



Marketed by:
VISSCO Rehabilitation Aids Pvt. Ltd.
317, Tulsiani Chambers, Free Press Journal Road
Nariman Point, Mumbai - 400021, Maharashtra
Tel.: +91-22-43330300/ 43330333
Email: customercare@vissco.com
www.vissco.com

Manufactured By
Johari Digital Healthcare Ltd.
G-582-584, EPIP, Boranada-Salawas Road
Jodhpur - 342012, Rajasthan, India
TOLL FREE: 1800-102-8684
Email : info@joharidigital.com
Web.: www.joharidigital.com

MADE IN INDIA

Dw#51005024 Ver. 1.0.1

Instruction Manual

Multi-Waveform Stimulator



**Analgesic
Pulser⁺**

AP-439 Plus

Precautionary Instructions

The precautionary instructions found in this section and throughout this manual are indicated by specific symbols. Understand these symbols and their definitions before operating this equipment. The definition of these symbols are as follows;



=CAUTION-

Text with a "CAUTION" indicator will explain possible Safety infractions that could have the potential to cause minor to moderate injury or damage to equipment.



=WARNING-

Text with a "WARNING" indicator will explain possible Safety infractions that will potentially cause serious injury and equipment damage.

NOTE :- Throughout this manual "NOTE" may be found. These Notes are helpful information to aid in the particular area of function being described.

CAUTION

- Read, understand and practice the precautionary an operating instructions. Know the limitations and hazards associated with using any electrical stimulation device. Observe the precautionary and operational decals placed on the unit.
- DO NOT operate the unit in an environment of short-wave diathermy use.
- DO NOT use sharp objects such as a pencil point or ballpoint pen to operate the buttons on the control panel as damage may result.
- This unit should be operated, transported and stored in temperatures between 59°F and 104° (15° C and 40°C), with Relative Humidity ranging from 30%-60%.

WARNING

- This device should be kept out of the reach of children.
- Care must be taken when operating this equipment around other equipment. Potential electromagnetic or other interference could occur to this or to the other equipment. Try to minimize this interference by not using other equipment in conjunction with it.

Contents

| S.No. | Title | Page No. |
|-------|----------------------------------|----------|
| 1. | INSTRUCTIONS FOR THE USER | |
| | OF ELECTROTHERAPY | 1 |
| | 1.1 Intended Use | 1 |
| | 1.2 Contraindications | 1 |
| | 1.3 Warnings | 2 |
| | 1.4 Precautions | 2 |
| | 1.5 Adverse Reactions | 3 |
| | 1.6 Conditions that affect use | 3 |
| 2. | INTRODUCTION | 4 |
| 3. | ACCESSORIES | 4 |
| 4. | TECHNICAL SPECIFICATIONS | 5 |
| 5. | CONTROLS AND FUNCTIONS | 6 |
| 6. | HOW TO USE | 8 |
| 7. | TREATMENT SELECTIONS | 10 |
| 8. | MAINTENANCE | 18 |
| 9. | TROUBLESHOOTING | 19 |
| 10 | WARRANTY | 20 |

1. INSTRUCTIONS FOR THE USER OF ELECTRO THERAPY

Please read this user manual carefully before using **AP439+** because it is unsafe to start using the device before reading the whole manual.

⚠ CAUTION: USA Federal law restricts these devices to sale by, or on order of a physician or licensed practitioner. This device should be used only under the continued supervision of a physician or licensed practitioner.

1.1 Intended Use

AP439+ provides combination of desired stimulating currents, which can be chosen by clinicians for following treatment therapies.

A) Interferential current stimulation, Premodulated bipolar mode, and faradic stimulation mode is indicated for :

1. Symptomatic relief and management of chronic(long term) intractable pain.
2. Adjunctive treatment in the management of post-traumatic and postsurgical acute pain condition.

B) Electrical muscle stimulator (Russian and galvanic interrupted) is indicated for :

1. Relaxation of Muscle spasm.
2. Prevention or Retardation of disuse atrophy.
3. Increasing local blood circulation.
4. Muscle re-education.
5. Immediate post-surgical stimulation of calf muscles to prevent venous thrombosis
6. Maintaining or increasing range of motion

c) Galvanic-DC Continuous mode is indicated for :

1. Relaxation of Muscle spasm.

1.2 Contraindications

The **AP439+** should not be used on patient with cardiac demand pacemaker.

1.3 Warnings

- The long-term effects of chronic electrical stimulation are unknown.
- Stimulation should not be applied over the carotid sinus nerves, particular in patient with known sensitivity to the carotid sinus reflex.
- The electrode should not be applied over the neck or mouth, or anywhere else on the head. If stimulation is applied over the neck or mouth especially, severe spasm of the laryngeal and pharyngeal muscle may occur and the contraction may be strong enough to close the airway or cause difficulty in breathing.
- Stimulation should not be applied transthoracically in that the introduction of electrical current into the heart may cause cardiac arrhythmias.
- Stimulation should not be applied over swollen, infected, or inflamed areas or skin eruption, e.g. phlebitis, thrombophlebitis, varicose veins, etc.
- Stimulation should not be applied over, or in proximity to, cancerous lesion.

1.4 Precautions

- Safety of the **AP439+** for use during pregnancy has not been established.
- Caution should be used for patient with suspected or diagnosed heart problems.
- Caution should be used for patients with suspected or diagnosed epilepsy.
- Caution should be used in presence of following:
 - When there is a tendency of hemorrhage following acute trauma or fracture
 - Following recent surgical procedures when muscle contraction may disrupt the healing process
 - Over the menstruating or pregnant uterus
 - Over area of the skin which lack normal sensation.
- Some patients may experience skin irritation or hypersensitivity due to the electrical stimulation or electrical conductive medium. The irritation can usually be reduced by using an alternate

- conductive medium or alternate electrode placement.
- Stimulation settings should be based on the guidance of the prescribing practitioner. Electrode placement should be based on the guidance of the prescribing physician.
- AP439+** should be kept out of the reach of children. The **AP439+** should be used only with the electrode cables and electrodes recommended for use by the manufacturer.
- The **AP439+** should not be used while driving, operating machinery or during any activity in which Involuntary muscle contraction may put the user at undue risk of injury.
- Ensure the intensity is adjusted slowly and smoothly and not increased beyond the patient's tolerance.
- While treatment Do not lift electrodes off the skin without the intensity being turned down to zero first.
- Also be aware of the skin's resistance as this may suddenly drop causing the intensity to increase.

1.5 Adverse Reactions

Skin irritation and burns beneath the electrodes have been reported with use of this device.

1.6 Conditions that affect Use

- The user needs electric outlet near the treatment area.
- The unit should not be used in wet environment
- Patient should not move while the treatment is ON, this may cause electrodes to leave the skin or electrode cables may break.

2. INTRODUCTION

AP439+ is a multi waveform electro therapy unit tailored for precise Pain Relief and Rehabilitation needs of the patients with most comfortable electrical stimulation.

AP439+ is a microcomputer controlled digital device featuring selectable modes: Interferential, with 5 preset program P01 - P05 (as Acute pain, chronic pain, Edema 1, Edema 2 & Nerve block), Premod Russian, Galvanic (D.C. and Interrupted), TENS (Conventional, Burst, and Modulation) with two outputs. The user can program different settings of modes & treatment time for both the outputs.

Both outputs can be programmed and Start / Stop independently. The Membrane Panel provides easy touch entry for treatment selection and three seven segment displays show the selection of various treatment parameters. The clinician can provide two different treatments simultaneously through the two outputs.

AP439+ is attractive, has sturdy ABS Body and is user friendly It is a must for every physiotherapy clinic.

AP439+ is attractive and sturdy constructed of ABS Body and user friendly, a must for every physiotherapy clinic.

3. ACCESSORIES

AP439+ is provided with the following accessories:

Standard Accessories

| S. No. | Name of Accessory | Qty. |
|--------|--------------------------------------|-------|
| 1. | Electrode Cables 5 Pin 4 Core | 02 |
| 2. | Self Adhesive Electrodes 1.8" x 1.8" | 08 |
| | OR | |
| | Carbon Electrodes 2" | 08 |
| | Elastic Belts 36" | 02 |
| | Elastic Belts 18" | 04 |
| | Conductive Gel | 100ml |
| 3. | AC Cord | 01 |
| 4. | Instruction Manual | 01 |
| 5. | Pen Electrode (Optional) | 01 |

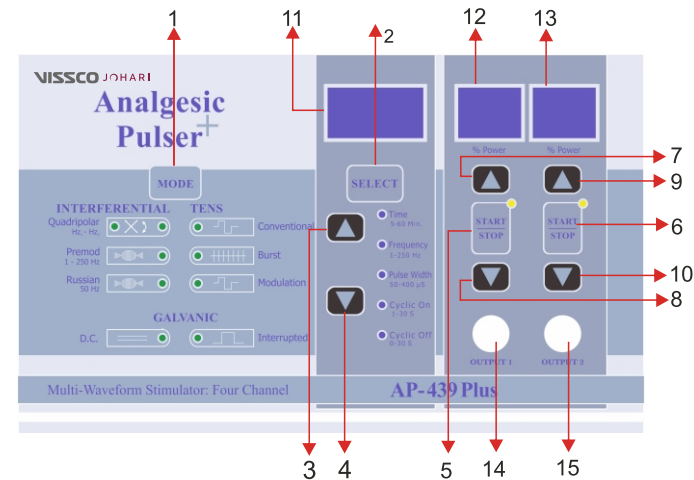
*For ordering of the accessories, please refer to page#22

4. TECHNICAL SPECIFICATIONS

| Description | Specifications |
|--------------------|---|
| Power Source | 110 VAC /60 Hz OR 220 VAC/ 50Hz |
| Waveforms | IFT Quadripolar: Sine Wave with inbuilt vector IFT Premod: Premodulated Sine Wave Russian: Premodulated Sine wave with Carrier Frequency of 2500 Hz and Beat Frequency of 50Hz. Galvanic D.C.: Continuous D.C. Interrupted Galvanic: Monophasic Square Wave TENS Conventional: Symmetrical Biphasic Square Wave (continuous) TENS Burst: Symmetrical Biphasic Square Wave (Burst of 7 pulses) TENS Modulated: Symmetrical Biphasic Square Wave (Pulse Width Modulated) |
| Output voltages | IFT/Premod/Russian: 70Vpp @ 500Ω Resistive load Galvanic: 20Vpp @ 500Ω Resistive load Interrupted Galvanic: 30Vpp @ 500Ω Resistive load TENS: 70Vpp @ 500Ω Resistive load |
| Number of Outputs | Two |
| Number of Channels | Four through 2 outputs |
| Pulse Width | IFT/Premod: 125µS Russian: 200µS Interrupted Galvanic: 2ms TENS: Selectable from 50 to 400µS |
| Pulse Rate | IFT: Carrier frequency- 4000 Hz Preset Sweep frequency of P01-P05 P01: Acute Pain (80-150 Hz) P02: Chronic Pain (3-15 Hz) P03: Edema 1 (1-30 Hz) P04: Edema 2 (1-10 Hz) P05: Nerve Block (0-0 Hz) Sweep frequency- Hz1 & Hz2 selectable in quadripolar customized mode from 1 to 250 Hz Premod: Carrier frequency- 4000 Hz Sweep Frequency: 1 to 250 Hz [Fixed] Russian: Carrier frequency- 2500 Hz Beat frequency- 50 Hz [Fixed] Interrupted Galvanic: 1Hz [Fixed] TENS: Selectable from 1 to 150Hz |
| Vector Modulation | IFT Quadripolar mode (starts after 1 minute of treatment time) 100% Modulation in depth in 16 sec. is inbuilt in Hz1-Hz2 & P01-P05 |
| Treatment Time | Selectable from 5 to 60 minutes (in steps of 5 minutes) |
| Cyclic On | Selectable from 1 to 30 seconds (in steps of 1 second) |
| Cyclic Off | Selectable from 0 to 30 seconds (in steps of 1 second) |

NOTE: Cyclic On/ Off starts after 1 minute of treatment time.
 All the parameters have ± 10% tolerance.

5. CONTROLS AND FUNCTIONS



- 1 **MODE Key:** To select the mode. [Preset IFT P01-P02, P03, P04, P05 Quadripolar (Hz1-Hz2) / Premod / Russian / Galvanic / TENS Conventional, Burst & Modulation]. The Mode LEDs guide the user in mode selection.
- 2 **SELECT Key:** To select and edit the desired treatment parameter (Treatment time, Frequency, Pulse width, Cyclic On and Cyclic Off)
- 3 & 4 **▲ & ▼ key:** To select the treatment parameter to be changed and increase or decrease its value (Treatment time, Frequency, Pulse width, Cyclic On and Cyclic Off) These keys are also used to select Hz1 (Lower sweep frequency) and Hz2 (Higher sweep frequency).
- 5 & 6 **START/STOP Keys:** To start/stop the treatment in the respective output (1 & 2).
- 7 & 8 **▲ & ▼ keys:** To increase or decrease the % power in output 1.
- 9 & 10 **▲ & ▼ keys:** To increase or decrease the % power in output 2.

- 11 DISPLAY WINDOW OF SELECT SEGMENT:** Displays the default/selected values of P01, P02, P03, P04, P05, Hz1 (Lower Sweep frequency), Hz2 (Higher sweep frequency), Treatment time, Frequency, Pulse width, Cyclic On and Cyclic Off. While the treatment is on it continuously displays the balance treatment time.
- 12&13 DISPLAY WINDOWS OF OUTPUTS SEGMENT:** Display the selected % power of the respective output during the treatment.
- 14&15 OUTPUT SOCKETS:** To insert the Electrode Cables pin for the respective outputs.

6. HOW TO USE

Installation

- Connect the line cord to the back of the
- Plug the line cord into a grounded wall outlet that has 110 or 220 VAC/50,60Hz. Your power supply must match the voltage requirements. Do not connect the **AP439+** to a power supply rated differently than described above.
- The **AP439+** may be susceptible to interference originating from short-wave diathermy units operating in closed proximity to it. Avoid operating the **AP439+** adjacent to and simultaneously with operating short-wave devices.
- Do not use sharp objects to operate the membrane panel switches. If the tough outer layer of the membrane is broken, moisture may leak into the switches resulting in switch failure.

Preparation

- For safe operation of **AP439+** plus review, contraindications and precautions before positioning the electrodes.
- Use only the Electrode Cables and electrodes provided with the unit by manufacturer.
- We strongly encourage careful maintenance of the electrodes. This includes the electrode cables as well as the pads. Worn cables and/or poor pads or the wrong sized pads can have a significant impact upon treatment results. Make sure that the entire surface of the electrode is in firm contact with the skin.
- Clean the skin properly to eliminate any impairment to current conduction on the patient's skin such as an oily or dry surface, or excessive hair coverage. Shaving may be necessary depending upon the density of hair coverage. Failure to provide for maximum current conduction efficiency could result in skin irritation relating to an increase in current density at the electrode site.

- Using reusable electrodes for longer periods of time than those recommended by the package insert could result in ineffective treatments or cause skin irritation.
- For interferential modes, placement of electrodes may be the quadripolar or bipolar as recommended by the clinician.

Before You Start.

The interferential therapy should be applied to the tissues with the following steps:

- Step 1 The patient should be suitably positioned ensuring maximum comfort and suitable exposure of the part for the application of Interferential Current.
- Step 2 Prepare the area to be treated. The skin should be inspected and then cleansed to reduce the skin impedance and to achieve the best conduction.
- Step 3 The points where electrodes are to be placed should be marked.
- Step 4 The electrodes should be applied on the marked points.
- Step 5 The patient should be explained about the subjective sensory motor feeling that he will experience. The patient should experience a sensation of deep, sufficiently strong but pleasant vibrations at rhythmical frequencies and a pleasant tingling sensation.
- Step 6 Patient should be explained to immediately inform the therapist, of any unpleasant sensation or any other discomfort.
- Step 7 The therapist should promptly but gradually reduce the intensity to zero as and when patient reports of any discomfort.
- Step 8 Review precautions, contraindications and side effects/adverse reactions listed in the "Instructions for the User of Electro therapy" of this manual.
- Step 9 Verify connection of the AC cord to a grounded wall receptacle and the **AP439+**

7. TREATMENT SELECTIONS**PART A-PAIN RELIEF****Indications for Use**

Interferential (Preset IFT P01-P05, Quadripolar and Premod) Mode and TENS (Conventional, Burst and Modulation) Mode is indicated for:

- 1 Symptomatic relief and management of chronic intractable pain.
- 2 Adjunctive treatment in the management of post-surgical and post-traumatic, acute pain conditions.

Description Of Modes**Interferential Current Stimulation:****(a) Preset IFT P01-P05 :**

(b) Quadripolar : Customized Frequency Sweep: the user can select and set lower and higher sweep frequency between 1-250 Hz frequency range with Vector



**4 pad application over each body area.
Total 2 channels available**

(c) Premod Bipolar: Frequency sweep of 1-250 Hz

**2 pad application over each body area.
Total 4 channels available**

TENS Stimulation**(a) Conventional:**

**2 pad application over each body area.
Total 4 channels available**

(b) Burst:

**2 pad application over each body area.
Total 4 channels available**

(c) Modulation :

**2 pad application over each body area.
Total 4 channels available**

IMPORTANT: Before starting the treatment, the power in the digital display should show '00'.

Switching On The Device

- Switch ON the device using the rocker switch at the back of the unit. When device is switched ON:
- LED of Quadripolar Hz1 and Hz2 will glow and displayed as P01 in the display window above SELECT key.
- The display windows for the respective outputs show 00 as the default intensity.
- The LED adjacent to Time will glow.

Programming

Caution: Before you switch ON/OFF the device ensure that the Electrodes Cables are not connected.

1. Switch ON the device using the Rocker Switch at the back of the device.

Note: The three display windows will light up; The LED at Hz1, Hz2 and Time will glow.
2. Press "START/STOP" Key to select Output 1/2 for programming.

Note: LED at "START/STOP" Key will glow and LED at Hz1, Hz2 and Time will glow.
3. Press "MODE" Key to select the desired mode.

To select the modes, press Mode key. The Select Segment Window shows the selected preset programs P01-P05 of Quadripolar Interferential mode. Continuous pressing of MODE key switches between P01-P05. After which the Lower Sweep frequency of customized mode Hz1 starts blinking and the Lower Sweep frequency can be viewed and/or modified. Similarly on pressing the MODE key again, Higher Sweep frequency Hz2 LED blinks, indicating that it can be viewed and/or modified. Now as we keep on pressing the MODE key the corresponding LED glows, indicating the selected mode.

Note: First select the mode, and then the corresponding parameters by Select Key as follows:

NOTE: Press the MODE key till the LED for the desired mode glows. All the LEDs of the selectable parameters for the respective mode will glow.

1. Quadripolar provides selection of sweep frequencies. To select sweep frequency for Hz1 (lower sweep frequency), press START/Stop key of the respective output.

Note: The LEDs adjacent to Quadripolar Hz1 and Frequency will flash.

2. Use ▲ key in SELECT segment to adjust frequency for Hz1.
3. Press MODE Key.

Note: Hz2 LED starts blinking. The display window shows 250 as the default value of higher sweep frequency.

4. Use ▼ key in SELECT segment to adjust frequency for Hz2.

Note: (a) Hz1 will be less than or equal to Hz2.

Select both the frequencies Hz1 & Hz2 same, if constant frequency is required.

Select both the frequencies Hz1 & Hz2 same, if constant frequency is required.

(b) Hz1 & Hz2 selection will remain as previous values even after treatment is over, until mode is changed to different selection.

5. Press MODE key once.

Note: Both the LEDs will glow indicating the Quadripolar mode is selected. All the LEDs of the selectable parameters will glow simultaneously.

Similarly any mode can be selected and the LEDs for only selectable parameters to the respective mode will glow.

Selection Of Parameters**(a) Treatment Time:**

1. Press SELECT key.

Note: TIME LED blinks and Display window shows default treatment time.

2. Select desired treatment time using ▲ or ▼ key.

(b) Frequency: (Not applicable to Premod Mode)

1. Press SELECT key.

Note: Frequency LED starts blinking and Display shows default Frequency.

2. Select desired pulse rate using ▲ or ▼ key.

(c) Pulse Width: (Not applicable to Quadripolar, Premod Mode)

1. Press SELECT key.

Note: Pulse Width LED starts blinking and display shows default pulse width.

2. Select desired pulse width using ▲ or ▼ key.

(d) Cyclic On: (Contraction or Stimulation time. Not applicable to Quadripolar Mode)

1. Press SELECT key.

Note: Cyclic On LED will start blinking.

2. Select desired Cyclic On time using ▲ or ▼ key.

(e) Cyclic Off: (Relaxation time. Not applicable to Quadripolar Mode)

1. Press SELECT key.

Note: Cyclic Off LED will start blinking.

2. Select desired Cyclic Off time using ▲ or ▼ key.

Start Treatment

After Programming

1. Insert electrode cables into the output sockets.

2. Place the electrodes on the desired body area ensuring they are in firm contact with the skin.
3. Press START/ STOP key of selected OUTPUT once again.

Note: Display window of selected Output flashes intensity value '00,' indicating that the parameters for the respective output are locked and only intensity can be changed.

4. Increase the intensity using the ▲ key till bearable stimulation is felt.

Notes:

- After pressing the START/ STOP key, the value of intensity keeps flashing till the use doesn't start increasing the intensity. This indicates that the treatment has been started but no stimulation is being delivered.
- During Cyclic Off, the Output displays show '- -' indicating relax time. The intensity cannot be increased during Cyclic Off.
- To see the balance treatment time press ▲ or ▼ key of respective output. The balance treatment time for the respective output will display on the SELECT segment display and the START/STOP LED for the respective output will start flashing.
- The treatment automatically stops at the end of treatment time.

5. To stop the treatment in between Press START/STOP key.

Note: The START/STOP LED stops glowing at the end of treatment time or when the treatment is stopped.

6. Take out the electrode cables from the output socket. Take off the electrodes and store for further use as per the instructions on the package.

7. Turn OFF the rocker switch to switch OFF the device.

Important: At any time if the intensity (% power) is felt too intense, lower it by pressing decrement (▼) key.

PART B – MUSCLE STIMULATION**Indications for Use**

AP439+ can be programmed to provide Russian and Galvanic Interrupted / D.C. Continuous stimulation modes to be best utilized for following indications:

Russian and Galvanic Interrupted modes are indicated for:

1. Relaxation of Muscle spasm.
2. Prevention or Retardation of disuse atrophy.
3. Increasing local blood circulation.
4. Muscle re-education.
5. Immediate post-surgical stimulation of calf muscles to Prevent venous thrombosis.
6. Maintaining or increasing range of motion.

Galvanic-DC Continuous mode is indicated for:

1. Relaxation of muscle spasm.

Description Of Modes**Russian: Premodulated Sine Wave**

**2 pad application over each body area.
Total 4 channels available.**

Galvanic**(a) D.C. (Continuous)**

**2 pad application over each body area.
Total 4 channels available.**

(b) Interrupted

**2 pad application over each body area.
Total 4 channels available.**

Programming

Caution: Before you switch ON/OFF the device ensure that the Electrodes Cables are not connected.

- Switch ON the device using the rocker switch at the back of the unit. When device is switched ON:
- LED of Quadripolar Hz1 and Hz2 will glow and displayed as P01 in the display window above SELECT key.
The display windows for the respective outputs show 00 as the default intensity.
- The LED adjacent to Time will glow.
- Press "MODE" Key to select the desired mode.

Note: First select the mode, and then the corresponding parameters by Select Key as follows:

Selection Of Parameters**(a) Treatment Time:**

1. Press SELECT key.

Note: TIME LED blinks and Display window shows default treatment time.

2. Select desired treatment time using ▲or▼ key.

(b) Cyclic On:

1. Press SELECT key.

Note: Cyclic On LED will start blinking.

2. Select desired Cyclic On time using ▲or▼ key.

(c) Cyclic Off:

1. Press SELECT key.

Note: Cyclic Off LED will start blinking.

2. Select desired Cyclic Off time using ▲or▼ key.

Start Treatment

After Programming

1. Insert electrode cables into the output sockets.

2. Place the electrodes on the desired body area ensuring they are in firm contact with the skin.
3. Press START/ STOP key of selected OUTPUT once again.

Note: Display window of selected Output flashes intensity value '00,' indicating that the parameters for the respective output are locked and only intensity can be changed.
4. Increase the intensity using the ▲ key till bearable stimulation is felt.

Notes:

 - After pressing the START/ STOP key, the value of intensity keeps flashing till the user doesn't start increasing the intensity. This indicates that the treatment has been started but no stimulation is being delivered.
 - During Cyclic Off, the Output displays show '- -' indicating relax time. The intensity cannot be increased during Cyclic Off.

To see the balance treatment time press ▲ or ▼ key of respective output. The balance treatment time for the respective output will display on the SELECT segment display and the START/STOP LED for the respective output will start flashing.

The treatment automatically stops at the end of treatment time.
5. To stop the treatment in between Press START/STOP key.

Note: The START/STOP LED stops glowing at the end of treatment time or when the treatment is stopped.
6. Take out the electrode cables from the output socket. Take off the electrodes and store for further use as per the instructions on the package.
7. Turn OFF the rocker switch to switch OFF the device.

Important: At any time if the intensity (% power) is felt too intense, lower it by pressing decrement (▼) key.

8. MAINTENANCE

Cleaning

- The soiled unit should be cleaned with a damp cloth. The power cord should be disconnected from the unit before this is done.
- For routine cleaning of the electrode cables use soap and water. Thoroughly dry after cleaning.

Maintenance

- Do not pull out cables.
- Electrode cables should be kept loosely wound or breakage may occur.

Storage

- Keep the unit properly covered, when not in use. This will help to keep out of dust.
- Make special space to store the unit, so after the treatment is over, the unit can be covered and kept for further use. This will avoid the unnecessary movement of any day any breakage that may occur. Caution: Do not store the unit in damp environment. Dampness may affect device and cause rust.

Safety

- Once the treatment is "ON", it is not possible to change any of the programmed features. However the intensity can be controlled. If you wish to change the program, press START/STOP Key to stop treatment in the respective output and reprogram (Refer to the "How to Use" Section of this manual.
- If the treatment is interrupted due to power failure or any other unforeseen cause and again started, **AP439+** automatically drops the intensity to "00" to avoid sudden unpleasant sensation.
- Dual safety measure has been taken by providing insulation between power line inputs and outputs.

9. TROUBLESHOOTING

| Observation | Possible Causes | Remedy |
|--|--|--|
| None of the displays are lighting up after switching on the rocker switch. | Internal Error | Turn off the rocker switch and check fuse provided in AC receptacle. |
| Weak stimulation or no stimulation even at maximum amplitude setting. | Poor electrode contact. | Check the electrodes |
| | Electrode conduction is low or electrode cable is worn out | Change electrodes. Change electrode cables. |
| Skin irritation at electrode placement site | Improper contact/ electrode gel dried up. | Wet or change the electrode |
| Continuous beeping of buzzer | AC input voltage fluctuation | Turn off the rocker switch and switch it ON again |

10. WARRANTY

This product's warranty extends to the original consumer/ purchaser of the product.

Warranty Duration

This product is warranted to the original consumer for a period of one (1) year from the original purchase date.

Warranty Coverage

This product is warranted against defective materials or workmanship. This warranty ceases if the product has been damaged by accident, in shipment, unreasonable use, misuse, neglect, improper service, commercial use, repair by unauthorized personnel or cause not arising out of defect in materials or workmanship. This warranty does not extend to any units which are used in violation furnished by manufacturer, or to units which have been altered or modified, or to damage to products or parts there of which have had the serial number removed, altered or defaced or rendered illegible. The warranty doesn't cover normal wear & tear or replacement of electrodes, electrode cables and other accessories.

Warranty Disclaimers

This warranty is in lieu of all warranties expressed or implied and no representative or person is authorized to assume for manufacturer/ any other liable in connection with the sale of our products. There shall be no claims for defects or failure of performance or product failure/ any theory of tort, contract or commercial law including, but not limited in negligence, gross negligence, and strict liability, breach of warranty and breach of contract. Some states do not allow the exclusion or limitation of implied warranties or consequential damages, so the above limitations may not apply to you.

Manufacturer is not responsible or liable for indirect special or consequential damages arising out of or in connection with the use performance of the product or other damage with respect to loss of property or loss of revenues or profit.

Legal Remedies

This warranty gives you specific legal rights, and you may also have other rights that vary from state to state.

Warranty Performance

During the above one-year warranty period, a product with a defect will be repaired or replaced with a reconditioned comparable unit at distributor's option when the product is returned to the distributor. The repaired or replacement product will be in warranty for the balance of the one-year warranty period and an additional one-month period. No charge will be made for such repair or replacement.

Consumer Service

For in warranty service for a product covered under the warranty period, no charge is made for service and return postage. Please return the product insured, packed with sufficient protection, postage insurance, prepaid to the address. Customs duty/brokerage fee, if any, must be paid by the consumer.

Out Of Warranty Service

There will be charges rendered for repairs made to the product after the expiration of the aforesaid one (1) year warranty period, after purchaser is advised appropriately.

The distributor cannot assume responsibility for loss or damage during shipment. For your protection, carefully pack the product for shipment and insure it with the carrier. Ensure that you return the unit and accessories related to your problem and also that you indicate full return address. Also send a copy of sales receipt or other proof of purchase to determine warranty status. C.O.D. shipments cannot be accepted.

List of accessories:(In case of replacement or ordering)

| Accessories | Part No. |
|--|------------|
| Elastic Belt AP4390 with velcro and tag logo Size:18X3" | 40CPG00097 |
| Elastic Belt AP4390 with velcro and tag logo Size:3X36" | 40CPG00096 |
| Jelly - BOM | 30BME00016 |
| AC Cord Round 3Pin 5A | 40SEE00033 |
| Electrode 2" Gray | 50AFG00004 |
| Lead Wire 5 Pin 4 Core Lengt 1.5 Meter Color Grey | 50CPG00001 |

IMPORTANT

The contents of this document is solely available for informational purpose only and are illustrative in nature and must not be interpreted to be exhaustive and final & we reserve exclusive rights to change or modify the contents at any stage without any prior intimation.

Subject to exclusive Jurisdiction to Courts in Jodhpur only