

AST-300L

Electronic muscle stimulator

Choose electrical muscle stimulator
Enjoy healthier life



Functions

- Big LCD screen for easy control
- By ems foot reflexology which reflex to internal organ
- With heating function, heating temperature is 30~40 °C

Phoenix Medtech GmbH
Koenigsberger Strasse 11, 64839.
Muenster Hessen, Germany.

UK Responsible Person
SHARE INFO LTD
3rd Floor, Office C, Townend House, Park Street,
Walsall, West Midlands, WS1 1NS,UK.

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 Shenzhen OSTO Medical Technology Co.,Ltd
ADD:2104,zhongxin Longsheng Square.
Baolong Street, Longgang District, 518116
Shenzhen City,Guangdong Province, China

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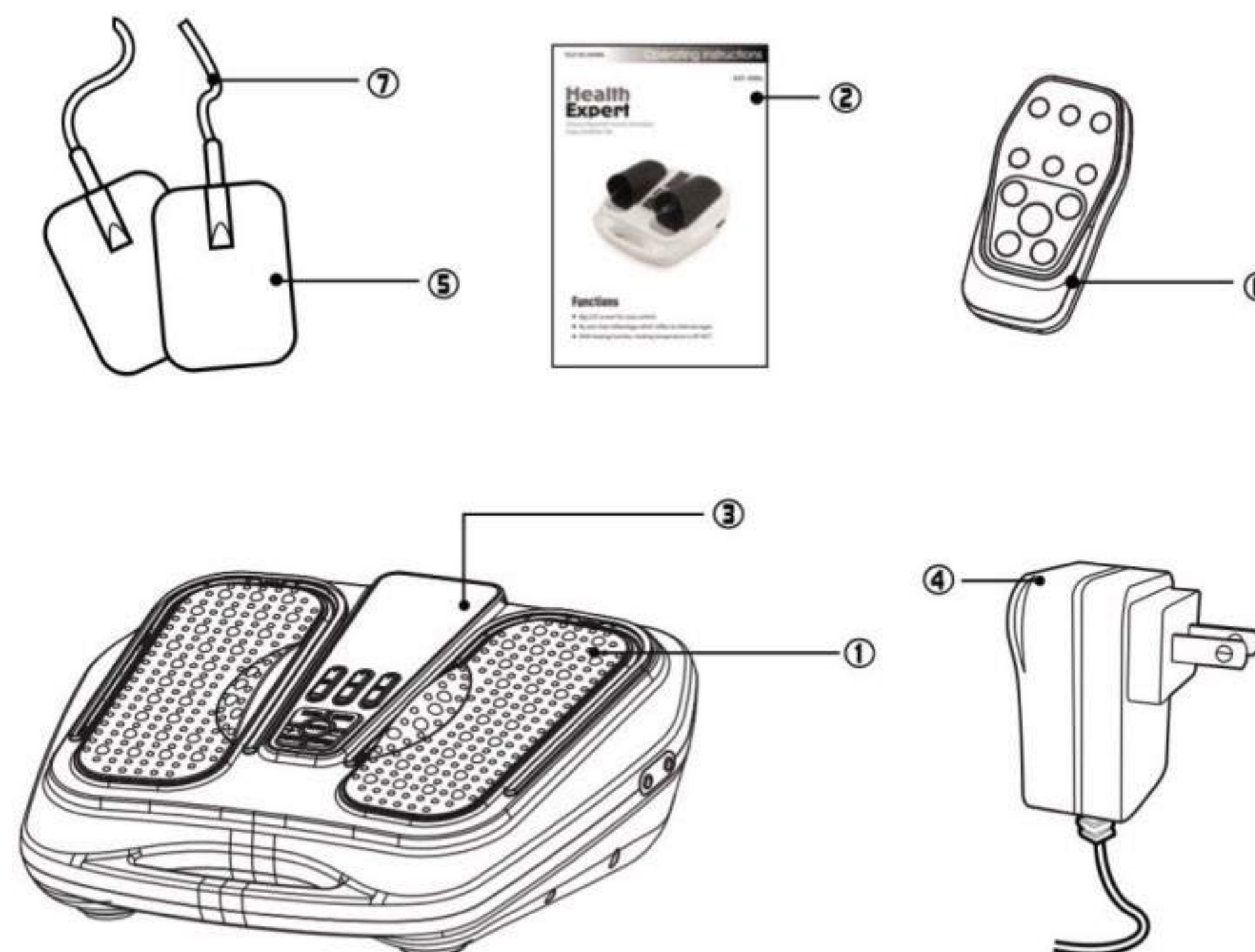
Thanks for your purchasing our electronic muscle stimulator Before using, please read the user manual carefully, especially the caution part, so that you can operate it correctly, and user manual should be well kept for your reference at any time.

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Parts identification

- ① Electrode Silicon Area for Feet (Stimulate your foot muscles)
- ② User manual (Users can be guided to security prompts)
- ③ LCD Screen (Ease of use)
- ④ Adapter (Power the machine)
- ⑤ Electrode pads (Body muscle stimulation)
- ⑥ Remote controller (Control machine)
- ⑦ Electrode wire (Action of wire)



Function and intended application of the equipment

The principle of our electronic muscle stimulator is the low frequency current stimulate ache spots of the human body, cause muscle contraction or relaxation. When muscle relaxation, a large number of blood to enter in. When muscle contraction, the blood which contain metabolites to be sent out. This kind of actions will recycle which can help to accelerate the blood circulation and alleviate pain, swelling, fatigue, pain and other symptoms.

The expected purpose of our electronic muscle stimulator is to alleviate or reduce human muscle pain, swelling, fatigue ache and promote the blood circulation.

1. Adopted to better ABS materials and design in according to man-machine engineering science. The item looks very modern, fashion and delicate
2. 99 kinds electromagnetic wave intensity with continuous adjustment, will meet your required ideal result in proper sequence
3. 25 minutes automatical time set
4. There are 25 kinds massage modes for sole and body, each impulse massage mode will improve the different symptoms, and eliminate fatigue
5. All functions can be operated by remote controller and be easy to use.

Usage of Electrode Gel Pads

1. The size of pads is 5.5x8.5cm
2. Connect the output wire to the Electrode Gel Pads
3. Then connect output wire to the electrical muscle stimulator
4. Remove the protecting film from the adhesive pads
5. Attach the Electrode Gel Pads to the skin steadily
6. Press the Switch button for 3 seconds to turn on the unit and adjust the stimulating mode and output intensity as your wish. (The display will show the mode and the level as you selected)
7. Keep the adhesive gel pads clean, and never put them under high temperature and direct sunshine.
8. If the electrode get pads are insufficiently adhesive or dirty, wipe with a wet cloth or change new ones. Don't clean the electrode gel pads with any chemical.
9. The effects of pads will be drops after many times usage. Pls change new pads if the pads never used in a year.

Operation

Before using it, please check whether the equipment is in its original state: MODE intensity level display, SOLE intensity level display and time display show ZERO, MODE display show 1.

Operation of the EQUIPMENT above amplitude or value, otherwise may cause inaccurate results.

1. put your feet on the unit
2. Press the switch button about 3 seconds to turn on the unit, then the LCD screen will light up in Blue
3. Then you can adjust the mode by pressing "MODE△" & "MODE▽" to select different modes, Maximum is the 25th mode
4. Please increase intensity by pushing the button of "SOLE△" "BODY△" Or decrease intensity by pushing the button of "SOLE▽" "BODY▽"
5. Time can change from 30mins to 60mins
6. You can adjust the INFRARED button freely.
7. Pls adjust heating by pushing the button of "HEATING△" "HEATING▽"

Tips: Please adjust the intensity gradually from lower to stronger .

ON/OFF: press the button about 3 seconds to switch on or off the unit

Sole△: increase the output intensity of foot sole

Mode△: choose one mode from 25 pre-moded massage modes~upward

Body△: increase the output intensity of electrode pads

Sole▽: decrease the output intensity of foot sole

Mode▽: choose one mode from 25 pre-moded massage modes~downward

Body▽: decrease the output intensity of electrode pads

TIME △: Automatic time is 30mins, and can increase to 60mins

Time ▽: Decrease from setting time to 30mins

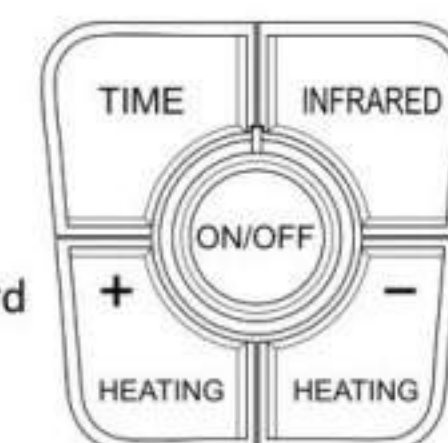
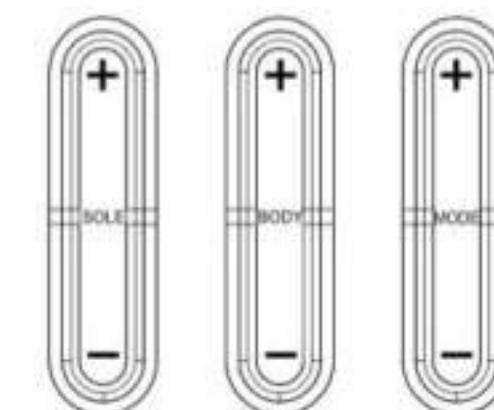
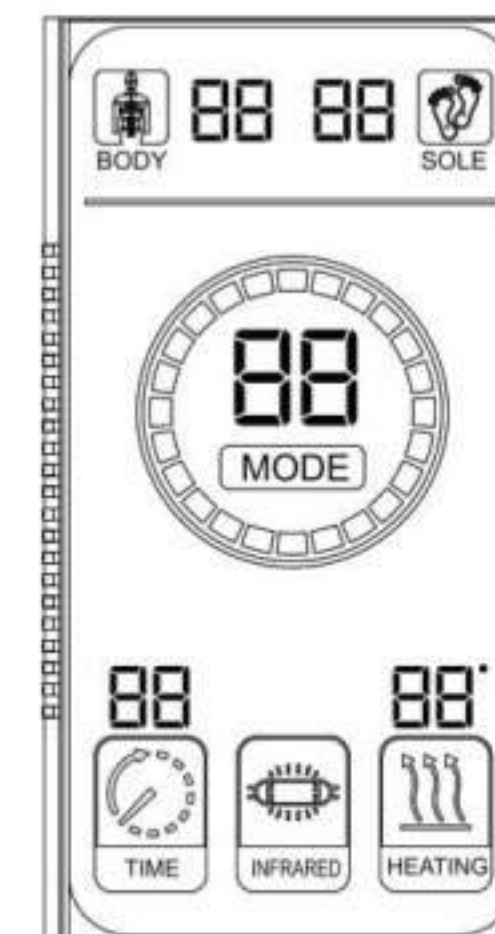
INFRARED: Open or close infrared function

HEATING △: Increase the temperature from 30-40degree.

HEATING ▽: Decrease the Temperature from setting to 30degree.

How to operate the remote control?

1. Open the battery cover behind of the remote control.
2. Put the two 7# (AAA) batteries into battery cassette in correct polarities.
3. Close the battery cover.



A Notes:

1. Please note that the the original recognized accessories, detachable parts and material which are approved by standard.
2. It is no needs to check & replace the original power source frequently.
3. Usually,this device is affected by high frequency electromagnetism and microwave radiation machine ,pls be far away from these machines beyond 500mm when using

As Caution

Suited to the crowd: It is mainly used in the adult, and required energetic and full of intelligence. For the following patients, They only can be use this instrument after consulting doctors, otherwise it may be caused by accident or physical discomfort:

1. Extremely debilitating, critical illness patients should not use.
2. With the tumor, cancer, hyperthyroidism, tuberculosis active period, suppurative inflammation.
3. The aged and infirm or who has heart heart disease.
4. The patients who are nervous,in fear of and sensitive to electronic muscle stimulators, pls not use it.
5. People who has Severe diabetes, high fever, skin allergy, traumatic bleeding and Fracture were treated period,pls don't use it.
6. High blood pressure patients.
7. Abnormal skin or Skin consciousness obstacle.
8. Some Psychopath.
9. Undergoing treatment, or who feel the body abnormalities.
- 10.If products performance changes as following: output level becomes weaken, strong, even no output, the display don't appear correction or even becomes mojibake and so on, pls stop using the machine and return it to the manufacturer or the professional maintenance place.
- 11.The MEDICAL DELECTRICAL EQUIPMENT needs special precautions regarding EMC and needs to be installed and put into service according to the EMC information provided in the ACCOMPANYING DOCUMENTS (see page 13-16).
- 12.Portable and mobile RF communications equipment can affect MEDICAL EELECTRICAL EQUIPMENT.
- 13.The use of ACCESSORIES, transducers and cables other than those specified, with the exception of transducers and cables sold by the manufacturer of the EQUIPMENT or SYSTEM as replacement parts for internal components, may result in increased EMISSION or decreased IMMUNITY of the EQUIPMENT or SYSTEM.

⚠ Contraindications

- 1) It is prohibited to use without doctor's suggestion for the patient with an implanted electronic device (for example a cardiac pacemaker)
- 2) please note the patient who connect with h.f. surgical equipment may affect the stimulator, so please follow the doctor's suggestion
- 3) Do not operate it in close proximity (e.g. 1 m) to a shortwave or microwave therapy equipment, which may produce instability in the stimulator output
- 4) please note the following people should follow the doctor's suggestion if use: tumor; chronic disease of serious disease; serious heart disease, the insane; pregnant woman
- 5) Please don't let the electrode pads touch with metal substance, such as strap, watch, necklace and etc when the machine is working
- 6) please ensure your skin neat and clean before use electrode pads

- 7) Please do not use the machine under wet condition, such as bathroom
- 8) please do not sit or stand on apparatus, and do not cast & fall it
- 9) please stop to use it immediately if you fell any discomfort and nausea when using
- 10) Do not apply electrodes near the thorax, which may increase the risk of cardiac fibrillation

Explanation of figures, symbols, warning statements and abbreviations on the equipment

1		(Symbol for "BATCH CODE. This symbol should be with Production Bi No, and next t o graph, batch code and lot number and batch number etc.) Examples:  ABC123
2		(Symbol for "DATE OF MANUAFCTURE". This symbol should be next to number) Production date of medical equipment use mark  in front of the production date)
3		Symbol for "ATTENTION,CONSULT ACCOMPANYING DOCUMENTS" .
4		After the adoption of the CE certification, CE mark is as following drawings. Its vertical height shall not be less than 5mm, clearly visible, clear, durable. the CE conformity assessment procedures are made by a Notified Body the Notified Body registration number should be the side of CE mark(Usually in the bottom right). The diameter of the CE marking should be not less than the 5MM semicircle of the two makes up, the XXXX at the lower right corner is the Notified Body identification number, such as the ITS-0473. All medical products sold in the EU market must identify the "CE". Affix the CE mark indicates that: A. The equipment to meet the basic requirements of the MDR; B. The equipment within the EU can be legally sold in the market; C. The device has passed a the conformity assessment procedures. The CE marks affixed to the medical devices have two types. That is, CE mark without Notified Body identification number and CE Mark with Notified Body identification number.

5		The Symbol for the Manufacturer (the "manufacturer" tag), the tag should contain the company name and address of the manufacturer. Product manufacturers, EC represent the name and address of importers and/or distributors ;
6		Phoenix Medtech GmbH Koenigsberger Strasse 11, 64839, Muenster Hessen, Germany
7		The waste products should be handled legally.
8		BF devices
9	 THIS SIDE UP	Upside
10	 FRAGILE	Fragile
11	 KEEP DRY	Keep dry
12		Stacking
13	SN	Devices serial number
14	IP21	Protected from touch by fingers and objects greater than 12 millimeters and protected from water spray less than 15 degrees from vertical.
15		Indicates the item is a medical device

Storage / Maintenance

1. Use wet cloth or neutral cleanser to wipe the machine, and don't use volatile liquid to clean the machine, such as benzene, thinner or gasoline
2. keep it away from magnetic field and reach of children
3. keep the machine far away from moisture, high temperature, direct sunlight or sprinkling water
4. If the electrode pads are insufficiently adhesive or dirty, please wipe with a wet cloth or change new ones. Don't clean the electrode pads with any chemical
5. please do not mantle, repair or rebuild the machine in private, or manufacturer will not guarantee to repair it and the after-sale services
6. if not use it for a long time, please remove the batteries from remote controller

Environmental protection

Please make a rubbish classification after use, such as electrode pads, carton box and so on.

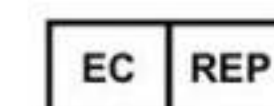
Specifications

Model number: AST-300L

This equipment belongs to Type BF of Class II



Shenzhen OSTO Medical Technology Company
Limited No.43, Longfeng road, Xinsheng community,
Longgang street, Longgang district, 518116
Shenzhen city, Guangdong Province, China



Phoenix Medtech GmbH
Koenigsberger Strasse
11, 64839, Muenster
Hessen, Germany



Rated: 5 V dc, 2000 mA

Powered by adaptor: HDMA10U-050200

Rated Voltage: 100-240V

Rated input: 0.1 A

Output waveform: Square wave

Pulse repetition frequencies: 1-200Hz

Maximum amplitude of output voltage: 72V

Software version No: MC0188F-REV-V1.0

Rated frequency: 50-60Hz

Rated output: 5v 2000mA

Pulse duration: 115 μ S

Effect of load impedance: 1K Ω

Operation condition:

10 – 40 $^{\circ}$ C

30% RH ~ 75%RH

860 hPa to 1060 hPa

Store and transport condition:

0 – 40 $^{\circ}$ C

$\leq$ 80% RH

860 hPa to 1060 hPa

Caution for Electrode Gel Pads (cleaning)

Never stick two adhesive pads to each other.

Keep the adhesive gel pads clean, and never put them under high temperature and direct sunshine.

For protection the gel pads, always put it on to the gel pad protector after use.

Don't touch the gel of the pads by your figure, or it reduce the gel and lose its function..

Don't clean the electrode pads with hot water or any chemical.

If the electrode pads become soiled, the adhesive power may decrease and the skin might become irritated. If this situation happens, should moisten the surface of the pads with water and wipe away the soiled portion, this will allow a pad restoration of the adhesive poser. But it will lose the adhesive power if there is too much water. The best way is to purchase another pads.

The electrode pads has been passed the Biocompatibility test (Test report is SDFY-2006-2623. The test report shows that it does not induce any irritation to skin.

Trouble Shooting

Questions	Reason	Solvent
No stimulation	If connect the wire? If remove the protective membrane? of the pads?	Connect the wire correctly. Remove the protective membrane of the pads.
Weak stimulation	If the pads stick to the skin tightly? If the pads stick overlapped? If the pads are dirty? If the intensity is weak? If the stick place not goods?	Stick the pads tightly. Detach the pads,and stick again. Clean the pads. Adjust the intensity to be stronger. Change the stick place.
The skin become red and stinged	Therapy time is too long? The pads too dry? The pads are sticked too tightly? The pads are dirty? The pads are damaged?	Therapy time always be 10-15minutes once. Clean with the wet cloth,then use again. Stick the pads tightly to the skin. Clean the pads. Change the pads.
The power cut off during therapy	The pads fall off from the skin? The wire connect cut off? No battery? The therapy time over?	Turn off the power,stick the pads again. Turn off the power,connect the pads again. Change new battery. The power will turn off after 15minutes therapy.

Description of Modes

MODE	PATTERN
1	Accupuncture Pushing
2	Accupuncture
3	Accupuncture Kneading
4	Accupuncture Tapping
5	Scrapping
6	Squeezing
7	Massage
8	Pushing Massage
9	Pushing Squeezing
10	Accupuncture Squeezing
11	Accupuncture Hammering
12	Kneading
13	Thumping
14	Scrapping Pressing
15	Cupping
16	Body Shaping
17	Hammering
18	Massage Tapping
19	Pushing
20	Rolling Pounding
21	Squeezing
22	Stroke
23	Acupuncturetherapy Massage
24	Shiatsu
25	Rolling Kneading

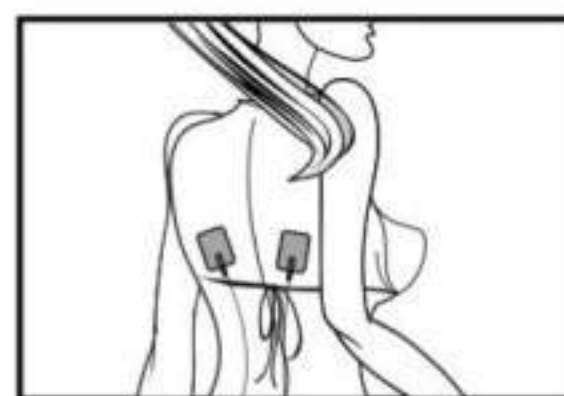
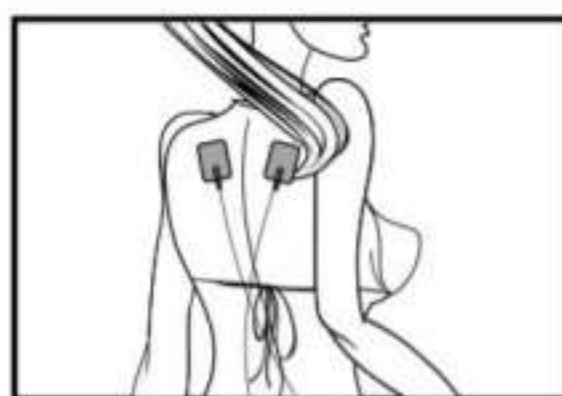
Electrode pads therapy usage example

Shoulder, back

Symptom

Shoulder, back muscle ache, etc

Cutlinc

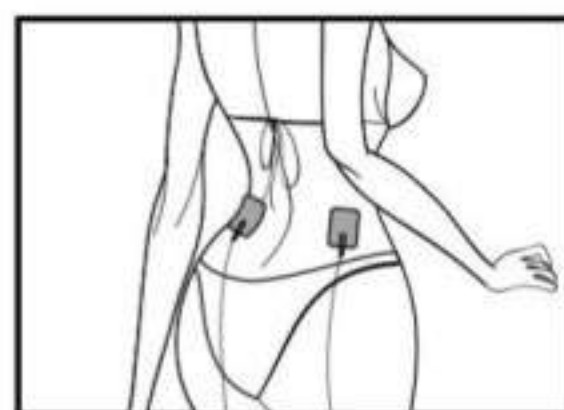
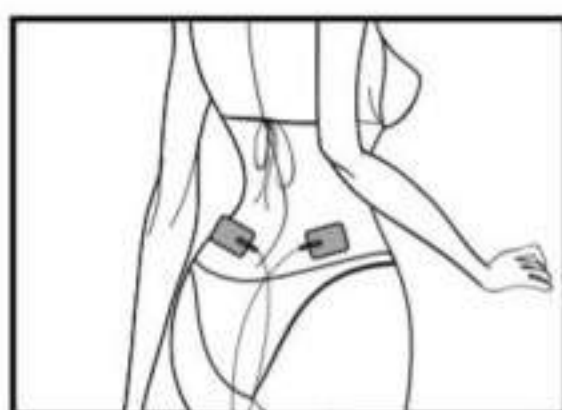
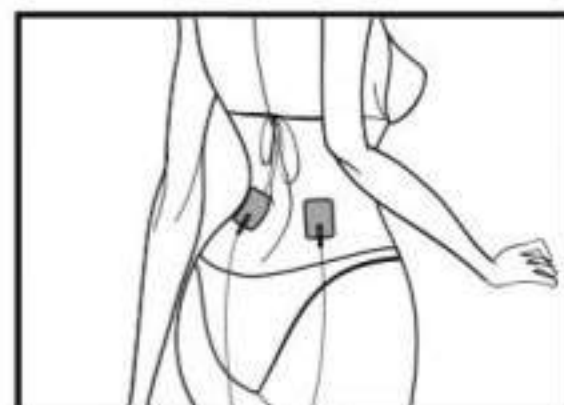


Waist

Symptom

Waist muscle ache, etc

Cutlinc



Arm

Symptom

Arm numb, muscle ache, etc

Cutlinc



Leg

Symptom

Leg muscle ache, etc

Cutlinc

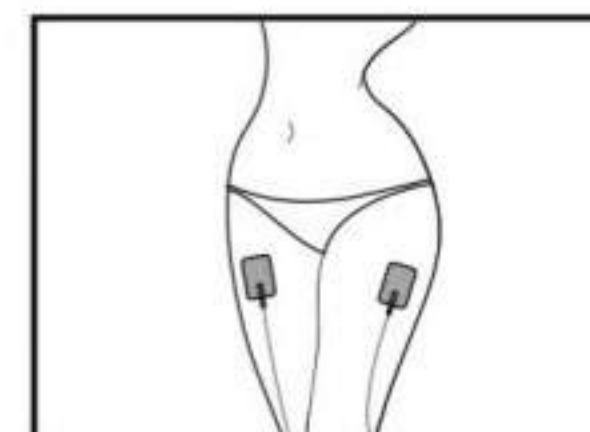
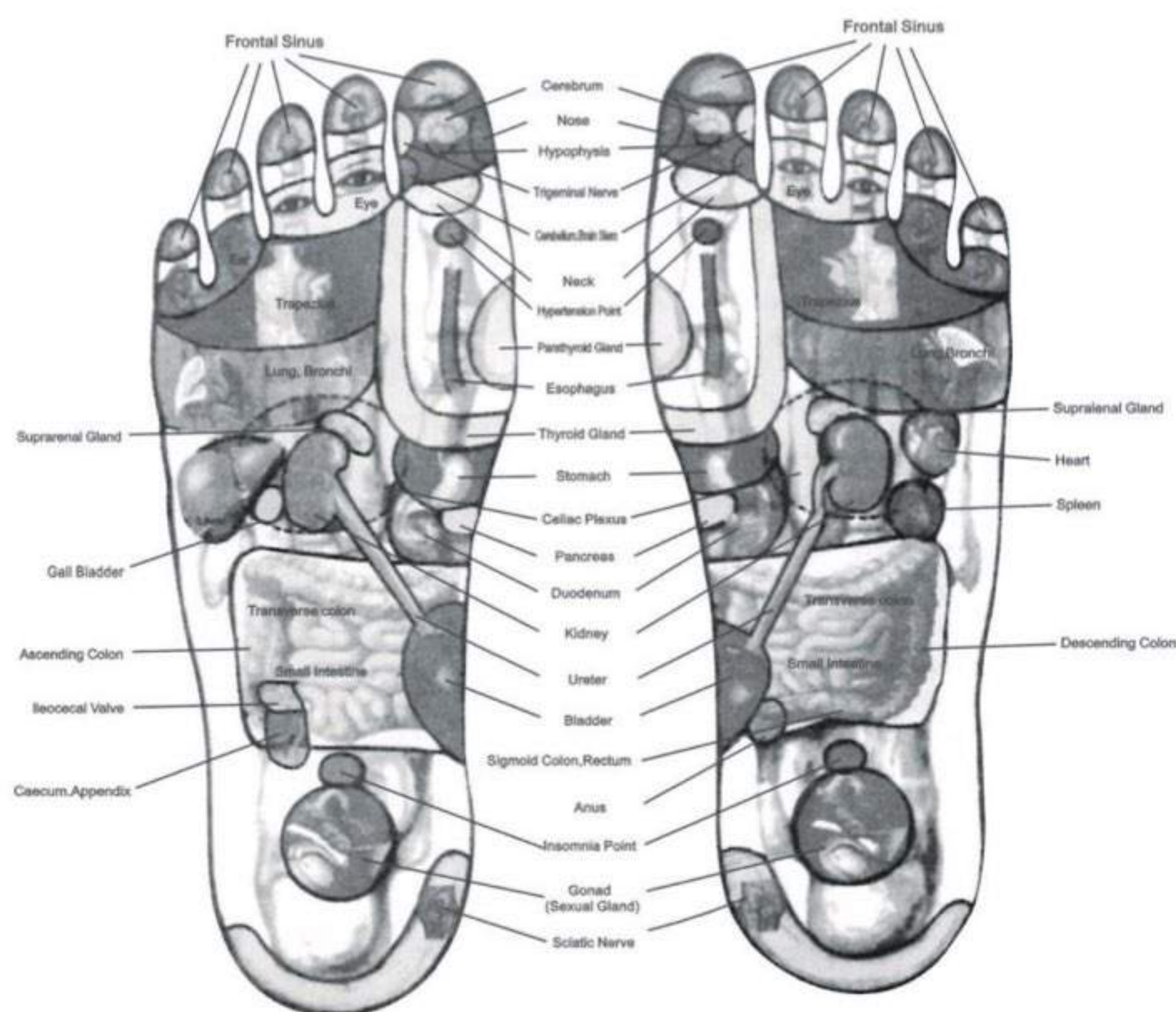


Diagram of the Reflexive Zones of the Feet



Accompanying Documents:

Instructions for use

1. AST-300C needs special precautions regarding EMC and needs to be installed and put into service according to the EMC information provided in the ACCOMPANYING DOCUMENTS;
2. Portable and mobile RF communications equipment can affect AST-300C.

Technical description

1. Warning that the use of accessories, transducers and cables other than those specified with the exception of transducers and cables sold by the manufacturer of the AST-300C as replacement parts for internal components, may result in increased EMISSIONS or decreased IMMUNITY of the AST-300L.
2. Warning that the AST-300C should not be used adjacent to or stacked with other equipment
- 3.

Guidance and manufacturer's declaration – electromagnetic emissions

The AST-300C is intended for use in the electromagnetic environment specified below. The customer or the user of the AST-300C should assure that it is used in such an environment.

Emissions	Compliance	Electromagnetic environment-- guidance
RF emissions CISPR 11	Group 1	The AST-300C uses RF energy only for its internal function. Therefore, its RF emissions are very low and are not likely to cause any interference in nearby electronic equipment.
RF emissions CISPR 11	Class B	The AST-300L is suitable for use in all establishments, including domestic establishments and those directly connected to the public low-voltage power supply network that supplies buildings used for domestic purposes.
Harmonic emissions IEC 61000-3-2	Class A	
Voltage fluctuations/ flicker emissions IEC 61000-3-3	Complies	

4.

Guidance and manufacturer's declaration – electromagnetic immunity			
The AST-300C is intended for use in the electromagnetic environment specified below. The customer or the user of the AST-300L should assure that it is used in such an environment.			
Immunity test	IEC 60601 test level	Compliance level	Electromagnetic environment --guidance
Electrostatic discharge (ESD) IEC 61000-4-2	±6 kV contact ±8 kV air	±6 kV contact ±8 kV air	Floors should be wood, concrete or ceramic tile. If floors are covered with synthetic material, the relative humidity should be at least 30 %.
Electrical fast transient/burst IEC 61000-4-4	±2 kV for power supply lines	±2 kV for power supply lines	Mains power quality should be that of a typical commercial or hospital environment.
Surge IEC 61000-4-5	±1 kV line(s) and neutral	±1 kV line(s) and neutral	Mains power quality should be that of a typical commercial or hospital environment.
Voltage dips, short interruptions and voltage variations on power supply input lines IEC 61000-4-11	± 2 kV line(s) to earth <5 % UT (>95 % dip in UT) for 0,5 cycle 40 % UT (60 % dip in UT) for 5 cycles 70 % UT (30 % dip in UT) for 25 cycles <5 % UT (>95 % dip in UT) for 5s	± 2 kV line(s) to earth <5 % UT (>95 % dip in UT) for 0,5 cycle 40 % UT (60 % dip in UT) for 5 cycles 70 % UT (30 % dip in UT) for 25 cycles <5 % UT (>95 % dip in UT) for 5s	Mains power quality should be that of a typical commercial or hospital environment. If a dips or an interruption of mains power occurs, the current of the AST-300C may be dropped off from normal level, it may be necessary to use uninterruptible power supply or a battery.
Power frequency (50/60 Hz) magnetic field IEC 61000-4-8	3 A/m	3 A/m	If image distortion occurs, it may be necessary to position the AST-300C image intensifier further from sources of power frequency magnetic fields or to install magnetic shielding. The power frequency magnetic field should be measured in the intended installation location to assure that it is sufficiently low.
NOTE UT is the a.c. mains voltage prior to application of the test level			

5.

Guidance and manufacturer's declaration – electromagnetic immunity			
The AST-300C is intended for use in the electromagnetic environment specified below. The customer or the user of the AST-300C should assure that it is used in such an environment.			
Immunity test	IEC 60601 test level	Compliance level	Electromagnetic environment – guidance
Conducted RF IEC 61000-4-6	3 Vrms 150 kHz to 80 MHz	3 Vrms	Portable and mobile RF communications equipment should be used no closer to any part of the AST-300C, including cables, than the recommended separation distance calculated from the equation applicable to the frequency of the transmitter. Recommended separation distance $d=1,2\sqrt{P}$ $d=1,2\sqrt{P}$ 80 MHz to 800 MHz $d=2,3\sqrt{P}$ 80 MHz to 2,5 GHz where P is the maximum output power rating of the transmitter in watts (W) according to the transmitter manufacturer and d is the recommended separation Distance in metres (m). Field strengths from fixed RF transmitters, as determined by an electromagnetic site survey, a should be less than the compliance level in each frequency range.b Interference may occur in the vicinity of equipment marked with the following symbol:
Radiated RF IEC 61000-4-3	3 V/m 80 MHz to 2.5 GHz	3 V/m	
NOTE 1 At 80 MHz and 800 MHz, the higher frequency range applies. NOTE 2 These guidelines may not apply in all situations. Electromagnetic propagation is affected by absorption and reflection from structures, objects and people.			
a. Field strengths from fixed transmitters, such as base stations for radio (cellular/cordless) telephones and land mobile radios, amateur radio, AM and FM radio broadcast and TV broadcast cannot be predicted theoretically with accuracy. To assess the electromagnetic environment due to fixed RF transmitters, an electromagnetic site survey should be considered. If the measured field strength in the location in which the AST-300C is used exceeds the applicable RF compliance level above, the AST-300C should be observed to verify normal operation. If abnormal performance is observed, additional measures may be necessary, such as re-orienting or relocating the AST-300C. b. Over the frequency range 150 kHz to 80 MHz, field strengths should be less than 3 V/m.			

6.

**Recommended separation distances between
portable and mobile RF communications equipment and the AST-300C**

The AST-300C is intended for use in an electromagnetic environment in which radiated RF disturbances are controlled. The customer or the user of the AST-300C can help prevent electromagnetic interference by maintaining a minimum distance between portable and mobile RF communications equipment (transmitters) and the AST-300C as recommended below, according to the maximum output power of the communications equipment.

	Separation distance according to frequency of transmitter m		
	150 kHz to 80 MHz $d=1,2\sqrt{P}$	80 MHz to 800 MHz $d=1,2\sqrt{P}$	800 MHz to 2.5 GHz $d=2,3\sqrt{P}$
0.01	0.12	0.12	0.23
0.1	0.38	0.38	0.73
1	1.2	1.2	2.3
10	3.8	3.8	7.3
100	12	12	23

For transmitters rated at a maximum output power not listed above, the recommended separation distance d in metres (m) can be estimated using the equation applicable to the frequency of the transmitter, where P is the maximum output power rating of the transmitter in watts (W) according to the transmitter manufacturer.

NOTE 1 At 80 MHz and 800 MHz, the separation distance for the higher frequency range applies.

NOTE 2 These guidelines may not apply in all situations. Electromagnetic propagation is affected by absorption and reflection from structures, objects and people.

Warranty card

1. we guarantee that the product is warranted against all defects for one year from the day of purchase without any charge for accessory or maintenance provided that the product is used correctly as instructed in the operation and instructions
2. we charge for accessory cost only when the components are required to replace over 1 year and do not charge for maintenance
3. please send the malfunction product to us or local dealers and we will pay immediate attention to it.

Valid for warranty 1 year after the date of purchase

Purchase date:

Consumer's Add:

Consumer's Name:

Consumer's Tel:

Dealer Name:

Dealer Add:

Dealer Tel:

Description: