Contents

Important Note to the Text 3
Warnings, Safety and Indications 4
Contraindications and Precautions 8
Electrode Guidelines 12
What is Pain? 14
What is TENS? 14
What is NMS? 15
How to Use the PainWarrior® 16
General Quick Start Instructions 21
Programs 22
Description of Accessories 25
AcuKnee™ Protocol 27
Suggested General Electrode Placement 30
Commonly Asked Questions 38
Care and Maintenance 39
Specifications 40
Trouble Shooting 43
PainWarrior™ Warranty 46
Special Notes and Reorder Back Cover
Important Notes to the Text

The PainWarrior® is equipped with a mA LOCKOUT. After one minute the stimulator will lock. To make any adjustment, you must press the negative button first to increase the mA.

Please read the user’s manual for the PainWarrior® device carefully and in full before you start using either so that you may achieve both confidence in understanding what you are doing and the full benefit of usage.

Please, it is strongly recommended you carefully read the Warnings, Safety and Indications sections of this user’s manual and be fully aware of the contents of this user’s manual before using your PainWarrior®.

The device should not be used for any indication other than the intended use!
Warnings, Safety and Indications

* The PainWarrior® is a Class II Medical device for use by adults only.
* Keep out of reach of children.
* Always use this device in accordance with the manual.
* Do not insert lead wires into a mains power supply.
* Do not immerse unit into water or any other substance.
* Do not use the PainWarrior® unit in the presence of a flammable anaesthesia gas mixture and air or with oxygen or nitrous oxide.
* Never connect the PainWarrior® unit directly to a battery charger or any other mains powered equipment.
* Electrodes are for single patient use only - do not share electrodes with another person.
* Operation in close proximity (e.g., one meter, three feet two inches) to a shortwave or microwave therapy equipment may produce instability in the stimulator output.
* Simultaneous connection to a patient to high frequency surgical equipment may result in burns at the site of the stimulator electrodes and possible damage to the stimulator.
* No modification of this equipment is allowed!
* Only use leads, electrodes and accessories provided by the manufacturer.
* Safety of electrical stimulation during pregnancy has not been established.
* Think about what you are doing and use common sense.
NEVER DO the following with the PainWarrior®:
* Never use it in ways other than those recommended by the user’s manual.
* Never operate without full understanding of the user’s manual.
* Never use it while driving or operating machinery.
* Never use it in a humid/wet atmosphere (e.g., sauna, bathroom, bath, shower or swimming pool).
* Never use on people with diminished abilities.
* Never use the unit if it is not functioning properly or you feel discomfort.
* Stop using the unit if you feel nausea or dizziness.

**Indications for use:**
Programs COM, 01 to 07, and HAN are to be used for temporary relief of pain. Programs 08 to 13 can be used to stimulate healthy muscles in order to facilitate and improve muscle performance.

**Warnings:**
* Always place electrodes in accordance with this user’s manual.
* Do not place electrodes across the chest or heart as doing so may create rhythmic disturbances to the heart.
* The PainWarrior® is not effective in treating pain of central origin, including headache.
* The PainWarrior® provides symptomatic relief only and has no curative value.
* The PainWarrior® in TENS mode provides symptomatic treatment and as such suppresses the sensation of pain, which would otherwise serve as a protective mechanism.
* The user must keep the PainWarrior® away from children.
* Electronic monitoring equipment (such as ECG monitors and ECG alarms) may not operate properly when PainWarrior® stimulation is in use.
* The long-term effects of chronic electrical stimulation are unknown. 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 eruptions: e.g., phlebitis, thrombophlebitis, varicose veins, etc.
* The effects of stimulation on the brain are unknown. Therefore do not apply stimulation to or across the head.
* Stimulation should not be applied to the neck. Spasm of the laryngeal and pharyngeal muscles may occur and cause contractions which may close the airway.
* Stimulation applied to the neck may have adverse effects on heart rhythm and blood flow.
* Do not remove electrodes while the unit is being used.
* Do not use on people with diminished capacity or capabilities.
* Do not use while sleeping.
* Do not use the unit for any purpose except what it is intended for.
* Do not place electrodes over the abdominal region during menstruation periods.
* Do not let electrodes come into contact with metal of any type during the session.
* Do not use the unit for extended periods of time in case muscles become exhausted or painful.

If in doubt about the use of the PainWarrior® unit contact your distributor or an experienced licensed health care professional for advice.
Contraindications and Precautions

Please read this user’s manual in its entirety before using the PainWarrior® unit!

Please read the following information carefully before using your PainWarrior® unit.

Contraindications:

* **Never use** your PainWarrior® on:
  - atrophied muscles.
  - muscles with spasms.
  - muscles associated with an impaired joint or limb.
  - muscles with undiagnosed pain.

* **Never use** the PainWarrior® when pregnant or if you think you are pregnant.

* **Do not use** your PainWarrior®:
  - with demand-type cardiac pacemakers, defibrillators, or other implanted metallic or electronic devices.
  - over the carotid sinus (neck) region.
  - over the neck or mouth.
  - over the carotid sinus nerves.
  - trans cerebrally (over the head).
  - over the eyes.
  - over the heart or chest.
  - when there is a tendency to haemorrhage following acute trauma or fracture.
- following recent surgical procedures when muscle contraction may disrupt the healing process.
- over areas of skin which lack normal sensation.
- over swollen, infected, or inflamed areas or skin eruptions: *e.g.*, phlebitis, thrombophlebitis, varicose veins, etc.
* Do not use your **PainWarrior** if you have one or more of the following medical conditions:
  - epilepsy.
  - cancerous lesions.
  - abdominal or inguinal hernia.
  - critical ischemia of lower limbs.
  - blood flow deficiencies/venous thrombosis.
  - heart problems/condition.

**Precautions:**
* Isolated cases of skin irritation may occur at the site of the electrode placement following long-term application. Consult your physician if skin irritation develops.
* The effectiveness of **PainWarrior** in TENS mode is highly dependent upon program selection and electrode placement determined by user response. If in doubt, consult a person qualified in pain management.
* Caution should be used for patients with suspected or diagnosed heart problems.
* Caution should be used for patients with suspected or diagnosed epilepsy.
* 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 an alternate electrode placement.
* Electrode placement and stimulation settings should be in accord with the instructions in this manual or based on the advice of an experienced licensed health care professional.
* Powered muscle stimulators should be kept out of the reach of children.
* Powered muscle stimulators should be used only with the leads and electrodes recommended for use by the manufacturer.
* Powered muscle stimulators should not be used while driving, operating machinery, or during any activity in which involuntary muscle contractions may put the user at undue risk of injury.
* Do not immerse the unit in water or any other liquid.

Before using the PainWarrior® please consult your physician if you are experiencing or have any of the following conditions:
- an acute disease.
- malignant tumor.
- infectious disease.
- heart disease.
- high fever.
- abnormal blood pressure.
- skin sensory disorders or skin problems.
- hernia (abdominal or inguinal).
- any serious illness.
- prone to impulsive, foolish or stupid decisions.

Always remember that pain is a signal your body creates as a very important warning function.
Electrode Guidelines

Please note that the correct selection of the skin electrodes for a TENS device is a significant concern. The electrodes for this TENS device are 2 inch skin electrodes or larger, cleared under 510(K) K 092546 or other FDA cleared electrodes, compatible with this device. To ensure you obtain the proper type of skin electrode please re-order from STW or your PainWarrior® authorized dealer. Please see page 26 for re-order part number and image.

Never Apply Electrodes to:
- the head or any area of the face.
- the neck.
- the chest.
- across the heart.
- on both sides of the thorax simultaneously (laterally or front and back).

Caution with Electrodes:
- Always turn the power to the PainWarrior® off when applying or moving electrodes.
- Ensure the entire surface of the electrode is stuck to the skin.
- If skin irritation occurs, move the electrodes to a different position.
- Do not apply solvents or cleaning agents to electrodes.
- Electrodes are for single patient use only - do not share electrodes with another person.
- Users should discontinue use immediately if there is any dermal discomfort.
A Few Good Tips (Self-Adhesive Electrodes):
* If you find the electrodes will not stick due to oily skin, cleanse the skin with soap and water, then rinse and dry the area around the electrode site. If this does not work, try cleansing the skin with a swab impregnated with alcohol.
* Clip away hair on skin using scissors; don’t use a razor to remove hairs.
* The electrode’s conductive material is water-based. If it becomes saturated (e.g., from perspiration), it will lose its adhesive qualities. After use, leave the electrodes face up overnight to dry out (replace on plastic film in the morning).
* At some point the electrodes will become dry. Moisten the adhesive surface with a few drops of water, and apply onto the plastic film overnight. This procedure will give you a few more days of electrode life.

Adverse Reactions:
* Please note that this equipment is capable of delivering current densities for any electrodes exceeding 2mA r.m.s/cm². Skin irritation and electrode burns are potential adverse reactions. Users should discontinue use immediately if there is any dermal discomfort.
What is Pain?

When we feel pain it is the body’s process of informing us that something is wrong. To feel pain is important, without this feeling abnormal conditions may go undetected, creating damage or injury to critical parts of the body. Although pain is essential in warning our body of trauma or malfunction, nature may have gone too far in its design. Continued long-term chronic pain has no useful value apart from its importance in diagnosis. Pain only begins when a coded signal travels to the brain where it is decoded, and analysed. The pain message travels from the injured area of the body along small diameter nerves leading to the spinal cord. At this point the message is switched to a different kind of nerve that travels up the spinal cord to the brain area. The brain then analyses the pain message, refers it back and the pain is felt.

What is TENS?

Transcutaneous Electrical Nerve Stimulation (TENS) uses a small battery-operated unit to provide a noninvasive method of controlling acute and principally long-term intractable pain. It can also be used as an adjunctive treatment in the management of post-surgical traumatic pain problems. In TENS mild electrical impulses are transmuted through the skin via surface electrodes to modify the body’s pain perception. TENS does not cure problematic physiological conditions; it only helps to control the pain perception. TENS will not work for every user. However, physical therapists and
physicians throughout the world prescribe TENS extensively and it is generally seen to work for the majority of users. There are millions of small nerve fibers throughout the body and it only requires a few impulses to produce chronic pain. In addition to small fibers, which allow the sensation of pain to be felt, the body is also made up of larger diameter nerve fibers. These larger nerve fibers transmit less unpleasant sensations such as touch or warmth, assisting us to form an impression of our environment. Stimulating the larger nerve fibers using TENS may have the effect of inhibiting the transmission of pain along the smaller nerve fibers to the spinal cord [known as the ‘Pain Gate Theory’].

**What is NMS?**

Neuro Muscular Stimulation has been used for many years to stimulate muscle to treat a number of muscle and nerve related conditions. The PainWarrior® is a dual channel device combining several treatment programs into one unit. Neuromuscular Stimulation is increasingly understood by therapists and physicians. There is a better understanding of the mechanisms that exist between nerves and muscles that makes it possible to stimulate the neuromuscular system with precise electrical signals. The PainWarrior® offers precision, giving full controls of Pulse Widths, Rates, Ramp-up Times, Work/Rest cycles as well as alternating or synchronous application if two channels are used.
How to Use the PainWarrior®

In order to use the PainWarrior® effectively, you must consider the following points:
- Planning of stimulation sessions
- Choice of appropriate treatment mode
- Stimulation intensity level
- Electrode placement

Planning:
The PainWarrior® is a portable device so no special planning is required for use of temporary pain relief. The unit should not be used while operating a vehicle or machinery.

When using the PainWarrior® to improve muscle performance it is recommended that you only stimulate the muscle groups for sessions of 30 minutes three times per week.

Appropriate Treatment Mode:
There are five treatment modes available on the PainWarrior®:
1. **Continuous TENS or Normal**: This is the most frequently used mode for pain relief. Program COM is the preferred and patented mode for the patented AccuLine products, including the AcuKnee™. Programs 2 and 3 are alternative modes the patented AcuLine products. For general TENS use, the most common selection is program 01.
2. **Burst Mode:** This mode is comparable to the low rate TENS technique except that each low rate pulse is substituted by a short BURST of 9 pulses [200 µS] at 150 Hz. It is a combination of conventional and low rate TENS. Use program 06 or 07.

3. **Modulation TENS:** This mode was designed to help prevent nerve accommodation that some patients experience. It is achieved by continuously cycling the pulse width and rate. Use program 04 or 05.

4. **NMS (Neuro Muscular Stimulation):** This mode enables the users to train their muscles. NMS is generally used at higher milliamp levels. Choose the program most suited to your requirements.

Choose the mode/program most suited to your requirements. For pain relief, alternate between the programs COM, 01 to 07 and HAN until you find the most effective program.

There is no clinical basis for selecting one mode over the other for temporary pain relief. There is no output mode or waveform that can be detrimental to one’s self. Take care to use the unit only at a comfortable level for the recommended program time limit.

**Stimulation Intensity Level [mA]:**
Patients respond differently to the level of intensity due to differences in individual skin resistance, enervation and the type and condition of electrode being used. *Never use high intensity levels for pain relief,* only a slight sensation should be felt for optimal pain relief.
Lower and comfortable intensity levels should be used for temporary pain relief. If using the PainWarrior® for improving muscle performance, select the highest comfortable stimulation level and gradually increase the intensity from session to session to achieve the best results.

**How Long Do I Use TENS?**
This depends on the individual patient’s condition, accuracy of electrode placement, stimulation and the characteristics selected, but typically the onset of pain relief starts after 20-30 minutes. Generally TENS is used for longer periods, normally 1 hour 30 minutes per session. With some patients it can be much longer. Before electing longer sessions, consult an experienced licensed health care professional.

**Electrode Placement:**
*CAUTION MUST BE EXERCISED AT ALL TIMES TO ENSURE SAFE AND PROPER ELECTRODE PAD PLACEMENT.* See warning section for areas not to apply electrodes to.

The placement of electrodes is one of the most important parameters in achieving effective pain relief using TENS. It is always wise to ask your physical therapist or physician to advise as to which location is most appropriate. It may transpire that various positions need to be experimented with before the user finds the most effective positioning.
An effective method to help with temporary pain relief associated with aching or sore muscles is to place electrode pads symmetrically over the pain site (opposite of each other in a straight line going through the muscle).

**Garment Belt:**
If using the unit for temporary pain relief of back muscles we recommend using the garment belt to allow correct placement of electrodes. Attach the electrodes to the garment belt and remove the plastic backing. Insert the lead wire on the belt into Channel A or B of the unit. Attach the belt to your body with the electrodes placed on the lower back and secure comfortably around your front. Turn on the unit and increase the current intensity until you feel the desired sensation.
General Quick Start Instructions

- Check the polarity of the electrodes (see the diagram on the reverse side).
- Be sure the lead wires are securely connected, then position and apply the electrodes.
- Insert lead wires into Channel A and/or Channel B of the PainWarrior®.
- Insert a 9 Volt alkaline battery into the battery compartment and turn on the PainWarrior® by pressing the ON button (please note: electrodes must be in position before activation).
- Using the PRG button select the program.
- Slowly adjust left and right mA current output with the positive button. This starts the program and you will begin to feel the stimulation. Increase this to tolerance.
- The PainWarrior® is equipped with a mA LOCKOUT. After one minute the stimulator will lock. To make any adjustment, you must press the negative button first to increase the mA.
- You may notice some muscle contraction and this is normal.
- You can track treatment time in the upper right hand corner of the PainWarrior® screen.
- At the end of the program duration remove the electrodes and replace the electrode covers.
- You can treat every day but no more than as advised and never to a point of fatigue or pain.
# Programs

<table>
<thead>
<tr>
<th>Prog. No.</th>
<th>Description</th>
<th>Rate (Hz)</th>
<th>Pulse width (µS)</th>
<th>Work time (s)</th>
<th>Rest time (s)</th>
<th>Prog. time</th>
</tr>
</thead>
<tbody>
<tr>
<td>COM</td>
<td>CON</td>
<td>150/2</td>
<td>175</td>
<td>n/a</td>
<td>n/a</td>
<td>30 min</td>
</tr>
<tr>
<td>P01</td>
<td>CON</td>
<td>80</td>
<td>200</td>
<td>n/a</td>
<td>n/a</td>
<td>1 hour</td>
</tr>
<tr>
<td>P02</td>
<td>CON</td>
<td>150</td>
<td>175</td>
<td>n/a</td>
<td>n/a</td>
<td>20 min</td>
</tr>
<tr>
<td>P03</td>
<td>CON</td>
<td>2</td>
<td>175</td>
<td>n/a</td>
<td>n/a</td>
<td>20 min</td>
</tr>
<tr>
<td>P04</td>
<td>BST</td>
<td>150</td>
<td>200</td>
<td>n/a</td>
<td>n/a</td>
<td>1 hour</td>
</tr>
<tr>
<td>P05</td>
<td>BST</td>
<td>150</td>
<td>175</td>
<td>n/a</td>
<td>n/a</td>
<td>1 hour</td>
</tr>
<tr>
<td>P06</td>
<td>MOD</td>
<td>100/65</td>
<td>200/100</td>
<td>n/a</td>
<td>n/a</td>
<td>1 hour</td>
</tr>
<tr>
<td>P07</td>
<td>MOD</td>
<td>65/100</td>
<td>200/100</td>
<td>-</td>
<td>-</td>
<td>1 hour</td>
</tr>
<tr>
<td>HAN</td>
<td>HAN</td>
<td>2/10</td>
<td>260/130</td>
<td>-</td>
<td>-</td>
<td>30 min</td>
</tr>
<tr>
<td>P08</td>
<td>NMS</td>
<td>12</td>
<td>200</td>
<td>5</td>
<td>5</td>
<td>15 min</td>
</tr>
<tr>
<td>P09</td>
<td>NMS</td>
<td>35</td>
<td>250</td>
<td>8</td>
<td>8</td>
<td>15 min</td>
</tr>
<tr>
<td>P10</td>
<td>NMS</td>
<td>12</td>
<td>200</td>
<td>5</td>
<td>10</td>
<td>15 min</td>
</tr>
<tr>
<td>P11</td>
<td>NMS</td>
<td>35</td>
<td>200</td>
<td>6</td>
<td>12</td>
<td>15 min</td>
</tr>
<tr>
<td>P12</td>
<td>NMS</td>
<td>12</td>
<td>250</td>
<td>5</td>
<td>15</td>
<td>15 min</td>
</tr>
<tr>
<td>P13</td>
<td>NMS</td>
<td>35</td>
<td>200</td>
<td>6</td>
<td>18</td>
<td>15 min</td>
</tr>
</tbody>
</table>

**Key to Program Description for above**

COM = Combined for use with **AcuKnee™**

CON = CONtinuous TENS

BST = BurST TENS

MOD = MODulation TENS

HAN = HAN Mode TENS

NMS = Neuro Muscular Stimulation
Program Notes:

TENS

Program COM: Combined programs of Program 2 and Program 3, a high-low frequency combination for use with AccuLine products—a patent pending program.

Program 1: Temporary relief of dull, constant pain in the back and lower extremities. Multiple applications as needed per day.

Program 2: Temporary relief of dull, constant pain in the back and lower extremities. Multiple applications as needed per day. For use with AccuLine products.

Program 3: Temporary relief of acute or sub-acute pain due to strain from exercise or normal household activities. To be used as needed. For use with AccuLine products.

Program 4: Temporary relief of pain associated with sore and aching muscles in the lower extremities. Multiple applications as needed per day.

Program 5: Temporary relief of pain associated with sore and aching muscles in the lower extremities. Multiple applications as needed per day.

Program 6: Temporary relief of pain combined with a muscle massage effect for pain associated with sore and aching muscles in upper extremities. Multiple applications as needed per day.

Program 7: Temporary relief of pain combined with a muscle massage effect for pain associated with sore and aching muscles in upper extremities. Multiple applications as needed per day.
Program HAN: A combined frequency custom electrotherapy TENS program for the temporary relief of pain.

STIM
Program 8: Muscle massage to relax muscle spasm. Multiple applications as needed per day.
Program 9: Brief, intense physical workout of muscles. Up to three applications per day.
Program 10: Muscle massage and mild warm up/cool down of muscles. Up to three applications per day.
Program 11: Stimulate healthy muscles in order to improve and facilitate muscle performance, mild exercise program to increase muscle strength. Up to three applications per day.
Program 12: Muscle massage and moderate warm up/cool down of muscle. Up to three applications per day.
Program 13: Stimulate healthy muscles in order to improve and facilitate muscle performance. Moderate exercise program to increase muscle strength. Up to three applications per day.
Description of Accessories

Main Unit

Electrodes

AccuKnee® Cuff

Lead Wires

Garment Belt

Battery

User’s Manual
Accessories
You can obtain replacement accessories from your authorized PainWarrior® dealer:

Large Adhesive electrodes for belt or unit
Dimensions: 5 cm X 10 cm  Part # EL50100

Small Adhesive electrodes for belt or unit
Dimensions: 5 cm X 5 cm  Part # EL5050

Lead Wires
One meter in length  Part # LW102

Garment Belt  Part # GB321

AcuKnee™ Cuff  Part # AK-100
AcuKnee™ Protocol

Preparation:
- The AcuKnee™ treatment requires 30 minutes.
- The skin around the knee should be clean and dry, any excess hair should be shaved.
- Open the AcuKnee™ wrap, remove the protective plastic covers from the electrodes and save them to recover electrodes when treatment is finished.
- For enhanced conductivity, completely coat electrodes with a small amount of electrode gel.

Starting Treatment:
- Turn on the stimulator by pressing the ON button.
- Scroll through PRG button to PRG COM.
- Slowly adjust left and right mA current output with the positive button. This starts the high frequency program and you will begin to feel the stimulation. Increase this to tolerance.
- The PainWarrior® is equipped with a mA LOCKOUT. After ten seconds the stimulator will lock and you will have to press the negative button before it will allow you to increase the mA.
- After fifteen minutes the program will automatically change to low frequency and you should readjust the mA frequency to tolerance. You may notice some muscle contraction and this is normal.
- After an additional fifteen minutes the stimulator will turn itself off. You can track treatment time in the upper right hand corner of the PainWarrior® screen.
Quick Start Instructions:
• Check the polarity of the electrodes in the AcuKnee™ (see the following page).
• Check that the lead wires are well connected and then apply the AcuKnee™ wrap to the knee.
• Insert lead wires into Channel A and Channel B of the PainWarrior®.
• Insert a 9 Volt alkaline battery into the battery compartment and turn on the PainWarrior® by pressing the ON button (electrodes must be in position before activation).
• Using the PRG button select the COM program (default).
• Slowly adjust left and right mA current output with the positive button. This starts the high frequency program and you will begin to feel the stimulation. Increase this to tolerance.
• The PainWarrior® is equipped with a mA LOCKOUT. After one minute the stimulator will lock. To make any adjustment, you must press the negative button first to increase the mA.
• After fifteen minutes the program will automatically change to low frequency and you should readjust the mA frequency to tolerance.
• You may notice some muscle contraction and this is normal.
• After an additional fifteen minutes the PainWarrior® will turn itself off. You can track treatment time in the upper right hand corner of the PainWarrior® screen.
• At the end of the program duration remove the wrap and replace the plastic electrode covers.
• You can treat every day but no more than twice a day.

Concluding Treatment:
• When treatment is finished remove the wrap and replace the plastic electrode covers.
### TENS Programs

<table>
<thead>
<tr>
<th>Program</th>
<th>Purpose</th>
<th>Period</th>
</tr>
</thead>
<tbody>
<tr>
<td>COM</td>
<td>Combined high low stimulation designed for <em>AcuLine</em> products†</td>
<td>30 min</td>
</tr>
<tr>
<td>2</td>
<td>High frequency stimulation for <em>AcuLine</em> products</td>
<td>30 min</td>
</tr>
<tr>
<td>3</td>
<td>Low frequency stimulation for <em>AcuLine</em> products</td>
<td>30 min</td>
</tr>
<tr>
<td>HAN</td>
<td>Low and high frequency TENS</td>
<td>30 min</td>
</tr>
</tbody>
</table>

† Patent Pending “One-Touch” program and the primary program for the *AcuKnee™*

---

**Polarity is important** when using the *AcuKnee™*. The left knee has different polarity from right knee.

Before every use match the polarity shown in the images above for your knee. The *AcuKnee™* is pre-set for the right knee. To treat the left knee reverse the polarity. To confirm the correct polarity, the outside top electrode (outside thigh) should have a black connector (Channel A) and the inside top (inside thigh) should have the red connector (Channel B).
In treating lower-back pain, electrode placement is unique to the user and location should be determined by user response using systematic trial and error. Use of the garment belt (included) is highly recommended to aid in the placement of electrodes on the lower back.
Upper/Mid Back Pain Relief.

Upper/Mid Back Muscle Improvement.

Red = (+) Positive Lead
Black = (−) Negative Lead
Deltoids

Trapezius

Red = (+) Positive Lead
Black = (−) Negative Lead
Ch. A

Ch. B

Triceps

Biceps

Red = (+) Positive Lead
Black = (−) Negative Lead
Red = (+) Positive Lead
Black = (−) Negative Lead
Abdominal (two methods).

Red = (+) Positive Lead
Black = (−) Negative Lead
Red = (+) Positive Lead
Black = (−) Negative Lead
Femoral Biceps

Red = (+) Positive Lead
Black = (−) Negative Lead

Calf
Commonly Asked Questions (TENS)

The device should not be used for any indication other than the intended use.

Q - How can I have a better chance of success?
A - Seeking professional advice from your physical therapist or physician on how to best apply TENS is the best answer we can give to this question.

Q - Are there circumstances in which TENS should not be used?
A - Yes. For undiagnosed pain; when using a cardiac pacemaker; during pregnancy and other instances as fully detailed in this manual on pages 3 to 7.

Q - Can there be any permanent side effects?
A - There are no known permanent side effects caused by using a TENS stimulator.

Q - If I have any medical or product queries how can I get help?
A - Any clinical advice on the TENS stimulator should be provided by your physical therapist or physician.
Care and Maintenance

Control Unit:
* Wipe the surface once a week with a damp cloth or antiseptic wipes.
* Do not use cleaning sprays or alcohol-based cleaning solutions.

Battery:
* Check periodically for any discharge from the battery.
* Remove battery completely from unit if not in use for any extended period of time (typically one week).
* Low battery indicator of 6.9 Volts shown on LCD display, when flashing, change battery for a new one.
* Preferably use a PP3 alkaline battery.

Lead Wires:
* The lead wires should be handled carefully and never stretched, as this can cause the stimulation to function below normal standards or not at all.
* Examine lead wires before each treatment for loose connections or damage.
* Avoid stretching and twisting the lead wires.
* Store the lead wires carefully after each use.

Self-Adhesive Electrodes:
* Check the short connectors have not become separated from the electrodes.
* Replace electrodes onto plastic film after use. If they drop onto the floor, debris will adhere to conductive gel rendering the electrodes ineffective.

Garment Belt:
* Keep belt clean.
* Use of the garment belt (included) is highly recommended to aid in the proper placement of electrodes on the lower back.

**Caution: Static electricity may damage this product.**

*Note: Only Pain Therapy Innovations or appointed dealers are approved to undertake servicing.*
Specifications

General:
1. Dual channel: individually isolated circuits.
2. Type: Constant Current.
3. Waveform: Asymmetrical, rectangular bi-phasic with zero DC current.
4. Low Battery Indicator: If the battery goes below 6.9 volts +/- 0.2 Volts the battery symbol will flash on/off once every second.
5. If the battery voltage is below 6.6 (+/- 0.2) Volts the unit will not turn on.
6. Open Electrode Detect: If an open circuit is detected at the output of channel A or B the output current will be reset at zero.

TENS:
1. Amplitude: 0-80 mA; indication only; actual mA will tend to be less than indicated due to electrode impedance.
2. Program selectable pulse width: 100μS-200μS (2% accuracy).
3. Program pulse rate selection: in the continuous mode 10–150Hz (2% accuracy).
4. Mode: Continuous, Burst, Modulated.
5. Burst mode: Bursts of 9 pulses, 150Hz at 200μS, repeating twice every second.
6. Modulation mode: 6-second cycle of concurrent width modulation and pulse repetition rate modulation. Width starting at 200μS, and decreasing exponentially to 100μS in three seconds and then returning back to 200μS in the next three seconds. Hertz start at 65 or 100Hz, and increasing or decreasing exponentially to 100 or 65Hz
in three seconds and then returning back to 65 or 100Hz.

7. Time duration of programs: 1 hour or less per session.

**NMS:**

1. Amplitude: 0-80 mA; indication only; actual mA will tend to be less than indicate due to electrode impedance.
2. Program selectable pulse width: 200µS-250µS (2% accuracy).
3. Program pulse rate selection: in the continuous mode 12–35Hz (2% accuracy).
4. Time duration of programs: 15 minutes.

**Physical and Environmental:**

1. Physical dimensions: 108 x 62 x 23 mm.
2. Weight: 0.07 kg. without battery, 0.1 kg. with battery.
3. Environmental conditions for storage and transport: -10 to +50 degrees Celsius, 0-90% Humidity.
Trouble Shooting

Problem:
Unit does not turn on.

Possible Causes and Solutions:
* The unit may have no battery or a weak battery is installed. Replace the battery.
* A bad connection may exist between the battery and the battery contact. This can occur if a larger than normal battery size has been placed in the unit for extended periods of time and a smaller than normal battery size has been used to replace it. Check the battery contact, if it appears to bent backwards more than normal, use a tool to pull the contact forward to provide a better connection with the battery.
* Unit may be defective.
Please contact your authorized PainWarrior® dealer for advice or replacement unit.

Problem:
Intensity can be increased but drops to zero mA.

Possible Causes and Solutions:
* The electrode pads may be in poor condition, too dry or the plastic cover has not been removed.
* Check the electrodes, if the plastic has been removed try moistening the pads; replace the pads if this does not work.
* The electrode pads are touching or overlapping each other. Turn off unit and place the electrode pads at least 1 centimeter apart.
* The lead wire is not connected to the unit or electrodes properly. Ensure the electrodes are connected correctly. Ensure the jack is inserted fully into the unit.
* The lead wire may have become damaged or broken. Use the second lead wire supplied with the unit and try again. Replace the faulty lead wire if necessary.

**NOTE:** Lead wires can be damaged due to misuse. Take care not to pull or damage the lead wires during use.

**Problem:**
The skin turns red or becomes irritated where the pads are connected.

**Possible Causes and Solutions:**
* The unit may have been used for too long. Reduce your session time.
* Skin is allergic to the electrode pads. Cease using the supplied electrode pads and try another FDA recognized brand of electrodes. If irritation is light, use alternative placement areas.
* Surface of electrode pad is damaged. Replace the electrode pad.
* Adhesive surface has been contaminated. Replace the electrode pad.
Problem:
Unit stops stimulating during session or turns off during the session.

Possible Causes and Solutions:
* The session time limit may have expired. The PainWarrior® has a built-in time limit for each program. We do not recommend using the unit for more than the program’s time limit in any single area of the body. You may use the unit in a different area of the body.
* The battery may have run out. Turn on the unit and increase the mA, if the battery symbol flashes, replace the battery.
* Electrode Pads have come off. The unit will stop stimulating if it senses that the electrodes have lost contact with the skin. Check and replace the electrode pads if necessary.
* Broken lead wire. If the lead wire was caught on an object and pulled with force it may have broken or become removed from the jack or electrode. Test the lead wire, replace if faulty.
PainWarrior® Warranty

Pain Therapy Innovations provides a warranty to the original purchaser that this product will be free from defects in the material, components and workmanship for a period of one (1) year from the date of purchase (invoice date). If Pain Therapy Innovations is satisfied that the product/s is/are defective the purchaser may return the unit/s to Pain Therapy Innovations or the appointed distributor for repair or replacement with a new unit. All returns must first be authorized by Pain Therapy Innovations. The liability of Pain Therapy Innovations under this limited product warranty does not extend to any misuse or abuse such as heating, cooling, freezing, tampering with or dismantling the PainWarrior®, commercial use or normal wear and tear. Any evidence of abuse or tampering with the PainWarrior® will nullify this warranty.

NOTE: AcuKnee™ wrap is guaranteed against any manufacturing or materials defects for 90 days. The electrodes and battery are not included in this warranty. The lead wires supplied with this unit are high quality and under normal conditions should be replaced once a year.
Special Notes

The PainWarrior® is equipped with a mA LOCKOUT. After one minute the stimulator will lock. To make any adjustment, you must press the negative button first to increase the mA.

For reorder of replacement electrodes, replacement batteries, and accessories, please visit our website.

Web: www.AcuKnee.com
Email: Support@AcuKnee.com

Pain Therapy Innovations, LLC
1193 Alice Lane
Farmington, UT 84025