



Easy Motion Skin®
Instruction manual

EN

Version 2.0

05 / 2020

This instruction manual comes with the Easy Motion Skin®. The accompanying programme description and all manufacturer documentation relating to bought-in components supplement this present document. All documentation applies exclusively in conjunction with each other.

The instruction manual is aimed at end customers.

They must be in a position to read and understand the information contained in the instruction manual and the accompanying documents.

This instruction manual must be kept in a well-known, easily accessible location at all times, and must be consulted if any issue is ever in the slightest doubt. The instruction manual, as part of the documentation will be kept as a verification document on the manufacturer's premises for at least 10 years.

The manufacturer accepts no liability for damage to persons, animals or property or to the product itself which arises from improper use, failure to observe or inadequate observation of the safety criteria contained in these instructions, or any alterations to the Easy Motion Skin® or the use of unsuitable replacement parts (non-original parts).

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Copyright to the existing technical documentation remains with the company EMS GmbH. This instruction manual is intended for end customers.

Circulation or duplication of this documentation, exploitation and communication of their content are not permitted, unless explicitly allowed. Any infringement of this will lead to a claim for compensation.

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EU DECLARATION OF CONFORMITY

Original declaration of conformity in accordance with DIRECTIVE 1999/5/EU

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We, the manufacturer, do hereby declare that the product named below meets the relevant requirements of DIRECTIVE 1999/5/EU OF THE EUROPEAN PARLIAMENT AND COUNCIL of the 9th March 1999 relating to radio equipment and telecommunication transmission equipment and mutual recognition of conformity.

Name	Easy Motion Skin®
Purpose	The Easy Motion Skin® is a highly efficient training system consisting of the MotionSkin with Powerbox, which communicates with an tablet / smartphone via Bluetooth. Low frequency electrical impulses (electromyostimulation) are controlled using an Easy Motion Skin® application, thus stimulating practically the entire musculature.

The manufacturer bears sole responsibility for publication of this declaration of conformity.

The object described above in the declaration meets the relevant harmonisation regulations of the Union:

- EN 300 328 V1.7.1: 2006-10
- EN 301 489-1 V1.9.2: 2011-09
- EN 301 489-17 V2.2.1: 2012-09
- EN 60950-1:2006 + A11:2009 + A1:2010 + A12:2011
- EN 62479:2011-09

Signed and on behalf of:

Leipzig, 17/06/2014

Location, date of issue

Ralf Kahlenberg (CEO)

Name, (Role)

This instruction manual clearly indicates hazardous situations and areas using safety instructions and symbols. The structure of a safety instruction is always the same. Colours, symbols and warnings classify the hazard.

A safety instructions is structured as described below: Signal word, symbol, colour bar and text units form the safety warning, surrounded by a black line.

There is a fundamentally a differentiation between four warning levels, identified by corresponding signal words and colouring:

DANGER	immediate threat to life
WARNING	possible threat to life or injury
CAUTION	possible risk of injury
ATTENTION	possible damage to property
INFORMATION	no danger/no damage to property

At appropriate points in the text of this instruction manual, safety symbols are used, which require particular attention depending on the combination of signal word and symbol.

	General warning sign
	Warning about electrical voltage
	General mandatory sign
	Remove the power plug
	Follow the instruction manual

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General
Information

Responsible handling of the Easy Motion Skin® is a condition of successful and safe use. Careful studying of this instruction manual is a prerequisite for safe operation of the Easy Motion Skin®. Should you still have questions, or are unsure whether the Easy Motion Skin® is suitable for you, please contact the manufacturer.

The manufacturer advises purchasing the Easy Motion Skin® from a distribution partner trained by the manufacturer.

Instruction manual

The instruction manual accompanying the device as well as the programme description contain information for safe handling of the Easy Motion Skin® and must be carefully read and understood by the user before using the Easy Motion Skin®.

The instruction manual is a component on the Easy Motion Skin®. The safety instructions contained in the instruction manual complement the guidelines on the area of application of the Easy Motion Skin®. Observing the safety instructions indicated in the instruction manual and the instructions relating to handling the Easy Motion Skin® are a condition of safe training.

Scope of delivery

Delivery of the Easy Motion Skin® includes:

- Powerbox
- Powerbox power supply unit
- MotionSkin (Training body) – optional sizes e.g. 1, 2, 3, 4
- Instruction manual
- Tightening straps

Der Easy Motion Skin® uses the effective electromyostimulation method or electro muscle stimulation (EMS) for high intensity training units.

Intended use

The Easy Motion Skin® is a highly efficient training system consisting of the MotionSkin with Powerbox, which communicates with an tablet / smartphone via Bluetooth®. Low frequency electrical impulses (electromyostimulation) are controlled using an Easy Motion Skin® application, thus stimulating practically the entire musculature.

Originally developed for therapeutic and rehabilitation purposes, the Easy Motion Skin® uses this technology for high-efficiency training results in short periods.

INFORMATION



The Easy Motion Skin® is an EMS training device exclusively for people.

To avoid accidents and to guarantee full functionality of the Easy Motion Skin®, a well-fitting MotionSkin of the correct size must be used.

Even when used appropriately, there are some risks associated with the Easy Motion Skin®. These are described below.

To reduce the risks of personal injury or damage to property, and to avoid any hazardous situations, the safety instructions in the manual must be strictly observed.

Improper
use

To reduce the risks of personal injury or damage to property, and to avoid any hazardous situations, the safety instructions in the manual must be strictly observed.

Improper use occurs when the Easy Motion Skin® is used in way other than that described in the instruction manual. All instructions in the manual must be observed to constitute appropriate use.

⚠ WARNING**Dangers of improper use**

Hazards situations may arise if the Easy Motion Skin® is used inappropriately. These instructions exclusively describe the possible applications of the Easy Motion Skin®.

The Easy Motion Skin® must only be used as an EMS training device for people, in a dry environment and it is not a medical device.

- Please consider any contraindications which may oppose use.
- Ensure the MotionSkin fits properly.
- Only train while the power supply unit is not connected to the Powerbox.
- Always start training with low intensity and increase slowly.
- Always tense the stimulated muscle area during stimulation by the Easy Motion Skin®.
- If faults occur, immediately cease training and disconnect the Powerbox from the MotionSkin.
- Immediately stop training if any changes in health occur.
- Consult with a doctor if any changes in health occur after training.

In accordance with legislation, we must warn of the risks of cardiac arrhythmia. There is theoretically a residual risk that training Easy Motion Skin® is a trigger for cardiac arrhythmia, although this has never been identified up to now.

Cardiac arrhythmia

 **WARNING**

Threat to life caused by cardiac arrhythmia

 Cardiac arrhythmia can lead to loss of consciousness.

There is a residual risk that EMS training can trigger cardiac arrhythmia, which can be fatal consequences if not treated.

- Immediate action in the event of a loss of consciousness:
 1. Disconnect the Powerbox completely from the MotionSkin.
 2. Call the emergency services.
 3. Carry out resuscitation measures.
 4. Use a defibrillator if available.

Contraindications

If at least one of the following contraindications is present, the Easy Motion Skin® may not be used:

- Heart complaints (e.g. acute infarction within the last 6 weeks, severe heart valve defects, hypertrophic obstructive cardiomyopathy (HOCM), acute myocarditis, unstable coronary heart disease, heart failure severity NYHA IV)
- Severe arterial circulatory disorders (e.g. forefoot gangrene in diabetics)
- Cancer
- Haemophilia
- Pregnancy
- Severe neurological illness (e.g. multiple sclerosis, amyotrophic lateral sclerosis, Parkinson's disease, epilepsy, spastic spinal paralysis)
- Advanced arteriosclerosis
- Abdominal wall or inguinal hernia
- Acute febrile, bacterial or viral illness
- Acute bleeding
- Extreme blood pressure
- Thrombosis
- Tuberculosis
- Diabetes mellitus
- Liver disease
- Recovery period after an operation

 **DANGER**

Risk of fatality from contraindications



Contraindications may cause injury or even death.

- Before every use, you must ensure that none of the contraindications listed are present.
- Do not use the Easy Motion Skin® if there is any doubt about the presence of a contraindication.
- The Easy Motion Skin® must absolutely not be used with persons fitted with a pacemaker or other active medical implants.
- If in doubt, or where medication is taken, please consult a doctor before use.

Electrical hazards

⚠ DANGER**Danger of fatal injury from electric shocks**

There is an immediate risk of fatal injury from electrocution by touching live components. There is a risk of fatal injury if moisture penetrates components or if they are damaged!



- If individual components or the insulation are damaged, stop use immediately, remove the plug and do not continue use.
- Only use in dry surroundings.
- Only connect the power supply unit to a mains supply of 100 – 230 V ~ 47 – 63 Hz and only use power supply units supplied by the manufacturer.
- Always inform the manufacturer in the event of faults or damage.

⚠ CAUTION**Risk of injury form damage to cables and connectors**

There is a risk of damage to property and personal injury due to damage to connectors or cables.



- Do not trap or kink cables.
- Do not place any heavy objects on cables.
- Remove the plug before cleaning.
- Ensure the plug socket is accessible

Where Lithium Ion batteries are used wrongly or improperly (e.g. broken, decomposed, exposed to fire or high temperatures) they can catch fire, explode or cause a fire.

⚠ WARNING

Risk of personal injury from damaged or open batteries



Batteries contain flammable or irritating solutions and lithium salts, which can cause irritation to the skin, eyes and the mucous membrane in the event of a leak.

When batteries bleed, the vapours emitted can be a health hazard.

- Keep away from heat, open flames and corrosive liquids.
- Do not punch, break or burn.
- Avoid vapour contact with the skin, eyes and do not inhale.
- To extinguish a fire, conventional extinguishing materials may be used (such as ABC powder, CO₂ extinguisher or water).
- In case of contact with released electrolytes, gases or fire byproducts by the eyes,
 1. rinse thoroughly with water for at least 15 minutes and consult a doctor if necessary.
 2. Remove clothing from contaminated skin and rinse thoroughly with water for at least 15 minutes, consult a doctor if necessary.
 3. Ensure fresh air can reach the patients' airways and keep them calm. Monitor breathing and circulation, consult a doctor if necessary.

In order to ensure ideal implementation of the training and to achieve optimal training results, the training parameters must be set individually.

⚠ WARNING**There is a risk where the user is inadequately qualified**

Without adequate knowledge of use, handling the Easy Motion Skin® may lead to dangerous situations. In extreme cases, these could be fatal.

- Before use, every user must have read and understood this instruction manual.
- Anyone under 16 years of age may not train with the Easy Motion Skin®.

INFORMATION**Repairs and service**

Repairs, maintenance and service may only be carried out by EMS GmbH.

The Powerbox features an internal chargeable battery.

Charging the
Powerbox

INFORMATION



Charge for 10 hours before using for the first time

Please charge the Powerbox for at least 10 hours before using it for the first time.

Only use the power supply unit supplied to charge the Powerbox.

This is how you charge the battery in the Powerbox:

1. Ensure that the Powerbox is not connected to a Motion-Skin.
2. Connect the Powerbox to a socket using the power supply unit supplied.

The following status is displayed when the Powerbox is turned on or during charging.

- Red light flashes quickly Low battery
- Red light flashes: Battery charging
- Red light is on: Battery is charged

Rechargeable batteries have a limited number of charging cycles and must be replaced over time. The charging cycle and battery charging time depend on the use of the device and the application environment.

Setting up the MotionSkin

Please choose a properly-fitting MotionSkin in the correct size.

Set up the dry MotionSkin, initially without a Powerbox. You must ensure the electrodes are sitting correctly and securely on the respective muscles to be stimulated. If they are loose or not secure, the electrode may not be connected to the skin or the electrode connection may be lost during training. Depending on the programme setting, this may lead to a reduction in stimulation or the electrode channel in question until the connection is re-established properly.

Your retailer will advise you on selecting the correct size. If in doubt, the fit of the MotionSkin can also be optimised using the tension straps supplied. Overexpansion of the MotionSkin must be avoided as it may lead to damage.

Connecting the Powerbox to the MotionSkin

Connect the Powerbox with the MotionSkin. The push buttons on the MotionSkin should be connected with their counterparts (paddles) on the Powerbox as depicted.

During training, the Powerbox should be kept in the pocket provided on the MotionSkin. Ensure the Powerbox is held securely and firmly to make sure it does not fall out accidentally.



In order to achieve noticeable physical and health improvements and to exclude the possibility of overexertion due to training, the following points must be complied with for the purposes of determining the optimal level of training effort:

⚠ WARNING

Dangers while training

 The user must have a sufficient level of health in order to perform training.

The physical condition of the user must be verified before every training session.

The user must be healthy and feel fit enough to perform a running module or a conventional strength training module.

⚠ CAUTION

Muscle tension during EMS training

 To avoid injuries during EMS training, the section of muscles to be stimulated must be tensed naturally and deliberately prior to each stimulation phase.

This level of muscle tension is to be maintained during the course of a stimulation phase.

Training intensity

Physical exertion during training must be higher than the normal level of exertion when not training. However, loss of breath or fatigue should not arise during training. Ability to talk serves as a benchmark: The trainee must always be capable of speaking with normal respiration during training.

A pulse measurement can be incorporated in order to determine an effective training intensity. During training, the pulse should be within a range of 70% and 85% of the maximum pulse.

The pulse can be measured during breaks in training by pressing on e.g. the wrist and counting the beats within a minute, or a suitable pulse measurement device can be used.

The correct training intensity is to be chosen in such a way that the pulse moves from the lower range of 70% during training and reaches an upper limit of 85% of the maximum pulse after a few weeks and months.

Start training by setting the power intensities in accordance with the weakest part of your body i.e. a part which is least able to withstand strain. Generally, the arms, neck and lower back and, for women, the chest area, are more sensitive than the rest of the body.

⚠ WARNING



Danger due to high power intensity

Never train if in pain.

Do not raise power intensity to a range which is painful.

The power intensity is to be chosen in such a way that the respective exercise can be performed properly with a significant level of exertion; in doing so, you must take into account individual pain thresholds and load capacity.

When training with the Easy Motion Skin[®], special attention must be paid to voluntarily contracting the muscle groups while exhaling simultaneously in a controlled and consistent manner. This particularly applies to the stimulation phase during 85Hz training. The effectiveness of the training can be increased by targeting the relevant muscles and contracting them intensely, thereby realising more energy in the musculature. Thus, the intensity can be kept moderate without achieving fewer results.

Frequency of training

An effective strength building workout can be performed once or twice a week. At least two days' rehabilitation must be taken place between the training units. Exercises from other programmes, i.e. stamina training or massage function, can be used to supplement training.

Training and diet

Sports doctors recommend performing physical exercise three to five times a week in combination with a healthy diet, which must be chosen in accordance with the training goal. A normal adult must train twice a week in order to achieve such a condition. To improve condition and change body weight, at least three training units must be performed per week.

INFORMATION



Regular intake of liquids

An increased level of liquids must be consumed before and after training.

This will help relieve the strain on your metabolism after training and lead to increased effectiveness of EMS training as a result of improved metabolism.

Designing a training regime

Each training unit should consist of three training phases: warming up, training and cooling down phases.

During the warming up phase, the body temperature and supply of oxygen should be slowly increased. This can normally be achieved by using gymnastic exercises over a period of five to ten minutes.

The training phase then follows. Training exertion should be kept low for a few minutes and then increased over a period of 15 to 30 minutes to cause the pulse to raise to 70% and 85% of the maximum pulse.

The cooling down phase must then be performed in order to support the circulation following the training phase and to prevent aching or strained muscles.

Stretching exercises and/or light gymnastic exercises should be performed during this period for five to ten minutes.

Training exercises

We recommend performing training exercises in line with the instructions contained in the app's virtual trainer.

Particularly during the beginning phase, but also later, additional support and instructions from external professional trainer may be sought in order to ensure optimal training and results.

 **WARNING**

Overexertion through EMS training



EMS Training is an especially effective form of training and can lead to overexertion in individual cases, particularly if the training intensity is too high.

Should you experience pain, headaches, nausea, circulatory problems, persistent fatigue or other health changes following EMS training, you must immediately consult a doctor.

Switch on the Powerbox by pressing the on/off button.

The flashing green LED indicates the system is ready for operation. The flashing yellow LED indicates communication between the Powerbox and the tablet / smartphone.

Switch on the
Powerbox

INFORMATION



tablet / smartphone manufacturer documentation

Please use the tablet / smartphone in accordance with the instructions supplied separately in the manufacturer's original packaging.

Using tablet /
smartphone

Start the Easy MotionSkin® app by tapping on the corresponding icon. This is located on the home screen of your tablet / smartphone.



Using the Easy
Motion Skin®
app

Download the app for free from the Apple App Store or Google Play Store. For more detailed instructions, see the tablet / smartphone manufacturer documentation.

INFORMATION



Programme description

Please see the Easy Motion Skin® app programme description for further information.

Spare parts

 **WARNING****There is a risk of personal injury with use of non-authorised replacement parts**

The Easy Motion Skin® should only be used with the manufacturer's original parts. There may be a danger associated with non-original parts and they may cause injury.

- Only use original parts.
- Do not connect other devices or device components.
- Do not manipulate the Easy Motion Skin® or its components.
- Non-original parts can alter the functionality of the Easy Motion Skin®.
- Non-original parts can damage the Easy Motion Skin®.

Condensation

 **PLEASE NOTE****Damage from condensation**

Condensation can arise through changes in the air humidity and temperature. Condensation in the Easy Motion Skin® components can lead to a fault or damage.

- Do not use the Easy Motion Skin® if condensation can be seen.
- Acclimatise the device after a change of location.
- Store the Easy Motion Skin® in a dry place and operate in dry surroundings.
- If any faults arise, disconnect the Easy Motion Skin® from the mains and inform the manufacturer.

In order to guarantee a long working life of the Motion Skin, we recommend the EMS GmbH following approach to care and cleaning.

The following washing symbols can be found on the MotionSkin and should be observed.

MotionSkin care
and cleaning in-
structions

	<ul style="list-style-type: none"> To identify textiles which require special cleaning in the normal wash cycle at a water temperature of 30° C.
	<ul style="list-style-type: none"> To identify textiles which may not be bleached.
	<ul style="list-style-type: none"> To identify textiles which may not be dried in a tumble dryer.
	<ul style="list-style-type: none"> To identify textiles which may not be ironed.
	<ul style="list-style-type: none"> To identify textiles which may not be dry cleaned.

Washing

Easy Motion Skin® training suits are suitable for machine washing (gentle wash at 30°C). EMS GmbH recommends hand-washing Wash the MotionSkin with the zip closed and electrodes pointing inwards.

Detergents

All mild detergents which do not contain chlorine (bleach) and fabric softener are suitable.

EMS GmbH recommends e.g. PERWOLL/Color or MERUSAL.

This recommendation refers to the time at which the instruction manual was published. Check from time to time whether the detergent you use now contains chlorine or bleaching agents.

⚠ PLEASE NOTE**Damage caused by disinfectants**

Disinfectants contain isopropyl alcohol (or similar). These negatively affect the conductivity of the MotionSkin by washing out the silver nano-particles.

The manufacturer has produced the MotionSkin using anti-bacterial fibres.

- Do not disinfect the MotionSkin.

Spin drying

The MotionSkin can be spun at 400 rpm after washing.

INFORMATION**Residual dampness after spinning**

The MotionSkin can be used immediately after spin drying. It may still feel slightly damp, which is not an issue when in use and actually enhances the functionality of the electrodes.

Drying

The MotionSkin should be air-dried hanging on a hanger, with the electrodes turned inside out.

⚠ PLEASE NOTE**Damage caused by drying**

The MotionSkin should be air-dried. If dried in a tumble dryer or in direct UV radiation, the material can be damaged.

- Do not dry the MotionSkin in a tumble dryer.
- Do not put the MotionSkin in direct sunlight (UV radiation).

Always use a soft cloth when cleaning the Powerbox.

Remove the power supply. Keep the device away from liquids and ensure that moisture does not penetrate the openings.

Do not directly spray cleaning agents onto the device. Do not use any sprays, solvents or abrasives while cleaning.

[Powerbox care
and cleaning in-
structions](#)

Disposal/
protection of the
environment

Do not dispose of the Easy Motion Skin® components in domestic waste, as the electronic components may contain poisonous substances which should not contaminate the environment. Disposal must therefore be carried out appropriately.

PLEASE NOTE

Environmental hazard



Improper disposal can endanger the environment. Batteries should not be disposed of in domestic waste.

- Environmentally responsible and accurate disposal should be carried out in accordance with local regulations for the disposal of electrical components and electrical waste.
- Recycle appropriate elements such as plastics or metal.
- Batteries should be brought to a local recycling site for environmentally responsible disposal.

Powerbox	
Bluetooth® version	4.0
Input	DC 12 V, 1,0 A
Power supply	Built-in Li-Polymer rechargeable battery pack
Accumulator	3.7 V, 1300 mAh
Dimensions	66 mm x 24 mm x 118 mm
Weight	140 g
Network connection	
Input	AC 100 V - 240 V 50 Hz – 60 Hz
tablet / smartphone	
Design	in accordance with manufacturer's information

Technical data

Notes

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