Thank you for choosing **Empi Axon** which provides an interferential therapy to treat conditions where inflammation is a problem such as Back Pain, Osteoarthritis, Rheumatoid Arthritis, Muscular Pain / Strain, and Sports injuries. Axon produces the low frequency current treatment that uses two medium frequency currents, which “interfere” with each other to produce a beat frequency that the body recognizes as a low frequency energy source.

The rationale is to overcome the problems caused by low-frequency currents, while maintaining their penetration deep into the affected tissue.

The actual stimulation is produced by crossing two alternating currents with medium frequencies simultaneously to a targeted body region. As a result, these two currents will superimpose to form a new low frequency current deep within the tissue.

**Empi Axon** includes:

- 1 x Axon Device
- 2 x Lead Wire
- 4 x Electrodes
- 4 x Battery
- 1x Adaptor
- 1 x AC Plug
- 1 x Belt Clip
- 1 x Instruction Manual
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Safety Information

Contraindications

Attention: Read the Manual before using the device.

1. Any electrode placement that applies current to the carotid sinus (neck) region.
2. Any use of TENS on patients who have a cardiac pacemaker, implanted defibrillator, or other implanted metallic or electronic device, because this may cause electric shock, burns, electrical interference, or death.
3. Any electrode placement that causes current to flow transcerebrally (through the head).
4. The use of TENS whenever pain syndromes are undiagnosed, until etiology is established.

Warnings

Attention: Read the Manual before using the device.

1. The safety of TENS devices for use during pregnancy or birth has not been established.
2. TENS is not effective for pain of central origin (This includes headache).
3. TENS devices should be used only under the continued supervision of a physician.
4. It is recommended that patients consult with their physician before using this device, because the device may cause lethal rhythm disturbances to the heart in susceptible individuals.
5. TENS devices have no curative value.
6. TENS is a symptomatic treatment and as such suppresses the sensation of pain which would otherwise serve as a protective mechanism.
7. The user must keep this device out of the reach of children.
8. Electronic monitoring equipment (such as ECG monitors and ECG alarms may not operate properly when TENS stimulation is in use.
9. Stimulation should not be applied across the patient’s chest, because the introduction of electrical current into the chest may cause rhythm disturbances to the patient’s heart, which could be lethal.
10. Stimulation should not be applied over open wounds or over swollen, infected or inflamed areas or skin eruptions (e.g., phlebitis, thrombophlebitis, varicose veins). Apply stimulation only to normal, intact, clean skin.
11. Stimulation should not be applied over, or in proximity to, cancerous lesions.
12. Stimulation should not be applied when the patient is in the bath or shower.
13. Stimulation should not be applied while the patient is sleeping.
14. Stimulation should not be applied while the patient is driving, operating machinery, or during any activity in which electrical stimulation can put the patient at risk of injury.
15. Device might get warm for prolonged use. Do not place it in close contact with skin while operating.
Precautions

1. Isolated cases of skin irritation may occur at the site of electrode placement following long term application.
2. Effectiveness is highly dependent upon patient selection by a person qualified in the management of pain patients.
3. TENS is not a substitute for pain medications and other pain management therapies.
4. The long-term effects of electrical stimulation are unknown.
5. Patients with suspected or diagnosed heart disease should follow precautions recommended by their physicians.
6. Patients with suspected or diagnosed epilepsy should follow precautions recommended by their physicians.
7. Caution should be exercised when the patient has a tendency to bleed internally, such as following an injury or fracture.
8. Caution should be exercised following recent surgical procedures when stimulation may disrupt the patient’s healing process.
9. Caution should be exercised when stimulating over areas of skin that lack normal sensation.
10. Use this device only with the leads, electrodes, and accessories recommended by the manufacturer.

Adverse Reactions

1. Skin irritation and electrode burns are potential adverse reactions.
2. Headache and other painful sensations have been reported during or following the application of electrical stimulation near the eyes and to the head and face.
3. Use electrodes size area of less than 40mm x 40mm increases chance of skin irritation.
Operation Keys

1. **ON/OFF**
   - Turns the device on and off.

2. **INCREASE INTENSITY**
   - Press this button to increase amplitude. (intensity of stimulation)

3. **DECREASE INTENSITY**
   - Press this button to decrease amplitude. (intensity of stimulation)

4. **INCREASE FREQUENCY**
   - Press this button to increase frequency.

5. **DECREASE FREQUENCY**
   - Press this button to decrease frequency.

6. **PROGRAM**
   - Select program from P1 to P6.

7. **TIMER**
   - Click once to select the next available timer value. i.e. continuous → 15 min → 30 min → 45 min → 60 min → continuous. If program is locked, TIMER KEY can’t work.

   - Press & hold for 2 seconds to display USAGE TIMER DISPLAY stated.

8. **2/4 PAD, KEY LOCK**
   - Click once to select for 2 or 4 pads.

   - Press & hold for 2 seconds to lock or unlock a program.
1. LEVEL BAR
   Indicates the intensity level; total of 15 levels.

2. MODE
   Show stimulation mode & type of current stimulation.

3. PROGRAM
   Displays the current stimulation program; total of 6 programs.

4. LOCK
   Turn on when program is locked.

5. PAD TYPE
   Indicates if current output is for 2 or 4 pads.

6. TIMER
   Shows remaining treatment time.

7. BATTERY LOW
   Flashes when battery low.

8. FREQUENCY ADJUSTMENT
   “Manual Icon” turns on when frequency can be adjusted.
   “Auto Icon” turns on when frequency cannot be adjusted.
Operation

1. **Electrode Setup**
   a. Prepare the skin by washing the electrode site with mild soap and water then rinse and dry the area thoroughly.
   b. Connect the electrodes to the lead wires before applying the electrodes to the skin.
   c. Place the electrodes on the skin. Then connect lead wires to the device.

   **Precaution:** Do not disconnect any stimulation cables during a session while the stimulator is switched on. Switch the stimulator off first. Always turn off the stimulator before moving or removing any electrodes during a session.

   **Precaution:** Do not apply stimulation in the vicinity of metal. Remove jewelry, body piercings, buckles or any other removable metallic product or device in the area of stimulation.

2. **Turn on the Device**
   Press ON/OFF KEY (I). LED displays when the device is on. Always switch the device off before removing electrodes from the skin.

3. **Select a Program**
   Use MODE KEY (P) to choose a desirable program from Program 1 to Program 6. The output intensity resets to zero when you change a treatment program.

4. **Setting Treatment Parameters**
   The clinician will first set up the parameters for treatment and then proceed to restrict the user’s ability to reprogram the unit.

5. **2/4 Pads Mode Button**
   Press (2) KEY to choose either 2-Pads or 4-Pads treatment mode. When 2/4 Pads mode is changed, the output intensity resets to zero.

   In 4-PADS TREATMENT MODE, 2 sinusoidal outputs with different frequencies will be delivered to Channel 1 and 2 respectively. Channel 1 delivers a fixed 4kHz sine wave while Channel 2 delivers a sine wave with frequency ranges between 4002Hz and 4160Hz.

   In 2-PADS TREATMENT MODE, 2 sine waves will be superimposed inside the device to form a new amplitude-modulated waveform. The resulting output is simultaneously delivered to Channel 1 and 2.
6. Adjust the Intensity
You can adjust a desired intensity by pressing the LEVEL + or LEVEL − accordingly.

7. Adjust the Beat Frequency
You can also change a frequency by pressing the FREQ. + and FREQ. − when the LCD displays the word “Manual”.

The output beat frequency ranges between 2Hz and 160Hz.

8. Lock and Unlock Your Own Program
To lock a program, first adjust the “Level” Bar to zero, then press & hold ⅛ KEY for 2 seconds. Whenever you turn on the device again, the program will come up.

To unlock the program adjust level − bar to zero and hold the 2/4 key for 2 seconds. Then press & hold ⅛ KEY for 2 seconds.

9. Treatment Timer
Press TIMER KEY ( ) to select your desired treatment period ranging from 15, 30, 45 and 60 minutes. If no timer is set, the device will provide a continuous output, and no “CLOCK” symbol will be displayed.

Once you fix a treatment timer, the timer starts its calculation only if the output level (Level Bar) is greater than zero. When the treatment timer is operated, the output intensity will no longer affect its operation. The treatment timer begins to count down from its preset value. You can notice the timer value from the LCD at every minute interval. When the preset treatment period is elapsed, the device switches off its output.

10. Usage Timer
Once you start the stimulation with output (i.e. non-zero Level Bar), the User Timer automatically and accumulatively counts your total usage up to 999 hours 59 minutes. The User Timer resets to zero when this limit is reached.

To view the Usage Timer, set LEVEL − to zero, then press & hold the TIMER KEY ( ) for 2 seconds.

The Usage Timer at the right LCD displays the total usage of 3 hour 21 minutes.

To cancel the accumulated Usage Timer, press the TIMER KEY ( ) for another 2 seconds and it starts at zero again. After 2 second eclipsed, LCD will show back the ordinary contents.
Treatment Programs

You can choose 6 different treatment programs.

When treatment program changes, the output intensity and treatment time resets to zero, but changing the treatment program will not alter the choice of the 2-Pads or 4-Pads Treatment.

<table>
<thead>
<tr>
<th>Program</th>
<th>Type</th>
<th>I/F frequency adjustable</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Constant</td>
<td>Yes</td>
<td>2-160Hz Adjustable</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>2 to 20Hz adjustable in steps of 2Hz.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>20 to 80Hz adjustable in steps of 5Hz.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>80 to 160Hz adjustable in steps of 10Hz.</td>
</tr>
<tr>
<td>2</td>
<td>Sweep</td>
<td>No</td>
<td>The beat frequency sweeps from 2Hz – 10Hz in 6 seconds, and then back in 6 seconds, total cycle time is 12 seconds.</td>
</tr>
<tr>
<td>3</td>
<td>Sweep</td>
<td>No</td>
<td>The beat frequency sweeps from 2 Hz to 100Hz in 10 seconds, and then back in 10 seconds, total cycle time is 20 seconds.</td>
</tr>
<tr>
<td>4</td>
<td>Sweep</td>
<td>Yes</td>
<td>The beat frequency changes gradually from the set value to +200% of it in 6 seconds, and then back in 6 seconds, total cycle time is 12 seconds. The selectable beat frequency ranges between 5 ~ 80Hz with steps of 5Hz.</td>
</tr>
<tr>
<td>5</td>
<td>Abrupt</td>
<td>Yes</td>
<td>The beat frequency changes abruptly between set value and +200% of it every 1 second. The total cycle repeats in 2 seconds. The selectable beat frequency ranges between 5-80Hz with steps of 5Hz.</td>
</tr>
<tr>
<td>6</td>
<td>Abrupt</td>
<td>Yes</td>
<td>The beat frequency changes abruptly between set value and +200% of it every 6 seconds. The total cycle repeats in 12 seconds. The selectable frequency ranges between 5~80Hz with step of 5Hz.</td>
</tr>
</tbody>
</table>

Placement of Electrodes

The placement of the electrodes is very important to the success of the treatment, therefore please place electrodes according to the instructions of your treating physician.

When operating in 4-Pads treatment mode, the electrodes should be placed on the body as described in the diagram below. The arrangement of these 4 electrodes will allow the intersection of the 2 sinusoidal outputs, which will result in the required beat frequency. In 2-Pads treatment mode, 2 separate pairs of electrodes can simultaneously treat two different body regions.
Battery Replacement

- Slide out the battery holder located at the bottom of the device.
- Take the used battery out of the holder and place a new battery.
- Check the polarity (+ at the front side).
- Slide the battery holder back to the device.
- Check the functions by pressing the keys.

Maintenance

The life of the electrodes depends on the frequency and time of usage as well as the skin types and storage conditions. You may use a wet cloth for the dried or dirty electrodes, but the electrodes with no adherence must be replaced.

The device requires neither routine maintenance nor calibration. When needed, for occasional cleaning/disinfecting of the plastic covers, use alcohol wipes.

DO NOT immerse the device in water.

IMPORTANT. Only use the AC adaptor supplied together with the device. Use of other adaptors may compromise safety.
## Trouble Shooting

<table>
<thead>
<tr>
<th>Problem</th>
<th>Check Point</th>
<th>Solution</th>
</tr>
</thead>
</table>
| No indication / No start | **Check the battery:**  
• Is battery dead?  
• Correct polarity? | • Replace with new battery.  
• Put the battery properly. |
| Bad contact indication   | **Check the pads:**  
• Firmly placed?  
• Dried or dirty surface?  
**Check the electrode pins to pads:**  
• Firmly connected?  
**Check the skin:**  
• Too dry? | • Press the pads to the skin.  
• Replace with new pads.  
• Connect to the pads.  
• Moisturize the skin with a wet towel. |
| Skin irritation           | **Check the pads:**  
• Firmly placed?  
• Dried or dirty?  
**Check the skin:**  
• Scar, cut or damage?  
• Too dry?  
• Applied chemicals?  
• Allergy? | • Press the pads to the skin.  
• Replace new pads.  
• Avoid the damaged area.  
• Moisturize the skin with a wet towel.  
• Remove all chemicals or cosmetics from the skin.  
• Stop using and consult a doctor.
## Specifications

<table>
<thead>
<tr>
<th>Channel</th>
<th>Dual, isolated between channels</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mode</td>
<td>6 operation programs</td>
</tr>
<tr>
<td>Waveform</td>
<td>Symmetrical Balanced Sine Wave</td>
</tr>
<tr>
<td>Output Current</td>
<td>Adjustable, 0-33 mA across 500 Ohm load on each channel</td>
</tr>
<tr>
<td>Beat Frequency</td>
<td>2-160 Hz</td>
</tr>
<tr>
<td>Carrier Frequency</td>
<td>4000Hz (with ±1% tolerance) fixed on Channel 1</td>
</tr>
<tr>
<td>Modulating Frequency</td>
<td>4002-4160Hz (with ±1% tolerance) adjustable on Channel 2</td>
</tr>
<tr>
<td>Power Source</td>
<td>4 x 1.5V AA Size battery OR AC/DC adaptor(Input:100~240V AC ; Output: 6V, 1A DC)</td>
</tr>
<tr>
<td>Low Battery Detection</td>
<td>4.0V ± 0.1V</td>
</tr>
<tr>
<td>Treatment Timer</td>
<td>Continuous, 15, 30, 45 or 60 minutes</td>
</tr>
<tr>
<td>Usage Timer</td>
<td>Maximum 999 hours, 59 minutes</td>
</tr>
<tr>
<td>Automatic Power Off</td>
<td>If the output remains at zero for 5 minutes, the device will then be automatically shut down.</td>
</tr>
<tr>
<td>Output Configuration</td>
<td>4-Pads Treatment Conventional Interferential Current Therapy (IFC) with Channel 1 delivers a fixed 4kHz sine wave, while output of Channel 2 can be varied between 4002Hz and 4160Hz</td>
</tr>
<tr>
<td></td>
<td>2-Pads Treatment Pre-modulated Interferential Current Therapy (IFC) in which both Channel 1 and 2 will simultaneously deliver an amplitude-modulated output with beat frequency varies between 2 and 160Hz.</td>
</tr>
<tr>
<td>Environment For Storage &amp; Use</td>
<td>Temperature 0-40°C Air humidity 30-75% Air pressure 700hPa-1060hPa</td>
</tr>
<tr>
<td>Expected Service Life</td>
<td>5 years</td>
</tr>
</tbody>
</table>
Important Symbols

Refer to instruction manual/booklet.

Device with this symbol is an IEC/EN60601-1 type BF equipment. It provides a high degree of protection against electric shock.


Keep dry.

The device is intended for continuous use with no degree of protection against water penetration.

Date of manufacture.

Limited Warranty

Warning

While, in the opinion of Empi ("Empi"), the use of the Empi Axon ("the Product") has met with some success, Empi makes no warranties to the purchaser as to the effectiveness of the product.

Warranty

A. Empi warrants to the initial Purchaser ("Purchaser") (and to no other person) that the Product (with the exclusion of accessories such as chargers, rechargeable batteries, electrodes, lead wires, tape adhesive patches and electrode cream) and the component parts thereof, distributed or manufactured by Empi, shall be free from defects in the workmanship and materials for three years from the initial date of purchase from Empi (the “Warranty Period”)

B. Accessories including, but not limited to, chargers, rechargeable batteries, electrodes, lead wires, tape adhesive patches and electrode cream are excluded from the Warranty and sold “AS IS” because their structure is such that they may be easily damaged before or during use.
A. Empi’s sole obligation in the case of any breach of its warranties set forth in Paragraph A above, shall be, at Empi’s option, to repair or replace the Product without charge to Purchaser or to refund the purchase price of the Product. In order to recover under this Warranty, Purchaser must send Empi written notice of the defect (setting forth the problem in reasonable detail) prior to expiration of the Warranty Period, and within 30 days of discovery of the defect. Upon Empi’s written request and authorization, Purchaser shall return the Product to Empi, freight and insurance prepaid, for inspection. Notice and return shipment shall be sent to Empi at 47492 Hwy. 22, Clear Lake, South Dakota 57226, USA, or to an Empi Authorized Service Center. To locate the appropriate Service Center outside of North America, or to request shipment approval, contact Empi directly. Empi will not be responsible for damage due to improper packaging or shipment. If Empi determines in its sole reasonable discretion that the Product contains defective workmanship or materials, Empi will refund to the Purchaser, the purchase price for the defective product, or return the repaired Product or a replacement thereof to Purchaser, the purchase price for the defective product, or return the repaired Product or a replacement thereof to Purchaser, freight and insurance prepaid, as soon as reasonably possible following receipt of the Product by Empi. Empi determines in its sole reasonable discretion that the Product does not contain defective workmanship or materials, Empi will return the Product to the Purchaser, freight and insurance billed to the Purchaser.

B. This Warranty is voided immediately as to any Product which has been repaired or modified by any person other than authorized employees or agents of Empi or which has been subjected to misuse, abuse, neglect, damage in transit, accident or negligence.

C. Except as provided in paragraph A, the product is being sold on an as is basis, all accessories are sold as is, and the entire risk as to the quality and performance of the product is with purchaser. The warranty provided in paragraph A is intended solely for the benefit of the initial purchaser and Empi disclaims all other warranties, express or implied including, but not limited to, any implied warranties of merchantability and fitness for a particular purpose; provided, however, that notwithstanding the foregoing sentence, in the event an implied warranty is determined to exist, the period for performance by Empi thereunder shall be limited to the lifetime of the initial purchaser. No employee, representative or agent of Empi has any authority to bind empi to any affirmation, representation or warranty except as stated in this written warranty policy.

D. Empi shall not be liable to any person for any direct, indirect, special, incidental or consequential damages, lost profits or medical expenses caused by any defect, failure, malfunction or otherwise of the product, regardless of the form in which any legal or equitable action may be brought against Empi (e.g. contract, negligence or otherwise) the remedy provided in paragraph A above shall constitute purchaser’s sole remedy. In no event shall Empi’s liability under any cause of action relating to the product exceed the purchase price of the product.

This Warranty gives the Purchaser specific legal rights and Purchaser may also have other rights which vary from state to state. Some states do not allow limitations of how long an implied warranty lasts, so the above limitation may not apply to the Purchaser.
FOR USA MARKET

**Caution:** Federal law restricts this device to sale by or on the order of a practitioner licensed by the law of the State in which he/she practices to use or order the use of the device.

Made in China
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