# **Insert** image of Compex Wireless USA with Modules

## **USER MANUAL**

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## **Foreword**

This manual has been written for the owners and operators of the Compex® Wireless USA. It contains general instructions for operation, precautionary instructions, and maintenance recommendations. In order to obtain maximum life and efficiency from your Compex Wireless USA, and to assist in the proper operation of the unit, read and understand this manual thoroughly.

The specifications put forth in this manual were in effect at the time of the publication. However, changes to these specifications may be made at any time without obligation on the part of DJO, LLC.

Before starting any program, you should become acquainted with the shopcompex.com website to establish an appropriate training plan.

The shopcompex.com website helps you take your first steps with the device.

## **About Compex Wireless USA**

## 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

#### 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.



#### Explosion Hazard

Text with an "Explosion Hazard"indicator will explain possible safety infractions if this equipment is used in the presence of flammable anesthetics.



#### **Dangerous Voltage**

Text with a "Dangerous Voltage" indicator serves to inform the user of possible hazards resulting in the electrical charge delivered in certain program configurations of waveforms.



#### BioHazardous materials

Text with a "Biohazard" indicator serves to inform the user of possible hazards resulting in improper handling of components and accessories that have come in contact with bodily fluids.



## (((\*))) non-ionizing electromagnetic radiation

Text with a "Non-Ionizing Electromagnetic Radiation" indicator informs the user of possible hazards resulting from elevated, potentially dangerous levels of non-ionizing radiation.

Note:

Throughout this manual, "NOTE" may be found. These Notes are helpful information to aid in the particular area or function being described.

• Read, understand, and practice the precautionary and operating instructions found in this manual. Know the limitations and hazards associated with the treatment table. Observe any and all precautionary and operational decals placed on the unit.

**ABOUT Compex Wireless USA** 

- DO NOT operate this unit in an environment where other devices are being used that intentionally radiate electromagnetic energy in an unshielded manner. Portable and mobile RF communications equipment can affect Medical Electrical Equipment.
- This unit generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to other devices in the vicinity. However, there is no guarantee that interference will not occur in a particular installation. Harmful interference to other devices can be determined by turning this unit on and off. Try to correct the interference using one or more of the following: reorient or relocate the receiving device, increase the separation between the equipment, connect the unit to an outlet on a different circuit from that which the other device(s) are connected, and consult DJO, LLC for help.
- **NOTE:** This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

# **!** CAUTION

- Reorient or relocate the receiving antenna
- Increase the separation between the equipment and receiver
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected
- Consult the dealer or an experienced radio/TV technician for help
- Some persons may experience skin irritation or hypersensitivity due to the electrical stimulation or electrical conductive medium (gel). The irritation can usually be reduced by using an alternative conductive medium or electrode placement.
- This device should be used only with the leads, electrodes and accessories recommended for use by the manufacturer.
- Caution should be used for users with suspected or diagnosed heart problems.
- The Compex Wireless USA should not be used while driving, operating machinery, or during any activity in which involuntary muscle contractions may put the user at undue risk of injury.
- The effects of stimulation of the brain are unknown. Therefore, stimulation should not be applied across the head and electrodes should not be placed on the opposite sides of the head.
- Caution should be used for patients with suspected or diagnosed epilepsy.
- Caution should be used in the presence of a tendency to hemorrhage following acute trauma or fracture, following recent surgical procedures when muscle contraction may disrupt the healing process, over a menstruating or pregnant uterus and over areas of skin which lack normal sensation.
- Donot allow any foreign bodies (soil, water, metal, etc.) to penetrate the device, the battery compartment and the charger.

# **!** CAUTION

- Do not use the device in water of in a humid atmosphere (sauna, hydrotherapy,etc.).
- This unit should be operated in temperatures between 32 °F and 104 °F (0 °C and 40 °C), atmospheric pressures between 700 and 1060 hPa and Relative Humidity ranging from 30%-75%.
- Sudden temperature changes can cause condensation to build up inside the stimulator. To prevent this, allow it to reach ambient temperature before use.
- Electrodes should not be shared with other persons. Each person should have their own set of electrodes; otherwise, undesirable skin reactions may occur.
- Self-adhesive electrodes should be replaced if they no longer stick firmly to the skin.
- Always use the charger provided by DJO, LLC to recharge the batteries.
- **IMPORTANT!** Changes or modifications not expressly approved by DJO, LLC could void the user's authority to operate the equipment.

# **! WARNING**

- The Compex Wireless USA should not be used adjacent to or stacked with other equipment, and if adjacent or stacked use is necessary, the unit should be observed to verify normal operation in the configuration in which it will be used.
- Use only accessories that are specially designed for the Compex Wireless USA. Do not use accessories manufactured by other companies on the Wireless USA. DJO, LLC is not responsible for any consequence resulting from using products manufactured by other companies. The use of other accessories or cables may result in increased emissions or decreased immunity of the Wireless USA.
- Long term effects of chronic electrical stimulation are unknown.
- Safe use of electrotherapy during pregnancy has not been established.
- Stimulation should not be applied over the anterior 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 transthoracically in that the introduction of electrical current into the heart may cause cardiac arrhythmia.
- Stimulation should not be applied over swollen, infected, and inflamed areas or skin eruptions, e.g., phlebitis, thrombophlebitis, varicose veins, etc.
- The user must keep the device out of the reach of children.
- Do not disconnect any stimulation cables during a session while the stimulator is switched on. Switch the stimulator off first.
- Never connect stimulation cables to an external power supply. There is a risk of electric shock.
- Never recharge the stimulator without first disconnecting the stimulation cables.

# **! WARNING**

- Never carry out an initial stimulation session on a person who is standing. The first five minutes of stimulation must always be performed on a person who is sitting or lying down. In rare instances, people of a nervous disposition may experience a vasovagal reaction. This is of psychological origin and is connected with a fear of the muscle stimulation as well as surprise at seeing one of their muscles contract without having intentionally contracted it themselves. A vasovagal reaction causes heart to slow down and blood pressure to drop, which can make you feel weak and faint. If this does occur, all that is required is to stop the stimulation and lie down with the legs raised until the feeling of weakness disappears (5 to 10 minutes).
- Never allow movement resulting from muscular contraction during a stimulation session. You should always stimulate isometrically; this means that the extremities of the limb in which a muscle is being stimulated must be firmly fixed, so as to prevent the movement that results from contraction.
- Do not use the Compex Wireless USA if you are connected to a high-frequency surgical instrument as this could cause skin irritation or burns under the electrodes.
- Never use the Compex Wireless USA or the charger if it is damaged (case, cables, etc.) or if the battery compartment is open. There is a risk of electric shock.
- Disconnect the charger immediately if the Compex Wireless USA "bleeps" continuously, if there is abnormal heating or smell, or if smoke comes from the charger or the Compex Wireless USA.
- Do not recharge the battery in a confined space (carrying case, etc.). There is a risk of fire or electric shock.
- Do not use the stimulator at altitudes of over 9,842 feet (3,000 meters).

# **! WARNING**

- Stimulation should not be applied over the carotid sinus nerve particularly in patients with a known sensitivity to the carotid sinus reflex.
- Stimulation should not be applied transcerebrally.
- Stimulation should not be applied over, or in proximity to, cancerous lesions.
- DO NOT operate this unit in an environment where other devices that intentionally radiate electromagnetic energy, such as RFID equipment, are being used in an unshielded manner. Fixed, portable and mobile RF communications equipment can affect Medical Electrical Equipment. RFID equipment can, for example, be Anti-Theft equipment in stores. In case of doubt about the presence of RFID equipment in the vicinity of the device, DO NOT use the Compex Wireless USA device.
- Only use accessories that are specifically designed for the Compex Wireless USA. Do not use accessories manufactured by other companies with the Compex Wireless USA device.
   DJO,LLC is not responsible for any consequence resulting from using products manufactured by other companies. The use of other accessories or cables may result in increased emissions or decreased immunity of the Compex Wireless USA.

# / DANGER



- Stimulus delivered by the waveforms of this device, in certain configurations, will deliver a charge of 25 microcoulombs ( $\mu$ C) 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 a cardiac arrhythmia.
- Users 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 implante 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.
- Explosion hazard if the Compex Wireless USA is used in the presence of flammable anesthetics mixture with air, oxygen, or nitrous oxide.

#### INDICATIONS FOR USE

The Compex Wireless USA is intended to stimulate healthy muscles in order to improve or facilitate muscle performance. It is to be used by adults only.

The Compex Wireless USA is not intended for adjunctive therapy in the treatment of medical diseases and conditions of any kind. None of the Compex Wireless USA stimulation programs are designed for injured or disease afflicted muscles. Its use on such muscles is contraindicated. The work imposed on the muscles by the Compex Wireless USA programs is definitely not suitable for rehabilitation and physiotherapy.

The Compex Wireless USA electrical impulses allow the triggering of action potentials on motoneurones of motor nerves (excitations). These excitations of motoneurones are transmitted to the muscle fibers via the motor endplate where they generate mechanical muscle fiber responses that correspond to muscle work. Depending on the parameters of the electrical impulses (pulse frequency, duration of contraction, duration of rest, total session duration), different types of muscle work can be imposed on the stimulated muscles.

The Compex Wireless USA may therefore be considered a technique of muscle training.

#### CONTRAINDICATIONS

### Never use the Compex Wireless USA on:

- · Painful muscles
- · Atrophied muscles
- Muscles with spasms
- Muscles associated with a limb with a painful or afflicted joint

#### Do not use the Compex Wireless USA:

- · For muscle reeducation
- · To prevent or retard disuse atrophy
- To prevent venous thrombosis
- To maintain or increase range of motion
- · For muscle spasms
- · For blood flow deficiencies

#### CONTRAINDICATIONS (CONTINUED)

## Do not use the Compex Wireless USA if you have one or more of the following medical conditions:

- This device must not be used on persons with cardiac pacemakers, defibrillators, or other implanted metallic or electronic devices.
- · Cardiac demand pacemakers
- Epilepsy
- · Following acute trauma or fracture
- · Following recent surgical procedures
- · Critical ischemia of lower limbs
- · Abdominal or inguinal hernia
- Cancerous lesions
- Pregnancy (do not use on abdominal region)
- Serious arterial circulation problems in lower limbs
- Sensitivity problems or unable to express yourself

### Osteosynthesis equipment

The presence of osteosynthesis equipment (metallic equipment in contact with the bone: pins, screws, plates, prostheses, etc.) is not a contraindication for the use of Compex Wireless USA programs. The electrical currents of the Compex Wireless USA are specially designed to have no harmful effect on osteosynthesis equipment.

#### ADVERSE REACTIONS

- Skin irritation and burns beneath the electrodes have been reported with the use of powered muscle stimulators.
- Headache and other painful sensations have been reported during or following the application of electrical stimulation applied to the head, face, and near the eyes.

## **Contents**

#### COMPEX Wireless USA

**NOTE:** You are strongly advised to carefully read the safety precautions and contraindications described at the start of this manual prior to using your stimulator.

## **Device description**

#### Remote control



- A On/Off button (press briefly to turn on, hold down for more than 2 sec. to turn off)
- B 4 buttons for the selection/deselection of the stimulation channel
- C Multifunction pad (up-down-left-right) to navigate the interface and increase or decrease the level of stimulation intensity of the selected channels
- D Confirm button
- E Plug for the docking station connector

#### Module



A - On/Off button (press briefly to turn on, press and hold down to turn off)

Flashing green LED: Ready
Flashing yellow LED: In stimulation

B - Groove for winding the cable

## **CONTENTS**

## **COMPEX WIRELESS USA DOCK**



- A Remote control charging connector
- B Notch to open the lid of the docking station



- C Location for positioning the modules to be recharged
- D Charger plug

#### **CONTENTS**

#### **ACCESSORIES**

TOOLSOOMED	Ref	Qty
Remote Control	00300	1
Modules	001062	4
Docking Station	002000	1
Instructions on USB Stick	13-8851	1
Electrode Placement Guide	4525534	1
Quick Tips Sheet	4884430	1
Quick Start Guide	885742	1
Carry Case	680042	1
Remote Control Protection Sleeve	5529029	1
Wireless Desktop Adapter 5v 3.5A	649028	1
Compex Lanyard	5529028	1
Remote Control Protection Sleeve	001094	1
Performance Electrodes 2" X 2", Compex	11-9119	1
Performance Electrodes 2" X 4", Compex	11-9120	1
Performance Electrodes 2" X 4", Compex Rectangular 1 Snap	11-9123	1

Only use this device with, electrodes, battery, Docking Station and accessories recommended by Compex.

Compex Wireless USA users can purchase electrodes for their device via phone by dialing Toll Free at 1-877-266-7398 or shop online at www.ShopCompex.com.

## INTRODUCTION

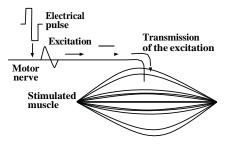
#### HOW DOES ELECTROSTIMULATION WORK?

The principle of electrostimulation is to stimulate nerve fibers by means of electrical impulses transmitted by electrodes. The electrical pulses generated by Compex Wireless USA stimulator are high quality pulses - offering safety, comfort and efficiency.

The motor nerves, to stimulate a muscular response. The quantity and the benefits obtained depend on the stimulation parameters and this is known as electromuscular stimulation (EMS).

#### MOTOR NERVE STIMULATION (EMS)

In voluntary activity, the order for muscular work comes from the brain, which sends a command to the nerve fibers in the form of an electrical signal. This signal is then transmitted to the muscular fibers, which contract. The principle of electrostimulation accurately reproduces the process observed during a voluntary contraction. The stimulator sends an electrical current impulse to the nerve fibers, exciting them. This excitation is then transmitted to the muscular fibers causing a basic mechanical response (= muscular twitch). The latter constitutes the basic requirement for muscular contraction. This muscular response is completely identical to muscular work controlled by the brain. In other words, the muscle cannot distinguish whether the command comes from the brain or from the stimulator. The parameters of the Compex Wireless USA programs (number of impulses per second, contraction time, rest time, total program time) subject the muscles to different types of work, by stimulating different types of muscle fibers. In fact, different types of muscular fibers may be distinguished according to their respective contraction speed: slow, intermediate and fast fibers. Fast fibers will obviously predominate in a sprinter, while a marathon runner will have more slow fibers. With a good knowledge of human physiology and a perfect mastery of the stimulation parameters of the various programs, muscular work can be directed very precisely towards the desired goal (muscular reinforcement, increased blood flow, firming up, etc.).



Elementary mechanical response - Twitch

15

#### INTRODUCTION

#### BENEFITS OF ELECTROSTIMULATION

Electrostimulation is a very effective way to make your muscles work:

- with significant improvement of different muscular qualities
- · without cardio-vascular or mental fatigue
- with limited stress on the joints and tendons. Electrostimulation thus allows a
  greater quantity of work by the muscles compared with voluntary activity.

To be effective, this work must involve the greatest possible number of muscular fibers. The number of fibers working depends on the stimulation energy. The maximum tolerable energy should therefore be used. The user controls this aspect of stimulation. The higher the stimulation energy, the greater the number of muscular fibers that are working and, therefore, the more significant the progress achieved. To maximize results, DJO, LLC recommends that you complement your electrostimulation sessions with other efforts, such as:

- · regular exercise
- proper and healthy nutrition

## **SAFETY GUIDE**

## Who should not use the Compex Wireless USA

Check the following list of 15 questions:

	Questions	Yes/No
1	Are you equipped with a cardiac pacemaker, defibrillator, or other implanted metallic or electronic device?	
2	Are you epileptic?	
3	Have you recently been victim of an acute trauma (less than 6 months)?	
4	Have you recently been subject to a surgical procedure (less than 6 months)?	
5	Do you have blood flow deficiency in your lower limbs?	
6	Do you have an abdominal or inguinal hernia?	
7	Do you suffer from cancer?	
8	Are you pregnant?	
9	Do you suffer from cardiac problems or diseases?	
10	Do you have painful or afflicted joints?	
11	Do you have muscle spasms?	
12	Do you have atrophied muscles?	
13	Do you have painful muscles?	
14	Do you need muscle reeducation?	
15	Do you have any joint showing a decrease in its range of motion?	

If you answer "Yes", or "Maybe", or "I don't know" to one or more questions, do not use the device and contact Compex Product Support, DJO, LLC for more information.

If you have 15 "No" answers, you can use the Compex Wireless USA.

Compex Product Support
Toll free: 877-266-7398 (877-COMPEX8)

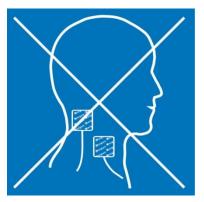
## **SAFETYGUIDE**

## WHERE NEVER TO APPLY ELECTRODES

• On the head or any area of the face



• On the neck or any area of the throat

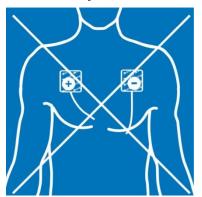


## **SAFETY GUIDE**

#### WHERE NEVER TO APPLY ELECTRODES

## (CONTINUED)

• On both sides of the thorax simultaneously (front and back sides, or lateral sides)





•On, or in the vicinity of skin lesions or eruptions of any kind (wounds, swelling, burns, irritation, eczema, etc.)

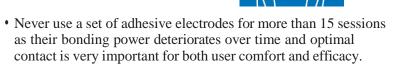


- Over the abdominal region during menstruation periods
- On skin areas lacking of normal sensation.

#### PRECAUTIONS WHEN USING ELECTRODES

# **!** CAUTION

- Only use electrodes supplied by DJO, LLC. Other electrodes may have electrical properties that are unsuitable for the Compex Wireless USA stimulator.
- Do not use electrodes with a surface < 16 cm<sup>2</sup> (2.94 in<sup>2</sup>), as there will be a risk of suffering a burn injury. Caution should always be exercised with current densities > 2mA/cm<sup>2</sup> (12.9mA/in<sup>2</sup>).
- Always turn off the stimulator before moving or removing any electrodes during a session.
- Do not place the electrodes in water.
- Do not apply solvents of any kind to the electrodes.
- For best results, wash and clean the skin of any oil and dry it before attaching the electrodes.
- Attach the electrodes in such a way that their entire surface is in contact with the skin.
- For obvious reasons of hygiene, each user must have his/her own electrode set. Do not use the same electrodes on different people.



• Some people with very sensitive skin may experience redness under the electrodes after a session. Generally, this redness is completely harmless and disappears after 10 to 20 minutes. Never start another stimulation session in the same area, however, if the redness is still visible.

## **OPERATION**

#### PRELIMINARY SETTINGS

Before using the unit for the first time, you should select the working language of the device which is displayed on the options screen. Follow the instructions below. Afterwards, for the greatest comfort, the Compex Wireless USA offers you a number of setting options (operating language selection, display contrast setting, adjusting backlighting and volume setting). To change any of these settings, bring up the settings screen by navigating to the settings icon and selecting settings by pushing the center button on the remote control.

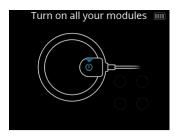
#### First use

When using the device for the first time, the following steps must be followed:

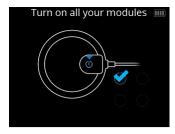
1. Select language



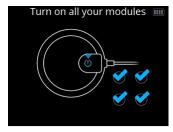
2. Turn on all modules in order to pair them with the remote control.



Once a module is turned on and recognized by the remote control, a check appears on the module.



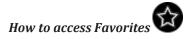
When all modules are paired all check marks appear.



Note: This pairing procedure is to be performed only once.

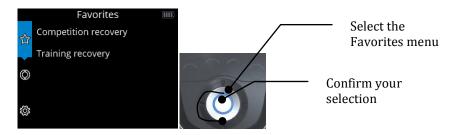
## **Device function**

The following screens are generic examples but they work in the same way regardless of the device that you have.

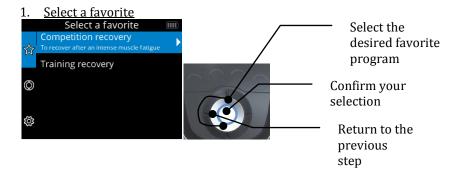


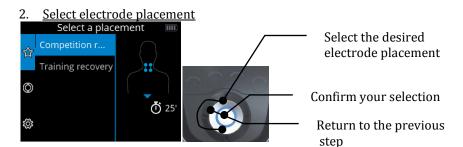
The Favorites menu displays the last programs used. You need only have one program in the Favorites menu to become directly accessible after turning on the device.

#### **UPDATE SCREEN IMAGES BELOW**



The programs done will automatically be placed in the Favorites menu. The Favorites menu can contain up to 9 programs. If new programs are done, the old ones will automatically be removed from the list of favorites.



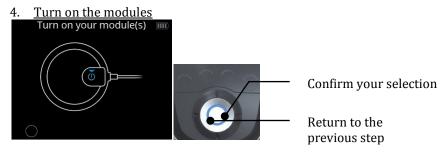


The placement of electrodes selected during the program appears. It is possible to scroll through other electrode placements.

## 3. Connect the modules to the electrodes



Stick the electrodes to your skin The module is attached to the electrode from the side. Slide the module onto the electrode's snap until it clips into place



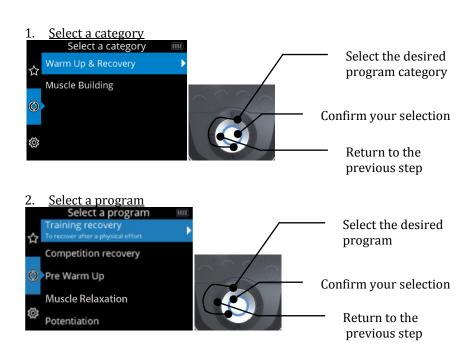
To launch the program, see the section entitled "Start a stimulation program."

# How to access Programs

For more information on programs, connect to: www.compex.info

The Programs menu displays the program categories.





3. Select electrode placement

Select a placement

Training recovery

Competition r...

Pre Warm Up

Muscle Relaxation

Potentiation

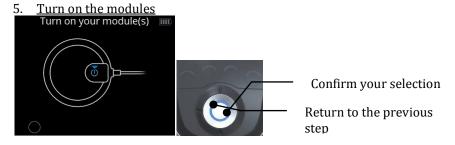
Return to the

previous step

## 4. Connect the modules to the electrodes



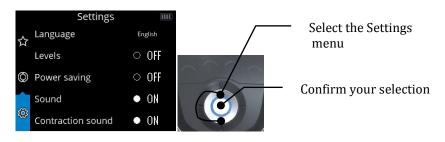
Stick the electrodes to your skin The module is attached to the electrode snap from the side. Slide the module onto the electrode's snap until it clips into place.

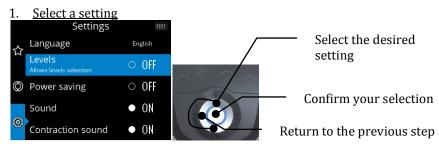


To launch the program, see the section entitled "Start a stimulation program."



The Settings menu enables certain elements to be configured such as backlighting, volume, language, etc. Some settings are not available in all devices.





Levels: Turns the Levels function on (ON) or off (OFF) The Levels function is for people who are already accustomed to electrostimulation and want to perform several training cycles. If the Levels function is turned on (ON) an additional screen will appear for certain programs (programs inducing powerful muscle contractions) enabling the training cycle to be selected.

#### PROGRESSION IN THE LEVELS

In general, it is not advisable to go through the different levels quickly with the intention of reaching level 5 as fast as possible. In fact, the different levels correspond to progress with electrostimulation.

The goal is to progress through the electrical intensities and then through the levels. The more numerous the muscle fibers you stimulate, the more numerous will be the fibers that are going to progress. But the speed of progress of these fibers and their aptitude for operating at a higher rating depend on the program and level used, the number of sessions per week, the length of these sessions and on intrinsic factors specific to each individual.

The simplest and most usual procedure is to start with level 1 and raise the level when changing to a new stimulation cycle.

At the end of a cycle, you may either start a new cycle at the next level up or do some maintenance at the rate of 1 session.

Power Saving: Turns the Power Saving mode function on (ON) or off (OFF). Decreases the intensity and the backlighting time.

Sound: Turns the Sound function on (ON) or off (OFF).

Contraction Sound: Turns the contraction arrival warning sound on (ON) or off (OFF).

Set Time: Allows you to set the time on the device.

Set Date: Allows you to set the date on the device.

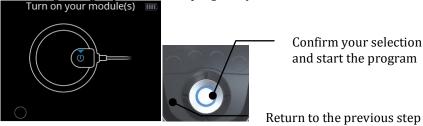
Pair a new module: Enables a new module to be paired to the remote control.

Reset to factory settings: Enables the device to be re-set and return to the basic settings (Favorites deleted, Objectives cleared, Default settings).

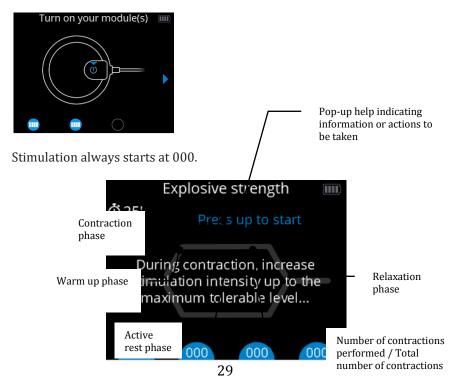
System info: Enables information related to the device to be viewed.

## Start a stimulation program

Before beginning any stimulation program, you must turn the modules on.



To turn on the modules, press their respective On/Off button. As soon as the module is turned on, its battery level appears on the screen. Turn on the number of modules desired according to the electrode placement selected. As soon as a sufficient number of modules is turned on, a small arrow appears on the right of the screen.





Select the channels on which to act. When a channel is active the LED button emits a strong blue light.

Increase or decrease the stimulation intensities on the selected channels

Pause

Increase the stimulation intensities on the selected channels.

By default, all of the channels are active at the beginning of the session. To deselect a channel, simply press the corresponding button.



In this case only channel 1 is active. Any change of intensity will only be performed on channel 1.

#### ADJUSTING STIMULATION ENERGIES

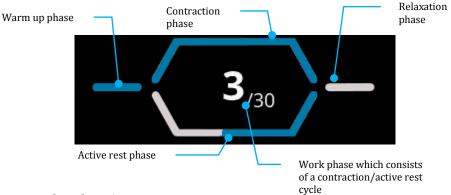
In a stimulated muscle, the number of recruited fibers depends on the stimulation energy. With a lower current intensity, there are fewer working fibers. With a higher current intensity the number of working fibers is increased.

For programs involving powerful muscular contractions, you must therefore use maximum stimulation energies (up to 999), always at the limit that you can endure, in order to recruit the maximum number of fibers.

## Contraction/active rest programs

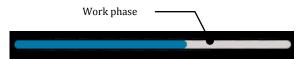
- Endurance
- Resistance
- <u>Strength</u>
- Explosive Strength

These programs always begin with a warm-up phase. After this warm-up phase, a contraction cycles phase followed by active rest occurs (the number of cycles depends on the program) and when all cycles are completed, the program ends with a relaxation phase.

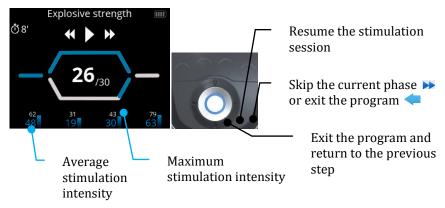


## Muscle Relaxation, recovery type program

These programs consist of a single phase and have no contraction/active rest cycle. These are recovery, muscle relaxation, pre warmup programs. During this type of program, frequency variations can occur.



## Pause and Continue a stimulation program



By pressing on the central button of the remote control or on the On/Off button of one of the modules during the stimulation, the device goes into pause. At this point it is possible to skip the current phase or exit the program.

Depending on the program, maximum and average intensities statistics may appear.

N.B.: the session restarts with intensities equal to 80% of those used prior to the interruption.

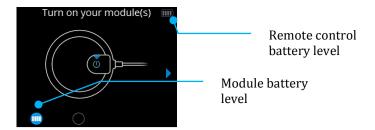
## End a stimulation program



At the end of the session a screen with a check mark appears. Pressing on any button returns you to the Main menu. To turn off the device, hold down the remote control's On/Off button for 2 seconds. This will also result in turning off all modules.

Depending on the program, maximum and average intensities statistics may appear.

# Charging Battery level indication



Module battery levels appear just prior to launching the stimulation session. The remote control battery level is always visible in the top right corner.

#### Connect the docking station

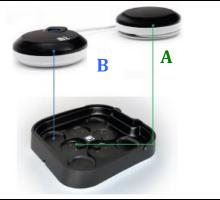
Connect the AC adapter supplied with your device to the docking station and then plug it into a power outlet. It is strongly recommended that you fully charge the remote control batteries and modules before first use in order to improve its performance and life expectancy.

#### Charge the remote control and the modules

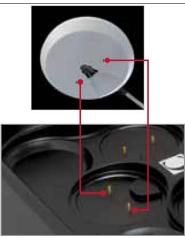
At the end of the stimulation session, it is strongly recommended that you store the remote control and modules in the docking station to charge the elements.



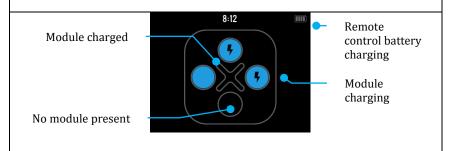
In order to do so, place the remote control on its connector.



Then place the modules in the slots provided for this purpose. To do so, place the "A" pod without the On/Off button (the green one in the figure) in the location indicated in green and the other pod "B" in the location indicated in blue. Do the same for the other modules.



The pod without the On/Off button must fit on the small connectors. A magnet as well as the small vertical mark on the hull of the pod helps to position the pod correctly in its slot. When it is positioned correctly you should hear a click.



When a module is placed on the docking station it appears on the remote control's screen.

As soon as the remote control and modules are fully charged, they go into standby mode.

### Note about battery shelf life:

If the device is not used for an extended period, we recommend that you charge the batteries to 50% of their capacity every 3 months. You should also store the device containing the batteries in a cool and dry environment.

## **OPERATION**

#### **PROGRAMS**

#### A . MUSCLE STIMULATION TRAINING PROGRAMS

**NOTE:** For the 4 basic workout programs: Endurance, Resistance, Strength, Explosive Strength, we advise you to consult the training planner on our website shopcompex.com.

The Compex Wireless USA provides four muscle stimulation training programs. They correspond to the type of muscle performance the athlete wishes to improve or maintain. These training programs are:

Endurance

Strength

Resistance

· Explosive Strength

Each of these four training programs offers five different working levels that enable the amount of work to be gradually increased.

#### **Endurance**

The Compex Endurance program imposes an average medium working level on muscle fibers. This working level is maintained over a long period (40 minutes per session). The Endurance program particularly activates the aerobic metabolism of the fibers during the stimulation session. The purpose is to increase the time the muscle is able to maintain a medium level of working power or the average power level the muscle is able to maintain durations of 1 to 5 (7) minutes. The program may be used in most physical preparations to establish or improve basic muscle endurance. It is designed to increase the average intensity of muscle effort that must be maintained over a long period. It is most appropriate for athletes engaged in endurance sports such as marathon, triathlon, cycling, etc.

#### Resistance

The Compex Resistance program imposes an average high power working level on muscle fibers. This working level is maintained over a short period (12 minutes per session). The Resistance program activates the anaerobic metabolism of muscle fibers during the stimulation session and induces the production of lactic acid. It is intended to increase the time the muscle is able to maintain a high power working level (close to its maximum) or the average power working level the muscle is able to maintain for a short duration. It is designed for sporting activities, which are characterized by a need for intense (close to the maximum) efforts to be maintained or repeated to approach the limit of muscle exhaustion. Sports requiring this type of effort are, for example, the 400 and 1600 meters, one-kilometer cycle races and 200 and 400 meters swimming. It is appropriate for many other sports based on duration, such as cycling, which makes repeated demands on muscle resistance.

#### **OPERATION**

#### A. MUSCLE STIMULATION TRAINING PROGRAMS (CONTINUED)

#### Strength

The Compex Strength program imposes a high and instantaneous power working level on muscle fibers during tetanic contractions. These contractions are separated by long periods of rest. The result is an average medium power working level ( $\pm$  20 minutes). This program is intended to increase the maximum strength of muscle contraction, which is carried out isometrically or dynamically. It is specifically designed for sports characterized by a need for maximum but very brief strength contractions lasting 5-60 seconds. Weight lifting is a typical sport of this kind since a set of 10 repetitions will take ~30 seconds to complete. This program is also appropriate for any type of sports requiring a gain in strength on a specific muscle (cycling, short distance running, soccer, etc.).

#### Explosive Strength

The purpose of the Compex Explosive Strength program is to increase the speed with which maximum muscle strength can be supplied. It is designed to improve performance in sporting activities of very brief duration such as jumps, sprints and throwing. To ensure a progressive approach in the muscle stimulation training, you are strongly advised not to use this program without having previously worked through a cycle of sessions using the Strength program.

#### B. SPECIALIZED MUSCLE TRAINING PROGRAMS

The Compex Wireless USA also offers five special muscle training programs. Their objective is to prepare muscles for activity, explosive motions or to facilitate recovery after active muscle training and competition:

Potentiation

• Pre-Warmup

• Muscle Relaxation

Training Recovery

Competition Recovery

#### **Potentiation**

The Compex Potentiation program produces the physiological muscular phenomenon known as "Twitch potentiation". A specific system of stimulation increases the amplitude and the speed of the elementary muscle twitch response of muscle fibers, more particularly of fast fibers. A potentiated muscle gains in velocity and reaches its maximum strength more easily and rapidly. This program is recommended before performing a sprint, a jump or a throw. Applied briefly just before the beginning of a competition, it offers immediate, well potentiated muscle fibers and an optimal level of performance to basketball, soccer or volleyball players.

#### **OPERATION**

#### B. SPECIALIZED MUSCLE TRAINING PROGRAMS (CONTINUED)

#### Training Recovery

The Compex Active Recovery cool-down program produces muscle twitches at a very low frequency. Those twitches act like a muscle relaxation and induce an increase in blood flow. They are responsible for a faster reduction of the lactic acid blood level (much better than mere rest) and accelerate the exchanges between muscle fibers and blood. Consequently, the stimulated muscles recuperate better from fatigue and the athlete has a feeling of relaxation and muscle lightness. This type of cool- down program is recommended after hard training sessions and competitions. It is particularly useful after sports requiring long duration efforts, combining endurance and resistance (cycling, marathon, triathlon, mountain-bike, etc.). The same is applicable to sports that require shorter efforts (basketball, soccer, football).

#### Pre-Warmup

The Compex Pre-Warmup program helps muscles to get ready and should be used before training sessions and before competitions. The twitches increases blood flow, warm the muscle tissue, and speed all the reactions necessary for the most efficient muscular contraction.

#### Competition Recovery

The Compex Recover Plus program is a sub-set of the Active Recovery program that produces the lower frequencies for inducing gentle muscle contractions and to increase in blood flow and generate endorphins-the bodies natural analgesic. This program should be used after training sessions and competitions.

#### Muscle Relaxation

The Compex Muscle Relaxation program produces gentle muscle twitches to facilitate recovery from muscle fatigue and to help recover muscle strength after training sessions and competitions.

## OPERATIONAL GUIDELINES

#### USAGE GUIDELINES

The usage guidelines presented in this section should be considered as general rules. For all programs, it is recommended that you read carefully the usage information and advice presented in the Operation section. You should use the shopcompex.com web site to establish an appropriate training plan. The shopcompex.com web site helps you with your first steps with the device.

#### CHOOSING THE APPROPRIATE MUSCLE WORK PROGRAM

The choice of a program determines the kind of work that is imposed on the stimulated muscles. Based on your knowledge about sport training, you can choose the program that is appropriate to your needs. Please go on the shopcompex.com web site as it offers an advanced interactive way to establish an appropriate work program. With just a few answers to basic questions, the "Training Planner" will determine which is the most appropriate program for you.

#### PLANNING STIMULATION SESSIONS

The Training Planner (shopcompex.com) will determine the number of training sessions per week you should do and the number of weeks you should use a muscle training program.

#### ELECTRODE POSITIONS

For optimal results, use the electrode positions recommended by Compex. To do this, refer to the pictures and pictograms shown on the Remote Stimulator.

Each stimulation module has two pods: A positive pole (+) = power on/off pod A negative pole (-) = smooth top connection

A different electrode must be connected to each pole.

#### OPERATIONAL GUIDELINES

Depending on the characteristics of the current, efficacy can be optimized in certain programs by placing the electrode connected to the positive pole (positive pod connection) "strategically". When working with a muscle stimulation program (program involving muscle contractions), it is important to place the positive electrode on the motor point of the muscle.

It is crucial to choose the right size electrodes (large or small) and correctly position these on the muscle group you want to stimulate to ensure the efficacy of the program. Therefore, always use the size of electrodes shown in the pictures. Unless you have other specific medical instructions, always follow the placement directions in the pictures.

DJO, LLC disclaims all responsibility for consequences arising from electrodes placed in other positions. See the Safety Guide section of this manual to more information on where not to apply electrodes.

#### STIMULATION POSITIONS

This position will vary depending on the position of the electrodes, the muscle group you wish to stimulate, and the program you are using. For programs involving powerful muscular contractions, the muscle should always be stimulated in an isometric fashion. When first becoming familiar with the device and the effects of the programs. You must therefore fix the extremities of your limbs securely. In this way, you provide maximum resistance to the movement and prevent any shortening of the muscle during the contraction, which could create cramp pains and serious stiffness after the session.





For example, when stimulating the quadriceps, the user should be in a seated position with the ankles fixed with straps to prevent extension of the knees.

For other types of programs (*for example, the Training Recovery / Active Recovery program*), which do not involve powerful muscular contractions, position yourself as comfortably as possible.

#### OPERATIONAL GUIDELINES

#### ADJUSTING STIMULATION ENERGIES

In a stimulated muscle, the number of recruited fibers depends on the stimulation energy. With a lower current intensity, there are fewer working fibers. With a higher current intensity the number of working fibers is increased.

For programs involving powerful muscular contractions, you must therefore use maximum stimulation energies (range = 1 to 999), always at the limit that you can endure, in order to recruit the maximum number of fibers.

#### PROGRESSION IN THE LEVELS

In general, it is not advisable to go through the different levels quickly with the intention of reaching level 5 as fast as possible. In fact, the different levels correspond to progress with electrostimulation.

The goal is to progress through the electrical intensities and then through the levels. The more numerous the muscle fibers you stimulate, the more numerous will be the fibers that are going to progress. But the speed of progress of these fibers and their ability for handle increasing training loads depend on the program and level used, the number of sessions per week, the length of these sessions and on intrinsic factors specific to each individual.

The simplest and most usual procedure is to start with level 1 and raise the level after 3 to 6 training sessions (a cycle).

At the end of a cycle, you may either start a new cycle at the next level up or do some maintenance at the rate of 1 session.

## **Troubleshooting**

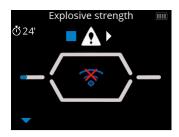
### Electrode fault



The remote control displays the symbol of an electrode and a disconnected module and an arrow flashes on the channel in question (in this case, channel 1).

- Ensure that the electrodes are properly connected to the module.
- Check to see if electrodes are old, worn and/or if contact is poor: try using new electrodes.

#### Module out of range



The remote control displays the out of range symbol and an arrow flashing on the channel where the problem was detected (in this case, channel 1).

- Check to make sure that the module and the remote control are less than 7' ( $\sim$ 2 meters) away from each other.
- Make sure you are not in an isolated area with no obstacle to reflect the signal from the remote control.
- Make sure you are in an area that enables the signal to be reflected from the remote control.

#### Behavior of the module's LED

The LED alternately flashes green and red: the module is out of range or not recognized by the remote control.

- Ensure the remote control is on.
- Ensure that the module and the remote control are less than 6.5" (2 meters) away from each other.

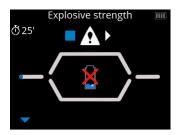
#### The LED is still red.

- Ensure the module is charged.
- Try to restart the remote control and modules.
- If despite this the LED is still red, contact customer service provided and approved by Compex.

#### The LED does not turn on.

- Ensure the module is charged.
- If despite this the LED still does not turn on, contact customer service provided and approved by Compex.

### Module uncharged



During the stimulation a module may be uncharged. In this case the symbol for an uncharged battery appears and an arrow flashing on the channel where the problem was detected (in this case, channel 1).

- Stop the stimulation and recharge the uncharged module.
- Abandon the uncharged module and continue the stimulation session without it.

#### The module will not pair with the remote control



At the time of first use, if the remote control is unable to pair all modules, an error message may appear.

- Ensure that the module is charged, and repeat the pairing step.
- If despite this the message returns, contact customer service provided and approved by Compex.

#### Stimulation does not produce the usual sensation

- Check that all settings are right and check electrodes are properly positioned.
- Change the positioning of the electrodes slightly.

### Stimulation causes discomfort

- Electrodes lose their adhesive capacity and no longer provide adequate contact with skin.
- Electrodes are worn and must be replaced.
- Change the positioning of the electrodes slightly.

## The device is not working

- Ensure that the remote control and modules are charged.
- Try to restart the remote control and modules.
- If despite this the device still does not work, contact customer service provided and approved by Compex.

## **Device Maintenance**

## Warranty

See the warranty card, enclosed.

#### **Maintenance**

Your stimulator does not require any calibration or periodic maintenance. Use a soft cloth and solvent-free alcohol-based detergent to clean your device. Use as little liquid as possible to clean the device. Do not dismantle the stimulator or the charger because they contain high voltage components which could cause electrocution. This must be carried out by Compex-approved technicians or repair services. If your stimulator contains parts that appear to be worn or faulty, please contact the closest Compex customer service center.

Storage/transport and use

	Storage and transport	Use
Temperature	<i>-4</i> ° F <i>to 113</i> °F	-32° F to 104 °F
	(-20° C to 45° C)	( $0^{\circ}$ C to $40^{\circ}$ C
Maximum relative	75%	30% to 75%
humidity		
Atmospheric pressure	from 700 hPa to	from 700 hPa to
	1060 hPa	1060 hPa

Do not use in areas at risk of explosion.

## **Disposal**

Batteries must be disposed of in accordance with national current regulations. Any product bearing the WEEE label (a bin crossed out with a cross) must be separated from household waste and recycled as electronic waste.

## **Technical Specifications**

#### General information

Remote control battery: Rechargeable  $3.7[V] / \ge 1,500[mAh]$  lithium polymer (LiPo) battery.

Module battery: Rechargeable  $3.7[V] / \ge 450[mAh]$  lithium polymer (LiPo) battery.

Compex Wireless USA docking station: Only 5[V] / 3.5[A] AC power adapters bearing reference number 64902X can be used to recharge your device.

#### Neurostimulation

All the electrical specifications are supplied for an impedance from 500 to 1000 ohms per channel.

Outputs: four independent and individually adjustable channels, electrically insulated from one another.

Impulsion form: constant rectangular current with compensated impulses to eliminate any direct element of continuous current to avoid any residual polarisation from the skin.

Maximum impulse intensity: 120 mA.

Impulse intensity increments: manual adjustment of stimulation intensity from 0 to 999 (energy) by minimum increments of 0.25 mA.

Duration of impulses: from 300 to 400  $\mu$ s.

Maximum quantity of electricity per impulse: 96 microcoulombs (2 x 48  $\mu$ C, compensated).

Typical impulse rise time: 3 µs (20%-80% of maximum current).

Frequency of impulses: 1 to 120 Hz.

## RADIO FREQUENCY WIRELESS INFORMATION

Radio Frequency Wireless technology is used in the Compex Wireless USA for communication between the remote control and the stimulation modules.

Radio Frequency Wireless Description			
Wireless Protocol Characteristics			
Frequency band	2.4 GHz ISM		
Protocol type	Proprietary frequency hopping		
Channels	6 channels		
Channel width	2 MHz		
Frequency modulation	GFSK		
Frequency deviation	$\pm$ -320 kHz		
EIRP	Measured max -6.2 dBM (0 dBM		
	configured as maximum output power)		
Effective emission power:	4.4 [dBm]		
Data rate	2 Mbps		
Quality of service requirement	2 meter range between remote and		
	stimulation modules		
Wireless Security Measures			
Device identification	32 bits, shared only with other Compex		
	Wireless USA devices		
Data integrity checks	Each data frame protected by a 16 [b]		
	length CRC		
Acknowledgement	Each point-to-point communication is		
	acknowledged		
Out of range behavior	- Stimulation modules stop stimulation		
	automatically when out of range from		
	remote control.		
	- Remote control stops entire network		
	stimulation when it detects one module		
	out of range.		
Coexistence with Other Compex Wireless USA Devices			

Compex Wireless USA wireless protocol is designed to allow coexistence with at least 3 other Compex Wireless USA devices

Each Compex Wireless USA remote control and module is assigned a unique ID. Before initial use, the remote is paired with the 4 stimulation modules in its network.

Coexistence with Other Wireless Technologies			
Designed for coexistence with	- Bluetooth (IEEE 802.15.1)		
wireless products in the same	- Wi-Fi (IEEE 802.11)		
RF band			
Utilizes established coexistence	- FDMA (Frequency Division Multiple		
principles to minimize cross-talk	Access)		
with other wireless devices.	- TDMA (Time Division Multiple		
	Access)		
Interference from other devices	- If all Compex Wireless USA RF		
	channels are saturated by emissions		
	from other devices, the failsafe		
	outcome is that all stimulation modules		
	will stop stimulation.		
	- Interference from other RF wireless and		
	mobile communication devices is		
	possible. Refer to <b>Table 4</b> for		
	recommended distances between		
	Compex Wireless USA and other RF		
FCCP	devices.		
FCC Requirements			
This device complies with Part	- This device may not cause harmful		
15 of the FCC Rules.	interference		
	- This device must accept any		
Operation is subject to the	interference received, including the		
following 2 conditions:	interference that may cause undesired		
Description of the LEGGID	operation.		
Remote Control FCC ID  Modules FCC ID	2AD2U-REMHHTFT24		
	2AD2U-NMESTNSMOD		
IC Requirements	TOL: 1 : 1 C.1		
This device complies with	- This device may not cause harmful		
industry Canada's licence-	interference		
exempt RSSs. Operation is	- This device must accept any		
subject to the following 2 conditions:	interference, including interference that		
conditions:	may cause undesired operation of the device.		
Pamata Control IC	12752A-REMHHTFT24		
Remote Control IC			
Modules IC	12752A-NMESTNSMOD		

#### **Standards**

The Compex Wireless USA complies with current medical standards.

The Compex Wireless USA also complies with the IEC 60601-1 standard on general safety requirements for electro-medical devices, the IEC 60601-1-2 standard on electromagnetic compatibility, the IEC 60601-2-10 standard on particular safety requirements for nerve and muscle stimulators, and the IEC 60601-1-11 standard for use in the home environment.

The Compex Wireless USA Docking Station is used to charge the remote control and stimulation modules. It complies with the IEC 60950-1 standard on general safety requirements for information technology equipment and the following standards for electromagnetic compatibility: IEC 61000-3-2, IEC 61000-3-3, CISPR 22, and CISPR 24.

## Information about electromagnetic compatibility (EMC)

The Compex Wireless USA is designed to be used in typical domestic approved environments in accordance with the safety standard EMC EN 60601-1-2.

The Compex Wireless USA is designed to support anticipated disturbance originating from electrostatic discharge, magnetic fields for the power supply or radiofrequency emitters.

However, it is not possible to guarantee that the stimulator will not be affected by powerful RF fields (radio frequency) originating from other sources.

For more information about electromagnetic emission and immunity, please contact Compex.

#### **PATENTS**

The Compex Wireless USA incorporates several innovations with patents pending.

#### **How to Get Help**

For Customer assistance or to order a hardcopy of the User Manual at no charge, please contact:

**Compex Product Support** 

Toll Free: 877-266-7398 (877-COMPEX8)

Fax: <u>1-760-734-1959</u>

E-Mail: Service@ShopCompex.com

Website: <a href="www.ShopCompex.com">www.ShopCompex.com</a>

Address: DJO, LLC 1430 Decision Street Vista, CA 92081

## **SPECIFICATIONS**

#### DESCRIPTION OF DEVICE MARKINGS

The markings on the Compex Wireless USA are your assurance of its conformity to the highest applicable standards of medical equipment safety and electromagnetic compatibility. One or more of the following markings may appear on the device:



The stimulator is a Category II device with built-in power supply and BF Type parts



Class II Device with internal electric power



Refer to Instruction Manual/Booklet/Website (shopcompex.com)



The On/Off button is a multifunction button:

- On/Off (two stable positions)
- Waiting or on standby for a part of the unit
- Stop (turns system off)



ETL Classified C US, 3184356 Canadian product safety standards. This device complies with UL Std. 60601-1 and is certified to CAN/CSA Std. C22.2 No. 601.

## 1. Explanation of symbols



See the instructions



Manufacturer's name and address and date of manufacture



This device must be separated from household waste and recycled as electronic waste



Protect from sunlight



Store in a dry place



Non-ionizing radiation



On the unit means: Protected against solid bodies with a diameter equal to or greater than 12.5 mm (0.5 po.)



IP02 on the carrying case means: Protected from the ingress of water droplets from a shower of rain.



Reference



Batch number

#### **OUTPUT WAVEFORM**

Biphasic rectangular impulse with electrical mean equal zero (net zero DC). All electrical specifications are given for an impedance of 500-1000 ohms per channel. **channels:** Four independent and individually adjustable channels that are electrically isolated from each other and earthed.

## **SPECIFICATIONS**

# TABLE 1: RECOMMENDATIONS AND DECLARATION BY THE MANUFACTURER CONCERNING ELECTROMAGNETIC EMISSIONS

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

EMISSIONS TEST	COMPLIANCE	ELECTROMAGNETIC ENVIRONMENT - GUIDANCE
RF Emissions Stimulation mode: CISPR 11 Charging mode: CISPR 22	Group 1 Complies	The Compex Wireless USA uses RF energy only for its internal operation. Consequently, its RF emissions are very low and are unlikely to interfere with any adjacent electrical device.
RF Emissions Stimulation mode: CISPR 11 Charging mode: CISPR 22	Class B Class B	The Compex Wireless USA is suitable for use in any establishment, including a private dwelling and a place connected directly to the low voltage mains supply which powers residential
Harmonic Emissions IEC 61000-3-2	Class A	
Voltage Fluctuations/ Emission Oscillations IEC 61000-3-3	Complies	

# TABLE 2: RECOMMENDATIONS AND DECLARATION BY THE MANUFACTURER CONCERNING ELECTROMAGNETIC IMMUNITY

The Compex Wireless USA is designed for use in the electromagnetic environment stipulated below. The customer or the user of the Compex Wireless USA must ensure that it is used in this recommended environment.

IMMUNITY TEST	IEC 60601 TEST LEVEL	COMPLIANCE LEVEL	ELECTROMAGNETIC ENVIRONMENT - GUIDANCE
Electrostatic discharge (ESD) IEC 61000-4-2	±6 kV at the contact ±8 kV in air	±6 kV at the contact ±8 kV in air	Floors must be wood, concrete, or ceramic tile. If floors are covered with synthetic material, the relative humidity should be at a minimum of 30%.
Electrical fast transient/burst IEC 61000-4-4	±2 kV for power supply lines ±1 kV for input/ output lines	±1 kV for power supply lines Not Applicable (I/O lines) CISPR24 COMPLIANCE LEVEL	The quality of the power supply should be that of a typical commercial or hospital environment.
Surge (1) IEC 61000-4-5	±1 kV differentia 1 mode ±2 kV common mode	±1 kV differential mode Not Applicable (Line to Earth) CISPR24 COMPLIANCE LEVEL	The quality of the power supply should be that of a typical commercial or hospital environment.

Voltage dips, short interruptions and voltage variations on power supply input lines IEC 61000-4-11	<5% UT (>95% dip in UT) for 0.5 cycle  40% UT (60% dip in UT) for 5 cycles  70% UT (30% dip in U) for 25 cycles  <5% UT (>95% dip in U) for 5 sec	<5% UT (>95% dip in UT) for 0.5 cycle <5% UT (>95% dip in UT) for 1 cycle 40% UT (60% dip in UT) for 10 cycles  70% UT (30% dip in U ) for 25 cycles  <5% UT (>95% dip in U) for 5 sec CISPR24 COMPLIANCE LEVEL	The quality of the power supply should be that of a typical commercial or hospital environment. If the Compex Wireless USA user requires continuous operation during mains power cuts, we recommend that the Compex Wireless USA is powered by a UPS.
Power frequency (50/60Hz) magnetic field IEC 61000-4-8	3 A/m	Stimulation mode: 3 A/m  Charging mode: N/A  No components subject to magnetic field	Magnetic fields at the mains frequency should be at the level of a representative site located in a typical commercial or hospital environment.

Note: UT is the a.c. mains voltage prior to application of the test level.

# TABLE 3: RECOMMENDATIONS AND DECLARATION BY THE MANUFACTURER CONCERNING ELECTROMAGNETIC IMMUNITY

The Compex Wireless USA is designed for use in the electromagnetic environment stipulated below. The customer or the user of the Compex Wireless USA must ensure that it is used in this recommended environment.

IMMUNITY TEST	IEC 60601 TEST LEVEL	COMPLIANCE LEVEL	ELECTROMAGNETIC ENVIRONMENT - GUIDANCE
			Portable and mobile RF communications equipment should be used no closer to any part of the Compex Wireless USA, including cables, than the recommended separation distance calculated from the equation applicable to the frequency of the transmitter.
			recommended separation distance:
Conducted RF IEC 61000-4-6	3 Vrms 150 kHz to 80 MHz	3 Vrms 150 kHz to 80MHz CISPR24 COMPLIANCE LEVEL	$d = 1.2\sqrt{P}$
Radiated RF	3 V/m 80 MHz to 1 GHz	3 V/m	$d = 4 \sqrt{P 80 \text{ MHz to } 800}$ $MHz$
IEC 61000-4-3	3 V/m 1 GHz to 2.5GHz	3 V/m	$d = 6.7 \sqrt{P} 800 \text{ MHz to}$ 2.5 GHz

where P is the maximum output power rating of the transmitter in watts (W) according to the transmitter manufacturer and d is the recommended separation distance in meters (m).a Field strengths from fixed RF transmitters, as determined by an electromagnetic site survey **b**, should be less than the compliance level in each frequency range c. Interference may occur in the vicinity of equipment marked with the following symbol:



**Note 1**: At 80 MHz and 800 MHz, the higher frequency range applies.

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

a The compliance levels in the ISM frequency bands between 150 kHz and 80 MHz and in the frequency range80 MHz to 2,5 GHz are intended to decrease the likelihood that mobile/portable communications equipment could cause interference if it is inadvertently brought into patient areas. For this reason, an additional factor of 10/3 has been incorporated into the formulae used in calculating the recommended separation distance for transmitters in these frequency ranges.

**b** Field strengths from fixed transmitters, such as base stations for radio (cellular/cordless) telephones and land mobile radios, amateur radio, AM and FM radio broadcast and TV broadcast cannot be predicted theoretically with accuracy. To assess the electromagnetic environment due to fixed RF transmitters, an electromagnetic site survey should be considered. If the measured field strength in the location in which the Compex Wireless USA are used exceeds the applicable RF compliance level above, the Compex Wireless USA should be observed to verify normal operation. If abnormal performance is observed, additional measures may be necessary, such as reorienting or relocating the Compex Wireless USA.

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

#### **SPECIFICATIONS**

# TABLE 4: RECOMMENDED SPACING BETWEEN A PORTABLE AND MOBILE COMMUNICATION APPLIANCE AND THE COMPEX WIRELESS USA

The Compex Wireless USA is designed for use in an electromagnetic environment in which radiated RF waves are controlled. The buyer or user of the Compex Wireless USA can contribute to preventing electromagnetic interference by maintaining a minimum distance between RF portable and mobile communication appliances (transmitters) and the Compex Wireless USA according to the table of recommendations below and according to the maximum output power of the telecommunication appliance.

MAXIMUM TRANSMITTER	SPACING ACCORDING TO THE FREQUENCY OF THE TRANSMITTER M CISPR 11			
OUTPUT POWER W	FROM 150 KHZ TO 80 MHZ D = 1.2 √P	FROM 80 MHZ TO 800 MHZ D = 4 √P	FROM 800 MHZ TO 2.5 GHZ $D = 6.7 \sqrt{P}$	
0.01	0.12	0.4	0.67	
0.1	0.38	1.26	2.11	
1	1.2	4	6.7	
10	3.8	12.6	21.1	
100	12	40	67	

In the case of whose maximum output power is not shown in the table above, the recommended spacing of d meters (m) can be calculated using the appropriate equation for the transmitter frequency, where P is the maximum output power of the transmitter in watts (W) as set by the transmitter manufacturer.

**Note 1**: at 80 MHz and at 800 MHz, the spacing for high frequency amplitude is applied.

**Note 2**: These guidelines may not be appropriate for some situations. Electromagnetic wave propagation is modified by absorption and reflection due to buildings, objects, and persons.

## WARRANTY

DJO, LLC ("Company"), warrants that the Compex Wireless USA ("Product") is free of defects in material and workmanship. This warranty shall remain in effect for two years (24 months) from the date of original consumer purchase. If this Product fails to function during the two year warranty period due to a defect in material or workmanship, at the Company's option, the Company or the selling dealer will repair or replace this Product without charge within a period of thirty days from the date on which the Product is returned to the Company or the dealer.

All repairs to the Product must be performed by a service center certified by the Company. Any modifications or repairs performed by unauthorized centers or groups will void this warranty.

The warranty period for accessories is 90 days. Accessories include Pods and Power Supply.

#### This Warranty Does Not Cover:

Replacement parts or labor furnished by anyone other than the Company, the selling dealer, or a service technician certified by the Company.

Defects or damage caused by labor furnished by someone other than Company, the selling dealer, or a certified Company service technician.

Any malfunction or failure in the Product caused by product misuse, including, but not limited to, the failure to provide reasonable and required maintenance or any use that is inconsistent with the Product User Manual.

## Company shall not be liable in any event for incidental or consequential damages.

Some locations do not allow the exclusion or limitation of incidental or consequential damages, so the above limitation or exclusion may not apply to you.

To obtain service from Company or the selling dealer under this warranty:

1.A written claim must be made within the warranty period to the Company or the selling dealer. Written claims made to the Company should be sent to:

DJO, LLC 1430 Decision Street Vista, CA 92081-8553 USA

Phone: 1-877-266-7398 (877-COMPEX8)

and

2. The Product must be returned to the Company or the selling dealer by the owner.

This warranty gives you specific legal rights and you may also have other rights which vary from location to location.

The Company does not authorize any person or representative to create for it any other obligation or liability in connection with the sale of the Product.

Any representation or agreement not contained in the warranty shall be void and of no effect.

The Foregoing Warranty is in lieu of all other Warranties, expressed or implied, including any Warranty or Merchantability or Fitness For a Particular Purpose.