

vive®



TENS DIGITAL PULSE MASSAGER

Owner's Manual
RHB1O43WHT

WHAT'S INCLUDED



QUICK START GUIDE

1. Install the included batteries in the back compartment.



2. Insert the lead wires into the output 1 and output 2 slots.



3. Snap the pads onto the lead wires.



4. Remove the protective film from the pad.

Note: Please keep the protective film, this will be used to store the pads.

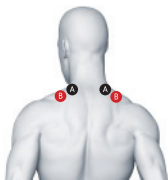


5. Use the chart below to apply the pads to the affected area.

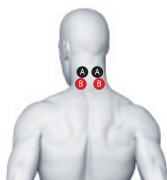
A - Output A

B - Output B

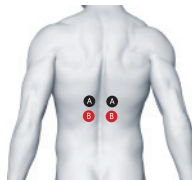
Stiff Shoulder



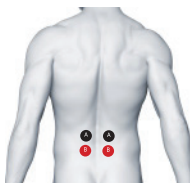
Cervical Pain



Erector Spinalis



Lower Back



Shoulder Pain



Bicipital Tendonitis



Hip Neuralgia



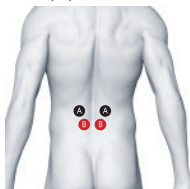
Hip Pain



Sciatica



Slipped Disk



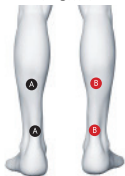
Knee Pain



Calf Muscle



Lower Leg Pain



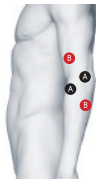
Foot Pain



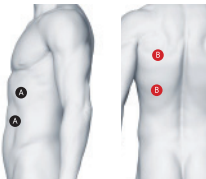
Carpal Tunnel Syndrome



Elbow Pain



Stomach Pain



Abdominal Pain



6. Turn the power switch to the "ON" position.



7. Select your preferred duration of your therapy. Click the time button to toggle through the options are 5, 10 and 15 minutes.



8. Select your preferred intensity using the "+" and "-" buttons. Click to toggle through the options.



9. Select your preferred Mode using the "MODE" button. Click to toggle between the 5 options.



10. To turn off your tens unit, slide the power switch to the "OFF" position. Your tens unit will also automatically shut off after your therapy session is complete.



WARNINGS

- Do not use this device if you have a cardiac pacemaker, implanted defibrillator, or other implanted metallic or electronic device.
- Do not use the device across or through your chest.
- Do not use this device over your neck.
- Do not use the device over, or in proximity to, these skin conditions: abnormal skin that is not intact, untidy, unhealthy, open wounds, rashes, swollen, red, infected, inflamed

areas, skin eruptions (e.g., phlebitis, thrombophlebitis, varicose veins), or cancerous lesions.

- The device should be operated, transported and stored at temperatures between 50° F and 104° F (10° C and 40° C), with relative humidity between 30% - 85%.
- Do not use the device when in the bath or shower, sleeping, driving, operating machinery or any activity in which electrical stimulation can put you at risk of injury.
- Using the device around electronic monitoring equipment (e.g., cardiac monitors, ECG alarms) may cause equipment malfunction.
- Do not use the device on children or let children handle the device.
- Do not use this device if you are pregnant, or suspect that you are pregnant, unless under the direction of your physician.
- Do not apply the device across your head.
- Do not disassemble or modify the device.
- Do not use this device if you have suspected or been diagnosed with epilepsy or heart disease, when suffering from a malignant tumor, or having a high fever.
- Consult your physician before using the device.
- Stop using the device and consult with your physician if you experience adverse reactions from use of this device.

TECHNICAL SPECIFICATIONS

- Intensity Levels: 16 levels
- 5 Modes
- Output Current: 30mA
- Power Voltage: 3V
- Pulse Frequency: 1-1000Hz
- Impulse width: 20 - 400 μ s
- Timer Control: 5, 10 or 15 minutes
- Microcomputer controlled
- Batteries: AAx2 Alkaline

TROUBLESHOOTING

Fault Phenomenon	Reason	Solution
No display in LCD	Is the battery running out or placed inversely?	Replace new battery or put the battery correctly.
	Are there any foreign bodies in the battery holder?	Check and remove
	Is the contact between battery and battery spring piece bad?	Use suitable tool to scrape the battery spring piece clean.
The LCD displays normally, but there is no stimulation left.	Is the two-core connecting line connected well?	Connect the two-core connecting line correctly.
	Has the protective film on the electrode patch been torn off?	Tear off the protective film.
The stimulation is weak.	Are the electrode patches pasted closely to the skin?	Please paste the electrode patches closely to the skin.
	Are the electrode patches dirty?	Clean the electrode patches.
	Are the electrodes patches overlapping with each other?	Please separate the electrode patches and then paste.

There is a sense of piercing pain and the skin is red.	Is the treatment time too long?	The suitable time is 15 minutes.
	Is the treatment time too high?	Turn down the intensity properly.
	Experiencing an allergic reaction from the electrode patches?	Check whether you have any history of allergic reactions. If the reaction is mild, change the position of the electrode patches or shorten the treatment time. If the reaction is severe, stop treatment and seek medical attention.
	Are the electrode patches dirty?	Clean the electrode patches
	Are the electrode patches pasted closely to the skin?	Please paste the electrode patches closely to the skin.

TECHNICAL PARAMETERS AND SPECIFICATION

Basic Unit Specifications		
Dimensions	Host	104mmx56mmx26mm
	Electrode patches	83mmx59mmx6mm
	Connecting line	1.2m
Host Weight		1.7oz
Power Supply		d.c.3V (AAA LRO3 battery * 2) 30mA
Number of Channels		2
Number of Modes		5
Output Intensity Level		16 levels
Safety Category		BF type
Service Life		3 years
Output Specification		
Waveform and Shape		Pulse symmetric, biphasic, square wave
Maximum Output Voltage ($\pm 10\%$)		34V @ 500 Ω 48V @ 2K Ω 60V @ 10K Ω
Maximum Output Current ($\pm 10\%$)		64mA @ 500 Ω 24mA @ 2K Ω 6mA @ 10K Ω
Net Charge (per pulse)		0 μ C @ 500 Ω
Maximum Phase Charge		11.7 μ C @ 500 Ω
Maximum Average Current		7.4mA @ 500 Ω
Maximum Current Density		0.15mA/ cm ² @ 500 Ω
Maximum Power Density		0.00056W/ cm ² @ 500 Ω
Pulse Duration		20 μ s-220 μ s
Frequency		1 Hz-120Hz
Default Treatment Time		15min

Additional Features	
Environment for Operation	Temperature: +5°C to +40°C Humidity: 15% to 93%RH Barometric pressure: 700hPa to 1060hPa
Environment for Storage	Temperature: -25°C to +70°C Humidity: 0 to 93%RH Barometric pressure: 700hPa to 1060hPa
Environment for Transport	Temperature: -10°C to 40°C Humidity: 15% to 93%RH Barometric pressure: 700hPa to 1060hPa










EMC STATEMENT

1. Model RHB1O43 needs special precautions regarding EMC and need to be installed and put into service according to the EMC information provided in the accompanying document.
2. Portable and mobile RF communications equipment can affect model RHB1O43.

WARNING:

1. The use of accessories, transducers and cables other than those specified with the exception of transducers and cables sold by the manufacturer of the model RHB1O43 as replacement parts for the internal components, may result in increased emissions or decreased immunity of the model RHB1O43.
2. Model RHB1O43 should not be used adjacent to or stacked with other equipment. Guidance and Manufacturer's declaration can be seen in the attachment.

SYMBOLS

Graphic Symbol	Meaning
	Batch code
	Serial number
	Manufacturer
	Date of manufacture
	Caution
	Type BF applied part
	Low-frequency electromagnetic radiation
	"WEEE (Waste Electrical and Electronic Equipment)". The waste products should be handled legally.
IP22	Dustproof waterproof level. It can prevent solid object larger than 12mm from intruding, and when tilt for 15 degrees, it can still prevent water from intruding, so no harmful effect will be created.
	Follow instructions for use
CE	CE mark

ATTACHMENT

Guidance and manufacturer's declaration - electromagnetic emissions		
<p>The model RHB1O43 is intended for use in the electromagnetic environment specified below. The customer or the user of the model RHB1O43 should assure that it is used in such an environment.</p>		
Emissions	Compliance	Electromagnetic environment-- guidance
RF emissions CISPR 11	Group 1	The model RHB1O43 uses RF energy only for its internal function. Therefore, its RF emissions are very low and are not likely to cause any interference in nearby electronic equipment.
RF emissions CISPR 11B	Class B	

Harmonic emissions IEC 61000-3-2	Not Applicable	The model RHB1043 is suitable for use in all establishments, including domestic establishments and those directly connected to the public low-voltage power supply network that supplies buildings used for domestic purposes.
Voltage fluctuations/ flicker emissions IEC 61000-3-3	Not Applicable	

Guidance and manufacturer's declaration - electromagnetic immunity			
The model RHB1043 is intended for use in the electromagnetic environment specified below. The customer or the user of the model RHB1043 should assure that it is used in such an environment.			
Immunity test	IEC 60601 test level	Compliance level	Electromagnetic environment-- guidance
Electrostatic discharge (ESD) IEC 61000-4-2	±8 kV contact ±2 kV, ±4 kV, ±8 kV, ±15 kV air	±8 kV contact ±2 kV, ±4 kV, ±8 kV, ±15 kV air	Floors should be wood, concrete or ceramic tile. If floors are covered with synthetic material, the relative humidity should be at least 30%.
Electrical fast transient/burst IEC 61000-4-4	±2 kV for power supply lines ±1 kV for Input/ output lines	Not applicable	Mains power quality should be that of a typical commercial or hospital environment.
Surge IEC 61000-4-5	±1 kV line to line ±2 kV line to earth	Not applicable	Main power quality should be that of a typical commercial or hospital environment.

Voltage dips, short interruptions and voltage variations on power supply input lines IEC 61000-4-11	<5% U_T (>95% dip in U_T) for 0.5 cycle 40% U_T (60% dip in U_T for 5 cycles 70% U_T (30% dip in U_T for 25 cycles <5% U_T (>95% dip in U_T) for 5 sec	Not applicable	Main power quality should be that of a typical commercial or hospital environment. If the user of the model RHB1043 requires continued operation during power mains interruptions, it is recommended that the model RHB1043 be powered from an uninterruptible power supply or a battery.
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NOTE: U_T is the a.c. mains voltage prior to application of the test level

Power frequency (50/60 Hz) magnetic field IEC 61000-4-8	30 A/m	30 A/m	Power frequency magnetic fields should be at levels characteristic of a typical location in a typical commercial or hospital environment.
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Guidance and manufacturer's declaration - electromagnetic immunity

The model RHB1043 is intended for use in the electromagnetic environment specified below. The customer or the user of the model RHB1043 should assure that it is used in such an environment.

Immunity test	IEC 60601 test level	Compliance level	Electromagnetic environment-- guidance
	3 Vrms 150 kHz to 80 MHz	Not applicable	Portable and mobile RF communications equipment should be used no closer to any part

<p>Conducted RF IEC 61000-4-6</p>	<p>6 Vrms in ISM bands</p>	<p>Not applicable</p>	<p>of the model RHB1043, including cables, than the recommended separation distance calculated from the equation applicable to the frequency of the transmitter.</p>
<p>Radiated RF IEC 61000-4-3</p>	<p>10 V/m 80 MHz to 2.7 GHz</p> <p>385 MHz-5785 MHz Test specifications for ENCLOSURE PORT IMMUNITY to RF wireless communication equipment (Refer to table 9 of IEC 60601-1-2:2014)</p>	<p>10 V/m 80 MHz to 2.7 GHz</p> <p>385 MHz-5785 MHz Test specifications for ENCLOSURE PORT IMMUNITY to RF wireless communication equipment (Refer to table 9 of IEC 60601-1-2:2014)</p>	<p>Recommended separation distance</p> <p>$d = [3.5/V_r] \times P^{1/2}$ $d = 1.2 \times P^{1/2}$ 80 MHz to 800 MHz $d = 2.3 \times P^{1/2}$ 800 MHz to 2.7 GHz</p> <p>Where P is the maximum output power rating of the transmitter in watts (W) according to the transmitter manufacturer and d is the recommended separation distance in meters (m). Field strengths from fixed RF transmitters, as determined by an electromagnetic site survey^a, should be less than the compliance level in each frequency range^b. Interference may occur in the vicinity of equipment marked with the following symbol:</p> 

NOTE 1 At 80 MHz and 800 MHz, the higher frequency range applies.

NOTE 2 These guidelines may not apply in all situations. Electromagnetic propagation is affected by absorption and reflection from structures, objects and people.

a. Field strengths from fixed transmitters, such as base stations for radio (cellular/cordless) telephones and land mobile radios, amateur radio, AM and FM radio broadcast and TV broadcast cannot be predicted theoretically with accuracy. To assess the electromagnetic environment due to fixed RF transmitters, an electromagnetic site survey should be considered. If the measured field strength in the location in which the model RHB1043 should be observed to verify normal operation. If abnormal performance is observed, additional measures may be necessary, such as re-orienting or relocation the model RHB1043.

b. Over the frequency range 150 kHz to 80 MHz, field strengths should be less than 3 V/m.

Recommended separation distances between portable and mobile RF communications equipment and the model RHB1O43

The model RHB1O43 is intended for use in an electromagnetic environment in which radiated RF disturbances are controlled. The customer or the user of the MODEL RHB1O43 can help prevent electromagnetic interference by maintaining a minimum distance between portable and mobile RF communications equipment (transmitters) and the model RHB1O43 as recommended below, according to the maximum output power of the communications equipment.

Rated maximum output power of the transmitter W	Separation distance according to frequency of transmitter m		
	150kHz to 80MHz $d=1.2 \times P^{1/2}$	80kHz to 800MHz $d=1.2 \times P^{1/2}$	80kHz to 2.5GHz $d=2.3 \times P^{1/2}$
0.01	0.12	0.12	0.23
0.1	0.38	0.38	0.73
1	1.2	1.2	2.3
10	3.8	3.8	7.3
100	12	12	23

For transmitters rated at a maximum output power not listed above, the recommended separation distance d in meters (m) can be estimated using the equation applicable to the frequency of the transmitter, where P is the maximum output power rating of the transmitter in watts (W) according to the transmitter manufacturer.

NOTE 1 At 80 MHz and 800 MHz, the separation distance for the higher frequency range applies

NOTE 2 These guidelines may not apply in all situations. Electromagnetic propagation is affected by absorption and reflection

MAINTENANCE AND STORAGE

Cleaning and maintenance:

1. When the host is dirty, use a dry soft cloth or dry towel to wipe it.
2. Keep the surface of electrode patches clean, avoid dust, oil or any substances that will lower the viscosity of the electrode patches. Use water when the surface gets dirty and dry it before use.
3. Please do not open or disassemble the unit. If the unit is not working properly, please give us a call.
4. Please take out the batteries if the unit is not to be used for a long time.

Storage:

1. Please keep the unit out of reach of children.
2. Do not store the unit in places where it will be exposed to direct sunlight, high temperature or moisture.
3. Please store the unit in dry and ventilated places.
4. Do not disassemble, repair or reform the unit, otherwise it might cause accident or malfunction.