Manuals+ — User Manuals Simplified.

Dolphin Neurostim AML-DN-SK-RX-OTC Simulation Tens Unit Kit User Manual

Contents

Dolphin Neurostim AML-DN-SK-RX-OTC Simulation Tens Unit Kit

Warnings and Precautions

Contraindications

- 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;
- 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;
- 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 which electrical stimulation can put you at risk of injury.
- Do not use the device on children, if it has not been evaluated for pediatric use.
- 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.

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;
- You may experience skin irritation or hypersensitivity due to the electrical stimulation;
- If you have suspected or diagnosed heart disease, you should follow precautions recommended by your physician;
- If you have suspected or diagnosed epilepsy, you should follow precautions recommended by your physician.
- 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; and
- Use caution if stimulation is applied over areas of skin that lack normal sensation.

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.

Introduction: The Dolphin NeurostimTM OTC

Dolphin NeurostimTM OTC (DNS OTC) is a hand-held micro current Transcutaneous Electrical Nerve Stimulator (TENS) device, specifically designed for the temporary relief of muscular pain.
The DNS OTC is engineered to detect and stimulate areas of low impedance. This unique approach for the temporary relief of pain associated with sore and aching muscles in the back, arms, and legs due to strain from

exercise or normal household and work activities has been developed with input from healthcare professionals and has been thoroughly tested for over 30 years.

Caution
It is strongly advised all DNS OTC users read this entire user manual before operating this device. If you have any questions, please call our toll-free number: 1 (800) 565-7246.

Warning
The DNS should never be directly applied to the eyes, ears (canals), or genitals. Metal tip may cause tissue damage resulting in permanent impairment in these areas Keep this device out of the reach of children; and Use this device only with the leads, electrodes, and accessories recommended by the manufacturer. Adverse Reactions

Indications for Use
The Dolphin Neurostim TM OTC is indicated for temporary relief of pain associated with sore and aching muscles in the back, arms, and legs due to strain from exercise or normal household and work activities.

Product Contents

The shipping box should contain the following device components:

1. Dolphin NeurostimTM OTC Treatment Device
2. Black Carrying Case
3. Extension Probe
4. Treatment Guide
5. User Manual 6. Warranty Card

Please inspect contents to ensure that there is no damange to the DNS OTC treatment device or wrist strap before use.

Sterilization and Shelf Life
No elements of the Dolphin Neurostim OTC require sterilization. The Dolphin Neurostim OTC has an indefinite shelf life when stored in normal room conditions (at a temperature of 60-90 degrees Fahrenheit at relative humidity levels of 15% to 90%).

User Support
For additional support, as well as additional resources (including books, videos, and posters) please call or email Acumed Medical Supplies Ltd. at our toll-free number: 1 (800) 567-7246, or: **info@dolphinotc.com**. You may also visit our website at www.dolphinotc.com for more information.
Please use the following forms to document your important medical phone numbers for your reference when you use this device.
Home Medical Equipment Supplier: _____
Home Healthcare Agency: _____
Doctor: _____

Device Features and Controls

1. **Probe (tip)**
2. **Simulation Button**

    Press to activate stimulation.
3. **On/Off Switch and Intensity Control:**

4. **Battery Test Button:**

With unit on, pressing this button indicates battery strength. If light does not illuminate brightly, replace battery.

5. **Green Indicator Light:**

This light is activated when the Dolphin NeurostimTM OTC unit is switched on. Light flickers off when point has been located.

6. **Ground Plate:**

Thumb or finger must be in contact with the plate when locating or stimulating points.

7. **Sensitivity Adjustment:**
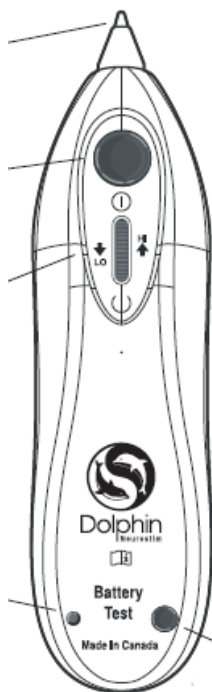
Increases point location.

8. **Polarity Switch:**

Tonify (+), Disperse (-).

9. **Battery Compartment:**

The Dolphin NeurostimTM OTC is optimally powered by 9VAlkaline Battery..

FRONT

1. Probe (Tip) Point Locator/ Stimulator
2. Treatment Button After locating point, press and hold for 20 – 30 seconds/ beeps
3. On/Off Intensity Dial Roll forward turn on, back turn off; continue to roll forward increases strength
4. Battery Test Light Turns green (on) if battery strength sufficient

   BACK
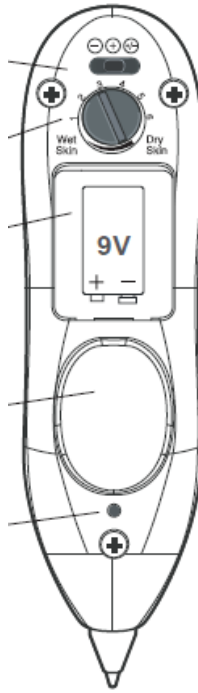
5. Polarity Switch
6. Sensitivity Adjustment Turn to adjust skin sensitivity
7. Battery Compartment
8. Ground Plate Thumb is firmly held on plate to locate/stimulate points
9. Point Indicator Light Is green when on, turns off when point is located
10. Battery Test Button With unit on, press to test battery strength

Instructions for Use

Read All Instructions:
Read the entire user manual, front to back, before attempting to use the DNS OTC.

Turning on Unit
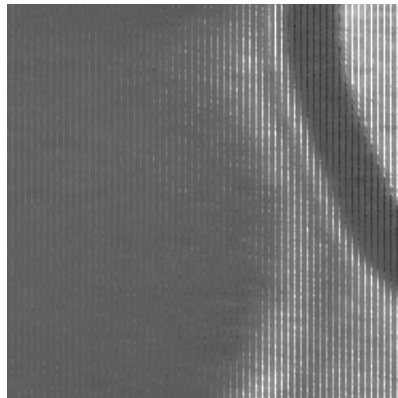
How to Turn on Unit: The on/off intensity wheel is located at top/front of unit. The wheel has two functions:

- First, rolling wheel forward (with finger tip) will turn unit on. The wheel will click, the DNS OTC will emit an audible tone, and indicator light will turn on, bright green.
- Secondly, it increases or decreases current strength during application (rolling wheel forward increases strength, rolling backward decreases strength).

KEY TIP: Most patients start treating on lowest level, and then gradually increase current strength over treatment. There is no difference in pain relief between low and high levels, this feature is only for patient comfort.

Testing and Replacing the Battery

To Test Battery Strength:

With the unit on, press the battery test button (see diagram on page 3), located at bottom of the front of the unit – this will indicate the battery strength and determine if it needs replacement. When the button is pressed (with unit on) and light does not glow, it is time to change the battery. Test the battery light every few weeks.

To Replace the Battery:
The battery door can be removed by twisting a coin or similar object in the slot provided. Check and replace the battery first if you experience any problems in the operation of the DNS OTC. Use only Alkaline Battery.
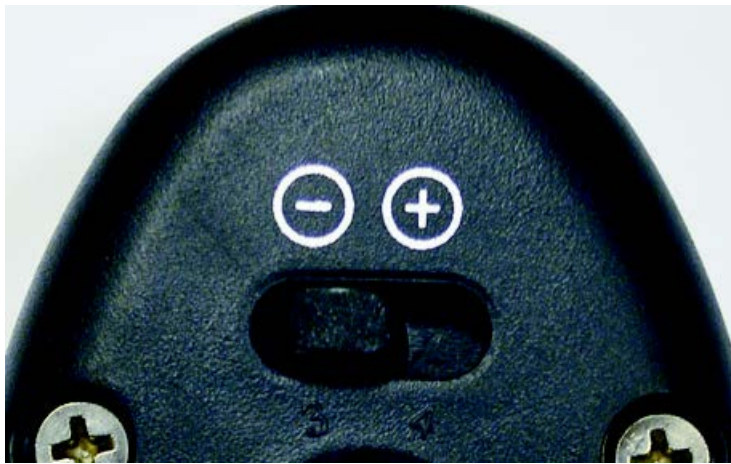**Note:** Rechargeable batteries should not be used. Remove the battery if not using the device for some time. Battery must be disposed of in line with the local Environmental Protection Agency for requirements.

Adjusting the Polarity and Sensitivity

Select Polarity:

The Polarity Setting is found at the bottom/back of unit. Negative (-) is similar to applying an ice pack, positive (+) is like applying a heat pack. The default setting is negative.

It is recommended that when selecting polarity, you begin with negative; if pain worsens after 2 to 3 treatments, switch the polarity to positive and re-treat the area.

Adjust Sensitivity Dial:

The Sensitivity Dial assists in accurate point location. The DNS OTC locates areas of low impedance by measuring changes in skin resistance, which is influenced by moisture. Normal skin should have dial pointing upwards to 3 (11 o'clock).

KEY TIP: Once the sensitivity dial is "set" to a patient's skin type, further adjustment is rarely necessary. Circumstances where adjustments may be required include, weather (ie. humidity), and individual's hydration.

Holding the Unit

Properly Hold and Ground DNS OTC:

The DNS OTC produces electrical current and therefore, human skin must be touching ground plate, during point location and stimulation. The DNS OTC is designed to be held like a pen with thumb firmly placed on ground plate and index/middle finger wrapped around and gripping top of unit.

How Much Pressure to Apply:

While properly holding unit, gently place probe (tip) on skin with medium pressure (pen to paper pressure), and slowly move/drag tip over general area of point, waiting for indicator light to "flicker off" and audible pitch to rise.

Incorrect pressure.

Correct pressure.

KEY TIP: During application, the wheel may be rolled forward or backwards, to increase or decrease strength of current. If stimulation feels too strong, roll wheel backwards, and if more stimulation is desired roll wheel forward. This feature is designed for comfort – adjusting the strength of the stimulation does not change the effectiveness.

Using the Wrist Strap:

The wrist strap is an ancillary part that is an adjunctive aid to supplant the ground plate. To use the wrist strap as a ground for self treatment, first wrap the wrist strap around your wrist with the metal on the inside of the wrist, then take the plug and insert it securely into the jack on the bottom of the DNS OTC.

Note: The Dolphin wrist strap is a one-size-fits-all adjustable polyester elasticized material.

Treating Someone Else:

The same hand positioning as above, but the free hand of the applicator, must touch skin of the patient to complete circuit. You may also use the wrist strap, attached to the person you are treating, as a means of completing the circuit.


Locating Treatment Points

Point Location:

Point indicator light is located above the ground plate on the top of the back of the unit. This light, which turns bright green when unit is turned on, will flicker "off" when a point has been successfully located.

Difficulty locating points means dry skin, turn sensitivity dial clockwise to between 4-6 to increase sensitivity. Too many points means moist skin, turn sensitivity dial counter-clockwise to between 1-3 to decrease sensitivity.

Treatment Button:
Activation/treatment button is located on top of unit in front of wheel. Once point has been successfully located, press and hold treatment button for 20-30 seconds, approximately 20-30 "beeps."
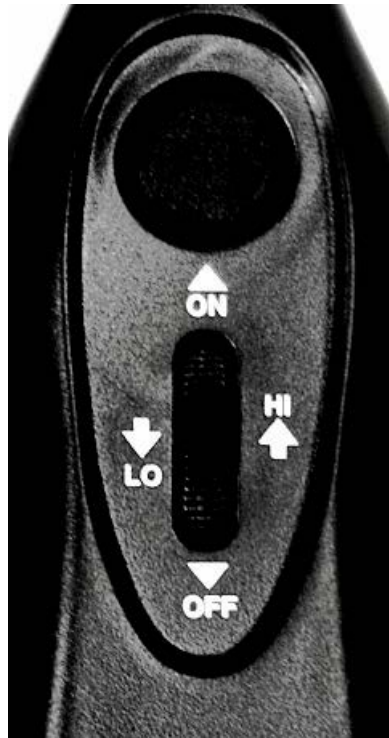
Increasing/decreasing strength of stimulation/current
The on/off intensity wheel permits for significant increasing/decreasing of the output current. On low, with the wheel slightly rolled forward from on position, the DNS OTC is producing around 80 microamps. On high, with the wheel rolled all the way forward, the DNS OTC is producing around 800 microamps.
**KEY TIP:** There is no harm in treating points longer than 30 seconds, especially if you feel it is providing additional benefits. For additional application tips, contact our customer service at 1 (800) 567-7246, or info@dolphinotc.com.

Using the Extension Probe
Use the extension probe to treat hard to reach areas of the body, such as the upper and lower back.
To use, firmly place the extension cap onto tip of unit. Use the tip of the probe as you would the tip of the unit and locate points as described in the preceding section.
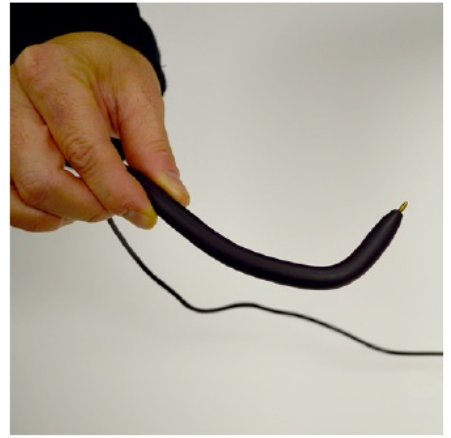
KEY TIP: The extension probe tip is encased in a rubberized material, making the extension probe pliable. This makes it easier to reach points on your neck and back, causing less strain on you as you treat yourself.

Instructions for Care

Probe (tip):
The probe tip requires regular cleaning. Although probe tip is hypo-allergenic and non-invasive, it is recommended alcohol swabs are applied to the tip prior to each usage. This is especially true of the DNS OTC is being applied to different patients in a clinical setting.

Storage and Temperature
Storage Caution: Do not store the DNS OTC in a damp or moist environment. Dampness may result in temporary device malfunction (moisture affects the point finding ability of the device). Always store the DNS OTC in a dry environment.
General Tips

- Do not disassemble the device.
- Do not drop the device or handle it roughly.
- Do not immerse the device in water or any liquid.
- After each treatment, wipe the tip of the device with an alcohol swap.
- If using the device on more than one person, carefully decontaminate the treatment end, including the extension probe, with a moist alcohol swab.

Troubleshooting

No Pain Relief

If you are not receiving pain relief, or the relief is short lasting (under one day), then contact customer service at 1 (800) 567-7246 or email **info@dolphinotc.com**. Please allow a minimum 24 hour response for emails.

Pain Worsens after DNS OTC application
Call customer service immediately and request free consultation with one of our trained therapist: 1 (800) 567-7246.

Caution: If after 3 DNS OTC applications, your condition is still aggravated, discontinue use and call customer service at 1 (800) 567-7246.

Warranty

Dolphin NeurostimTM OTC comes with a 1-year warranty, If your device malfunctions due to defective materials and/or workmanship, it is fully guaranteed for one year from the date of purchase, providing: · The enclosed warranty card is mailed to Acumed Medical Supplies Ltd. within 10 days of product purchase; · The DNS OTC is returned for servicing to Acumed Medical Supplies Ltd.;

- The DNS OTC is not misused, altered, or serviced by any person or entity other than Acumed Medical Supplies Ltd.;
- The DNS OTC is used according to these instructions and in the manner intended.

Service
If your DNS OTC requires servicing please contact Acumed Medical Supplies Ltd. for a Return Merchandise Authorization (RMA) form and shipping instructions.
Toll-Free Number: 1 (800) 567-7246 Local Number: 1 (416) 253-6060 Email: **info@dolphinotc.com**

Operating Instructions – Quick Start
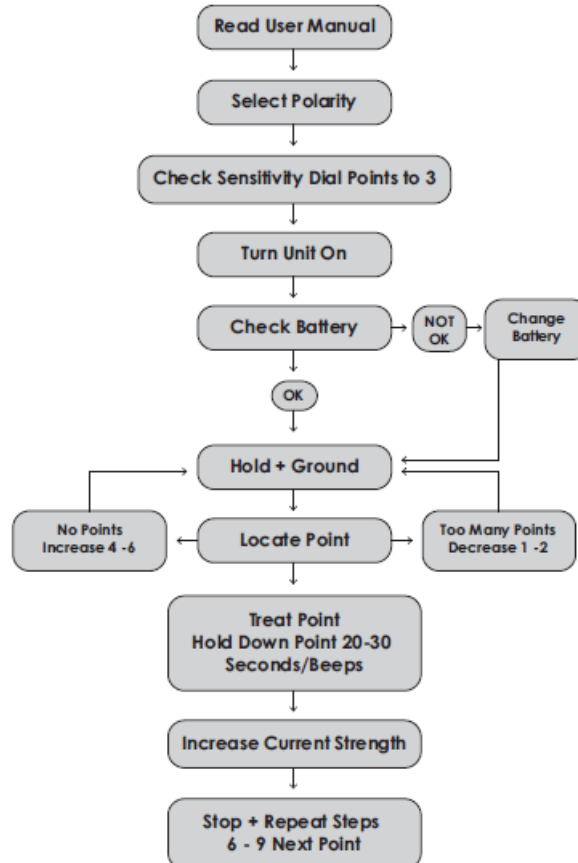
Description of Electrical Performance
The device is powered by a 9-Volt battery. The electrical output of the device consists of square waveform pulsed DC stimulation. The pulse parameters vary with skin resistance.

The Dolphin NeurostimTM OTC is battery operated; there is no leakage current to the ground.

Search Mode
During the search mode, testing from 500K Ohms (skin resistance) produces the following output parameters:

Voltage: 3.8 mv
Pulse length: 0.0909 microseconds
Frequency: 5.518 kHz Duty Cycle: 51%

Stimulation Mode – Monophasic Parameters
During the stimulation mode, the maximum monophasic parameters at resistance of 500 Ohms on the positive cycle are (also see graph):

Voltage: .896 V
Pulse length: 213 microseconds
Frequency: 2.25-2.50 kHz Duty Cycle: 51%

Maximum Values
Maximum pulse width (duration) in stimulation mode is 213 milliseconds for all polarity settings ("+", "-") (see graph)
Output in the stimulation mode can be varied with the intensity control:

Maximum (amplitude) intensity setting:
500 Ohms resistance gives 85 microamps 10K Ohms resistance gives 600 microamps
Minimum (amplitude) intensity setting:
10K Ohms resistance gives 300 microamps

Positive Output

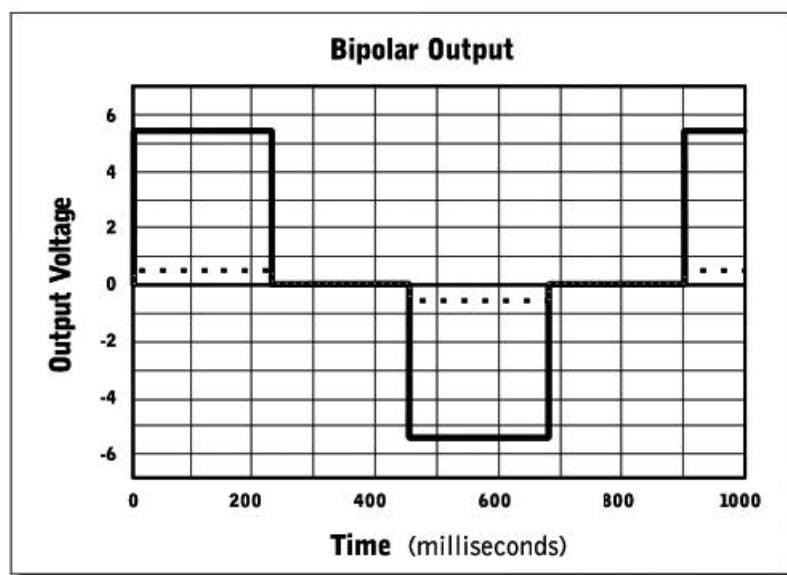Output Voltage vs. Time (milliseconds)
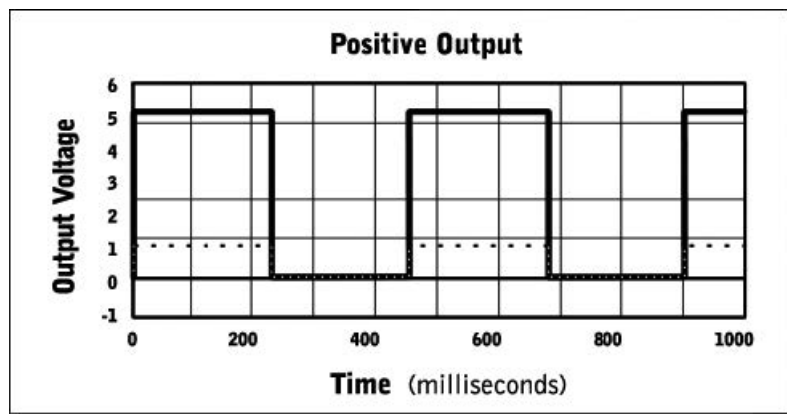
Pulse width = 213 m/s
Frequency = 2.35 Hz
Duty cycle = 50%

——— 10K Ohm Load: Max Voltage = 5.25 V
· · · 500 Ohm Load: Max Voltage = 0.90 V
Negative Polarity mirrors Positive Parameters

Bipolar Output

Output Voltage vs. Time (milliseconds)

Pulse width = 213 m/s
Frequency = 2.35 Hz
Duty cycle = 50%

——— 10K Ohm Load: Max Voltage = 5.45 V
· · · · 500 Ohm Load: Max Voltage = 0.69 V

Technical Specifications

During Search	
Waveform, Shape	Biphasic, Square Wave
Maximum Output Voltage (V)	0.44
Maximum Output Current (A)	0.00088
Pulse Width (%)	50
Frequency (Hz)	2000 +/- 10%
Pulse Period (Seconds)	0.0005
Maximum Current Density (Amps/Sq. cm)	0.085
Maximum Power Density (Watts/Sq. cm)	0.0747
Maximum Charge Per Pulse (Coulomb)	0.0000002200000
Power	
Battery	9 volt

During Stimulation	
Waveform, Shape	Biphasic, Square Wave
Maximum Output Voltage (V)	9
Maximum Output Current (A)	0.0022
Pulse Width (%)	50
Frequency (Hz)	2.8 Hz +/- 10%
Pulse Period (Seconds)	0.42
Maximum Current Density (Amps/Sq. cm)	0.21
Maximum Average Power Density (Watts/Sq. cm)	0.116
Maximum Charge Per Pulse (Coulomb)	0.00044
Power	
Battery	9 volt

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Documents / Resources

Dolphin Neurostim OTC All Natural, Drug-Free Pain Relief User Manual	**Dolphin Neurostim AML-DN-SK-RX-OTC Simulation Tens Unit Kit** [pdf] User Manual AML-DN-SK-RX-OTC, Simulation Tens Unit Kit, AML-DN-SK-RX-OTC Simulation Tens Unit Kit

References