

Personal Care Plus™

Electronic Knee Stimulator For Pain Relief

User Manual



Model PM-770

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Introduction

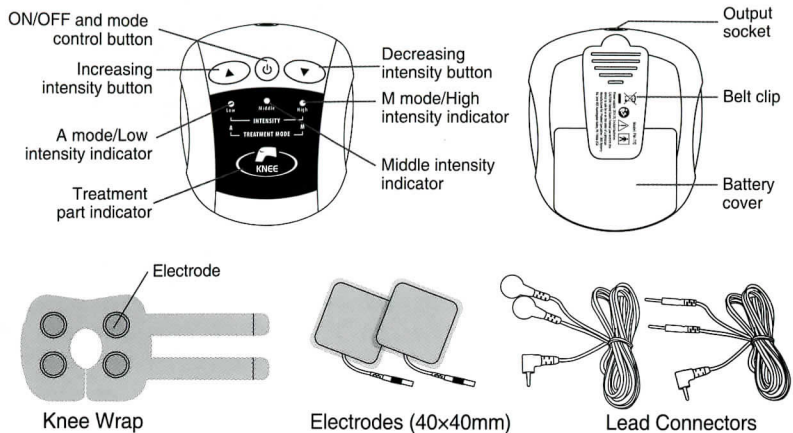
Thank you for purchasing the PM-770. PM-770 is a single output channel TENS device. It is intended for pain relief in the knee. TENS stands for Transcutaneous Electrical Nerve Stimulation is recognized as a safe and highly effective method of relieving pain. TENS is now regularly recommended by doctors, physiotherapists and pharmacists throughout the world. Before using, please read all the instructions in this user manual carefully and keep it safe for future.

How does TENS work?

PM-770 works by passing harmless electrical signals into the body from the support wrap. This relieves pain in two ways:

- Firstly, it blocks the body's pain signals which are normally transmitted from the area of damage through the nerve fibres to the brain - TENS interrupts these pain signals.
- Secondly, TENS stimulates the body's production of endorphins – its own natural painkillers.

Electronic Knee Stimulator For Pain Relief



Before you start

Please carefully read and understand the following warnings and cautions to ensure the safe and correct use of this device and to prevent injury.

- Make sure the batteries are installed correctly.
- Connect the cables to the support wrap and then connect to the unit.
- Attach the support wrap and place the electrodes to the area of pain,
- Do not use the wrap if it is scratched or damaged in any way.

Contraindication

- Do not use this device if you have a cardiac pacemaker, implanted defibrillator, or other implanted metallic or electronic device. Such use could cause electric shock, burns, electrical interference, or death.

Warnings

- If you are in the care of a physician, consult with your physician before using this device;
- If you have had medical or physical treatment for your pain, consult with your physician before using this device;

Safety information

- If your pain does not improve, becomes more than mild, or continues for more than five days, stop using the device and consult with your physician;
- Do not apply stimulation over your neck because this could cause severe muscle spasms resulting in closure of your airway, difficulty in breathing, or adverse effects on heart rhythm or blood pressure;
- Do not apply stimulation across your chest because the introduction of electrical current into the chest may cause rhythm disturbances to your heart, which could be lethal;
- Do not apply stimulation over open wounds or rashes, or over swollen, red, infected, or inflamed areas or skin eruptions (e.g., phlebitis, thrombophlebitis, varicose veins);
- Do not apply stimulation over, or in proximity to, cancerous lesions;
- 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;
- Don't touch the electrode (on wrap) with finger when the device is in function.
- Do not apply stimulation when in the bath or shower;
- Do not apply stimulation while sleeping;
- Do not apply stimulation while driving, operating machinery, or during any activity in

Safety information

- which electrical stimulation can put you at risk of injury;
- Stimulation should not take place while the user is connected to high-frequency surgical equipment, it may cause burn injuries on the skin under the electrodes, as well as problems with the stimulator.
- Do not use the stimulator in the vicinity of shortwave or microwave therapy equipment, since this may affect the output power of the stimulator.
- Consult with your physician before using this device, because the device may cause lethal rhythm disturbances to the heart in susceptible individuals;
- Apply stimulation only to normal, intact, clean, healthy skin.
- Do not apply stimulation while driving, operating machinery, or during any activity in which electrical stimulation can put you at risk of injury; and
- Do not use the device on children unless under the supervision of a doctor.
- Consult with your physician before using this device, because the device may cause lethal rhythm disturbances to the heart in susceptible individuals; and
- Apply stimulation only to normal, intact, clean, healthy skin.

Safety information

Precautions

- TENS is not effective for pain of central origin, including headache;
- TENS is not a substitute for pain medications and other pain management therapies;
- TENS devices have no curative value;
- TENS is a symptomatic treatment and, as such, suppresses the sensation of pain that would otherwise serve as a protective mechanism;
- Effectiveness is highly dependent upon patient selection by a practitioner qualified in the management of pain patients;
- The long-term effects of electrical stimulation are unknown;
- Since the effects of stimulation of the brain are unknown, stimulation should not be applied across your head, and electrodes should not be placed on opposite sides of your head;
- The safety of electrical stimulation during pregnancy has not been established, so pregnancy women or labour should consult your physician before use.
- You may experience skin irritation or hypersensitivity due to the electrical stimulation or electrical conductive medium;
- If you have suspected or diagnosed heart disease, you should follow precautions

Safety information

- recommended by your physician; and
- If you have suspected or diagnosed epilepsy, you should follow precautions recommended by your physician.
- The unit must be turned off before moving the wrap.
- Avoid contact of the wrap with anything made of metal, such as chains.
- We also recommend that the user manual advise users of the following:
- Use caution if you have a tendency to bleed internally, such as following an injury or fracture;
- Consult with your physician prior to using the device after a recent surgical procedure, because stimulation may disrupt the healing process;
- Use caution if stimulation is applied over the menstruating or pregnant uterus;
- Use caution if stimulation is applied over areas of skin that lack normal sensation.
- The user manual should advise users of the following:
- Keep this device out of the reach of children;
- Use this device only with the leads, support wrap, and accessories recommended by the manufacturer.

Safety information

Adverse Reactions

- You may experience skin irritation and burns beneath the stimulation electrodes applied to your skin;
- You may experience headache and other painful sensations during or following the application of electrical stimulation near your eyes and to your head and face; and
- You should stop using the device and should consult with your physician if you experience adverse reactions from the device.

Instructions for use

Step1 Insert 3 batteries (type: AAA 1.5 volt) into PM-770 unit

To insert the battery, you should press the wrap clip up first, slide the battery cover downward until the cover pops off like Figure I. Insert 3 batteries (type AAA) into the battery compartment as indicated Figure II. Make sure you are installing the battery properly, follow the correct polarity (+ and - pole) marked in the battery compartment of the unit. Do not turn the device on yet! Finally, Close the cover on by sliding from the bottom up like Figure III.

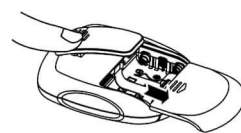


Figure I

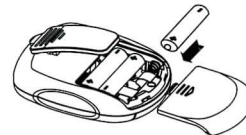


Figure II

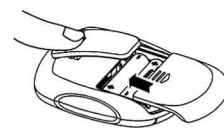


Figure III

Caution:

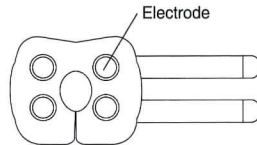
1. Match the positive terminal of battery to the positive marking shown.
2. Please use 3×AAA batteries in this unit.
3. Remove the batteries if the device is not in use for long periods of time.

Instructions for use

4. Do not mix old and new batteries or different types of batteries.
5. Warning: If batteries leak and come into contact with the skin or eyes, wash immediately with copious amounts of water.
6. Batteries must be handled by an adult. Keep batteries out of the reach of children.
7. Only batteries of the same or equivalent type are recommended.
8. Do not use rechargeable batteries.
9. Remove exhausted batteries from the unit.
10. Supply terminals are not to be short circuited.
11. Dispose of batteries safely according to battery manufacturer's instructions.

Step 2 Prepare your support wrap

Lay the Support wrap open on a flat surface, with the electrode side facing up. You will see four conductive rubber electrodes.

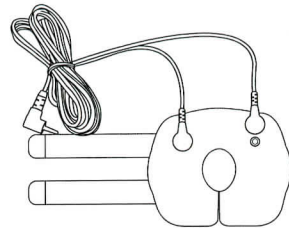


Instructions for use

Step 3 Connect the snap cables

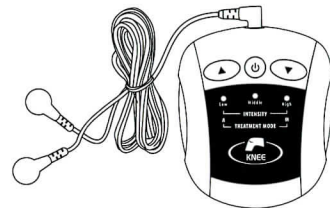
Turn the support wrap over, with the electrode facing down. The wrap should be lying horizontally in front of you. You will see two metal snaps.

Take one female snap cable and snap one connector onto the metal snaps as shown in the diagram. Repeat with the second cable.



Step 4 Connect the cable to device

Before proceeding to this step, be sure the device is completely turned off. Hold the cable plug and insert into the socket on the top of the unit as shown in the diagram. Ensure the the cable is inserted correctly.



Instructions for use

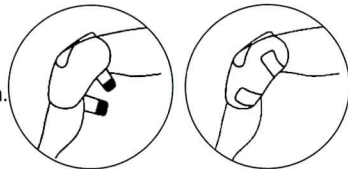
Step 5 Put on the support wrap

You may now put on the wrap:

1. Choose and place the support wrap on the knee.
2. When creating the wrap make sure that the electrodes of wrap are optimally positioned around the knee. The circular opening must be positioned on knee cap. as shown in the diagram.
3. The two bands with Velcro straps closures wrap around the knee and fix in the desired position.

Remark:

1. The length of the support wrap is designed for one size fits all. you can tighten or loosen the wrap by adjusting the Velcro patch.
2. Please make sure the electrodes contact the skin properly and completely.

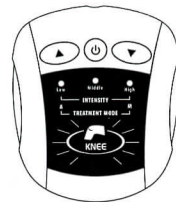


Instructions for use

Step 6 Turn the device "ON"

Before using the device for the first time, you are strongly advised to take careful note of the safety information detailed at the beginning of this manual, as this powerful equipment is neither a toy nor a gadget!

In order to turn on the device, please press [⏻] button, the treatment part indicator will be blinked 3 times first and you will hear 3 times "DI" sound. and then, the treatment part indicator will be light.



Caution:

If there is no operation in the panel for 1 minutes in the waiting state, the device turns off automatically.

Setp 7 Select the therapy mode

There are 2 therapeutic modes as a cycle.

Instructions for use

The device will be working cycle according to 2 therapeutic modes alternately every 2 minutes.

If you feel the therapeutic mode is comfortable, you can keep the current therapeutic mode by press [⏻] button. The LED M mode indicator will light for 3 seconds like figure I

If you want to back working cycle at 2 therapeutic modes. you can press [⏻] button again. The LED A mode indicator will light for 3 seconds like figure II

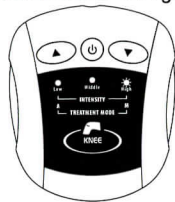


Figure I

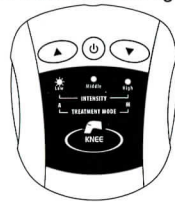


Figure II

Caution:

In order to find the most effective mode for you, please try the 2 therapeutic modes for the first time.

Instructions for use

Step 8 Adjust the output intensity

Press the intensity control button ([▲] and [▼]) to adjust the intensity output and the device start to work. You can hear "DI" sound when you press button every time.

Caution:

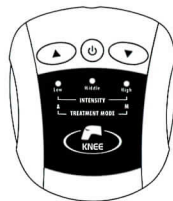
1. The device has 25 step intensity control. If you press the intensity control from the 1 step to 8 step, the low intensity indicator will be blinked and you will hear 1 times "DI" sound. If you continuous press the intensity control from the 9 step to 17 step, the middle intensity indicator will be blinked and you will hear 2 times "DI" sound. Continuous press the intensity control from the 18 step to 25 step, the high intensity indicator will be blinked and you will hear 3 times "DI" sound.
2. The strength of stimulation may be adjusted depending upon the individual condition of user.
3. For the device with electrode detection function, If the electrodes no placed firmly on skin or the device has not connected on the electrodes, you cannot increase the stimulator's output intensity, and you will hear two sets of three times "Di" sound.
4. The maximum intensity level is 25, means that you can't increase the intensity after press [▲] button 25 times continuously.

Instructions for use

5. The stimulator can be clipped to your wrap for portable, hands-free Knee pain relief.
6. After finished the treatment, the treatment part indicator will be light for 1 minute. and then the stimulator will turn off automatically.

Step 9 Turn the device off

Press [⏻] button and hold on 5 seconds, then the treatment part indicator off means the device is turned off.



Caution:

1. When you are finished using your stimulator, before removing your support wrap to avoid unpleasant stimulation.
2. Unplug the electrode lead wires, grasping them by the plug, not the cord. When the electrodes are removed, clean the skin thoroughly with mild soap and water.

Therapeutic modes

The PM-770 offers 2 therapeutic modes as a cycle. The total treatment time is around 30 minutes.

Program Options	Pre-set Parameters
P1 Modulation	Pulse rate=100Hz/2Hz Pulse duration=200 μ s/250 μ s
P2 Alternate Ramped Burst (ARB)	Pulse rate=100Hz Pulse duration=200 μ s Ramp up time=0.5s On time=6s Off time=7s

Specification

- Power Sources: 4.5V DC, 3xAAA batteries
- Frequency: 2Hz/100Hz
- Pulse Duration: 200 μ s/250 μ s
- Output Voltage: 0~45V (at 500 ohm load)
- Output Intensity Adjustable: 1~25 (25 levels)
- Treatment Time: around 30minutes
- Operating Conditions: 5 $^{\circ}$ C to 40 $^{\circ}$ C; 30%RH to 75%RH
- Storage Conditions: -10 $^{\circ}$ C to 55 $^{\circ}$ C; 10%RH to 90%RH
- Size: 85mmx72mmx31mm
- Weight: 50g (without batteries)

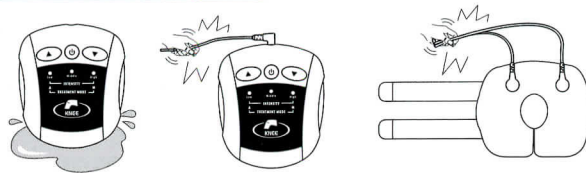
Troubleshooting

Problem	Check points	Possible solution
The unit can't power on	Are the batteries exhausted?	Replace the batteries.
	Are the batteries installed correctly?	Insert the batteries observing polarity.
No output stimulus/sensation	Is the snap cables properly Connected with wrap?	Firmly connect the cable with the wrap. Remove the protective film.
	Have you removed the wrap result the electrodes didn't contact the skin properly? (you will hear 6 times "DI" sound)	Re-attach the wrap and make sure it was contact on the skin properly.
Output Stimulus/sensation is weak	Are the snap cables dirty?	Clean the snap cables with a damp, lint free cloth.
	Is the intensity too weak?	Use a higher intensity level.
	Is the electrodes positioned properly?	Change the position of the wrap.
Stimulation is uncomfortable	Is the intensity too high?	Reduce the output intensity.
	Are you operating the device according to the manual?	Please operate the device according to the manual.
	Damaged or worn the snap cables or wrap.	Replace new snap cables or wrap.

Troubleshooting

Problem	Check points	Possible solution
The skin becomes red and/or you feel a stabbing pain	Are you using the electrodes of the wrap on the same site every time?	Re-position the electrode. If at any time you feel pain or discomfort stop use immediately.
	Is the wrap too dirty?	Please clean the wrap according to the cleaning requirements in this manual.
	Is the surface of the wrap scratched?	Please replace a new wrap.
Output current stops during therapy	Has the electrodes of the wrap didn't contact the skin properly?	Turn off the power and re-attach the wrap.
	Are the cables disconnected with the wrap?	Turn off the power and connect the cables with the wrap.
	Have the batteries been exhausted?	Please replace them with new batteries.

Maintenance and Cautions



- Do not immerse device in water or any liquid. Do not drop the device or throw it from a height.
- After using the device, please remove the output plug from the output socket.
- Do not twist or pull the output cable.
- Do not use any chemical to clean the device or snap cables. If you need to clean them, please wipe with a damp, lint free cloth.
- To clean the support wrap, wash it gently with mild soap in lukewarm, not hot water. Rinse thoroughly in warm water to remove all traces of soap.
- Do not wring. Instead, wrap in a terrycloth towel to remove excess moisture.
- Remove from towel and allow to air dry at room temperature away from heat and sunlight.

Storage

- Remove the batteries from the unit if you are not going to use it for a long period of time. Leaking batteries can damage the unit.
- Do not make any sharp kinks in the snap cables or support wrap.
- After use, unconnected the snap cables and support wrap, and then place them in gift box and out of the reach of the children.
- Do not expose the device to direct sunlight and protect it against dirt and moisture.
- Store the device in a cool, well- ventilated place.
- Never place any heavy objects on the device.

Disposal

Used, fully discharged batteries must be disposed of in a specially labeled collection container, at toxic waste collection points or through an electrical retailer. You are under legal obligation to dispose of batteries correctly.

NOTE: You will find these markings on batteries containing harmful substances:

Pb = battery containing lead, Cd = battery containing cadmium,
Hg = battery containing mercury.



Please dispose of the device in accordance with the directive 2002/96/EC–WEEE (Waste Electrical and Electronic Equipment). If you have any queries, please refer to the local authorities responsible for waste disposal.

Normalized symbols



Equipment capable of delivering output values in excess of 10mA r.m.s. or 10V r.m.s. averaged over any period of 5s.



Applied part of type BF



Disposal in accordance with Directive 2002/96/EC (WEEE)



Refer to Instruction Manual.

Warranty

This product is guaranteed for a period of one year from the date of purchase against mechanical and electrical manufacturing defects. There are no user serviceable parts inside the instrument. Any attempted repair by unauthorized persons invalidates the warranty. This does not affect your statutory rights.

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