

NEURO20

TECHNOLOGY THAT MOVES YOU

*Whole-Body
Electrical Muscle Stimulation*
**NEURO20 PRO System
OPERATING MANUAL**

Version 1.7



Neuro20 PRO System Operating Manual

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Neuro20[®] PRO System OPERATING MANUAL

N20PRO-OM-V1.7 02/24

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See symbols glossary in the
TECHNICAL SPECIFICATIONS
section of the User Manual.

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SYMBOLS DESCRIPTION

The symbols and their descriptions will appear throughout sections of the Operating Manual. These symbols are associated with the Contraindications, Warnings, Precautions, and potential Adverse Effects. When seeing a symbol read carefully and consider the information prior to operating the equipment.

Symbol Description



CAUTION

The “CAUTION” symbol indicates text that will explain possible safety hazards that could potentially cause injury or damage to equipment.



DANGER

The “DANGER” symbol indicates potential imminent hazardous safety situations that could result in death or serious injury.



EXPLOSION HAZARD

The “Explosion Hazard” symbol indicates possible safety hazards if this equipment is used in the presence of flammable materials.



DANGEROUS VOLTAGE

The “Dangerous Voltage” symbol indicates possible hazards resulting in the electrical charge delivered in certain program configurations of waveforms.



BIOHAZARDOUS MATERIALS

The “Biohazard” symbol indicates possible hazards resulting from the improper handling of components and accessories that have come in contact with bodily fluids or components that need proper disposal.



NON-IONIZING ELECTROMAGNETIC RADIATION

The “Non-ionizing Electromagnetic Radiation” symbol indicates possible hazards resulting from elevated, potentially dangerous levels of non-ionizing radiation.



KEEP DRY

The “Keep Dry” symbol indicates possible hazards resulting when the suit is operated in water.



BF COMPONENTS

“BF Components” are devices with conductive contact to the User.

INTRODUCTION

Congratulations on your purchase of the Neuro20 PRO System.

Neuro20 Technologies encourages operators to learn the contents of this manual.

The manual is also available at www.neuro20.com/promanual.



Do not operate the System if there is any possibility of damage. If damage is a concern, first refer to Troubleshooting (pg.71). If troubleshooting does not resolve the concern, please contact technical support via e-mail at support@neuro20.com or by phone at +1.917-503-6876. Proper use and maintenance of the System is the sole responsibility of the registered owner/operator.

The Neuro20 PRO System is a medical device not intended for resale, loan, or lease to any third-party operator. Any resale, lease, loan, or distribution of the Neuro20 PRO System may only occur with the written consent of Neuro20 Technologies. If authorized consent is obtained, then the new owner must re-register the device with the company.



Caution! Federal Law restricts this device to sale by or on the order of a practitioner licensed by the law of the State in which he/she practices to use or order the use of this device.

Powered muscle stimulators should only be used under medical supervision for adjunctive therapy for the treatment of medical diseases and conditions. The Neuro20 PRO System should only be used by professional users on patients as prescribed.

INDICATIONS OF USE

The Neuro20 PRO System is intended to stimulate muscles in order to improve or facilitate muscle performance. Other indications for use include:

- Re-educating muscles
- Increasing local blood circulation
- Maintaining or increasing range of motion
- Relaxation of muscle spasm
- Retarding or preventing disuse atrophy

INTENDED USE ENVIRONMENT

The Neuro20 Pro System is intended to be used in a professional setting such as physicians' office, physical therapist, professional sports setting, and nursing homes, as well as in the home healthcare environment.

SAFETY

Contraindications, Warnings, Precautions, Potential Adverse Effects



Device User Manual

Do not operate this device until the User Manual with the Indications of Use, Contraindications, Warnings, Precautions, and potential Adverse Effects are carefully read and understood. If there are any questions, contact Neuro20 Technologies at support@neuro20.com or call customer support at +1 (917) 503-6876 prior to use.

ADVERSE REACTIONS

Skin irritation and burns beneath the electrodes have been reported with the use of powered muscle stimulators. Discontinue use and treat appropriately if this occurs. Lower the intensity of the stimulation during any subsequent session.

Reporting Adverse Reactions

Neuro20 encourages all patients to report any adverse reactions to their healthcare professional and then via email to info@neuro20.com. Neuro20 will keep a record of all adverse reaction reports in order to maintain updates, transparency, and public safety at all times and only share information to meet any necessary regulatory requirements.

MedWatch is the Food and Drug Administration's (FDA) program for reporting serious reactions, product quality problems, therapeutic inequivalence/failure, and product use errors with human medical products, including drugs, biologic products, medical devices, dietary supplements, infant formula, and cosmetics.

If you think you or someone in your family has experienced a serious reaction to a medical product, you are encouraged to take the reporting form to your doctor. Your health care provider can provide clinical information based on your medical record that can help FDA evaluate your report.

However, we understand that for a variety of reasons, you may not wish to have the form filled out by your health care provider, or your health care provider may choose not to complete the form. Your health care provider is not required to report to the FDA. In these situations, you may complete the Online Reporting Form yourself.

You will receive an acknowledgement from FDA when your report is received. Reports are reviewed by FDA staff. You will be personally contacted only if we need additional information.

Submitting Adverse Event Reports to FDA

Use one of the methods below to submit voluntary adverse event reports to the FDA:

Report Online at

www.accessdata.fda.gov/scripts/medwatch/index.cfm?action=reporting.home

Consumer Reporting Form FDA 3500B.

Follow the instructions on the form to either fax or mail it in for submission. For help filling out the form, see [MedWatchLearn](#). The form is available at

www.fda.gov/downloads/aboutFDA/reportsmanualsforms/forms/ucm349464.pdf

Call FDA at 1-800-FDA-1088 to report by telephone.

Reporting Form FDA 3500 commonly used by health professionals. The form is available at www.fda.gov/downloads/aboutFDA/reportsmanualsforms/forms/ucm163919.pdf.

CONTRAINDICATIONS



Pacemaker

Powered muscle stimulators should not be used on patients with cardiac demand pacemakers.

WARNINGS



Long Term Effects

The long-term effects of electrical stimulation are unknown.



Application of Electrodes to Other Body Locations

Stimulation should not be applied over the carotid sinus nerves, particularly in patients with a known sensitivity to the carotid sinus. Stimulation should not be applied across or through the head (transcerebrally), directly on the eyes, covering the mouth, on the front of the neck, (especially the carotid sinus). Severe spasm of the laryngeal and pharyngeal muscles may occur if placed on the neck and the contractions may be strong enough to close the airway or cause difficulty in breathing. Stimulation should not occur from electrodes placed on the chest and the upper back or crossing over the heart (transthoracic) in that the introduction of electrical current into the heart may cause cardiac arrhythmias.

Note! *The pectoralis and the complex of back muscles are superficial and electrical stimulation to these muscles is not considered trans-thoracic.*



Fever/Infection /Acute Inflammation

Stimulation should not be applied over swollen, infected, or inflamed areas or skin eruptions, e.g., phlebitis, thrombophlebitis, varicose veins, etc.



Active Cancer

Stimulation should not be applied over, or in proximity to, cancerous lesions. Electrical stimulation should not be applied directly over an area of the body where malignancy is known to be present.

WARNINGS (continued)



Implanted Defibrillator

Do not use electrical stimulation on patients with an implanted defibrillator, because this may cause electric shock, burns, electrical interference, or death.



Implanted Medical Device

Do not use electrical stimulation on patients who have an implanted metallic or electronic device because this may cause electric shock, burns, electrical interference, or death.



Patient Cognition / Cooperation/Children

Do not apply if the patient does not understand the potential risks of treatment.



Muscle Breakdown or Bruising coupled with Delayed Onset Muscle Soreness

Over working a muscle can result in some muscle breakdown. This condition results in muscle fiber disruption and small muscle cellular contents, such as myoglobin, exits the fiber and can appear as a bruise. Myoglobin also enters the blood stream is eventually cleared by the liver and kidneys. Urine can appear quite dark as the myoglobin clears. Discontinuation of the Neuro20 System and a review by a physician is important if this occurs. Resuming treatment requires clearance by a physician. Reducing the intensity of stimulation in future sessions and reducing overall exercise is warranted. Delayed Onset Muscle Soreness may also be noted without signs of muscle breakdown. This uncomfortable experience is very often noted after the first few sessions of electrical stimulation coupled with exercise. It can also be noted with increased exercise alone. Please review the physiology of DOMS. Soreness does not mean that stimulation should be discontinued, BUT reducing the intensity, and reducing the concurrent exercise is important as your treatment continues. If DOMS continues for more than a few days following electrical stimulation and exercise, then discuss this with your healthcare practitioner. We suggest waiting until the soreness is eliminated, or markedly reduced, before continuing use.



Skin Preparation

Apply electrical stimulation only to normal, clean, healthy skin.



Pregnancy

Do not apply electrical stimulation over the lumbar or abdominal region, or over the uterus during pregnancy (to prevent uterine contraction).

Precaution: Safety of powered muscle stimulators for use during pregnancy has not been established.



Menstruation

Do not use the Neuro20 electrical System over the lumbar or abdominal regions or over the uterus during menstruation as stimulation may temporarily increase menstrual flow.



Reproductive Organs

Do not apply electrical stimulation treatment over the testes. Electrical stimulation may affect organ function.

WARNINGS (continued)



DVT / Thrombophlebitis

Neuromuscular electrical stimulation should not be applied directly over or near Deep Vein Thrombosis (DVT) since it activates muscles causing contractions. This should be avoided in areas following an acute DVT when the thrombosis is not completely resolved. Follow treating physician guidelines on recommended activity levels and stimulation use. If the patient or subject is not permitted exercise, NMES therapy should be avoided.

Note! *Generally, NMES over a DVT of six weeks or less should be avoided altogether.*



Cardiac Disease

*Only low intensities and short treatment times should be used since stimulation of practically any afferent autonomic nerve (especially the Vagus nerve) in the body may cause a change in cardiac rate. **Note!** Consult with the patient's physician before using electrical stimulation because the stimulation System may cause lethal rhythm disturbances to the heart in susceptible individuals.*



Medical Equipment

Simultaneous connection of a patient to a high frequency surgical medical equipment may result in burns at the site of the stimulator electrodes and possible damage to the stimulator.



Diathermy/Microwave

Operation in close proximity (e.g. 1m) to a shortwave or microwave therapy medical equipment may produce instability in the stimulator output.



Application of electrodes near the thorax may increase the risk of cardiac fibrillation.



Monitoring Equipment

Electrical stimulation should not be applied to patients connected to patient monitoring equipment, as the simulation may influence the proper operation of the monitoring equipment.



Explosion hazard exists if the Neuro20 PRO System is used in the presence of flammable anesthetics mixture with air, oxygen, or nitrous oxide.



External Stimulator Systems

Electrical stimulation should not be applied directly over external stimulator Systems with lead wires.



To safely terminate operation of this device, press the red STOP button on the Neuro20 PRO Control box.

WARNINGS (continued)



User Activity

Portable powered muscle stimulators 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. Do not use when bathing or swimming. Do not apply powered muscle stimulators while falling asleep.



No modification of this equipment is allowed. Modification of the equipment may cause improper functioning which could lead to injury or death.

PRECAUTIONS



Epilepsy

Caution should be used in persons with suspected or diagnosed epilepsy or seizures. Patients with suspected or diagnosed epilepsy should follow precautions recommended by their physicians.



Healing Bones

Caution should be used with electrical stimulation when there is a tendency to hemorrhage following acute trauma, or fracture, in the presence of recent surgical procedures, or healing bone and soft tissue when muscle contraction may disrupt the healing process. Caution should be used when applying electrical stimulation over areas of the body which lack normal sensation. Absent or diminished sensation areas should be avoided or, if needed, to be treated with caution. Always determine acceptable intensity levels for desensitized areas that are likely to be less than intensity levels tolerated on normal skin in the opposite or related body parts.



Hypersensitivity

Some patients may experience skin irritation or hypersensitivity due to the electrical stimulation or electrically conductive medium. The irritation can usually be reduced by using an alternate conductive medium, or alternate electrode placement. Slightly increase electrode hydration and /or add normal saline spray to improve conductance. Adjusting the suit electrode placement may also reduce hypersensitivity.



Prescribing Practitioner

Electrode placement and stimulation settings should be based on the guidance of the prescribing practitioner.



Children or Unqualified Persons

Powered muscle stimulators should be kept out of reach of children. Powered muscle stimulators should be kept out of reach of unqualified persons.



Pets and pests

Powered muscle stimulators should be kept out of reach of pets and away from pests.

PRECAUTIONS (continued)



Lead Wires

Never connect lead wires to a power line or electro-surgery equipment. Powered muscle stimulators should be used only with the leads and electrodes recommended for use by the manufacturer.



User Activity

Portable powered muscle stimulators 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. Do not use when bathing or swimming. Do not apply powered muscle stimulators while falling asleep.



Output Intensity

Gradually increase the output intensity (power for each electrode) to the desired level, or to user tolerance, while monitoring the Operating Tablet display and asking for verbal feedback from the patient. To prevent startling do not apply greater power than tolerated. The output intensity should be increased gradually as user responses may vary greatly.



Conductive Mediums

An appropriate amount of coupling water in the electrodes and on the skin is important to ensure safe and optimal energy transmission to the tissue. Use of hand or body lotions or gels or ultrasound gels are not appropriate for use with the Neuro20 System and may temporarily or permanently interfere with stimulation function.



Bleeding Tendency

Use caution with electrical stimulation when a patient tends to bleed internally, such as following an injury or fracture.



Treatment Monitoring

Treatment areas should be self-checked before and after application, and if there is evidence of pain or irritation, adjust the output lower until it is tolerated.



Medicated Patches, Salves, Creams

The effect of electrical stimulation may be altered by the presence of these materials applied to the skin.



Hot / Cold Packs

Caution is recommended when treatment follows the application of hot or cold therapy, which may alter user sensation. Application of thermal agents over areas of impaired circulation should be performed with caution as the circulation may be insufficient to heat or cool the tissue, altering the patient's perception of warmth and pain.

PRECAUTIONS (continued)



Skin Inspection

Inspect and cleanse the skin prior to application. Following treatment, check the skin for evidence of irritation and if present, treat as appropriate. If there is skin irritation following treatment, shorten treatment time at the next treatment and/or reduce intensity, and if necessary, discontinue use.



Service / Repair Shock Hazard

A potential electric shock hazard exists once the device's outer casing is in part or fully removed. Only qualified service personnel should perform service and repairs. Do not Tamper with or remove the outer casing.



Cleaning

The Control Box must be disconnected from the Smart Suit before washing. When cleaning the electronic Control Box never immerse or wash with water or other liquids. Avoid oil, water, metal, or foreign substances to penetrate the battery compartment, charger, Control Box, or suit connection.



Condensation

Sudden temperature changes can cause condensation to build up inside of the stimulator, allow for the Neuro20 PRO Control Box to reach ambient temperature before use.



Strangulation can occur due to length of exposed component materials. Do not wrap any exposed component part around the throat or neck area. Keep out of the hands/reach of children at all times.



The Neuro20 PRO System contains small parts that will be harmful if swallowed and no part or component is intended for human consumption. Seek medical attention if swallowed.



Care must be taken when operating this equipment around other equipment. Potential electromagnetic or other interference could occur to this or to the other equipment. Try to minimize this interference by not using other equipment in conjunction with it.



Electronic monitoring equipment (such as ECG monitors and ECG alarms) may not operate properly when electrical stimulation is in use.



Do not operate this unit in an environment where other devices are being used that intentionally radiate electromagnetic energy in an unshielded manner.

PRECAUTIONS (continued)



Medical electrical equipment needs special precautions regarding EMC. Portable and mobile RF communication equipment can be affected by other medical electrical devices. If you believe interference is occurring, please consult the ELECTROMAGNETIC COMPATIBILITY section to assist in removing the interference.



Common RF emitting devices and electromagnetic security Systems (cellular phones, two-way radios, cordless phones, paging transmitters, RFID devices, etc.) may interfere with the operation of the Neuro20 PRO System. The Neuro20 PRO System has been tested in the presence of these types of devices and while no adverse event occurred, the device should not be operated within the vicinity or environment as another RF emitting device.

See symbols glossary in the TECHNICAL SPECIFICATIONS (Pg.69) section of the User Manual.



CONTACT

For assistance, if needed, in setting up, using or maintaining the Neuro20 PRO, or to report unexpected operation or events, contact:



Neuro20 Technologies,
140 Pine Ave North
Oldsmar, FL 34677, USA

Email: support@neuro20.com

Tel: +1 (917) 503-6876

Website: www.neuro20.com

PRODUCT DESCRIPTION

The Neuro20 PRO System is a powered muscle stimulator designed for individual or group rehabilitation and recovery. The System can create co-contraction muscle resistance as well as optimized sequenced movement patterns. The involuntary muscle activation can be voluntarily over-ridden through intentional exercise. Individual intensity levels can be modulated for each muscle group. One to ten patients may be treated within a session.

The Neuro20 PRO System is a wearable textile and supporting software platform, that provides electrical muscle stimulation interventions. The System utilizes electrical stimulation to create a motor neuron recruitment of muscle fiber (involuntary contraction), thereby bypassing the neural pathway that occurs during voluntary muscle recruitment. When combined with a voluntary movement, the contractions create enhanced performance and recovery.

Users may be actively engaged within a variety of training modes while the clinician/operator is controlling the software; or a User can receive therapeutic intervention at a respective physical rehabilitation facility.



Model Number: N20-PRO-SYS

The Neuro20 PRO System is designed to be operated for sessions for 1-10 users at a time. One Control Box is assigned per user and attaches to each user's Smart Suit. The operator controls the software for each user with individual controls for each.



SYSTEM COMPONENTS AND OVERVIEW

Neuro20 PRO System Components:

- Neuro20 PRO Control Box - Model Number: N20-PRO-CB
- Neuro20 PRO Software - Model Number: N20-PRO-SW
- Neuro20 Smart Suit - Model Number: N20-SS
- Neuro20 PRO System Operating Manual: N20-PRO-OM-V1.7

Neuro20 PRO System 3rd-Party Components:

- Operating Tablet w/charger and w/protective case
- Battery w/charger
- Protective case



Dispose of all batteries and component parts as per local regulations. Contact local authorities to determine the proper method of disposal of potentially bio-hazardous parts and accessories. Do not dispose of any System components in regular trash or recycling bins unless local regulations permit.

Protective Case for Neuro20 System (provided by 3rd party)

The Protective case is IP67 certified, water, dust and shock resistant and provides protection for the technology. The Neuro20 PRO System is placed in custom-cut foam to provide an additional layer of protection. The Smart Suit is packaged separately in a string bag, and includes a wash bag.

To prevent any damage to the components we suggest carrying the Neuro20 PRO System in the provided Protective Case when traveling and during storage.

Neuro20 Protective Case

Neuro20 PRO 1-4 Group System Packing Diagram



SYSTEM COMPONENTS AND OVERVIEW^(continued)

Neuro20 (PRO) System Operating Manual: N20-PRO-SOM-Ver 1.7 02/24

Neuro20 System Operating Manual



Neuro20 PRO System Operating Manual is a guide for safe operation and maintenance.

The Manual can be found within the Neuro20 PRO Software and a digital version can be downloaded from www.neuro20.com/promanual.

Neuro20 PRO Control Box - Model Number: N20-PRO-CB

The Neuro20 PRO Control Box attaches to the Smart Suit. The Control Box generates electrical impulses and is controlled by the operator through the Software installed on the Operating Tablet. The Control Box wirelessly connects to the operating tablet. The power supply of the Control Box is provided through a rechargeable, replaceable battery.

Neuro20 PRO Control Box



To determine whether the device has sufficient power to safely and effectively complete a session, please check page 33.

2 RGB LEDs are located at the top of the cabinet and indicate the following states:

Left LED

Blinking **Green** – device is performing initial self-test

Blinking **Red** – Battery is too hot or battery is not connected properly

Blinking **Yellow** – Remaining battery capacity is too low

Blinking **Blue** – the device is ready for connection

Blue – the device has an active wireless connection

Purple – the device is in firmware update mode

Blinking **Purple** – firmware update in progress

Right LED

Green – the device is switched ON and in the idle state

Purple – Work Period of Stimulation

White – Rest Period of Stimulation

Both LEDs Blinking **Red** - failure of one or more stimulation components

Left LED **Blue** & Right LED blinking **Yellow** – pause (device still connected)

Left LED blinking **Blue** & Right LED blinking **Yellow** – pause (device disconnected)

System COMPONENTS AND OVERVIEW (continued)

Battery & Charger

The provided battery (LP-E5 battery, model LF7.4900) & charger for the Neuro20 PRO Control Box are certified for the use with Neuro20 PRO System.



Only provided battery or model equivalent to LP-E5 Li-ion (7.4V) should be used in the Neuro20 PRO Control Box.

Typical operation time for a fully charged battery is 6 hours of use. Typical shelf life for the battery is one year after full charge, and 500 charging cycles. Charging time for full charge is 3 hours. Once the battery percentage drops to 10%, in Device Management and when assigning devices for training sessions, the icon and text turn red. At this point, the battery should be replaced. Do not use battery with visible damage.



Dispose of all batteries and component parts as per local regulations. Contact local authorities to determine the proper method of disposal of potentially bio-hazardous parts and accessories. Do not dispose of any System components in regular trash or recycling bins unless local regulations permit



System COMPONENTS AND OVERVIEW (continued)

Operating Tablet – (Apple iPad, 9th generation or above)

The Operating Tablet comes with pre-setup for Neuro20 PRO use needs. The tablet wirelessly connects to the Neuro20 PRO Control Box and operates the Neuro20 PRO Software (app).

Neuro20 Operating Tablet



Neuro20 PRO Software - Model Number: N20PRO-SW

Neuro20 PRO Software is accessible on the Apple App Store and needs to be downloaded by the owner of the Neuro20 PRO System using the owner's Apple ID credentials, to assure proper functionality and updates of the Neuro20 PRO Software. More details are provided in the Quick Start Guide received with the System.



Neuro20 PRO App Icon



Software updates are issued on a regular basis. Keep your Operating Tablet's iOS updated by ensuring that the App Store's automatic updates are ON. We suggest that sole utilization of the provided Operating Tablet is reserved for the Neuro20 PRO Software.

Note - Neuro20 Technologies is not responsible for maintaining or installing any software or application other than the Neuro20 PRO Software.

System COMPONENTS AND OVERVIEW (continued)

Neuro20 Smart Suit - N20-SS

The Neuro20 Smart Suit is equipped with a slide and guide connection System for the Neuro20 PRO Control Box. Inside the Neuro20 Smart Suit there are specially designed electrodes which are placed to fit over various muscle groups. The suits are unisex in sizes ranging from XXS to XXL.



Do not use, or attempt to use any other stimulation suit with the Neuro20 PRO System. The Neuro20 Smart Suit is for single patient use only! Do not share Neuro20 Smart Suits between different users.

Neuro20 Smart Suit



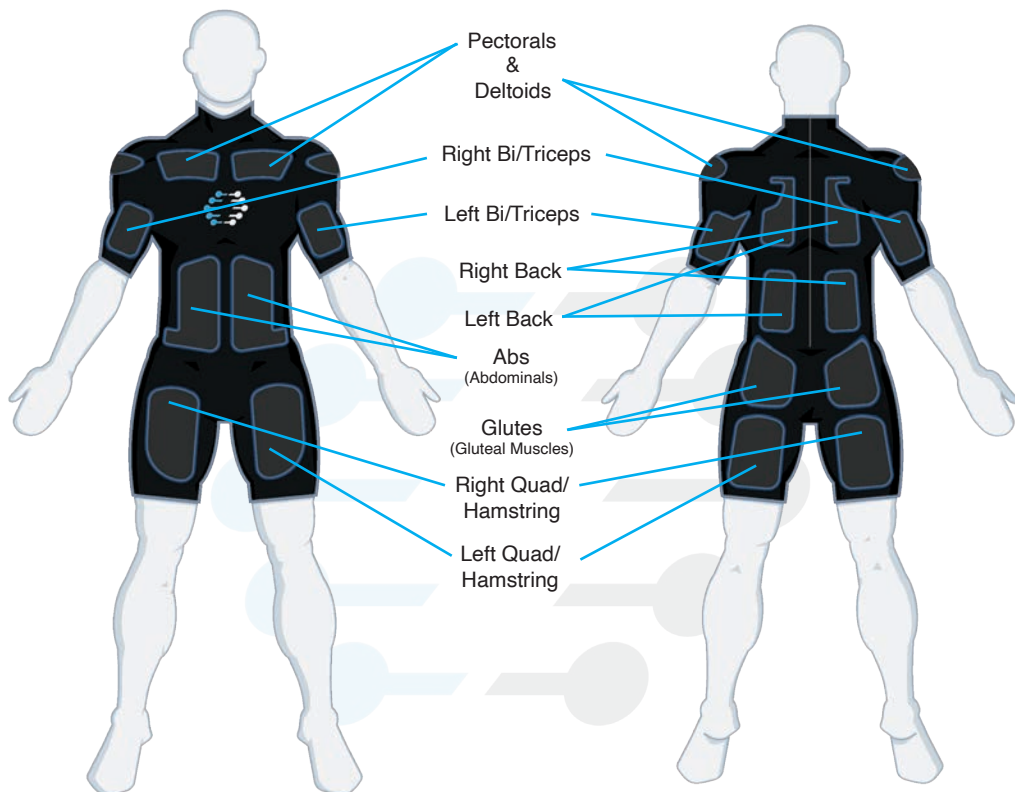
** Color of the Neuro20 Smart Suit displayed in this manual may not reflect the actual final product.*

System COMPONENTS AND OVERVIEW (continued)

Neuro20 Smart Suit - N20-SS (continued)

Electrodes (pads) on the Neuro20 Smart Suit fit over the following muscle groups.

Neuro20 Smart Suit - Electrodes / Muscle Group Diagram



Packaging and Washing Bag for Neuro20 Smart Suit

Each Neuro20 Smart Suit is individually packed in its own washing mesh bag and Neuro20 String bag for easy care, protection and simple way to carry your personal Neuro20 Smart Suit to and from your training sessions.

Neuro20 Smart Suit Packaging

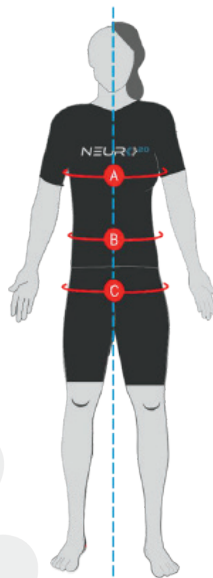


Neuro20 Smart Suit - Sizing

The Neuro20 Smart Suit is unisex and comes in 7 sizes. The Smart Suit is made from durable, anti-microbial, flexible, fitting material. The chart below is an approximate size guide. Please follow manufacturer care instruction (Pg.76).

It is important for the Neuro20 Smart Suit to fit tightly, so the electrodes are snug to the body, but not so tight that it restricts movement. Although durable, the Smart Suit is constructed with embedded technology and electronics, so selecting the right fit is important to minimize extra stress on the components and to assure comfortable delivery of the stimulation. Use the chart to choose the size closest to your measurements.

For those whose lower body and upper body does not match within the same size, size the suit by the larger matched part. Use of a compression shirt or shorts on top of the suit may be necessary for the smaller part of the body, to assure snug fit of the electrodes.



Neuro20 Smart Suit - Size Chart

MEASUREMENTS						
SIZE	Chest A		Waist B		Hips C	
	inch	cm	inch	cm	inch	cm
XXS	31.5 - 35	80 - 88	25.5 - 29	65 - 73	31.5 - 35	80 - 88
XS	35 - 37.5	88 - 96	29 - 32	73 - 81	35 - 37.5	88 - 96
S	37.5 - 41	96 - 104	32 - 35	81 - 89	37.5 - 41	96 - 104
M	41 - 44	104 - 112	35 - 38	89 - 97	41 - 44	104 - 112
L	44 - 48.5	112 - 124	38 - 43	97 - 109	44 - 47	112 - 120
XL	48.5 - 53.5	124 - 136	43 - 47.5	109 - 121	47 - 50.5	120 - 128
XXL	53.5 - 58	136 - 148	47.5 - 52.5	121 - 133	50.5 - 53.5	128 - 136

OPERATING MODES

The Neuro20 PRO System features five operating modes: Strength, Conditioning, Cool Down, Massage and Patterned Movements.

Operating Mode	Stimulation (Work) Period		Rest Period	
	84 Hz	175 μ s	No stimulation	No stimulation
Strength	84 Hz	175 μ s	No stimulation	No stimulation
Conditioning	40 Hz	175 μ s	7 Hz	175 μ s
Cool Down	100 Hz	75 μ s	No stimulation	No stimulation
Massage	84 Hz	175 μ s	7 Hz	175 μ s
PEMS - Patterned Movements (all)	84 Hz	175 μ s	No Stimulation	No Stimulation

Selecting the program mode is decided by the prescribing physician. To assist with deciding which mode is best for desired patient outcomes, please refer to the following descriptions of the operating modes:

Strength contracts and then releases the muscle based on the set stimulation time and rest periods.

Conditioning contracts the muscle during the stimulation period based on set the stimulation time, followed by a gentler stimulation period during the rest time.

Cool Down is a light contraction and release operating mode.

Massage contracts the muscle, followed by a gentler stimulation period.

PEMS stimulates muscles involved in specific movements. It includes a quick contraction followed by a rest period. Specifics vary per patterned movement. PEMS are divided into 2 groups: Continuous and Reactive PEMS Programs.

OPERATING MODES (continued)

The programs are to be used to reach the proposed indications in the following ways:

Indication	Mode
The Neuro20 PRO System is intended to stimulate muscles in order to improve or facilitate muscle performance.	• Strength • Conditioning • Massage • Cool Down • PEMS - Patterned Movements (all)
Other indications for use include: • Re-educating muscles • Increasing local blood circulation • Maintaining or increasing range of motion • Relaxation of muscle spasm • Retarding or preventing disuse atrophy	

INSTRUCTIONS OF USE

Each operating mode is to be utilized as prescribed by the physician based on the condition of the patient. This includes any increases in usage of the operating modes, as well as the choice of operating mode.

The prescribing physician is responsible for determining how often stimulation should be used, based on the condition of the patient. It is the manufacturer's recommendation that stimulation parameters at the beginning of the course of treatment be conservative. It is recommended to not exceed 10 minutes of stimulation within the first patient session, or as tolerable to the patient. Shorter sessions may need to be prescribed by the prescribing physician, depending on the patient needs. It is recommended that increases in stimulation time should not go beyond 30 minutes overall.

Treatment and use of the Neuro20 PRO System should be terminated at the physician's discretion.

The physician should be aware of all warnings and precautions listed in this manual.

The setting of the stimulation time and rest time is determined by the prescribing physician based on the desired outcome and condition of the patient.

It is suggested to begin treatment with a 1:2 ratio of stimulation to rest time (10 seconds on, 20 seconds off), however the final decision regarding use is solely at the discretion of the prescribing physician based on patient needs. The prescribing physician may change the ratio of stimulation to rest based on their discretion and patient tolerability.

INSTRUCTIONS OF USE (continued)

Strength, Conditioning, Cool Down, Massage, Patterned Movements

Trainings should be separated by a regeneration phase of at least 3 days between the sessions. Depending on the athlete's/patient's physical condition and fitness level, the regeneration phase may have to be longer. Do not exceed a training time of 30 minutes per session and do not exceed 2 sessions per week for no more than 15 weeks of device use.

If clarification is necessary, physicians can provide information about the optimum regeneration phase for optimum training results.

RUNNING A SESSION

This User Manual describes how to setup and control a stimulation session. For information regarding this, please refer to the Operating Procedures section, starting on the next page (Pg.22).

Medical providers should increase stimulation until the patient either reports active muscle recruitment or until active recruitment is noticeable to the professional operator. This may be accomplished by pressing the muscle group and then the (+) button on the tablet.

Note! For smaller muscle groups, smaller stimulation levels should be considered than for larger muscles.

The operator should continually communicate with their patient to ensure patient comfort and tolerability. The operator may decrease stimulation at any time by pressing the muscle group and then the (-) button on the tablet. The medical professional may pause the stimulation by pressing the Pause button on the tablet or stop the session at any time by pressing the Stop button. Also, the patient may stop the session at any time by pressing the Stop button on the Control Box, which serves as patient override control.

OPERATING PROCEDURES

Neuro20 Smart Suit



Prior the first use, inspect the Smart Suit to ensure there are no exposed wires, holes, or tears. Prior to putting on the Suit, we highly recommend applying Parker Signa Electrode Creme or Spray directly onto the electrodes, to assure comfortable delivery of the stimulation, especially for patients with movement restriction, who are not able to proceed with the warmup exercise.



Putting on the Neuro20 Smart Suit

1. Pull the Suit over your legs. **Zipper to be positioned on the back.** (Fig.1)
2. Gently pull the Suit over your hips. When pulling, take care to avoid abrupt movements; hold the suit by bulk, pull the Suit up slowly. (Fig.2) Adjust the position of electrodes on the quad and hamstring, if necessary.
3. Once the suit is over your waist, slip in one arm (Fig.3) and pull up the sleeve over your shoulder. Adjust the sleeve so that electrodes are in place. (Fig.4)
4. Follow the same procedure with the other arm, until the suit is fully over both shoulders. (Fig.5)
5. Hold the loop at the bottom of the zipper on your back with one hand (Fig.6a), use the other hand to hold the end of the zipper lanyard. (Fig.6b)
6. Pull the zipper lanyard upward, until fully zipped. (Fig.7)
7. Secure the magnet tab at the end of the lanyard to the magnet located at the bottom of the zipper. (Fig.8)

Fig. 1



Fig. 2



Fig. 3



Fig. 4



Fig. 5



Fig. 6a



Fig. 7



Fig. 8



Fig. 6b

OPERATING PROCEDURES (continued)

Neuro20 PRO Control Box



Prior to each training session, ensure a charged battery is in the Neuro20 PRO Control Box.

Inserting and removing the battery:

1. Twist the knob to the left to unlock the cover.
2. Remove the battery cover.
3. Insert battery by pushing in top of the battery first (Fig.3) and pressing down into the place (Fig.4)
4. Align the battery cover starting at the bottom first (Fig.5 - opposite from Stop button). Push down to close (Fig.6). Ensure that the battery cover is properly secured.
5. Twist the battery lock knob to the right - closed position. (Fig.7)



To remove the battery:

1. Pull on the red ribbon (Fig.8)
2. Pull the battery out (Fig.9).



OPERATING PROCEDURES (continued)

Neuro20 PRO Control Box (continued)

Attaching Neuro20 PRO Control Box

1. Ensure the Velcro strap on the suit is not in the fastener and out of the way (Fig.1) prior to connecting the Control Box, and that the silicone plug is out of the way (Fig.2). Make sure that the latch at the top of the hip clip is open (in the vertical position) (Fig.3).
2. Align the slide and guide rails of the Control Box with the rails on the hip clip of the Smart Suit (Fig.4).
3. Connect the Control Box to the Smart Suit by gently guiding the USB male connection into the female connection point on the hip clip of the Smart Suit. Then, carefully push the Control Box upwards, to ensure appropriate connection. Secure the Control Box by gently pressing down on the latch (horizontal position) (Fig.5). Give the Control Box one additional push (Fig.6).
4. Take the velcro fastening strap attached to the suit, place it over the Control Box, through the fastener, and close (Fig.7).

Fig. 1



Fig. 2



Fig. 3

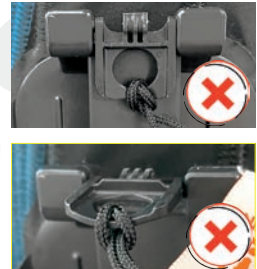


Fig. 4



Fig. 5



Fig. 6



Fig. 7



Note: If the latch does not close into the loop of the Control Box, ensure that the Control Box is pushed in all the way. Do not force!

OPERATING PROCEDURES (continued)

Detaching the Neuro20 PRO Control Box

1. Press the Neuro20 PRO Control Box Power Button (Fig.1) and ensure that the indicator lights are off.
2. Open the velcro fastening strap attached to the suit (Fig.2), remove from the fastener, and close the hook and pile strap to each other (Fig.3) to prevent damage to the suit.
3. Open the latch at the top of the hip clip (vertical position) (Fig.4) and slide the box downward off the guide rails (Fig.5). Do not pull the box away from the Suit as this may result in Smart Suit damage.
4. Push the silicon plug upwards into the USB-C Connector on the Smart Suit's connection plate (Fig.6).
5. Fasten the Velcro Strap to its position (Fig.7).

Refer to General Maintenance for the proper storage of the Neuro20 PRO Control Box.

Fig. 1



Fig. 2



Fig. 3



Fig. 4



Fig. 5



Fig. 6



Fig. 7



OPERATING PROCEDURES (continued)

INITIAL SOFTWARE SETUP (For System Owner Only)



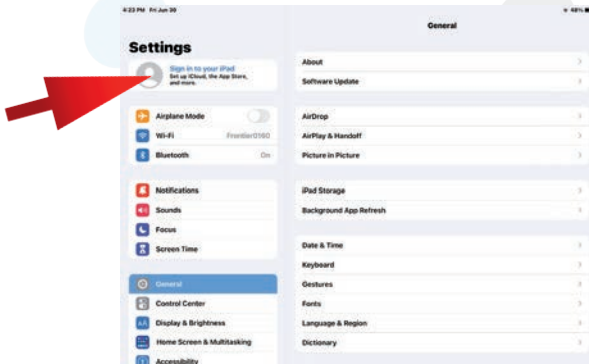
Please observe all safety instructions prior to starting up the System. This start-up configuration needs to be completed once, prior to the first use. Use the e-mail of the Admin/Owner of the System to set up the Neuro20 PRO Software. The Admin will need full access to this e-mail account. All rights for the use of the software and Neuro20 PRO Control Boxes will be registered and assigned to the Organization registered using this e-mail. During the registration process, the Admin will receive an activation e-mail from Neuro20 Technologies, to confirm registration of the device, and to activate the Owner's/Admin's Account. During this process, the Admin will be prompted to create a Password for login into the Neuro20 PRO Software.

Neuro20 PRO Software Installation

To ensure proper functionality and updates of the Neuro20 PRO Software, make sure the iPad is signed in with the Neuro20 PRO System Owner's Apple ID credentials. Follow these steps to install the Neuro20 PRO app on your tablet:

1. Sign-in to the Tablet with your Apple ID

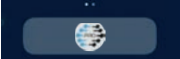
- » Go to Settings 
- » Sign-in with system Owner's Apple ID - it is on top left of the settings screen. If you don't have an Apple ID you prefer to use for your organization, please create one.



2. Open App Store 

3. In the Bottom Right corner, Search  Search for "Neuro20 PRO" App 

4. Install (Get) the Neuro20 PRO App

5. Drag the Neuro20 PRO App Icon to the bottom  banner of the screen for quick and easy access

OPERATING PROCEDURES (continued)

Neuro20 PRO Software Accounts/Profiles

There are 3 levels of permissions for accounts/profiles registered under Neuro20 PRO Software.

Admin/Owner (Manager), Trainer, Member/User (also referred to as Suit User).

Each profile contains personal data and stores individual training information. Profiles have different levels of access to the software and its functionality.

		DEVICE MANAGEMENT			PROFILE MANAGEMENT		TRAINING SESSION	
		App login	Control Box Activation/De-activation	Control Box Firmware Update	Create/ Edit Trainer Profile	Create/ Edit User Profile	Start Training Session	Use Suit/ Get Trained
PROFILES	ADMIN (OWNER)	✓	✓	✓	✓	✓	✓ ⚠	✓ ⚠
	TRAINER	✓	✗	✓	✗	✓	✓	✓ ⚠
	MEMBER (USER)	✗	✗	✗	✗	✗	✗	✓

⚠ To enable Admin to Start training Session, ensure to mark Admin/Owner as Trainer as well, under the same profile.

⚠ To enable Admin & Trainer to use the suit, ensure you mark Admin/Owner or Trainer as User as well, under the same profile.

The profiles can be created and managed via the Neuro20 PRO App or via any browser on the Neuro20 Web Panel.

Accessing/Managing the Profiles on Server

All Profiles can be accessed and edited/managed via any web browser directly on Neuro20 server at: <https://account.neuro20.net/>

The functionality depends on the level of the Account/Profile. Every account holder can edit their own profile, such as name, birth date, photo and change password.

	Server Account Management	Login	Edit Owned Profile	Add/Edit/Invite Trainers Profile	Add/Edit/Invite Members Profile	Overwrite Account Password	Delete Trainer or Member	Activate or Deactivate Trainer/Member
PROFILES	ADMIN / MANAGER	✓	✓	✓	✓	✓	✓	✓
	TRAINER	✓	✓	✗	✓	✓	✗	✓ ✗ ⚠
	MEMBER (USER)	✓	✓	✗	✗	✗	✗	✗

⚠ Owner, has the ability to create Manager Profile, to delegate the owners-like permissions to trusted person without sharing the main owner's account login details.

⚠ Trainer can Activate Member (suit user) but cannot Deactivate any profile.

⚠ The e-mail of the profile cannot be changed (edited) as e-mail is a login credential for the account. Make sure that you or any other Member has full access to the e-mail used to create the profile. Activation will be required.

Admin/Owner, Manager and Trainer, can see all Members registered under their Organization (Admin's) account. Members can only see their own profile. New Members can be also added to the Organization directly on the Web Panel.

OPERATING PROCEDURES (continued)

Software Registration and ADMIN/OWNER PROFILE SETUP



The following steps are for Admin/Owner of the Neuro20 PRO System ONLY and need to be done only one time.



Prior to operating the Neuro20 PRO Software, an Organization with an Owner's/Admin's Profile needs to be set up. This is an important step, as Software, Control Boxes, Trainer Profiles and Member Profiles will all need to be created/activated under this Owner's/Admin's Profile.

To do so, **Admin/Owner** of the System needs to proceed with following steps:

1. Open <https://account.neuro20.net/sign-up-org> or scan this QR code.



2. Fill out all the required information.



The email address for the owner's account should be the one owned by the Admin of the Neuro20 PRO System. The Organization Name is either your Company Name or your physical name if there is no Company.

3. Once all filled out, double check the email address entered is correct and click "Sign Up".
4. You will instantly receive an email with an Activation Link. If the email is not in your inbox, please check your Spam folder. If the email is not found within 5 minutes, please contact us at support@neuro20.com.
5. Once you locate the activation email, click on the activation link and follow the instructions. During the activation process, the Admin will be prompted to set up a password used to login into the Neuro20 PRO Software. The same login credentials are to be used to login to the Neuro20 Web Panel Account.
6. Upon completing the activation of your owner's account, verify the successful setup by logging in to the Neuro20 PRO App (Pg. 32).

If there is more than one Admin, or if the Admin of the Neuro20 PRO System is not involved in daily operations, another account with same privileges - Manager Account - can be created from "Manage Profiles" within the Neuro20 PRO App screen (Pg. 33).



Create New Manager Account

OPERATING PROCEDURES (continued)

Accessing Neuro20 PRO Software Manual

The Neuro20 PRO System Operating Manual can be accessed in four locations.

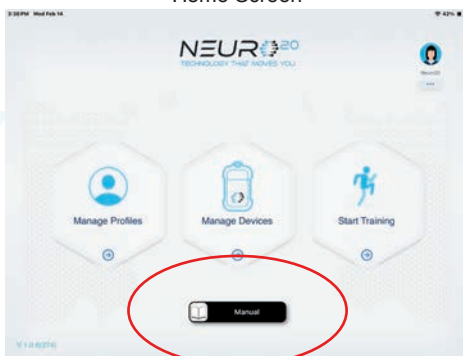
1. Login Screen of Neuro20 PRO Software/App
2. Home Screen of Neuro20 PRO Software/App
3. Downloadable as PDF file by scanning QR code located on Quick Start Guide (QSG) included with the Neuro20 PRO System.
4. Downloadable as PDF from www.neuro20.com/promanual.

Once the user opens the Neuro20 PRO Software/App, the Login screen will appear.

Login Screen



Home Screen



Click on the black “Manual” button. The following screen (Fig.1) with available languages opens. Choose your language and click on “Tap to read” to load the manual.

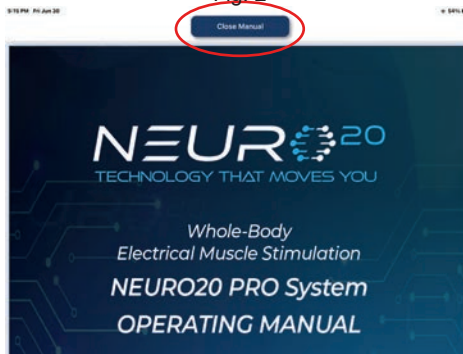
Click on “Close Manual” (Fig. 2) to return to previous screen.

Click “Back” button to return to the Login Screen.

Fig. 1



Fig. 2



OPERATING PROCEDURES (continued)

Opening Neuro20 PRO Software



This procedure can be done only after installing the Neuro20 PRO App on your Operating Tablet - see pg. 26 and after creating your Admin's Profile - see pg. 28.

1. Power-on the Operating Tablet by pressing the power button, then press the home button. If iPad is already On, skip this step.



2. Open the Neuro20 PRO Software by tapping the icon at the bottom of the screen.



OPERATING PROCEDURES (continued)

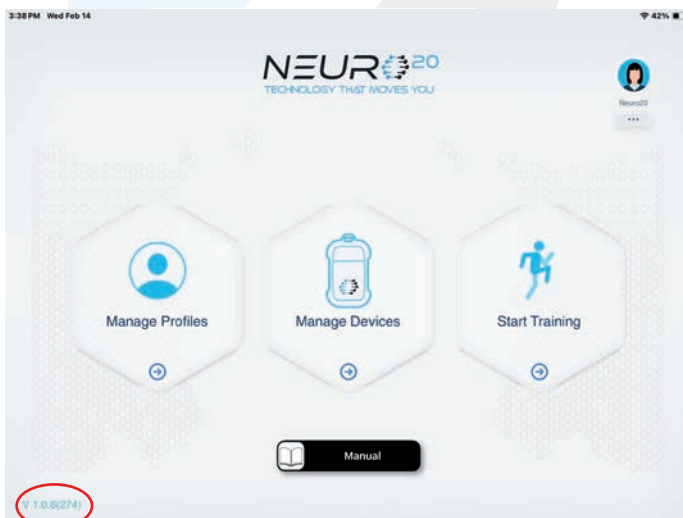
Log-In

To Log-in, fill in the user name (registered profile e-mail) and password created during the activation of the profile. If you forgot the password, click on Forgot Password. You will receive an e-mail with “Reset Password” instructions. (if email not received, check your spam folder)



Main/Home screen

After logging in, the following Home Screen appears:



The **software version** appears in the bottom-left corner.

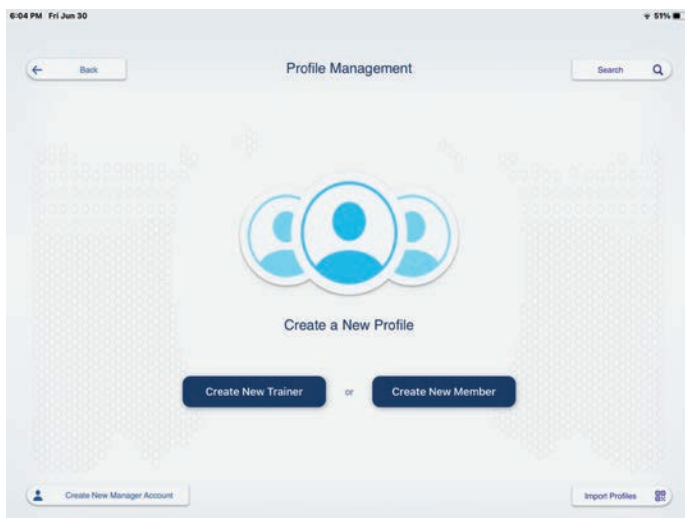
Three (3) buttons appear: Manage Profiles, Manage Devices and Start Training.

OPERATING PROCEDURES (continued)

Manage Profiles

Manage Profiles allows the Admin/Manager to control and manage all Trainers and Users within the Admin's Organization Profile.

If the user is in an account with Admin/Manager permissions, the screen shall appear as follows:



Note! *The Manager Account has the same authorizations and permissions as the Admin.*

To create the Profiles, follow these steps:

1. From the Main/Home screen, click "Manage Profiles".
2. Press either "Create New Trainer" or "Create New Member". Fill out all Fields. **Note!** In the "Create New Trainer" Field, there is a toggle choice to have the Trainer be a Member "suit user" as well, that allows them also to be trained.
3. Press the Save button - a dialogue box will appear on the screen (with the background being greyed out - picture Pg.33). Press "Okay".
4. The New Trainer or Member will need to verify their e-mail and set a password through their registered e-mail account. The account will be activated upon the completion of the verification process (if email not received, check your spam folder).

Note! *Only Owner/Manager can "Create New Trainer". When logged in as Trainer, the only option will be to "Create New Member".*

OPERATING PROCEDURES (continued)

The screenshot shows the 'Create New Member' form on a tablet. The form includes fields for First Name, Last Name, Email, Phone Number, Confirm Email Address, and Birth Date. A 'Save' button is at the bottom. A confirmation dialog box is overlaid on the form, displaying the text: 'Confirmation Sent. An Account Confirmation has been sent to the member email provided.' with an 'Okay' button.

08:14 Tue 5 Jul 99%

Cancel

Create New Member

First Name: First Last Name: Last

Email: Email Phone Number: +1 201-555-0123

Confirm Email Address: Confirm Email Birth Date: 01 / 01 / 1990

Save

Upon saving an Account Confirmation email will be sent to the member email provided.

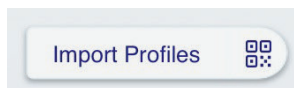
Confirmation Sent
An Account Confirmation has been sent to the member email provided.
Okay

Upon saving an Account Confirmation email will be sent to the member email provided.

Importing a User

This option allows the user to import a member assigned to a different Organization registered with Neuro20.

The import function is accessible via the Import Profile or QR code buttons:

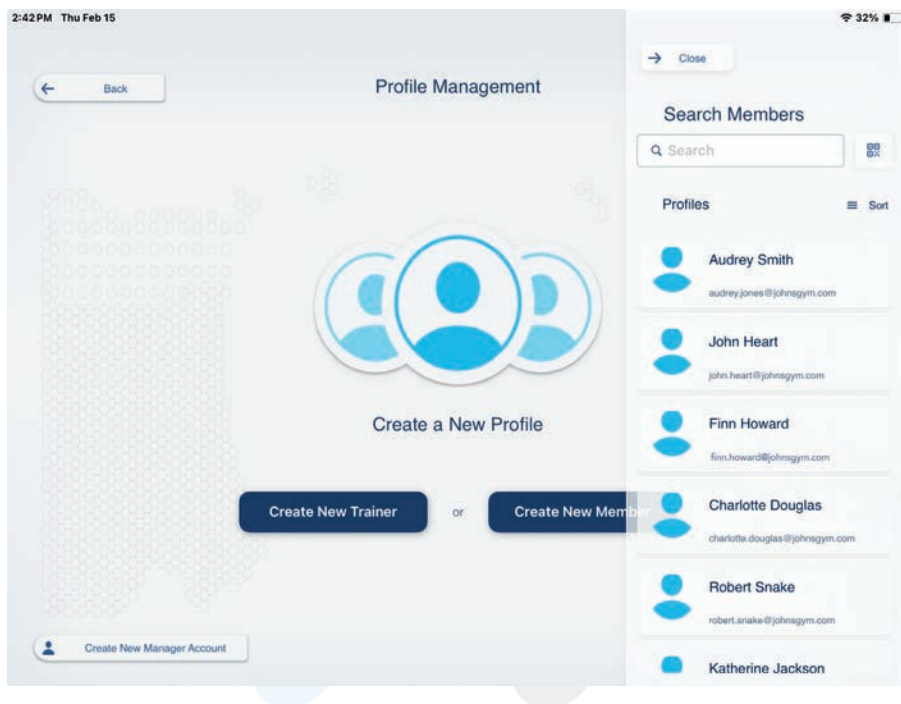


1. Click the Import Profile button to open the Operating Tablet's camera.
2. Scan the member's QR code and the device will import the member's profile and add it to the list of members on the device. The QR code is provided to each member during the registration process via email. If not received, or if lost, the Member can login to account.neuro20.net and retrieve their QR code on their Account page.

OPERATING PROCEDURES (continued)

Search function

If the operator clicks the Search Icon, a pane will appear on the right-hand side, showing the profiles registered in the Owner's Account database.



The Search tool allows the operator to look for profiles.

To find a specific profile, start typing the User's name or email address used during the User's original registration process. Once the desired profile is found, click on the profile, which will allow editing. **Note:** *The e-mail address cannot be changed, as the e-mail is a unique login credential for the account.*

Note! Exit the profile management section to the main screen by pressing the back button.



OPERATING PROCEDURES (continued)

Manage Devices

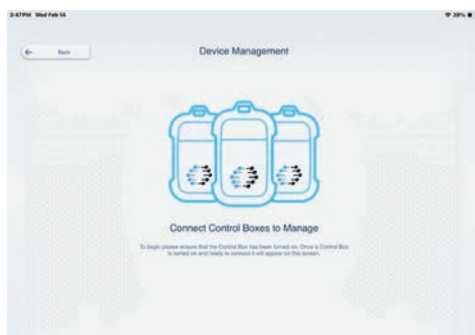
The “Manage Devices” screen shows all Neuro20 PRO Control Boxes connected to the device and allows Owner/Trainer to update their firmware.

Activating Control Boxes



This process must be done under the login of the Admin/Owner’s Profile !!!

On the Home Screen, click on “Manage Devices”, which appears as follows:



To activate a Control Box, follow these steps:

1. Press Red “Stop” Button on Neuro20 Control Box to turn the device on.
2. The Control Box with the Wireless ID number will appear. (Fig. 1)
3. Press “Connect” button to connect the Control box to the App. (Fig. 1)
4. Press “Activate Device” (Fig. 2) button to Register the Control Box to the Admin’s Registered Account. Once the Control Box is successfully activated, a pop-up window will show (Fig. 3) confirming successful activation.
5. Press “Okay” to acknowledge. Repeat this process for multiple Control boxes, one at a time.

Fig. 1

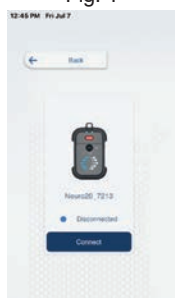


Fig. 2

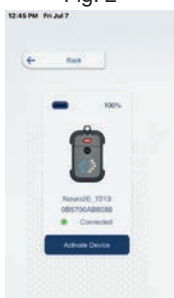


Fig. 3



Neuro20 Control Box is now registered to the Admin/Owner’s Account. Any profile with Trainer’s permissions, registered under this Admin’s Account, can now utilize this Control Box for training.

OPERATING PROCEDURES (continued)

Updating Firmware - Control Box

The Neuro20 Control Box has its own firmware. This program requires updates just like the Neuro20 PRO Software. Firmware updates help to apply changes to devices, such as new features or other important changes made to assure the Control Box and Software communicate smoothly.

The Admin/Manager or Trainer will be notified about the new available firmware via the Neuro20 PRO App after logging in and turning the Control Box on. The update process needs to be done manually.

The notification of a new firmware update can occur in 2 scenarios within the Neuro20 PRO Software (App):

1. Right after the Activation of the Control Box (Fig. 1)
2. After connecting already activated Control Box either within Device Management or Training Screen (Fig. 2)

Fig. 1

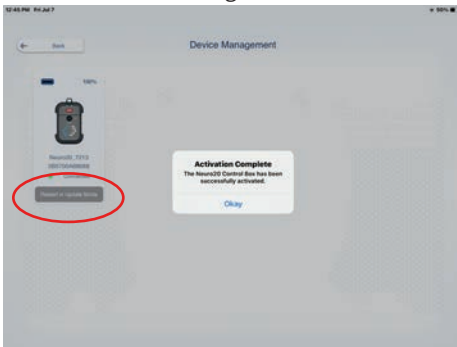
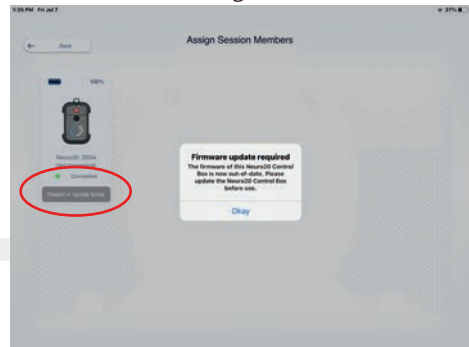


Fig. 2



If a firmware update is available for your device, the Neuro20 PRO Software won't let you proceed with training until firmware is up to date on each Control Box.

To assure a smooth operation of your business, check for the firmware update regularly prior to starting the training session with your clients.

OPERATING PROCEDURES (continued)

Updating Firmware - Control Box (continued)

To proceed with the Firmware Update, follow these steps:

1. Make sure the Control Box is turned OFF
2. Return to the Home Screen
3. Click on Manage Devices
4. On the Control Box, press and hold the red “Stop” button for **3 seconds**, one LED on CB will flash purple (firmware update mode. Fig.1)
Release the Stop button as soon as the electrode turns purple. It should stay purple, if not, repeat steps 1-4
5. The device will show up in the Device Management window. Click on “Connect” to connect to the Control Box (Fig.2)
6. Click “Update Firmware” under the Control Box Picture (Fig.3)
7. Press “Update Box” to initiate the update (Fig.4)
8. Wait until 100% update is completed. Confirm “Okay” on the pop up (Fig.5).
9. Turn off the updated Control Box and repeat the process with the next Control Box (if multiple Control Box system)
10. ⚠ Once all Control Boxes have been updated, Restart the App (double click the home button and flick the App window upwards) prior to starting a new Training Session

Fig. 1



Fig. 2

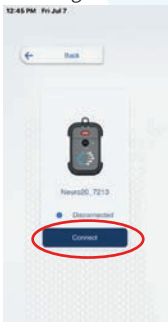


Fig. 4

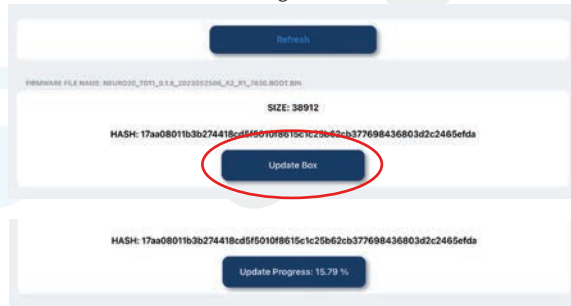


Fig. 3

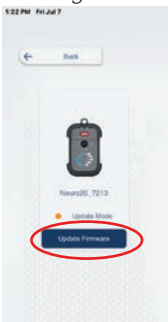
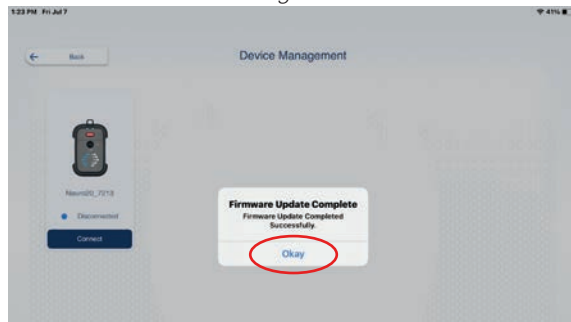


Fig. 5



OPERATING PROCEDURES (continued)

Checking Control Box Details

Within the Neuro20 PRO Software, the Operator is able to verify the Control Box details, including:

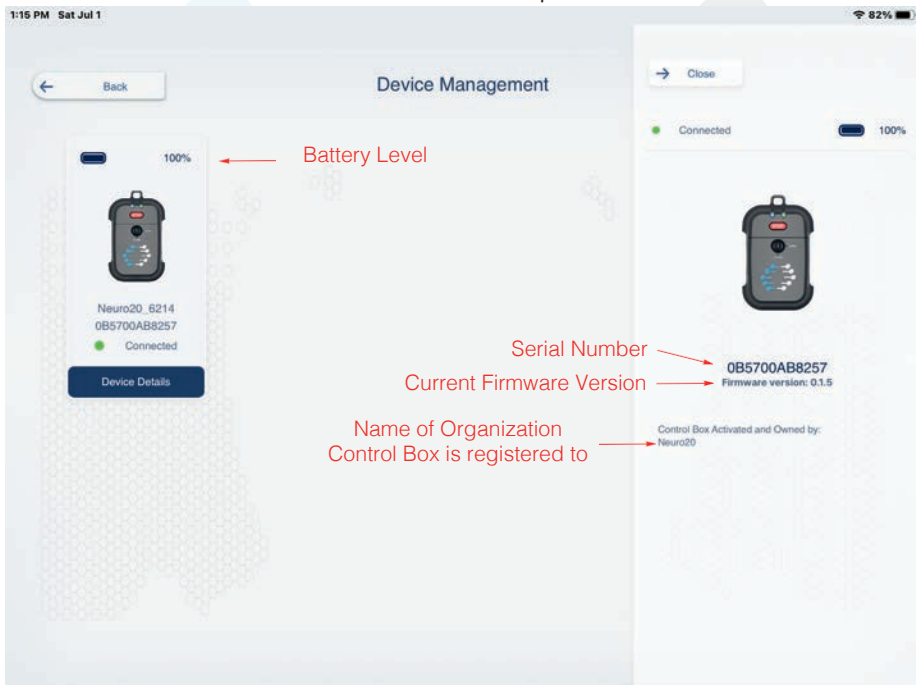
- Serial Number
- Firmware Version
- Name of Organization Control Box is registered to
- Battery Level

To view details of each individual Control Box follow these steps:

1. Start the Neuro20 PRO Software/App
2. Login with your Admin/ Managers or Trainers account.
3. Click on “Manage Devices” on the Home Screen.
4. Turn the Control Box ON by pressing the red “Stop” button on the Control Box
5. Click on “Connect”
6. Click on “Device Details”
7. Read the window on the right side of the screen.



Device Details Screen Explained



OPERATING PROCEDURES (continued)

Software Screen - Control Box Indicators

The connection status of the device is shown at the bottom of each block.

If the Control Box is correctly connected, a green dot appears and the text reads “Connected”.

If the Control Box is not activated, no dot will appear, and the text reads “Activate Device”.

If the Control Box firmware needs to be updated, an amber dot appears and the text reads “Update Firmware”.

If the Control Box is disconnected, a blue dot appears and the text reads “Disconnected”.

● Connected

Activate Device

● Update Firmware

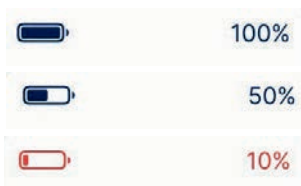
● Disconnected

Device features:

- Percentage battery level (Fig.1)
- Picture of the Control Box (Fig.2)
- Wireless connection ID (Fig.3)
- Serial number (Fig.4)
- Connection status (Fig.5)



Battery Charge displays 100%, 50%, 25% and 10% levels.



Once the battery percentage drops to 10%, the icon and text will turn red.

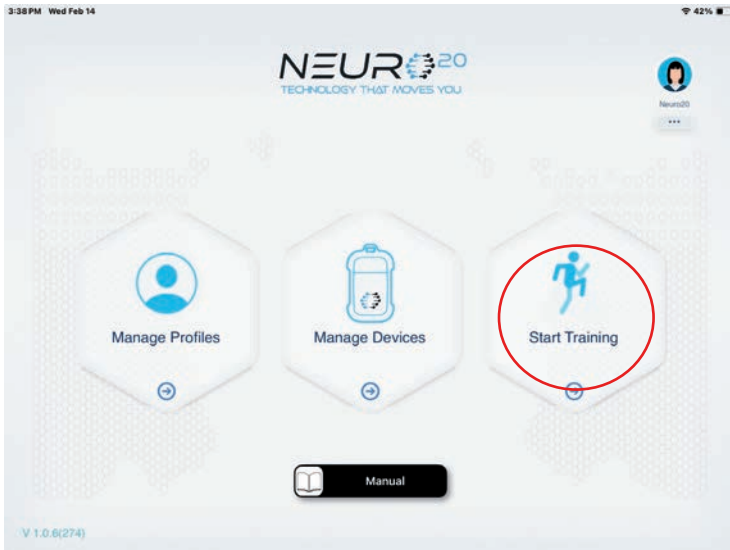


Battery consumption will be affected by the selected intensity of stimulation. To ensure that you can finish the session, we suggest that the battery be charged above 25% before use. Once the battery reaches 10%, the battery must be charged to prevent the device from shutting down during session.

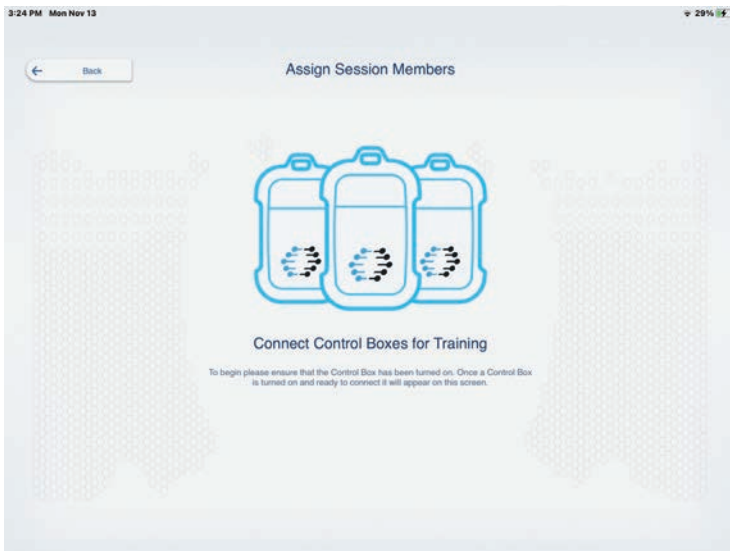
OPERATING PROCEDURES (continued)

Starting a Training Session

Press “Start Training” on the Home/Main Screen.



The “Assign Session Members” screen will appear.



OPERATING PROCEDURES (continued)

Assign Session Members

 Turn on and Assign Control Box to a Member one at a time, to assure correct assignment.

1. Power-on the Control Box by pressing the red “Stop” button.
2. A Control Box picture, the Wireless Connection ID number and a ‘Connect’ button appears under the Control Box picture. Press ‘Connect’. (Fig. 1)
3. The button will change to “Assign Member”. Press the “Assign Member” button. (Fig. 2) A pane with all Members registered within the Owner’s Organization will open on the right-hand side of the Software. (Fig. 3)
4. Select a Member to assign to the given Control Box.
5. Repeat steps 1-4 for all remaining members in the Training Session, one at a time.

Fig. 1

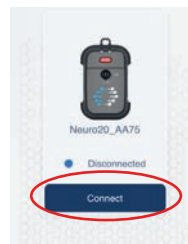


Fig. 2

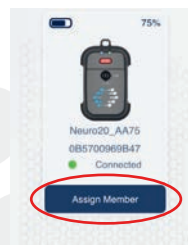
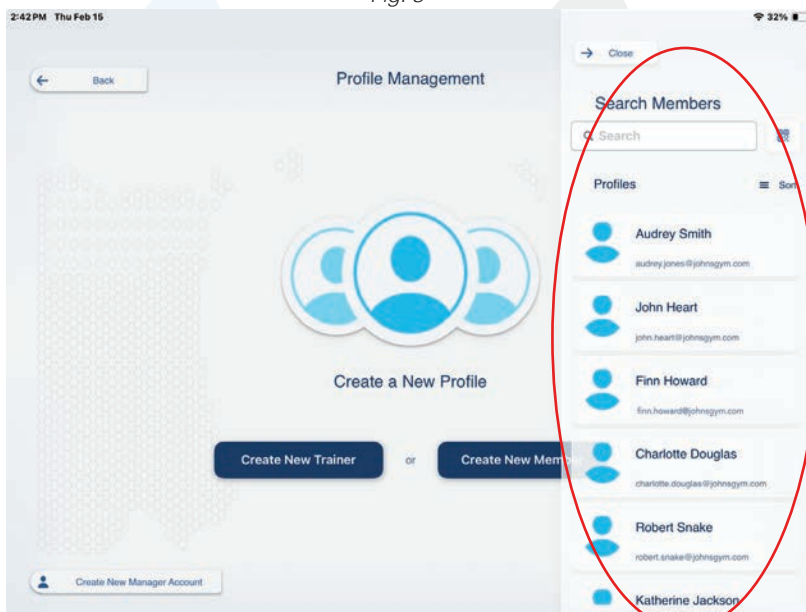


Fig. 3



OPERATING PROCEDURES (continued)

The member assigned to a Control Box will have their Profile Name appear beneath the box. (Fig. 1)

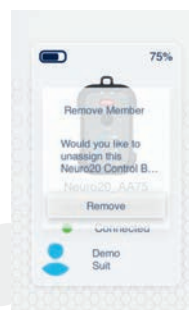
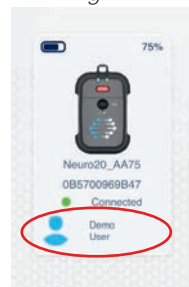
The Trainer should verify the correct assignment on each Control Box prior to assigning the next Member.

Note! Any member accounts that are not activated through the registration process under the Admin's Account cannot be assigned to a device.

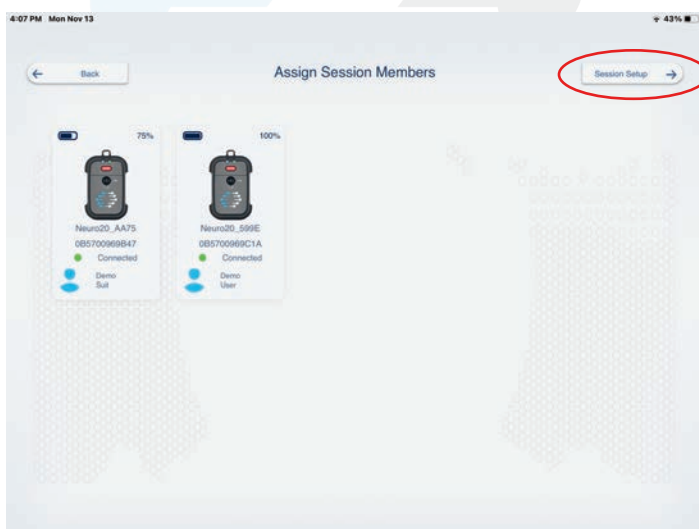
To remove/correct assigned member:

1. Press the name of the member/user under the Control Box picture.
2. A notice appears on top of the device picture to allow the operator to remove the member assigned to the Control Box.
3. Click 'Remove'.
4. Proceed again with previous steps to assign the correct member.

Fig. 1



Once all Members/Users participating in the training session are assigned, proceed to the next step - 'Session Setup'.



OPERATING PROCEDURES (continued)

Operator Agreement

Prior to every training session the operator must read the Operator Agreement Form shown on the Device Screen and press the “I agree” button to proceed.

4:11 PM Mon Nov 13 43%

← Back Liability Release

OPERATOR AGREEMENT:
 As the operator of this Neuro20 PRO system, you agree to the terms and conditions set forth in the Operating Manual. You Agree to:

1. Only log into the System using your Username and Password.
2. Ensure all participants are logged in under their individual profile.
3. Ensure that all participants have been informed of the contraindications listed in the Operating Manual, and do not have any medical conditions that could cause an adverse effect.
4. Check that the profile of each participant matches the participant profile prior to the beginning of each session.
5. Take full responsibility for operating the Neuro20 PRO System in accordance with the Operating Manual and the Terms and Conditions within.

I agree

Training Session Setup

The following screen appears:

4:13 PM Mon Nov 13 43%

← Back Training Session Setup Begin Training

Training Mode
 Select a Training Mode to start

- Strength
- Conditioning
- Cool Down
- Massage
- Patterned Movements

Duration

10 15 20 25 30 35 40 Minutes

Ramp Up

None Fast Medium Slow

Stimulation Time

Seconds 1-60 seconds

Rest Time

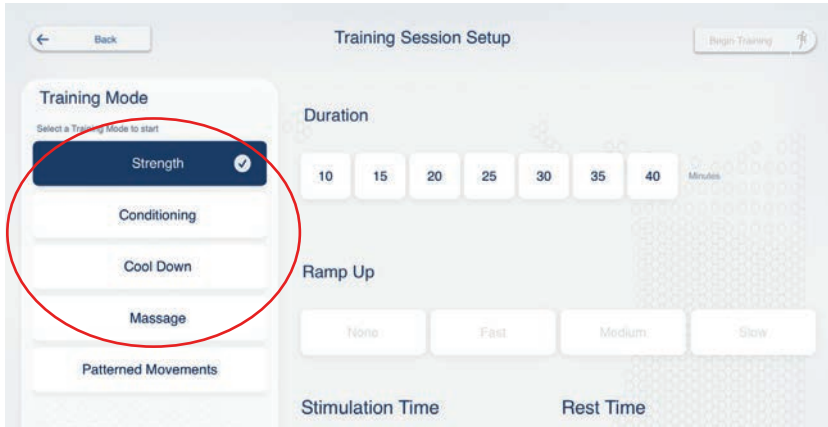
Seconds 0-60 seconds

OPERATING PROCEDURES (continued)

Training Session Setup - Basic Training Modes

Whole-Body Patterns - Strength, Conditioning, Cool Down, Massage

1. Select a Training Mode, and the chosen mode will appear on a blue background with a checkmark to indicate its selection.



The Basic Training Modes are Strength, Conditioning, Cool Down and Massage.

Additionally, there are proprietary Patterned Movements.

Note! Some Patterned Movements signal the User to initiate their voluntary movement override (Rt./Lft. Throwing, Rt./Lft. Batting, Jumping, Rt./Lft. Kicking) while other Patterned Movements do not require a signal to initiate the voluntary movement (Cycling, Walking, Jogging, Running, Sprinting).

Note! The difference between the Walking, Jogging, Running, and Sprinting movements is the timing speed of the Patterned stimulation.

Also, the various modalities have different setup functions for the operator. For all patterned movements except for Throwing, Batting, Jumping, and Kicking the Duration for the session must be selected.

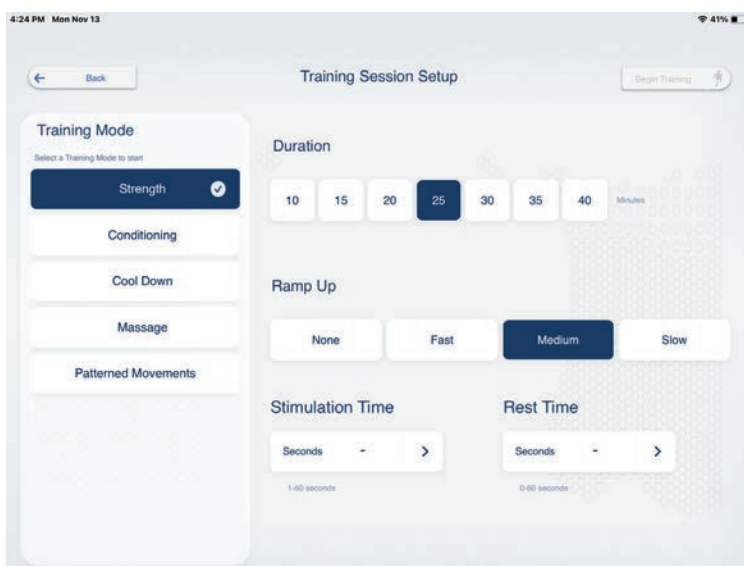
Learn more on how to set up specific Patterned Movement session on page 53.

OPERATING PROCEDURES (continued)

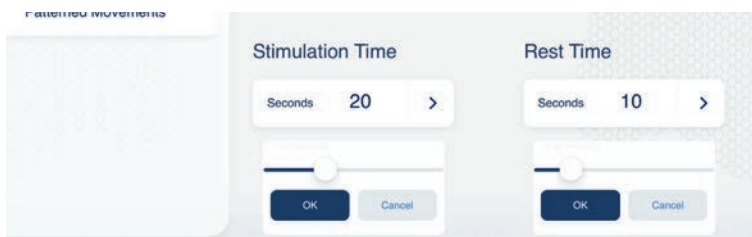
2. Select the desired Duration of the training session. The selectable durations range from 10-40 minutes with five-minute increments.

3. Select the desired “Ramp Up” setting. “Ramp Up” is how quickly your stimulation will reach peak intensity. For first time Users, we recommend Slow to Medium Ramp Up. Experienced Users can use Fast or None, based on their tolerance level and comfort level.

- None – no Ramp Up
- Fast – 1-second Ramp Up
- Medium – 2-second Ramp Up
- Slow – 3-second Ramp Up

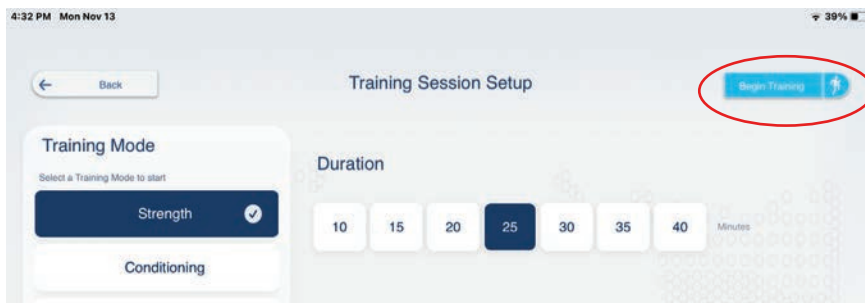


4. Select the Stimulation Time and Rest Time values to determine the length of the muscle stimulation and the length of rest between stimulation. Press the “seconds” boxes. A slider appears to set the respective times for Stimulation Time and Rest Time between 1-60 seconds. **Press ‘OK’ to confirm.**



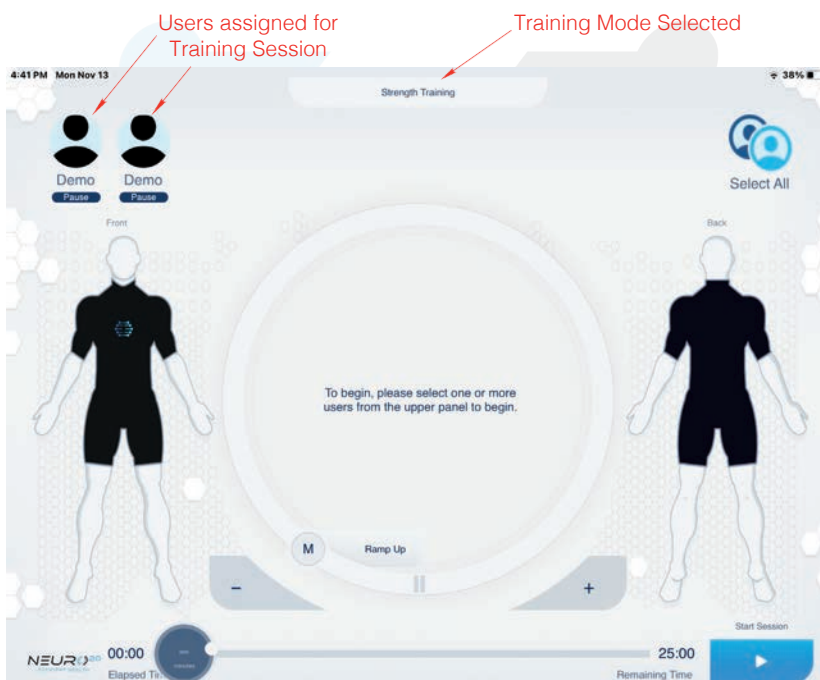
OPERATING PROCEDURES (continued)

- Press the “Begin Training” button in the top right corner to open the Training Session window.



Training Session Screen - Basic Training Modes

The training screen appears with all the Assigned Members and the selected Training Mode in the top center of the screen.



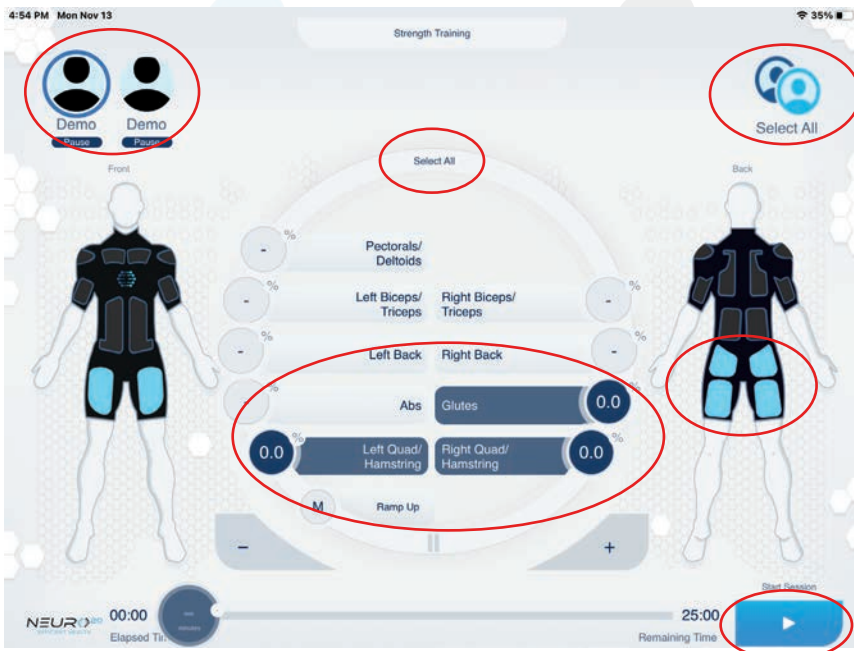
OPERATING PROCEDURES (continued)

Adding Stimulation

1. Press on the member's profile picture at the top of the screen, or press "Select All" in the top right of the screen. A blue circle (highlight) will appear around the User's picture. To deselect a User, press on their image again and the blue circle will disappear.
2. Press Start Session (play button) in the bottom right corner of the screen. The stimulation intensity can now be adjusted from the session screen once the session is started.
3. Select the desired muscle groups in the middle of the screen, or press "Select All" to adjust the intensity of the stimulation for all muscle groups. The selected muscle groups appear in blue.



Muscle groups will only become visible when at least one Member/User is highlighted. The stimulation of the muscle groups can only be adjusted once the Play button has been pressed and the session countdown has started.



Prior to any adjustment the intensity is at 0%. The selected body part appears in blue even if stimulation is at 0%.

OPERATING PROCEDURES (continued)

- Adjust the stimulation intensity with the + and – buttons on screen. The percentage value will increase or decrease by 0.5% increments.

 The increase of the stimulation (+) can be adjusted only during the Stimulation Period. The Plus (+) sign will not react during the Rest Period as the Member/User would not be able to feel it and determine the comfort level. However, stimulation intensity can be decreased at any time during the training session.

Note! When increasing stimulation, 1% equates to a 2 mA current.



- Once the Trainer (Operator) reaches the desired intensity (stimulation %) for a muscle group for any user, deselect the muscle group for that user by pressing the muscle group button, turning the muscle group button to grey. This action will freeze the stimulation intensity at its current level for that specific user. Repeat this step for each body part until all body parts are at a comfortable level for each User. The operator should monitor and communicate with each User throughout the training session and adjust stimulation parameters as necessary.

 **During Group Training** - pay close attention to how many or which Member/User is selected at the top. All selected (highlighted) Users will receive the stimulation adjustment!

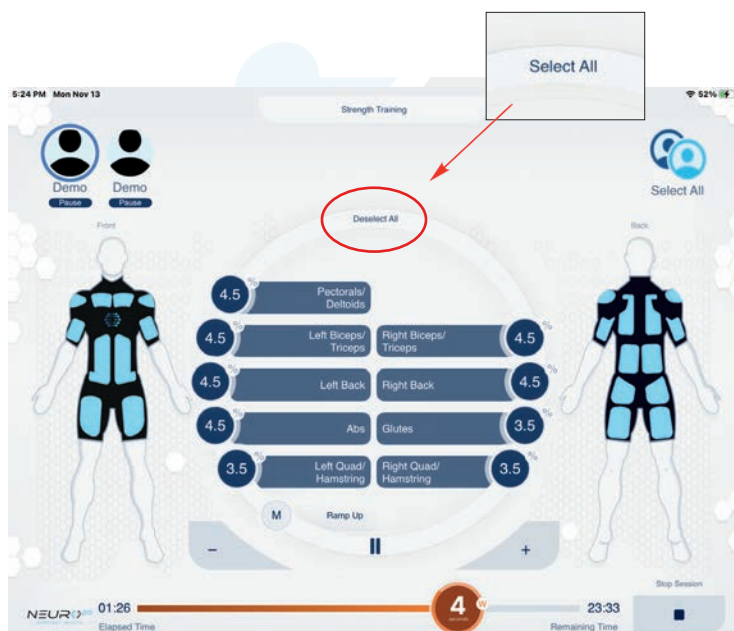
Tip: We recommend starting with the larger muscle groups i.e. Glutes and Legs, followed by medium muscle groups such as Abs and Back, finishing with the small muscles like Arms and Pecs/Deltoids.

OPERATING PROCEDURES (continued)

Continue with step 6, adjusting the level of each individual muscle group for each individual User, one by one, until you reach the desired level for the training session.

Once all the Users and their Stimulation levels are adjusted, proceed with the Physical Exercises as required.

Note! As the physical training/exercise/treatment progresses, resistance will decrease, and higher intensity may be required to achieve the same feeling. Therefore, the stimulation level may need to be adjusted higher. Communicate with the User during the session to ensure that the intensity is at an appropriate level.



Note! If adjusting multiple or all muscle groups at the same time, it is extremely important to communicate with the User regarding the set intensity on each muscle group, to ensure that the intensity level does not exceed the User's tolerance. Small muscle groups have a lower tolerance towards stimulation than the large muscle groups.

OPERATING PROCEDURES (continued)

Training Timer - Basic Training Modes

For Basic Training Modes the bottom of the Training Screen features a timer showing the Elapsed Time and Remaining Time of the training session and a countdown within the circle for the remaining:

- Stimulation Time (orange)
- Ramp Up Time (green)
- Rest Time between stimulation (blue).



Stimulation Time - the period when the stimulation is in progress. The length of this period depends on the Stimulation Time selected in the Training Session setup. During this period, stimulation can be adjusted Up or Down.



Rest Time - the period when the stimulation is paused, or is in “tapping” mode (Conditioning and Massage). The length of this period depends on the Rest Time selected in the Training Session setup. During this period, stimulation can only be adjusted Down.



Ramp Time - very short period when the stimulation is slowly being increased. The length of this period depends on the Ramp Up selected in the Training Session setup. During this period, stimulation can only be adjusted Down.

OPERATING PROCEDURES (continued)

Pausing the Training Session

Training can be Paused in two (2) different locations:

1. At the bottom of the Muscle groups - "Pause" symbol (will pause all Users)
2. Under each User's name - "Pause" word (will pause single user only)

Pausing the Training Session will freeze the program for the selected user/s at the exact moment of the training. The timer will freeze and Stimulation will NOT be delivered.

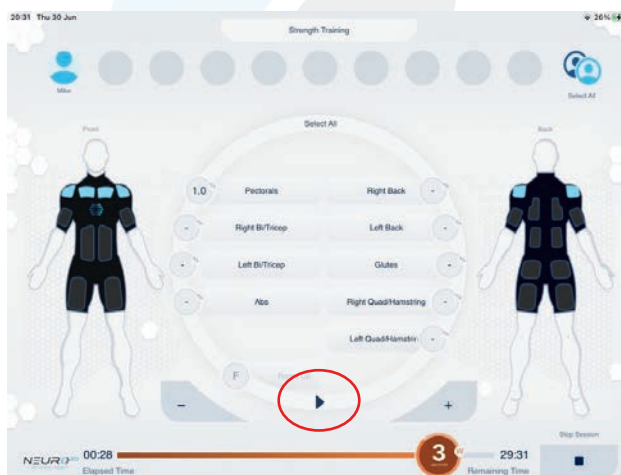


The pause button will be replaced with a Start button. If this start button is pressed, the protocol will resume with the previously set treatment parameters.

Resuming Paused Training Session

Note! When the session resumes the timer resumes from where it left off.

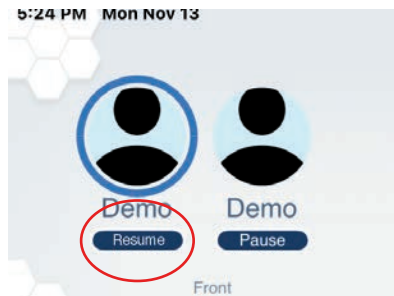
1. To Resume the session paused at the bottom of the Muscle Groups, press the Play button. The training session will resume for all Users at once.



OPERATING PROCEDURES (continued)

Resuming Paused Training Session (continued)

2. To Resume the session paused for an Individual User - press “Resume” under the name of the paused User. The User will automatically resume the session at whatever timeline the rest of the group has progressed to, and at stimulation levels which were set for this User at the time of pause.



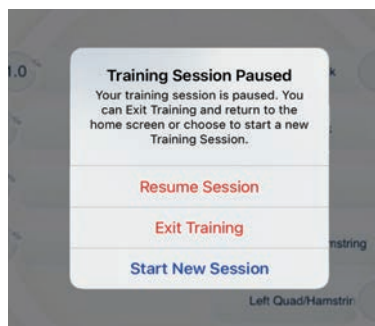
Stopping the Training Session (continued)

To Stop the session, use the “Stop” button on the right bottom side of the screen.

- ⚠ Pressing this button will stop the session for ALL participants. Only use this button if you intend to end the session.

Initially, the “Stop” button pauses the session, after which you may:

- a. **Resume Session** - the training session will resume for all Users at once
- b. **Exit Training** - all settings of the training session will be reset and the screen will return to the Home Screen view.
- c. **Start New Session** - the screen will return to the previous Training Session Setup view, where the Trainer can either reset or adjust the parameters of the training for all users in this session.



OPERATING PROCEDURES (continued)

Training with PEMS - Patterned EMS Modes

Patterned Electrical Muscle Stimulation - PEMS

Patterned Electrical Muscle Stimulation (PEMS) is a novel form of electrical stimulation, patented by Neuro20 Technologies. This type of stimulation creates a precise pattern of muscular contractions that replicates activity derived from a healthy individual's firing patterns during functional activities. In other words, PEMS mimics voluntary movement patterns. This stimulation is mostly targeted for Athletic Recovery and Performance training, specific to the movement.

As Trainer of Neuro20 PRO System, you need to understand the major difference in setting up the PEMS Training, as there are 2 major groups within PEMS Modes:

Continuous PEMS

Cycling
Sprinting
Walking
Jogging
Running

Continuous PEMS, as the name indicates, involves stimulation running in the same continuous pattern, mimicking certain movements by firing muscles in a very specific order to mimic a voluntary movement pattern: Cycling, or Walking/Running movement.

Sprinting, Walking, Jogging, Running are same pattern however at various speeds.

Reactive PEMS

Throwing
Swinging
Jumping
Sitting/standing
Kicking

Reactive PEMS is a specialized form of stimulation designed to replicate specific movements such as jumps, swings, kicks, throws, and more. The stimulation in Reactive PEMS is characterized by its brevity, precisely timed to activate only during the execution of the targeted movement, following a meticulously crafted sequence of movements. Unlike Continuous PEMS which involves timed sessions, the duration of a Reactive PEMS session is determined by the number of repetitions of the specified movement.

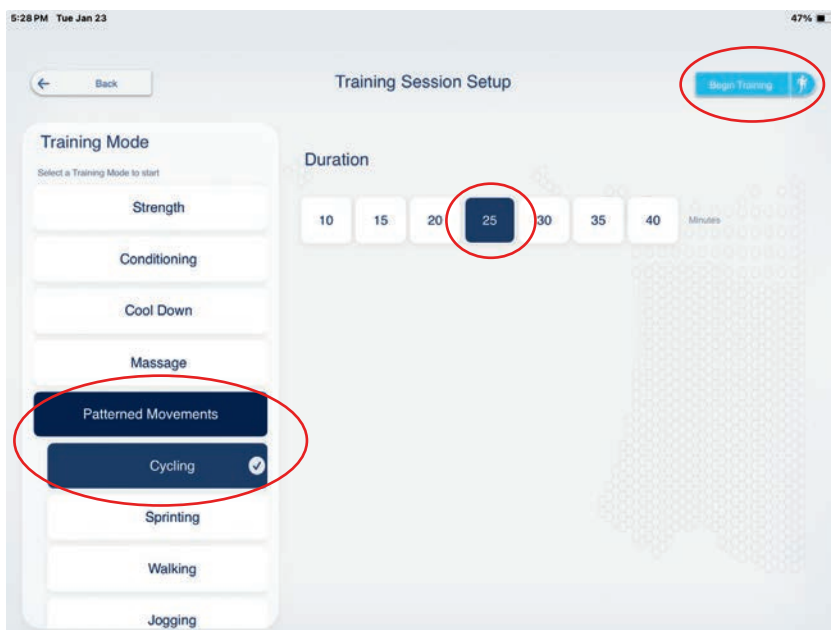
The trainer presets the stimulation level before the start of the session. Three brief stimulation signals in the glutes, accompanied with a sound signal for the trainer precede the movement-specific stimulation, serving as a pre-notification mechanism for the user, alerting them to prevent missing the session's brief stimulation.

OPERATING PROCEDURES (continued)

Training Session Setup - CONTINUOUS PEMS Modes

Cycling, Sprinting, Walking, Jogging, Running

1. Select “Patterned Movements” on the Training Session Setup Screen. This will reveal the list of PEMS Modes. Select one of the Continuous PEMS Modes (Cycling, Sprinting, Walking, Jogging, Running). The chosen mode will appear on a blue background with a checkmark to indicate its selection.
2. Select the Duration of the session and click “Begin Training”.



3. The Training Session Screen will appear. Proceed in the same way as with Basic Training Modes:
 - i. Select User
 - ii. Click Play button
 - iii. Adjust stimulation on individual muscle groups as necessary to achieve desired stimulation levels and proceed with appropriate exercises.
- Refer to Page 46-52.

OPERATING PROCEDURES (continued)

Training Screen - CONTINUOUS PEMS Modes

Cycling, Sprinting, Walking, Jogging, Running

The PEMS Modes Training Screen features distinct layouts and muscle group categorizations tailored to the selected mode. This customization is designed to target and activate specific muscle groups essential for providing assistance during the corresponding movement associated with each mode.

Continuous PEMS Modes have an identical muscle group layout, targeting lower body muscle groups, with added abdominals and lower back to support the movement and posture.

1. Click on the User's picture at the top left of the screen.
2. Click on "Play" on the bottom right of the screen.
3. Adjust stimulation intensity levels for all available muscle groups by selecting the muscle group(s) in the middle of the screen and using the Plus and Minus buttons. Do this one at a time or all at once, depending on the User's experience.



It is highly recommended for the Trainer to try any PEMS mode prior to the training session, to fully understand the process of this mode.

Refer to Neuro20 Academy Protocols for recommended training methods for these specific patterns.

OPERATING PROCEDURES (continued)

Training Session Setup - REACTIVE PEMS Modes

Jumping, Sitting/Standing, Throwing, Swinging, Kicking

1. Select “**Patterned Movements**”, on the Training Session Setup Screen to reveal the list of PEMS Modes. Select the desired Reactive PEMS Mode, which will appear on a blue background with a checkmark. (Fig.1)
2. Select the desired **Notification** level - The User receives a series of three (3) brief glutes stimulations, spaced evenly, before the main movement-specific stimulation. This serves as a pre-notification, ensuring the user performs the movement at the correct time. The pattern is “buzz-buzz-buzz-move,” with the fourth (4th) stimulation being movement-specific. Sound signals accompany this sequence to guide the trainer in synchronizing with the user. **Soft, Medium, Hard** - indicates the intensity of this brief stimulation. Select the appropriate level based on the User’s tolerance. (Fig.2)
3. **Repetitions** - indicates how many times the User will repeat the specific movement (i.e. Throw, Kick, Jump). Click on the preset number on the Repetitions field, slide to the left or right to select the desired number and click OK to confirm. (Fig.3)
4. **Cycle Time** - indicates the length (in seconds) of each cycle between the repetitions - this includes the Notification, Stimulation and the Rest, to allow the User to reset the body position before the next repetition. Click on the preset number on the Cycle Time field, slide to select desired number and confirm OK (Fig.4). If the User needs a longer time to reset into the starting position, choose a longer cycle time. Click “Begin Training” (Fig.5).



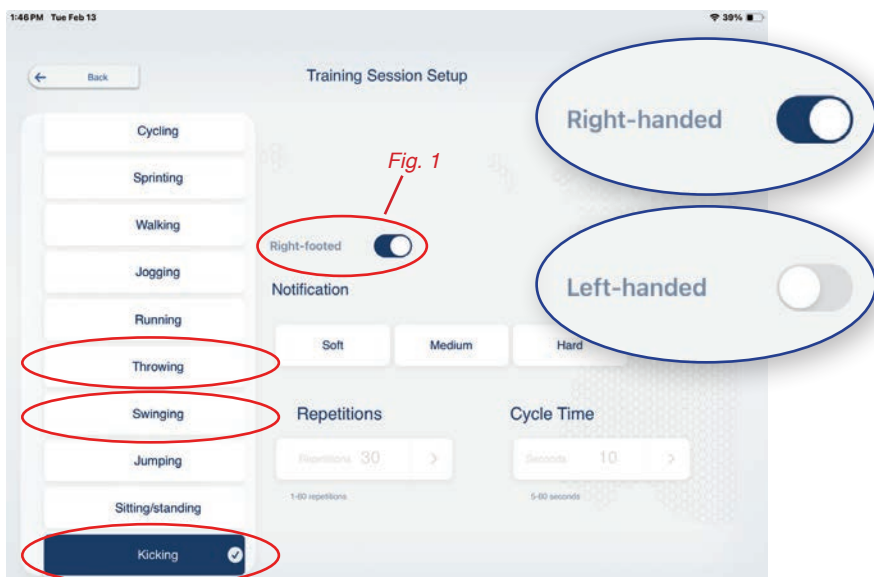
OPERATING PROCEDURES (continued)

Training Session Setup - REACTIVE PEMS Modes - (continued)

Jumping, Sitting/Standing, Throwing, Swinging, Kicking



Throwing, Swinging and Kicking modes have an additional setting feature: a toggle switch to set up the User's dominant hand/foot in these specific activities (training modes). Simply toggle the switch appropriately (Fig.1)



REACTIVE PEMS Modes Training Screen - Jumping, Sitting/Standing, Throwing, Swinging, Kicking

Training Screen for Reactive PEMS Modes is unique for each specific mode.

The main difference between Continuous and Reactive Training Screen is:

1. The **selection and the layout of the muscle groups**, which are defined by muscle groups required to be activated, to mimic each specific movement.
2. The Training Session with Reactive PEMS, is split into **2 phases**:
Phase 1: Stimulation level setup for each individual muscle group, for each User. The preset duration for this phase is 5 min and is not adjustable.

Phase 2: Training Cycles. Movement Specific Stimulation Cycles. The Trainer can focus on assisting the User, assuring the body position and form is adequate to the specific move being trained (i.e. jump, throw). If necessary, the levels can be adjusted further. The duration of this phase is setup as Cycle Time.

OPERATING PROCEDURES (continued)

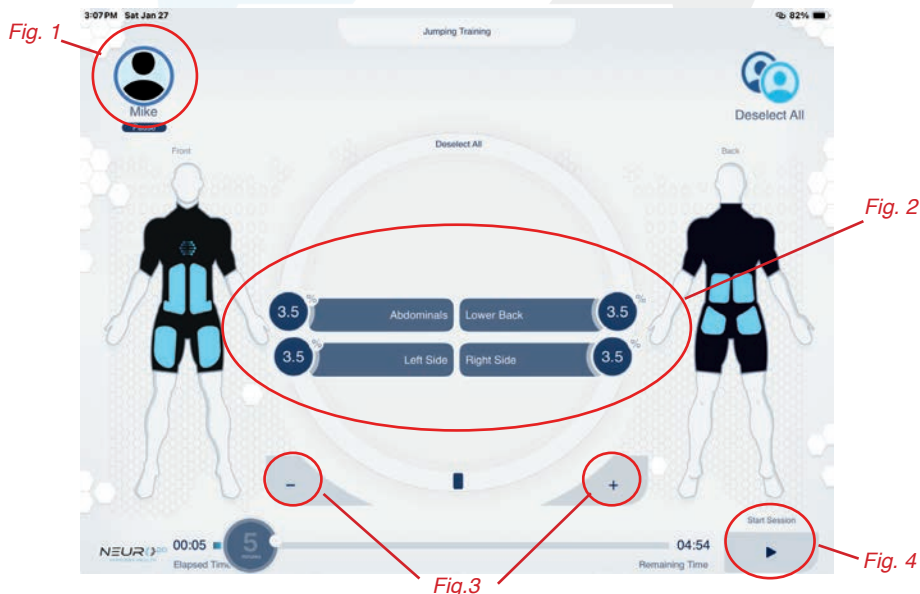
REACTIVE PEMS Modes Training Screen - Jumping, Sitting/Standing, Throwing, Swinging, Kicking (continued)

Training Session - PHASE 1 - Stimulation Level Setup

1. Click on Play on the bottom right of the screen. This will activate the Phase 1 session setup - Stimulation Level Setup. There is a preset time duration of 5 minutes for this phase.



2. Click on the User's picture at the top left of the screen. (Fig.1) to reveal muscle groups.
3. Adjust stimulation intensity levels for all available muscle groups, by selecting the muscle group(s) in the middle of the screen (Fig.2) and using the Plus and Minus buttons (Fig. 3). Do this one at a time or all at once, depending on the User's experience. Communicate with the User, so as not to exceed the User's comfort level.
4. Click on Play on the bottom right of the screen. (Fig.4) to activate Phase 2 - Training Cycles.



The above-mentioned setup procedure is the same for all Reactive PEMS, the only difference will be selection of the muscle groups. (see next page)

OPERATING PROCEDURES (continued)

The muscle group selection and layout are different for each Reactive PEMS training mode. Muscle groups have been chosen very carefully to activate all necessary muscles, in a very specific order, to perform the desired move.

See muscle group layouts for all Reactive PEMS Modes below.

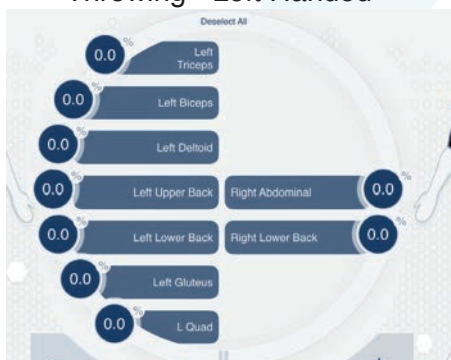
Jumping



Sitting/Standing



Throwing - Left Handed



Throwing - Right Handed



Swinging - Left Handed



Swinging - Right Handed

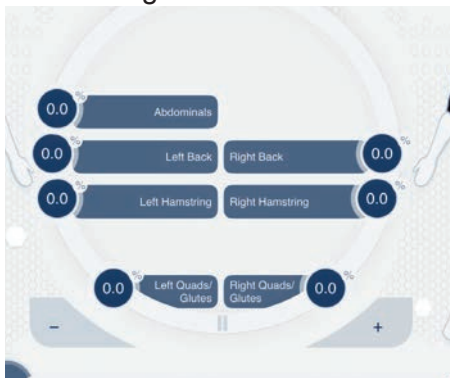


OPERATING PROCEDURES (continued)

REACTIVE PEMS Modes Training Screen - Jumping, Sitting/Standing, Throwing, Swinging, Kicking (continued)

Training Session - PHASE 1 - Stimulation Level Setup (continued)

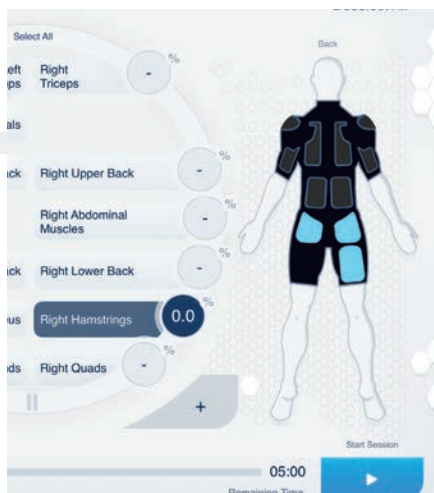
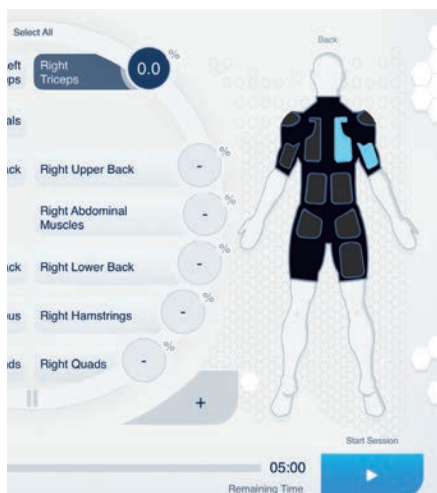
Kicking - Left Handed



Kicking - Right Handed



During stimulation setup, if you see additional electrodes highlighted along with the selected one, this is not an error. This is intentional, indicating that the user will receive light stimulation in all highlighted electrodes due to the required current return, not just the selected electrode muscle group.



Proceed as on any other program, increasing the stimulation levels for desired muscle groups as necessary to reach the comfortable targeted level for each individual User.

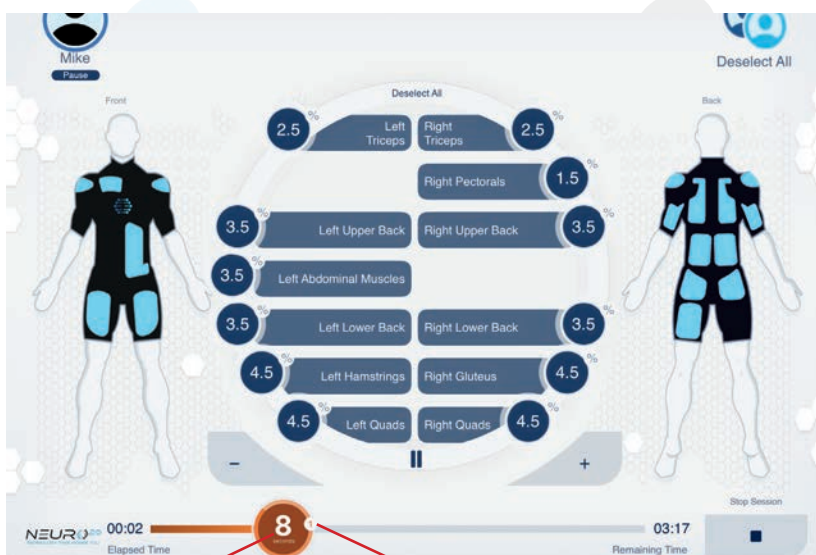
OPERATING PROCEDURES (continued)

REACTIVE PEMS Modes Training Screen - Jumping, Sitting/Standing, Throwing, Swinging, Kicking (continued)

Training Session - PHASE 2 - Training Cycles

During Phase 2 of Reactive PEMS Training Session, all parameters have been preset, and the Trainer can focus on assisting the User, assuring the body position and form are adequate to the specific move (i.e. sitting down, swinging, kicking). If necessary, stimulation levels for each muscle group can be adjusted again during this phase. The duration of this phase is equivalent to the “Cycle Time” setup in the earlier stage. The Cycle will repeat as many times as preset in “Repetitions” during the earlier setup (Pg. 56).

Each Cycle starts with an audible signal (beep) - if you do not hear anything, please make sure your iPad volume is up. Sound signals the start of the Cycle. Right after, the User will feel 3 short stimulations in the Glutes. If the User does not feel anything, return to the Training Setup Screen and adjust the “Notifications” to a higher level (Pg. 56). This serves as a pre-notification, ensuring the user performs the movement at the correct time. The pattern is “buzz-buzz-buzz-move,” with the fourth (4th) stimulation being movement-specific.



Cycle "round" count.

Single Cycle time count down (in seconds).

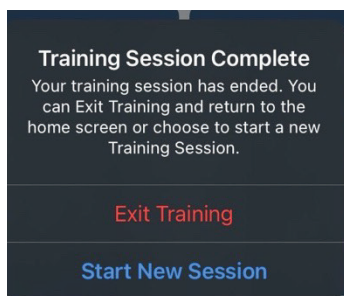
Elapsed & Remaining Time represent the total time for this PEMS Training Session: **Repetitions x Cycle Time = Total Training Time.**

OPERATING PROCEDURES (continued)

Session end

Once the elapsed time ends and the remaining time becomes zero, stimulation intensities are reduced to zero and all users are deselected.

An extra dialogue box shall appear, as follows:



Press Exit training to open the Main Screen. If ending the session remember to press the red Stop button on the Control Boxes to turn them off, detach from the Smart Suit as per directions and store properly. Press Start New Training Session to open the Training Session Setup Screen.

ELECTROMAGNETIC COMPATIBILITY

This device uses Bluetooth Low Energy (IEEE 802.15.1) on the 2.4 GHz frequency and at a maximum of 8 dBm.

The Neuro20 PRO System was tested and found to comply with the electromagnetic compatibility (EMC) limits for medical devices to IEC 60601-1-2. These limits are designed to provide reasonable protection against harmful interference in a typical medical installation. The guidelines below are intended to help promote electromagnetic compatibility (EMC) in the identified use environment for the Neuro20 PRO System.

- Make use of available resources such as EMC professionals and publications and Internet web pages on the subject of medical device EMC;
- Assess the electromagnetic environment of the facility (e.g., identify radio transmitters in around the facility) and identify areas where critical medical devices are used;
- Manage the electromagnetic environment, RF transmitters and all electrical and electronic equipment, including medical devices, to reduce the risk of medical device electromagnetic interference (EMI) and achieve EMC;
- Coordinate the purchase, installation, service, and management of all electrical and electronic equipment used in the facility to achieve EMC;
- Educate healthcare facility staff, contractors, visitors, and patients about EMC and EMI and how they can recognize medical device EMI and help minimize associated risks;
- Establish and implement written policies and procedures that document the intentions and methods of the healthcare institution for reducing the risk of medical device EMI and achieving EMC;
- Report EMI problems to the US FDA MedWatch program and communicate EMI/EMC experiences to colleagues in open forums such as medical/technical publications and conferences.

More information is contained within a comprehensive guidance document for EMC in healthcare facilities, developed, with FDA participation, by the Association for the Advancement of Medical Instrumentation (AAMI): Technical Information Report (TIR) 18, Guidance on Electromagnetic Compatibility of Medical Devices for Clinical/Biomedical Engineers. AAMI TIR 18-1997. Arlington, Virginia: Association for the Advancement of Medical Instrumentation; 1997.

The Neuro20 PRO complies with the requirements of IEC 60601-1-2:2014 [Including AMD 1:2021] (EMC Collateral Standard) including the E-field susceptibility requirements at a level of 10 volts per meter, at frequencies from 80 MHz to 2.7 GHz.

ELECTROMAGNETIC COMPATIBILITY (continued)

Caution:

Medical electrical equipment requires special precautions regarding EMC and must be installed and operated according to these instructions. It is possible that high levels of radiated or conducted radio-frequency electromagnetic interference (EMI) from portable and mobile RF communications equipment or other strong or nearby radio-frequency sources, could result in performance disruption. If this occurs, survey the site of disruption, and take the following actions to eliminate the source(s).

- Remove devices that are highly susceptible to EMI.
- Lower power from internal sources within the facility control (such as paging Systems).
- Label devices susceptible to EMI.
- Educate clinical staff to recognize potential EMI-related problems.
- Eliminate or reduce EMI with technical solutions (such as shielding).
- Restrict use of personal communicators (cell phones, computers) in areas with devices susceptible to EMI.
- Share relevant EMI information with others, particularly when evaluating new equipment purchases which may generate EMI.
- Purchase medical devices that comply with IEC 60601- 2 EMC Standards (3V/meter EMI immunity, limit interference level to 0.0014 V/meter).

FCC requirements

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, 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:

- Reorient or relocate the Neuro20 Control Box.
- 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 technician for help.

ELECTROMAGNETIC COMPATIBILITY (continued)

Table 201: Guidance and manufacturer's declaration - electromagnetic emission		
The Neuro20 PRO System is intended for use in the electromagnetic environment specified below. The customer or the user of the Neuro20 PRO System should ensure that it is used in such environment		
Emission test	Compliance	Electromagnetic environment guidance
RF emission CISPR 11	Group 1	The Neuro20 PRO System uses RF energy only for its internal function. Therefore, its RF emissions are very low and are not likely to cause any interference in nearby electronic equipment
RF emission CISPR 11	Class B	The Neuro20 PRO System is suitable for use in all establishments, including domestic establishments and those directly connected to the public low voltage power supply network that supplies buildings used for domestic purposes
Harmonic emissions IEC 61000-3-2	Not applicable	
Voltage fluctuations/ flicker emissions IEC 61000-3-3	Not applicable	

ELECTROMAGNETIC COMPATIBILITY (continued)

Table 202: Guidance and manufacturer's declaration – electromagnetic immunity			
The Neuro20 PRO System is intended for use in the electromagnetic environment specified below. The customer or the user of the Neuro20 PRO System should ensure that it is used in such an environment, and that precautions regarding that environment are heeded.			
Emissions Tests	IEC 60601 test level	Compliance level	Electromagnetic environment guidance
Electrostatic discharge (ESD) IEC 61000-4-2	±8kV contact ±15kV air	±8kV contact ±15kV air	Risk assessment on the Neuro20 PRO indicates the compliance levels claimed are acceptable when ESD-precautionary measures are taken.
Electrical fast transient/ burst IEC 61000-4-4	±2kV for power supply lines ±1kV for input/output lines	Not Applicable - Battery powered Not Applicable - signal lines less than 3 meters	Mains power quality should be that of a typical commercial or hospital environment.
Surge IEC 61000-4-5	+1kV differential mode (line to line) +2kV common mode (line to ground)	Not Applicable - Battery powered	Mains power quality should be that of a typical commercial or hospital environment.
Voltage dips, short interruptions and voltage variations on power supply input lines IEC 61000- 4-11	U _T =0% 0,5 cycle (0,45,90,135,180, 225,270 and 315 degrees) U _T =0% ; 1 cycle U _T =70% ; 20/30 cycles (@ 0 degrees) U _T =0% ;250/300 cycle	Not Applicable - Battery powered	Mains power quality should be that of a typical commercial or hospital environment. If the user of the Neuro20 PRO System requires continued operation during power mains interruptions, it is recommended that the Neuro20 PRO System be powered from an uninterrupted power supply.
Power frequency (50/60Hz) magnetic field IEC 61000-4-8	30 A/m 50 or 60Hz	30 A/m 50 or 60Hz	Power frequency magnetic fields should be at levels characteristic of a typical location in a typical commercial or hospital environment.
Note! U _T is the AC mains voltage prior to application of the test level.			

ELECTROMAGNETIC COMPATIBILITY (continued)

Table 204: Guidance and manufacturer's declaration – electromagnetic immunity			
The Neuro20 PRO System is intended for use in the electromagnetic environment specified below. The customer or the user of the Neuro20 PRO System should ensure that it is used in such an environment.			
Immunity test	IEC 60601 test level	Compliance level	Electromagnetic environment guidance
Conducted RF IEC 61000-4-6	3 Vrms 150 kHz to 80 MHz 6V (ISM&Amateur)	[V ₁] V, where V ₁ = 3V or 6V [E ₁] V/m, where E ₁ = 10V/m	Portable and mobile RF communications equipment should be used no closer to any part of the Neuro20 PRO System, including cables, than the recommended separation distance calculated from the equation applicable to the frequency of the transmitter.
Radiated RF IEC 61000-4-3	10 V/m 80 MHz to 2,7 GHz 80% @ 1 kHz AM Modulation	9V/m to 28 v/m 15 specific frequencies	Recommended separation distance $d = \left[\frac{3.5}{V_1} \right] \sqrt{P}$ $d = \left[\frac{3.5}{V_1} \right] \sqrt{P} \text{ - 80 MHz to 800 MHz}$ $d = \left[\frac{3.5}{V_1} \right] \sqrt{P} \text{ - 800 MHz to 2,7 GHz}$ 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 metres (m). Field strengths from fixed RF transmitters, as determined by an electromagnetic site survey,^a should be less than the compliance level in each frequency range.^b Interference may occur in the vicinity of equipment marked with the following symbol: 
Proximity Field from Wireless Transmitters (test per IEC61000-4-3)	9V/m to 28 v/m 15 specific frequencies		
NOTE 1 At 80 MHz and 800 MHz, the higher frequency range applies.			
NOTE 2 These guidelines may not apply in all situations. Electromagnetic propagation is affected by absorption and reflection from structures, objects and people.			
^a Field strengths from fixed transmitters, such as base stations for radio (cellular/cordless) telephones and land mobile radios, amateur radio, AM and FM radio broadcast and TV broadcast cannot be predicted theoretically with accuracy. To assess the electromagnetic environment due to fixed RF transmitters, an electromagnetic site survey should be considered. If the measured field strength in the location in which the Neuro20 PRO System is used exceeds the applicable RF compliance level above, the Neuro20 PRO System should be observed to verify normal operation. If abnormal performance is observed, additional measures may be necessary, such as reorienting or relocating the Neuro20 PRO System.			
^b Over the frequency range 150 kHz to 80 MHz, field strengths should be less than [V1] V/m.			

ELECTROMAGNETIC COMPATIBILITY (continued)

Table 206: Recommended separation distances between portable and mobile RF communications equipment and Neuro20 PRO System

The Neuro20 PRO System is intended for use in an electromagnetic environment in which radiated RF disturbances are controlled. The customer or the user of the Neuro20 PRO System can help prevent electromagnetic interference by maintaining a minimum distance between portable and mobile RF communications equipment (transmitters) and the Neuro20 PRO System as recommended below, according to the maximum output power of the communications equipment.

Rated maximum output power of transmitter W	Separation distance according to frequency of transmitter		
	150 kHz to 80 MHz	80 MHz to 800 MHz	80 MHz to 2,7 GHz
	$d = \left[\frac{3,5}{V_1} \right] \sqrt{P}$ (where $\overline{V_1} = 3V$)	$d = \left[\frac{3,5}{V_1} \right] \sqrt{P}$ (where $\overline{E_1} = 3V/m$)	$d = \left[\frac{7}{V_1} \right] \sqrt{P}$ (where $\overline{E_1} = 3V/m$)
0,01	0.12	0.12	0.23
0,1	0.38	0.38	0.73
1	1.2	1.2	2.3
10	3.8	3.8	7.3
100	12	12	23

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

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

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

TECHNICAL SPECIFICATIONS

Technical specification

Height: 126 mm (4.96 in)
Depth: 37.6 mm (1.48 in)

Width: 75.5 mm (2.97 in)
Mass: 160 g (5.6 oz)

Power

Voltage: 7.4 V Mode of Operation: Continuous Battery run time: 6 hours

Power Source: Rechargeable Li-ion battery

Battery pack model number: Type LP-E5, Model LF7.4900

Battery pack specification: 7.4 volts 900mAh, IEC62133-2 cert

Note! The battery life above is only an estimate. Actual battery life will vary depending on the training mode used, the length of the session, the stimulation intensity and the speed at which intensity is adjusted. Once the battery percentage drops to 10%, in Device Management and when assigning devices for training sessions, the icon and text turn red. At this point, the battery should be replaced.

STIM (Neuromuscular Stimulation)

Maximum amplitude: 200mA into 300 Ohms 120mA into 500 Ohms

Note! Depending on the skin impedance and connectivity between the skin and the suit, the maximum amplitude may be less than indicated.

Type: Constant current, maximum output voltage 55 Volts +/- 10%

Waveform: Symmetrical, rectangular, bi-phasic with net zero DC current

Pulse Widths: 75 - 200 μ s (10% accuracy) (75 μ s, 175 μ s, 200 μ s)

Pulse Rate Selection: 7-100 Hz (5% accuracy) (7 Hz, 40 Hz, 80 Hz, 84 Hz, 100 Hz)

Stimulation (Work) Time: 1 - 60 seconds

Rest Time: 0 - 60 seconds

Training Session Duration: 5 Seconds – 1 Hour

Ramp time: 0-3 seconds.

Number of trials are variable according to the selected parameters.

Pre-set training modes.

Automatic output shut off with detection of open electrode at and above 5% (10 mA).

Expected service life: 5 years. Careful use and maintenance extends the life of the unit over the service life limit.

Calibration Requirements: No re-calibration or periodic maintenance is required for the unit.

Unit characteristics do not vary under normal conditions. The unit is calibrated during the manufacturing process and is ready to be placed into service upon delivery.

Environmental Conditions for Use:

+5 to +40 °C (+41 to +104°F). 15-90% Humidity.

Environmental conditions for Storage & Transport:

-25 to +70 °C (-13 to +158°F). 15-90% Humidity.

During intended use, the user should wear the Neuro20 PRO Smart Suit, whilst the trainer should adjust stimulation intensity on the Neuro20 PRO Operating Tablet, in liaison with the user. The Neuro20 Smart Suit is for single patient use only! Do not share Neuro20 Smart Suits between different users.

TECHNICAL SPECIFICATIONS (continued)

Symbols on the Unit and Case	
	Caution! (electrical output)
	Patient's shock protection type: BF (Body Floated) Equipment. This equipment is not earthed but contains a battery within an insulated unit.
	Refer to Instructional Manual Booklet.
LOT	Manufacturer's LOT/Batch number. Present it together with SN number when you report a technical fault or claim a warranty return.
SN	Manufacturer's serial number of the unit. Present it together with LOT number when you report a technical fault or claim a warranty return.
	Date of manufacture
	This product should be kept dry.
REF	Indicates the manufacturer's catalogue number so that the medical device can be identified.
	Name and address of Manufacturer.
IP22	This is an indication for protection against ingress of water and particulate matter. The IP22 mark on your unit means that your unit is protected against solid foreign objects of 12.5mm diameter and greater and is protected against dripping water when tilted at 15°.

TROUBLESHOOTING

1. What if my Neuro20 Operating Tablet does not turn on?

- a. Check to ensure the Neuro20 Operating Tablet is properly charged. If not, plug in and ensure that the charging indication light and charging symbol are on.
- b. Ensure the Neuro20 Operating Tablet is free from debris, water, etc.
- c. If the problem persists, then contact Neuro20 technical support at support@neuro20.com

2. What if the Neuro20 PRO Software does not launch?

- a. Ensure you have proper contact with the touch pad by cleaning the screen and your finger.
- b. Check to ensure there are no cracks to the screen - if there are cracks or damage discontinue use immediately and contact Neuro20 technical support at support@neuro20.com
- c. Check the App Store and the e-mail account provided to verify if there are any outstanding mandatory updates - such as Error Message - ISO update version, Firmware update, or Software verification. If there are e-mails from or Neuro20 technical support team, then follow directions as prescribed in the e-mail. If there is no e-mail, ensure that your current e-mail address is registered with and then contact technical support at support@neuro20.com

3. What if the Neuro20 PRO Software does not launch?

- a. Press the "Forgot Username or Password?" and enter your e-mail into the text-box prompt.
- b. Press "Send" for an e-mail reset to be sent. The tablet shall return to the home screen

If the given e-mail is not associated with any entry in the database, a message will appear to prompt e-mail registration

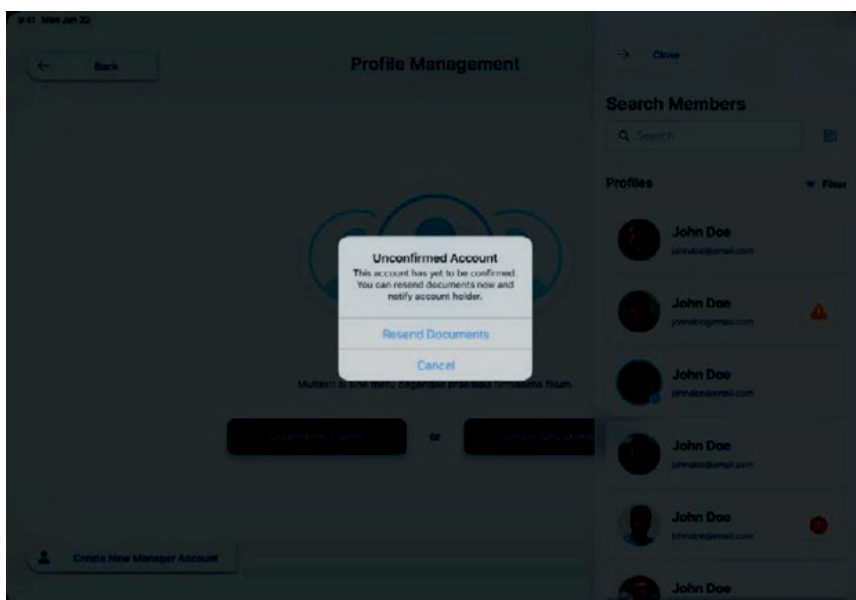
TROUBLESHOOTING (continued)

4. What if an Orange Exclamation Point in a Triangle appears when searching for Members?

If the user's account is not confirmed, an orange exclamation mark will appear next to the member's name and e-mail address in the search.



If the operator clicks on the exclamation mark, a dialogue box will appear:



If the user clicks the "E-mail Form" button, an e-mail will be sent to the e-mail recorded under the member account asking the user to activate the account.

If the user clicks the "Cancel" button, the dialogue box will close with no further action.

TROUBLESHOOTING (continued)

5. **What if the Neuro20 PRO Control Box is not connecting to the Operating Tablet?**
 - a. Check the Indicator Light on the Neuro20 PRO Control Box to ensure that the Control Box is on. Also, make sure the Control Box is in the designated range.
 - b. Check that the battery is properly charged, if not, exchange the battery with a fully charged battery and turn on.
 - c. If the problem persists, go to “Device Management” and check that the Control Box is connected and reading “Activated”
 - d. If the problem still persists, contact Neuro20 technical support at support@neuro20.com
6. **What if the Client doesn't feel the stimulation during an Active Training Session?**
 - a. Check the Neuro20 PRO Control Box is on and connected.
 - b. Check if the Neuro20 PRO Control Box is attached properly to the Neuro20 Smart Suit. If not, reattach and restart the training program.
 - c. Verbally ensure that the User is not wearing anything under the Neuro20 Smart Suit, which could obstruct proper connection of the pads with the skin ... i.e. undergarments or bra.
 - d. Check the levels of the muscle groups for the User in question. If the User accidentally or purposely pressed the red Start button on the Control Box during the active training session, it automatically resets all the muscle groups to 0%. If this occurs the Training Session will need to be reset.
 - e. If the problem still persists, have the user change the Neuro20 Smart Suit.
 - f. If the problem still persists, contact support@neuro20.com.
7. **What if during the training session an electrode on the suit diagram turns Yellow?**
 - a. Verbally ensure that the User is not wearing anything under the Neuro20 Smart Suit which could obstruct proper connection of the electrodes with the skin ... i.e. undergarments or bra.
 - b. Ensure Users are in the proper size suit. (See sizing chart - Pg.18)
 - c. Ensure that there is moisture on the electrode either from sweat or use a spray bottle to wet the electrodes.
 - d. If the Yellow signal on the suit diagram still persists, then change out the Neuro20 PRO Control Box.
 - e. If the Yellow still persists, then close and restart the Software.
 - f. If the Yellow still persists then change the Neuro20 Smart Suit.
 - g. If the Yellow persists, discontinue training and contact Neuro20 technical support at support@neuro20.com.

TROUBLESHOOTING (continued)

8. What if one or more of the User's icons shows a warning indication?
- Warning indications may appear for multiple reasons.
 - This feature occurs when the Control Box is out of range of the Operating Tablet, is turned OFF, or the battery runs out.
 - Ensure the User is in range of the device - max. 330ft/100 meters and free of obstructions and that no more than 10 devices are within this range.
 - Ensure the device is not operating near electromagnetic or microwave potentially interfering devices. More information can be found in the ELECTROMAGNETIC COMPATIBILITY section of this user Manual.
 - Ensure the wireless connection on the Operating Tablet is not disabled in settings.
 - Ensure the Control Box was not turned off (check indication light).
 - If the problem persists, discontinue training and contact Neuro20 technical support at support@neuro20.com.

Note! *Once the issue is fixed and Control Box reconnects with the Operating Tablet it will automatically join the session. Trainer may need to re-adjust the levels on the Client's muscle groups.*

10. What if the battery is not charging?
- Check the connection of the charger and the placement of the battery in the charger.
 - Disconnect the charger from the power source, then check the connection points of the charger and the battery. Check that they are dry, free from debris, dust or lint. If needed, gently clean the charger and battery contact points with a nylon brush.
 - Unplug the charger and plug it into an outlet that is proven to be actively working.
 - Try charging a different battery, if that does not charge, try a different charger.
 - If the problem persists, contact technical support at support@neuro20.com.

GENERAL MAINTENANCE

It is expected that all operators maintain the Neuro20 PRO System and all of the component parts by using the guidelines provided herein. Neuro20 recommends that the Neuro20 PRO System is only operated after the owner is comfortable and knowledgeable of all contents within the Operating Manual. Please handle all System components with care. The Neuro20 PRO System is an electrical computerized device and should not be thrown, dropped, banged, or stored with items that can damage the product. If there is any evidence, or appearance of damage, or tampering to any component of the Neuro20 PRO System, immediately remove the component from service, discontinue use and contact support@neuro20.com.



Keep the Neuro20 Operating Tablet Dry at all times. Optimal storage conditions are to place the Neuro20 Operating Tablet into the padded case provided at the time of purchase whenever the System is not in operation. Operating Tablet work best at 0° to 35° C (32° to 95° F). Place your device in a cool, moisture-free environment that's less than 90° F (32° C). For Best General Performance Tips refer to: <https://www.apple.com/batteries/maximizing-performance/> Use only the charger, cord, and battery components provided and do not alter or stack any other non-authorized product with this device. Always ensure that the Neuro20 Operating Tablet is charged appropriately for the training session and only charge the Neuro20 Operating Tablet in a safe environment away from flammable enriched atmosphere, pets, pests, and children. Limit direct exposure to light, sunlight, when not in operational use and keep away from lint, dust and debris. Never use any liquid or chemical cleaning solution on any System component. When cleaning the Neuro20 Operating Tablet wipe gently with a microfiber cloth. If any damage occurs to the Neuro20 Operating Tablet, stop operation instantly and contact support@neuro20.com.

Software Maintenance:

Regular required Neuro20 PRO Software updates on the tablet may occur. This will require an active internet connection. The software updates will be possible for any registered Owner/Manager to install through the Device Management tab in the software. All registered owner/managers will receive an e-mail to notify them of software updates.

GENERAL MAINTENANCE (continued)

Neuro20 PRO Control Box:

Do not change or alter any labels, components, charger, batteries, or stack electrical unauthorized products with the Neuro20 PRO Control Box as it may cause a malfunction of the device. The temperature range for use of the device is +5 to +40 °C (+41 to +104°F) and the humidity range is 15-90% Humidity. The temperature range for Storage & Transport is -25 to +70 °C (-13 to +158°F) and the humidity range is 15-90% Humidity. Neuro20 PRO Control Boxes should be stored in the padded case provided at the time of purchase.



Keep the Neuro20 PRO Control Box dry at all times. Limit direct exposure to light, sunlight, whenever the System is not in operational use. Keep away from lint, dust and debris. To clean the Neuro20 PRO Control Box use a soft, clean, lint free, dry, nylon brush and gently wipe the surface. If there is any visible damage to a Neuro20 PRO Control Box, remove the item in question from use, store properly, and immediately contact at support@neuro20.com.



Keep the battery and charger dry. Limit direct exposure to light, sunlight, whenever the System is not in operational use. Keep away from lint, dust, and debris, especially the battery and charger contact points. Never use any liquid or chemical cleaning solution on any component part. Keep away from children, pests, and pets.

When the battery is charging, the charger indicator light in the charger is red while charging, and green when charging is complete. If there is any visible damage to the battery or charger remove the item in question from use, store properly, and immediately contact technical support at support@neuro20.com.

Neuro20 Smart Suit:

Neuro20 Smart Suit is a complex technology wearable which requires specific maintenance guidelines.

The Neuro20 Smart Suit is machine washable. We recommend washing the suit regularly after use in order to prepare it for future sessions.

The Neuro20 Smart Suit must be washed on a gentle or regular wash cycle, not to exceed a spinning speed of 800 -1200 RPM, and in a water temperature at 30 degree C or below (tap cold).

The Neuro20 Smart Suit must is HANG DRY ONLY, do not place in dryer.

GENERAL MAINTENANCE (continued)

Neuro20 Smart Suit (continued):



Do Not!

1. Do not dry clean or clean chemically.
2. Do not bleach or use any fabric softener or fragrance enhancer.
3. Do not tumble dry or wring out by hand.
4. Do not dry in direct sunlight.
5. Never iron.
6. Never hand scrub or hand wash or use any abrasive, or brush on the suit.

Fig. 1

Neuro20 Smart Suit comes with String Bag (2024 model and later) and washing bag (Fig.1).



How to wash the Neuro20 Smart Suit:

1. Prior to washing ensure that the Smart Suit is right side out (logo visible).
2. Ensure that the Velcro Strap is securely closed to prevent the hooks of the Velcro causing damage to the suit. Make sure the silicon plug is inserted to the USC-C connector (Fig.2).
3. Fold the Smart Suit along the height of the suit in half (Fig,3).
4. Further fold the both ends of the Smart Suit towards the middle (Fig.4).
5. Lastly, fold the Smart Suit into half (Fig,5). This way you assure Smart Suit fitting into the Wash Bag properly, and prevent unwanted folds and damage to the technology embedded into the Suit itself.
6. Insert folded Smart Suit into provided Wash Bag (Fig.6).
7. Wash as instructed on page 76.

Fig. 3

Fig. 2



Fig. 4



Fig. 5



Fig. 6



GENERAL MAINTENANCE (continued)

Neuro20 Smart Suit (continued):



Use a mild, bleach-free detergent (i.e. high-performance sports detergent, delicate detergents or baby shampoo).



Always inspect the Neuro20 Smart Suit for physical damage, loose threading, and wear and tear. Any damage or degradation to the electrodes and the connection may cause a malfunction of the technology. Upon recognizing any potential damage to the Neuro20 Smart Suit, remove the suit from serviceability and contact customer support at support@neuro20.com.

The Neuro20 Smart Suit should be stored indoors in a clean, dry, pest free environment away from pets and children, and never stored in direct sunlight. The suggested temperature guidelines for storage of the Neuro20 Smart Suit is above +10° to +40° C (50° to 104° F), 5% to 80% RH, non-condensing and atmospheric pressure range of 700 hPa to 1060 hPa.

Note! The Neuro20 Smart Suit should not be altered, patched, or have any logos added to the suit as this may cause a device malfunction.



The Neuro20 Smart Suit is for single patient use only! Do not share Neuro20 Smart Suits between different users.

Neuro20 Operating Manual:

Neuro20 Operating Manual is available in PDF format within the Neuro20 PRO app. It is also available for download at <https://www.neuro20.com/promanual>

Service Life and Shelf Life for All Component Parts

Model Number	Description	Shelf Life	Service Life
iPad 9th generation	Neuro20 Operating Tablet	5 years	4 years
N20PRO-CB	Neuro20 PRO Control Box	N/A	5 years
N20-SS	Neuro20 Smart Suit	3 years	1 year
Battery & Charger	Battery w/Charger	1 year	N/A

LIMITED WARRANTY

Neuro20 Technologies Corp. ("Manufacturer") warrants the Neuro20 Pro System Control Box (the "Control Box") to be free from defects in material and workmanship for a period of three (3) years from the original date of purchase. Manufacturer also warrants the Neuro20 "Smart Suit" (the "Smart Suit") to be free from defects in material and workmanship for a period of six (6) months from the original date of purchase. Manufacturer also warrants the System Protective Case, the Tablet Protective Case, the Control Box Battery and Control Box Battery Charger for a period of one (1) year. Together, the Smart Suit, Control Box, System Protective Case, the Tablet Protective Case, the Control Box Battery and Control Box Battery Charger shall be referred to herein as the "Product". It is Manufacturer's sole discretion to determine if the reported claim constitutes a claim within the scope of this limited warranty policy. The Operating Tablet, its Charger and Power Adapter are not covered by the Manufacturer under this Limited Warranty. For warranty claims outside of the Product defined herein, (the Operating Tablet, Charger and Power Adapter) refer to the third-party product manufacturer warranty policy and procedures.

To initiate a warranty claim, the following steps shall be followed: 1. Contact your Sales Representative (if applicable), or refer to the Troubleshooting section at www.neuro20.com to determine if a claim needs to be filed or if the issue can be resolved directly by customer; 2. If problem persists, submit a warranty claim in writing to warranty@neuro20.com, or in another manner specified by the Manufacturer, including a detailed description of the problem, serial number/LOT number (if applicable, as located on the label of the product) and a photo/video of the issue (if possible, to expedite the claim); 3. If the issue falls within the scope of the limited warranty, the Manufacturer will determine the appropriate resolution, which may include repair, replacement or another suitable remedy (warranty replacements may involve refurbished items); 4. You or your sales representative will be kept informed throughout the process and our team will work diligently to ensure a swift and satisfactory resolution to your warranty complaints.

The effective date of this limited warranty is the day of receipt of delivery of the product to the original purchaser. Any claims under this warranty must be initiated within the specified warranty period, which begins on the effective date. The warranty period and terms are subject to the conditions and limitations set forth in this document.

LIMITED WARRANTY (continued)

This warranty does not cover any damage caused by misuse, abuse, accidents, wear and tear from normal use, alterations to the Product, or use of the Product with components made by any manufacturer other than Manufacturer. Failure to comply with all storage, use, cleaning, and other instructions in the Neuro20 Pro System Operating Manual, including but not limited to the System Components and Overview section, shall void this Limited Warranty.

THIS IS MANUFACTURER'S ONLY WARRANTY/POLICY. The remedy stated above is exclusive for any and all claims by the Purchaser or any person claiming through the Purchaser against Manufacturer, whether based on contract, negligence, tort, strict liability, warranty, or under any statute or on any other basis. TO THE FULLEST EXTENT ALLOWED BY LAW, IN NO EVENT SHALL MANUFACTURER BE LIABLE, WHETHER BASED ON CONTRACT, NEGLIGENCE, TORT, STRICT LIABILITY, WARRANTY, OR UNDER ANY STATUTE OR ON ANY OTHER BASIS, FOR SPECIAL, INDIRECT, INCIDENTAL, EXEMPLARY, PUNITIVE, MULTIPLE OR CONSEQUENTIAL. DAMAGES ARISING OUT OF OR CAUSED BY THE PRODUCT OR THE POSSESSION OR USE OF THE PRODUCT BY THE PURCHASER OR ANY PERSON CLAIMING THROUGH THE PURCHASER - IN ALL CASES ABOVE WHETHER OR NOT FORESEEABLE AND WHETHER OR NOT MANUFACTURER IS ADVISED OF THE POSSIBILITY OF SUCH DAMAGES, INCLUDING WITHOUT LIMITATION DAMAGES ARISING FROM OR RELATED TO PERSONAL DAMAGES, LOSS OF USE, PROCUREMENT OF SUBSTITUTE GOODS OR SERVICES, OR FOR LOSS OF REVENUE, PROFITS, EARNINGS, OR GOODWILL. SOME STATES DO NOT ALLOW THE EXCLUSION OR LIMITATION OF INCIDENTAL OR CONSEQUENTIAL DAMAGES, SO THE ABOVE LIMITATION OR EXCLUSION MAY NOT APPLY. DAMAGES FOR ANY CLAIM, INCLUDING A WARRANTY CLAIM, MADE ON ANY BASIS ARE LIMITED TO THE PURCHASE PRICE OF THE PRODUCT FOR WHICH DAMAGES ARE CLAIMED.

THIS WARRANTY IS IN LIEU OF AND EXCLUDES ALL OTHER WARRANTIES EXPRESS OR IMPLIED, INCLUDING, WITHOUT LIMITATION, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. Some states do not allow limitations on how long an implied warranty lasts; therefore, the above limitation may not apply. Manufacturer neither assumes, nor authorizes any person to assume for it, any additional liability or responsibility with respect to the Product beyond this Limited Warranty. This Limited Warranty is non-transferable.

LIMITED WARRANTY (continued)

NON-WARRANTY REPAIR SERVICE: Non-warranty repair service may be available for a fee. Contact Manufacturer at warranty@neuro20.com for further information.

All limitations and exclusions herein are agreed to and accepted by the Purchaser upon purchase of the Product. Purchaser agrees that any dispute regarding this warranty shall be resolved by arbitration in Hillsborough County, Florida. Purchaser agrees that Florida law shall be the governing law. If arbitration is deemed inapplicable by a court of competent jurisdiction, Purchaser agrees that Florida courts have proper personal jurisdiction over the parties to this Limited Warranty.

Address for notification of claims under this Limited Warranty:

warranty@neuro20.com

Corporate Address:

*Neuro20 Technologies Corp.
140 Pine Ave N,
Oldsmar, FL 34677
USA*

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or visit www.neuro20.com

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