TENS & EMS HD4P

D
GB
F
E
I

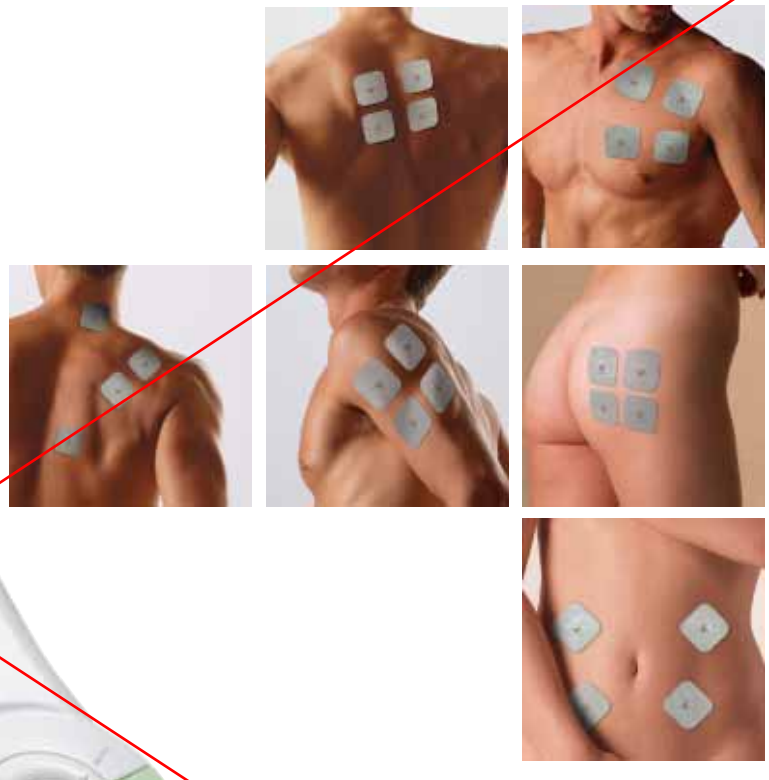
Electric Stimulator TENS + EMS

Instruction Manual

HIVOX®

D
GB
F
E
I

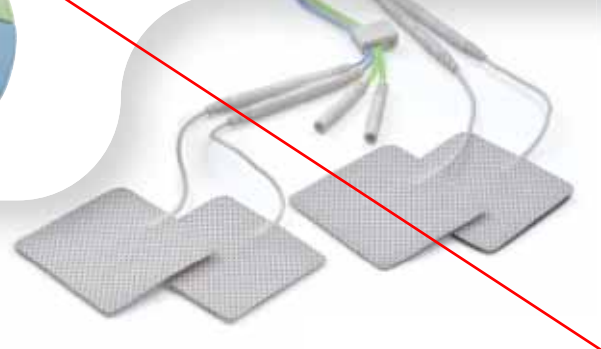
Electric Stimulator TENS + EMS



Pain Relief

Muscular Sports

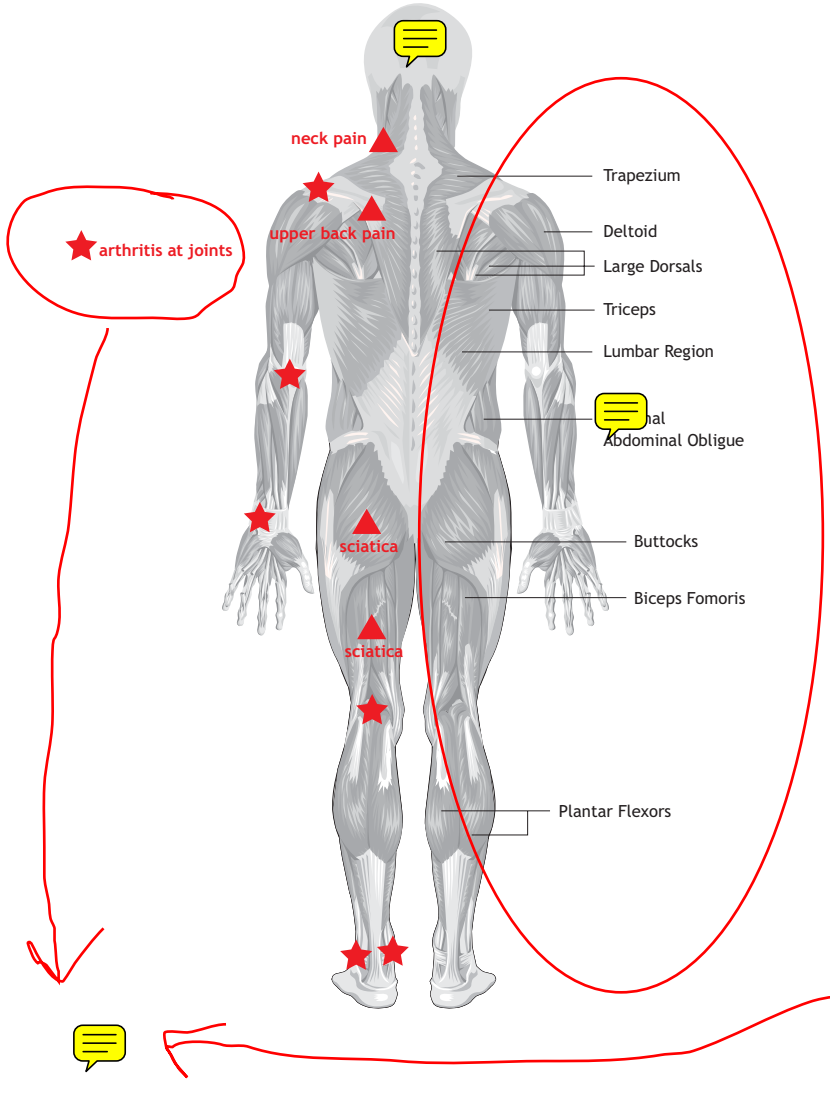
Relaxation

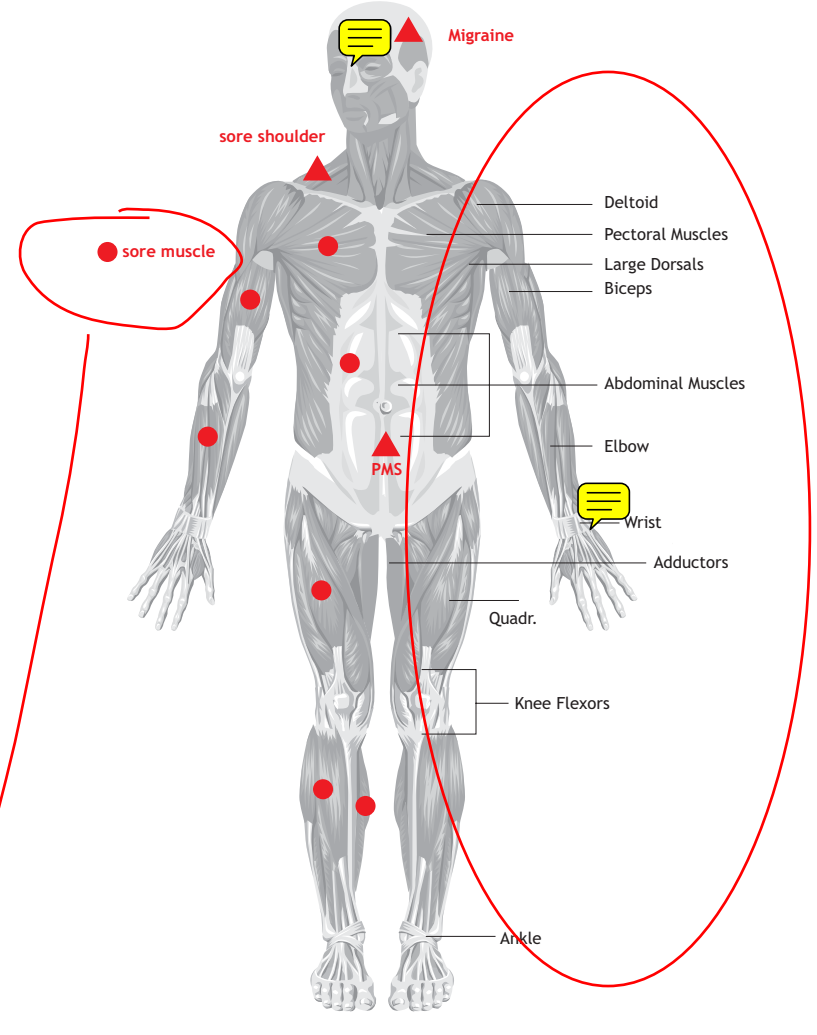


MASSEUR TOUCH TECHNOLOGY

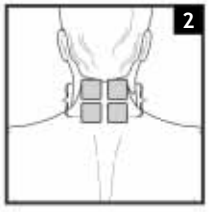
Four Independent Channels With Back Lit LCD

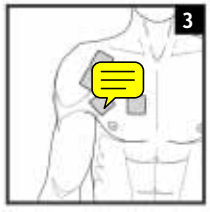
Illustrations of Muscle & Pad Positions

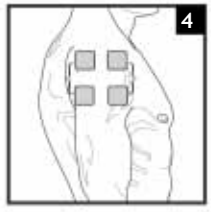


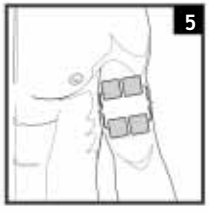


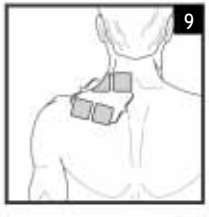
Illustrations of Muscle & Pad Positions

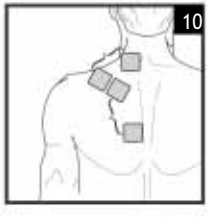


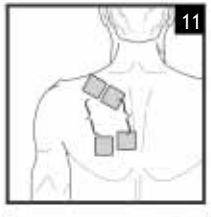


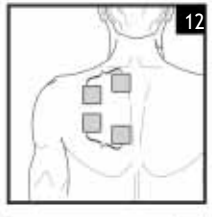


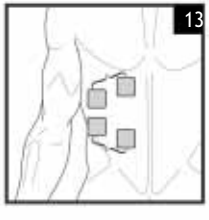


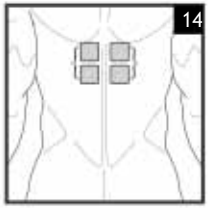


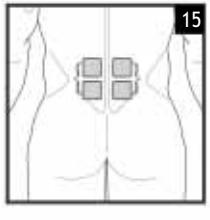


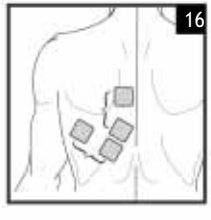


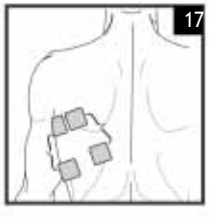


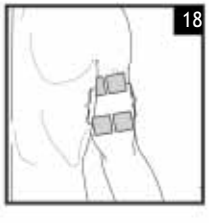


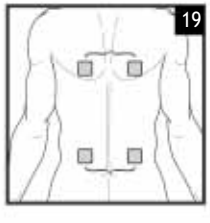


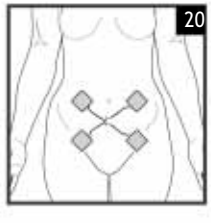


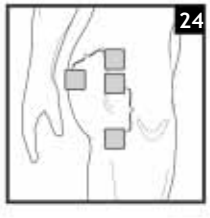


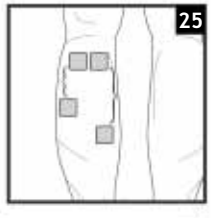


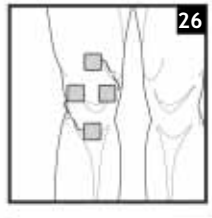


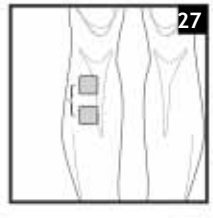


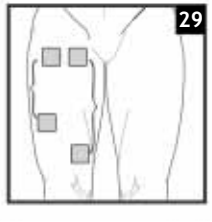


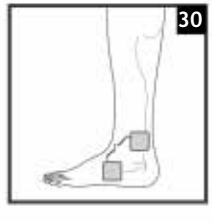












HIVOX HD 4P PART 1. TENS PROGRAMS

Prog.No.	USES	Application	Cycle 1 / Cycle 5 Width (μs)	Rate (Hz)	On Time Sec.	Off Time Sec.	Cycle 2 / Cycle 6 Width (μs)	Rate (Hz)	On Time Sec.	Off Time Sec.	Cycle 3 / Cycle 7 Width (μs)	Rate (Hz)	On Time Sec.	Off Time Sec.	Cycle 4 / Cycle 8 Width (μs)	Rate (Hz)	On Time Sec.	Off Time Sec.
1	Sore Neck; Migraine	Endorphin	250	4	30	0	250	4	30	0	250	5	30	0	250	5	30	0
			250	6	20	0	250	6	20	0	250	8	30	0	250	8	30	0
2	Sore Uppper Back	Endorphin	250	6	30	0	250	6	30	0	250	8	20	0	250	8	20	0
			250	10	20	0	250	10	20	0	250							
3	Sore Shoulder	Endorphin	250	2	10	0	250	4	8	0	250	6	6	0				
4	Rheumatic Arthritis	Pain Gate	250	60	20	0	250	70	20	0	250	80	30	0	250	80	30	0
5	Sciatica	Pain Gate	250	80	20	0	250	80	20	0	250	75	4	0	250	10	20	0
			250	70	4	0	250	65	4									
6	PMS	Endorphin	250	40	30	0	250	45	30	0	250	55	30	0	250	60	30	0
7	Sore Muscle	Endorphin	250	4	30	0	250	4	20	0	250	6	30	0	250	6	20	0
			250	8	30	0	250	8	20	0	250	10	30	0	250	10	20	0
8	Knee Pain	Endorphin	250	40	5	0	250	6	10	0	250	50	5	0				
9	Burst	Endorphin/Pain Gate	250	75	250ms	250ms	250	2	500 ms									
10	Burst	Pain Gate	250	100	250 ms	250ms												

PART 2. TENS PROGRAMS

Prog.No.	USES	Application	Cycle 1 / Cycle 5 Width (μs)	Rate (Hz)	On Time Sec.	Off Time Sec.	Cycle 2 / Cycle 6 Width (μs)	Rate (Hz)	On Time Sec.	Off Time Sec.	Cycle 3 / Cycle 7 Width (μs)	Rate (Hz)	On Time Sec.	Off Time Sec.	Cycle 4 / Cycle 8 Width (μs)	Rate (Hz)	On Time Sec.	Off Time Sec.
11	"Sore Neck; Migraine"	Endorphin	250	4	30	0	250	4	30	0	250	5	30	0	250	5	30	0
			250	6	20	0	250	6	20	0	250	8	30	0	250	8	30	0
12	"Sore Uppper Back; "	Endorphin	250	6	30	0	250	6	30	0	250	8	20	0	250	8	20	0
			250	10	20	0	250	10	20	0	250							
13	Sore Shoulder	Endorphin	250	2	10	0	250	4	8	0	250	6	6	0				
14	Rheumatic Arthritis	Pain Gate	250	60	20	0	250	70	20	0	250	80	30	0	250	80	30	0
15	Sciatica	Pain Gate	250	80	20	0	250	80	20	0	250	75	4	0	250	10	20	0
			250	70	4	0	250	65	4									
16	PMS	Endorphin	250	40	30	0	250	45	30	0	250	55	30	0	250	60	30	0
17	Sore Muscle	Endorphin	250	4	30	0	250	4	20	0	250	6	30	0	250	6	20	0
			250	8	30	0	250	8	20	0	250	10	30	0	250	10	20	0
18	Knee Pain	Endorphin	250	40	5	0	250	6	10	0	250	50	5	0				
19	Pain get,Endorphin	BURST	250	75	250ms	250ms	250	2	500ms									
20	Pain get,Endorphin	BURST	250	100	250ms	250ms												

PART 1. EMS PROGRAMS

Prog.No.	Target Areas	Reference Illustrations	Cycle 1 / Cycle 5				Cycle 2 / Cycle 6				Cycle 3 / Cycle 7				Cycle 4 / Cycle 8			
			Width (μs)	Rate (Hz)	On Time Sec.	Off Time Sec.	Width (μs)	Rate (Hz)	On Time Sec.	Off Time Sec.	Width (μs)	Rate (Hz)	On Time Sec.	Off Time Sec.	Width (μs)	Rate (Hz)	On Time Sec.	Off Time Sec.
1	Pectoral;Deltoid	3, 21	250	30	5	1	250	10	15	1	250	50	5	1				
2	Trapzium; Deltoid;Large Dorsal	9, 10	250	4	30	1	250	4	20	1	250	5	30	1	250	5	20	1
			250	6	30	1	250	6	20	1								
3	Large Dorsal; Lumbar	10, 11,12	250	2	10	1	250	4	10	1	250	6	10	1				
4	Biceps; Triceps;ForeArm	5, 18, 22	250	4	30	1	250	4	30	1	250	4	30	1	250	5	30	1
5	Abdominal	7	250	6	15	1	250	8	15	1	250	10	15	1				
6	Lumbar	13,14	250	2	20	1	250	2	20	1	250	1	30	1	250	1	30	1
7	Lumbar	16, 17, 19	250	4	30	1	250	4	20	1	250	6	30	1	250	6	20	1
			250	8	30	1	250	8	20	1								
8	Buttuck	24, 28	250	20	5	1	250	6	5	1	250	30	5	1				
9	Quadriceps; Bicepmoporis	24, 29	250	20	5	1	250	6	8	1	250	25	5	1				
10	Calf; Plataris	25, 27, 30, 32	250	25	5	1	250	6	8	1	250	35	5	1				

PART 2. EMS PROGRAMS

Prog.No.	Target Areas	Reference Illustrations	Cycle 1 / Cycle 5				Cycle 2 / Cycle 6				Cycle 3 / Cycle 7				Cycle 4 / Cycle 8			
			Width (μs)	Rate (Hz)	On Time Sec.	Off Time Sec.	Width (μs)	Rate (Hz)	On Time Sec.	Off Time Sec.	Width (μs)	Rate (Hz)	On Time Sec.	Off Time Sec.	Width (μs)	Rate (Hz)	On Time Sec.	Off Time Sec.
11	Pectoral;Deltoid	3, 21	250	30	5	1	250	10	15	1	250	50	5	1				
12	Trapzium; Deltoid;Large Dorsal	9, 10	250	4	30	1	250	4	20	1	250	5	30	1	250	5	20	1
			250	6	30	1	250	6	20	1								
13	Large Dorsal; Lumbar	10, 11,12	250	2	10	1	250	4	10	1	250	6	10	1				
14	Biceps; Triceps;ForeArm	5, 18, 22	250	4	30	1	250	4	30	1	250	4	30	1	250	5	30	1
			250	5	30													
15	Abdominal	7	250	6	15	1	250	8	15	1	250	10	15	1				
16	Lumbar	13,14	250	2	20	1	250	2	20	1	250	1	30	1	250	1	30	1
17	Lumbar	16, 17, 19	250	4	30	1	250	4	20	1	250	6	30	1	250	6	20	1
			250	8	30	1	250	8	20	1								
18	Buttuck	24, 28	250	20	5	1	250	6	5	1	250	30	5	1				
19	Quadriceps; Bicepmoporis	24, 29	250	20	5	1	250	6	8	1	250	25	5	1				
20	Calf; Plataris	25, 27, 30, 32	250	25	5	1	250	6	8	1	250	35	5	1				

MASSAGE

Prog.No.	Wave Form	Cycle 1 / Cycle 5			
		Width (μs)	Rate (Hz)	On Time Sec.	Off Time Sec.
1	Striking—Grasping—Patting—Grasping	250	8	60	1
2	Numbing—Grasping—Plucking—Rolling	250	110	60	1
3	Hz modulated/5 ~ 80 Hz	200	5	15	1
4	Hz modulated 20 ~ 110 Hz	250	20	5	1
		250	60	5	1
5	Hz modulated/20 ~ 110 Hz	250	20	60	1
		250	60	60	1
6	uS modulated/40 ~ 250 uS	20Hz 40μs~250μs~40μs			
		Total Cycle time 100 sec.			
7	Rhythmic250 Fixed Hz	250	6	Attach1	1
8	Rhythmic/Fixed Hz	250	25	Attach1	1
9	Rhythmic/Fixed Hz	250	80	Attach1	1
10	Rhythmic/Hz modulated	100	6	Attach1	1

Cycle 2 / Cycle 6				Cycle 3 / Cycle 7				Cycle 4 / Cycle 8			
Width (μs)	Rate (Hz)	On Time Sec.	Off Time Sec.	Width (μs)	Rate (Hz)	On Time Sec.	Off Time Sec.	Width (μs)	Rate (Hz)	On Time Sec.	Off Time Sec.
250	60	250ms	250ms	250	15	60		250	60	250ms	250ms
		60								60	
250	70	250ms	250ms	250	80	250ms	250ms	250	90	60	
		30				30					
200	10	15	1	200	15	15	1	100	20~80~20Hz		
								0.5 sec on-time per each Hz			
250	30	5	1	250	40	5	1	250	50	5	1
250	75	5	1	250	90	5	1	250	110	5	1
250	30	60	1	250	40	60	1	250	50	60	1
250	75	60	1	250	90	60	1	250	110	60	1
200	8	30	1				1				
100	25	Attach1	1	250	80	Attach1	1				
					Attach1						

****Caution: When Massage Programs are used, all 4 pads are required.*

Attach 1. Rhythmic stimulations

Rhythmic Module Sequence		HZ	Stimulation on-time	CH1/CH3		CH2/CH4	
				Pad 1	Pad 2	Pad 1	Pad 2
A. All together		26	20 SEC.	●	●	●	●
B. Sequential	B.1		5 SEC.	●			
	B.2		5 SEC.		●		
	B.3		5 SEC.			●	
	B.4		5 SEC.				●
C.Two-by-two Rotation	C.1-1		2 SEC	●			
	C.1-2		2 SEC		●		
	C.2-1		2 SEC			●	
	C.2-2		2 SEC				●

Rhythmic Module Sequence		HZ	Stimulation on-time	CH1/CH3		CH2/CH4	
				Pad 1	Pad 2	Pad 1	Pad 2
D.Random	D.1-1		5 SEC	●			
	D.1-2		5 SEC				●
	D.1-3		5 SEC		●		
	D.1-4		5 SEC			●	
	D.2-1		5 SEC		●		
	D.2-2		5 SEC				●
	D.2-3		5 SEC			●	
	D.2-4		5 SEC	●			
	D.3-1		5 SEC			●	
	D.3-2		5 SEC	●			
	D.3-3		5 SEC				●
	D.3-4		5 SEC		●		

GB

1. Introduction

Dear user, thank you for choosing Hivox's TENS & EMS HD4P Electric Stimulator. Please read the manual carefully to learn the correct operation of this equipment. Understanding the operation will enable you to discover and enjoy the benefits of HD4P for a long time.

HIVOX HD4P is a TENS and EMS combined unit, offering you four independent channels with eight electrode pads. It is innovative, featuring widely applicable functions for various wellness-improving purposes: relieving pain, maintaining physical fitness, revitalizing muscle, and alleviating fatigue. Its diverse built-in programs can conveniently match your individual, specific needs. All programs come with default settings that can be used directly; also, customized settings are conveniently available through short-cut keys, even during treatment/stimulation. You will find HD4P, despite its diverse, powerful functions, very easy to use; in just a few minutes, you can navigate the unit without much help from this user manual.

What is TENS used for?

TENS, Transcutaneous Electrical Nerve Stimulation, has been clinically approved as an effective, drug-free, side-effect-free treatment of relieving physical pains. TENS units emit controlled micro electric currents called pulses through skin to interact with nerves/acupuncture points and relieve pains in mainly four categories: (1) chronic-illness-caused, (2) post-operation-caused, (3) sport-injury-caused, and (4) female-nature-related. The pain relieving/distracting effect comes from two ways: (1) to block the nerve pathway transmitting pain signals and (2) to stimulate the brain to release natural pain killer endorphin. Overall, high frequency pulses are effective in blocking the nerve pathway and low frequency pulses effective in inducing the secretion of endorphin.

What is EMS used for?

EMS, Electrical Muscle Stimulation/Neuromuscular Muscle Stimulation, has also been widely applied for improving one's well-being: sport, rehabilitation, anti-stress, cell revitalization...etc. The enclosed program charts (Page I~III) can easily help you to find appropriate programs for your needs. Besides, the featuring Masseur Touch Technology embedded is able to deliver human massaging comfort to relieve muscle stiffness and fatigue. Moreover, customized settings are only few keystrokes away for matching your individual characteristics.

For more information about Hivox TENS&EMS HD series, please visit our website at http://www.hivox-biotek.com/eng-pro-islim.htm or contact our customer service for further assistance.

2. Dangers, Warnings & Cautions!!!

GB

Do Not Use HD4P With Following Conditions:

- More then 3 months into pregnancy
- Metal plates or pace maker implanted
- Epileptic
- Diabetic
- Malignant tumor diagnosed
- High fever
- Abnormal high blood pressure

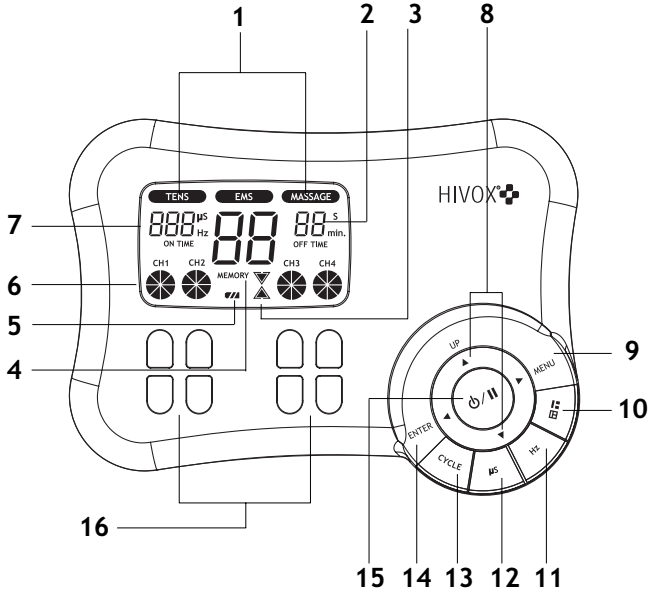
Warnings

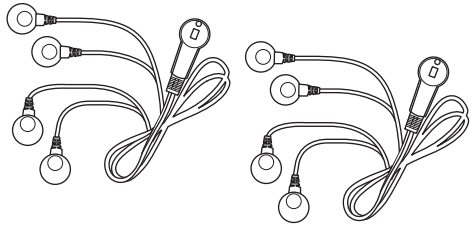
1. Do not use this unit near the heart, around the mouth, or on diseased skin.
2. Do not use this unit in places with high humidity such as the bathroom.
3. May need to use under the supervision of a physical therapist.
4. For external use only.
5. Long-term stimulation at the same electrode site may cause skin discomfort. Consult a dermatologist if skin discomfort persists.
6. Consult a doctor before you use this TENS & EMS device if you receive other medical treatments.
7. Do not disassemble or remodel this unit.
8. Consult your local authorities for proper battery disposal.
9. Supervision and medical consultancy recommended if you are under age 16.

• *Cautions*

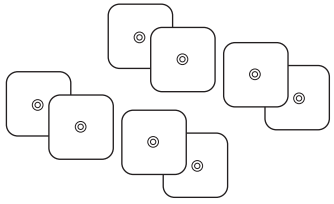
1. If the unit is not functioning properly or causes discomfort, stop using.
2. If you want to move the electrode pads to other regions of your body, make sure the unit is **paused**.
3. Do not attach the pads to other people during stimulation/treatment.
4. Use only for the specific pain problem diagnosed by the physician.
5. Do not use this unit while sleeping or driving.
6. Be careful not to allow any metal object, such as belt buckle or necklace coming into contact with the electrode pads during stimulation.
7. Do not use this unit to treat one region for pain relief longer than 30 minutes.

• *Names of Components*





•Color-coded lead wires
(matching with button colors)
CH1 - Yellow CH3 - Blue
CH2 - Pink CH4 - Green



•Electrode pads (4.5x4.5cm)

LCD Display Icons		Description	Remark
1	TENS EMS MASSAGE	Indicating Mode	
2	88 s / min.	Indicating total treatment/remained/ stimulation off-time	Off-time can only be set in TENS or EMS mode Program 11~20
3		Indicating operation status	
4	MEMORY	Only appears when Program 11~20 selected in TENS or EMS mode	When this icon appears, program can be manually setup and saved.
5		Only appears when batteries are running low	
6	CH1	Indicating stimulation intensity level of each channel	The more shade the stronger intensity
7	888 µS / Hz	Indicating pulse rate (Hz)/pulse width ((s)/ Cycle on-time	
Function Keys		**Description**	**Remark**
8	UP ▲ ▼ DOWN	Program/Treatment Time/pulse width/pulse rate/on-time/off-time selections	Movement is cyclic in nature
9	▶ MENU	Sequentially move between modes/Return to previous layer of menu	
10		Review/modify/confirm on/off-time settings of different cycles	Please refer to the advanced operation for detail
11	HZ	Review/modify/confirm pulse rate(Hz) settings of different cycles	Please refer to the advanced operation for detail
12	µS	Review/modify/confirm pulse width ((s) settings of different cycles	Please refer to the advanced operation for detail
13	CYCLE	Review/modify/confirm Cycle settings per selected program	Please refer to the advanced operation for detail
14	ENTER ◀	Confirm settings [mode, cycle, pulse rate (Hz), pulse width(µs), on/off-time, treatment time]	* Review Cycle and pulse rate (Hz) setting in TENS or EMS mode * Long press to skip detailed setting(On/off-time, pulse rate, and pulse width) in advanced operation and go into treatment time setting
15	⏻/II	Power on/off, Start/Pause stimulation	At standby or pause for any TENS/EMS programs, ENTER can be accessed to review cycle Hz settings.
16	+ −	Intensity adjustment for each channel	Only accessible while stimulating; three are 8 pies maximum each channel on the LCD covering all 16 intensity levels.

GB 3.Names of Components & Quick Start

1. Open the battery cover on the back of HD4P. Insert batteries with correct polarity positions; close back the battery cover.(Fig 1)
2. Connect the lead wires to electrodes. (Fig 2)
3. Refer to Fig 3-1 and Fig 3-2 to connect the plug and socket. (To disconnect, refer to Fig 3-3 to snap out the plug.)
4. Refer to the stimulation program charts beginning on page III and find a suitable TENS program.
5. Place the electrodes properly on the target area. You may want to refer to illustrations on page I & II.
6. Press ⏻/⏸ to turn on HD4P. (Fig 4)
7. Press MENU repeatedly to move the flashing indicator to TENS in submenu and press ENTER to confirm. (Fig 5)
8. Press ▲ / ▼ to select your TENS/EMS program from program #1 ~ #10 and confirm it by pressing ENTER.
9. Press ⏻/⏸ to begin your treatment.
10. Access the pulse strength keys CH1+, CH1-, CH2+, and CH2- to adjust the stimulation intensity. (Fig 6)
11. Pause the treatment stimulation anytime by pressing ⏻/⏸ . Press ⏻/⏸ again to resume treatment.

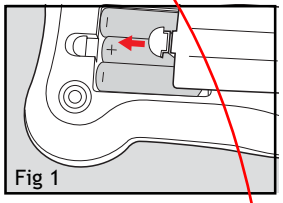


Fig 1

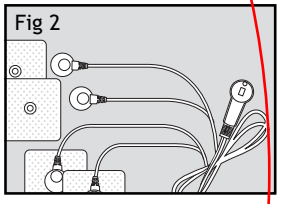


Fig 2

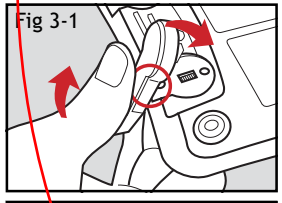


Fig 3-1

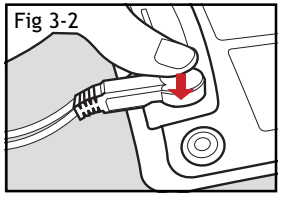


Fig 3-2

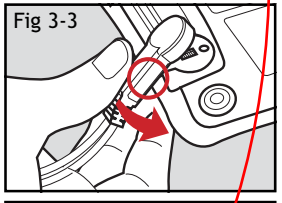


Fig 3-3

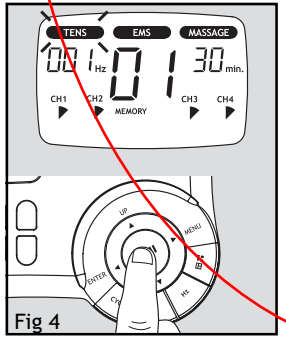


Fig 4

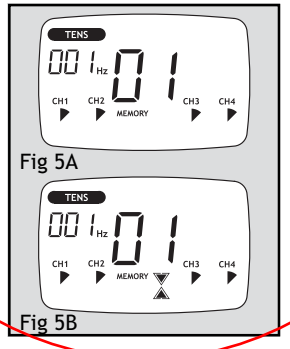


Fig 5A

Fig 5B

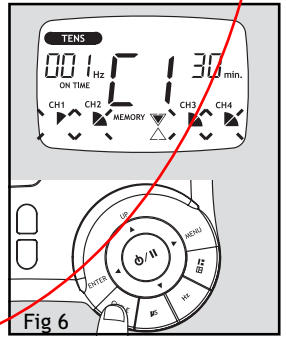
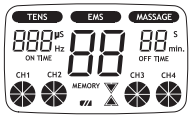


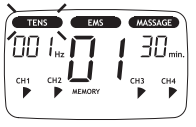
Fig 6

4. Operation Procedures GB

* Every time a valid key is accessed, a short beep sounds; when an invalid key is accessed, two short beeps sound.
* Please refer to Electrode pad positions on page I & II to ensure they are properly placed on the target region before treatment stimulation.



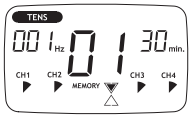
1. Press ⏻/⏸ to turn on HD4P.
2. Navigate around submenus of TENS, EMS, and MASSAGE by pressing MENU with selection confirmation by ENTER.

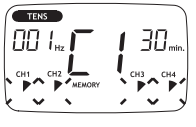


TENS/EMS/MASSAGE

There are 20 programs each of TENS and EMS and 10 programs in MASSAGE. Here you can adjust program treatment time and pulse strength for each channel. Further, for TENS/EMS programs 11 ~ 20, all parameters can be modified and stored. Please refer to program charts TENS (page III-1~2) and EMS (page III-3) for stimulation parameter settings and suggested applications.

* Basic operation for treatment programs 01 through 10 in TENS, EMS, and MASSAGE

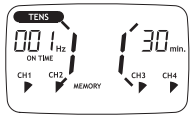


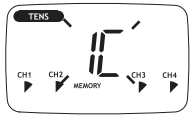


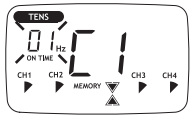
1. After moving into the submenu TENS/EMS/MASSAGE, press ▲ / ▼ keys to choose a treatment program from 01 to 10 with confirmation by ENTER.
2. Select a desirable treatment time through ▲ / ▼ and confirm it by pressing ENTER.
3. Press ⏻/⏸ to start the treatment stimulation. During stimulation, access the CH keys to modify pulse intensity levels.
4. **To change total treatment time,** press ⏻/⏸ to pause treatment stimulation. Press MENU to go back to the program selection screen, where the currently used program is flashing; then hold down ENTER until total treatment time flashes on the screen. Lastly, access ▲ / ▼ to change it with confirmation by ENTER.

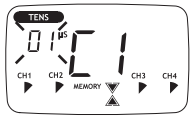
4. Operation Procedures

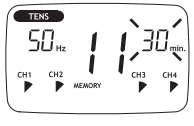
GB











*** Advanced opeartions for TENS/EMS programs 11 ~ 20.**

1. After moving into the submenu TENS/EMS, press▲/▼ to choose a treatment program from 11 to 20 and confirm it by pressing ENTER.
2. Select total cycle #s through▲/▼with confirmation by pressing CYCLE.
3. While uS value of C1 blinks on the LCD, modify cycle 1 uS value through ▲ / ▼ with confirmation by pressing uS and move into uS value setting of cycle 2 and onward.
4. When uS values are all set, either access Hz key or TIMER key for setting Hz values and on-time/off-time values of all cycles. Again, pressing ▲ / ▼ for selection and hotkeys Hz or TIMER for confirmation and moving on to the next cycle.
5. After all parameters are set, long press ENTER to go to treatment time setting. Select treatment time through ▲ / ▼ and confirm it by pressing ENTER for stand-by. Press ⏻/⏸ to start the treatment program.
6. **To change total treatment time**, press ⏻/⏸ to pause stimulation. Then press MENU to go back to the program selection screen, where the currently used program is flashing; afterwards, hold down ENTER until total treatment time flashes on the screen. Lastly, access ▲ / ▼ to change it with confirmation by ENTER.
7. **To change treatment parameters of cycles, uS, Hz, and on-off times**, press ⏻/⏸ to pause treatment stimulation. Then access each of the hot keys for viewing and modifying parameter values by following procedures stated in step 2 through 4.

** Note: During parameter setting of CYCLE #s, uS, Hz, on-time, and off-time, all confirmation can also be done through ENTER.

Connector-Channel Recognition Function

Hivox HD 4P is an advanced 4 channel output TENS/EMS device, and it can be conveniently used as a three channel unit with 6 electrode pads, two channel unit with 4 electrode pads, or even one channel unit with 2 electrode pads. Such innovation is made available because of the patent Connector-Channel Recognition Function.

*** Use HD 4P as a 3 channel unit with 6 electrode pads**

(1) Press ⏻/⏸ to pause treatment stimulation and remove 2 unneeded pads; then reapply/rearrange the other 6 pads properly. (Select another treatment program if necessary.)
(2) Press ⏻/⏸ to resume stimulation and hold down the CH- key corresponding to the flashing CH on the LCD until it disappears.
(3) Now you can use HD 4P as a 3 channel output unit with 6 pads.

*** Use HD 4P as a 2 channel unit with 4 electrode pads**

(1) Press ⏻/⏸ to pause treatment stimulation and remove a lead wire plug from the back of HD 4P; then reapply/rearrange properly the other 4 pads attached to the remaining two channels. (Select another treatment program if necessary.)
(2) Press ⏻/⏸ to resume stimulation and begin to use HD 4P as a 2 channel output unit with 4 pads.

** Note: As an alternative, you can also remove 4 pads or disconnect them from the lead wires without unplugging the plug. However, deactivating the pad-channel detection function is needed through holding down the CH- keys corresponding to those flashing CHs on the LCD.

*** Use HD 4P as a 1 channel unit with 2 electrode pads**

(1) Press ⏻/⏸ to pause treatment stimulation and remove 6 unneeded pads; then reapply/rearrange the other 2 pads properly. (Select another treatment program if necessary.)
(2) Press ⏻/⏸ to resume stimulation and hold down the CH- keys corresponding to the flashing CHs on the LCD until they disappear.
(3) Now you can use HD 4P as a 1 channel output unit with 2 pads.

*** To restore HD 4P as a normal 4 channel unit with 8 electrode pads**

(1) Press ⏻/⏸ to pause treatment stimulation and reapply all 8 pads properly. (Select another treatment program if necessary.)
(2) Press ⏻/⏸ to resume stimulation and hold down the CH+ keys corresponding to those channels without CH on the LCD until they show up.
(3) Now you can use HD 4P as a normal 4 channel unit with 8 electrode pads.

Lock and Unlock a Program

HIVOX HD4P is built-in with a feature lock-down function, available for all programs in the unit. When a program is locked, nothing can be changed but the treatment stimulation intensity level. Further, a locked program remains locked even after HD4P is turned off. When the unit is turned on again, the locked program is standing by, ready to be activated through pressing ⏻/⏸ .

1. When the program is standing by and ready for activation, press ⏻/⏸ and ⊞ together for five seconds to lock down the program. Two short beeps will be sounded when the program is locked.
2. To unlock the program, press ⏻/⏸ and ⊞ together for five seconds at stand-by or pause. When it's unlocked, a 1 second long beep will be sounded.

Shortcut keys-CYCLE, μS, Hz & ⊞

Four feature shortcut keys are available during program setup, standby, and pause; therefore, all critical parameter settings can be modified conveniently. Once a shortcut key is accessed, you are in the shortcut key loop; to leave, long press ENTER for confirming changes (if any) and go to treatment time setting.

CYCLE-Set, modify, and view total program cycle # of TENS/EMS program 11~20 during (1) program set-up, (2) stand-by, and (3) pause

(1) After confirming the needed program by ENTER, access ▲ / ▼ for selecting a desirable total program cycle # and then press CYCLE for confirmation.
(2) At standby before pressing ⏻/⏸ for treatment activation, press CYCLE for viewing/modifying total program cycles.
(3) Pause the treatment stimulation by ⏻/⏸ and press CYCLE for viewing/modifying total program cycles.

μS-View, set, and modify pulse width of each cycle in any of the TENS/EMS programs 11~20 during (1) program set-up, (2) stand-by, and (3) pause

(1) After confirming the total program cycles needed by CYCLE or ENTER, cycle 1 μS value flashes on the LCD screen. Access▲/▼ to select a pulse width μS value with confirmation by the μS or ENTER key and move into μS setting of cycle 2. Repeat such procedures for viewing/setting μS values for all later cycles.
(2) At standby before pressing ⏻/⏸ for treatment activation, access the μS key for viewing and modifying cycle μS settings of all cycles.
(3) Pause the treatment stimulation by ⏻/⏸ and access the μS key for viewing and modifying cycle μS settings of all cycles.

Hz-View, set, and modify pulse rate of each cycle in any of the TENS/EMS programs 11~20 during (1) program set-up, (2) stand-by, and (3) pause Set/modify Hz settings for TENS program 19 or 20.

(1) After uS value of the last cycle is confirmed by ENTER, cycle 1 Hz value flashes on the screen. Access ▲ / ▼ to select a pulse rate Hz value with confirmation by the Hz or ENTER key and move into Hz setting of cycle 2. Repeat such procedures for viewing/setting Hz values for all later cycles.
(2) At standby before pressing ⏻/⏸ for treatment activation, access the Hz key for viewing and modifying cycle Hz settings of all cycles.
(3) Pause the treatment stimulation by ⏻/⏸ and access the Hz key for viewing and modifying cycle Hz settings of all cycles.

⊞ -View, set, and modify on-off times of each cycle in any of the TENS/EMS programs 11~20 during (1) program set-up, (2) stand-by, and (3) pause

(1) After Hz value of the last cycle is confirmed by ENTER, cycle 1 on-time value flashes on the screen. Access the ▲ / ▼ key to select a proper on-time value with confirmation by ⊞ or ENTER and move into on-time setting of cycle 2. Repeat such procedures for viewing/setting on-time values for all later cycles; afterwards, naturally proceed into the off-time value setting of all cycles.
(2) At standby before pressing ⏻/⏸ for treatment activation, access the ⊞ key for viewing and modifying cycle on-time settings of all cycles first and off-time settings second.
(3) Pause the treatment stimulation by ⏻/⏸ and access the ⊞ key for viewing and modifying cycle on-time settings of all cycles first and off-time settings second.

LCD Background Light

HIVOX HD4P is so user friendly that even operation in a room with dim lighting is convenient because of the LCD background light feature. Whenever a key is accessed, the LCD background light will be on for one minute, after which it shuts off automatically if no other keys are accessed.

5. Maintenance & Troubleshooting

• *Maintenance*

Q: How to properly store the HD4P?

A: (1) Keep the unit away from children.
(2) Remove the batteries if the unit will not be used for more than 10 days.
(3) Disconnect lead wires and electrode pads after each use.
(4) Reapply the protective film back to the electrode pad after each use.

Q: How to lengthen the life cycle of electrode pads?

A: (1) Clean the sticky surface of the electrode pads with a damp, lint-free cloth if it gets dirty or less sticky.
(2) Always store the electrode pads in a cool, airy area away from direct sun light.
(3) Be sure the skin is clean before put on the electrode pads.
(4) Always store the electrode pads with the protective film inside the zip poly bag.

• *Troubleshooting*

Q: What if the unit fails to turn on through pressing the ⏻/⏸ key.

A: (1) Press the ⏻/⏸ key again and hold it down for 3 minutes.
(2) Check if the batteries are properly in place with good connection.
(3) Replace batteries if there is no improvement after (1).

Q: What if the electrode pads become difficult to stay attached?

A: Clean the sticky surface with a damp, lint-free cloth; let them air dry and try them on. If they still do not attach firmly, change them.

Q: What to do if the unit beeps abnormally during treatment?

A: (1) Pause the program by pressing ⏻/⏸ . Check if lead wires are connected securely with the pads. Check if the pads are attached firmly on the treated area.
(2) If the beeping persists, replace the batteries with new ones.

Q: What to do when the stimulation is not felt?

A: (1) If there is a warning beeping sound, follow procedures above.
(2) Press ⏻/⏸ again to restart the program.
(3) Make sure electrode pads are not overlapped.
(4) Increase the pulse intensity gradually.

Q: What to do if the skin of treated area turns red?

A: Stop the treatment immediately; wait until the skin restores to its healthy state. If irritation persists, consult with a dermatologist.

6. Product Specifications

Power	AA battery x 3
Pulse rate	1 ~ 120 Hz
Pulse width	40-250μS
Output voltage	Max. 90Vpp, based on 500 Ohm load +--10%
Treatment time	5 ~ 90 minutes, 5 minutes per interval
Pulse strength	0 ~ 16 stages adjustable
Operation environment	10 ~ 40°C, 10 ~ 95% RH
Storage environment	-10 ~ 50°C, 30 ~ 85% RH
Transport environment	-10 ~ 50°C, 35 ~ 85% RH
Size	130 x 70 x 28 mm

MASSEUR TOUCH TECHNOLOGY

Type BF AP

Note: This device comlies with the electromagnetic compatibility requirement of EN 60601-1-2 and EN60601-2-10 as specified in EEC Directive 93/42/EEC.

**** Don't try to repair the device. There are no user serviceable parts inside.*

**** Always use the specified accessories in the manual. The use of other parts not approved by the manufacturer may be hazardous.*

TAIWAN

HIVOX BIOTEK INC.
8F, No. [illegible] Chingde Rd.,
Sanchong City, Taipei Hsien 241,
Taiwan

www.hivox-biotek.com

CE 0434