

MediHighTec

MEDIHIGHTEC MEDICAL CO., LTD.

Electrical Muscle Stimulation (EMS)

Transcutaneous Electrical Nerve Stimulation (TENS)



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**ISO13485
FDA (510k)**

**CE
0434**



MH8001 Four Channels Pre-Programmed TENS and EMS

The MH8001 is provided with 4 controllable output channels, each independent of each other. The unit integrates EMS and TENS functions with 45 preset programs and 5 programmable programs. The preset programs are prepared in the factory according to the customer's parameters. The programmable programs are available to be set and stored by user.

SPECIFICATION

S: EMS, A: EMS with Rate Modulation, N: Normal, M: Mixed Frequency, B: Burst, SD: Width Modulation, MR: Rate Modulation

	MH8001 Pre-Programmed TENS and EMS
Channel	Four, isolated between channels
Preset programs	45 preset programs, prepared in the factory according to the customer's parameter
Programmable programs	5 programmable programs are available for setting by user
Intensity	Adjustable 0-100mA, Max output 100mA peak to peak into 500ohm load each channel.
Wave form	Asymmetrical rectangular biphasic pulse.
Power source	DC 9V
Size	13.5(L)x9(W)x3.2(H)(cm)
Weight	248grams (battery included)
Pulse Rate	2Hz~20 Hz in 1 Hz/step and 20~ 150 Hz in 5 Hz/step.
Pulse Width	50uS~300uS, 10uS/step.
Output mode	S, A, N, M, B, SD, MR
ON/OFF Time	2~90 seconds
Ramp Time	1~8 seconds
Timer	5~90 Minutes or continue.
Compliance Timer	The patient compliance timer can memorize 100 sets of therapy session records; 240 minutes for a single therapy session.
Electrode Detection	Option function, Only active in Pulse Width from 100uS and 300uS.



1 Set contains:

- 1 Device
- 2 WA01 Lead Wires
- 4 EB4040 Electrodes
- 1 BA01 super heavy duty battery
- 1 Instruction Manual
- 1 Hard Carry Case or soft pouch

Features:

- TENS and EMS Two in one.
- The 3 treatment phases Warming up, Treatment and Recover for each Programs
- Large LCD Display easier for elder users to read
- Key ped control, auto-locked to avoid accidental touch
- Adjusting Intensity Level precisely
- Clear Treatment Time
- Compliance Meter, 100 sets of therapy session records.
- ON and OFF time indicator
- Low battery indicator

WHAT IS EMS?

Electrical Muscle Stimulation (EMS) is an advanced muscle exercise and muscle toning technique that is an efficiently & effectively supplement to your workout routine. Our EMS units are portable, light weight and battery-powered electronic units. EMS units are designed to exercise body muscles by applying a chosen intensity and frequency of electrical current repeatedly in a series of stimulated contraction & relaxation phases. EMS is recommended for anyone participating in body building, power lifting, martial arts, boxing, or anyone simply wishing to achieve their optimal athletic physique. The medical Advisory Committee has allowed the use of EMS systems by athletes since 1972 Olympics. Bodybuilders, professional athletes, physiotherapist, sports doctors, US/Canadian Track and Field athletes use EMS units to supplement their routine exercises and training. EMS is ideal for today's hectic lifestyle. When time is limited and you can't get to the gym, you can hook up to your EMS unit in the privacy of your home or office, while catching up on paper work, talking on the phone, watching TV or surfing the net.

HOW DOES EMS WORK?

The EMS unit has a series of wire connections with two adhesive electrodes attached at the end of each channel. The unit delivers a gentle electronic impulse to your muscles via the adhesive electrodes. Your muscles will respond to the impulse by contracting and relaxing rhythmically as instructed by you through the unit. When a muscle contracts as a result of the EMS stimulations, the chemical reactions taking place within the muscles are similar to those associated with voluntary contraction as in "normal exercising". These chemical reactions utilize glycogen, fat and other nutrients stored in the muscle. These series of muscle contraction will enable an individual to tone, firm, strengthen, and combat flabbiness and improve contour.

WHAT IS TENS?

Transcutaneous Electrical Nerve Stimulation (TENS), designed for symptomatic relief and management of chronic intractable pain, TENS is a safe non-invasive drug-free method of pain management. "Transcutaneous" means across the skin. It relieves pain by sending tiny electrical impulses through electrodes placed on or near the area of pain or pressure point to underlying nerve fibers. You can set the TENS machine for different wavelength frequencies, such as a steady flow or a burst of electrical current, and for intensity of electrical current. Your physical therapist or doctor usually determines these settings. After you receive an introduction to and instruction in this therapy, you can do TENS at home. Our TENS units are compact, battery-powered devices about the size of a pocket radio.

HOW DOES TENS WORK?

The theory of TENS suggests that there are two pain-relieving mechanisms. When TENS delivers steady mild electrical current, some people experience less pain. The electricity from the electrodes stimulate the nerves in an affected area and may block the pain signal traveling to the brain. If the pain signal does not get through to the brain, the pain is not perceived. This theory is often referred to as the 'gate control' theory. Another theory is that the electrical stimulation of the nerves may help the body's own natural pain control mechanism. Low frequency electrical current may cause the body to release the pain killing substances, called 'endorphins'. No matter what pain theory is used, TENS has been proven useful in the field of pain management. Many people feel an immediate benefit from TENS. However a minority may only achieve benefit after repeated treatment sessions over an extended period of time.