# Instruction Manual

# **Electronic Muscle Stimulator**

AST-300Q



Please read carefully before use and keep for future reference

#### **Phoenix Medtech GmbH**

**EC** | **REP** | Koenigsberger Strasse 11, 64839. Muenster Hessen, Germany.

#### **UK Responsible Person**

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Thank you for purchasing the Electronic Muscle Stimulator. We believe regular use of this product is beneficial for muscle performance and to restore muscle regeneration.

Please read the user manual carefully and have it readily available for referencing.

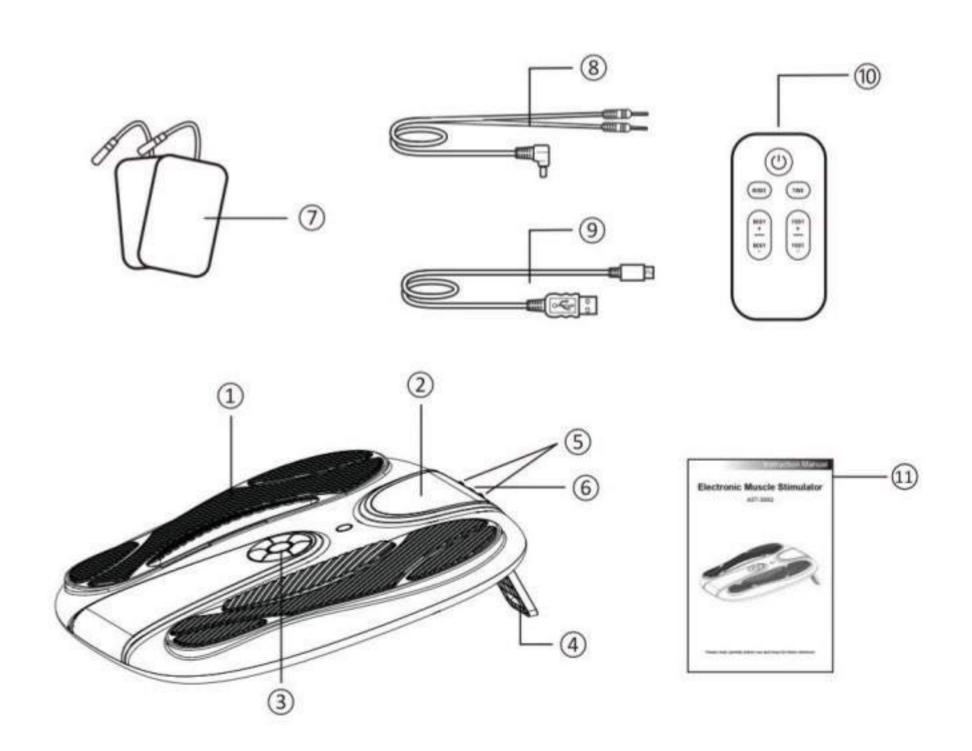
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### **Parts identification**

- 1 Massage area
- (2) LCD screen
- 3 Main machine buttons
- 4) Bottom bracket
- (5) Electrode cable sockets
- 6 Charging port

- (7) Electrode Gel Pads
- (8) Electrode cables
- 9 Charging cable
- 10 Remote control
- (11) Instruction manual



### Function and intended application of the equipment

The principal function of this Electronic muscle stimulator is to control the pulses emitted, in order to stimulate specific target areas of the body, causing muscles to contract and relax involuntarily. When the muscles are relaxed, a large volume of blood circulates, and when the muscles are contracted, a large number of metabolites are released. These actions can help to accelerate the blood circulation whilst helping to lessen the pain or soreness, swelling, fatigue and other symptoms which may be experienced.

**IMPORTANT**: This Electronic muscle stimulator works by stimulating the muscles with low current and promoting blood circulation, thus reducing fatigue and pain.

- Different intensity levels of electromagnetic waves can manually be controlled, providing the ideal result for each of the sequences selected.
- 15 massage modes and 99 intensities with dual channel output for your feet and body. Each pulse massage mode will help improve and target different symptoms in order to eliminate fatigue.
- Pre-set to a 30 minutes automated time set. Time Range 5-60 minutes.
- · All functions can be easily operated and used by remote control.

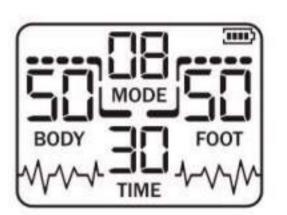
### **Usage of Electrode Gel Pads**

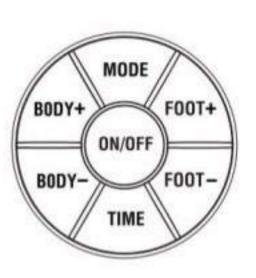
- The size of pads is 4cm x 6cm (1.57" x 2.36")
- · Connect the electrode cable to the Electrode Gel Pads
- · Then connect electrode cable to the Electronic Muscle Stimulator
- · Remove the protecting film from the adhesive pads
- · Attach the electrode gel pads to the skin steadily
- Press the Switch button to turn on the unit and adjust the pulse mode and output intensity as you wish. (The display will show the mode and the level as you have selected)
- Keep the adhesive gel pads clean, and never put them under high temperature or direct sunshine.
- If the electrode get pads are insufficiently adhesive or dirty, wipe them with a wet cloth or change them to new ones. Do not clean the electrode gel pads with any chemical products.
- The effects of the pad will disappear after many times of using it. Please change to new pads if the pads have never been used in a whole year.

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### **Button Operation**

- 1. Put your BOTH bare feet on the unit.
- Press the switch button to turn on the unit, the LCD screen will light up.
- 3. Press "MODE" to select different modes, Total 15 modes. Automatic mode shows 00. it will cycle through the 15 modes until the unit is turned off.
- 4. Press "FOOT+"&"BODY+" or "FOOT-"&"BODY-" button to Increase or decrease intensity. Intensity Range: 1-99.
- 5. Press "Time" button to change the time. Time Range:
- 5-60 minutes. Automatic timer 30 minutes.
- 6. To turn off the unit by pressing the switch button.
- After turn on the unit, you can also directly turn on the remote control to operate.



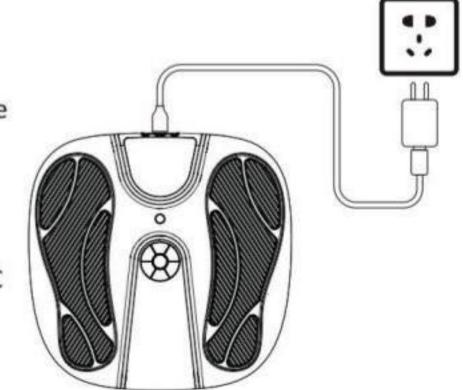


Tips: Please adjust the intensity gradually from lower to stronger.

(Notes: The operation of remote control is same above)

## **Charging for unit**

- Please fully charge the device before using it at the first time. A full charge takes nearly 2 hours.
- If the battery level on the display is too low, please charge it with a TYPE-C charging cable.





Do not use the device while charging.

#### **Electronic Muscle Stimulator**



#### Notes:

- 1. Please note that the original recognized accessories, detachable parts and materials are approved by standard.
- 2. There is no need to check & replace the original power source frequently.
- Usually, this device is affected by high frequency electromagnetic and microwave radiation machine, please stay far away from these machines, at least 1m from them, when using.



#### Caution

Suited for an adult: It is mainly used on adult, and required to be energetic and full of intelligence. For the following patients, they can only use this instrument after consulting doctors, otherwise it may cause accident or physical discomfort:

- 1. Extremely debilitating, critical illness patients should not use this product.
- 2. Patients with tumor, cancer, hyperthyroidism, tuberculosis active period or suppurative inflammation.
- 3. The aged and infirm people or people who have heart disease.
- For patients who are nervous, scared and sensitive to electronic muscle stimulators, please, do not use it.
- 5. People who have severe diabetes, high fever, skin allergy, traumatic bleeding or fracture in healing period, please do not use it.
- 6. Patients with high blood pressure.
- 7. Abnormal skin or skin consciousness obstacle.
- 8. Some psychopath behavior.
- 9. People under treatment, or who suffer from body abnormalities.
- 10. If product performance changes as following: output level becomes weaken, stronger or even no output; if the display does not appear correctly or even becomes garbled and so on, please stop using the machine and return it to the manufacturer or the professional maintenance place.
- 11. The MEDICAL ELECTRICAL 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).
- Portable and mobile RF communications equipment can affect MEDICAL ELECTRICAL 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.

# **△** Warnings

1) It is prohibited to use the product without doctor's agreement for a patient with an implanted electronic device (for example, a cardiac pacemaker).

- 2) Please note that a patient who is connected to 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 that the following people should follow the doctor's suggestion before use: patient with tumor; chronic disease or serious disease; serious heart disease, insanity as well as pregnant woman.
- Please don't let the electrode pads touch a metal substance, such as strap, watch, necklace and so on when the machine is working.
- 6) Please ensure your skin is neat and clean before using electrode pads.
- 7) Please do not use the machine in wet environment, such as bathroom.
- 8) Please do not sit or stand on the device, and do not cast or let it fall.
- 9) Please stop using it immediately if you feel any discomfort and nausea while using it.
- 10) Do not apply electrodes near the thorax, which may increase a risk of cardiac fibrillation.

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

1	LOT	Lot number
2	_	DATE OF MANUAFCTURE
3	<u></u>	Symbol for "ATTENTION, CONSULT ACCOMPANYING DOCUMENTS"
4	<b>C</b> € <sub>2862</sub>	The CE labelling certifies that the product complies with essential requirements of Directive 93/42/EEC on medical device.
5		MANUFACTURER
6	EC REP	Authorised Representative in the European Community
7	MD	Indicates the item is a medical device

8	SN	Devices serial number
9	፟	Type BF device
10		Class II Equipment
11	Z	Dispose of the device at a suitable local collection or recycling point in your country. Dispose of the device in accordance with EC Directive - WEEE (Waste Electrical and Electrical Equipment)
12	0°C	Temperature limit
13	% <sup>80%</sup>	Humidity limit
14	IP21	Protected against solid foreign objects 12.5mm in diameter and larger, and against vertically falling drops of water.
15		Read the instructions for use

### 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 them with a wet cloth or change for new ones. Don't clean the electrode pads with any chemical products.
- 5. Please do not mantle, repair or rebuild the machine yourself, or manufacturer will not guarantee the repairing and after-sale services.
- 6. If not used for a long time, please remove batteries from the remote controller. Environmental protection

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

**Specifications** 

Model number: AST-300Q

This equipment belongs to Type BF of Class II according to Clause 5.



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Email: contact@phoenix-medtech.de
Product size: 330x42.8x337mm

Battery capacity: 400mA
Effect of load impedance: 1KΩ

Peak voltage:<65V Pulse width: 115uS-480u

WS1 1NS,UK.

Pulse repetition frequencies: 0-200HZ

Working voltage (Main unit): 3.7V dc
Working current (Main unit): 100mA
Working voltage (Remote control): 3.7V dc (AAA\*2)
Working current (Remote control): 1-10mA

Adapter output: 5V 1000mA

Operation condition:

10 – 40 °C 30% RH ~ 75%RH

860 hPa to 1060 hPa

Store and transport condition:

0 - 40 °C ≤80% RH

860 hPa to 1060 hPa



### (cleaning) Caution for Electrode Gel Pads (cleaning)

Never stick two adhesive pads on each other.

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

To protect the gel pads, always put the protection on the gel pad protector after use.

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

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

If the electrode pads become soiled, the adhesive power may decrease, and the skin might become irritated. If this situation happens, you 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 have passed the Biocompatibility test (Test report is SDFY-2006-2623).

The test report shows that they do not induce any irritation to the skin.

### Trouble Shooting

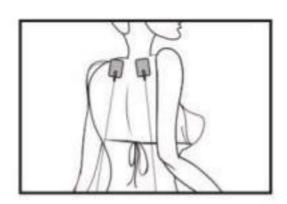
Questions	Reason	Solution		
Device will not turn on	- The device is no power.	- Please fully charge before use.		
Power turns off while using massager	- Treatment period of 30 minutes is over and power turns off automatically.	- Restart treatment or turn off the massager.		
It is difficult to feel stimulation	<ul> <li>You sole is too dry, not moisture enough.</li> <li>Your sole is not placing on the foot pedal properly.</li> <li>Applied intensity too weak.</li> </ul>	<ul> <li>Put some water base gel or water to your sole to moisture your sole.</li> <li>Ensure both of your sole are placed on each pedal properly</li> <li>Please increase the intensity by pressing the + button.</li> </ul>		

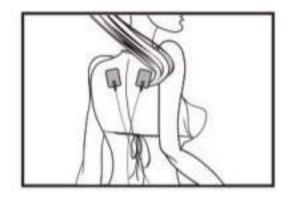
### **Description of Modes**

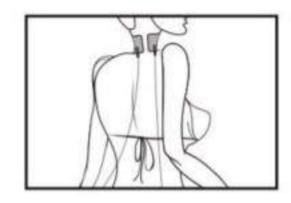
Mode	PATTERN	TYPE	
1	Accupuncture Pushing	TENS	
2	Accupuncture	TENS	
3	Accupuncture Kneading	TENS	
4	Accupuncture Tapping	TENS	
5	Scrapping	TENS	
6	Squeezing	EMS	
7	Massage	EMS	
8	Pushing Massage	EMS	
9	Pushing Squeezing	TENS	
10	Accupuncture Squeezing	TENS	
11	Accupuncture Hammering	TENS	
12	Kneading	EMS	
13	Thumping	TENS	
14	Scrapping Pressing	TENS	
15	Cupping	EMS	

### Electrode pads therapy usage example

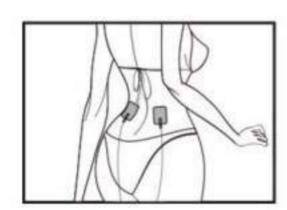
Shoulder and back
Symptoms (Shoulder, back
muscular pain and so on)

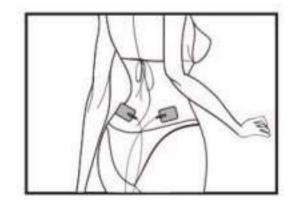


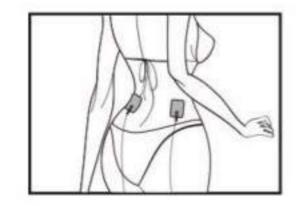




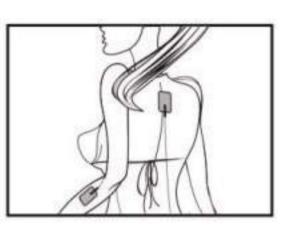
Waist
Symptoms (Waist muscular pain and so on)

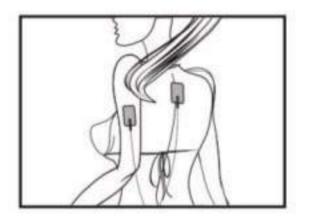


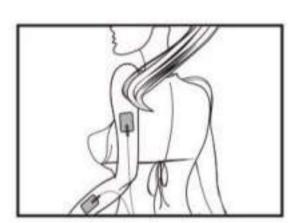




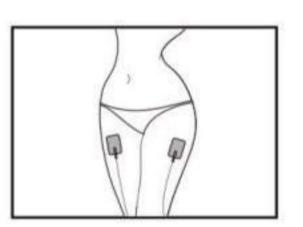
Arms
Symptoms (Numb arm,
muscular pain and so on)

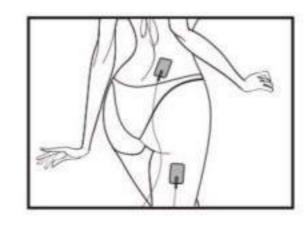






Legs
Symptoms (Leg muscular pain and so on)





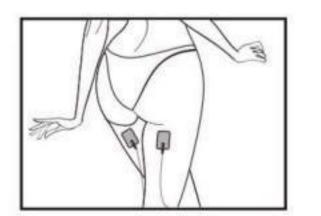
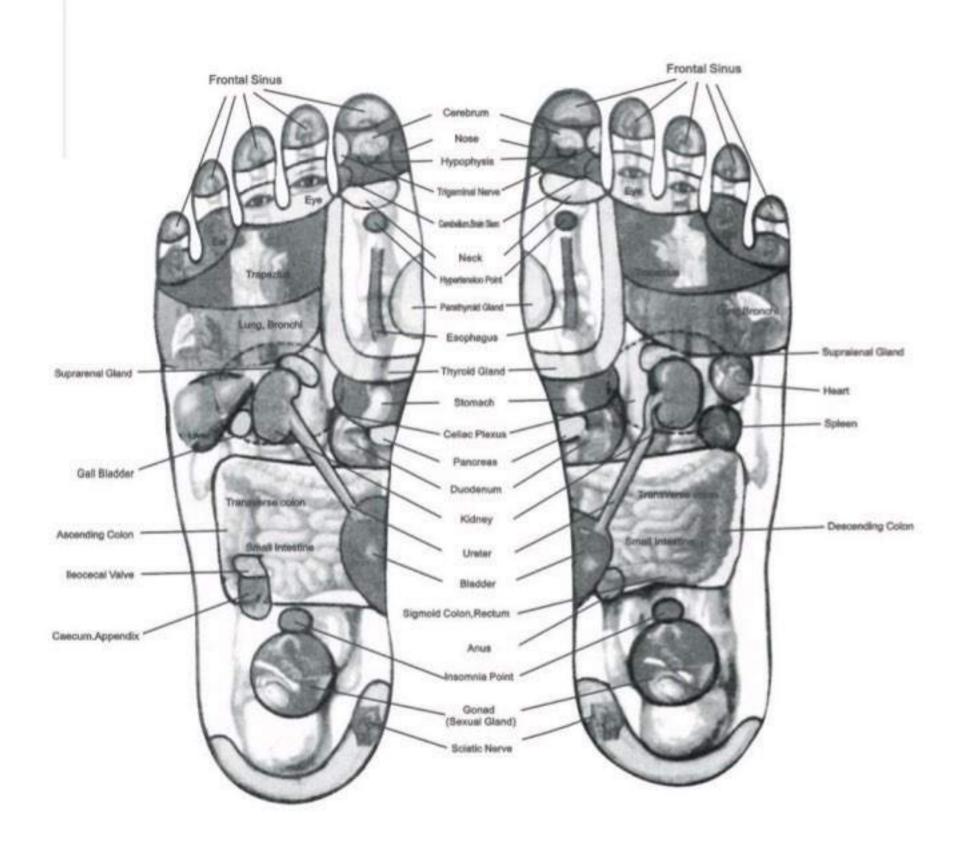


Diagram of the Reflexive Zones of the feet

### Diagram of the Reflexive Zones of the Feet



### Accompanying Documents:

Emissions	Compliance		
RF emissions CISPR 11	Group 1		
RF emissions CISPR 11	Class [B]		
Harmonic emissions IEC 61000-3-2	Not Applicable		
Voltage fluctuations/ flicker emissions IEC 61000-3-3	Not Applicable		

±8 kV contact ±2 kV, ±4 kV, ±8 kV, ±15 kV air	±8 kV contact		
	±8 kV contact ±2 kV, ±4 kV, ±8 kV, ±15 kV air		
±2 kV for power supply lines ±1 kV signal input/output 100 kHz repetition frequency	±2 kV for power supply lines Not Applicable 100 kHz repetition frequency		
±0.5 kV, ±1 kV differential mode ±0.5 kV, ±1 kV, ±2 kV common mode	±0.5 kV, ±1 kV differential mode Not Applicable		
0 % UT; 0,5 cycle. At 0°, 45°, 90°, 135°, 180°, 225°, 270° and 315°. 0 % UT; 1 cycle and 70 % UT; 25/30 cycles; Single phase: at 0°. 0 % UT; 250/300 cycle	0 % UT; 0,5 cycle. At 0°, 45°, 90°, 135°, 180°, 225°, 270° and 315°. 0 % UT; 1 cycle and 70 % UT; 25/30 cycles; Single phase: at 0 0 % UT; 250/300 cycle		
30 A/m 50Hz/60Hz	30 A/m 50Hz/60Hz		
3 V 0,15 MHz – 80 MHz 6 V in ISM and amateur radio bands between 0,15 MHz and 80 MHz 80 % AM at 1 kHz	3 V 0,15 MHz – 80 MHz 6 V in ISM and amateur radio bands between 0,15 MHz and 80 N 80 % AM at 1 kHz		
10 V/m 80 MHz – 2,7 GHz 80 % AM at 1 kHz	10 V/m 80 MHz – 2,7 GHz 80 % AM at 1 kHz		
	±0.5 kV, ±1 kV differential mode ±0.5 kV, ±1 kV, ±2 kV common mode  0 % UT; 0,5 cycle. At 0°, 45°, 90°, 135°, 180°, 225°, 270° and 315°. 0 % UT; 1 cycle and 70 % UT; 25/30 cycles; Single phase: at 0°. 0 % UT; 250/300 cycle  30 A/m 50Hz/60Hz  3 V 0,15 MHz – 80 MHz 6 V in ISM and amateur radio bands between 0,15 MHz and 80 MHz 80 % AM at 1 kHz  10 V/m 80 MHz – 2,7 GHz		

Guidance and manufa	acturer's declaration -	electromagnetic	immunity
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Radiated RF IEC61000-4-3 (Test specifications for ENCLOSURE PORT IMMUNITY to RF wireless communications equipment)	Test Frequency (MHz)	Band (MHz)		Modulation	Modulation (W)	Distance (m)	IMMUNITY TEST LEVEL (V/m)
	385	380 -390	TETRA 400	Pulse modulation 18 Hz	1,8	0.3	27
	450	380 -390	GMRS 460, FRS 460	FM ± 5 kHz deviation 1 kHz sine	2	0.3	28
	710	70.	LTE Band 13,	Pulse modulation 217 Hz		0.3	9
	745	704 – 787			0,2		
	780		17	217112			
	810		TIFTRA	modulation	2	0.3	28
	870	800 – 960					
	930						
	1720		GSM 1800; CDMA 1900; 4 – GSM 1900;	217 Hz	2	0.3	28
	1845	704 – 787					
	1970	/6/					
	2450	2 400 – 2 570	Bluetooth, WLAN, 802.11 b/g/n, RFID 2450, LTE Band 7	Pulse modulation 217 Hz	2	0.3	28
	710	E 100	WLAN	Pulse modulation 217 Hz	0,2	0.3	9
	745	5 100 – 5 800					
	780						

### **EMC Warning**

The AST-300Q is suitable for home healthcare environments

**Warning**: Don't near active HF surgical equipment and the RF shielded room of an ME system for magnetic resonance imaging, where the intensity of EM disturbances is high.

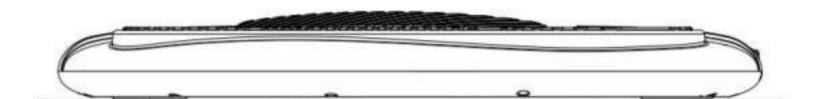
**Warning**: Use of this equipment adjacent to or stacked with other equipment should be avoided because it could result in improper operation. If such use is necessary, this equipment and the other equipment should be observed to verify that they are operating normally.

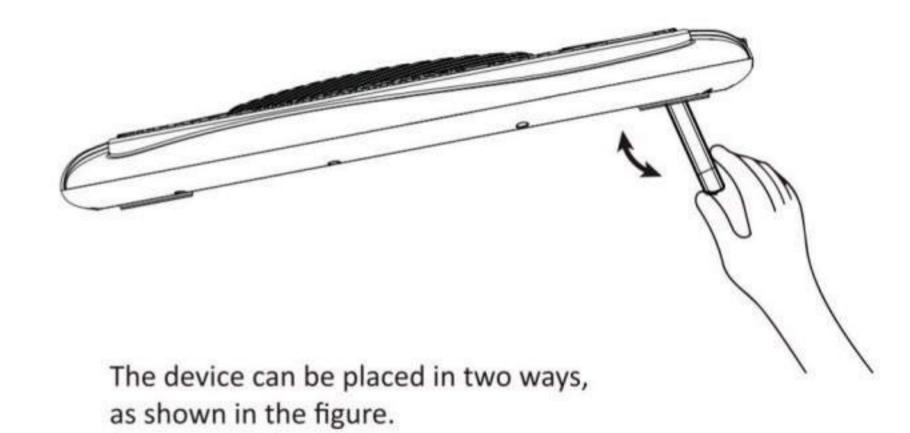
**Warning**: Use of accessories, transducers and cables other than those specified or provided by the manufacturer of this equipment could result in increased electromagnetic emissions or decreased electromagnetic immunity of this equipment and result in improper operation.

Warning: Portable RF communications equipment (including peripherals such as antenna cables and external antennas) should be used no closer than 30 cm (12 inches) to any part of the AST-300Q, including cables specified by the manufacturer. Otherwise, degradation of the performance of this equipment could result.

If the equipment is subjected to electromagnetic interference, the screen may flash etc,

please move to a place where there is no electromagnetic interference to solve this problem.





#### WARNING

Once the tilted position is achieved, don't stand on the device. It will cause damage.