JOHARI®
medtech

Instruction Manual

WinStim
WS2U

COMBO THERAPY

ELECTRO + ULTRASOUND

Precautionary instructions

The precautionary instructions found in this section and throughout this manual are indicated by specific symbols. Understand these symbols and their definitions before operating this equipment. The definitions of these symbols are as follows:

CAUTION- Text with a “CAUTION” indicator will explain possible Safety infractions that could have the potential to cause minor to moderate injury or damage to equipment.

WARNING- Text with a “WARNING” indicator will explain possible Safety infractions that will potentially cause serious injury and equipment damage.

DANGER- Text with a “DANGER” indicator will explain possible safety infractions that are imminently hazardous situations that would result in death or serious injury.

NO SITTING - Text with a **“NO SITTING”** indicator will explain possible Safety infractions that will potentially cause injury and equipment damage.

NO STEPPING ON SURFACE - Text with a **“NO STEPPING ON SURFACE”** indicator will explain possible safety infractions that will cause equipment damage.

NOTE: Throughout this manual, “NOTE” may be found. These NOTEs are helpful information to aid in the particular area or function being described.

Nomenclature: The following are the symbols used in manual and sticker:

Hardware symbols:

	Type B		Electrical Type, Type BF
	CLASS II symbol		Ultrasound Applicator
	DC Input Symbol/ Charging Point Symbol		Output 2 Lead wires
	Output 1 Lead wires		
	Output Indication		

TABLE OF CONTENTS

1. INSTRUCTION FOR THE USER OF WINSTIM PLUS WS2U

Please read this instruction manual carefully before using **WinStim Plus-WS2U** because it is unsafe to start using the device before reading the whole manual. The instruction on the following pages will show you how to use and care for yor **WinStim-WS2U** in a general manner. You should be particularly familiar with the prescription and prescription information precautions before proceeding.

⚠ **CAUTION:** This device must be used only under the continued supervision of a physician or licensed practitioner in the state he/she practices

- DO NOT operate this unit in an environment where other devices are being used that intentionally radiates electromagnetic energy in an unshielded manner.
- Ultrasound should be routinely checked before each use to determine that all controls function normally, especially that the intensity control does properly adjust the intensity of the ultrasonic power output in a stable manner. Also, determine that the procedure time control does actually terminate ultrasonic power output when the timer reaches zero.
- DO NOT use sharp objects such as a pencil point or ballpoint pen to operate the buttons on the touch screen
- This unit should be operated in temperatures between 15°C and 35°C, transported and stored in temperatures between 5°C and 45°C, with Relative Humidity ranges from 30% to 60%.
- Handle Ultrasound Applicator with care. Inappropriate handling of the Ultrasound Applicator may adversely affect its characteristics.
- Before each use, inspect Ultrasound Applicator for cracks, which may allow the ingress of conductive fluid. Inspect Applicator cables and associated connectors before each use.
- The **WinStim Plus-WS2U** system is not designated to prevent the ingress of water liquids. Ingress of water or liquids could cause malfunction of internal components of the system and therefore create a risk of injury to the patient.

⚠ 1.1 Warnings

- The long-term effects of chronic electrical stimulation are unknown.
- Stimulation should not be applied over the carotid sinus nerves, particular in patient with known sensitivity to the carotid' sinus reflex.
- 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 eruption, e.g. phlebitis, thrombophlebitis, varicose veins, etc.
- Stimulation should not be applied over, or in proximity to, cancerous lesion.
- Stimulation should not be applied over the neck or mouth. Severe spasm of the laryngeal and pharyngeal muscles may occur and the contractions may be strong enough to close the airway or cause difficulty in breathing.
- Stimulation should not be applied transcerebrally.
- Interferential stimulation is a symptomatic treatment and as such suppresses the sensation of pain which would otherwise serve as a protective mechanism.
- Make certain the unit is electrically grounded by connecting only to a grounded electrical service receptacle conforming to the applicable national and local electrical codes.
- TENS should be used only under the continued supervision of a physician or licensed practitioner.

- TENS waveform have no curative value.
- TENS is a symptomatic treatment, and as such, suppresses the sensation of pain which would otherwise serve as a protective mechanism.
- Use of controls or adjustments or performance of procedures other than those specified herein may result in hazardous exposure to ultrasonic energy.
- To prevent electrical shock, disconnect the unit from the power source before attempting any maintenance procedures.
- Keep electrodes separated during treatment. Electrodes in contact with each other could result in improper stimulation or skin burns.
- Long term effects of chronic electrical stimulation are unknown.
- Output current density is related to electrode size. Inadequate electrode contact area may result in patient injury. Please consult the enclosed manufacturer's table for recommended electrode area to be used with the device. If any additional question arises regarding the electrode size, consult a licensed practitioner or the manufacturer prior to the therapy session.
- Stimulation should not be applied over the spinal cord area following laminectomy.
- Stimulation should be not applied on the neck and / or head including mouth and or eyes. Severe spasm of the laryngeal and pharyngeal muscles may occur and the contractions may be strong enough to cause difficulty in breathing or close the airway.
- This device should not be applied on the anterior aspect of the chest (i.e. thorax)
- To be used under doctor prescription and control (not suggestion but obligation).
- If problem persist, contact doctor.
- To be used exclusively on not injured skin.
- To be used exclusively with adaptor from manufacturer.
- To be used exclusively with electrodes from manufacturer.
- The electro stimulator is not able to act on the origin of the pain.
- Simultaneous connection of a PATIENT to a h.f. surgical EQUIPMENT may result in burns at the site of the STIMULATOR electrodes and possible damage to the STIMULATOR.\
- Operation in close proximity (e.g. 1 m) to a shortwave or microwave therapy EQUIPMENT may produce instability in the STIMULATOR output.
- Current densities for any electrodes exceeding RMS 2 mA/cm^2 may require the special attention of the USER.
- Do not modify this equipment without authorization of the manufacturer

1.2 Danger:

- Improper handling or use of this device may result in a high risk of death or serious injury.
- Stimulus delivered by the TENS waveforms of this device, in certain configurations, will deliver a charge of 25 micro coulombs (μC) or greater per pulse and may be sufficient to cause electrocution. Electrical current of this magnitude must not flow through the thorax because it may cause cardiac arrhythmia.
- Patients with an implanted Neurostimulation device must not be treated with or be in close proximity to any shortwave diathermy, microwave, diathermy, therapeutic ultrasound diathermy, or laser diathermy anywhere on their body. Energy from diathermy (shortwave, microwave, ultrasound and laser) can be transferred through the implanted Neurostimulation system, can cause tissue damage,

and can result in severe injury or death. Injury, damage, or death can occur during diathermy therapy even if the implanted Neurostimulation system is turned "off'.

- Handle clean, and dispose of components and accessories that have come in contact with bodily fluids according to National, Local and Facility rules, regulations and procedures.
- Ni-MH batteries contain Class E Corrosive materials. In the event of battery cell rupture or leakage, handle battery pack wearing neoprene or natural rubber gloves. Contents of a ruptured or leaking battery can cause respiratory irritation. Hypersensitivity to nickel can cause allergic pulmonary asthma. Contents of cell coming in content with skin can cause skin irritation and/or chemical burns.
- Never, under any circumstances, open the battery pack or cells. Should an individual cell from a battery become disassembled, spontaneous combustion of the negative electrode is possible. There can be a delay between exposure to the air and spontaneous combustion.
- Change the battery pack according to the instructions found in this manual. Never attempt to charge the battery pack on any other charging mechanism.
- Do not reverse the polarity of the battery pack. Doing so can increase the individual cell temperature and cause cell rupture or leakage.
- Never dispose of battery pack in the fire. Never short circuit the battery. The battery may explode, ignite, leak or get hot causing serious personal injury.
- Dispose of Ni-MH batteries according to national, state and local codes and regulations.

1.3 Indications for use:

WinStim Plus-WS2U is indicated to be used as under

Russian, High Volt and EMS for:

- Relaxation of muscle spasms
- Prevention or retardation of disuse atrophy
- Increase local blood circulation
- Muscle re-education
- Maintaining or increasing range of motion
- Immediate post-surgical stimulation of calf muscles to prevent venous thrombosis

Interferential, Premod and TENS for:

- Symptomatic relief of chronic, intractable pain
- Management of pain associated with post-traumatic or post-operative conditions

Ultrasound for :

Application of therapeutic deep heat for the treatment of selected sub-chronic and chronic medical conditions such as:

- Pain Relief
- Reduction of muscle spasms
- Joint contractures

1.4 Contraindications:

WinStim Plus-WS2U should not be used in the following areas:

- Around the mouth
- Eye Area (Orbicularis Oculi Muscle), Genitals and Transcerebral Area
- Mid-line facial and throat area (vertical center)
- Groin area

For Powered Muscle Stimulation

- Muscle stimulation is contraindicated for patients with:
  - Cardiac pacemaker
  - Malignancy in the area to be treated
  - Healing fracture in the area to be treated
  - Implanted medical device other than a pacemaker such as implanted deep brain stimulation device.
- This device must not be used by pregnant woman, patients with metallic prosthesis / implant-able devices, patients with cardiac problems.
- This device should not be used for symptomatic local pain relief unless etiology is established or unless a pain syndrome has been diagnosed.
- This device should not be used with cancerous lesions are present in the treatment area.
- Stimulation should not be applied over swollen, infected, inflamed areas or skin eruptions (e.g. phlebitis, thrombophlebitis, varicose veins, etc.)
- Other contraindications are patients suspected of carrying serious infectious disease and or disease where it is advisable for general medical purpose, to suppress heat or fevers.
- Electrode placements must be avoided that apply cur-rent to the carotid sinus region (anterior neck) or transcerebrally (through the head).

For Ultrasound

- Ultrasound is contraindicated for patients with:
  - Cardiac pacemaker
  - Malignancy in the area to be treated
  - Healing fracture in the area to be treated
  - Implanted medical device other than a pacemaker such as implanted deep brain stimulation device.
- Ultrasound therapy is contraindicated for pregnant women.
- This device should not be used for symptomatic local pain relief unless etiology is established or unless a pain syndrome has been diagnosed.
- This device should not be used when cancerous lesions are present in the treatment area.
- Other contraindications are patients suspected of carrying serious infectious disease and disease where it is advisable for general medical purposes to suppress heat or fevers.
- This device should not be used when open wounds are present in the treatment area.
- The device should not be applied over the anterior aspect of the chest (i.e. thorax).

- This device should not be used over a healing fracture.
- This device should not be applied over or near bone growth centers until bone growth is complete.
- This device should not be applied to the face including the eyes.
- This device should not be used on ischemic tissue in individuals with vascular disease where the blood supply would be unable to follow the increase in metabolic demand and tissue necrosis might result.

1.5 Precautions:

- Caution should be used for patient with suspected or diagnosed heart problems.
- Caution should be used for patients with suspected or diagnosed epilepsy.
- Caution should be exercised in presence of following:
  - When there is a tendency of hemorrhage following acute trauma or fracture.
  - Following recent surgical procedures when muscle contraction may disrupt the healing process.
  - Over the menstruating or uterus.
  - Over area of the skin which lacks normal sensation.
- 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 alternate electrode placement.
- Electrode placement and stimulation settings should be based on the guidance of the prescribing practitioner.
- The **WinStim Plus-WS2U** may be susceptible to interference originating from short wave diathermy units operating in close proximity to it (aprrox. 3m). Avoid operating the **WinStim Plus-WS2U** adjacent to and simultaneously with operating short-wave devices.
- Powered muscle stimulators should be used only with the lead wires and electrodes recommended for use by the manufacturer.
- The effectiveness of TENS waveforms is highly dependent upon patient selection by a person qualified in pain management.
- Pulse rates above 60 Hz or constant modes should be used only for relaxation of muscle spasms. Operating the device above this pulse rate can lead to muscle fatigue.
- The **WinStim Plus-WS2U** should be kept out of the reach of children.
- The **WinStim Plus-WS2U** should not be used while driving, operating machinery, or during any activity in which involuntary muscle contraction may put the user at undue risk of injury.
- Additional precautions should be used when ultrasound is used on patients with the following conditions:
  - Over an area of spinal cord following a laminectomy, i.e., when major covering tissue has been removed.
  - Over anesthetic areas.
  - On patients with hemorrhagic diatheses

Precaution while using Pen electrode

- Ensure the intensity is adjusted slowly and smoothly and not increased beyond the patient's tolerance.
- During treatment, do not lift electrodes off the skin without the intensity being turned down to zero first.
- Also be aware of the skin’s resistance as this may suddenly drop causing the intensity to increase.

1.6 Adverse reaction:

- Skin irritation and burns beneath the electrodes have been reported with the use of powered muscle stimulators. Be aware that small electrode areas and high output currents can cause bums; consult the table in this manual, ask a licensed practitioner if any question arises.
- Some patients may experience skin irritation or hypersensitivity due to the electrical stimulation or electrical conductive medium. This irritation can usually be reduced by using an alternative conductive medium or an alternative electrode placement.
- With TENS waveforms, isolated cases of skin irritation may occur at the site of electrode placement following long-term application.
- Headaches and other painful sensations may occur during or following the application of electrical stimulation near the eyes and to the head and face.

2. INTRODUCTION

WinStim Plus-WS2U has been designated by engineers with years of expertise and knowledge in the medical device industry, specifically electrical stimulation. **WinStim Plus-WS2U** is the result of extensive research in the area of ultrasound and electric muscle stimulation therapy.

3. DESCRIPTION

WinStim Plus-WS2U is an Ultrasound and Muscle Stimulator for applying therapeutic deep heat for selected medical conditions that applies to specific areas of the body ultrasonic energy at a frequency beyond 20 kHz and that is intended to generate deep heat within body tissues for the treatment of selected medical conditions such as relief of pain, muscle of spasms and joint contractors, but not for the treatment of malignancies. The device also passes electrical currents through th body area to stimulate or relax muscles.

WinStim Plus-WS2U is a microcomputer controlled, 4 channels, Electrotherapy cum Ultrasound combo device ideal for professionals in physical medicine.

It is clinical model with easy user interface and versatility to treat different body areas simultaneously. This aesthetically designed clinical model has 7 selectable modes and treatment parameters. The state of art **WinStim Plus-WS2U** is light weight, small in size, and battery powered which allows it to be easily moved any location for immediate use.

It is powered by an internal rechargeable battery. Recharging is accomplished by attaching the supplied power supply, and the power supply can be left attached for continuous use without damaging the battery.

Features:

- Combo Effect: Electrical Stimulation & Ultrasound.
- Touch screen: simple one touch selection of stimulation programs.
- Pre-programmed treatment through specifically designed waveforms for precise level of performance.
- Ultrasound applicator with start /stop/ pause button.
- One touch user presets.

4. ACCESSORIES

WinStim Plus-WS2U comes complete with all the necessary accessories and below is a list of items that are included:

S.No.	Particulars	Qty.
01	Electrode Cable (5 Pin 4 Core) Length : 2.5 meter The lead wires conform to the 21 CFR 298 Length	01
02	Carbon Electrode (Size: 3") Elastic Belt (36") Elastic Belt (18")	04 01 02
03	Electrode Sponge Pouch (Size : 8.5x8.5cm)	08
04	Ultrasound Applicator	01
05	Pen Electrode	01
06	Adaptor with AC Cord INPUT: 100-240V AC, 50/60Hz OUTPUT: 24V DC (3.75A)	01
07	Instruction Manual / CD	01
08	Gel 100ml (Only to be used for Ultrasound)	01

5. SPECIFICATIONS

SYSTEM SPECIFICATIONS:

Length WS2U unit	:	365 mm
Width WS2U unit	:	325 mm
Height WS2U unit	:	365 mm
Standard Weight WS2U unit	:	Approx 3.5 kg (5.5 lbs)
Power (WS2U unit)		
Input	:	+24Volts DC, 3.75A
Electrical Class	:	CLASS II
Fuse Rating	:	4A/32V, Fast BLOW
Electrical Type		
Ultrasound	:	TYPE B
Electrotherapy	:	TYPE BF
Operating temperatures	:	between 15°C to 35°C
Storage temperatures	:	between 5°C to 45°C

WAVEFORMS SPECIFICATIONS:	
Treatment Time Selectable from 1 to 60 minutes	
INTERFERENTIAL	Waveform: Sine Wave Pulse Width: 250µS - 50µS Carrier Freq.: 2000 - 10000 Hz Sweep Freq: Selectable 1- 250 Hz, 1- 400 Hz; Scan: Selectable off 40% & 100% Output current: Selectable 0-100 mA@ 500Ω resistive load
PREMOD Waveform:	Waveform: Premodulated Sine Wave Carrier Freq.: 2000 - 10000 Hz Sweep Freq: Selectable 1- 250 Hz, 200- 400 Hz; Cycle time: 5/5seconds & continuous Output current: Selectable 0-100 mA@ 500Ω resistive load
RUSSIAN Waveform:	Waveform: Sine Wave Duty Cycle: Selectable 10, 20, 30, 40, 50 Burst Frequency: Selectable from 20 to 100Hz in steps of 5Hz Ramp time: Selectable 0.5, 1, 2, 5 Seconds. Cycle time: 5/5, 10/10, 10/20, 4/12, 10/30, 10/50 Seconds and continuous. Output current: Selectable 0-100 mA@ 500Ω resistive load
HIGH VOLT Waveform:	Waveform: Twin pulses Pulse Rate: Selectable from 1pps to 120pps Ramp time: Selectable 0.5, 1, 2, 3 seconds Cycle time: 5/5, 10/10, 10/20, 4/12, 10/30, 10/50 and continuous Polarity: Selectable (+) or (-) Selectable: Selectable 0-500V@ 500Ω Resistive load
ASYMM-TENS Waveform:	Asymmetrical Biphasic Wave Selectable Sub Modes: Normal, Burst and Modulation Burst Frequency: Selectable 1 – 10 bps Pulse Width: Selectable 20 µS to 1000 µS Pulse Rate: Selectable from 1Hz to 250Hz\ Amplitude Modulation : Frequency 0 -250Hz Off, 40%, 60%, 80%, 100% Output current: Selectable 0-80 mA@ 500Ω Resistive load
SYMM-TENS Waveform:	Symmetrical Biphasic Wave Selectable Sub Modes: Normal, Burst and Modulation Burst Frequency: Selectable 1 – 10 bps Pulse Width: Selectable 20 µS to 1000 µS Pulse Rate: Selectable from 1Hz to 250Hz\ Amplitude Modulation : Frequency 0 -250Hz Off, 40%, 60%, 80%, 100% Output current: Selectable 0-80 mA@ 500Ω Resistive load
Alternating Rectangular TENS Waveform	Alternating Rectangular Wave Selectable Sub Modes: Normal, Burst and Modulation Burst Frequency: Selectable 1 – 10 bps Pulse Width: Selectable 20 µS to 1000 µS Pulse Rate: Selectable from 1Hz to 250Hz\ Amplitude Modulation : Frequency 0 -250Hz Off, 40%, 60%, 80%, 100% Output current: Selectable 0-100 mA@ 500Ω Resistive load
Monophasic Rectangular TENS Waveform	Monophasic Rectangular Wave Selectable Sub Modes: Normal, Burst and Modulation Burst Frequency: Selectable 1 – 10 bps Pulse Width: Selectable 20 µS to 1000 µS Pulse Rate: Selectable from 1Hz to 250Hz\ Amplitude Modulation : Frequency 0 -250Hz Off, 40%, 60%, 80%, 100% Output current: Selectable 0-110 mA@ 500Ω Resistive load
NOTE: ALL PARAMETERS HAVE ± 10% TOLERANCE	

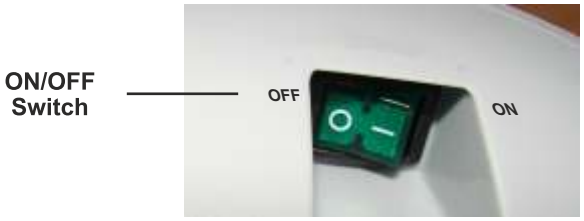
Diadynamic Waveform:	Waveform: Rectified Sine wave Sub Mode : MF,DF,CP,LP,CP-iso,CP-id,MF+CP,MF+CP-id,DF+LP,DF+CP Output current: Selectable 0-10 mA@ 500Ω Resistive load
Monophasic Rectangular Pulsed	Waveform: Monophasic Rectangular pulses Phase Duration : 0.1 – 500 ms Phase Interval: 5 – 5000ms Output current: Selectable 0-80 mA@ 500Ω Resistive load
Monophasic Triangular Pulsed	Waveform Monophasic Triangular pulses Phase Duration : 0.1 – 500 ms Phase Interval: 5 – 5000ms Output current: Selectable 0-80 mA@ 500Ω Resistive load
Interrupted Galvanic	Waveform : Monophasic Rectangular pulses Pulsed off Period : 25us Frequency : 6.5KHz Polarity Reversal : on or off Output current: Selectable 0-37.5mA@ 500Ω Resistive load
Trabert	Waveform : Monophasic Rectangular pulses Phase Duration : 2ms Frequency : 143 Hz Polarity Reversal : on or off Output current: Selectable 0-37.5mA@ 500Ω Resistive load
Surged Monophasic Rectangular Pulsed	Waveform : Monophasic Rectangular pulses Phase Duration : 0.2 – 5 ms Frequency : 5 - 60 Hz Surges : 1/min – 20/ min Pause: 0 – 57sec Output current: Selectable 0-80 mA@ 500Ω Resistive load
Surged Monophasic Triangular Pulsed	Waveform : Monophasic Triangular pulses Phase Duration : 0.2 – 5 ms Frequency : 5 - 60 Hz Surges : 1/min – 20/ min Pause: 0 – 57sec Output current: Selectable 0-80 mA@ 500Ω Resistive load
Strength Duration Curve	Waveform : Monophasic Rectangular Pulse width : 0.01ms – 300ms Frequency : 1 - 100 Hz Output current: Selectable 0-37.5mA@ 500Ω Resistive load
Triangular Wave	Waveform : Twin Triangular Pulses (Monophase/Biphase) Pulse width : 40- 400 use Frequency : 2 - 200 Hz Output current: Selectable 0-100 mA@ 500Ω Resistive load
Microcurrent waveform	Output Mode : Electrodes or Probe Output Intensity : 0 – 1000.0μA Polarity Positive : Negative or Alternating Available on channels : 1, 2, 3, 4 Mode : CC / uC (Constant Current / Micro Current)
Ultrasound:	Rated Output Power : 2.5W/cm^2(continuous) 3.0W/cm ^{2}(Pulsed) Effective radiating area (A_{ERN}) of the treatment head : 5cm^2± 10% Effective intensity : 2.5W/cm^2(continuous) 3.0W/cm ^{2}(Pulsed) Acoustic working frequency: 1MHz or 3MHz Beam non-uniformity ration (R_{BN}) : 6:1 Beam type : Collimating Pulse Duration & duty cycle : Pulse Rate 100Hz, Duty Cycle Selectable 10, 20, 50 and Continuous Modulation waveform : NA
NOTE: ALL PARAMETERS HAVE ± 10% TOLERANCE	

6. CONTROLS AND FUNCTIONS

WINSTIM-WS2U is an innovative touch screen desktop device providing Electronic Stimulation through four channels.

Features:

- Ultrasound Applicator with inbuilt intensity controls.
- Combo Effect: Electrical Stimulation & Ultrasound through same output.



As we rotate the Intensity Control Knob, the Intensity on the screen keeps on increasing. The value of intensity set is also displayed on the screen.

7. LCD DESCRIPTION

Given below are pictures and detailed description of the elements of the touch screen interface.

0. Channel 1 - 2 : Provides Electrical Stimulation in Channel 1 & 2

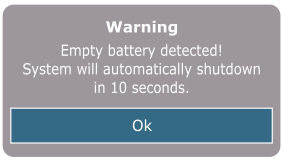
NOTE: The activated channels are colored blue while the non-activated channels remain Grey.

1. US tab: Provides ultrasound.

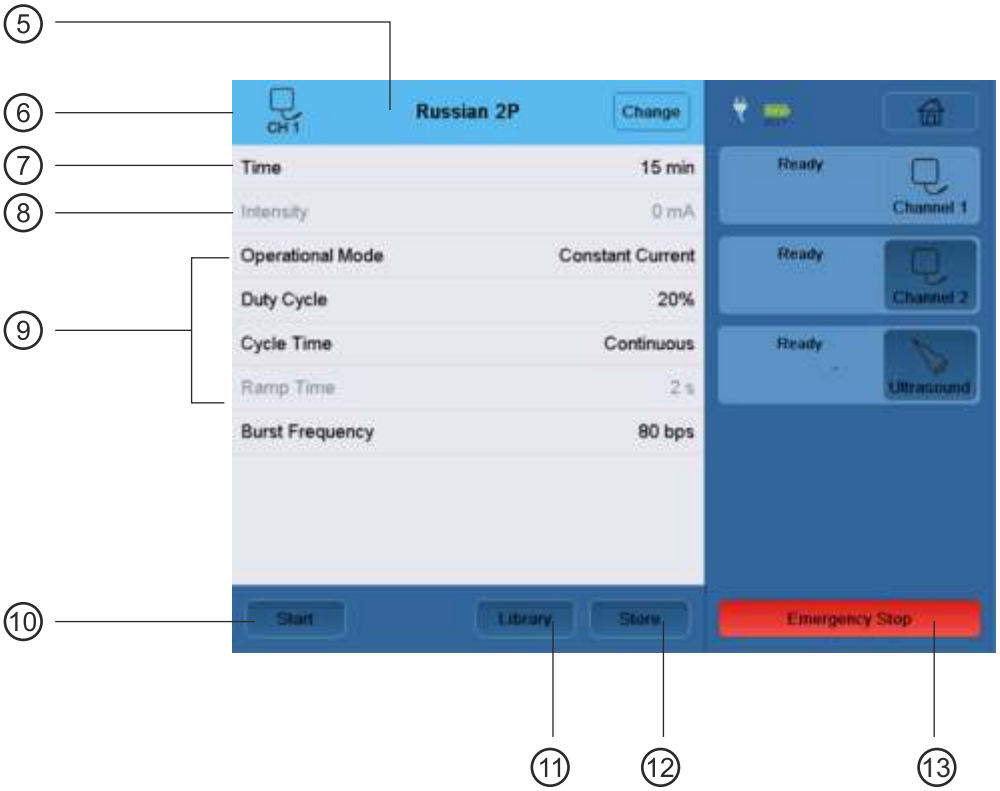
2. Home tab: For go to main menu screen.

3. Battery Signs: This indicates the status of battery as follows:

Battery Charging Process Stopped		
Battery Charging Process Active		
Full Battery State		
Battery State ~60% of Full Capacity		Added with Concept of Monitoring Current Battery Capacity
Battery State ~30% of Full Capacity		Added with Concept of Monitoring Current Battery Capacity
Battery State - Empty		Added with Concept of Monitoring Current Battery Capacity
Possible Battery Problem		
Battery Problem		battery icon will 'blink' (two icons interchanging gray and red)
Battery Installed		
Battery Not Installed		
Unknown State of Battery	NO ICON	



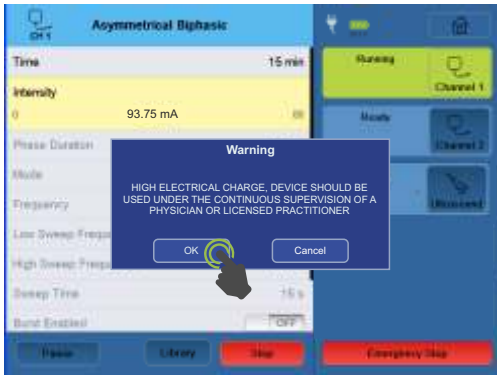
4. Selectable Programs Icons.



5. **Selected Waveform**
6. **Selected Channel**
7 **Selected Treatment Time**
8. **Selected intensity:** for activated outputs in mA (depending on the selected mode)
9. **Selectable parameters:** Indicated as blue in color
10. **Start tab:** to start the treatment.
11. **Library Button :** for treatment details
12. **Store tab:** to save the selected treatment parameters in preset mode.
13. **Emergency Stop tab:** to stop the treatment in between.

Safety Indication : -

If the phase duration is 800usec. and intensity 93.75 a popup message will appear



If the ok button is pressed the safety limit is crossed.

The warning sign appears on the running channel as marked in red circle.

8. HOW TO OPERATE WELLSTIM

8.1 Preparing Electrodes:

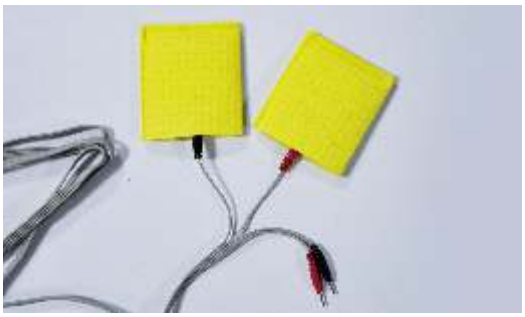
- Use only the electrode cables and electrodes provided with the device by manufacturer.
- Make sure that the entire surface of the electrode is in firm contact with the skin.
- Prepare the skin prior to electrode application. Cleaning of skin shall eliminate any impairment to current conduction on the patient's skin such as an oily or dry surface, or excessive hair coverage. Shaving may be necessary depending upon the density of hair coverage.
- Failure to provide for maximum current conduction efficiency could result in skin irritation relating to increase in current density at electrode site.
- We strongly recommend careful maintenance of the electrodes. This includes the maintenance of electrode cable and the electrodes. Worn cables and/or poor electrodes (or wrong sized electrodes) can have a significant impact upon treatment results.

Instruction For Use Carbon Electrode

Un-pack Carbon Electrode, Lead Wires & electrode pads. Connect the lead wires in the electrodes.

Soak the electrode pads in water & then rinse out the excess water.

Insert the electrodes in the electrode pads.



Use Electrode with electrode pad for treatment.

Instruction For Use Ultrasound Applicator

Un-pack ultrasound applicator & apply gel on applicator head.

Use applicator for treatment.

8.2 Prerequisites:

- Electrodes should never be placed in such a manner as to produce current flow through the cardiac area.
- The patient should be suitably positioned ensuring maximum comfort and suitable exposure of the body part to be treated.
- Carefully mark the points where electrodes are to be placed and place the electrodes accordingly.
- The electrodes should be applied on the marked points.
- The desired mode on the **WinStim Plus-WS2U** should be selected and set.
- The patient should be explained about the subjective sensory motor feeling that he/she will experience. The patient should experience a sensation of deep, sufficiently strong but pleasant vibrations at rhythmical frequencies and a pleasant tingling sensation.
- Patient should immediately inform the therapist, of any unpleasant sensation or any other discomfort.
- Review prerequisites, contraindications and adverse reactions listed above before starting the device.

8.3 Preparing the Skin:

Before applying electrodes, ensure that the areas selected for electrode placement are cleaned properly and the skin is clear and free of surface debris.

8.4 Starting the Device:

8.4.1Installation:

1. Keep the **WinStim Plus-WS2U** on a stable surface.
2. Connect the adaptor's AC cord into a grounded wall outlet that has **110-220 VAC, 50/60Hz.** Your power supply must match the voltage requirements.

- Turn back the device to open back cover.

- To open, pull cover from bottom side.

- The Connectors are located on the back side of the Enclosure.

3. Insert adaptor's pin into DC input socket on the back of the device and press the Rocker Switch to Switch ON the device.
4. If the device is being operated on battery, first press the Rocker Switch, followed by the Power Button to Switch ON the device.

Note: **Caution** ⚠

1) Please press the button before putting the ultrasonic applicator plug into the socket.
2) Please press the button before plug out the ultrasonic applicator plug.

NOTE: Do not connect **WinStim Plus-WS2U** to a power supply rated differently than that described aboce. Avoid operating the **WinStim Plus-WS2U** adjacent to and simultaneously with operating short-wave device, as it may be susceptible to interference originating from short-wave diathermy units.

Welcome Screen will be displayed followed shortly by the Main Menu Screen.

8.5 Selecting the Electrotherapy

a) After the Welcome Screen, the **Main Menu Screen** appears as below.

Fig. 2

Press electrotherapy icon. The Electrotherapy list screen will appear.

b) To select the appropriate electrotherapy from electrotherapy list.

NOTE : The Electrotherapy List Screen will appear :

Fig. 3

2. Select the desired waveform.

   NOTE: The **Sub Waveform Screen** will appear:

Fig. 4

3. Press desired sub waveform.

   NOTE: The **Channel Selection Screen** will appear:

Fig. 5

4. Select desired channel/group.

   NOTE: The **RUSSIAN detail screen** will appear:

Fig. 6

5. Now you can select the desired parameters such as Time, Frequency, Modes etc.

8.6 Starting and Stopping the treatment:

1. Once the treatment parameters are selected the user can start the treatment by pressing the **Start** tab.

   NOTE: You can start the treatment from the Waveform Detail Screen also by pressing the **Start** tab. To return to the Waveform Screen press on **Waveform Bar**.

2. Set the intensity using the Intensity Control Knob provided on the device. (The user can see the intensity being changed on the screen while turning the Intensity Control Knob).

   NOTE: Once the treatment is started, the **Start** tab is replaced by **Pause** tab.

   (Optional) To put the treatment on hold press the **Pause** tab.

   NOTE: When the treatment is put on hold the **Pause** tab is replaced by **Resume** tab and the treatment is paused at the balance time.

3. To start the treatment again, at the balance time, press the **Resume** tab.

   NOTE: The treatment will stop automatically after the set time is over. To stop the treatment in between, press the **Stop** tab.

4. After the treatment is over switch off the device. Remove the electrode cables from the device. Take off the electrodes and place them on the baking sheet. After every use it is advised that the electrodes are properly stored in the package provided for prolonged quality and conductivity.

8.6.1 Setting the treatment parameters for another channel/group:

1. Once the treatment parameters for Channel 1-4 are selected and the **Start** tab is pressed the LCD will show the following screen:

Fig. 7

2. Select desired channel/group.
3. To set the parameters/ waveform follow the sections **“8.5”** of this Instruction Manual.

8.7 Waveform details:

8.7.1.1 Interferentiral Waveform

Output	Channel 1 - 2
Electrodes	Eight Carbon Electrodes
Electrode Cables	Two 5 Pin 4 Core electrode cables
Type of Stimulation	Interferential (Four Pole Application)

IFT Detail Screen

Treatment:

1. Clean the body area to be treated.
2. Paste the carbon electrodes on the selected treatment area as per your practitioner's advice.
3. Set the time by pressing on the **Time** Bar.
4. Select desired Intensity using **Intensity** Control Knob.
5. Follow the instructions given in the section **'8.6 Starting and Stopping the Treatment'** of this Instruction Manual.

8.7.1.2 IFC Premodulated 2P

Output	Channel 1& 2
Electrodes	Four Carbon Electrodes
Electrode Cables	One 5 Pin 4 Core electrode cables
Type of Stimulation	Pre-modulated Interferential (Two Pole Application)

PREMOD Detail Screen

Treatment:

1. Clean the body area to be treated.
2. Paste the carbon electrodes on the selected treatment area as per your practitioner's advice.
3. Set the time by pressing **Time** Bar.
4. Select desired intensity using **Intensity** Control Knob.
5. Follow the instructions given in the section **"8.6 Starting and Stopping the Treatment"** of this Instruction Manual.

8.7.2 Russian Waveform

Output	Channel 1 & 2
Electrodes	Four Carbon Electrodes
Electrode Cables	One 5 Pin 4 Core electrode cables
Type of Stimulation	Russian (Two Pole Application)

RUSSIAN Detail Screen

Treatment:

1. Clean the body area to be treated.
2. Paste the carbon electrodes on the selected treatment area as per your practitioner's advice.
3. Set the time by pressing **Time** Bar.
4. Select desired intensity using **Intensity** Control Knob.
5. Press **Duty Cycle** bar adjacent to Duty Cycle.

   NOTE: Following screen will appear:

Select desired % Duty Cycle by pressing respective bar.

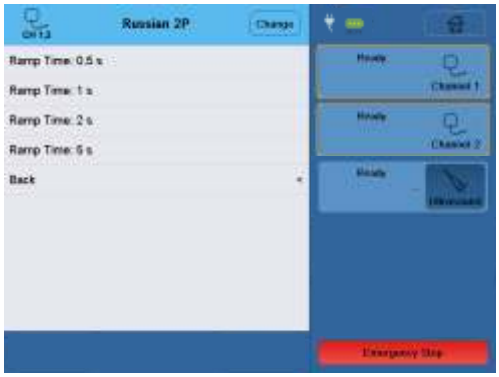
6. Press **Cycle Time** bar adjacent to Cycle Time.

   NOTE: Following screen will appear:

   Select desired Ramp Time by pressing respective bar.

7. Press **Ramp Time** Bar adjacent to Ramp Time.

   NOTE: Following screen will appear:



   Select desired Cycle Time by pressing respective bar.

8. Follow the instructions given in the section **"8.6 Starting and Stopping the Treatment"** of this Instruction Manual.

8.7.3 TENS Waveform

Output	Channel 1 & 2
Electrodes	Four Carbon Electrodes
Electrode Cables	One 5 Pin 4 Core electrode cables
Type of Stimulation	TENS (Two Pole Application)

TENS Detail Screen

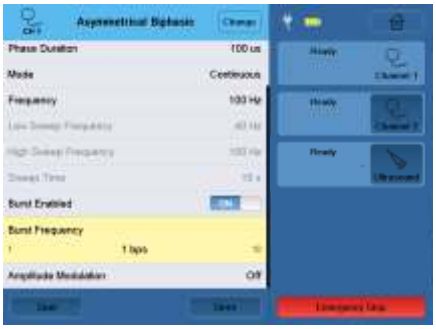
NOTE: The TENS waveform has the following four sub-waveforms: Asymmetrical Biphasic, Symmetrical Biphasic, Alternating Rectangular and Monophasic Rectangular. User can select the desired sub-waveform by pressing the respective bar on the TENS Detail Screen.

a) Following screen appears when TENS **(Asymmetrical Biphasic)** waveform is selected:

Treatment:

1. Clean the body area to be treated.
2. Paste the carbon electrodes on the selected treatment area as per your practitioner's advice.
3. Set the time by pressing **Time** Bar.
4. Select desired Phase duration using **Phase Duration** Bar.
5. Select desired intensity using **Intensity** Control Knob.
6. Press **Burst Frequency** bar adjacent to Burst Frequency.

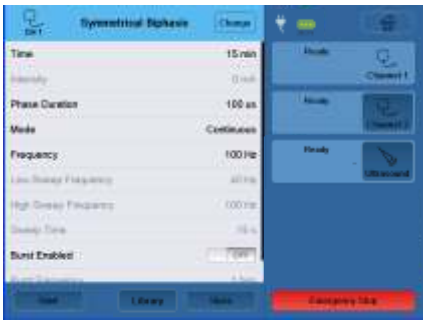
   NOTE: Following screen will appear:



Select desired Burst Frequency by pressing **(+)** or **(-)** tab.

7. Follow the instructions given in the section **"8.6 Starting and Stopping the Treatment"** section of this Instruction Manual.

b) Following screen appears when TENS **(Symmetrical Biphasic)** waveform is selected:



Treatment:

1. Clean the body area to be treated.
2. Paste the carbon electrodes on the selected treatment area as per your practitioner's advice.
3. Set the time by pressing **Time** Bar.
4. Select desired Phase duration using **Phase Duration** Bar.
5. Select desired intensity using **Intensity** Control Knob.
6. Follow the instructions given in the section **"8.6 Starting and Stopping the Treatment"** of this Instruction Manual.

c) Following Screen appears when TENS **(Alternating Rectangular)** waveform is selected:

Treatment:

1. Clean the body area to be treated.
2. Paste the carbon electrodes on the selected treatment area as per your practitioner's advice.
3. Set the time by pressing **Time** Bar.
4. Select desired Phase duration using **Phase Duration** Bar.

5. Select desired intensity using **Intensity** Control Knob.
6. Follow the instructions given in the section **"8.6 Starting and Stopping the Treatment"** of this Instruction Manual.

d) Following Screen appears when TENS **(Monophasic Rectangular)** waveform is selected:

Treatment:

1. Clean the body area to be treated.
2. Paste the carbon electrodes on the selected treatment area as per your practitioner's advice.
3. Set the time by pressing **Time** Bar.
4. Select desired Phase duration using **Phase Duration** Bar.
5. Select desired intensity using **Intensity** Control Knob.
6. Follow the instructions given in the section **"8.6 Starting and Stopping the Treatment"** of this Instruction Manual.

SAFETY INDICATION :

a) a)In CC mode, a pop-up message will appear at phase duration 800usec & intensity 93.75mA. If you press ok then you have exceeded safety limit and in this case a ⚠ sign will appear on running channel

b) In CV mode same thing will happen at phase duration 500usec & intensity 75V

8.7.4 High Voltage Waveform

Output	Channel 1 & 2
Electrodes	Four Carbon Electrodes
Electrode Cables	One 5 Pin 4 Core electrode cables
Type of Stimulation	High Volt (Two Pole Application)

High Voltage Detail Screen

Treatment:

1. Clean the body area to be treated.
2. Paste the carbon electrodes on the selected treatment area as per your practitioner's advice.
3. Set the time by pressing **Time** Bar.
4. Select desired intensity using **Intensity** Control Knob.
5. Press **Cycle Time** bar adjacent to Cycle Time.

   NOTE: Following screen will appear:

   Select desired Ramp Time by pressing respective bar.

6. Press **Ramp Time** bar adjacent to Ramp Time.

   NOTE: Following screen will appear:

   Select desired Cycle Time by pressing respective bar.

7. Select desired Pulse Polarity by pressing **Pulse Polarity** Bar, than choose from **Positive** and **Negative.**
8. After selecting the treatment parameters follow the instructions provided in the section **"8.6 Starting and Stopping the Treatment"** of this Instruction Manual.

8.7.5 Short Pulse Waveform

Output	Channel 1 & 2
Electrodes	Eight Carbon Electrodes
Electrode Cables	Two 5 Pin 4 Core electrode cables
Type of Stimulation	Short Pulse (Two Pole Application)

Short Pulse Detail Screen

NOTE: The Short Pulse waveform has the following two sub-waveforms: Short Pulse 2P/4P and Short Pulse Burst 2P/4P . User can select the desired sub-waveform by pressing the respective bar on the Shot Pulse Detail Screen.

a) Following screen appears when **Short Pulse 2P** waveform is selected:

Treatment:

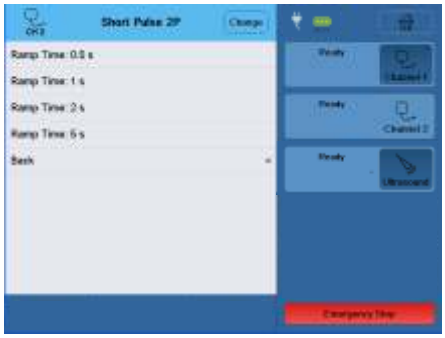
1. Clean the body area to be treated.
2. Paste the carbon electrodes on the selected treatment area as per your practitioner's advice.
3. Set the time by pressing **Time** Bar.
4. Select desired intensity using **Intensity** Control Knob.
5. Press **Cycle Time** bar adjacent to Cycle Time.

   NOTE: Following screen will appear:

Select desired % Duty Cycle by pressing respective bar.

6. Press **Ramp Time** Bar adjacent to Ramp Time.

   NOTE: Following screen will appear:



   Select desired Ramp Time by pressing respective bar.

7. Follow the instructions given in the section **"8.6 Starting and Stopping the Treatment"** of this Instruction Manual.

b) Following screen appears when **Short Pulse Burst 2P** waveform is selected:

Treatment:

1. Clean the body area to be treated.
2. Paste the carbon electrodes on the selected treatment area as per your practitioner's advice.
3. Set the time by pressing **Time** Bar.
4. Select desired intensity using **Intensity** Control Knob.
5. Press **Cycle Time** bar adjacent to Cycle Time.

   NOTE: Following screen will appear:

   Select desired % Duty Cycle by pressing respective bar.

6. Press **Ramp Time** Bar adjacent to Ramp Time.

   NOTE: Following screen will appear:

   Select desired Ramp Time by pressing respective bar.

7. Follow the instructions given in the section **"8.6 Starting and Stopping the Treatment"** of this Instruction Manual.

SAFETY INDICATION :

a) a)In CC mode, a pop-up message will appear at phase duration 800usec & intensity 93.75mA. If you press ok then you have exceeded safety limit and in this case a ⚠ sign will appear on running channel

b) In CV mode same thing will happen at phase duration 500usec & intensity 75V

8.7.6 Diadynamic Waveform

Output	Channel 1 & 2
Electrodes	Four Carbon Electrodes
Electrode Cables	One 5 Pin 4 Core electrode cables
Type of Stimulation	Diadynamic (Two Pole Application)

Treatment:

1. Clean the body area to be treated.
2. Paste the carbon electrodes on the selected treatment area as per your practitioner's advice.
3. Select the desired Mode by pressing respective bar.
4. Set the time by pressing **Time** Bar.
5. Select desired intensity using **Intensity** Control Knob.
6. Follow the instructions given in the section **"8.6 Starting and Stopping the Treatment"** of this Instruction Manual.

8.7.7 Monophasic Waveform

Output	Channel 1 & 2
Electrodes	Four Carbon Electrodes
Electrode Cables	One 5 Pin 4 Core electrode cables
Type of Stimulation	Monophasic (Two Pole Application)

NOTE: The Monophasic waveform has the following three sub-wavforms: Monophasic Rectangular pulsed, Monophasic Triangular pulsed and Träbert. User can select the desired sub-waveform by pressing the respective bar on the Monophasic Detail Screen.

a) Following Screen appears when Monophasic **(Rectangular)** waveform is selected:

Treatment:

1. Clean the body area to be treated.
2. Paste the carbon electrodes on the selected treatment area as per your practitioner's advice.
3. Set the time by pressing **Time** Bar.
4. Select desired Phase duration using **Phase Duration** Bar.
5. Select desired intensity using **Intensity** Control Knob.
6. Follow the instructions given in the section **"8.6 Starting and Stopping the Treatment"** of this Instruction Manual..

SAFETY INDICATION :

A pop-up message will appear at phase duration 3000usec & intensity 25mA. If you press ok then you have exceeded safety limit and in this case a ⚠ sign will appear on running channel

b) Following Screen appears when Monophasic **(Triangular)** waveform is selected:

Treatment:

1. Clean the body area to be treated.
2. Paste the carbon electrodes on the selected treatment area as per your practitioner's advice.
3. Set the time by pressing **Time** Bar.
4. Select desired Phase duration using **Phase Duration** Bar.
5. Select desired intensity using **Intensity** Control Knob.
6. Follow the instructions given in the section **"8.6 Starting and Stopping the Treatment"** of this Instruction Manual..

SAFETY INDICATION :

A pop-up message will appear at phase duration 3000usec & intensity 50mA. If you press ok then you have exceeded safety limit and in this case a ⚠ sign will appear on running channel

c) Following Screen appears when Monophasic **(Träbert)** waveform is selected:

Treatment:

1. Clean the body area to be treated.
2. Paste the carbon electrodes on the selected treatment area as per your practitioner's advice.
3. Set the time by pressing **Time** Bar.
5. Set the Polarity by pressing **On/Off** Tab in **Polarity Reversal** Bar.
5. Select desired intensity using **Intensity** Control Knob.
6. Follow the instructions given in the section **"8.6 Starting and Stopping the Treatment"** of this Instruction Manual..

NOTE: If the polarity reversal is on then a sharp sensation will be felt at every 7.5 minutes due to reversal of the polarity. If the polarity reversal is off then no such sensation will be felt.

8.7.8 Galvanic Waveform

Output	Channel 1 & 2
Electrodes	Four Carbon Electrodes
Electrode Cables	One 5 Pin 4 Core electrode cables
Type of Stimulation	Galvanic (Two Pole Application)

Treatment:

1. Clean the body area to be treated.
2. Paste the carbon electrodes on the selected treatment area as per your practitioner's advice.
3. Set the time by pressing **Time** Bar.
4. Select desired frequency using **Frequency** Bar.
5. Press **Cycle Time** bar adjacent to Cycle Time.

   NOTE: Following screen will appear:

   Select desired Cycle Time by pressing respective bar.

6. Press **Ramp Time** bar adjacent to Ramp Time.

   NOTE: Following screen will appear:

   Select desired Ramp Time by pressing respective bar.

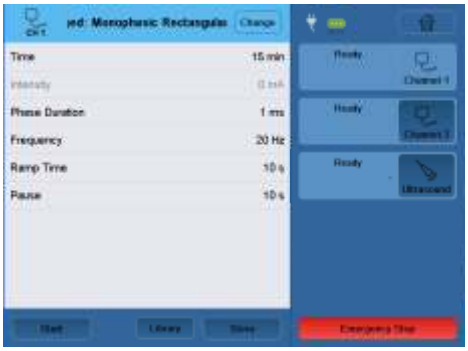
7. Follow the instructions given in the section **"8.6 Starting and Stopping the Treatment"** of this Instruction Manual..

8.7.9 Surged Waveform

Output	Channel 1 & 2
Electrodes	Four Carbon Electrodes
Electrode Cables	One 5 Pin 4 Core electrode cables
Type of Stimulation	Surged (Two Pole Application)

NOTE: The Surged waveform has the following two sub-wavforms: Monophasic Rectangular and Monophasic Triangular. User can select the desired sub-waveform by pressing the respective bar on the Surged Monophasic Detail Screen.

a) Following Screen appears when Surged Monophasic **(Rectangular)** waveform is selected:



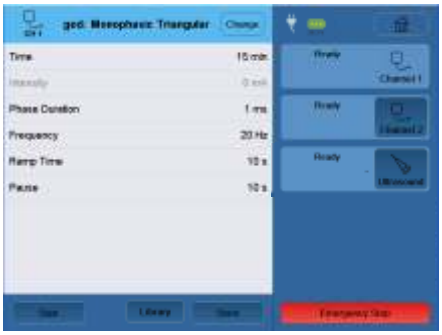
Treatment:

1. Clean the body area to be treated.
2. Paste the carbon electrodes on the selected treatment area as per your practitioner's advice.
3. Set the time by pressing **Time** Bar.
4. Select desired Phase duration using **Phase Duration** Bar.
5. Select desired intensity using **Intensity** Control Knob.
6. Follow the instructions given in the section **"8.6 Starting and Stopping the Treatment"** of this Instruction Manual..

SAFETY INDICATION :

A pop-up message will appear at phase duration 3000usec & intensity 25mA. If you press ok then you have exceeded safety limit and in this case a ⚠ sign will appear on running channel

b) Following Screen appears when Surged Monophasic **(Triangular)** waveform is selected:



Treatment:

1. Clean the body area to be treated.
2. Paste the carbon electrodes on the selected treatment area as per your practitioner's advice.
3. Set the time by pressing **Time** Bar.
4. Select desired Phase duration using **Phase Duration** Bar.
5. Select desired intensity using **Intensity** Control Knob.
6. Follow the instructions given in the section **"8.6 Starting and Stopping the Treatment"** of this Instruction Manual..

SAFETY INDICATION :

A pop-up message will appear at phase duration 3000usec & intensity 50mA. If you press ok then you have exceeded safety limit and in this case a ⚠ sign will appear on running channel

8.7.10 Microcurrent

Output	Channel 1 & 2
Electrodes	Four Carbon Electrodes
Electrode Cables	One 5 Pin 4 Core electrode cables
Type of Stimulation	Microcurrent(Two Pole Application)

Note : The Micro-current waveform has following two sub waveform Micro current 2P/4P. User can select the desired Sub-waveform by pressing the respective bar on Micro current detail screen.

Treatment:

1. Clean the body area to be treated.
2. Paste the carbon electrodes on the selected treatment area as per your practitioner's advice.
3. Set the time by pressing **Time** Bar.
4. Select desired Phase duration using **Phase Duration** Bar.
5. Select desired intensity using **Intensity** Control Knob.
6. Follow the instructions given in the section **"8.6 Starting and Stopping the Treatment"** of this Instruction Manual..

Micro-current Detail Screen

a) Press Microcurrent 2P sub-waveform

Note: The Channel selection screen will appear.

2) Select desired channel/Group

Note : The Microcurrent 2P Detail screen will appear

3) Now you can select the desired parameters such as Time, Pulse polarity, Frequency etc.

Note: Once the treatment parameters for channel 1-4 are selected and start tab is pressed the LCD will show the following screen

b) Press Microcurrent 4P sub waveform
Note: The Channel selection screen will appear

2) Select desired Channel/ group will show the following
Note: The Microcurrent 4P Detail screen will appear

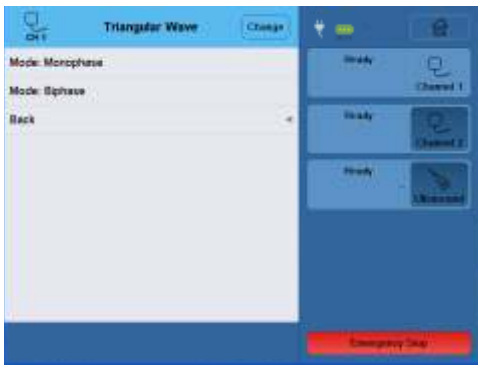
3) Now you can select the desired parameters such as Time, Pulse polarity, Frequency etc.
Note: Once the treatment parameters for channel 1-4 are selected and start tab is pressed the LCD will show the following screen

8.7.11 Triangular Waveform

Output	Channel 1 & 2
Electrodes	Four Carbon Electrodes
Electrode Cables	One 5 Pin 4 Core electrode cables
Type of Stimulation	Triangular (Two Pole Application)

Treatment:

1. Clean the body area to be treated.
2. Paste the carbon electrodes on the selected treatment area as per your practitioner's advice.
3. Set the time by pressing on the **Time** Bar.
4. Set desired mode by pressing on the **Mode** Bar.



Select desired mode by pressing the respective bar.

5. Set desired frequency by pressing on the **Frequency** Bar.
6. Select desired Intensity using **Intensity** Control Knob.
7. Follow the instructions given in the section **'8.6 Starting and Stopping the Treatment'** of this Instruction Manual.

9. S/D CURVES

Output	Channel 1 & 2
Electrodes	Four Carbon Electrodes
Electrode Cables	One 5 Pin 4 Core electrode cables
Type of Stimulation	SD Curve (Two Pole Application)

Treatment:

1. Clean the body area to be treated.
2. Paste the carbon electrodes on the selected treatment area as per your practitioner's advice.
3. Set pulse width using the **Start Pulse width** Bar & **End Pulse width** Bar.
4. Set desired frequency by pressing on the **Frequency** Bar.
5. Follow the instructions given in the section **'8.6 Starting and Stopping the Treatment'** of this Instruction Manual.

10. ULTRASOUND

Acoustic Working Frequency: 1MHz or 3MHz

Effective radiating area: $5cm^2$

NOTE: The User can select Ultrasound by pressing the Ultrasound bar from Waveform detail screen.

Output	Independent Output
Applicator	Ultrasound Applicator
Applicator Cables	Attached with the Ultrasound Applicator

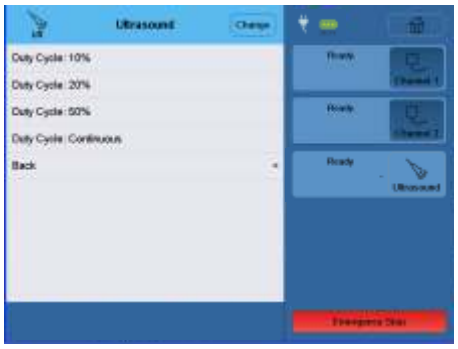
Ultrasound Applicator: Functions & Controls

Following screen appears when Ultrasound is selected:

Treatment:

1. Insert the electrode cable of the Ultrasound Applicator into the Ultrasound Socket at the back side of Unit.
2. Set the treatment time by pressing **Time** bar.
3. Press the **Duty Cycle** bar adjacent to Duty Cycle.

   NOTE: Following screen will appear:



Select the desired % Duty Cycle by pressing the respective bar.

4. Select the desired Frequency by pressing **Frequency** bar.
5. Select whether to use Head Warming by pressing **(On)** or **(Off)** on head warm.

   NOTE: Head warm option to be used for pre-heating when the temperature is low.
6. Apply sufficient conductive gel over the treatment area.

   NOTE: The Ultrasound Applicator should always be used with sufficient conductive gel.
7. Press **Start** tab on the LCD screen to start the treatment.
8. Set the intensity level by rotating the **Intensity** Control Knob provided on the device.

   NOTE: The intensity increases in counts of 0.1W/cm^2 when using the **Intensity** Control Knob; The selected intensity is displayed on the screen.
9. Glide the Ultrasound Applicator over the treatment area in a helical motion.
10. To pause the treatment, press the **START/STOP** key on the Ultrasound Applicator.
11. To restart the treatment, press the **START/STOP** key on the Ultrasound Applicator.

    NOTE: The treatment stops automatically at the end of the selected treatment time. To stop the treatment in between, press **STOP** tab on LCD screen.
12. Unplug the Ultrasound Applicator and wipe to remove the conductive gel smeared on it.
13. Wipe the treatment area to remove any residue or gel smeared onto it.

11. COMBO

NOTE: The User can select Combo (Combination) by pressing the Combo waveform. Combo will perform only when Channel 1 and Ultrasound channel are free.

NOTE: The Black Electrode cable marked **"A"** form a pair, similarly the two Red Electrode cable marked **"B"** form the other pair.

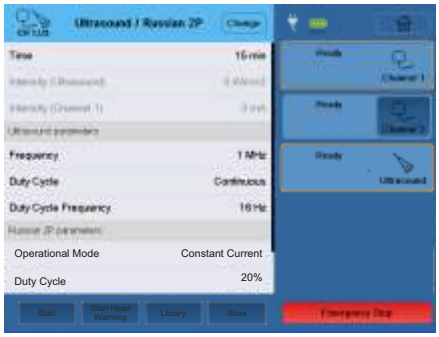
WinStim Plus-WS2U's Combo mode allows the user to select & use Ultrasound therapy in combination with electrical muscle stimulation. In this mode of therapy, the head of the Ultrasound Applicator becomes one half of the electrical circuit. An electrode attached to the Black Electrode cable tagged COMBO (See Fig. 1 & 2) completes the circuit. The other Black Electrode cable is not used.

Fig. 1: Red Electrode cable tagged COMBO

Fig.2: Treatment through Ultrasound Applicator and 1 electrode attached to the Red Electrode cable tagged COMBO

Output	Channel 1 and Independent output of Ultrasound
Electrodes	Three Carbon Electrodes and Ultrasound applicator. One Carbon Electrode and Ultrasound applicator
Electrode Cables	One 5 pin 4 core electrode cable and the Ultrasound Applicator cable
Type of Stimulation	Ultrasound and Electrical stimulation

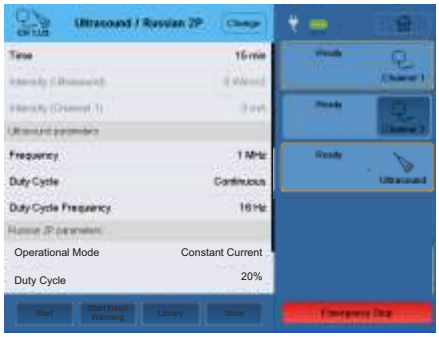
Following Combo Screen appears when Combo is selected:



Treatment:

1. Clean the body area to be treated.
2. Paste the carbon electrode on the selected treatment are as per the practitioner's advice.
3. To choose treatment parameters for Ultrasound press respective bar under Ultrasound parameters.

NOTE: The LCD will show the following screen:



Combo Screen

4. Select the desired treatment parameters (as described in the section **"8.7.13 Ultrasound"**).

   NOTE: The LCD will show the Combo Screen.
5. Press on channel bar to activate another channel.
6. To choose treatment parameters for IFT press respective bar under IFT parameters.

   NOTE: Following screen appears:

NOTE: IFT is a four pole application, therefore 3 electrodes and the head of the Ultrasound Applicator (acting as the fourth electrode) complete the electrical circuit.

Out of the 3 electrodes, 2 electrodes are attached to the Red Electrode cables and 1 electrode is attached to the Black Electrode cable tagged COMBO (See Fig. 1 & 2). The other Black Electrode cable is not used.

Fig. 1: Red Electrode cables and 1 Red Electrode cable tagged COMBO

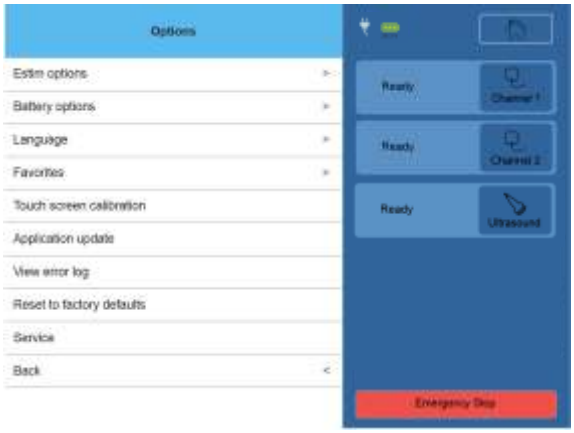
Fig. 2: Treatment through Ultrasound Applicator and 2 electrodes attached to the Red

7. To change the mode, press Waveform bar.

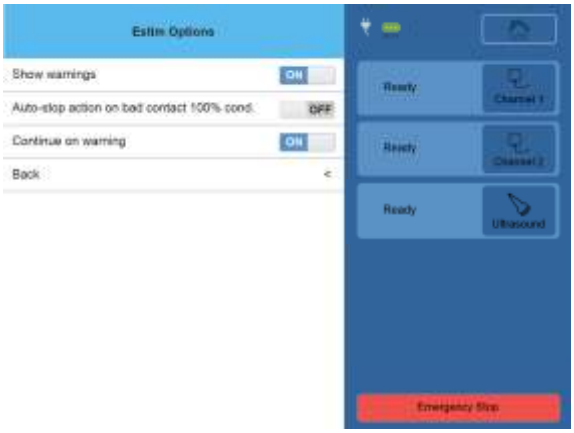
NOTE: Following screen appears:

12. SETTINGS

Options available are shown below :



Default values for Estim options are set to OFF as shown below :



13. REPLACEMENT OF BATTERY

1. Unscrew the Battery cover with help of screwdriver as shown.

2. Remove the Battery by unplugging the connector.

3. Replace the Battery pack.

4. Insert battery connector.

5. Tighten the Battery cover with the help of a Screwdriver properly.

⚠ **WARNING:** Battery should be as per Manufactures specification.

14. BACK COVER ASSEMBLY

Back cover is mounted to cover the output treatment panel.

Back panel is to be push in the corresponding holes in top enclose part cover.

Carefully place back cover on top part in a way that it is positioned correctly. As shown in below Picture

Correct position of Back compartment cover is shown following picture.

To open this cover for starting the treatment just pulled out the cover. As shown

And start the treatment.

15. TROUBLESHOOTING

Observation	Possible Causes	Remedy
Weak stimulation or No Stimulation even at maximum intensity setting	Poor electrode contact	Check the electrodes
	Electrode conduction is low or lead wire is worn out	Change electrodes. Change electrode wires
Uncomfortable stimulation or too strong stimulation	Lack of conductive gel	Pause the stimulation, put more conductive gel and reposition the electrodes on the treatment area. Then restart treatment.
Skin irritation at electrode placement site	Improper contact/Gel dried up	Wet or change the electrode
Sudden high intensity while increasing intensity level	Increasing too fast	Increase slowly giving time to patient to his comfort

16 MAINTENANCE

Cleaning:

The soiled device should be cleaned with a damp cloth.

Electrode Cables:

- Do not pull out cables.
- For routine cleaning of the electrode cables use soap and water and thoroughly dry them after cleaning.
- Electrode wires should be kept loosely winded or breakage may occur.
- Inspection of Ultrasound Head for Cracks, which may allow the ingress of conductive fluid, if found Cracked then it should be replaced by new one.

Storage:

- Keep the device properly covered, when not in use to keep out dust.
- Store the device in a proper and dry place. Damp environment cause rust and affect the functioning of device.

Reusable electrodes

- There are many kinds of electrodes. Use only the electrodes supplied with the device.
- After using any of these electrodes, grasp the corner of the electrode and gently remove it from your skin.
- Do not pull on the electrode snap or wire connection. Reapply the release liner to the adhesive side of the electrode. Store the electrode in a re-seal able pouch or plastic bag.
- To prolong the life span of the electrodes, remoisten them by applying a few drops of tap water when they show signs of drying out or losing their adhesives. Apply the water with your fingertip.
- After repeated usage, reusable electrodes begin to lose their adhesives and deliver less stimulation. Replace electrodes with new ones, as soon as adhesiveness is weak.

Skin Care:

- Apply electrodes on clean, dry and unbroken skin only.
- Always wash the selected treatment area with mild soap and water and dry it thoroughly before applying electrodes and after removing them.
- Do not stretch the skin or electrodes while applying or removing the electrodes.
- When removing electrodes, always peel back in the direction of the hair growth. If there is difficulty moisten the edges underside of the electrode.
- Applying unflavored Milk of Magnesia over electrode placement sites after removing electrodes helps maintain the natural pH of the skin and reduces irritation.
- If perspiration occurs in the area of the electrodes causing the electrodes to slide out of position, wipe area with unscented anti-perspiration pads and dry before reapplying electrodes.
- If skin irritation arises and persists from the use of electrical stimulation and certain type of electrodes, discontinue their use immediately and consult your clinician.

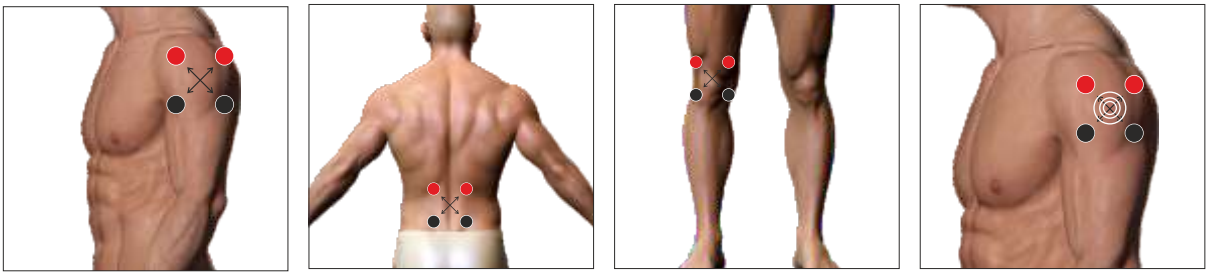
CALIBRATION REQUIREMENTS

- Calibrating Ultrasound Applicators
- Annual factory calibration is required for all Ultrasound Applicators.Only the Applicators should be sent to the factory or a Field Technician certified by Johari digital Healthcare Ltd for this procedure.

17. SUGGESTED ELECTRODE PLACEMENT CHART

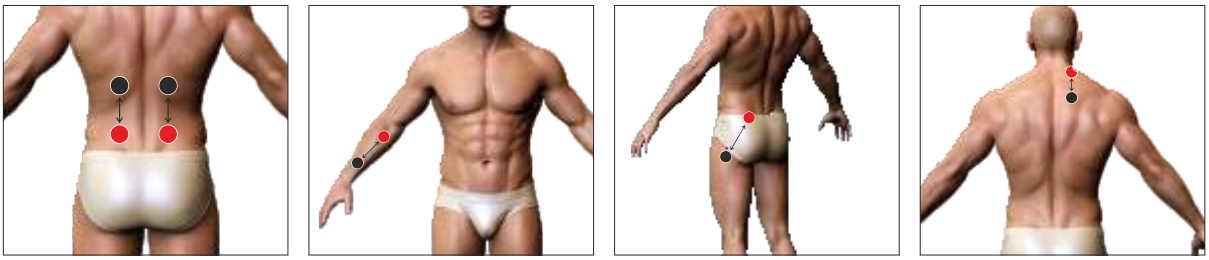
Caution : The device should only be operated under supervision of a registered medical practitioner. Electrode placements shown in this library/encyclopedia are only for reference purposes. Actual electrode placement may be vary according to pain or patient's condition

For Interferential

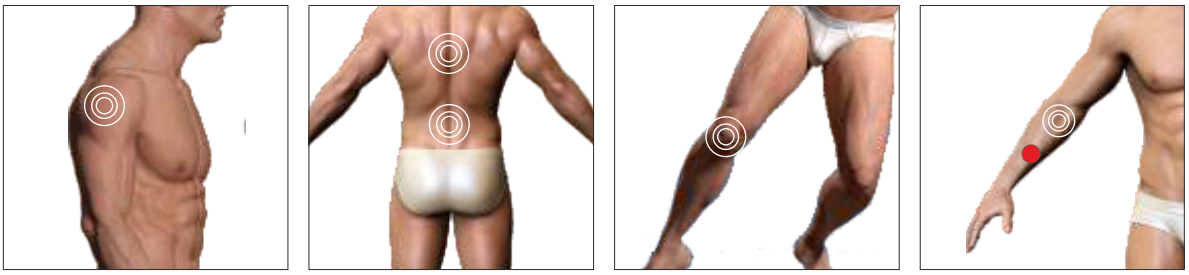


Interferential Combo

For TENS



For Ultrasound



Ultrasound with Combo

18 WARRANTY

This product warranty extends to the original consumer /purchaser of the product.

Warranty duration

This product is warranted to the original consumer for a period of one (1) year from the original purchase date.

Warranty coverage

This product is warranted against defective materials or workmanship. This warranty ceases if the product has been damaged by accident, in shipment, unreasonable use, misuse, neglect, improper service, commercial use, and repair by unauthorized personnel. This warranty does not extend to any units which are used in violation furnished by manufacturer, or to units which have been altered or modified, or to damage to products or parts there of which have the serial number removed, altered or defaced or rendered illegible. The warranty doesn't cover normal wear & tear or replacement of electrode cables, electrodes and other accessories.

Warranty disclaimers

This warranty is in lieu of all warranties expressed or implied and no representative or person is authorized to assume for manufacturer/ any other liable in connection with the sale of our products. There shall be no claims for defects or failure of performance or product failure/ any theory of tort, contract or commercial law including, but not limited in negligence, gross negligence, and strict liability, breach of warranty and breach of contract. Some states do not allow the exclusion or limitation of implied warranties or consequential damages, so the above limitations may not apply to you.

Manufacturer is not responsible or liable for indirect special or consequential damages arising out of or in connection with the use performance of the product or other damage with respect to loss of property or loss revenues or profit.

Legal remedies

This warranty gives you specific legal rights, and you may also have other rights that vary from state to state.

Warranty performance

During the above one-year warranty period, a product with a defect will be repaired or replaced with a reconditioned comparable unit at distributor's option when the product is returned to the distributor. The repaired or replacement product will be in warranty for the balance of the one-year warranty period and an additional one-month period. No charge will be made for such repair or replacement.

Consumer service

For in warranty service for a product covered under the warranty period, no charge is made for service and return postage. Please return the product insured, packed with sufficient for service and return postage. Please return the product insured, packed with sufficient protection, postage insurance, prepaid to the address. Customer's duty/brokerage fee, if any, must be paid by the consumer.

Out of warranty service

There will be charges rendered for repairs made to the product after the expiration of the aforesaid one (1) year warranty period, after purchaser is advised appropriately.

The distributor cannot assume responsibility for loss or damage during shipment. For your protection, carefully pack the product for shipment and insure it with the carrier. Ensure that you return the unit and accessories related to your problem and also that you indicate full return address. Also send a copy of sales receipt or other proof of purchase to determine warranty status. C.O.D. shipments cannot be accepted.

List of Accessories: (In case of replacement or ordering)

S. No.	Particulars	Part No.
01	Electrode Carbon size: 3" Gray	50AFG00003
02	Electrode Cable (5 Pin 4 Core)	50CFG00011
03	Ultrasound Applicator	90AY50005
04	Adapter 24V DC @ 3.75A	50SEE00095
05	Elastic Belt (18")	40CPG00097
06	Elastic Belt (36")	40CPG00096
07	Pen Electrode	20MF04001
08	AC Cord Round 3Pin 5A	40SEE00033
09	Electrode Sponge Pouch Size : 8.5 x 8.5 cm	40SFG00002
10	Gel 100ml	30BME00016
11	Stylus Pen	50BFG00001

Manufactured By

JOHARI®
medtech

JOHARI DIGITAL HEALTHCARE LTD.

G-582-584, EPIP, BORANADA, JODHPUR
342012 (RAJ.) INDIA
TOLL FREE: 1800-102-8684 | Email : info@joharidigital.com

www.joharidigital.com

MADE IN INDIA

Drw#52035017 Ver.-1.0.8