



Instruction Manual

Version 4.0.1



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1 General Information

The Pepper EMS Training System uses electrical muscle stimulation (EMS) technology to stimulate healthy muscles in order to improve or facilitate muscle performance. To engage all your major muscle groups effectively and get the most out of your Pepper EMS Training System, please read this manual carefully before you start your first workout. The Pepper EMS Training System is wirelessly controlled by the Pepper EMS Training App (Pepper: EMS Training at Home) which can run on any Apple or Android Tablet or Phone. The Pepper EMS Training System is intended to be used in athletic and sports training environments.

In the event of improper use, non-compliance, or insufficient compliance with the safety instructions in this instruction manual, changes to the Pepper EMS Training system, or the use of unsuitable spare parts (not original parts), the manufacturer accepts no liability for damage to persons, animals, property, or the product itself.

If you have any further questions or comments, please contact the Pepper team via www.peppermove.com, email info@peppermove.com, or phone +49 160 97032942. You can also make an appointment with one of our EMS experts using the link in your purchase confirmation email.

2 Indications for use

The Pepper EMS Training System is an Over-The-Counter device intended to stimulate healthy muscles in order to improve or facilitate muscle performance. It is to be used by adults only.

The Pepper EMS Training System is not intended to be used in conjunction with therapy or treatment of medical diseases or medical conditions of any kind. None of the training programs or operational parameters are designed to target injured or ailing muscles and its use on such muscles is contraindicated.

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

3 Warnings and Safety Guidelines

Pepper recommends that you consult with your physician before beginning this or any other fitness program.



Text marked with this symbol ⓘ indicates a situation, which may result in minor or moderate injuries to the user or damage to the equipment, if not avoided.

Safety Guide

Please review the following list of questions. If you answer any of these questions with “Yes”, “Maybe”, or “I don’t know”, you should not use the device.

Table 1: Safety Questions

#	Question
2	Do you have a pacemaker, implanted defibrillator, or other implanted metallic or electronic device?
3	Are you pregnant?
4	Are you experiencing extreme muscle strain or trauma, or a muscle strain condition such as Rhabdomyolysis (a condition in which damaged skeletal muscle breaks down rapidly)?
5	Have you been diagnosed with any heart problem or condition?
6	Do you have an inadequate blood supply (ischemia) or serious blood circulation disorders in the lower limbs?
7	Have you been diagnosed with an abdominal or groin hernia?
8	Have you recently undergone surgery?
9	Have you recently experienced acute trauma or fractures?
10	Have you been diagnosed with epilepsy or another neurological disorder?
11	Have you experienced nerve damage resulting in a lack of feeling in a particular area of the body?
12	Do you have persistent pain?



13	Do you require muscle rehabilitation?
14	Do you have a suspicion of any heart condition?
15	Do you have cancer?
16	Do you have painful or afflicted joints?
17	Do you have muscle spasms?
18	Have you experienced a loss of muscle tissue or muscle atrophy?
19	Do you have a tendency to bleed internally (hemorrhage) following trauma or fracture?
20	Are you in the presence of electrical monitoring equipment (e.g., cardiac monitors, ECG devices)?
21	Are you under the age of 22?

Contraindications

The following are contraindications that indicate a situation in which the Pepper EMS Training System must not be used:

- Do not use the Pepper EMS Training System if you have a pacemaker (artificial pacemaker), implanted defibrillator, or other implanted metallic or electronic device. Such use could cause electric shock, burns, electrical interference, or death.
- Do not use the Pepper EMS Training System over a menstruating or pregnant uterus. The safety of using powered muscle stimulators during pregnancy has not been established.
- Do not use the Pepper EMS Training System if you are experiencing extreme muscle strain or trauma, or if you are experiencing a muscle strain condition such as rhabdomyolysis (a condition in which damaged skeletal muscle breaks down rapidly).
- Do not use the Pepper EMS Training System if you have been diagnosed with any heart problem or condition.



- Do not use the Pepper EMS Training System if you have an inadequate blood supply (ischemia) or a serious blood circulation disorder in the lower limbs.
- Do not use Pepper over an abdominal or groin hernia.

Precautions

Pepper recommends that you review the following precautions before using the Pepper EMS Training System:

- Caution should be used when there is a tendency to bleed internally (hemorrhage) following trauma or fracture.
- Caution should be used following acute trauma or a fracture or following recent surgery when muscle contraction may disrupt the healing process.
- Consult your physician before using Pepper if you have been diagnosed with epilepsy or another neurological disorder.
- Caution should be used when there is nerve damage resulting in a lack of feeling in a particular area of the body.
- Consult your physician before use if you have experienced a loss of muscle tissue or muscle atrophy, experience muscle spasms, or have muscles associated with painful or afflicted joints.
- Consult your physician before use if you have persistent pain.
- Consult your physician before use if you require muscle rehabilitation.
- Consult your physician before use if there is suspicion of any heart condition. The device may cause lethal rhythm disturbances to the heart in susceptible individuals.

Warnings and Safety Measures

The following are general warnings and safety measures that you should review before using the Pepper EMS Training System:

- The Pepper EMS Training System is only for use by adults (≥ 22).
- Do not use the suit on parts of the body it was not designed for.
- Do not touch the inside of the suit with your hands during training. If a suit adjustment is needed, stop the training first and then make the adjustment.
- No modification of Pepper EMS Training System is allowed.
- No use of the Pepper EMS Training System adjacent to or stacked with other equipment.



- Do not use accessories, transducers and cables other than those specified or provided by Pepper as this could result in increased electromagnetic emissions or decreased electromagnetic immunity and improper operation.
- Do not charge the power box while it is attached to the suit. The app blocks the training while the power box is being charged and an error message will appear.
- Stimulation should not be applied near metal. Remove all jewelry, body piercings, belt buckles, or any other removable metallic product or device in areas of stimulation.
- Stimulation should not be applied over the neck (specifically the carotid sinus nerves), particularly in users with a known sensitivity to the carotid sinus reflex.
- Stimulation should not be applied over the neck or mouth. Severe spasms of the neck or airway muscles may occur, and the contractions may be strong enough to close the airway or cause difficulty in breathing.
- Although the design of the Pepper EMS Training System prevents electrical current from crossing the chest cavity (transthoracically), please be advised that stimulation should not be applied across the chest cavity in order to prevent electrical current from reaching the heart, where it could cause an irregular heartbeat (cardiac arrhythmias).
- Stimulation should not be applied to the head or any sites that may cause electrical stimulation to pass through the head (transcerebrally). The effects of stimulation of the brain have not been established yet.
- Stimulation should not be applied over swollen, infected, or inflamed areas, e.g. phlebitis (inflammation of a vein), thrombophlebitis (inflammation of the wall of a vein), varicose veins (vein that is distended, lengthened, and tortuous).
- The long-term effects of chronic electrical stimulation have not yet been established.
- Stimulation should not be applied over, or in proximity to, cancerous lesions.
- Do not apply stimulation to muscle groups if you have any concerns related to your comfort or safety.
- Do not use the Pepper EMS Training System if connected to any electronic monitoring equipment (e.g., cardiac monitors, ECG devices). These devices may not operate properly when electrical stimulation is in use.
- Do not use the Pepper EMS Training System in water or a humid atmosphere (sauna, hydrotherapy, etc.).
- Do not use the Pepper EMS Training System in an oxygen-rich area, such as in the presence of oxygen tanks.



- Do not use the Pepper EMS Training System while driving, operating machinery, cycling or during any activity in which electrical stimulation can put you at risk of injury to yourself or others.
- Do not apply stimulation while sleeping.
- Keep the Pepper EMS Training System device and its accessories out of reach of children and pets.
- Do not use the Pepper EMS Training System on animals.
- Do not allow any foreign objects (soil, water, metal, etc.) to enter the power box.
- Do not tamper with the suit or power box (e.g. by trying to open them).
- Sudden temperature changes can cause condensation to build up inside the power box. Only use once temperatures have returned to normal.
- Do not overexert yourself during electrical muscle stimulation training. Any training should be at a level comfortable for you.
- Do not use the Pepper EMS Training System if you are connected to a high-frequency surgical instrument as this could cause skin irritations or burns under the pads.
- Do not use the Pepper EMS Training System near shortwave or microwave therapy medical equipment. This may lead to instability in the power box.
- The Pepper EMS Training System must not be used near medical devices such as MRI, CT, diathermy, and X-Ray as those could alter the current generated by the power box, cause tissue damage, and result in severe injury or death.
- The Pepper EMS Training System must not be used in areas where unprotected devices are used to emit electromagnetic radiation. Portable communications equipment, RFID, and electromagnetic security systems (e.g., metal detectors and EAS) can interfere with the Pepper EMS Training System and alter the current generated by it.
- Do not use portable RF communications equipment (including peripherals such as antenna cables and external antennas) closer than 30 cm to any part of the Pepper EMS Training System, including cables. Otherwise, degradation of the performance of this equipment could result.

	Not all RF emitters are visible. If you experience any unexpected changes in intensity, please immediately end your training and consult Pepper.
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Adverse Reactions

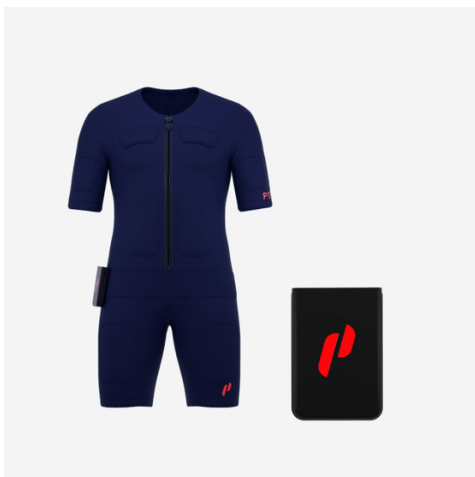
- Some people with very sensitive skin may experience redness or irritation under the pads after electrical muscle stimulation. Generally, this redness is completely harmless and should disappear shortly. Avoid starting training until the redness is no longer visible. If redness persists, stop using the Pepper EMS Training System and consult your physician.
- Some people may experience headaches and other painful sensations during or following the training. If this occurs, a physician should be consulted, and training should cease until gaining approval from a physician.

	If you experience adverse reactions, stop using the Pepper EMS Training System immediately and consult your physician.
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4 Pepper EMS Training System

The Pepper EMS Training System consists of two main components or accessories: the Suit and the Power box. Both accessories are described in this section.

Picture 1: Pepper Suit and Power box



The Suit

The suit delivers impulses directly from the connected power box to all major muscle groups. The suit is directly worn on the skin which will lead to the best conductivity between the electrodes and muscles. You can wear undergarments underneath the suit, make sure all electrodes touch your skin. The suit is one piece which can be closed in the front with the zipper.



The suit has 20 integrated dry electrodes covering ten major muscle groups:

- Left/right quadriceps
- left/right hamstrings
- Left/right glutes
- Left/right lower back
- Left/right upper back
- Left/right shoulder
- Left/right biceps
- left/right triceps
- Left/right chest
- Left/right abdominals

Picture 2: Pepper Suit front and back



⚠	It is advised not to share suits with others as this can lead to improper fitting of the suit or sharing of bodily fluids.
⚠	If you wear undergarment underneath your suit, make sure it does not cover any electrodes. All electrodes must touch your skin directly.

The Power Box

The Power Box is the control center for the Pepper EMS Training System. This device employs low frequency impulses to generate muscle contraction, which multiplies each muscle group's work rate and output. It communicates wirelessly with the Pepper App. The



Power box is designed to fit into the USB-C connector of the suit, which can then be secured with the straps. The Power box has a plastic housing for protection against electrical hazards.

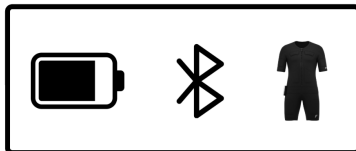
Picture 3: Power box front and back



Turning on the Power box

The Power Box has a single button to turn it on and off. Press the button for three seconds to switch it on, until the Pepper logo appears on the display. The light should then be green, and the screen will show battery percentage, suit connectivity and app connectivity. If the display is on, the power box is on, if nothing is visible the power box is off.

Picture 4: Icons on display



Turning off the Power box

When you are finished with your workout, press the button again for 3 seconds and the power box will turn off with a single Pepper P logo on the screen prior to going black. Once the LED and the screen are inactive the battery is off.

Power box LED Status Indicator

The Power Box uses the LED and the screen to communicate its readiness to begin working out. The LED is a helping hand for general functions, but the screen shows much more detail. The LED indicates if the box is charging, is on or has connected to the application.

Table 2: LED light and description

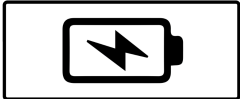
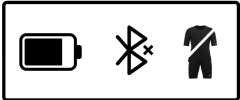
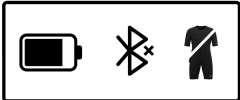
State	Indicator Light	Description
Off	None	The Power box is powered off and is not charging.

Charging	Yellow	The Power box is charging.
On or ready to workout.	Green	The Power box is on and can be connected to the App.
Connected	Swift Blue blinking	The Power box has successfully connected to the App.

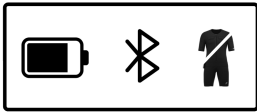
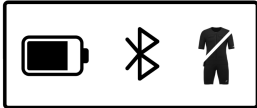
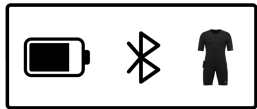
Power box Screen Status Indicator

The Power box uses the screen to depict any details you may need to ensure correct use of the suit and battery. The battery uses a 3-Icon setup with one depicting the battery percentage in the form of a battery. The next icon is the Bluetooth icon showing connection status to the app. The final icon shows the suit connectivity.

Table 3: Screen Layout and description

State	Screen Layout	Description
Off	None	The Power box is powered off and is not charging.
Charging	Battery symbol with lightning bolt	The Power box is charging. 
On	3- Icon layout with Bluetooth with a cross and Suit crossed out.	The Power box is on and can be connected to the App. 
Bluetooth Disconnected	Bluetooth icon with a cross next to it.	The Power box is not connected to the Pepper app. 



Bluetooth Connected	Bluetooth icon without a cross next to it.	The Power box is connected to the Pepper app. 
Suit Disconnected	Suit icon is crossed out.	The suit is not connected. 
Suit Connected	Suit icon is fully depicted, without being crossed out.	The suit is connected and ready for use 

5 Directions for Use

Before you begin your workout with the Pepper EMS Training System, you must install and configure the Pepper App on your phone or tablet and adjust your suit so that it is tight against your body but still comfortable.

Installing and Launching the Pepper App

The Pepper App is an application that controls and manages your Pepper EMS Training System workouts.

To install the app, please use one of the following two methods.

- Open the Camera app on your phone or tablet and center the QR code below (or on the quick start flyer) on the screen. A banner notification displays allowing you to open the link associated with the QR code. Please press the link.



- Click one of these links for the [App Store](#) or [Google Play Store](#) to get to the App directly on your phone or tablet.
- Open the App or Google Play store from your phone or tablet and search for the **Pepper: EMS at Home** App and install it.



After you have successfully installed the Pepper App, open it and follow the on-screen instructions for signing up or logging in.

The App asks you to start a free test trial of the App. In order to continue with your Pepper training, please confirm the free trial. You can cancel the subscription after the free trial.

Putting on your Suit

The following provides instructions on putting on your suit.

	Always inspect your suit for rips, tears, or any other type of damage. If damage is present, replace the damaged suit. Do not use the suit when damaged.
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1. Put on the suit with the electrodes turned to the inside and the zipper in the front of the suit. You can wear underwear underneath your suit but make sure none of the electrodes are covered as they should be placed directly on your skin.

Picture 5: Put on Pepper suit



2. Close the Zipper in the front.

Picture 6: Close zipper in the front





Starting your onboarding in the App

Open the Pepper App on your phone or tablet and start the onboarding process. You can start the onboarding process by starting any kind of workout or connecting the Power box. The onboarding process consists of an information video and with connecting your Power box to your phone.

Connecting your Power box

The Power box uses Bluetooth to communicate with the application. Before you can use the Power box in your workout, you must pair it with your phone or tablet. To do this, ensure that your device is close to the Power box with Bluetooth turned on and your Power box is switched on, which means the LED light is showing green and the screen is showing the 3-Icons.

Click on “Find my Pepper suit” in the Pepper app and choose your Pepper Power box by clicking on it. It starts with Pepper and continues with a code.

Congratulations, your device is now paired with your Power box. The Bluetooth icon on your Power box will not be crossed out anymore.

	Always inspect your thoroughly inspect your Power box. Do not use your Power box if any damage is present. For your safety, please consult Pepper.
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Attaching the Power box to the suit

Once you have paired your phone or tablet to the power box, you can attach it to the suit.

1. Place the battery on the tracks on the mounting point and carefully slide it down into place. You will feel it hear a small click once it has connected.
2. Once the suit is successfully connected the suit icon will be fully depicted and will not be crossed out anymore.

Picture 7: Slide the Power box into the tracks on the right side of your suit



Manage your Training Session

The last step of your onboarding process will be your first Pepper sensation which will explain everything to you in detail and which will start with beginner exercises. This workout looks like all other workouts in the Pepper App. Once the workout session begins, the workout screen is displayed.

Understanding the Workout Screen

Picture 8: Overall workout screen



Table 4: Overall screen - screen parts and descriptions

Number	Screen Part	Description
1	Exercise	Displays the name of the current exercise.
2	Pause/Play	Pause and play the workout at any time.
3	Impulse Bar	Displays the remaining time for the current stimulation period: - When blue, the power box sends electrical impulses to the Pepper EMS Training System components. - When white, the power box is in rest and has stopped sending electrical impulses. Please note that the power box provides constant stimulation in cardio and relax mode, so this bar is not shown.
4	Heat Zones	Represents the overall intensity zone of the training session based on your historical training intensity. Yellow and red zones are above the historical training intensity.

5	Pepper Points	Gamification element based on training intensity and training minutes and workout video level (all levels and advanced).
6	Overall electrode control	Controls the overall intensity of the electrodes. The “+” increases the overall intensity of the electrodes (below 20 in steps of 5, above 20 in steps of 1), the “-“ decreases the overall intensity of the electrodes (below 20 in steps of 5, above 20 in steps of 1). The power button switches all electrodes on and off simultaneously.
7	Single electrode Control	This button opens the detailed view of the electrode control, where single electrodes can be controlled.

Picture 9: Detailed workout screen



Table 5: Detailed screen - screen parts and descriptions

Number	Screen Part	Description
8	Single Electrode	Each electrode (front: chest, biceps, triceps, abs, front thighs; back: upper, middle and lower back, glutes, back thigh) can be controlled individually. The “+” increases the electrode (below 20 in steps of 5, above 20 in steps of 1), the “-“ decreases the electrode (below 20 in steps of 5, above 20 in steps of 1). The power button switches the electrode on or off.



9	Close detailed view	By pressing the “x” you can close the detailed workout screen and return to the overall workout screen.
10	Save and load preset	If you like a training intensity, you can press “save preset” to save this electrode setting for future workouts. If you press “load preset” you can load the intensity that you saved in the past, it loads over one minute continuously. For each suit mode you can save one preset. You can update the settings anytime.

Pause or stop your Training Session

To pause or stop your workout, there are three different possibilities:

1. Press pause on your workout screen.
2. Detach the power box from your suit.
3. Switch off your power box.

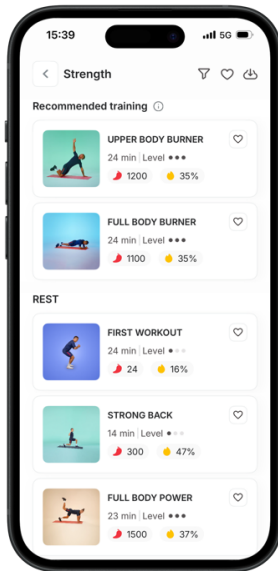
!	If you experience any major discomfort or pain during the workout, immediately pause or stop the training and decrease the intensity as needed.
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Selecting your workout

When you open the Pepper App on your phone or tablet you can choose between a suit workout (Suit -> Training) or a video workout (Classes) where all available strength, cardio and relax videos are listed.

!	In the first few weeks we recommend that you start with all levels workouts and with using low intensity settings before progressing to higher intensities to familiarize yourself with the sensation. We also recommend that you start with one strength workout per week and slowly increase to two after 4-6 weeks.
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Picture 10: Workout videos

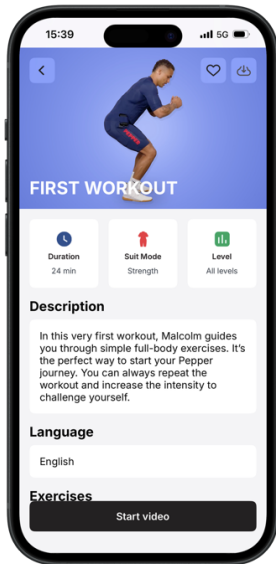


The classes overview provides the following details for each workout video.

Table 6: Workout information and description

Workout Information	Description
Training Mode	The training mode associated with the workout, Strength, Cardio or Relax.
Workout Name	The name describes the focus of the workout or recovery mode.
Workout Level	The overall level of difficulty of the individual exercises in the workout: - All Levels - Advanced
Workout Length	The length shows the duration of the workout video in training minutes.

Picture 11: Workout details



Once you select the desired workout, more information regarding the workout are displayed.

Table 7: Workout details and description

Workout Details	Description
Workout Description	A brief description of the workout.
Body Parts	The body parts which the exercises focus on are displayed.
Exercises	All exercises which are included in the workout are listed.

When you find the workout that fits to your training needs, press the **Start Workout** button on the screen to begin your training session.

6 Training Modes

The workouts in the Pepper App are assigned to a unique training mode. Each mode is designed to indicate the exercises and work that is focused on during the selected workout. The list below helps you choose a training program that is appropriate for your workout needs.

Table 8: Training mode and description

Mode	Description
Strength	This mode is intended to increase the maximum strength of muscles.



Cardio	This program improves overall muscle endurance and resistance to fatigue. It activates the aerobic metabolism of the fibers during the training.
Relax	This program helps to increase blood flow. It should be used after training sessions and competitions.

Training Recommendation

As the different training modes have different intensities we recommend a maximum training time per week for each mode.

Table 9: Training mode and recommendation

Mode	Training Recommendation
Strength	Maximum 25 minutes per session, maximum 50 minutes per week with a minimum of two rest days in between sessions (e.g. 2 x 25min)
Cardio	Maximum 125 minutes per week (e.g. 5 x 25min)
Relax	Maximum 125 minutes per week (e.g. 5 x 25min)

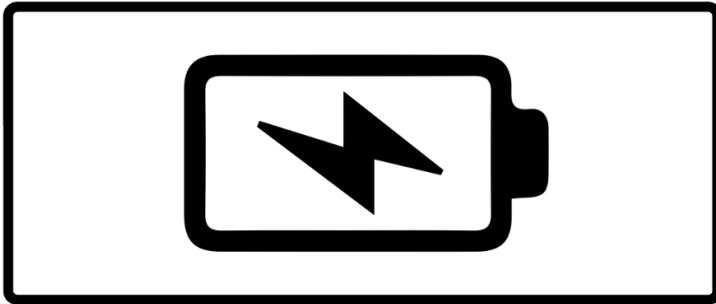
7 Charging your Power box

The battery level can be found on the display of the Power box. The Pepper App also checks the battery level of the power box and displays it on the Suit screen. The battery level should be above 10% before you start your training session. The App alerts you it needs to be charged before a training session.

To charge your power box, please do the following:

1. Disconnect the power box from the suit, if attached.
2. Ensure that the power box is turned off by checking the LED and screen are both off.
3. Connect the USB type C charging cable to the USB type C connector at the side of the power box.
4. Use a standard 5V 0.5A USB type C standard charger (DC5V) for charging.
5. Check for the yellow LED light and the screen showing a battery icon with a lightning bolt in the center.

Picture 12: Charging icon on display when power box is charging



	Never charge or recharge the power box when it is attached to your body. Never charge or recharge the power box from unreliable or problematic sources.
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8 Troubleshooting

The following is a collection of possible issues with the Pepper EMS Training System. If you have additional questions or concerns, please contact Pepper.

Table 10: Troubleshooting – issue and resolution

Issue	Resolution
The power box doesn't turn on	Connect the charger to the power box, make sure it is a standard 5V USB type C charger. While charging the display should show a battery icon with a lightning bolt in the center. Allow the power box to charge for 30 minutes. After charging, remove the power box from the charger and turn it on. Press the power button once and wait for a few seconds until you see the LED light and the Pepper logo on the display.
The app cannot pair with the power box	Ensure that your power box is powered on. Ensure that you connect the Pepper app, not the phone's or tablet's Bluetooth settings, to the power box. If your phone or tablet still can't connect to the power box, follow the instructions step by step: 1. Ensure the power box is on. 2. Ensure that the Bluetooth of your phone or tablet is on. 3. Open the Pepper app and go to Suit and Configuration. 4. Press Connect Suit and Find my Pepper suit. 5. Connect to your power box. If no power box appears, go to your phone or tablet settings and open the settings for the Pepper app. 6. Enable Bluetooth and Location (for Android).



	7. Try again.
Suit contact issues / Stimulation is weak or uncomfortable even on high intensities	Ensure that your electrodes touch your skin, if they are too loose, use the provided belts to tighten the suit. The suit should not be used if it is loose and any of the electrodes are not in complete and firm contact with the skin. Ensure that the power box is on and properly connected to the side of the suit. Although Pepper uses dry electrodes, the connectivity works best with a little moisture, so make sure to warm-up properly. If you can't feel the impulses properly, extend your warm-up or use a wet towel to moisten the electrodes from the inside of the suit.

9 Storage and Maintenance

Pepper has the following recommendations for storing and caring for your Pepper EMS Training System:

- Keep your suit in a cool, dry, well-ventilated area.
- When not in use, keep the power box in the provided case.
- If you plan to store the power box without using it for an extended period of time, you should fully charge it every six months.
- Do not pack the suit for an extended period when it is wet (e.g. after training or washing) as mildew and bacteria may build up.
- If you wash the suit, wash it at 30° Celsius and use regular detergent. The suit is designed to be used in household washers.
- To ensure the longevity of your suit, Pepper recommends hand washing it with cold water and mild detergent, and infrequent laundry machine washing.
- The suit is designed to be machine washable with cold water and mild detergent; however, it is possible that repeated washings in your washing machine eventually may reduce the efficacy of the suit.
- Always visually inspect the suit after cleaning for residual soil. If the suit is not visually clean at the end of cleaning and residual soil is visible on the device, please repeat cleaning. If residual soil remains even after repeated cleaning, please contact info@peppermove.com for further instructions.
- Always air dry your suit. Do NOT place your suit in the dryer, as it will damage it.
- You can wipe the connector pins on your suit and power box carefully with a dry rag to ensure no dust or particles are visible on any part of the connector pins.
- Clean your power box with a soft dry cloth only.
- The power box is systematically inspected for quality and, therefore, never requires additional calibration or verification. The workout parameters for the Pepper EMS Training System are set in the hardware and software and do not degrade over time when used in normal conditions.
- Do not open or alter your Pepper EMS Training System. This is considered tampering with the unit and releases the manufacturer from any responsibility with regards to the warranty, as well as the hazards that the operator or user may be exposed to.



10 Warranty

The Pepper battery has a warranty of two years, and the Pepper suit has a warranty of one year, starting from the original purchase date for the original purchaser's benefit. More than 150 training sessions and cleanings with a washing machine were evaluated for the expected service life of the suit with power box. The suit and battery are warranted to be free from manufacturer defects, excluding any damage or defects resulting from 1) normal wear and tear associated with the intended use, 2) commercial use, and 3) failure to follow instructions in the instruction manual, accident, misuse, neglect, abuse, alterations, modification, improper assembly, installation, or use of any non-original parts. The Pepper battery warranty does not include damage from using an improper charger, improper maintenance, or water damage. Warranty claims must be submitted to info@peppermove.com. Please note that prior to replacement of any element, our Pepper team may require seeing photos or videos of the damaged part.

11 Technical Specifications

The following are the technical specifications for the Pepper EMS Training System.

Suit Specifications

Table 11: Suit parameters and values

Parameter	Value
Suit Weight	600-800g
Material	68% Nylon, 32% Spandex, Silver Ion Silicone

Table 12: Suit Length Female Body Type

	Length in cm					
	XXS	XS	S	M	L	XL
Full length	90	91	92	93	94	95
Waist	29	30	31	32	33	34
Arm	10	10,5	11	11,5	12	12,5
Leg	16	16,5	17	17,5	18	18,5



Table 13: Suit Length Male Body Type

	Length in cm					
	XS	S	M	L	XL	XXL
Full length	96	97	98	99	100	101
Waist	34	35	36	37	38	39
Arm	11,5	12	12,5	13	13,5	14
Leg	19	19,5	20	20,5	21	21,5

Electrode Specifications

The electrodes in your suit are placed according to the position of the specific muscle groups to be stimulated. They are made out of specialized conductive fabric, silver-ion-material. Pad sizes for different suit sizes are as follows:

Table 14: Electrode Size Female Body Type

Muscle Group Electrode		Surface area in cm ²					
		XXS	XS	S	M	L	XL
Front	Front Arms	35,26	40,70	46,14	51,58	57,02	62,46
	Chest	44,58	45,62	46,66	47,71	48,75	49,79
	Abs	117,96	121,51	125,07	128,63	132,18	135,74
Back	Front Legs	182,38	193,20	204,01	214,83	225,65	236,46
	Back Legs	122,90	127,26	131,63	136,00	140,37	144,74
	Glutes	94,95	100,63	106,32	112,00	117,68	123,37
	Lower Back	91,72	96,18	100,64	105,10	109,56	114,02
	Middle Back	60,78	66,14	71,51	76,88	82,24	87,61
	Upper Back	26,60	28,37	30,15	31,92	33,69	35,47
	Back Arms	34,88	40,45	46,01	51,58	57,15	62,71

Table 15: Electrode Size Male Body Type

Muscle Group Electrode		Surface area in cm ²					
		XS	S	M	L	XL	XXL
Front	Front Arms	43,20	50,00	56,80	63,60	70,40	77,20
	Chest	50,69	51,99	53,30	54,60	55,90	57,20
	Abs	130,03	134,47	138,92	143,36	147,81	152,25
Back	Front Legs	201,40	214,92	228,44	241,96	255,48	269,00
	Back Legs	136,06	141,52	146,98	152,44	157,90	163,36
	Glutes	114,75	121,86	128,96	136,06	143,17	150,27
	Lower Back	101,33	106,91	112,48	118,05	123,63	129,20
	Middle Back	67,82	74,53	81,24	87,94	94,65	101,36

Upper Back	34,04	36,25	38,47	40,69	42,90	45,12
Back Arms	41,32	48,27	55,23	62,19	69,14	76,10

Power box Specifications

Table 16: Power box parameters and values

Parameter	Value
Material	Lithium Polymer (LiPo)
Housing materials	Plastic injection molding, Polylac Abs (J01)
Battery Weight	152g
Battery Size	96x65x29mm
Battery Capacity	2650mAh
Charging Input	Rechargeable, 5V through Micro USB Connector
Battery Voltage	3.8VF
Stimulation channels	16 channels
Output Frequency	15-100Hz
Output Pulse Width	160-490 microseconds
Stimulation Waveform	Bipolar Symmetrical
Shape	Rectangular
Maximum Output Voltage	54 Volts
Maximum Output Current	108 milli-Amps
Operating Temperature and Humidity	5°C to 40°C , 15% to 90% RH
Transport and Storage Temperature and Humidity	-25°C to 70°C , 15% to 90% RH
Operating Pressure	700hPa to 1060hPa
Transportation and Storage Pressure	500hPa to 1060hPa
Wireless Connection	Built-in BLE Module
Type BF	Type BF applied part



Bluetooth Specifications

Type of BT Module: EZ-BLE PSoC XT/XR BT 4.2 Module

Frequency band of reception/transmission: 2.402 - 2.480 GHz

Bandwidth: 2 MHz

Maximum radio range: 50 meters / 165 feet

Limitations

The product is not suitable for use in the environments with a high concentration of oxygen and/or flammable liquids and/or flammable gas; do not use with equipment for electrosurgery or shortwave or microwave therapy; the device may be interfered by other equipment, even if that other equipment complies with CISPR EMISSION requirements.

Emissions

Table 17: Emissions table

Emissions test	Compliance	Electromagnetic environment - guidance
RF emissions CISPR 11	Group 1	The above listed model uses RF energy only for its internal function. Therefore, its RF emissions are very low and are not likely to cause any interference in nearby electronic equipment.
RF emissions CISPR 11	Class B	The above listed model are 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	N/A (battery supply)	/
Voltage fluctuations / flicker emissions IEC 61000-3-3	N/A (battery supply)	/

Immunity

Table 18: Immunity table

Enclosure Port			
Immunity test	Test Condition	IEC 60601 Compliance level	Remarks
Electrostatic discharge (ESD) IEC 61000-4-2	± 8 kV Contact $\pm 2,4,8,15$ kV Air	± 8 kV Contact ± 15 kV Air*	No performance degradation observed.
Radiated RF EM fields and Proximity fields from RF wireless communications equipment IEC 61000-4-3	10 V/m 80 MHz – 2,7 GHz 80% AM 1kHz	10 V/m 80 MHz – 2,7 GHz	No performance degradation observed.
	385MHz (18Hz Pulse Modulation)	27 V/m	
	450MHz (FM+/-5KHz deviation 1kHz sine or 18Hz Pulse Modulation)	28 V/m	
	710MHz (217Hz PM)	9 V/m	
	745MHz (217Hz PM)	9 V/m	
	780MHz (217Hz PM)	9 V/m	
	810MHz (18Hz PM)	28 V/m	
	870MHz (18Hz PM)	28 V/m	
	930MHz (18Hz PM)	28 V/m	
	1720MHz (217Hz PM)	28 V/m	
	1845MHz (217Hz PM)	28 V/m	
	1970MHz (217Hz PM)	28 V/m	
	2450MHz (217Hz PM)	28 V/m	
	5240MHz (217Hz PM)	9 V/m	
	5500MHz (217Hz PM)	9 V/m	

	5785MHz (217Hz PM)	9 V/m	
RATED power frequency magnetic fields IEC 61000-4-8	50Hz or 60Hz	30 A/m	No performance degradation observed.
Proximity magnetic fields IEC 61000-4-39	30 kHz (CW)	8 A/m	No performance degradation observed.
	134,2 kHz (2,1 kHz PM)	65 A/m	
	13,56 MHz (50 kHz PM)	7,5 A/m	
Comment: /			

Table 19: Immunity table 2

Patient Coupling PORT			
Immunity test	Test Condition	IEC 60601 Compliance level	Remarks
Electrostatic discharge (ESD) IEC 61000-4-2	±,8 kV Contact ± 2,4,8,15 kV Air	±8 kV Contact ± 15 kV Air	No performance degradation observed.
Conducted RF induced by RF fields IEC 61000-4-6	3 Vrms 150 kHz - 80 MHz also 6 Vrms ISM and Amateur Radio Bands 80% AM 1kHz	6 Vrms	No performance degradation observed.
Comment: /			

If loss or degradation of essential performance occurs, safety and effectiveness can be compromised, and it is advised to terminate the training.

The Pepper EMS Training System was tested according to the recommendations of IEC TR 60601-4-2: Medical electrical equipment – Part 4-2: Guidance and interpretation – Electromagnetic immunity: performance of medical electrical equipment and medical electrical systems.

12 Symbols Glossary

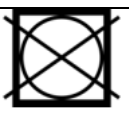
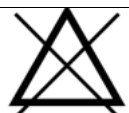
Table 20: Symbols and Explanations

Symbol	Symbol Title	Description	Symbol Reference #	Designation #	Standard Title
	Caution	Indicates the need for the user to consult the instructions for use for important cautionary information such as warnings and precautions that cannot, for a variety of reasons, be presented on the medical device itself.	5.4.4	ISO 15223-1:2021	Medical devices – Symbols to be used with medical device labels, labeling and information to be supplied – Part 1: General requirements
	Refer to instruction manual/booklet	Indicates the instruction manual must be read.	M002	ISO 7010	Graphics symbols – Safety colors and safety signs – Registered safety signs
	Manufacturer	Indicates the medical device manufacturer, as defined in Directives 90/385/ECC, 93/42/EDD and 98/79/EC		ISO 15223-1:2021	Medical devices – Symbols to be used with medical device labels, labeling and information to be supplied – Part 1: General requirements

	Date of Manufacture	Indicates the date when the medical device was manufactured.	5.1.3	ISO 15223-1:2021	Medical devices – Symbols to be used with medical device labels, labeling and information to be supplied – Part 1: General requirements
REF	Catalogue number	Indicates the manufacturer's catalog number so that the medical device can be identified.		ISO 15223-1:2021	Medical devices – Symbols to be used with medical device labels, labeling and information to be supplied – Part 1: General requirements
SN	Serial Number	Indicates the manufacturer's serial number so that a specific medical device can be identified.	5.1.7		Medical devices – Symbols to be used with medical device labels, labeling and information to be supplied – Part 1: General requirements

	Lot number	Indicates the manufacturer's lot number so that the lot number can be identified.	5.1.5	ISO 15223-1:2021	Medical devices – Symbols to be used with medical device labels, labeling and information to be supplied – Part 1: General requirements
	Type BF Applied Part	Indicates a type BF applied part complying with ICE 60601-1 BF=Body Floating. Used for devices which have conductive contact with patient or having medium- or long-term contact with patient. May not be connected to earth (floating).		IEC 60417:2002	Graphical Symbols for Use on Equipment
	Temperature limit	Indicates the temperature limits to which the medical device can be safely exposed.	5.3.7	ISO 15223-1:2021	Medical devices – Symbols to be used with medical device labels, labeling and information to be supplied – Part 1: General requirements
	Humidity limitation	Indicates the range of humidity to which the medical device can be safely exposed.	5.3.8		Medical devices – Symbols to be used with medical device labels, labeling

					and information to be supplied – Part 1: General requirements
	Atmospheric pressure limitation	Indicates the range of atmospheric pressure to which the medical device can be safely exposed.	5.3.9	ISO 15223-1:2021	
	WEEE	Waste in Electrical and Electronic Equipment. Indicates a product should not be disposed of in a landfill; the black bar indicates that the equipment was manufactured after 2005.	-	EN 50419:2006	Marking of electrical and electronic equipment in accordance with article 11(2) of directive 2002/96/EC (WEEE)
	Stand-by	Indicates a sleep mode or low power state. The switch does not fully disconnect the device from its power supply.	5009	IEC 60417:2002	Graphical Symbols for Use on Equipment
	FCC Marking	The marking indicates the electronic device, which sold in the United States, is certified and the	-	Federal Communications	-

		electromagnetic interference from the device is under the limits that are approved by Federal Communications Commission.			
	Do not use if package is damaged	Indicates the device should not be used if the package has been damaged or opened.		ISO 15223-1:2021	Medical devices – Symbols to be used with medical device labels, labeling and information to be supplied – Part 1: General requirements
	Do not dry clean	Indicates the garment cannot be safely dry cleaned without damage		ISO 3758:2021	Textiles – Care labeling code using symbols
	Do not iron	Indicates the garment cannot be safely ironed without damage.	-	ISO 3758:2012	Textiles – Care labeling code using symbols
	Do not tumble dry	Indicates the garment cannot be safely tumble dried without damage.	-	ISO 3758:2012	Textiles – Care labeling code using symbols
	Do not bleach	Indicates the garment cannot be safely bleached without damage.	-	ISO 3758:2012	Textiles – Care labeling code using symbols
	Maximum washing temperature	Indicates the maximum temperature the garment can be	-	ISO 3758:2012	Textiles – Care labeling code using symbols

	ture 30°C (105°F) in normal conditi on	safely washed without damage			
	Wash in cold water in normal conditi on	Indicates the garment can be safely washed in cold water without damage.	-	ISO 3758:201 2	Textiles – Care labeling code using symbols
IP22	IP code	Indicates that the device is protected against fingers or similar objects and vertically dripping water doesn't have a harmful effect when the power box is tilted at an angle of 15° from its normal position.		IEC 60529	
	CE confor mity	Indicates that the manufacturer affirms the goods' conformity with European health, safety and environmental protection standards.	-	-	European conformity symbol
	Keep dry	Indicates the power box needs to be protected from moisture.		ISO 15223-1	Medical Device Symbols
	Not safe for pacema kers	No access for people with active		ISO 3864- 3:2012	Medical Device Symbols

	and defibrillators	implanted cardiac devices.			
	MR unsafe	Keep away from magnetic resonance imaging (MRI) equipment.		ASTM F2503-20	Medical Device Symbols

13 App Error Messages

Table 21: Error Messages with Explanations

E#	Error Message	Explanation
E1	Password validation error	Password format not valid. Minimum 8 characters are required and 3 out of 4 conditions have to be fulfilled: one big letter, one small letter, one special character, one number.
E2	Invalid credentials	When entering invalid credentials during login
E3	Login error	When not entering email or username during login
E4	Email doesn't exist	When entering an email that does not exist in our database on forgot password screen
E5	Please enter valid <i>fieldname</i>	When registering and leaving some of the fields blanks
E6	Weight must be between 30 and 150kg (65 and 350lb)	When entering weight outside this span during registration
E7	Height must be between 130 and 230cm (4.1 and 7.5ft)	When entering weight outside this span during registration
E8	Height must be between 130 and 230cm (4.1 and 7.5ft)	When entering height outside this span during registration
E9	Please agree to apps's Terms and Conditions and Privacy Policy to finish registration	When not agreeing to T&C and PP during registration
E10	User has not been verified. Please check your inbox for the verification email.	When trying to log in with non verified user

E11	Payment error – Something went wrong... Please try again or contact our support at info@Peppermove.com if the issue persists.	When something is wrong with the payment
E12	Please confirm that you have read Health Check/Safety Check/Instruction manual first	When not confirming you read this during the intro tutorial process
E13	Increase/decrease all electrodes – This increases/decreases all electrodes. All electrodes below 20% increases/decreases by 5%, all other by 1%	When trying to increase/decrease intensity for the first time
E14	Safety first – These advanced workout videos can only be watched after completing 4 of the all level workout videos for strength suit mode, or 1 all level workout for cardio and relax suit modes.	When trying to start visible later video even if you haven't unlocked it
E15	Suit only workout explanation – Pepper user can train on their own, without video, by entering the so-called „Suit only“ mode you just entered. In this way, you have full control over the suit but the workout itself is up to you, there is no trainer to guide you. Have in mind that these workouts are also recorded in your lifetime stats available under the „Activity“ menu item.	When entering the suit only mode for the first time
E16	Error, cannot save workout statistics while offline	When trying to save workout while being offline
E17	Strenght workout limit – The duration of strength workouts is limited to 20 min accross three sessions per week. For your health and safety we recommend not exceeding this amount.	When you try to workout more than 60 mins per week in strength mode
E18	No internet connection – There seems to be an issue with your internet connection	When opening list of workouts or statistics while offline
E19	Workout stopped – There seems to be an issue with your internet connection	When you lose internet connection in the middle of the workout
E20	Low battery – Your power box level is below 10%, do not forget to recharge after the workout	When starting the workout with battery level below 10%
E21	Subscription expired – Your subscription has expired. Please go online to subscribe or if you are	When being offline for a long time and we cannot be sure

	already subscriber go online to synchronize your data.	you are still an active subscriber
E22	No internet connection – Unable to start the video. There seems to be an issue with your internet connection.	When trying to start an online video while offline
E23	Please answer all questions	When not answering all video rating questions and trying to submit your rating
E24	You have an active subscription. Any account that has an active subscription cannot be deleted. Please click the Manage subscription button on the Subscription screen and cancel your active subscription, then try deleting your account.	When trying to delete your account while having an active subscription
E25	The manage subscription feature is not available for users who got a one-year free subscription. It will be possible after you become a paying subscriber, in August 2023.	When clicking on Manage subscription if you have one year free plan
E26	Please disconnect the charger – please disconnect the charger from your power box to start a workout. You are not allowed to start a workout while the battery is being charged.	When trying to start a workout while power box is being charged
E27	Workout stopped – workout stopped. You are not allowed to work out while the battery is being charged.	When plugging in your power box charger while working out
E28	Code needs to be exactly 6 characters long	When entering shorter or longer code during forgot password procedure
E29	Passwords do not match	When password and confirm password fields to not match during registration, forgot password or edit profile password change
E30	Email/Username unavailable	When trying to register with already taken email or username



14 Electromagnetic Compatibility (EMC)

The Pepper EMS Training System is designed to be used in typical domestic approved environments in accordance with the safety standard IEC 60601-1-2.

The Pepper EMS Training System is designed to support the anticipated disturbance originating from electrostatic discharge, magnetic fields for the power supply, or radiofrequency emitters. However, the Pepper EMS Training System may be affected by powerful radiofrequency fields that come from other sources.

If loss or degradation of essential performance occurs, safety and effectiveness can be compromised, and it is advised to terminate the training.

15 Essential Performance

According to the intended use our powered muscle stimulator is required to stimulate healthy muscles to improve and facilitate muscle performance. The essential performance for these functionalities is:

- Safe and effective stimulation of targeted muscles.
- Accurate control of stimulation parameters such as intensity, frequency, and pulse width.
- Compatibility with the intended user population (healthy adults).
- Compliance with applicable standards for electrical safety and electromagnetic compatibility.

16 Interoperability

The Electronic Interface is the Pepper application for phone or tablet with the purpose of connecting the software with the Pepper EMS Training System. To properly work, the screen of the electronic interface (phone or tablet) has to work without defects or malfunctioning. We recommend a secure and fast internet connection when using the online version of the application.

17 Cybersecurity Recommendations

Make sure to use a strong password and don't use your name, surname, date of birth. Please use a minimum of 8 characters consisting of capital and small letters, numbers, and special characters.

Always make sure to use the latest OS version on your phone and tablet and the latest Pepper App version in the Apple and Google Play Store.

Make sure to use a safe Internet connection when you use the app with the internet. The 'suit-only' part of the app and downloaded workouts can also be used offline.



Make sure that only you have access to your phone while training, so that only you can choose the training program and intensity of your electronic impulses.

18 Bluetooth Specifications

Type of BT Module: EZ-BLE PSoC XT/XR BT 4.2 Module

Frequency band of reception/transmission: 2.402 - 2.480 GHz

Bandwidth: 2 MHz

Maximum radio range: 50 meters / 165 feet

The Pepper EMS Training System is specifically designed to be used together with the Pepper App, which is supported for the selected Android and iOS mobile devices.

The Pepper EMS Training System is capable of independent execution of a pre-loaded stimulation program with the latest intensity values as well as implementing automatic Bluetooth re-connections.

In this regard, temporary radio frequency interference (e.g. caused by co-existence of multiple Bluetooth and/or Wi-Fi devices in your range) should not affect the overall efficiency and safety of your stimulation session.

Due to hardware-level emergency stop mechanisms (see Directions For Use), Bluetooth disconnections of more permanent nature should not affect the safety of stimulation, and can only cause temporary inconvenience by forcing you to postpone your planned stimulation session until a more favorable Bluetooth connectivity environment is established.

Like any wireless device, the Pepper EMS Training System emits very low levels in the radio frequency (RF) interval, and is therefore not likely to cause any interference with nearby electronic equipment (e.g. radios, computers, telephones, etc.).

The Pepper EMS Training System is designed to withstand foreseeable disturbances originating from electrostatic discharges, mains supply magnetic fields, or radio frequency transmitters.



19 Product Support

Please contact the manufacturer via info@peppermove.com for additional information on setup, use and maintenance, or to report any issues regarding your Pepper EMS Training System.

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80336 Munich, Germany