MODEL AXUS ES-5

ELECTRO ACUPUNCTURE DEVICE
(Five Channel with Digital Displays)

INSTRUCTION MANUAL

AXUS ES-5 ELECTRO ACUPUNCTURE DEVICE

The AXUS ES-5 Electro Acupuncture device is an electro acupuncture device with five channels that features a professional modern design and provides multiple functions and features that are essential in daily acupuncture practice.

Before using the AXUS ES-5 Electro Acupuncture device, please read the user manual carefully. Please pay special attention to the “Safety Precautions and Warnings” section to ensure that the device is operated properly.

AXUS ES-5 ELECTRO ACUPUNCTURE DEVICE

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Contents of the “AXUS ES-5” Package

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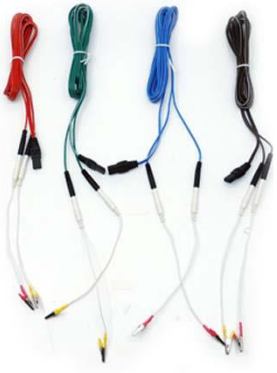
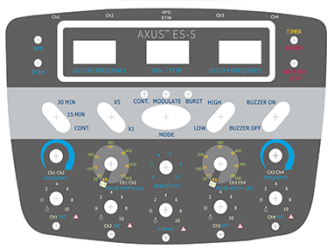
- 1 Handheld APD/STI Probe with Grounding Pole (Handgrip)
- 4 Connecting Cables (Assorted Colors)
- 4 Micro Alligator Clips
- 2 Interchangeable Tips for the Handheld Probe (Small and Large Tips)
- 1 User Manual
- Optional Accessories
    - Alligator Clips
    - EZ Grip Clips
    - Duck Beak Clips
    - Micro-Hook Clips



Connecting Cables



AXUS ES-5 Main Unit

APD/STI Probe

Note: Batteries are not included. This device requires six size C batteries (LR14) to operate. The device and its accessories are packed in a sturdy cardboard box.

AXUS ES-5 ELECTRO ACUPUNCTURE DEVICE

Technical Specifications

	Normal Output channels at 500 Ω test load		**Hand Held APD/STI channel at 500 Ω test load**
Output Voltage	Low: 0 -10 V	Hi: 0 - 22.5 V	0 - 40 V
Output Current	Low: 0 – 20 mA	Hi: 0 – 45 mA	0 - 80 mA
Pulse Width	X1: 50 – 500 µS (adjustable)	X5: 10 – 100 µS (adjustable)	260 µS (fixed)
Pulse Rate	X1: 1 – 100 Hz (adjustable)	X5: 5 – 500 Hz (adjustable)	10 Hz (fixed)

Output Channels:	Five Channels (Four Normal Output Channels, One APD/STI Channel)
APD/STI Mode:	LED illuminates in “STI” mode LED flashes when the “STI” button is pressed.
Waveform:	Asymmetric Rectangular Pulsed Biphasic
Pulse Width:	Adjustable from 50-500 µS in X1 position Adjustable from 10-100 µS in X5 position
Pulse Rate:	Adjustable from 1-100 Hz in X1 position Adjustable from 5-500 Hz in X5 position
Mode:	Continuous - Pulse rate and width are adjustable from 1-100 Hz & 50-500 µS at X1 position, and from 5-500 Hz & 10-100 µS at X5 position. Modulate - Preset Pulse Rate ramp up and down for 6 seconds per one cycle; both pulse rate & width are adjustable. Burst - Preset Pulse Rate <ON> 3 seconds; < OFF> 3 seconds; both pulse rate & width are adjustable.
Timer:	15 min, 30 min, Continuous
Display:	3 LCD displays, each measures 15 x 30 mm
Low Battery Lamp:	LED illuminates yellow when voltage drops to or below 7 V
Power supply:	6 Size C Batteries (LR14)
Error LED:	Red LED illuminates & music sounds when the device has been turned ON without resetting all channels to zero output. The device resumes operation after resetting all channels to the zero position
Weight:	772 g (main unit only)
Size:	255 x 175 x 75 (mm) (main unit only)
Accessories:	1 Hand Held APD/STI Probe 4 Connecting Cables (assorted colors) 4 Micro Alligator Clips 2 Interchangeable Tips for Probe (1 small and 1 large) 1 Instruction Manual
Optional Accessories:	Alligator Clips EZ Grip Clips Duck Beak Clips Micro-Hook Clips

Wave Form Pictures

CONTINUOUS

- Pulse rate: CF = Continuous Frequency
- Pulse Width range at different Pulse Rate settings:

	X1	X5
Pulse Rate	1-100 Hz	5-500 Hz
Pulse Width	50-500 µS	10-100 µS

MODULATE

- Preset pulse rate ramp up and down for 6 seconds per one cycle.
- Pulse Width range at different Pulse Rate settings:

	X1	X5
Pulse Rate	1-100 Hz	5-500 Hz
Pulse Width	50-500 µS	10-100 µS

BURST

- Preset pulse rate (ON) 3 seconds, (OFF) 3 seconds.
- Pulse Width range at different Pulse Rate settings:

	X1	X5
Pulse Rate	1-100 Hz	5-500 Hz
Pulse Width	50-500 µS	10-100 µS

Note: Regardless of which Wave Form Mode is selected on the device, the probe is always on Continuous Output.

AXUS ES-5 ELECTRO ACUPUNCTURE DEVICE

Introduction

AXUS ES-5 Electro Acupuncture Device features a professional, modern design that provides multiple functions and features, with five built-in output channels. Four channels are Normal Output channels and are separated into two groups for adjusting frequency and pulse width. The first and second channels comprise Group 1 and may be adjusted with the knobs on the left side of the device. The third and fourth channels comprise Group 2 and may be adjusted with the knobs on the right side of the device. The fifth channel is reserved for a handheld probe, which incorporates an effective stimulation feature with push button (10 Hz). Output intensity of the current can be adjusted individually on each channel by rotating the channel's corresponding knob clockwise to increase or anticlockwise to decrease intensity.

The device has three LCD displays. The left and right LCD displays show the precise frequency of Channels 1 & 2 and Channels 3 & 4 respectively. The middle LCD displays the output of the handheld probe, which shows the resistance of the skin during delivery and the precise frequency during direct stimulation.

The device may be operated in three different modes (Continuous, Modulate, and Burst) and has a High/Low voltage switch for the output selection. The output mode for the probe will always be Continuous, regardless of which mode is selected on the device.

The device is equipped with a timer that has selections for 15 minutes, 30 minutes, and continuous. When timer setting ends, the device will turn off. Operation will resume after all channels are reset to the zero position.

Indications for Use

The AXUS ES-5 Electro Acupuncture device is an electro-acupuncture device indicated for use in the practice of acupuncture by qualified practitioners of acupuncture as determined by the states.

AXUS ES-5 ELECTRO ACUPUNCTURE DEVICE

Intended Use

The AXUS ES-5 is an electro acupuncture device intended for use with stainless steel acupuncture needles, for use in the practice of acupuncture by qualified practitioners. Use includes areas of preferred delivery and stimulation of acupuncture by the device.

Prescription Use Only: As an electro acupuncture device, the AXUS ES-5 is restricted to the sale by or on the order of an acupuncture practitioner licensed by the law of the state in which he/she practices.

This device should only be used by properly trained individuals under the supervision of a physician or qualified medical practitioner.

Compatible Acupuncture Needles

When using the AXUS ES-5, only use acupuncture needles with 0.20 mm minimum diameter that are commercially available and FDA-cleared.

The AXUS ES-5 Electro Acupuncture Device is intended for use in applying electronic stimulation to the areas of preferred delivery. The device utilizes a low-intensity, low frequency pulse multimode generator and Micro Alligator Clips to deliver electronic stimuli to the patient. When using the device with Micro Alligator Clips, the Micro Alligator Clips should be connected to acupuncture needles that penetrate the skin on the areas of preferred delivery (APD).

AXUS ES-5 ELECTRO ACUPUNCTURE DEVICE

Safety Precautions and Warnings

Contraindication

1. Do not use this device on patients who have a cardiac pacemaker, implanted defibrillator, or other implanted metallic or electronic device, as this may cause electric shock, burns, electrical interference, or death.
2. Do not use this device on patients with undiagnosed pain syndromes where etiology has not been established.
3. Stimulation should not be applied over the neck or mouth. Severe spasm of the laryngeal and pharyngeal muscles may occur, and the contractions may be strong enough to close the airway or cause difficulty in breathing.
4. Stimulation should not be applied over the carotid sinus nerves, particularly in patients with a known sensitivity to the carotid sinus reflex.
5. Since the effects of stimulation of the brain are unknown, stimulation should not be applied transcerebrally (across the head or on opposite sides of the head).
6. Do not apply stimulation transthoracically (across the patient's chest), in that the introduction of electrical current into the chest may cause cardiac arrhythmias to the patient's heart and could be lethal.
7. Stimulation should not be applied over swollen, infected, or inflamed areas or skin eruptions, such as phlebitis, thrombophlebitis, varicose veins, etc.
8. Do not apply stimulation over, or in proximity to, cancerous lesions.
9. Do not apply stimulation in the presence of electronic monitoring equipment (e.g., cardiac monitors, ECG alarms), which may not operate properly when the electrical stimulation device is in use.
10. Do not apply stimulation when the patient is in the bath or shower.
11. Do not apply stimulation while the patient is sleeping.
12. Do not apply stimulation while the patient is driving, operating machinery, or during any activity in which electrical stimulation can put the patient at risk of injury.
13. Consult with the patient's physician before using this device, because the device may cause lethal rhythm disturbances to the heart in susceptible individuals.
14. Apply stimulation only to normal, intact, clean, healthy skin.

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15. The persistent use of this device in the presence of skin irritation may be injurious, and improper use may result in skin burns.
16. Do not use this system in the following individuals or areas specified below:
    - Area in which the individual suffers perception disorders
    - Pregnant of parturient women
    - Individuals with heart problems
    - Individuals with high bleeding diathesis
    - Patients with febrile disease
    - Contagious disease patient
    - Tubercular patient
    - Varicose skin surface
    - Skin surface with atrophic contracture
    - Individuals with abnormal blood pressure or suspected vascular disease
    - Individuals with carotid sinus syndrome
    - Individuals with thrombosis
    - Individuals with thrombophlebitis
    - Individuals with phrenic nerve or urinary bladder stimulators indwelled internally
    - Do not use this system in combination with any device.

Warnings

1. Never use the probe on open cuts or wounds.
2. Keep RFID readers and Cellphones 20 cm away from the device.
3. Do not immerse the device in any cleaning solution.
4. Device should not be applied across or through the head, directly on the eyes, covering the mouth, on the front of the neck.
5. Allowed maximum current density:
    - Use only the handheld probe provided by Lhasa OMS, Inc. (The surface area for the handheld probe is to be limited to 0.1256 cm^2 and above to not exceed a current density of 637 mA/cm^2.)*
    - Use acupuncture needles with 0.20 mm minimum diameter. (The maximum current density to be reached by acupuncture needles using the device is to be less or equal to 952 mA/cm^2.)*

      * Warning Note: The device requires the special attention of the user because current density exceeds 2mA/cm^2.

Beginning Treatment Cautions

1. Inform the patient of the treatment procedure and instruct him/her to immediately notify you of any pain, instead of a sense of massage or stimulation.
2. Some patients under anesthesia may not know the adequate amount of treatment for them, which could often result in an excess of stimulation due to an inadequate amount of energization. Ask the patient how he or she feels from time to time not only immediately after the onset of treatment but while the treatment lasts.

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Precautions

1. Use the device in an area free from any exposure to water.
2. Avoid storing the device in an environment of high humidity and temperature. Store in a dust free environment and away from chemical contamination.
3. Place the device on a flat and stable surface free from any inclination and vibration.
4. Do not operate the device in an environment where flammable substances are present.
5. Never operate the device with wet hands to avoid an electric shock.
6. Avoid operating the device consecutively for more than 60 minutes in each treatment.
7. Electrical nerve stimulation, as presently understood, is a symptomatic treatment and as such may suppress the progress of pain which would otherwise serve as a protective influence on the outcome of a disease process. The potential for physical and/or psychological dependence upon nerve stimulation as a means of relieving pain has not yet been determined.
8. Treatment outcome will be influenced by the patient's psychological state and use of drugs.
9. Use caution if the patient has a tendency to hemorrhage following acute trauma, injury, or fracture.
10. Use caution following recent surgical procedures when stimulation may disrupt the patient's healing process.
11. Use caution if stimulation is applied over areas of skin that lack normal sensation.
12. Transcutaneous electrical stimulation is not effective for pain of central origin, including headaches, as compared to pain of peripheral origin.
13. The risk of skin burns could occur if a stainless steel acupuncture needle is not fully inserted and/or lies directly against the skin.
14. The AXUS ES-5 is not a substitute for pain medications and other pain management therapies.
15. The AXUS ES-5 has no curative value.
16. Electro-Acupuncture is a symptomatic treatment and, as such, suppresses the sensation of pain that would otherwise serve as a protective mechanism.

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17. Effectiveness is highly dependent upon patient selection by a practitioner qualified in the practice of acupuncture.
18. The long-term effects of electrical stimulation are unknown.
19. Use caution if stimulation is applied over the menstruating uterus.
20. The safety of electrical stimulation for use during pregnancy or delivery has not been established.
21. Patients may experience skin irritation and burns beneath the stimulation applied to the skin. To avoid this problem when beginning treatment, titrate to the desired level of stimulation amplitude, to allow the patient to give feedback on comfort level. If this problem occurs during treatment, then lower the stimulation amplitude or select a different site for stimulation.
22. Patients may experience hypersensitivity due to the electrical stimulation or electrical conductive medium (gel).
23. Patients with suspected or diagnosed heart disease should follow precautions recommended by their physicians.
24. Patients with suspected or diagnosed epilepsy should follow precautions recommended by their physicians.
25. This device should only be used under the medical supervision of a physician or under the guidance of a qualified prescribing practitioner.
26. Use this device only with the accessories recommended by the manufacturer.
27. Keep this device out of the reach of children.
28. Do not exceed the maximum value of 45 minutes unless directed by practitioner, when treating under Continuous mode.

Adverse Reactions

1. Patients may experience skin irritation and burns beneath the stimulation applied to the skin.
2. Patients should stop using the device and should consult their physician if they experience any adverse reactions from the device.

AXUS ES-5 ELECTRO ACUPUNCTURE DEVICE

Features & Advantages

1. Five outputs (including one output reserved exclusively for the use of the probe for area of preferred delivery or immediate stimulation)
2. Frequency and Pulse Width are adjustable & separated into two groups, Group 1 for Ch 1 & 2 and Group 2 for Ch 3 & 4 (instead of one Frequency and one Pulse Width for all channels)
3. Two LCDs (each display measures 15X30mm) for showing precise frequency of each channel group
4. One LCD (15x30 mm) that shows sensitivity during detection and frequency (fixed at 10 Hz) during direct stimulation by the probe
5. Three different Waveform Modes: Cont (continuous), Modulate, and Burst
6. High & Low output levels for selection
7. X1 and X5 (multiplier) of pulse rate and width for adjustments
8. Timer selection for different period of treatment session: 15 minutes, 30 minutes, or Continuous
9. When timer setting ends, the output power turns off, and will resume operation after all channels are reset to the zero position
10. Buzzer ON/OFF, for sound control
11. Music for timer alert and error warning
12. When error lights up, the output power turns off, and will resume operation after all channels are reset to the zero position

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Accessories

APD/STI Probe

The probe includes an APD/STI push button selector, which when depressed allows immediate stimulation on the area of preferred delivery.

- **Note**: Regardless of which MODE is selected on the device, the probe is always on Continuous Output.

Figure 1: APD/STI Probe

Small and Large Tips for the Probe

The AXUS ES-5 is provided with two interchangeable tips for the handheld probe, one large and one small. The attachment with the larger ball on the tip is intended for use on the body. The tip with the smaller ball is intended to be used on points on the ear.

Figure 2: Interchangeable APD/STI Probe Tips

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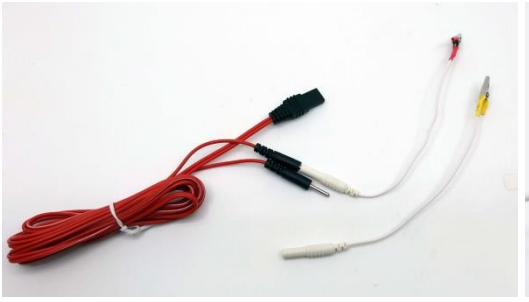
Cables & Micro Alligator Clips

CE-marked plug connecting cables (4 assorted colors) with pin leads so that each can be fitted to Micro Alligator Clips or different types of needle clips such as EZ Grip Clips, standard size Alligator Clips, Duck Beak Clips or Micro-Hook Clips. Only use accessories that are supplied with the device or ordered from Lhasa OMS.



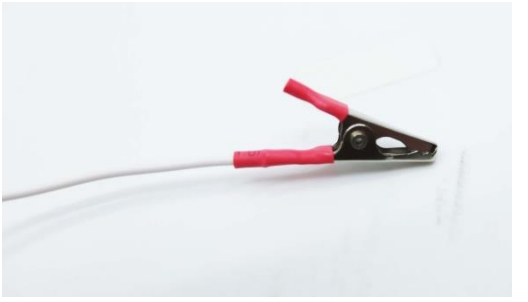


Figure 3: Cables & Micro Alligator Clips

Optional Accessories

EZ Grip Clips

6” long, these clips consist of 0.1" x 0.2" interlocking prongs that securely grip needle bodies without slippage. The EZ Grip Clips is compatible with any lead wires with standard 2mm push pin jacks.

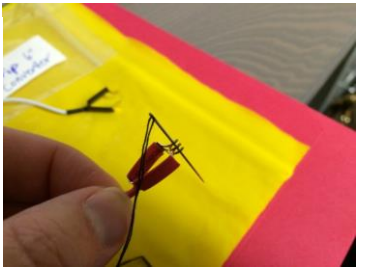


Figure 4: EZ Grip Clips, 6” long

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Alligator Clips

This is a set of 5” long red and black Alligator Clips. Compatible with any lead wire with standard 2mm push pin jacks.

Figure 5: Alligator Clips

Note: Only use accessories that are supplied with the device or ordered from Lhasa OMS.

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Battery Information

To operate properly, the AXUS ES-5 device requires six size C batteries (LR14) or equivalent.

The batteries can be installed or replaced by opening the battery door on the bottom side of the device. Slide the battery door off, remove the old batteries and insert fresh, new batteries. Insert the new batteries correctly into the battery compartment by making sure that the direction of the positive and negative poles on each battery matches the illustrations inside the battery compartment. Once the batteries have been properly seated inside the battery compartment, close the battery door by sliding the battery door back on to the device.

Battery life expectancy is between 4 to 20 treatment hours depending on current/power settings and treatment length. Many short treatments will yield longer battery life than few long treatments.

Note: Remove the batteries if the device will not be in use for an extended period of time.

Note: Batteries are NOT included.

Figure 6: Battery Compartment

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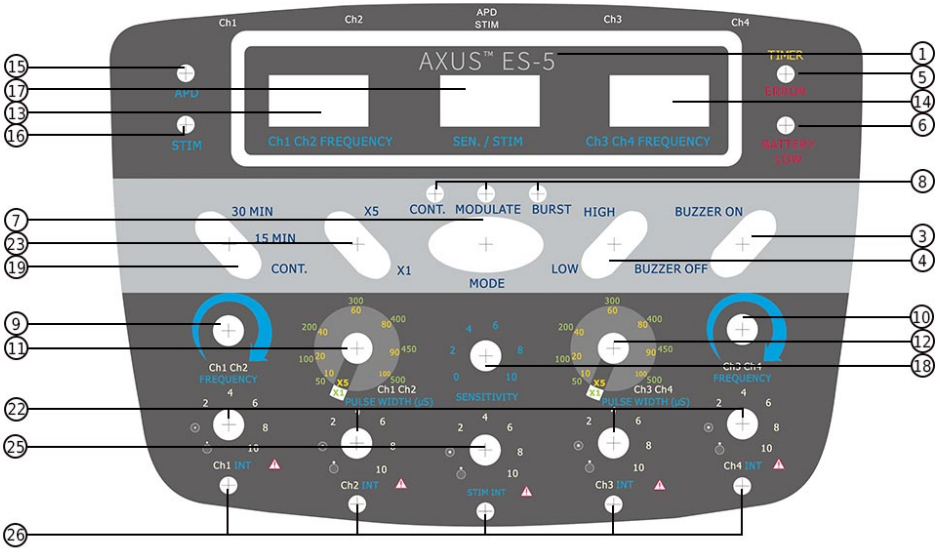
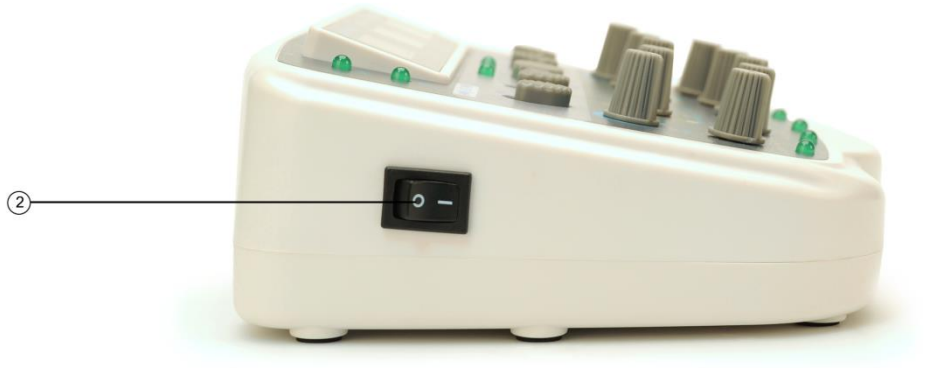
Indications and Controls





Note: Please refer to Operation of Controls section for associated details

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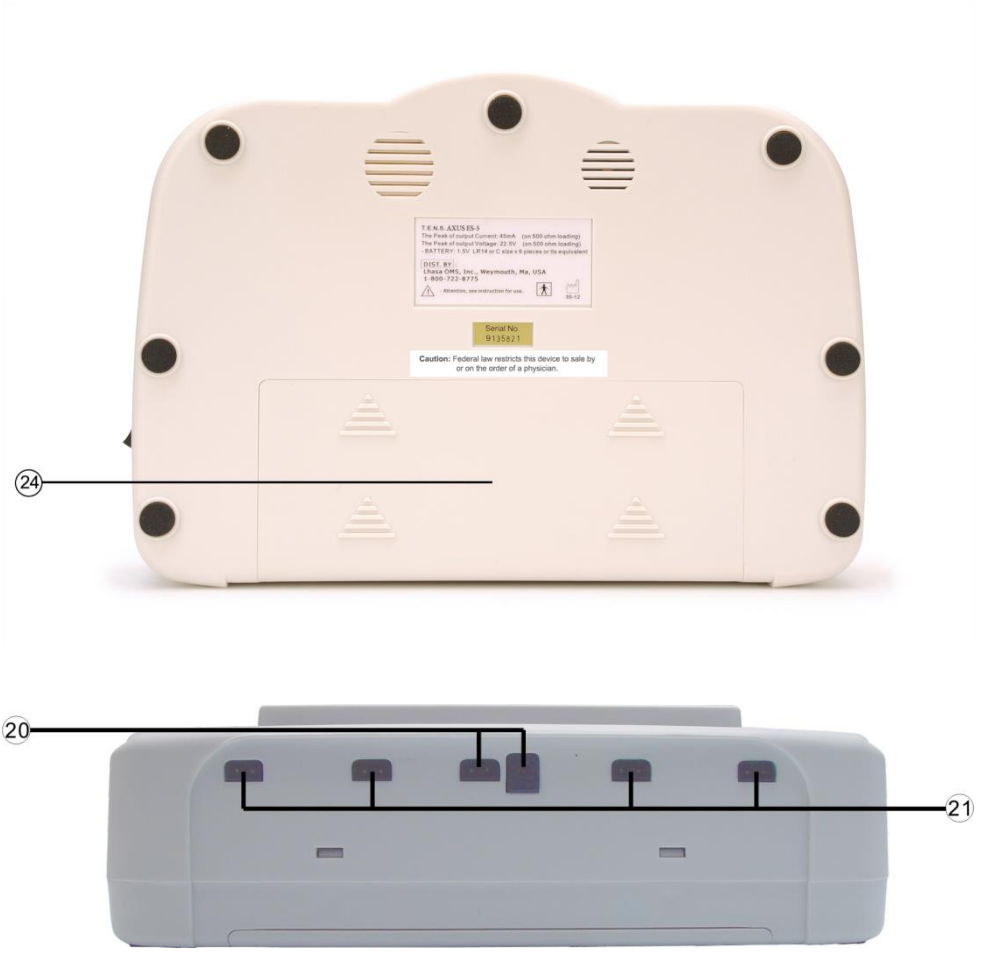

Note: Please refer to Operation of Controls section for associated details

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Operation of Controls

No	Description	Functions
1	Model Name	AXUS ES-5
2	Power ON/OFF switch	Turns the device ON/OFF; located on the left-hand side of the device; printed values for on(I) and off(O)
3	BUZZER ON/OFF switch	Turns the buzzer sound on or off when using the APD function; located on the front panel of the device on the center right side; printed values of “BUZZER ON” and “BUZZER OFF”
4	HIGH / LOW switch	For selection of HIGH range or LOW range output intensity; located on the front panel of the device on the center right side; printed values of “HIGH” and “LOW”.
5	ERROR LED	Illuminates when turning the device ON, if all channels setting are not reset to OFF output; located on the front panel of the device in the upper right corner; Constant red light and plays sound when lit.
6	LOW BATTERY LED	Illuminates when the battery voltage drops below 7 volts; located on the front panel of the device in the upper right corner; constant yellow when illuminated.
7	Mode selection switch	Controls the selection of the modes of waveform; located on the front panel of the device in the center; printed values of CONT. (continuous), MODULATE (dense-disperse) and BURST (Intermittent).
8	Mode indication LED	Illuminates indicating which waveform is currently active; located on the front panel of the device in the center with each LED above the printed values CONT., MODULATE and BURST, constant green when illuminated.
9	Frequency Adjustable knob for Ch1 & Ch2	Controls the frequency of Ch 1 and Ch 2; located on the front panel of the device on the center left side; Turns clockwise (increase) or counterclockwise (decrease) to adjust the frequency (pulse rate).
10	Frequency Adjustable knob for Ch3 & Ch4	Controls the frequency of Ch 3 and Ch 4; located on the front face of the device on the center right side; Turns clockwise (increase) or counterclockwise (decrease) to adjust the frequency (pulse rate).
11	Pulse Width Adjustable knob for Ch1 & Ch2	Controls the pulse width of Ch1 and Ch2; located on the front panel of the device on the center left side; Turns clockwise (increase) or counterclockwise (decrease) to adjust the Pulse Width; printed values surrounding the dial of 50, 100, 200, 300, 400, 450, and 500 in green for 1x and 10, 20, 40, 60, 80, 90, and 100 in yellow for 5x.
12	Pulse Width Adjustable knob for Ch3 & Ch4	Controls the pulse width of Ch3 and Ch4; located on the front panel of the device on the center right side; Turns clockwise (increase) or counterclockwise (decrease) to adjust the Pulse Width; printed values surrounding the dial of 50, 100, 200, 300, 400, 450, and 500 in green for 1x and 10, 20, 40, 60, 80, 90, and 100 in yellow for 5x.
13	Ch1 Ch2 Frequency LCD	Displays the frequency selected for Ch1 & Ch2; located on the front panel of the device in the top left.
14	Ch3 Ch4 Frequency LCD	Displays the frequency selected for Ch3 & Ch4; located of the front panel of the device in the top right
15	APD LED	Illuminates during APD, and flashes continuously when the probe reaches or gets closer to the APD area; located on the front panel of the device in the top left corner.
16	STI LED	Illuminates when APD/STI push button is depressed for immediate stimulation; located on the front panel of the device in the top left corner.
17	APD/STI LCD	Displays the detection accuracy when using the APD feature of the device (the higher the number, the closer the probe is to the APD) as well as the frequency of stimulation when the APD/STI push button is depressed for immediate stimulation; located on the front panel of the device in the top center.

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No	Description	Functions
18	Sensitivity Knob	Changes the sensitivity of the APD feature of the device; located on the front face of the device in the center; printed values for off, on, 0, 2, 4, 6, 8, and 10.
19	Timer switch	Sets the timer duration; located on the front panel of the device on the center left side; printed values of “15 MIN”, “30 MIN”, and “CONT”. Constant orange light and plays sound when lit.
20	Probe insertion jack (socket)	Jack to connect the probe to the device; located on the top side of the device in the center.
21	Output jacks (socket)	Jack to connect the output connecting cables; located on the top of the device.
22	Output Intensity control knobs	Four knobs controlling the output of the corresponding channels; located on the front panel of the device across the bottom; Rotate the knob clockwise to turn on the output channel and then increase the current output and counterclockwise to decrease the current output then turn off the output channel; printed values for off, on, 2, 4, 6, 8, and 10.
23	Multiplier switch	Controls the selection of x1 (1-100Hz pulse width at 50-500μS) or x5 (5-500Hz frequency and 10-100 μS pulse width) as applied to the pulse width and pulse rate; located on the front panel of the device on the center left side; printed values of X1 and X5.
24	Battery compartment door	Covers the battery compartment containing six 1.5 V “C” type (LR14) batteries, located on the underside of the device.
25	Output Intensity control knob for the probe	Controls Output Intensity for “APD/STI mode”; located on the front panel of the device on the bottom center; rotate the knob clockwise to turn on the output channel and then increase the current output intensity and counterclockwise to decrease the current output intensity then turn off the output channel; printed values for off, on, 2, 4, 6, 8, and 10.
26	Output Intensity LED Lights	Illuminates to indicate which channels have their output intensity control knob in the ON position; located on the front panel of the device across the bottom, constant green when illuminated.

AXUS ES-5 ELECTRO ACUPUNCTURE DEVICE

Instructions for Use

APD Detection – Basic Principle and Direct Stimulation

On the surface of the body, the electrical resistance of an Area of Preferred Delivery is lower than its surrounding area. The Area of Preferred Delivery can be located by using an instrument that is sensitive to resistance changes, like the AXUS ES-5 probe.

APD in Search mode

STI in Treat mode

To find areas on a patient's skin where treatment should be delivered, use the probe in Search Mode (micro-current amplitude DC output). When the probe is in Search Mode, the green indicator light will illuminate in correlation to skin resistivity.

Figure 7: APD/STI socket

The probe is placed on the patient's skin, and a sound is emitted from the device when areas of low electrical resistance are detected. The pitch of the sound will rise, and the number shown on the LCD display will increase as the encountered electric resistance lowers, signaling that the probe is moving closer to the area. With this instrument and method of detection, areas of preferred delivery usually produce a strong sensation and reaction to electric stimulation, and will achieve the best therapeutic results.

Figure 8:
Sensitivity knob

The Search function with Sensitivity feature is an added safety feature of the AXUS ES-5 device for patients with sensitive skin. The higher the sensitivity is set on the device, the higher the detected resistance value, and therefore, the lower the resulting current, current density, and power density delivered to the patient.

1. Ensure that batteries are inserted correctly, and turn on the device by pressing the Power ON switch on the left side of the unit.
2. Insert the probe with the grounding pole (handgrip) into the socket.
3. Adjust the sensitivity by turning the sensitivity knob. (If it is humid, turn the knob anti-clockwise to decrease sensitivity. If it is too dry, turn the knob clockwise to increase sensitivity.)
4. Touch the hand grounding pole with the probe tip.
    a. If the capabilities of the device are working properly, the buzzer will give a sharp sound signal, the digital display will show increasing numbers, and the "APD" LED will flash continuously.

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5. Allow the patient to hold the hand grounding pole with one hand.
6. Use the probe to search for the APD on the patient's skin in the appropriate anatomical area.
    a. The probe should be held in a vertical position perpendicular to the surface of skin.
    b. Use constant, light pressure when touching the area with the probe.

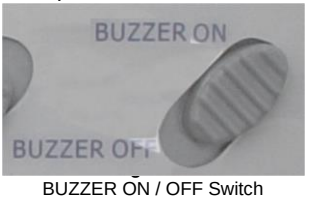
Note: If too much pressure is applied to the skin, the electrical resistance measured by the device effectively becomes lower and the device will behave as though an APD was found. An APD could be very small, and should be located with patience and care.

7. When the probe touches an APD on the surface of the skin the buzzer will emit a sound, and the APD LED on the device will flash continuously. The digital display will show a higher number and the patient may feel a very light electric stimulus.

Note: If the electrical resistance of the skin's surface is low, or if the skin is wet or sweaty, the buzzer will emit a sound when the probe touches the skin's surface. If this happens, dry the skin with a clean towel, maneuver the probe with lighter pressure, and adjust the sensitivity setting to a lower level. This will allow the APD to be located and can be discriminated from the surrounding areas of the skin.

Note: There is no definite standard for the adjusting the sensitivity of the device and how much pressure to apply to the skin surface, the appropriate sensitivity will be found through experience.

8. If the detected area is meant to be stimulated by the probe tip, make sure that the probe tip is touching the located area, and press the APD/STI button on the probe.
9. Adjust the intensity setting of the APD/STI Probe by adjusting the STI INT dial to increase or decrease the stimulation intensity. Direct stimulation, frequency, and pulse width will be delivered through the attached probe tip.



BUZZER ON / OFF Switch

10. The buzzer will emit sounds during APD when turned ON. The buzzer can be silenced by switching to the OFF position.
11. After use, turn all output knobs to the OFF position, and turn the main power off.

Note: Regardless of which MODE is selected on the device, the probe is always Continuous Output

WARNING: Never use the probe on open cuts or wounds.

WARNING: Keep RFID readers and Cellphones 20 cm away from the device.

AXUS ES-5 ELECTRO ACUPUNCTURE DEVICE

Electric Stimulation Settings

This section of the instrument produces stimulating impulses, which act on an APD through stimulation for therapeutic purpose.

Operating Instructions

1. Ensure that all batteries are inserted correctly (see the battery information section).
2. Turn all knobs to the “OFF” settings.
3. Turn on the device by pressing the Power ON/OFF switch on the left side of the unit.
4. Insert connecting cables into corresponding output jacks.
5. If applicable, connect the cable to acupuncture needles with clips.

Figure 10:
Power ON/OFF Switch

6. Select the appropriate desired waveform mode with the Mode Selection Switch
    a. CONT. (continuous), MODULATE (dense-disperse), and BURST (intermittent)
    b. Each waveform mode has a corresponding LED that will illuminate when the waveform mode is selected
    c. The probe always functions on Continuous mode, regardless of what option is selected with the Mode Selection Switch
7. Adjust frequency (pulse rate) and pulse width for Channels 1 and 2:
    a. Turn the Frequency Knob CH1 CH2 to adjust the frequency
        - Clockwise to increase the frequency
        - Counterclockwise to decrease the frequency
    b. Turn the Pulse Width Knob CH1 CH2 to adjust the pulse width
    c. Ch1 Ch2 Frequency LCD will display the frequency for Ch1 & Ch2 when in use
8. Adjust frequency (pulse rate) and pulse width for Channels 3 and 4:
    d. Turn the Frequency Knob CH3 CH4 to adjust the frequency
        - Clockwise to increase the frequency
        - Counterclockwise to decrease the frequency
    e. Turn the Pulse Width Knob CH3 CH4 to adjust the pulse width.
    f. Ch3 Ch4 Frequency LCD will display the frequency for Ch3 & Ch4 when in use

AXUS ES-5 ELECTRO ACUPUNCTURE DEVICE

9. An X1 X5 multiplier switch is provided for selecting the frequency and pulse width of the output in normal range or multiplied by 5:
    a. X1: Frequency at 1-100 Hz, pulse width at 50-500 µs
    b. X5: Frequency at 5-500 Hz, pulse width10-100 µs
10. Adjust channel output intensity for individual channels by rotating the corresponding INT Knob in a clockwise direction. It will first turn the output channel on and will then increase the current output. Turn the knob clockwise to increase intensity or counterclockwise to decrease intensity.
11. Two ranges (High, Low) of output intensity are provided. If maximum intensity in Low range is insufficient, switch it to High range for stronger intensity output.
12. Select the timer duration of treatment by moving the Timer Switch into the selected position:
    a. 15 minutes, 30 minutes, or Continuous options
    b. Treatment duration under Continuous mode is infinite.
    c. Do not exceed the maximum value of 45 minutes unless directed by practitioner.
13. After each use, turn all output knobs to the OFF position, and press the power switch to turn off the device.

AXUS ES-5 ELECTRO ACUPUNCTURE DEVICE

Acupuncture Therapy (Needles)

1. Turn all “intensity” knobs to the OFF position and slide the HIGH/LOW switch to the “HIGH” position (for electrode stimulation) or “LOW” position (for needle stimulation).
2. Apply acupuncture needles to patient.
3. Insert alligator type connecting cables into CH1, CH2, CH3, or CH4 sockets and fasten their clips to the acupuncture needles.

Note: The number of channels used depends on the number of needles used in each treatment.

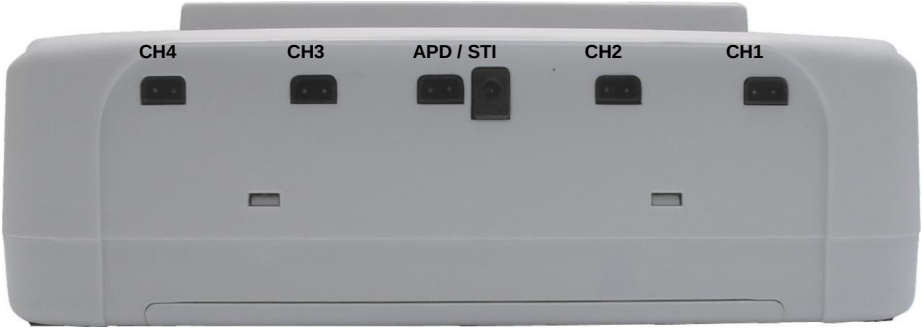


Figure 11: Sockets

4. Set the desired mode, frequency (pulse rate), pulse width, and operation time with the switches as mentioned above.
5. Adjust the intensity of each channel to the appropriate setting. The intensity current of each output channel can be adjusted from 0 mA to 20 mA when the “HIGH/LOW” switch is moved to the “LOW” range or 0 to 45 mA when the “HIGH/LOW” switch is moved to the “HIGH” position. Rotating the INTENSITY knob will increase (or decrease) the intensity.

Figure 12: HIGH/LOW Switch

AXUS ES-5 ELECTRO ACUPUNCTURE DEVICE

Direct Stimulation Settings & Therapy

1. Use the probe by placing the probe tip onto the areas of preferred delivery (APD).

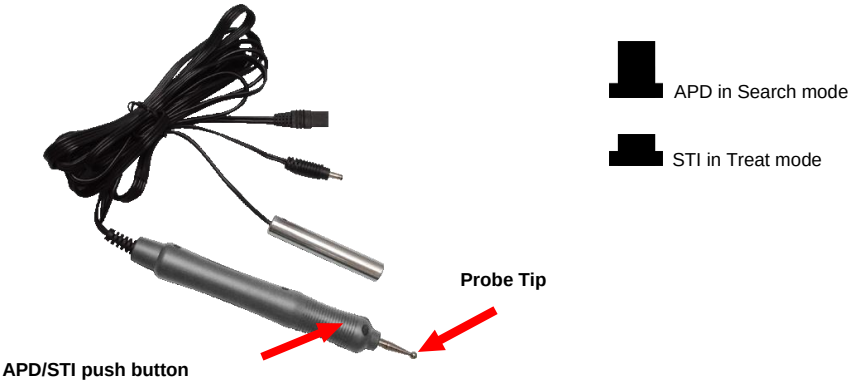


Figure 13: Electrical Stimulation Probe

2. Insert the probe jack with grounding pole (handgrip) into the APD/STI socket.
3. To stimulate the APD with the probe tip, make sure the patient is properly grounded and the probe tip is touching the intended area, then press the APD/STI button on the probe.

Figure 14: Socket for APD/STI probe

4. Regulate the intensity with the STI INT knob for the STI Channel.
5. The probe tip will provide direct stimulation with fixed waveform, frequency, and pulse width.

Note: The output intensity of STI is in High range intensity (0-80 mA) and the frequency is fixed (Continuous) at 10 Hz (APD/STI LCD will display the Hz during direct stimulation).

Maintenance

1. Device maintenance is limited to cleaning the device battery contacts and replacing lead cables when they become old.
2. The device operates on six C batteries (LR14) (not included).
3. When adequate stimulation can no longer be maintained, or the low battery LED indicator lights up, replace the batteries. Remove the old batteries and replace them with new, fresh batteries.
4. The device will provide sufficient levels of stimulation only if the batteries are properly installed.
5. To avoid battery leakage, remove the batteries if the device will not be used for an extended period of time.

To ensure the device works properly, please check the following on a periodic basis:

Particulars	Descriptions	Procedures
Appearance	• Check for broken or damaged parts. • Check all LCD displays; make sure all digits are legible.	By visual inspection
Operation	• Check all LED lights when device is turned on. • Check that the buzzer sounds. • Check that the device functions properly.	By operating the device
Accessories	• Check for broken or damaged parts of all accessories including the probe. • Check all connecting cables for any broken or damaged parts	By visual inspection
Safely precaution	• Turn on one of the intensity knobs and press POWER SWITCH ON so an error occurs. Verify that the device resets to normal operation when all intensity knobs are turned OFF, the error LED is not lit, and no music is playing.	By operating the device

Troubleshooting

- If your AXUS ES-5 device appears to be functioning improperly, check the procedures shown below to determine what may be wrong.
- If these measures do not correct the problem, the device should be serviced.
- Do not attempt to repair the device yourself. Return the device to your local authorized dealer or to the manufacturer as listed in this manual for repair or service.

Problem	Solution
Indicator lights up, but device does not function properly	• Check control settings; are they set to values prescribed as desired? • Check if frequency control is turned on (not too low or at zero setting). • Are needles firmly fixed and in proper position? • Check connecting cables. Make sure all alligator clips are firmly connected to the needles. • Replace connecting cable with another to ensure the cable is not broken.
Low battery lamp illuminates	• Replace old batteries with new ones.
No indicators light up	• Replace old batteries with new ones.

- Battery replacement: Batteries should be replaced whenever sufficient stimulation cannot be maintained.
- Care of device: The device and connecting cables should be kept clean. The device should not be immersed in any liquid. Avoiding rough use will help prevent premature failure.

AXUS ES-5 ELECTRO ACUPUNCTURE DEVICE

Storage and Transportation

- Store the device in a dry location that is free from dust and contamination. Storage temperature should remain fairly constant and within the range of -16°C to 40°C (3.2°F to 104°F).
- Do not drop, mishandle, or expose the device to extreme temperatures or humidity. Extreme temperatures outside the range of -20°C to 50°C (-4°F to 122°F) and extreme humidity outside the range of 10-98% RH (non-condensing) should be avoided.
- Do not use the device if the device has malfunctioned or has been damaged in any way.
- The AXUS ES-5 has an operational life of 5 years.

Environmental Conditions

	Temperature	**Humidity**	**Pressure**
During Use	16°C to 40°C (61°F to 104°F)	15-95% RH non-condensing	700-1060 hPa
Storage	-16°C to 40°C (3.2°F to 104°F)	15-95% RH non-condensing	700-1060 hPa
Transportation	-20°C to 50°C (-4°F to 122°F)	10-98% RH non-condensing	700-1060 hPa

Cleaning

The AXUS ES-5 device should be periodically wiped clean using a damp cloth and a solution of mild soap and water. The Connecting Cables should be wiped clean with a cloth dampened with a mild soap solution and then wiped dry.

The device has two patient contacting components: the grounding pole and the probe. These two components must be cleaned with alcohol or another disinfectant prior to use to prevent the risk of cross-contamination.

Note: Use of cleaning solutions other than mild soap and water may damage the equipment.

WARNING: Do not immerse the device in any cleaning solution.

AXUS ES-5 ELECTRO ACUPUNCTURE DEVICE

Explanation of Symbols

The following symbols are used in this device:

On	Off	Caution	Type BF Applied Part	Date of Manufacture
SN Serial Number	EC REP Authorized Representative in the European Community	CE 0197 CE 0197 Mark of conformity The device complies with the Essential Requirements for Medical Devices according to EC Directive 93/42/EEC		"See Instruction for Use"
I "ON" Power	O "OFF" Power	This device complies to Directive 2012/19/EU (WEEE)		Manufacturer

Disposal of the Device

Please follow all local environmental laws and requirements when disposing of the device, its accessories, or any packaging materials.

AXUS ES-5 ELECTRO ACUPUNCTURE DEVICE

Limited Warranty

This warranty is in lieu of any other warranty expressed or implied:

The AXUS ES-5 Electro Acupuncture Device is warranted to the initial purchaser, and to no other person, against any defects in material and workmanship for a period of one year from the date of purchase. If the device is found to be defective within the warranty period, it will be repaired or replaced if returned, prepaid, to an authorized service center.

This warranty does not cover damage caused by rental, misuse, negligence, accident, abuse, alteration, or modification of the device.

Repairs after the warranty period will be made and charged to the customers on the basis of rates which are available on request. Except for personal injury, no liability is held in either tort or contract for any loss or damage, direct, consequential, or incidental arising out of the use, misuse, or inability to use this product.

Serial No.:

_____

Located on the rear side of the device, next to the battery compartment door

Date Purchased:

_____

Customer: Please keep record of this information

Manufacture date.....

Date of Manufacture: see device

Dist. By: Lhasa OMS Inc., Weymouth, MA. USA

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Rev 1

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Made in China