

Electrotherapy device

Biophysio PRO

User manual



Attention: read this manual carefully before use.

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New Age

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Cap.1 PRECAUTIONS FOR USE

Carefully read and follow the precautions for use exactly as set out, before using the apparatus.

The user manual is necessary for the safe operation of the unit. If the apparatus is lent or sold to any third party, make sure that the manual accompanies it.

1.1 Contraindications

Do not use the unit with the following devices and in the areas specified below.

- Pacemaker devices or other medical devices.
- Ischemic tissue/ischemic subject
- Areas with moderate or larger edema
- Areas considered to be sore by the patient
- Individuals suffering from acute discomfort
- Individuals with heart problems
- Individuals with hemorrhagic diathesis
- Individuals suffering from malignant tumours
- Pregnant women or women in labour
- Skin suffering from abrasions or inflammation
- Febrile patients
- Patients suffering from contagious diseases
- TB patients
- Varicose skin surfaces
- Surface of the skin with atrophic contractures
- Individuals with abnormal blood pressure or vascular disorders
- Other patients deemed to be invalid by the doctor

1.2 Contraindications for combined therapy

- Do not use this apparatus with an electrocardiograph or other medical devices
- Do not use this apparatus with other devices except those specified. Before using this apparatus with other instruments, review the contraindications and precautions
- Do not connect this system to individuals already connected to surgical devices.

Cap.2 INTENDED USE

EMS MODE, RUSSIAN (KOTZ), HIGH VOLTAGE, FARADIC

1. Treatment and relaxation of muscle spasms
2. Prevention or relaxation of atrophy from lack of use
3. Increased local blood circulation
4. Muscle re-education
5. Maintaining or increasing the range of motion
6. Postoperative or post-surgical stimulation of the calf to prevent venous thrombosis

TENS MODE, MENS, INTERFERENTIAL 2 and 4 poles, DIADYNAMIC

1. Symptomatic relief of chronic pain or untreatable pain
2. Controlling acute pain conditions combined with post-operative or post-surgical

EXPONENTIAL MODE, RECTANGULAR, TRIANGULAR

1. Rehabilitation of denervated muscles

DC MODE

1. Iontophoresis, hyperhidrosis

Cap.3 PRECAUTIONS FOR USE

3.1 General precautions

- Make sure that the patient is in a comfortable position and is relaxed during treatment.
- Do not use accessories from other equipment for the therapy
- Be careful of the electrolysis of the skin under the electrode while using the DC mode
- Do not use this system at less than 1.5 m away from a system of short-wave therapy or microwave therapy. The proximity may change the parameters.
- Follow the instructions below when installing the system:
 - Avoid placing the unit where it could be reached by splashing water
 - Avoid placing the system where it may be affected by atmospheric pressure, temperature, humidity, sunlight, dust, sulphur or any other adverse factors.
- Ensure that the system is stable. Do not tip the apparatus. Avoid vibrations and impacts (this also applies to the transport).
- Avoid flammable atmospheres, flammable anaesthetic gases combined with oxygen, nitrate, air, flammable detergents or disinfectants combined with air.
- Avoid places where chemicals are stored or where they might leak gas.
- Do not install the system near a fire. Doing so could cause an accident or deformation.
- Always pay attention to the power, voltage and current (power consumption)
- Use a 110/230V power outlet exclusively.

Cap.4 PRECAUTIONS BEFORE USE

- Always review accurately the patient diagnosis and prescription for precaution and particular instructions.
- Always verify the eventual presence of pacemaker or other metal items in the treatment area.
- In low sensitive skin areas, always consider very carefully the relevant factors before you decide whether use or not the device.
- Make sure the patient is able to communicate his feelings and strange sensations during the therapy (pain, pressure..).
- Whether the patient feels pain or heat, stop the treatment and verify if the pain passes by.
- Use particular attention when treating the following body parts:
 - Select accurately the power level and timing when treating face's zones.
 - Never apply the electrodes on the chest or other position closest to heart, this could provoke ventricular defibrillation.
 - Mucosae.
- Make sure the patient is not affected by any contagious illness. This illness could be transmitted by the system device.
- The definition of the treatment intensity could be difficult on children (under 6 years), people affected by senile dementia and people who can't express themselves appropriately. Be very careful when using the device on these people.
- Verify the power grid supplies 230V to allow the device to work properly.
- Make sure all the cables are plugged in correctly and safely.
- Use only the indicated applicators. The use of a different one could cause excessive power tension and subsequent burn.
- The electrical power should never be higher than 2mA rms/cm^2 . Beware of an eventual power increase while using a small electrode.
- Use only approved electrodes.
- During the therapy for skin features variation, the power tension could vary up to 30% at low intensity (less than 4mA).

Cap.5 PRECAUTIONS DURING USE

- Make sure that the duration and intensity of THE treatment are suitable for the scope of the treatment.
- Overview constantly the device and the patient to avoid any possible problem. In case of incident, take the adequate countermeasures, including plugging off the device in the safest way and contact the device supplier.
- Make sure the patient never touches or uses the device to avoid any danger.
- When using the band, make sure it doesn't get in contact with the naked skin for too many hours. The band could cause allergic symptoms such as redness, rash, swelling, breathing difficulty, asthma, pressure drop and shock. If any or all of these symptoms appear, stop immediately the device and promptly intervene as necessary.
- **This device has an inside technology that continuously controls the current supplied to the patient and allows to increase the current only when the value of the current isn't dangerous for the patient or the device itself. The device also allows to increase the current value only when the current is pouring into the patient at the maximum value**

already set. The device show to the user that is not possible to increase the current thanks to a red signal around the intensity indicator. Decreasing is always possible.

Cap.6 PRECAUTIONS AFTER USE

- After use, turn off the switch and follow the indicated steps to disconnect the power cable.
- When you remove a cable or tube, always make sure the switch is turned off and always hold the plug (never pull the cord in order to prevent malfunction or damage).
- Clean the system and accessories before storing in order to avoid problems in subsequent treatments and store the apparatus in a proper place

Cap.7 STORAGE CONDITIONS AND MAINTENANCE INTERVALS

- To prevent malfunctions, follow the instructions below when storing the system.
- Avoid locations where the unit can be reached by splashing water
- Avoid placing the system where it may be affected by atmospheric pressure, temperature, humidity, sunlight, dust, sulphur or any other adverse factors.
- Ensure that the system is stable. Do not tip the apparatus. Avoid vibrations and impacts (this also applies to the transport).
- Avoid places where chemicals are stored or where they might leak gas.
- Unplug the power cord if the machine remains unused for long periods of time.

Cap.8 PRECAUTIONS FOR USE

- Never touch the apparatus with wet hands
- Avoid heavy vibrations and strong impact. These may cause hidden damage and eventual malfunctions or accidents.
- Follow and enforce all local regulations on the disposal of waste for the system and its accessories at the end of their working life.

Cap.9 MAINTENANCE AND INSPECTIONS

Precautions

- If the system detects a malfunction, do not try to fix it yourself. Mark the apparatus as non-operating and contact your dealer or the manufacturer for the repair.
- Never try to alterate the system.
- Never open the system
- To avoid discoloration and deterioration avoid using solvents, diesel fuel, kerosene, gasoline, cleaning powders, hot water or chemicals to clean the unit and its accessories.
- Clean it using a cloth soaked in alcohol, cold or lukewarm water, or a neutral detergent.

Maintenance and inspections performed by the user

- Check the system and accessories every time you use it to confirm that they work perfectly.

- Contact your dealer or the manufacturer if you notice problems (e.g. tears or breaks on the shielding of the power cord or accessories, damaged wires, or defective contacts of the connectors) during the preliminary inspection.
- Refer to the operating manual for information on daily inspections
- Before using the apparatus after a long period of time, inspect it to make sure the system works perfectly and safely.

Maintenance and inspections performed by the dealer

- Ask the dealer to perform a periodic check or inspection (target: annual), inspection to ensure the performance of the system and to ensure safe and appropriate operations.
- Periodically replace worn parts (including accessories) to prevent risks when you use the system and its accessories.

Maintenance and inspections performed by the dealer

- Ask the dealer to perform a periodic check or inspection (target: annual), inspection to ensure the performance of the system and to ensure safe and appropriate operations.
- Periodically replace worn parts (including accessories) to prevent risks when you use the system and its accessories.

Maintenance/inspections

Aspect and signals	-Check for damages -Check that the signals on the LCD screen are readable	Visual inspection
Operations	-Turn on the switch and make sure that the LCD screen is working correctly -Check that the unit operates as described in the operating manual	Check operation
Accessories	-Check for any damages -Check for any ruptures of the cables	Visual inspection

	Ambient temperature	Humidity	Pressure
Work environment	10/40 °	30/75%	700/1060hPa
Storing environment	-10/60°	30/95%	700/1060hPa
Transport conditions	-10/60°	30/95%	700/1060hPa

Cap.10 SPECIFICATIONS

Power supply: Max 100mA or 300 mA (HV mode) ±20% peak (500Ω)
 Voltage Max 150 V± 20% peak (500Ω)
 Frequency Max 5 kHz ± 10%
 Time from 1 up to 60 min ± 5

Cap.11 NAMES OF THE PARTS



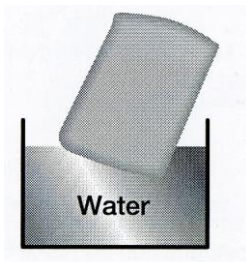
Cap.12 PREPARATION

Designate a person that is responsible for this system. This person shall make sure that the apparatus is used according to these operations.

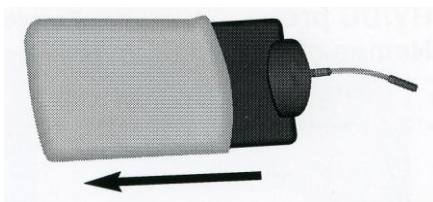
1. Make sure that switch of the main unit is off.
2. Connect the supply cable to the main unit
3. Choose an electrode therapy suitable for the treatment and the area you intend to treat, and connect the cable of the electrodes to the corresponding port of the main unit.
4. Electrodes made of conductive silicone and adhesive electrodes may be also used.
5. Insert the plug into the socket
6. Turn on the unit.

12.1 CONDUCTIVE SILICONE ELECTRODES

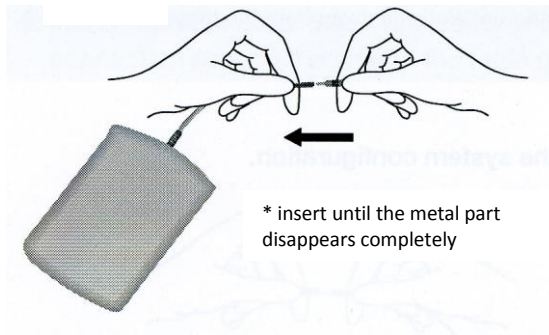
1. Follow the instructions when setting the system configuration
2. Make sure that the unit is switched off.
3. Moisten the sponge of the electrode in water, then squeeze it gently, until no more water drips from the electrode.



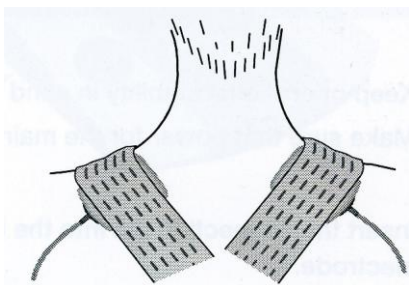
4. Insert the silicone electrode into the sponge
*Insert the entire electrode up to the bottom of the sponge



5. Connect the electrode cable to the electrode



6. Wrap the strips on the area to be treated, then insert the electrode between the strips and the skin.



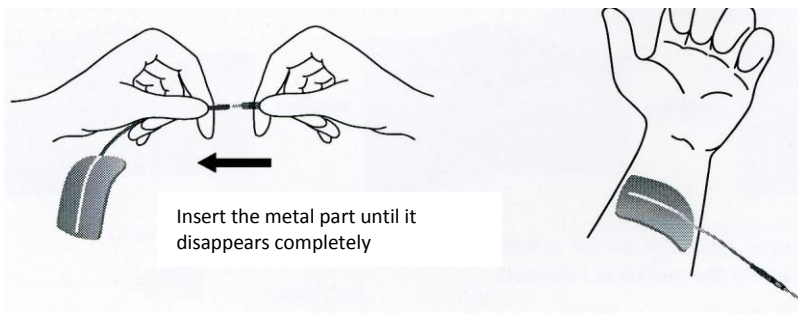
7. Connect the power cable of the electrode to the main unit into the port on the front of the unit.

12.2 Taking care of the applicator

- Silicone Electrode: After use, clean it with warm water. If necessary, clean it with a more powerful substance, use an alcohol solution of 70% alcohol.
- Electrode sponge: after use, clean with a mild detergent dissolved in warm water, and remove the detergent from the sponge. Make sure the sponge is dry before storing it.

12.3 Adhesive electrode

1. Follow the instructions when setting the system configuration
2. Make sure that the unit is switched off.
3. Insert the connecting pin in the electrode.
4. Attach the electrode firmly to the area to be treated



* If the electrode is not perfectly applied to the skin, an error may occur when treatment is initiated

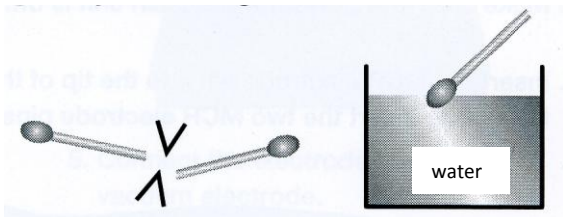
5. Insert the connecting cable for the electrodes in the port on the front of the main unit.

⚠ CAUTION SELF-ADHESIVE ELECTRODES

1. Do not use on damaged skin.
2. Immediately discontinue treatment if the skin becomes rough to the touch or burned.
3. Residue from skin lotions, oils or other cosmetic substances may interfere with the proper adhesion of the electrodes. Wash skin with soap and warm water and dry it well before attaching the electrodes.
4. Insert the mini plug of the electrode until the metal part of the cable is fully inserted.
5. When you remove the electrodes from the skin or from the support surface, pull from the edge and slowly lift. Never pull the cord
6. Ensure that the electrodes adhere well to the skin. Non-adherent surfaces could increase the stimulation and cause pain.
7. Make sure that the unit is turned off when you remove the electrodes from the skin.
8. Reposition the electrodes on the support when you remove them from the skin. Hold them at room temperature.
9. Adhesive electrodes are replaceable. When the adhesion is decreased (average life is more or less 15/20 applications), replace the electrode with a new one.
10. Make sure that the patient to be treated is not suffering from contagious diseases. The infection may be transmitted through the system to other patients.

12.4 MENS (micro-current) probe - (optional)

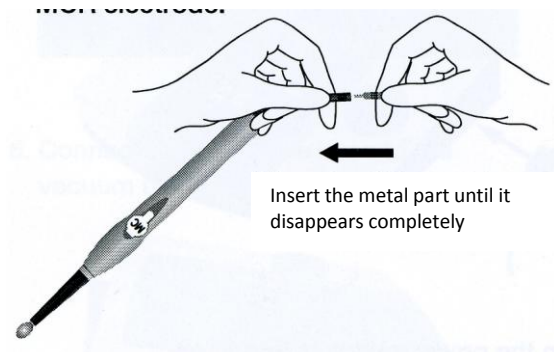
- Use the micro-current probe only in micro current mode. Do not use it in any other way.
- Use the micro-current probes in pairs
- Follow the instructions when setting the system configuration
- Make sure that the unit is switched off.
- Break a cotton swab in half and dip the tip into water.



- Insert half of the cotton swab into the top of the micro current probe.



- Connect the electrode cable to the MCR electrode



- Insert the connecting cable for the electrodes in the entry port located on the side of the main unit.

*The pad dries quickly. Wet it from time to time.

*When the probe is used near the optic nerves (below the corner of the eyes), depending on the intensity, the patient could see a bright light or a flash. This is not dangerous, reduce the power if this bothers the patient.

*Use a cotton swab once, then discard it. Do not use the cotton swab on another patient.

⚠ CAUTION

When using the micro current mode for the limbs, trunk or joints for long periods of time, use rubber electrodes or self-adhesive electrodes.

12.5 Microcurrent probe with two poles (optional)

- Use the micro-current probe with two poles only in micro current mode. Do not use it in any other way.
- Follow the instructions when setting the system configuration
- Make sure that the unit is switched off.
- Insert the pin of the MCR electrode into the top of the micro current probe with two poles. Be sure to insert both pins of the MCR electrode.



- Insert the connecting cable for the electrodes in the entry port located in front of the main unit.
- Apply gel (optional) to the area to be treated and treat the area covered with gel.

*When the probe is used near the optic nerves (below the corner of the eyes), depending on the intensity, the patient could see a bright light or a flash. This is not dangerous, reduce the power if this bothers the patient.

⚠ CAUTION

When using the micro current mode for the limbs, trunk or joints for long periods of time, use rubber electrodes or self-adhesive electrodes.

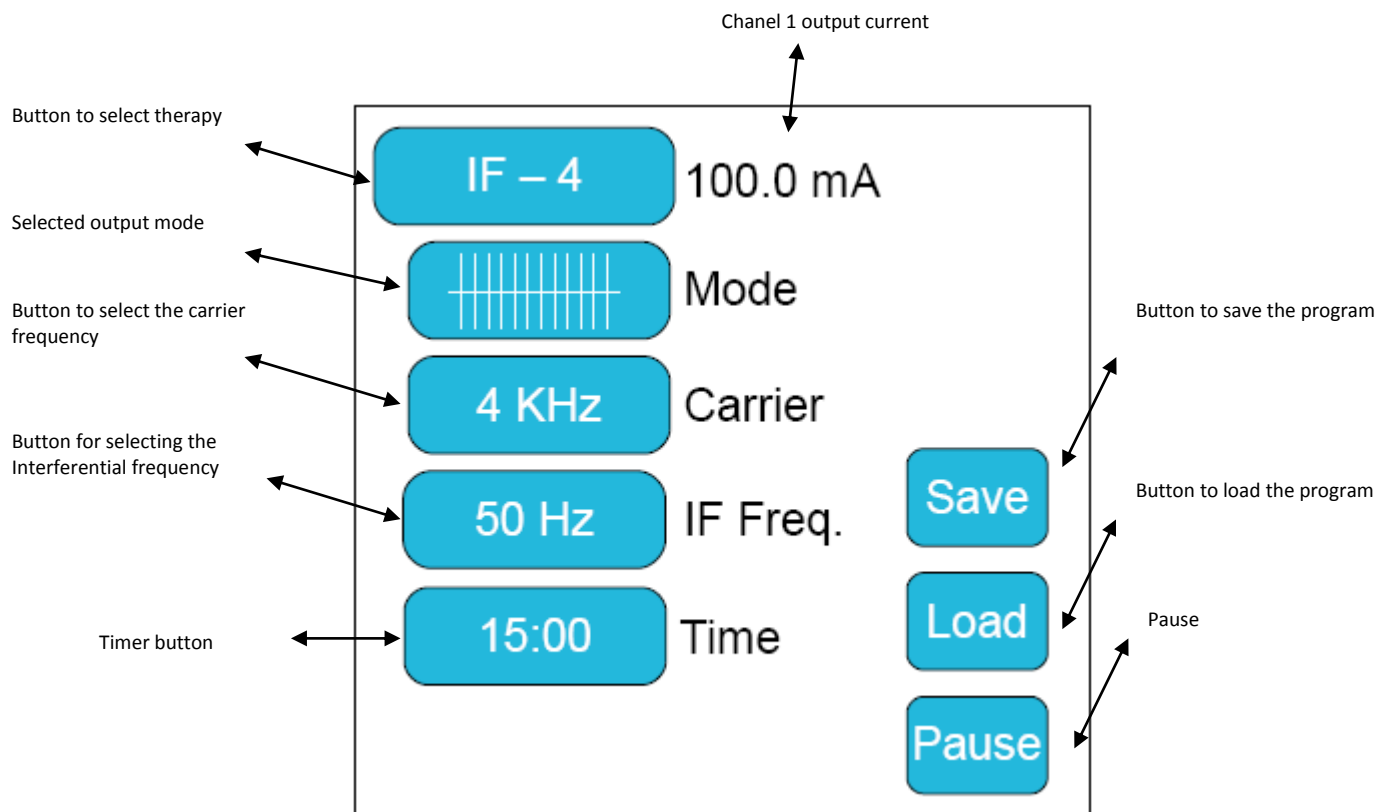
Cap.13 INTERFERENTIAL MODE WITH 4 POLES

13.1 Requirements for use




ELECTRODES Silicone electrode, self-adhesive

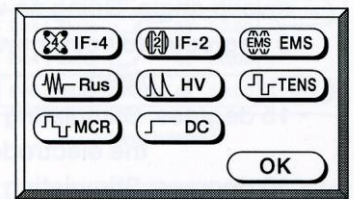
COMBINED CHANNELS It cannot be combined with any other mode

Screen display

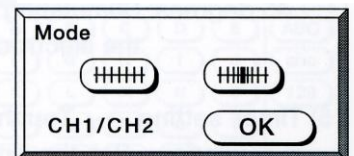


13.2 PROCEDURES

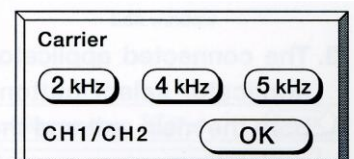
1. Make sure that the electrodes are placed on the area to be treated.
2. Tap the button for the selection of the therapy to open the sub-window.
3. Tap  to select the mode.. The selected mode will light up. Tap OK to close the window.
4. Change the setting of the parameter, if necessary.
5. Output current mode - Tap the button for the selection of the output current mode to open the sub-window. Tap  Constant Mode or  Ramp up mode. Tap OK to close the sub-window.
6. Carrier frequency - Tap the button for the selection of the carrier frequency 2/4/5 KhZ to open the sub-window.
7. Frequenza interferenziale ----- Toccare il pulsante per selezionare la frequenza interferenziale per aprire la sotto-finestra. Quando la modalità di potenza è settata su costante, impostare un valore con la manopola di controllo per parametro/intensità, poi toccare OK per chiudere la sotto-finestra.
8. Select the scan mode (sweep) to access the MAX and MIN selection. Tap to select the frequency you want to change, then use the control knob for parameter/intensity to change the value. Tap OK to close the sub-window.
9. Time setting ----- Tap the button for setting the time to open the sub-window. Set the time with the knob for selecting the parameter/intensity. Tap OK to close the sub-window.



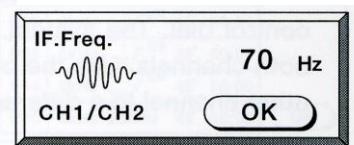
Therapy selection sub-window



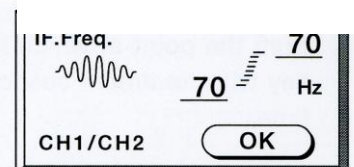
Power selection sub-window



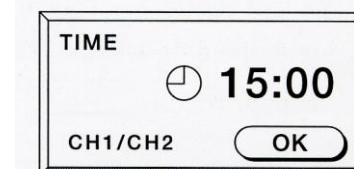
Carrier frequency select sub-window
Frequency selection sub-window



Interferential frequency setting sub-
Frequency selection sub-window
Interferential (constant mode)



Interferential frequency setting sub-
Frequency selection sub-window
Interferential (frequency scan mode)



13.3 USING THE INTERFERENTIAL MODE WITH 4 POLES

1. With all the sub-windows closed, turn the intensity control of channels 1 and 2. The system will start automatically on both channels. To stop the treatment, press the Pause button. If the power is increased while the treatment is stopped, the system will resume from zero. Press the pause button with the treatment stopped to return to the timer and set the time. *Pressing the button for the emergency stop, it will stop the power of both channels and return to the timer to select the time.
2. The system will automatically stop when the time elapses.

13.4 PARAMETER INTERVALS OF THE INTERFERENTIAL MODE WITH 4 POLES

Power: Constant/Ramp up (sweep)

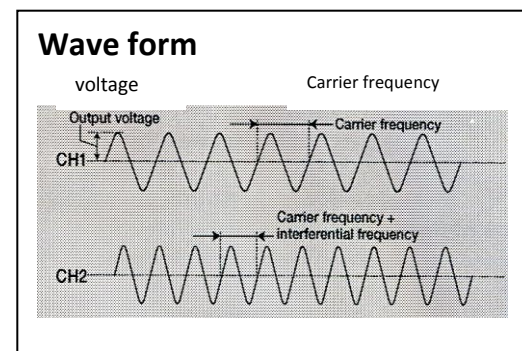
Carrier frequency: 2/4/5 kHz

Interferential frequency: from 1 to 250 Hz

(in 1 Hz increments from 1 to 10, and in 10 Hz increments from 10 to 250)

Time: from 1 to 60 min (in a 1 minute increment)

Current: from 0.5 to 100 mA (current peak, in 0.5-mA increments).



Cap.14 INTERFERENTIAL MODE WITH 2 POLES

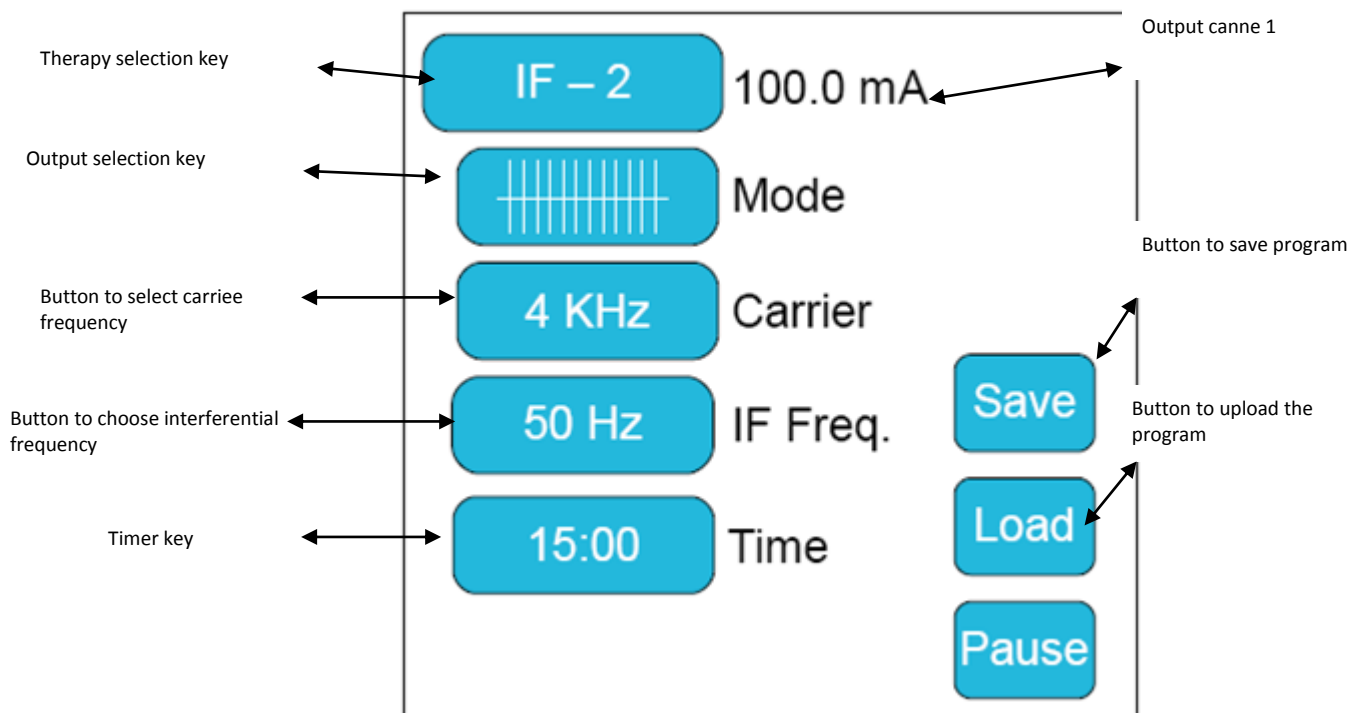
14.1 REQUIREMENTS FOR USE

ELECTRODES Silicone electrode, self-adhesive




COMBINED CHANNELS (*2) Each channel must be used independently

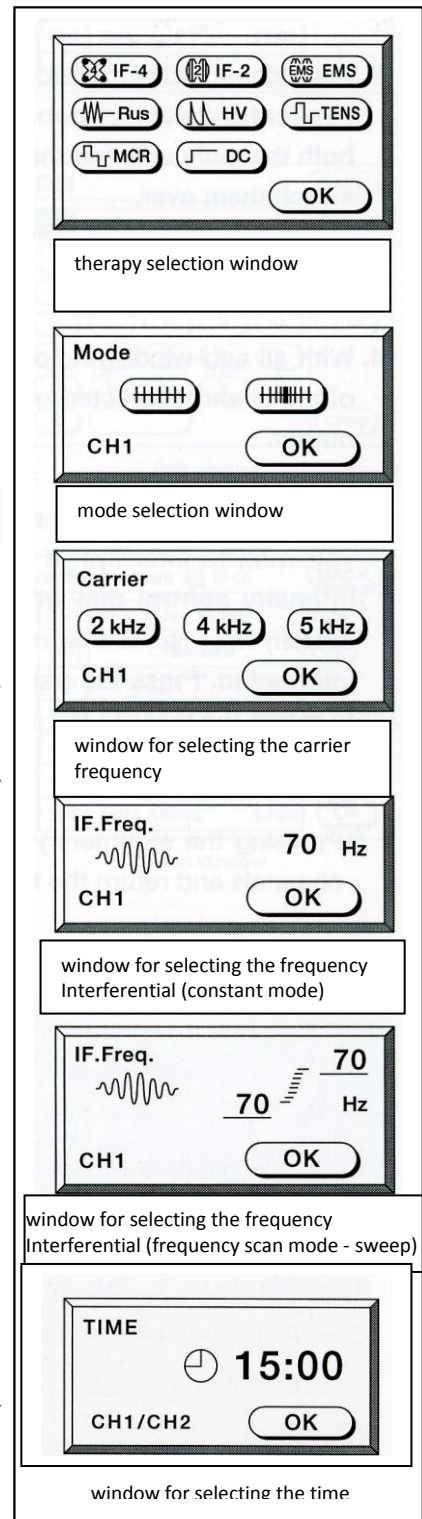
*2 excludes (Co-cont - simultaneous mode) and alternative mode 2 pole IF, EMS, MENS Russian (KOTZ), TENS and High Voltage (HI-V).

Screen display



14.2 PROCEDURES

1. Make sure that the electrodes are placed on the area to be treated.
 2. Tap the button for the selection of the therapy to open the sub-window.
 3. Tap  to select the mode.. The selected mode will light up. Tap OK to close the window.
 4. Change the setting of the parameter, if necessary.
 5. Output current mode - Tap the button for the selection of the output current mode to open the sub-window. Tap  Constant Mode or  Ramp up mode. Tap OK to close the sub-window.
 6. Carrier frequency - Tap the button for the selection of the carrier frequency 2/4/5 KhZ to open the sub-window.
 7. Interferential frequency ----- Tap the button for the selection of the interferential frequency to open the sub-window. When the power mode is set to constant, set a value with the control knob for parameter/intensity, then tap OK to close the sub-window.
 8. When the current is set to sweep, the MIN and MAX mode can be selected. Tap to flash the frequency you want to change, then use the control knob for parameter/intensity to change the value. Tap OK to close the sub-window.
 9. Time setting ----- Tap the button for setting the time to open the sub-window. Set the time with the knob for selecting the parameter/intensity. Tap OK to close the sub-window.
 10. With all the sub-windows closed, turn the intensity control of the selected channel on the screen. The system will automatically turn on.
 11. To stop the treatment, press the button of the channel you want to stop. If the power is increased while the treatment is stopped, the system will resume from where it was stopped. Press the pause button with the treatment stopped to return to the timer and set the time.
- *Pressing the button for the emergency stop, it will stop the power of both channels and return to the timer to select the time.
12. The system will automatically stop when the time elapses.



14.3 PARAMETER INTERVALS OF THE INTERFERENTIAL MODE WITH 2 POLES

Power: Constant/Ramp up (sweep)

Carrier frequency: 2/4/5 kHz

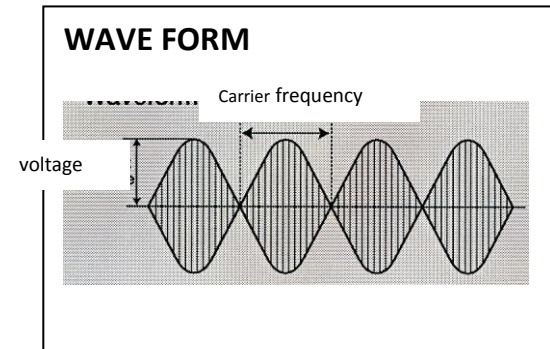
Interferential frequency: from 1 to 250 Hz

(in 1 Hz increments from 1 to 10, and in 10 Hz increments from 10 to 250)

Ramp up: 0/15/30/45 degrees

Time: from 1 to 60 min (in a 1 minute increment)

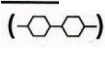


Current: from 0.5 to 100 mA (current peak, in 0.5-mA increments).



Cap.15 EMS MODE

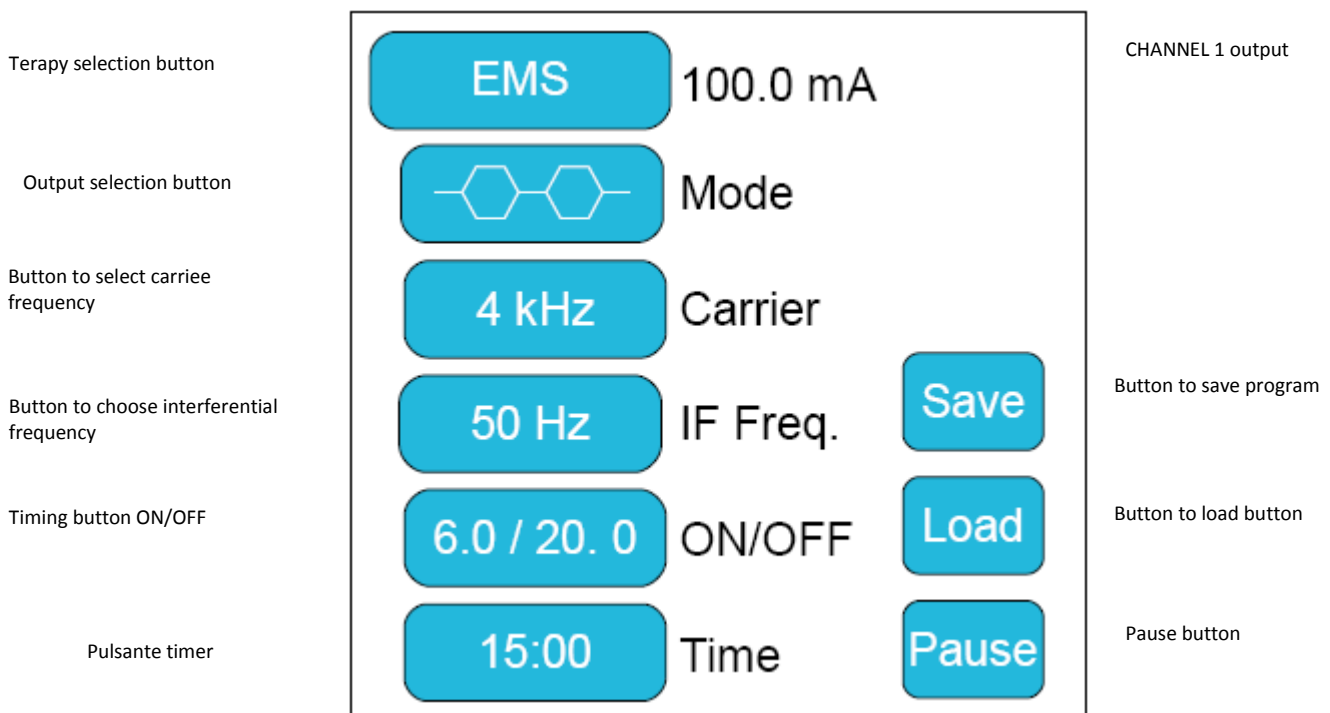
15.1 REQUIREMENTS FOR USE

ELECTRODES Silicone electrode, self-adhesive





COMBINED CHANNELS*2 -Independent Operating mode (), each channel must be used independently.
 -Simultaneous mode on two channels () or alternative mode on two channels (), the channels may be used combined Chanel 1 - Chanel 2.

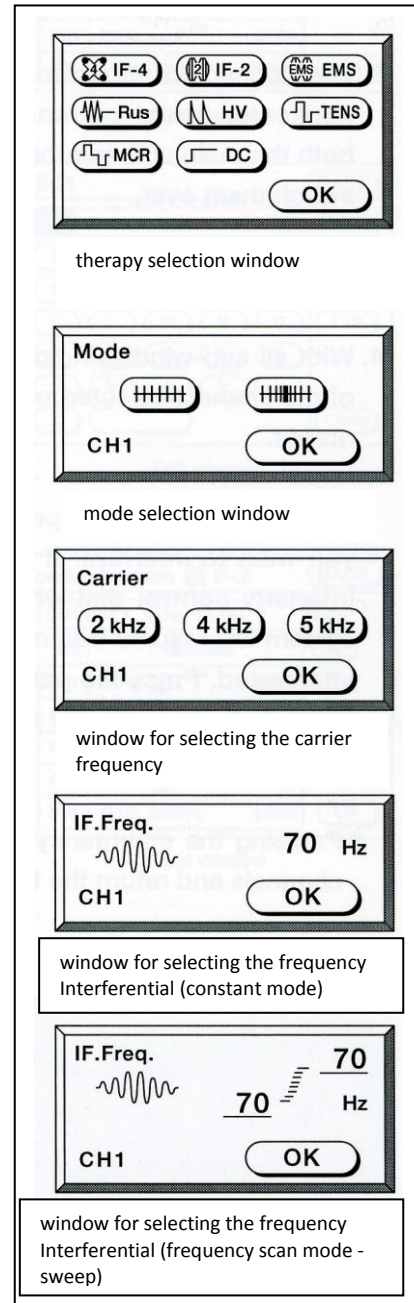
*2 excludes the simultaneous mode and alternative mode 2-pole IF, EMS, Russian (KOTZ), MENS TENS and high voltage (HI-V).

Screen display

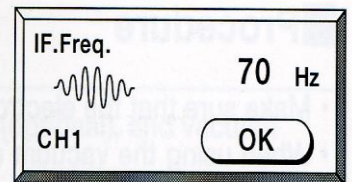


15.2

1. Make sure that the electrodes are placed on the area to be treated.
2. Tap the button for the selection of the therapy to open the sub-window.
3. Tap  to select the mode.. The selected mode will light up. Tap OK to close the window.
4. Change the setting of the parameter, if necessary.
5. Output current mode - Tap the button for the selection of the power mode to open the sub-window. Tap  CH1/CH2,  Co-cont  or alternate. Tap OK to close the sub-window.
6. Attach the electrodes to each output, as shown below.
7. CH/CH2(chanel1, 2 electrodes, and independent current from each channel): attach an electrode to the motor point and the other in the surrounding area
8. Co-Cont (2-channel, 4 electrodes, simultaneous power); attach the electrodes to the muscle area for simultaneous stimulation
9. Alternate (2 channels, 4 electrodes, and alternating current): attach the electrodes to the agonist and antagonist muscles.
10. Carrier frequency ----- Tap the button for the selection of the carrier frequency to open the sub-window. Select 2kHz, 4kHz or 5kHz. Tap OK to close the sub-window.

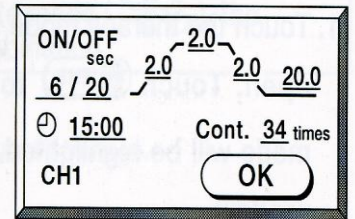


11. Interferential frequency ----- Tap the button for the selection of the interferential frequency to open the sub-window. Set the frequency by using the control knob for parameter/intensity, then tap OK to close the sub-window.



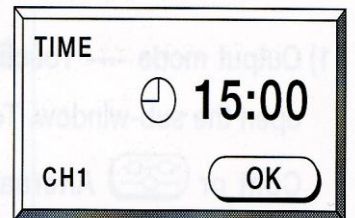
window for setting the interferential frequency

12. Time On/Off ----- Tap On/Off to open the sub-window. Tap to set the time, rise time, hold time, fall time, time off, time or number of induced spasms. The selected setting will flash. Change the desired value by using the control knob for parameter/intensity, then tap OK to close the sub-window.



window for setting the on/off time

13. Time setting ----- Tap the button for setting the time to open the sub-window. Set the time with the knob for selecting the parameter/intensity. Tap OK to close the sub-window.



timer setting window

14. With all the sub-windows closed, turn the intensity control of the selected channel on the screen. The system will automatically turn on.

15. When the mode is Co-Cont or Alternate, vary the other intensity from the knob after the power starts to change the set value for the other channel.

16. To stop the treatment, press the PAUSE button. If the power is increased while the treatment is stopped, the system will resume from where it was stopped. Press the pause button with the treatment stopped to return to the timer and set the time.

*Pressing the button for the emergency stop, it will stop the power of both channels and return to the timer to select the time.

17. The system will automatically stop when the time elapses.

15.3 PARAMETER INTERVALS OF THE EMS MODE

Power: CH1/CH2, Co-Cont, Alternate

Carrier frequency: 2/4/5 kHz

Interferential frequency: from 1 to 250 Hz

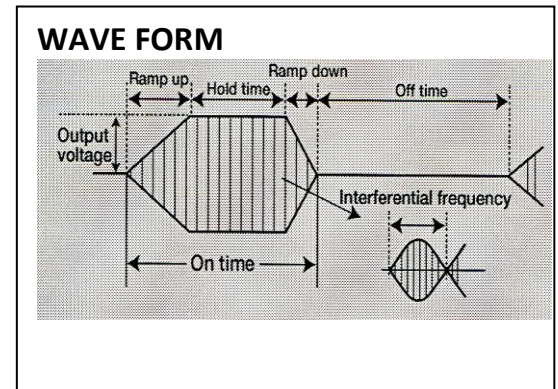
Rise time: from 0 to 3 sec (increment by 0.5 sec)

Holding time: from 0 to 30 sec (increment by 0.5 sec)

Down time: from 0 to 30 sec (increment by 0.5 sec)

Time: from 1 to 99 min (in a 1 minute increment)

Current: from 0.5 to 100 mA (current peak, in 0.5-mA increments).



Cap.16 RUSSIAN MODE (KOTZ)

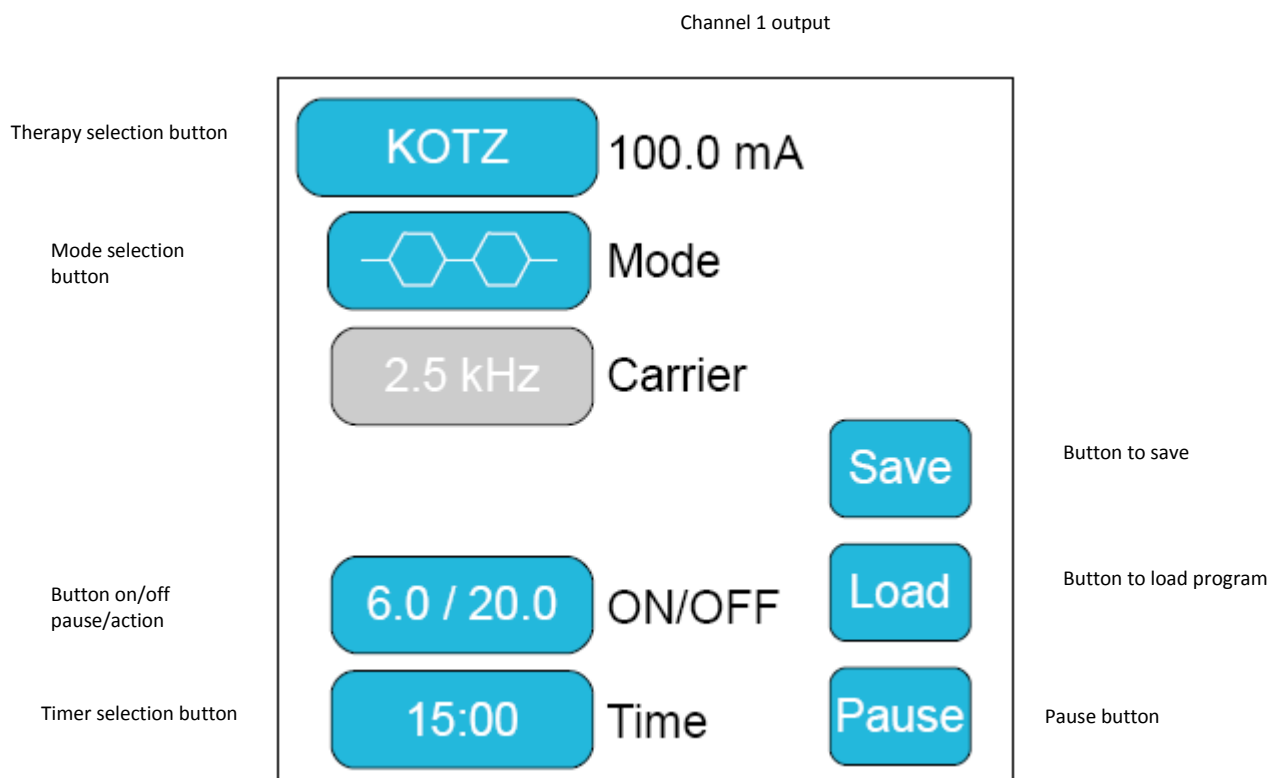
16.1 REQUIREMENTS FOR USE

ELECTRODES Silicone electrode, self-adhesive





COMBINED CHANNELS*2 -Independent Operating mode, each channel must be used independently.
-Simultaneous mode or alternative mode, the channels may be used combined Chanel 1 - Chanel 2.

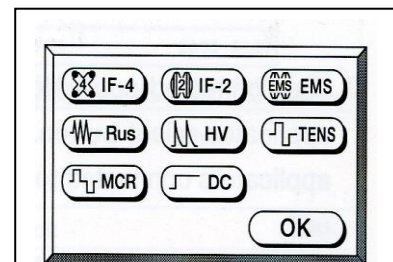
*2 excludes the Simultaneous Mode and alternative mode 2-pole IF, EMS, Russian (KOTZ) , MENS, TENS and high voltage.

Display Screen

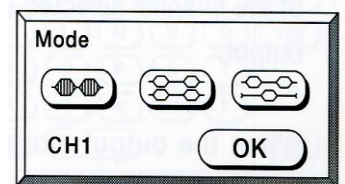


16.2 PROCEDURES

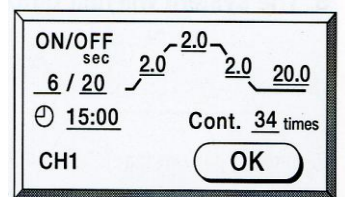
1. Make sure that the electrodes are placed on the area to be treated.
2. Tap the button for the selection of the therapy to open the sub-window.
3. Tap  to select the mode.. The selected mode will light up. Tap OK to close the window.
4. Change the setting of the parameter, if necessary.
5. Output current mode - Tap the button for the selection of the power mode to open the sub-window. Tap  CH1/CH2,  Co-cont  or alternate. Tap OK to close the sub-window.
6. Attach the electrodes to each output, as shown below.
7. CH/CH2(chanel1, 2 electrodes, and independent current from each channel): attach an electrode to the motor point and the other in the surrounding area
8. Co-Cont (2-channel, 4 electrodes, simultaneous power); attach the electrodes to the muscle area for simultaneous stimulation
9. Alternate (2 channels, 4 electrodes, and alternating current): attach the electrodes to the agonist and antagonist muscles.
10. Time On/Off ----- Tap On/Off to open the sub-window.
11. Tap to set the time, rise time, hold time, fall time, time off, time or number of induced spasms. The selected setting will flash. Change the desired value by using the control knob for parameter/intensity, then tap OK to close the sub-window.



Mode selection setting window

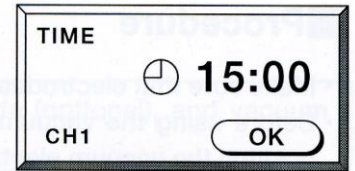


mode setting window



window for setting the on/off time

12. Time setting ----- Tap the button for setting the time to open the sub-window. Set the time with the knob for selecting the parameter/intensity. Tap OK to close the sub-window.



13. With all the sub-windows closed, turn the intensity control of the selected channel on the screen. The system will automatically turn on.

14. When the mode is Co-Cont or Alternate, vary the other intensity from the knob after the power starts to change the set value for the other channel.

15. To stop the treatment, press the button of the channel you want to stop. If the power is increased while the treatment is stopped, the system will resume from where it was stopped. Press the pause button with the treatment stopped to return to the timer and set the time.

16. Pressing the button for the emergency stop, it will stop the power of both channels and return to the timer to select the time.

17. The system will automatically stop when the time elapses

16.3 PARAMETER INTERVALS OF THE RUSSIAN MODE (KOTZ)

Power: CH1/CH2, Co-Cont, Alternate

Carrier frequency: 2.5KHz

Interferential frequency: from 1 to 250 Hz automatic

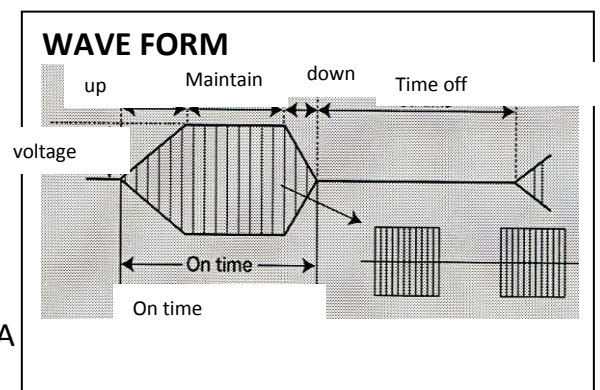
Rise time: from 0 to 3 sec (increment by 0.5 sec)

Holding time: from 0 to 30 sec (increment by 0.5 sec)

Down time: from 0 to 3 sec (increment by 0.5 sec)

Time: from 1 to 60 min (in a 1 minute increment)

Current: from 0.5 to 100 mA (current peak, in 0.5-mA increments).



Cap.17 HIGH VOLTAGE (HI-V) MODE

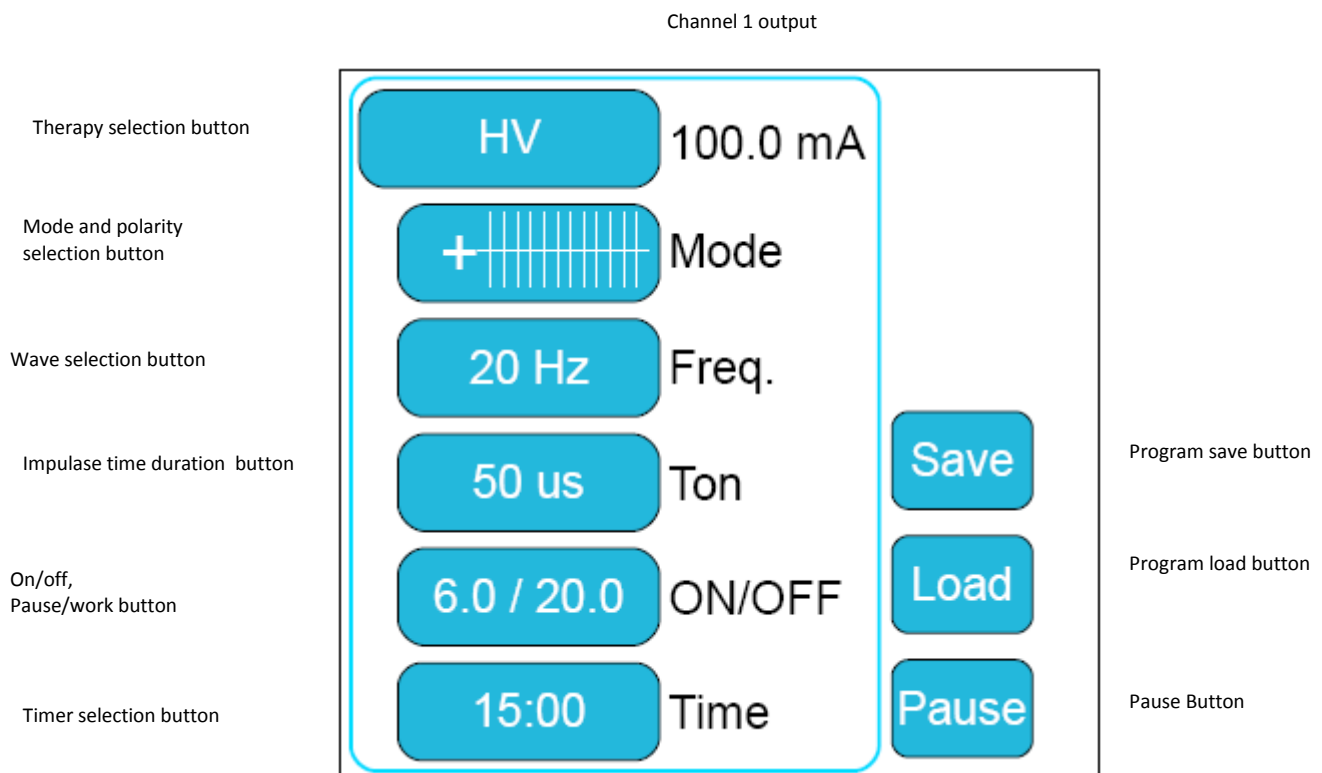
17.1 REQUIREMENTS FOR USE

ELECTRODES Silicone electrode, self-adhesive








COMBINED CHANNELS*2 -Independent Operating mode, each channel must be used independently.
-Simultaneous mode or alternative mode, the channels may be used combined Chanel 1 - Chanel 2.

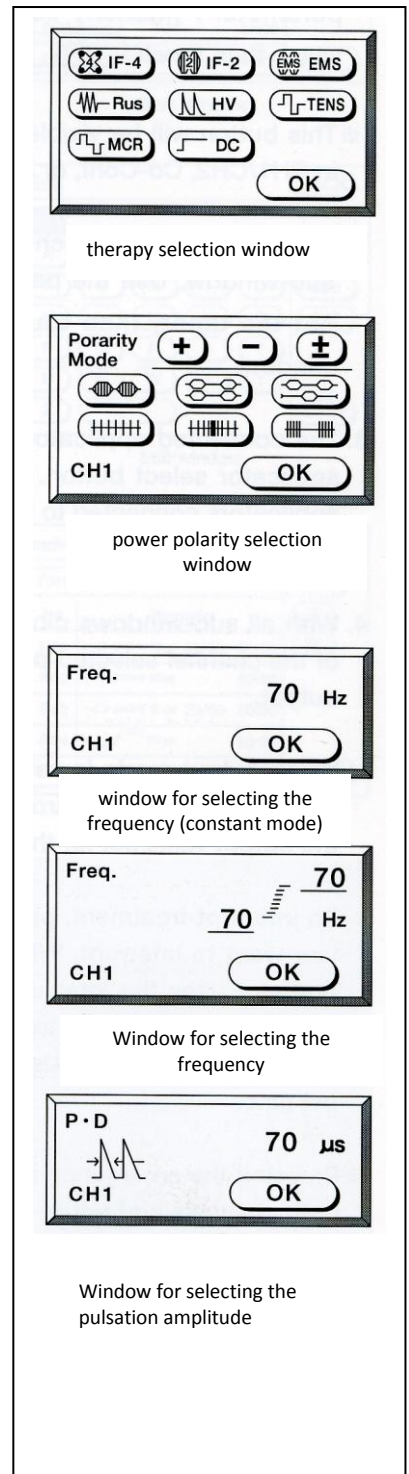
*2 excludes the Simultaneous Mode and alternative mode 2-pole IF, EMS, Russian (KOTZ) , MENS, TENS and high voltage.

Display Screen



17.2 PROCEDURES

1. Make sure that the electrodes are placed on the area to be treated.
2. Tap the button for the selection of the therapy to open the sub-window.
3. Tap  to select the mode. The selected mode will light up. Tap OK to close the window.
4. Change the setting of the parameter, if necessary.
5. Output current mode - Tap the button for the selection of the power polarity to open the sub-window. Tap polarity +, - or , then tap CH1/CH2,  Co-cont  or alternate,  Constant,  Sweep or  Intense. Tap OK to close the sub-window.
6. Frequency ----- Tap the button for the selection of the frequency to open the sub-window.
7. When the mode is set to constant, set a value with the control knob for the parameter/intensity, then tap OK to close the sub-window.
8. When the current is set to sweep, the MIN and MAX mode can be selected. Tap to flash the frequency you want to change, then use the control knob for parameter/intensity to change the value. Tap OK to close the sub-window.
9. Pulsation amplitude ----- Tap the button for the selection of the pulsation amplitude to open the sub-window. Set the frequency by using the control knob for parameter/intensity, then tap OK to close the sub-window.



10. In the high voltage mode, to prevent a sudden increase or decrease, there must be a small delay after which the amplitude is changed.

11. Time On/Off ----- Tap On/Off to open the sub-window.

12. Tap to set the time, rise time, hold time, fall time, time off, time or number of induced spasms to flash the current set value. Change the desired value by using the control knob for parameter/intensity, then tap OK to close the sub-window.

13. This button is only visible and can be changed in Chanel1/Chanel 2 or in the alternating current mode.

14. Time setting ----- Tap the button for setting the time to open the sub-window. Set the time with the knob for selecting the parameter/intensity. Tap OK to close the sub-window.

15. With all the sub-windows closed, turn the intensity control of the selected channel on the screen. The system will automatically turn on.

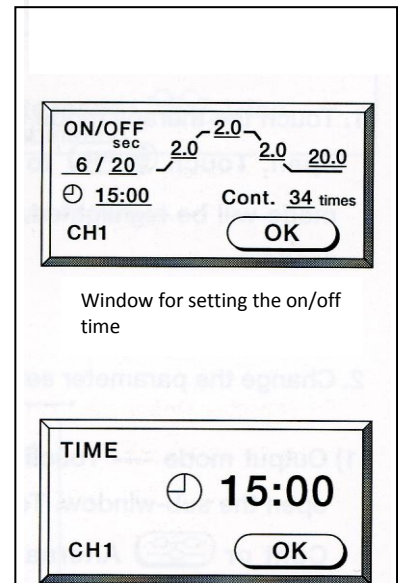
16. When the mode is Co-Cont or Alternate, vary the other intensity from the knob after the power starts to change the set value for the other channel.

17. To stop the treatment, press the button of the channel you want to stop. If the power is increased while the treatment is stopped, the system will resume from where it was stopped. Press the

18. pause button with the treatment stopped to return to the timer and set the time.

19. Pressing the button for the emergency stop, it will stop the power of both channels and return to the timer to select the time.

20. The system will automatically stop when the time elapses.



17.3 PARAMETER INTERVALS OF THE HIGH VOLTAGE MODE

Power: CH1/CH2, Co-Cont, Alternate, Constant, Sweep and Intense

Frequency: Constant: from 0.5 to 200Hz (0,5,0,7, in increments of 1-Hz and in increments of 10-Hz from 10 to 200)

Intense: from 0.5° 7 Hz (0,5,0,7 and in increments of 1 Hz from 1 to 7)

Sweep: from 1 to 200 hZ (in increments of 1 Hz from 10 to 200)

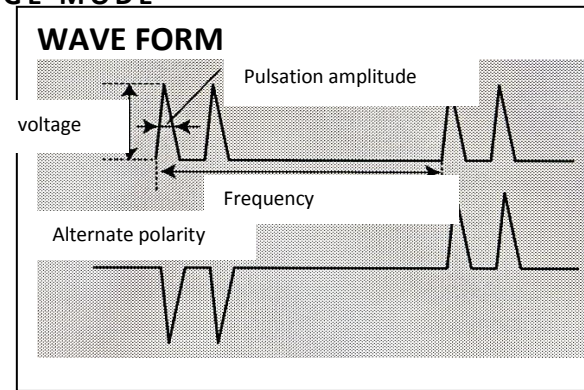
Chanel1/2, Co Cont and Alternate: from 20 to 200 Hz (in increments of 10 Hz)

Pulsation amplitude: from 10 to 80 μ S (increment of 10 μ S)

Current polarity: Positive/Negative/Alternate (continuous alternation at every cycle)

Time: from 1 to 60 min (in a 1 minute increment)

Current: from 0 to 100mA



Cap.18 TENS MODE

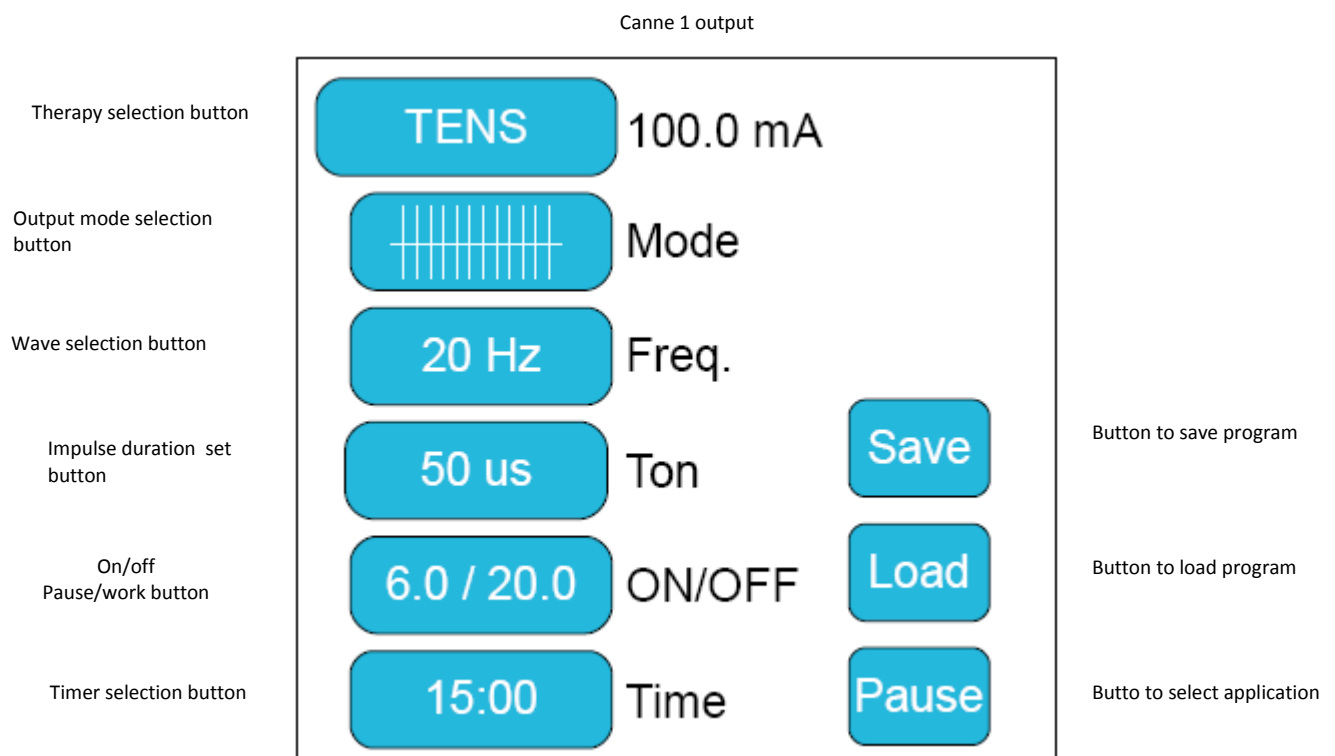
18.1 REQUIREMENTS FOR USE

ELECTRODES Plastic electrode, self-adhesive








COMBINED CHANNELS*2 -Independent Operating mode, each channel must be used independently.
-Simultaneous mode or alternative mode, the channels may be used combined Chanel 1 - Chanel 2.

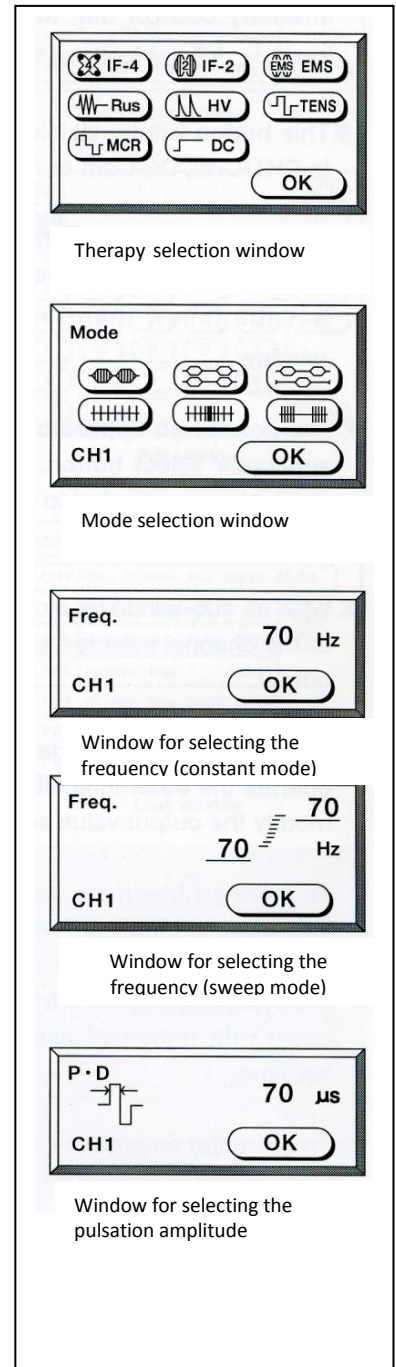
*2 excludes the Simultaneous Mode and alternative mode 2-pole IF, EMS, Russian (KOTZ) , MENS, TENS and high voltage.

Display Screen

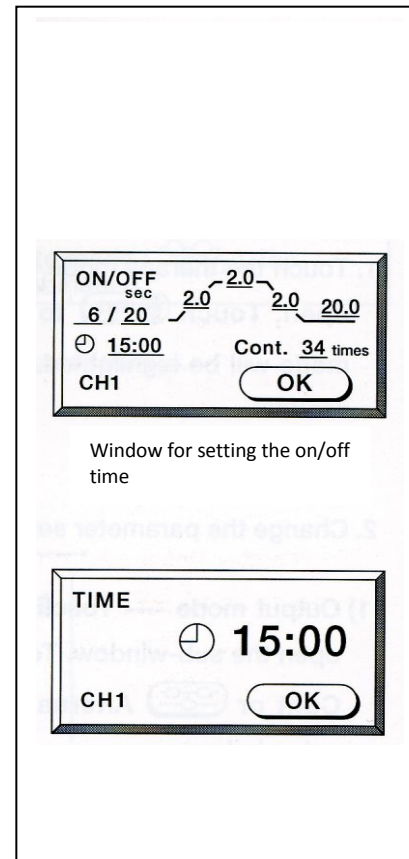


18.2 PROCEDURES

1. Make sure that the electrodes are placed on the area to be treated.
2. Tap the button for the selection of the therapy to open the sub-window.
3. Tap  to select the mode. The selected mode will light up. Tap OK to close the window.
4. Change the setting of the parameter, if necessary.
5. Output current mode - Tap the button for the selection of the power polarity to open the sub-window. Tap  CH1/CH2,  Co-cont, alternate , Constant, , Sweep  or Intense . Tap OK to close the sub-window.
6. Frequency ----- Tap the button for the selection of the frequency to open the sub-window.
7. Set a value by using the control knob for parameter/intensity, then tap OK to close the sub-window.
8. When the current is set to sweep, the MIN and MAX mode can be selected. Tap to flash the frequency you want to change, then use the control knob for parameter/intensity to change the value. Tap OK to close the sub-window.
9. Pulsation amplitude ----- Tap the button for the selection of the pulsation amplitude to open the sub-window. Set the frequency by using the control knob for parameter/intensity, then tap OK to close the sub-window.



10. Time On/Off ----- Tap On/Off to open the sub-window.
11. Tap to set the time, rise time, hold time, fall time, time off, time or number of induced spasms to flash the current set value. Change the desired value by using the control knob for parameter/intensity, then tap OK to close the sub-window.
12. This button is only visible and can be changed in Chanel1/Chanel 2 or in the alternating current mode.
13. Time setting ----- Tap the button for setting the time to open the sub-window. Set the time with the knob for selecting the parameter/intensity. Tap OK to close the sub-window.
14. With all the sub-windows closed, turn the intensity control of the selected channel on the screen. The system will automatically turn on.
15. When the mode is Co-Cont or Alternate, vary the other intensity from the knob after the power starts to change the set value for the other channel.
16. To stop the treatment, press the button of the channel you want to stop. If the power is increased while the treatment is stopped, the system will resume from where it was stopped. Press the pause button with the treatment stopped to return to the timer and set the time.
17. Pressing the button for the emergency stop, it will stop the power of both channels and return to the timer to select the time.
18. The system will automatically stop when the time elapses.



18.3 PARAMETER INTERVALS OF THE TENS MODE

Power: CH1/CH2, Co-Cont, Alternate, Constant, Sweep and Intense

Frequency: Constant: from 0.5 to 200Hz (0,5,0,7, in increments of 1-Hz and in increments of 10-Hz from 10 to 200)

Intense: from 0.5° 7 Hz (0,5,0,7 and in increments of 1 Hz from 1 to 7)

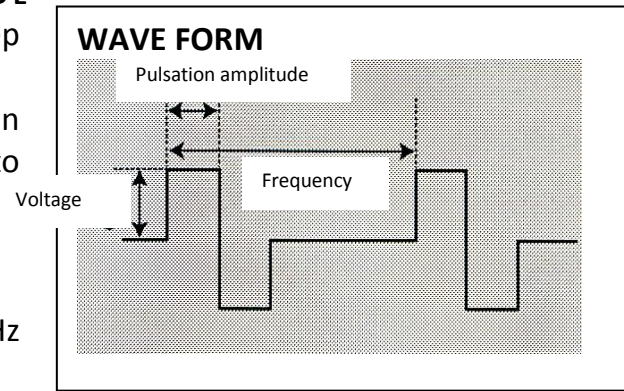
Sweep: from 1 to 200 hZ (in increments of 1 Hz from 10 to 200)

Chanel1/2, Co Cont and Alternate: from 20 to 200 Hz (in increments of 10 Hz)

Pulsation amplitude: from 10 to 300 μ S (increment of 10 μ S)

Time: from 1 to 60 min (in a 1 minute increment)

Current: from 0.5 to 100mA (current peak, in 0.5-mA increments).



Cap.19 MICROCURRENT MODE - MENS

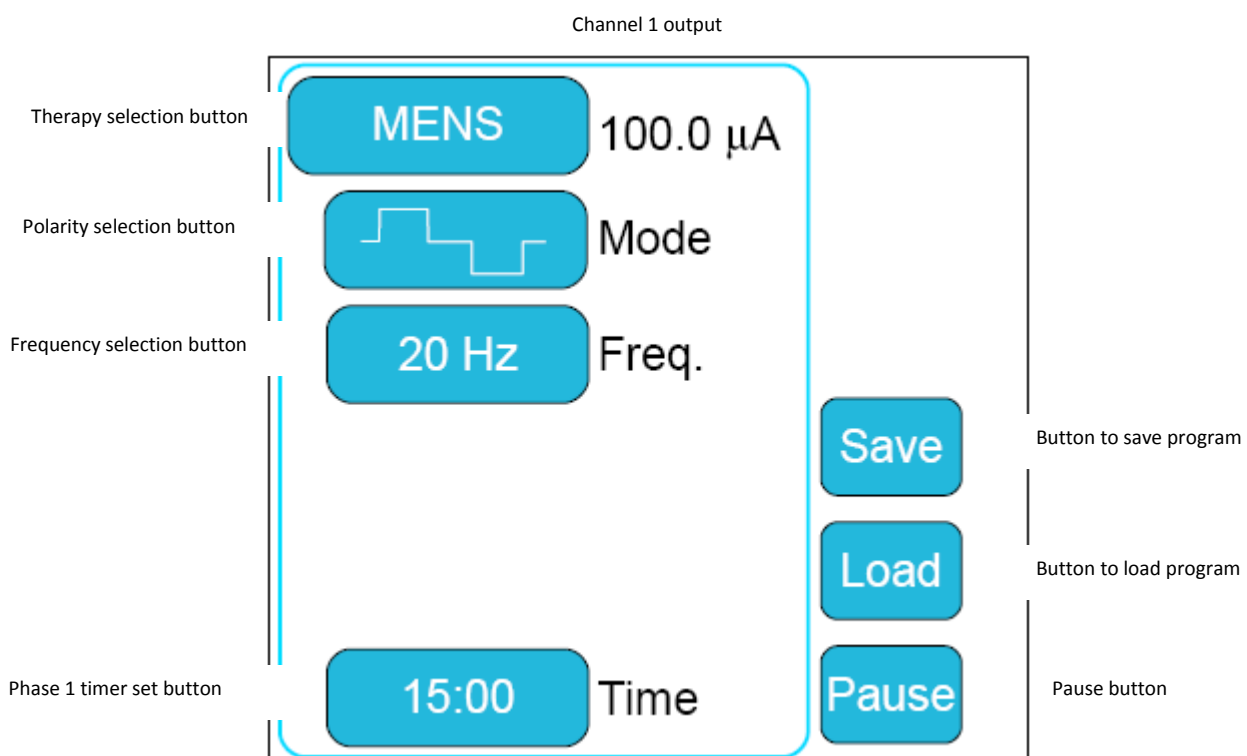
19.1 REQUIREMENTS FOR USE

ELECTRODES Plastic electrode, self-adhesive




COMBINED CHANNELS*2 Each channel must be used independently

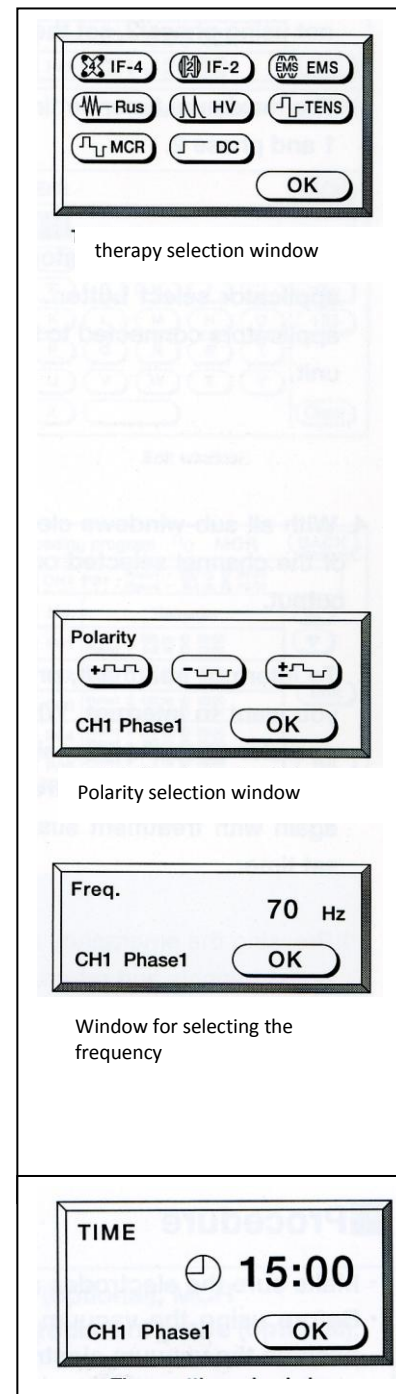
*2 excludes the Simultaneous Mode and alternative mode 2-pole IF, EMS, Russian (KOTZ) , MENS, TENS and high voltage.

Screen display



Cap.20 PROCEDURES

1. Make sure that the electrodes are placed on the area to be treated.
2. Tap the button for the selection of the therapy to open the sub-window.
3. Tap MENS to select the mode.. The selected mode will light up. Tap OK to close the window.
4. Change the setting of the parameter, if necessary.
5. In the microcurrent mode, electric current or different polarity and frequency could provide an output in two stages.
6. Polarity ----- Tap the button for the selection of the polarity phase 1 to open the sub-window. Tap ,  or  . Tap OK to close the sub-window.
7. Frequency ----- Tap the button for the selection of the frequency.
8. Set a value by using the control knob for parameter/intensity, then tap OK to close the sub-window
9. Time setting ----- Tap the button for setting the time.
10. Set the time with the knob for selecting the parameter/intensity. Tap OK to close the sub-window.
11. The maximum time that can be set is 60.
12. With all the sub-windows closed, turn the intensity control of the selected channel on the screen. The system will automatically turn on.
13. To stop the treatment, press the button of the channel you want to stop. If the power is increased while the treatment is stopped, the system will resume from where it was stopped. Press the pause button with the treatment stopped to return to the timer and set the time.
14. Pressing the button for the emergency stop, it will stop the power of both channels and return to the timer to select the time.
15. The system will automatically stop when the time elapses.



20.1 PARAMETER INTERVALS OF THE MICROCURRENT MODE

Power: Only constant

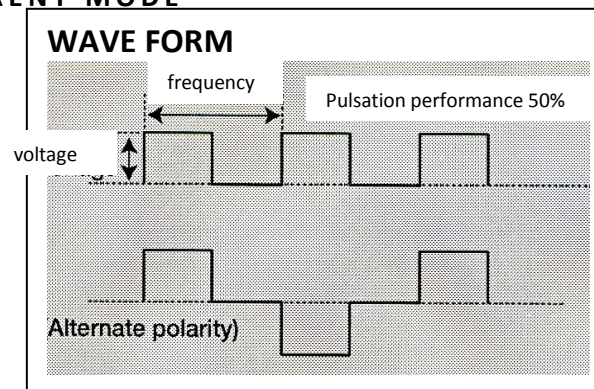
Frequency: from 0.3 to 400Hz (0,3. 0,5,0,7 in increments from 1 to 10, and in 10 Hz increments from 10 to 400)

Polarity: Positive/negative/alternate (automatic alternation at every cycle)

Pulsation amplitude: Fixed performance 50%

Time: from 1 to 60 min

Current: from 1 to 15 mA



Cap.21 DC (DIRECT CURRENT) MODE

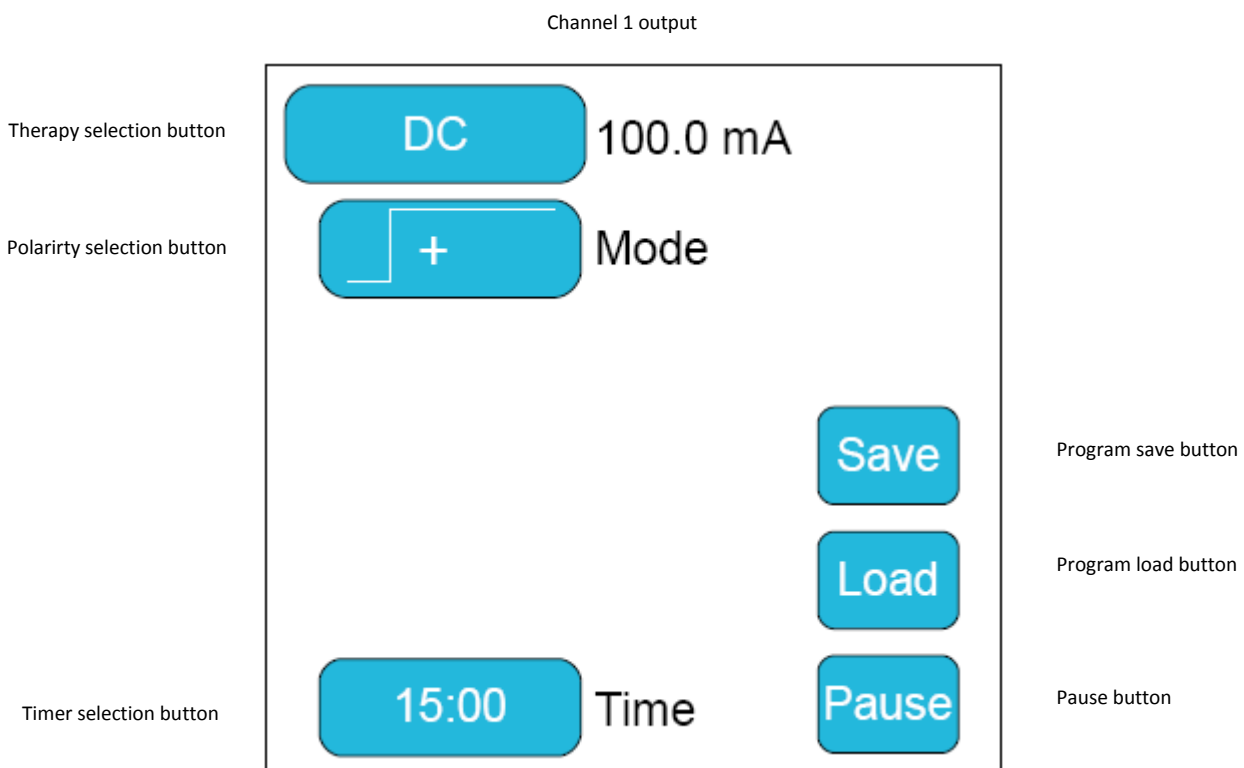
21.1 REQUIREMENTS FOR USE

ELECTRODES Plastic electrode, self-adhesive




COMBINED CHANNELS*2 Each channel must be used independently

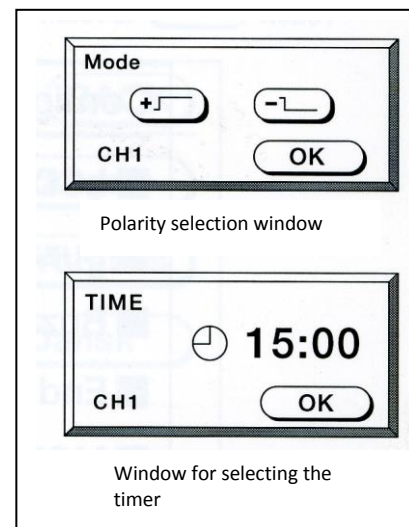
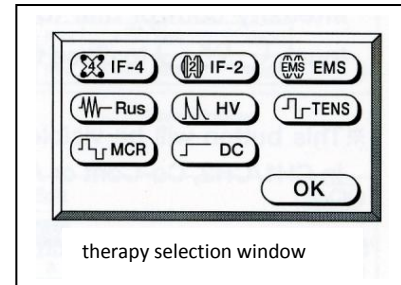
*2 excludes the Simultaneous Mode and alternative mode 2-pole IF, EMS, Russian (KOTZ) , MENS, TENS and high voltage.

Display Screen



21.2 PROCEDURES

1. Make sure that the electrodes are placed on the area to be treated.
2. Tap the button for the selection of the therapy to open the sub-window.
3. Tap  to select the mode.. The selected mode will light up. Tap OK to close the window.
4. Change the setting of the parameter, if necessary.
5. Polarity ----- Tap the button for the selection of the polarity to open the sub-window. Tap,  or  . Tap OK to close the sub-window.
6. Time setting ----- Tap the button for setting the time to open the sub-window. Set the time with the knob for selecting the parameter/intensity. Tap OK to close the sub-window.
7. With all the sub-windows closed, turn the intensity control of the selected channel on the screen. The system will automatically turn on.
8. Pressing the button for the emergency stop, it will stop the power of both channels and return to the timer to select the time.
9. The system will automatically stop when the time elapses.



21.3 PARAMETER INTERVALS OF THE DC MODE

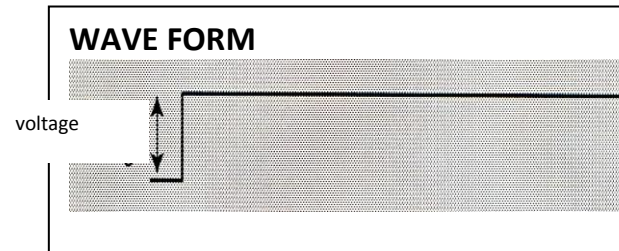
Frequency: only DC

polarity: Positive/negative

Time: from 1 to 60 min (in a 1 minute increment,
phase 1+ phase 2 60)

Current: from 0.5 to 100 mA (increment of 0.5-mA)*.

*Current when the probe HV/DC is used: 0.5 to 2mA
(increment of 0.5-mA)



Particular attention should be paid to the use of the direct current.

It is recommended not use values greater than 20mA, the continuous current can cause chemical burns on the skin. The normally used values are around 4-6mA

Cap.22 DYNAMIC MODE

22.1 REQUIREMENTS FOR USE

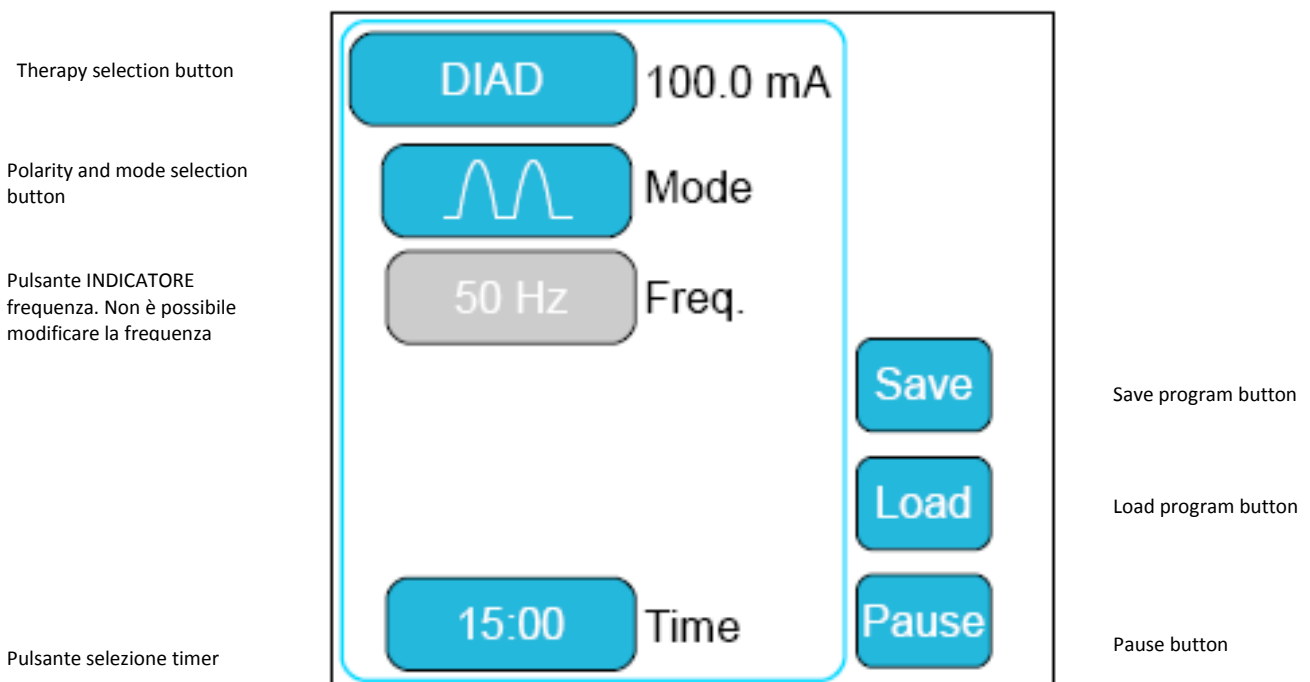
ELECTRODES Silicone electrode, self-adhesive

COMBINED CHANNELS*2 -Independent Operating mode, each channel must be used independently.
-Simultaneous mode or alternative mode, the channels may be used combined Chanel 1 - Chanel 2.

*2 excludes the Simultaneous Mode and alternative mode 2-pole IF, EMS, Russian (KOTZ) , MENS, TENS and high voltage.

Display Screen

Fixed Single-phase MODE



Fixed 2-phase MODE

Canale 1 corrente in uscita

Therapy selection button

Polarity and mode selection button

Frequency indication button.
CANNOT BE MODIFIED

Timer set up button

The control panel for Fixed 2-phase MODE is enclosed in a light blue rounded rectangle. It features several buttons and displays: a 'DIAD' button with '100.0 mA' to its right; a button with a sine wave icon and 'Mode' to its right; a greyed-out button with '100 Hz' and 'Freq.' to its right; a '15:00' button with 'Time' to its right; and a vertical stack of three buttons on the right: 'Save', 'Load', and 'Pause'.

Save program button

Load program button

Pause button

Short Period and Long Period MODE

Canale 1 corrente in uscita

Therapy selection button

Polarity and mode selection button

MS period and DF period duration button

Timer set up button

The control panel for Short Period and Long Period MODE is enclosed in a light blue rounded rectangle. It features several buttons and displays: a 'DIAD' button with '100.0 mA' to its right; a button with a square wave icon and 'Mode' to its right; a '2.0 / 20.0' button with 'MS/DF' to its right; a '15:00' button with 'Time' to its right; and a vertical stack of three buttons on the right: 'Save', 'Load', and 'Pause'.

Save program button

Load program button

Pause button

Interrupted 2-phase MODE

Canale 1 corrente in uscita

Therapy selection button

Polarity and mode selection button

DF period and pause duration button

Timer set up button

Save program button

Load program button

Pause button

Interrupted Single-phase MODE

Therapy selection button

Polarity and mode selection button

MS period and pause duration button

Timer set up button

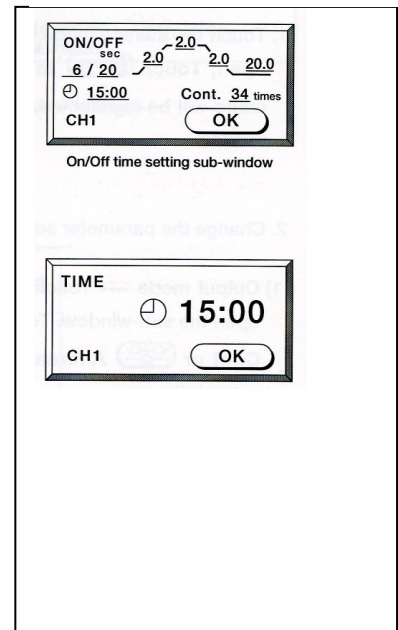
Save program button

Load program button

Pause button

22.2 PROCEDURES

1. Make sure that the electrodes are placed on the area to be treated.
2. Tap the button for the selection of the therapy to open the sub-window.
3. Tap DIAD to select the mode. The selected mode will light up. Tap OK to close the window.
4. Change the setting of the parameter, if necessary.
5. Output current mode - Tap the mode button to select the dynamic wave type
6. Frequency ----- The work frequencies cannot be changed. MS has a fixed frequency of 50Hz, DF has a fixed frequency of 100Hz, the other modes are the result of combinations between MS and DF
7. Time On/Off ----- Tap On/Off to open the sub-window.
8. Tap to set the time, rise time, hold time, fall time, time off, time or number of induced spasms to flash the current set value.
9. Change the desired value by using the control knob for parameter/intensity, then tap OK to close the sub-window.
10. This button is only visible and can be changed in Chanel1/Chanel 2 or in the CP, RS and PS mode.
11. Time setting ----- Tap the button for setting the time to open the sub-window.
12. Set the time with the knob for selecting the parameter/intensity. Tap OK to close the sub-window.
13. With all the sub-windows closed, turn the intensity control of the selected channel on the screen. The system will automatically turn on.
14. Pressing the button for the emergency stop, it will stop the power of both channels and return to the timer to select the time.
15. The system will automatically stop when the time elapses.



22.3 PARAMETER INTERVALS OF THE DYNAMIC MODE

Power: CH1/CH2, MS, DF, CP, RS, PS

Frequency: Constant: 50Hz or 100Hz

Chanel1/2, Co Cont and Alternate: from 20
to 200 Hz (in increments of 10 Hz)

Pulsation amplitude: from 5 to 10 mS

Current polarity: Positive

Time: from 1 to 60 min (in a 1 minute increment)

Current: from 0 to 100mA

Cap.23 EXPONENTIAL MODE, RECTANGULAR, TRIANGULAR

23.1 REQUIREMENTS FOR USE

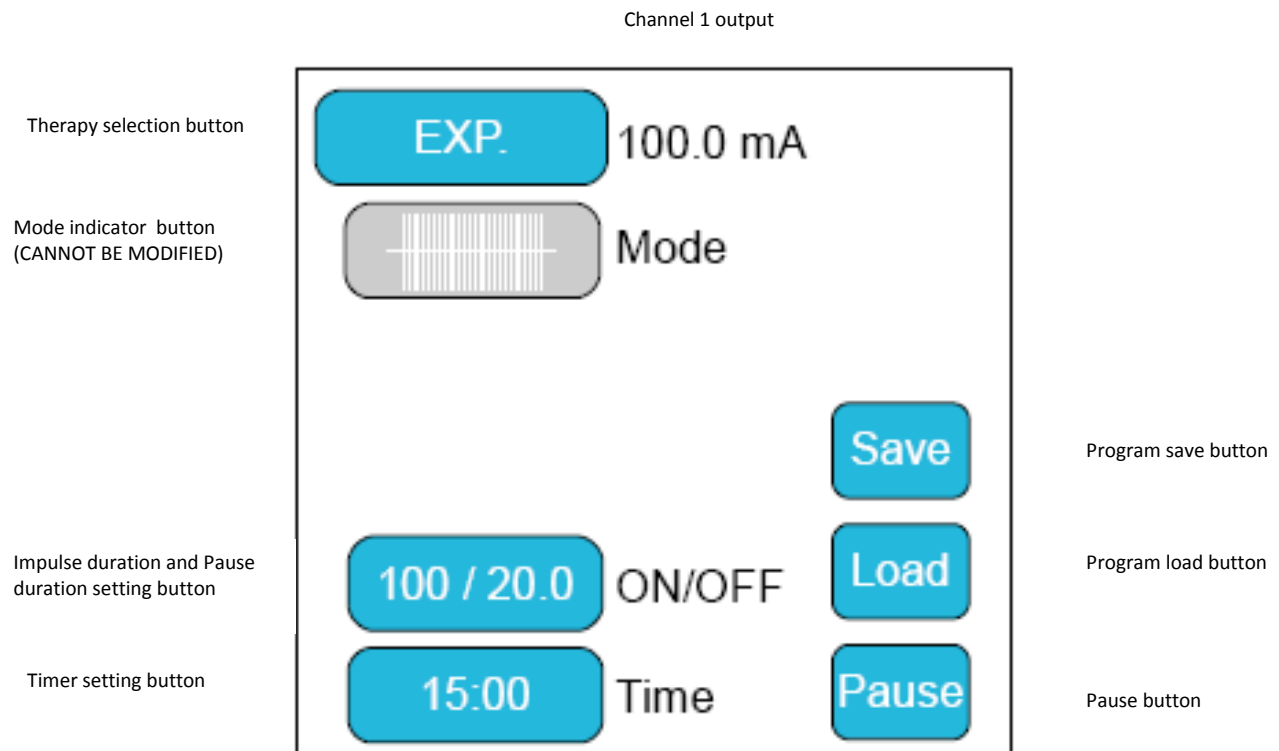
ELECTRODES Silicone electrode, self-adhesive

COMBINED CHANNELS*2 -Independent Operating mode, each channel must be used independently.
-Simultaneous mode or alternative mode, the channels may be used combined Chanel 1 - Chanel 2.

*2 excludes the Simultaneous Mode and alternative mode 2-pole IF, EMS, Russian (KOTZ) , MENS, TENS and high voltage.

Display Screen

EXPONENTIAL MODE



RECTANGULAR MODE

Therapy selection button

RECT. 100.0 mA

Mode indicator button
(CANNOT BE MODIFIED)

Mode

Impulse duration and Pause duration setting button

100 / 20.0 ON/OFF

Save

Program save button

Load

Program load button

Timer set button

15:00 Time

Pause

Pause button

TRIANGULAR MODE

Therapy selection button

TRIANG. 100.0 mA

Mode indicator button
(CANNOT BE MODIFIED)

Mode

Impulse duration and Pause duration setting button

100 / 20.0 ON/OFF

Save

Program save button

Load

Program load button

Timer set button

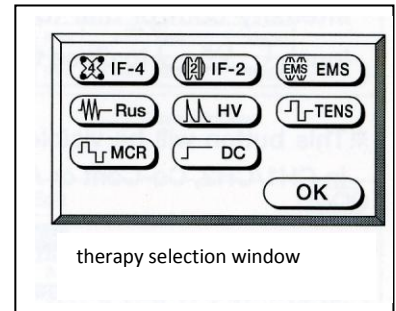
15:00 Time

Pause

Pause button

23.2 PROCEDURES

1. Make sure that the electrodes are placed on the area to be treated.
2. Tap the button for the selection of the therapy to open the sub-window.
3. Tap EXP or RECT or TRIAN to select the mode. The selected mode will light up. Tap OK to close the window.
4. Change the setting of the parameter, if necessary.

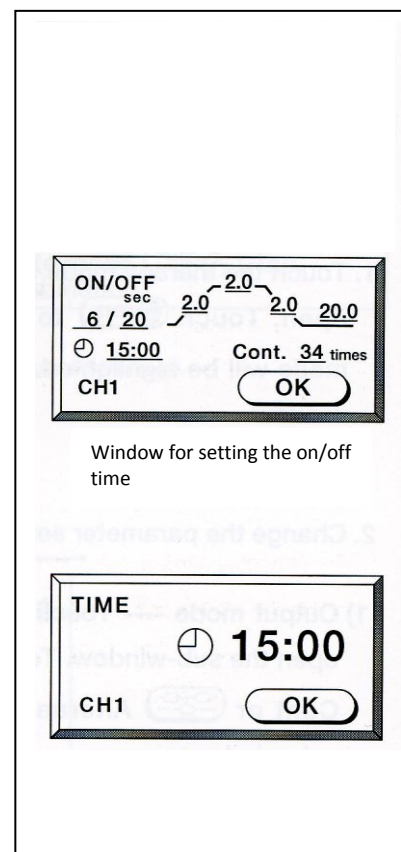


5. Output current mode - the  button indicates the mode for delivering the therapy

6. Pulsation amplitude ----- Tap the button for the selection of the pulsation amplitude to open the sub-window. Set the frequency by using the control knob for parameter/intensity, then tap OK to close the sub-window.

7. Time On/Off ----- Tap On/Off to open the sub-window.

8. Tap to set the time of the single pulse, hold time, fall time, time off, time or number of induced spasms to flash the current set value.



9. Change the desired value by using the control knob for parameter/intensity, then tap OK to close the sub-window.

10. Time setting ----- Tap the button for setting the time to open the sub-window. Set the time with the knob for selecting the parameter/intensity. Tap OK to close the sub-window.

11. With all the sub-windows closed, turn the intensity control of the selected channel on the screen. The system will automatically turn on.

12. The system will automatically stop when the time elapses.

Cap.24 FARADIC MODE

24.1 REQUIREMENTS FOR USE

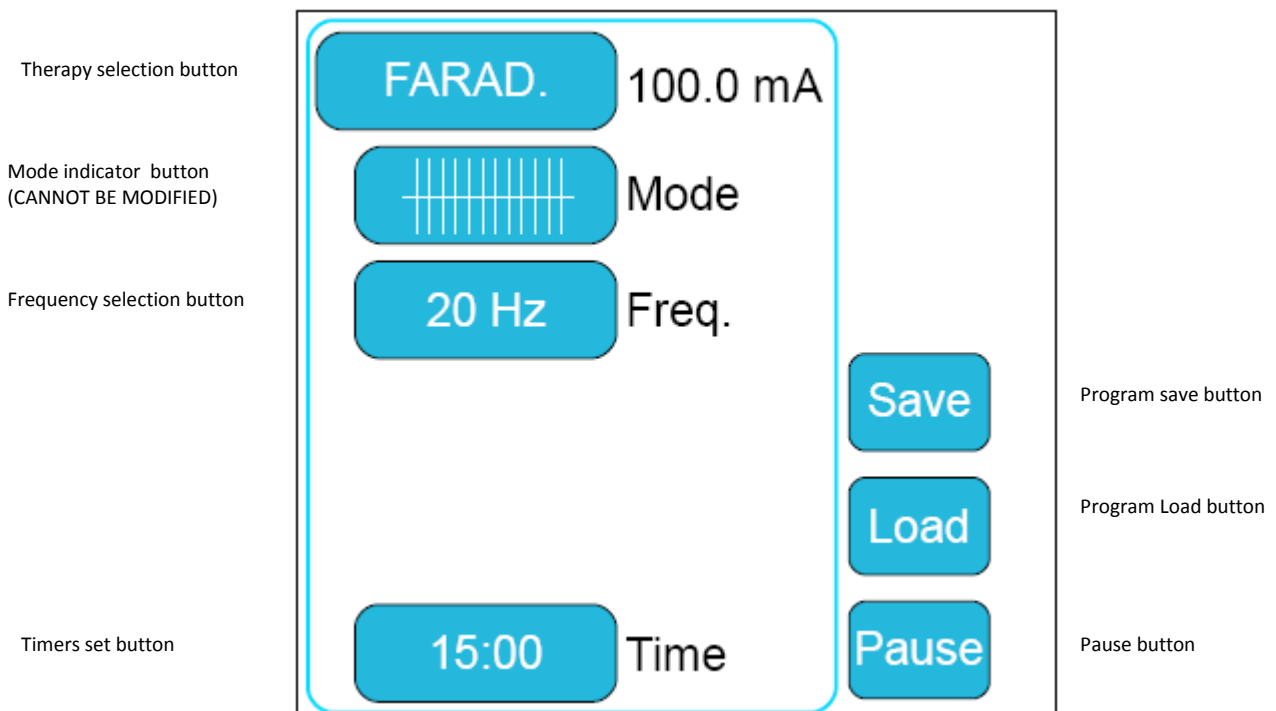
ELECTRODES Silicone electrode, self-adhesive

COMBINED CHANNELS*2 -Independent Operating mode, each channel must be used independently.
-Simultaneous mode or alternative mode, the channels may be used combined Chanel 1 - Chanel 2.

*2 excludes the Simultaneous Mode and alternative mode 2-pole IF, EMS, Russian (KOTZ), MENSTENS and high voltage.

Display Screen

TRIANGULAR MODE

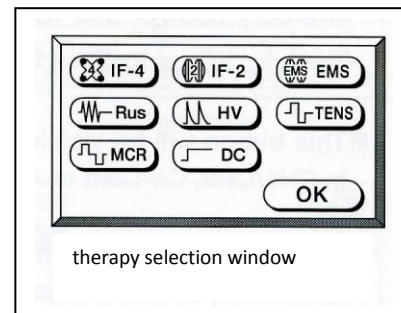


24.2 PROCEDURES


1. Make sure that the electrodes are placed on the area to be treated.

2. Tap the button for the selection of the therapy to open the sub-window.

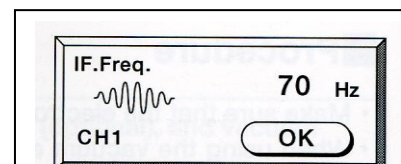
Tap FARAD to select the mode. The selected mode will light up. Tap OK to close the window.



3. Change the setting of the parameter, if necessary.

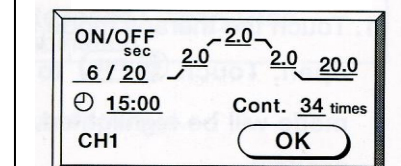
4. Output current mode - the  CONTINUOUS button and  indicate the mode for delivering the therapy

5. pulsation frequency ----- Tap the button for the selection of the pulsation frequency to open the sub-window. Set the frequency by using the control knob for parameter/intensity, then tap OK to close the sub-window.



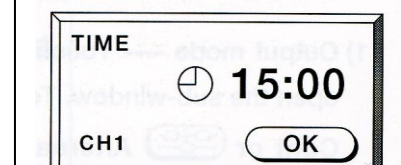
Window for selecting the frequency

6. Time On/Off ----- Tap On/Off to open the sub-window. Tap to set the time of the single impulse hold time, fall time, time off, time or number of induced spasms to flash the current set value. Change the desired value by using the control knob for parameter/intensity, then tap OK to close the sub-window.



Window for setting the on/off time

7. Time setting ----- Tap the button for setting the time to open the sub-window. Set the time with the knob for selecting the parameter/intensity. Tap OK to close the sub-window.



8. With all the sub-windows closed, turn the intensity control of the selected channel on the screen. The system will automatically turn on.

9. The system will automatically stop when the time elapses.

Cap.25 LIST OF PROGRAMS FOR ELECTROSTIMULATION

The list below indicates the pre-set programs.

IF FOUR POLES

No.	Mod.Uscita	Freq portante	Freq.interferenziale	Angolo vett.sweep	T.trattamento
1	Sweep	4 kHz	80—100 Hz	0 Gradi	15 min.
2	Sweep	4 kHz	1—10 Hz	0 Gradi	15 min.
3	Sweep	4 kHz	1—100 Hz	0 Gradi	15 min.
4	Sweep	4 kHz	30—60 Hz	0 Gradi	15 min.
5	Sweep	4 kHz	100—200 Hz	0 Gradi	15 min.
6	Costante	4 kHz	70 Hz	0 Gradi	15 min.
7	Costante	4 kHz	70 Hz	0 Gradi	15 min.
8	Costante	4 kHz	70 Hz	0 Gradi	15 min.
9	Costante	4 kHz	70 Hz	0 Gradi	15 min.
10	Costante	4 kHz	70 Hz	0 Gradi	15 min.

IF TWO POLES

No.	Mod.uscita	Freq portante	Freq.interferenziale	T.trattamento
1	Sweep	4 kHz	80—100 Hz	15 min.
2	Sweep	4 kHz	1—10 Hz	15 min.
3	Sweep	4 kHz	1—100 Hz	15 min.
4	Sweep	4 kHz	30—60 Hz	15 min.
5	Sweep	4 kHz	100—200 Hz	15 min.
6	Costante	4 kHz	70 Hz	15 min.
7	Costante	4 kHz	70 Hz	15 min.
8	Costante	4 kHz	70 Hz	15 min.
9	Costante	4 kHz	70 Hz	15 min.
10	Costante	4 kHz	70 Hz	15 min.

EMS (IF TWO POLES)

No.	Frequenza portante	Frequenza interferenziale	Tempo	[salita - costante - discesa]	Pausa	T. trattamento
1	2 kHz	80 Hz	5 sec.	[1.0sec. • 3.5sec. • 0.5sec.]	15 sec.	15 min.
2	4 kHz	80 Hz	5 sec.	[1.0sec. • 3.5sec. • 0.5sec.]	15 sec.	15 min.
3	5 kHz	80 Hz	5 sec.	[1.0sec. • 3.5sec. • 0.5sec.]	15 sec.	15 min.
4	2 kHz	20 Hz	10 sec.	[1.5sec. • 8.0sec. • 0.5sec.]	10 sec.	15 min.
5	4 kHz	20 Hz	10 sec.	[1.5sec. • 8.0sec. • 0.5sec.]	10 sec.	15 min.
6	5 kHz	20 Hz	10 sec.	[1.5sec. • 8.0sec. • 0.5sec.]	10 sec.	15 min.
7	2 kHz	50 Hz	10 sec.	[1.5sec. • 8.0sec. • 0.5sec.]	20 sec.	15 min.
8	4 kHz	50 Hz	10 sec.	[1.5sec. • 8.0sec. • 0.5sec.]	20 sec.	15 min.
9	5 kHz	50 Hz	10 sec.	[1.5sec. • 8.0sec. • 0.5sec.]	20 sec.	15 min.
10	2 kHz	50 Hz	10 sec.	[1.5sec. • 8.0sec. • 0.5sec.]	20 sec.	20 min.

RUSSIAN

No.	Azione	(salita - costante - discesa)	Pausa	Tempo trattamento
1	10 sec.	[1.5sec. • 8.0sec. • 0.5sec.]	50 sec.	10 min.
2	10 sec.	[1.5sec. • 8.0sec. • 0.5sec.]	30 sec.	8 min.
3	6 sec.	[1.0sec. • 4.5sec. • 0.5sec.]	30 sec.	7min.12sec.
4	5 sec.	[1.0sec. • 3.5sec. • 0.5sec.]	15 sec.	2min.40sec.
5	10 sec.	[1.5sec. • 8.0sec. • 0.5sec.]	50 sec.	20 min.
6	10 sec.	[1.5sec. • 8.0sec. • 0.5sec.]	50 sec.	20 min.
7	10 sec.	[1.5sec. • 8.0sec. • 0.5sec.]	50 sec.	20 min.
8	10 sec.	[1.5sec. • 8.0sec. • 0.5sec.]	50 sec.	20 min.
9	10 sec.	[1.5sec. • 8.0sec. • 0.5sec.]	50 sec.	20 min.
10	10 sec.	[1.5sec. • 8.0sec. • 0.5sec.]	50 sec.	20 min.

HIGH VOLTAGE

No.	Polarità	Mod.uscita	Frequenza	Amp.impulso	Tempo (salita - costante - discesa)	Pausa	T.trattamento
1	+	Impulso	20 Hz	50 µs	7sec. [2.0sec. • 4.0sec. • 1.0sec.]	10 sec.	15 min.
2	+	Impulso	50 Hz	50 µs	7sec. [2.0sec. • 4.0sec. • 1.0sec.]	10 sec.	15 min.
3	+	Impulso	80 Hz	50 µs	7sec. [2.0sec. • 4.0sec. • 1.0sec.]	10 sec.	15 min.
4	+	Sweep	2—5 Hz	50 µs	—	—	15 min.
5	+	Sweep	30—60 Hz	50 µs	—	—	15 min.
6	+	Sweep	40—100 Hz	50 µs	—	—	15 min.
7	+	Sweep	80—130 Hz	50 µs	—	—	15 min.
8	+	Costante	70 Hz	50 µs	—	—	15 min.

TENS

No.	Mod.uscita	Frequenza	Amp.impulso	Tempo (salita - costante - discesa)	Pausa	T.trattamento
1	CH1/CH2	20 Hz	200 µs	7 sec. [2.0sec. • 4.0sec. • 1.0sec.]	6 sec.	15 min.
2	CH1/CH2	50 Hz	150 µs	7 sec. [2.0sec. • 4.0sec. • 1.0sec.]	6 sec.	15 min.
3	CH1/CH2	100 Hz	100 µs	7 sec. [2.0sec. • 4.0sec. • 1.0sec.]	6 sec.	15 min.
4	Costante	70 Hz	100 µs	—	—	15 min.
5	Costante	70 Hz	100 µs	—	—	15 min.
6	Costante	70 Hz	100 µs	—	—	15 min.
7	Costante	70 Hz	100 µs	—	—	15 min.
8	Costante	70 Hz	100 µs	—	—	15 min.
9	Costante	70 Hz	100 µs	—	—	15 min.
10	Costante	70 Hz	100 µs	—	—	15 min.

MICRO CURRENT

No.	FASE 1			FASE 2			No.	FASE 1			FASE 2		
	Polarità	Frequenza	Tempo	Polarità	Frequenza	Tempo		Polarità	Frequenza	Tempo	Polarità	Frequenza	Tempo
1	±	1Hz	5min.	±	0.3Hz	10min.	6	±	200Hz	5min.	±	0.3Hz	10min.
2	±	10Hz	5min.	±	0.3Hz	10min.	7	±	200Hz	5min.	±	0.3Hz	10min.
3	±	80Hz	5min.	±	0.3Hz	10min.	8	±	200Hz	5min.	±	0.3Hz	10min.
4	±	200Hz	5min.	±	0.5Hz	10min.	9	±	200Hz	5min.	±	0.5Hz	10min.
5	±	300Hz	5min.	±	0.5Hz	10min.	10	±	200Hz	5min.	±	0.5Hz	10min.

EMC

- The electronic instruments are studied to grant compatibility (EMC)
- These instruments Need to be installed and used according the EMC instruction and information provided.
- Portable instruments could possibiy interfere with electro medical devices.
- Cable lenght :
 1. Electrodes cable: about 2,00 mt
 2. Power supply cable: 2,44mt

Not original spare parts and accessories could vary the strength of the emission and could be risky and not safe for users.

Never put this device next to or over other devices when you use it. If you have to put it next to other devided during its use, please always VERUFY CAREFULLY its correct operation.

Cap.26 MAINTENANCE

If you want the machine to operate properly and safely, even long after the date of purchase, it is important to perform the following maintenance operations.

Cap.27 CLEANING AND MAINTENANCE OF APPLIED PARTS

27.1 Maintenance of pre-gelled electrodes

To maintain the gel layer of the electrodes:

- (1) after each use, apply a small amount of water on the adhesive gel, letting it air dry for a few seconds before putting it on the silicone backing;
- (2) carefully close the envelope containing the electrodes, to prevent their dehydration;
- (3) keep the electrodes at room temperature.

It is important to note that:

1. the duration of the electrodes depends on their maintenance, the cleaning conditions of the skin on which they are applied, and the type and intensity of the applied current;
2. the electrodes must be replaced when they no longer adhere to the skin;
3. they must be applied on perfectly intact skin;
4. in case of allergies or skin irritations, discontinue therapy and see a doctor;
5. the electrodes are designed for personal use;
6. the electrodes are designed for use with an effective current value of not more than 50mA (similar for the non pre-gelled electrodes).

27.2 Maintenance of silicone electrodes

To properly store the electrode it is recommended to:

- (1) clean the smooth surface of the electrode, after each use, with a solution of soap and water of 50%;

- (2) disinfect the surface with alcohol, if the electrode is used on different patients;
- (3) check the state of wear of the electrode surface, at the end of each electrostimulation session;
- (4) replace the electrode if the surface has cracks, signs of breakage, even if only partial, to avoid non-uniform distribution of the current, leading to an increased risk of burn

27.3 Maintenance of the wire insulations

Before each stimulation session, you need to check the state of wear of the insulation of the cables, replacing them with the same type of cables as those supplied with the apparatus if signs of wear, such as cuts and/or cracks are on their surface.


27.4 Cleaning the apparatus and the power cord


To clean both the apparatus and the power cord it is recommended to use a damp cloth. Do not use under any circumstances liquids, because the apparatus is not protected against water infiltrations (IP20). You should always check the state of wear of the insulation (cable and connectors) of the power cord before connecting it to the network. If damaged, even if partially, replace them immediately.

27.5 Immediate maintenance

Immediate maintenance by New Age Italia or their experienced authorized personnel, should be performed if:

- (1) the apparatus has been subjected to external mechanical stresses, such as serious falls;
- (2) the apparatus has been subjected to excessive overheating, for example, if left near a source of intense heat;
- (3) you suspect that liquids have infiltrated the apparatus;
- (4) the power cord or other parts are damaged, broken or missing;
- (5) the functionality of the apparatus seems altered;

 For safety reasons it is recommended not to use other accessories (e.g. electrodes, sponges, handpieces and power supply unit) than those supplied as standard equipment

 The frequency of maintenance, inspection and functional checks of compliance to safety standards EN60601-1 for medical devices, to be performed with secure-testers, is annual. The useful life of the instrument is guaranteed by the company only if such maintenance is performed regularly.

NOTE: it is recommended to perform the checks only with New Age Italia srl, or qualified personnel authorized by it. The apparatus that requires maintenance can be sent directly to the company laboratories or delivered to the retailer where it was purchased.

Cap.28 HELP CENTRE:

New Age Italia s.r.l. - Via De Brozzi, 3 - 48022 Lugo (RA)

Tel:+39 0545 32019; Fax: +39 0545 369028 –

E-mail: asstecnica@newageitalia.it

Cap.29 SYMBOLS



BF TYPE APPARATUS

















CAUTION, SEE THE ATTACHED DOCUMENTATION



THIS DEVICE IS MARKED CE ACCORDING TO DIRECTIVE
93/42CEE AMENDED BY 2007/47/CE

Cap.30 WARNINGS

-  Use the apparatus only with electrical installations that comply with the Safety Standards in force.
-  The apparatus has an IP20 protection (see chap. "Technical characteristics") and is not recommended to use it in the immediate vicinity of liquids, because the apparatus is not protected against infiltrations.
-  At the end of the life of the product, in accordance with the WEEE directive 2005/96, deliver the apparatus to an electronic goods authorized disposal centre, or return it to the manufacturer who will dispose of it in accordance with the laws .
-  We recommend that you do not use it in the immediate vicinity of mobile phones (keep at least a few feet away).
-  Operating in close proximity (e.g. 1 meter) of a device for short-wave therapy, or microwaves, can produce instability in the output of the stimulator.
-  Do not simultaneously connect the patient with the stimulator and a HF surgical apparatus, to avoid any danger to the patient and the stimulator.
-  The apparatus does not generate electromagnetic fields.
-  The faradic currents, diadynamic (Diad.) and direct current (Ion), have a non-zero direct component, so it is recommended to be careful.
-  The operator is advised not to simultaneously touch the patient and the active parts.
-  In the event of malfunctions and failures, the apparatus shall be sent only to the manufacturer.
-  Do not operate in close proximity to flammable substances
-  Please note that the use of the same electrodes and the same sponge envelopes or the same conductive bands on more patients could favour the phenomena of cross-infection between them.
-  Do not use any accessories other than those supplied. For the purchase of spare parts, please contact the manufacturer exclusively.

⚠ It is important to inform the patient about the type of sensations that will be felt during stimulation, in order to intervene immediately, discontinuing the stimulation from the commands of the instrument or detaching the electrodes, in case the sensations are no longer correct.

⚠ Keep out of reach of children.

⚠ Because of the current density in the electrodes in stimulation phase, one must carefully perform the maintenance operations for the proper use and storage.

⚠ The anal/vaginal probe shall used only **under medical supervision.**

Cap.31 POWER SUPPLY FEATURES

External power supply: MPU60-108

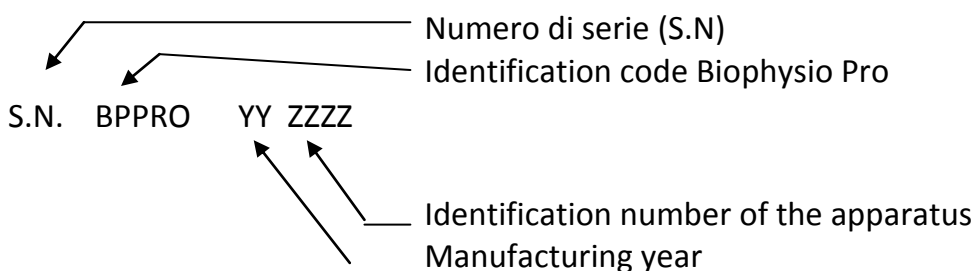
PRI: 100 - 240V ~ 47 - 63Hz SEC: 24V- 2,62A

Grid power absortion: max 60 VA.

Cap.32 OTHER FEATURES

- Dimensions: 250x200x110h [mm]
- Weight: 1500g ±
- Class: II Type: BF
- Classification of liquids input: IP20
- Safety in presence of inflammable anaesthtical gas: Not AP o APG cathegories
- Operation device: continuous

- Built according to the following standards:
 - EN 60601-1 (1998): Medical electrical equipment: General Rules for Safety
 - EN 60601-1-4 (1997): Collateral standard: Programmable electrical medical systems
 - EN60601-2-10 (2001) – Medical electrical equipment: Particular safety requirements for neuromuscular stimulators.
 - EN60601-1-2 (1998) – Collateral standard: Electromagnetic compatibility - Requirements
 - CEI 62-84 (1997) – Symbols for electro-medical equipment
 - EN60601-1-1 (2002) – Collateral standard: Safety requirements for systems Electromedical



Cap.33 BASIC EQUIPMENT AND ACCESSORIES

Basic equipment

N°1 Biophysio Pro Unit

N°1 Power supply

N°2 Output cables

N.4 Pre-gelled electrodes 50x50 mm

N.2 Conductive silicone electrodes + 2 sponge envelopes 60x80 mm

N.2 Conductive silicone electrodes + 2 sponge envelopes 80x120 mm

N.2 Elastic bands for fixing 70x3 cm

N°1 User's manual

Accessories and consumables

Electrodes and cables

Elastic bands

Anal and vaginal probe

Cap.34 BIBLIOGRAPHY

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