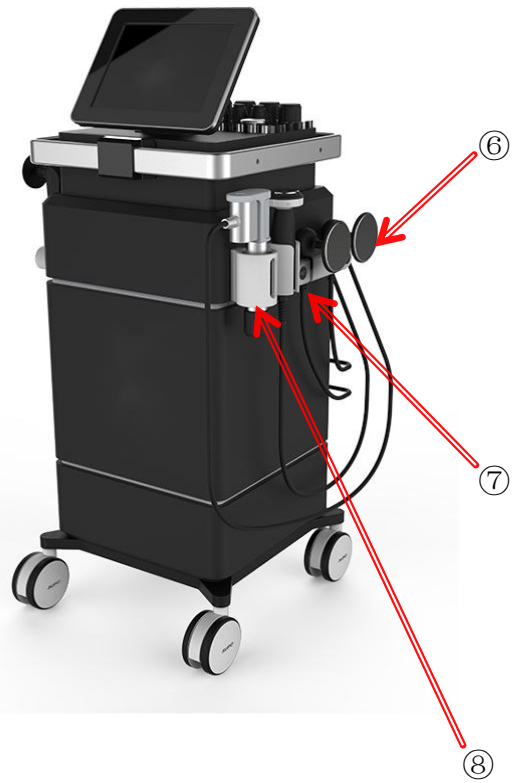
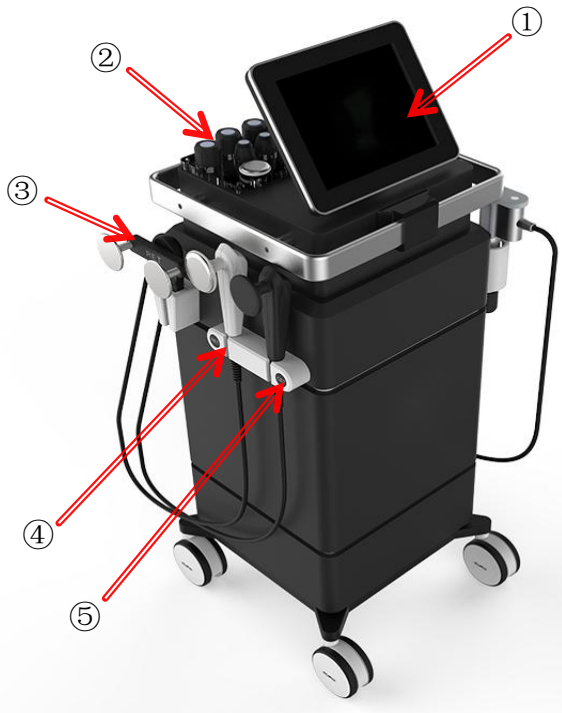
			
<p>Machine*1</p>	<p>Shockwave handle*1</p>	<p>Shockwave treatment head*12</p>	<p>Shockwave tube*2</p>
			
<p>Shockwave bullet*2</p>	<p>White RET handle*1</p>	<p>Silver RET treatment heads*3</p>	<p>Black CET handle*1</p>

			
Black CET treatment heads*3	D80mm handle*1	T-shape handle*1	Return pad*1
			
Ultrasound handle*1	Power line*1	Optional fascia set of tecar therapy	Optional foot pad of tecar therapy

【3】 Technical Parameters

Shocwkave energy	1-6 Bar	Ultrasound energy	0.2-3W/CM ²
Shocwkave frequency	1-21Hz	Ultrasound frequency	1MHz
Tecar frequency	300-448KHz	Tecar output power	300W
Screen	10.4 inch	Package size	58*52*125 cm
Gross weight	65kg	Package	Flight case
Password	888888		

【4】 Structure of the machine and how to install it



Structure:

- | | |
|-----------------------------|-------------------------------|
| ① Touch screen | ⑪ Filter cup |
| ② Treatment heads supporter | ⑫ Key switch |
| ③ T-shape handle | ⑬ Power outlet |
| ④ RET handle | ⑭ Return pad outlet (3 holes) |
| ⑤ CET handle | ⑮ RET handle outlet (5 holes) |
| ⑥ D80mm handle | ⑯ CET handle outlet (4 holes) |
| ⑦ Ultrasound handle | ⑰ Return pad |
| ⑧ Shockwave handle | |
| ⑨ Shockwave outlet | |
| ⑩ Ultrasound outlet | |

【5】 Installation

Note: When the machine is power on, we must not install the shockwave handle and ultrasound handle and also we can not remove handles from their outlets.

In tecar therapy, some handles use same outlet. Only Black CET handle, white RET handle, and optional fascia set needs to work with ⑰return pad during the operation.

(1) Use black CET handle (4 pins plug), choose CET mode on the screen.

- Install ⑤ CET handle (4 pins plug) to ⑰ CET handle outlet(4 holes)
- Install ⑰ Return pad (3 pins plug) to ⑱ Return pad outlet (3 holes)

(2) Use white RET handle (5 pins plug), choose RET mode on the screen.

- Install ④ RET handle (5 pins plug) to ⑱ RET handle outlet(5 holes)
- Install ⑰ Return pad (3 pins plug) to ⑱ Return pad outlet (3 holes)

(3) Use T-shape handle (5 pins plug), choose RET mode on the screen.

- Install ③ T-shape handle to ⑱ RET handle outlet(5 holes).

Because T-shape handle do not need to work with return pad, we do not need to install return pad.

(4) Use D80mm handle (5 pins plug and 3 pins plug), choose RET mode on the screen.

- Install 5 pins plug to ⑱ RET handle outlet(5 holes).
- Install 3 pins plug to ⑱ Return pad outlet (3 holes)

(5) Use optional Fascia set (5 pins plug), choose RET mode on the screen.

- Install 5 pins plug (plug specially for fascia set) to ⑱ RET handle outlet(5 holes).
- Install ⑰ Return pad (3 pins plug) to ⑱ Return pad outlet (3 holes)

(6) Use optional Foot pad (4 pins plug and 3 pins plug), choose CET mode on the screen.

- Install 4 pins plug to ⑰ CET handle outlet(4 holes) .

- Install 3 pins plug to ⑭ Return pad outlet (3 holes)

【6】 Touch screen

Tecar therapy Ultrasound therapy Shockwave therapy Advance setting: only for manufacturer

Language setting

Preload: 800-3000 shoots

Energy: 1-6Bar

Frequency: 1-21Hz

Recommended treatment tips

Start/Stop

Body parts selection. Each body part has preset parameters

Recommended protocols

Preload	Energy	Frequency	Times	Interval
1000	3	10	3-8	3-7
	Bar	Hz	Times	Days

Ultrasound therapy

Time: 1-60 Mins

Energy: 0.2-3W/cm²

Frequency: Continuity&1-10Hz

Start/Stop

Body parts selection. Each body part has preset parameters

Recommended protocols

Time	Energy	Mode	Times	Interval
10	1.4	Conti-nuity	4-6	3-8
Minute	W/cm ²		Times	Days

RET mode in tecar therapy

(White RET handle, D80mm handle, T-shape handel, and optional fascia set work in RET mode)

Body parts selection. After choosing a body part, the recommended protocols will be present below.

Time: 1-60 Mins

Energy: 10-100%

Heat mode: Athermal, medium thermal and deep thermal

Start/Stop

Time	Energy	Times	Interval
30	10%	1-9	3-5
Minute		Times	Days

CET mode in tecar therapy

(Black CET handle and optional foot pad work in this mode)

Body parts selection. After choosing a body part, the recommended protocols will be present below.

Time: 1-60 Mins

Energy: 10-100%

Heat mode: Athermal, medium thermal and deep thermal

Start/Stop

Time	Energy	Times	Interval
30	10%	1-9	3-5
Minute		Times	Days

【7】 Shockwave therapy

1. **Treatment theory**

Physiotherapy:

Shockwave therapy is a multidisciplinary device used in orthopaedics, physiotherapy, sports medicine, urology and veterinary medicine. Its main assets are fast pain relief and mobility restoration. Together with being a non-surgical therapy with no need for painkillers makes it an ideal therapy to speed up recovery and cure various indications causing acute or chronic pain.

ED treatment:

Most men suffering from erectile dysfunction have vascular problems affecting the vessels that supply blood to the cavernous bodies of the penis, resulting in a decreased ability to develop and maintain an erection.

Shockwave Therapy for ED of this type can be a highly effective treatment. The shockwaves are focused onto the area to be treated creating new blood vessels in penile tissue, enabling patients to achieve and maintain firm spontaneous erections.

Celluite Reduction:

Before

Enlarged fat cells push the skin up and compress the circulatory system, reducing inflow of nutrients and outflow of waste products. Diminished exchanges in circulation lead to a gradual stiffening of the connective tissue, pulling down on the skin. The push/pull effect creates the appearance of cellulite.

During

The mechanical action of shockwave disrupts the connective tissue to firm and smooth the skin. It causes neo-vascularization, improves circulatory exchanges (the root cause of the problem), leading to thicker, more elastic skin through collagen production.

After

The elasticity of the connective tissue is restored and the skin is smoother. The skin is thicker and more elastic with noticeable improvement to the skin texture.

2. Indications

- Sports injuries
- Tennis elbow
- Tendonitis
- Plantar fasciitis
- Frozen shoulder
- Achilles tendonitis
- Ankle, knee, shoulder, wrist injuries
- Erectile dysfunction
- Fat reduction

3. Recommended treatment protocols

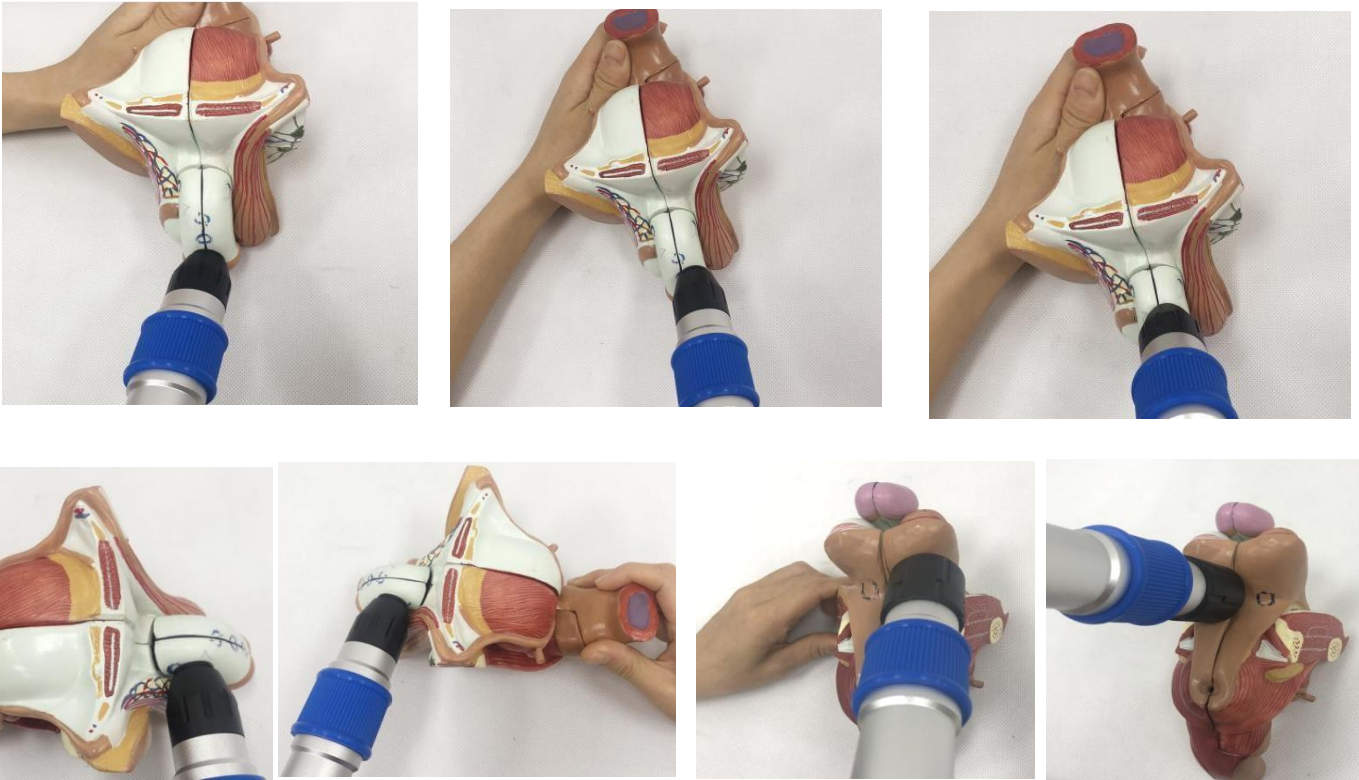
Area	Frequency/Energy	Shocks	Sessions	Interval
Hand/Wrist	10Hz/3Bar	2000	3-5	5-7days
Elbow	12Hz/4Bar	2000-2500	4-6	5-7days
Pubic Symphysis	10Hz/6Bar	2000-2500	4-6	4-5days
Knee	10Hz/4Bar	2000	3-5	5-7days
Foot/Ankle	12Hz/3Bar	1000	3-5	5-7days
Shoulder	10Hz/5Bar	2000-2500	4-6	5-7days
Lumbar Region	13Hz/6Bar	2000-2500	5-7	4-6days
Hip	18Hz/6Bar	2000-2500	5-7	4-6days
Fat accumulate	13Hz/6Bar	2000-2500	5-7	3-5days
ED	8Hz/1Bar	1500	3-5	3-5days

Note: Energy and time can be adjusted according to the type of person and the specificity of the treatment.

Erectile dysfunction

1. Target to spongy tissue in 5 different areas.
2. 300 impacts per area, total 1500 impacts in one treatment.
3. Twice a week, treat consistently for 3 weeks, then stop for 3 weeks. And start next course.

4. Should be more impacts at the top end of penis and less impacts at the bottom of penis.



4. Recommended steps

Take “back treatment” as an example:

- (1) Enter the password “888888”
- (2) Choose the “Back” (Energy, frequency and preload shoots have been preset). We can also change the parameters based on the specific needs. Use the suitable treatment head based on the size of the treatment area.
- (3) Apply the gel to the back
- (4) Click on “Start” in the interface
- (5) Push the treatment head against the back
- (6) Press the “start” button on the shockwave handle
- (7) Move the handle slightly
- (8) After the preload shocks finish, the handle will stop automatically.

5. Maintenance

After the treatment, we need to clean the bullet, tube and the treatment head. If we use the shockwave handle frequently, it is better to clean them every day.

6. **Contraindication**

- Vascular diseases present in or near the treatment area
- Local infections in the treatment area
- Around malignant or benign tumours
- Directly on cartilage surfaces or near the small facet joints of the spinal column
- Directly over implanted electronic devices such as pacemakers, analgesic pumps, etc.
- In areas, in which mechanical energy in the form of vibrations may lead to tissue damage such as metal implants after a fracture

【8】 Ultrasound therapy

1. **Treatment theory**

Ultrasound therapy causes mechanical vibrations, from high frequency sound waves, on skin and soft tissue via an aqueous solution (Gel). A gel is applied either to the applicator head or to the skin, which helps the sound waves to evenly penetrate the skin. The ultrasound applicator converts power from the device into acoustic power that can cause thermal or non-thermal effects. The sound waves creates microscopic stimulation in the deep tissue molecules that increases heat and friction. The warming effect encourages and promotes healing in the soft tissues by increasing the metabolism at the level of the tissue cells.

2. **Indications**

- Soft tissue injuries
- Chronic strains and sprains
- Myositis – the inflammation of muscle tissues
- Bursitis – inflammation of the fluid-filled pads surrounding joints
- Tendonitis – inflammation of the tissue connecting the muscles to the bones
- Tendon Sheath Inflammation
- Osteoarthritis
- Plantar fasciitis

3. **Contraindication**

- The established contra-indications to heat therapy itself
- In an area of the body where a malignancy is known to be present

- Over or near bone growth centers until bone growth is complete
- Over the thoracic area if the patient is using a cardiac pacemaker
- Over a healing fracture
- Over ischemic tissues in individuals with vascular disease where the blood supply would be unable to follow the increase in metabolic demand and tissue necrosis might result
- In the presence of metal implants of any type
- Patients with sensory loss on the area to be treated
- The gonads or to the developing fetus
- The heart, brains, testicles, eyes
- Ultrasound should not be used on unconscious patients

4. Recommended steps

Take “elbow” as an example:

- (1) Apply gel to to the elbow
- (2) Press the “Elbow” button in the interface
- (3) Parameters have been preset. We can also change them based on the specific needs.
- (4) Press “start” button and move put the applicator against elbow and move the handle slightly

5. Maintenance

Use tissue to clean the gel on the applicator after the treatment. And remember do not remove and install ultrasound handle when the machine is power on.

【9】 Tecar therapy

1. Treatment theory

Tecar therapy is a part of Endogenous Thermotherapy, which is based on the principle of capacitive and resistive energy transfer (Capacitive-Resistive Diathermy). It has an effect within the biological tissues, activating the body’s natural repairing and anti-inflammatory processes from within.

2. Indications

- Bruises and sprains

- Post-surgery rehabilitation
- Sports traumas
- Muscle and tendon disorders
- Neuropathies
- Scar tissue
- Spine and peripheral joint disorders
- Vascular and lymphatic system disorders
- Orthopaedic disorders of the peripheral nervous system
- Pelvic floor rehabilitation
- Acute and chronic pain
- Cellulite reduction

3. Differences between RET mode and CET mode

CET mode for:

- Tissues with high water contents
- Muscles, face, cellulite...
- Penetration depth: 3-4 cm

RET mode for:

- Tissues with the highest resistance and low water content
- Muscle, Bones, tendons, adipose tissues, cellulite...
- Penetration depth: 8-10 cm

Note: Use black CET handle to lift face only. But RET handle can not be used in face because it has deeper penetration.

4. Precautions in Tecar Therapy

- Patients with impaired skin / neuropathy sensitivity.
- Avoid treatment in patients with reduced skin sensibility in the area to be treated, unless the treatment is specifically recommended by the patient's physician. If the

treatment is to be used, test on the corresponding fresh body part. This is to avoid tissue overheating.

- Patients with a bacteriological inflammation
- Diabetes mellitus: Patients with diabetes can often have neuropathy
- Other conditions with reduced skin sensation
- Patients coming in from the cold
- Post-operative patients

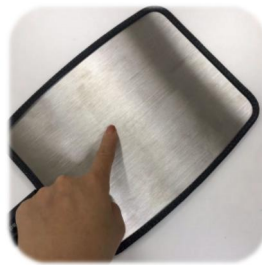
5. Contraindications in Tecar Therapy

- Patients with pacemaker
- Patients with bleeding gastrointestinal ulcers
- Patients with an infusion pump and implants with electric lead
- First 6 months of pregnancy. Treatment last trimester - do not treat over the stomach and lower back (directly over the fetus)
- Treatment over localized cancer area/tumor
- Treatment over local tuberculosis cavity
- Allergic reaction to cream / probe
- Treatment of deep vein thrombosis
- Treatment over the heart in patients with ischemic heart disease, local pulmonary embolism
- Phlebitis
- Bleeding areas where the skin has partial or open wounds

6. Tips



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✗



✓

1. Do not contact the working head with the return pad (two treatment heads in D80mm handle can not be touch each other)
2. Do not touch the return pad lightly when the instrument is started.
3. The customer should completely touch the return pad to avoid static.

7. **Recommended steps**

Take “knee” as an example(use white RET handle):





- (1) Choose and install the treatment heads based on the size of the treatment area.
- (2) Apply RF cream to the knee
- (3) Put the return pad under the knee
- (4) Time setting: 35 mins
- (5) There are three periods in the treatment.
 - First period: Choose “Athermal” (energy setting: 50%). Fixed-point operation for 5 minutes. If the heat sensation is not obvious, increase the energy.
 - Second period: Choose “Medium Thermal” (energy setting: 50%). Press and move the handle slowly for 10 minutes. If the heat sensation is not obvious, increase the energy.
 - Third period: Choose “Deep Thermal” (energy setting: 50%). Move the handle quickly if customer feels too hot. This period lasts for 15 minutes.
- (6) After the treatment, the treatment heads need to be disassembled and cleaned by tissues.

Operation of standard black handle-CET

Picture				
Treatment area	Finger	Ankle	Elbow	Wrist
Treatment head	CET 20mm	CET 20mm	CET 40mm	CET 20mm

Operation	Athermal:	Athermal:	Athermal:	Athermal:
	50%	50%	50%	50%
	Medium Thermal:	Medium Thermal:	Medium Thermal:	Medium Thermal:
	50%	50%	50%	40%
	Deep Thermal:	Deep Thermal:	Deep Thermal:	Deep Thermal:
	60%	40%	40%	30%


Operation of standard white handle-RET

Picture				
	Treatment area	Postpartum recovery	Thigh	Shoulder
Treatment head	RET 60mm	RET 60mm	RET 60mm	RET 40mm
Operation	Athermal:	Athermal:	Athermal:	Athermal:
	50%	50%	50%	40%
	Medium Thermal:	Medium Thermal:	Medium Thermal:	Medium Thermal:
	50%	50%	50%	40%
	Deep Thermal:	Deep Thermal:	Deep Thermal:	Deep Thermal:
	70%	70%	80%	40%

Operation of standard handle-T-shape handle (RET mode)

Picture				
Treatment area	Caudal vertebra	Shoulder	Wrist	Foot
Operation	Athermal: 50% Medium Thermal: 60% Deep Thermal: 70%	Athermal: 50% Medium Thermal: 60% Deep Thermal: 70%	Athermal: 30% Medium Thermal: 50% Deep Thermal: 30%	Athermal: 50% Medium Thermal: 50% Deep Thermal: 50%

Operation of standard handle-D80mm handle (RET mode)

Picture				
Treatment area	Arm	Shoulder joint	Knee joint	Shoulder
Operation	Athermal: 50% Medium Thermal: 50% Deep Thermal: 60%	Athermal: 70% Medium Thermal: 60% Deep Thermal: 70%	Athermal: 40% Medium Thermal: 70% Deep Thermal: 60%	Athermal: 50% Medium Thermal: 50% Deep Thermal: 70%

Operation of optional Fascia Set (RET mode)

Picture				
Treatment area	Back	Shoulder	Calf	Acupuncture point
Fascia set	Large	Medium	Medium	Small
Operation	<p>Athermal: 60%</p> <p>Medium Thermal: 60%</p> <p>Deep Thermal: 60%</p>	<p>Athermal: 60%</p> <p>Medium Thermal: 60%</p> <p>Deep Thermal: 60%</p>	<p>Athermal: 50%</p> <p>Medium Thermal: 50%</p> <p>Deep Thermal: 50%</p>	<p>Athermal: 10% energy, fixed-point operation for 2 mins.</p> <p>30-40% energy for 1 min: target the handle to the acupuncture point and move the handle around it.</p>

Operation of optional Foot pad (CET mode)

Athermal: 100% energy; 5-10 mins
 Medium Thermal: 60-80% energy; 10 mins
 Deep Thermal: 30-40% energy; 25 mins
 Interval: 5-7 days
 Sessions: 8 times



8. Recommended treatment protocols

Treatment area	Treatment time	Interval	Sessions
Face (CET only)	30-35 mins	10 days	6 times
Abdominal fat reduction	45-60 mins	5-7 days	8 times
Finger	30 mins	Twice a week	6 times
Ankle	30-40 mins	Twice a week	8 times
Elbow	30-40 mins	Twice a week	6 times
Wrist	30-40 mins	Twice a week	6 times
Postpartum recovery	45 mins	Twice a week	12 times
Thigh	45 mins	Twice a week	8 times
Foot	40 mins	Twice a week	4 times
Caudal vertebra	40 mins	Twice a week	12 times
Shoulder	45-60 mins	Twice a week	8 times
Shoulder joint	35-40 mins	Twice a week	10 times
Arm	35-40 mins	Twice a week	8 times