Auxivo LiftSuit® INSTRUCTIONS

Handbook (English)

These are the original English instructions



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1 Introduction

▲ WARNING

THE QUALITY OF THE LIFTSUIT® SUPPORT, THE BENEFIT OF ITS USE, AS WELL AS THE WEARING COMFORT DEPEND ON A CORRECT USE AND GOOD FIT OF THE LIFTSUIT®. THEREFORE, PLEASE TAKE ENOUGH TIME TO READ THIS HANDBOOK, TO ADJUST THE LIFTSUIT® TO YOUR INDIVIDUAL NEEDS AND TO LEARN HOW TO USE IT. IT IS IMPORTANT TO UNDERSTAND WHAT KIND OF WORK IS SUPPORTED BY THE LIFTSUIT®, AND HOW MUCH SUPPORT IT CAN PROVIDE. IN CASE OF ANY QUESTIONS REGARDING THE LIFTSUIT®, PLEASE CONTACT US FOR ADVICE.

1.1 Description of the user

These instructions are primarily intended for the end-user of the LiftSuit® and secondary for the employer of the end-user. The end-user can be described as each person who interacts directly with the system. The end-user typically includes, but is not limited to:

- Installer
- Maintenance personnel or technicians
- Operator
- Dismantling personnel

The LiftSuit® reduces the load on your back and hip muscles by equipping you with "external" muscles. While the forces on your back and hips are not expected to increase when wearing the LiftSuit®, as a precaution people with health problems are not allowed to use the LiftSuit® without prior consultation with a medical professional.

Everyone else can use the LiftSuit®. However, you shall never conduct any work while wearing the LiftSuit® that would not be considered safe to conduct without the LiftSuit®, e.g. lifting very heavy objects. The LiftSuit® does not make you immune to injuries.

All use of the LiftSuit® shall only be carried out by an authorized and a properly qualified and skilled person of 18 years or older, who:

- Has read and understood this manual
- Is familiar with operating similar equipment
- Knows how to control this product
- Is aware of all possible dangers and acts accordingly

The required maintenance and/or inspection work as stated in this instruction handbook is allowed by the aforementioned persons, unless clearly indicated when this is not allowed.

The LiftSuit® shall not be used by people with health problems without prior consultation with a medical professional.

1.2 Purpose of these instructions

Thank you for purchasing the LiftSuit®. The purpose of this document is to make you familiar with the installation and use of the LiftSuit®, so that you can safely operate it as an end-user. This documentation should therefore be regarded as an integral part of the LiftSuit®.

1.3 Getting started

Before you start using the LiftSuit® yourself, or before you hand it out to be used in your company, we advise you to take the time and read the following sections of this handbook carefully.

While the LiftSuit® is not a complicated piece of equipment, you will only benefit by using it correctly. It is a wearable device that can be connected to your body for hours. This will need some getting used to until it feels like a new natural way of working.

To get the maximum benefit from your LiftSuit®, we recommend the following steps:

- 1. Learn how to put it on, and how to adjust it to your body size.
- 2. Learn how to use it intuitively without thinking about it. Learn when and how to activate it, and when and how to deactivate it.
- 3. Get used to it. Do not use it for 8 hours per day from the beginning. Start with one hour per day and increase over time until it feels perfectly natural.

1.4 Conventions used in this manual

The following style conventions are used in this document:

Bold

Names of product elements, warnings.

Italic

Cross-references

1.5 Explanation of safety warnings



Danger indicates a hazard with a high level of risk which, if not avoided, will result in death or serious injury

▲ WARNING

Warning indicates a hazard with a medium level of risk which, if not avoided, could result in death or serious injury.



Caution indicates a hazard with a low level of risk which, if not avoided, could result in minor or moderate injury.

NOTICE

Indicates information considered important, but not hazard-related.

1.6 Retaining instruction handbook



READ AND UNDERSTAND THIS INSTRUCTION HANDBOOK AND ITS SAFETY INSTRUCTIONS BEFORE USING THIS PRODUCT. FAILURE TO DO SO CAN RESULT IN SERIOUS INJURY OR DEATH. KEEP ALL SAFETY INFORMATION AND INSTRUCTIONS FOR FUTURE REFERENCE AND PASS THEM ON TO SUBSEQUENT USERS OF THE PRODUCT.

Employers should make sure employees are informed or handed over these instructions. The manufacturer is not liable for cases of material damage or personal injury caused by incorrect handling or non-compliance with the safety instructions. In such cases, the warranty will be voided.

In case of any unclarities, contact your supplier or Auxivo to avoid any misunderstanding and resulting risks.

1.7 Important information for the employer

Employers are responsible for providing a safe work environment for their employees. Therefore, they should always have conducted a task analysis, risk analysis and informed their employees about possible hazards, before they hand out the LiftSuit® in their company.

Local laws related to occupational health and safety should always be followed.

Employers should make sure all end-users have the opportunity to get used to the LiftSuit®, since it can cost time to get used to.

1.8 Information and support

The latest version of this document and other product information is available at http://www.auxivo.com

To improve our customer experience, we appreciate your comments. They can be submitted on the support page of our website or sent to info@auxivo.com.

For questions, information about accessories and materials, technical assistance or ordering more instruction handbooks, please contact us:

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2 Description of the LiftSuit®

2.1 Intended use and reasonably foreseeable misuse

The LiftSuit® is intended to be used as an exoskeleton that supports the back and hip muscles when lifting objects from below hip-level or working in a forward-leaning position. The LiftSuit® is intended to support the user and reduce the workload, for example during repetitive tasks or prolonged periods in a forward leaning position.

The LiftSuit® is not a medical device. The LiftSuit® is not intended to be used for any kind of medical application.

The LiftSuit® is not intended to be used to:

- Support other movements or other muscles than described above.
- Conduct any work that is not considered safe without wearing the LiftSuit®.
- Support you during sports or other physical activities.

For more information, see also:

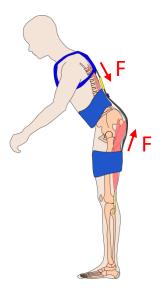
- 2.6 What kind of work is supported by the LiftSuit®?
- 2.7 What kind of work is not supported by the LiftSuit®?

The LiftSuit® shall be used with original accessories and components only. Only use the LiftSuit® within the specified performance limits and accordingly to the instructions as described in this instruction handbook. All use other than described in this handbook is seen as unintended use.

2.2 How the LiftSuit® works

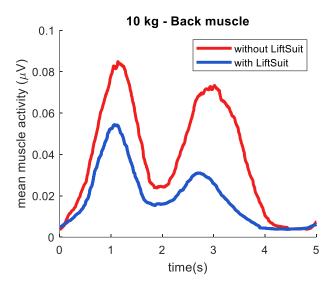
The LiftSuit® is designed to support your back and hip muscles when you lift objects from below hip level, or when you remain in a forward-leaning position. It functions as a layer of additional muscles on the outside of your body to reduce the load on your own muscles. The LiftSuit® is designed to reduce the load on your back and hip muscles between around 10% and 30% when you lift loads between 5 kg and 20 kg. By doing so, the LiftSuit® can prevent your muscles from fatiguing. In addition, you can use the LiftSuit® to keep your back straight when lifting objects.

The LiftSuit® features integrated elastic elements that store energy which is then being used to support the user and reduce the workload. It offers an easy-to-use, small, and lightweight (0.9 - 1 kg), support system that the user can activate whenever support is needed, and which can be worn the entire day without being constraining.



The LiftSuit® supports your back and hip muscles by providing you with a set of external muscles on your back.

F = lifting force



The diagram shows muscle activity measurements of a person's back muscles when lifting 10 kg from the ground and putting it back down. The red line is the muscle activity without the LiftSuit®, the blue line with LiftSuit® support. The considerable reduction in muscle activity shows the support provided by the LiftSuit®.

2.3 Product elements



The LiftSuit® consists of five main elements:

- 1. The Vest that is connected to your upper body.
- 2. The Hip Belt that secures the LiftSuit® around your waist.
- 3. The Thigh Cuffs that connect the LiftSuit® to your legs.
- 4. The Activation Mechanism that allows you to activate and deactivate the support.
- 5. The Elastic Energy Storages (EES) on your back that store your movement energy that is used to support you when working.

2.4 System components

For operation, maintenance and cleaning of the LiftSuit®, as well as for exchanging of the EES it is important to understand how and where to locate the individual components.



2.5 Technical specifications

The main technical specifications of the LiftSuit® are summarized below.

Characteristic	Value		
Device name	LiftSuit®		
Model	2.0		
Technical life span	2 years		
Sin.	C IA O L IVI		
Size selection	S/M & L/XL User selects LiftSuit® size based on user's T-shirt size		
Size selection	(S/M/L/XL)		
	Note: please take into account if user wears additional thick		
	clothing underneath the LiftSuit®		
Mass overall	0.9 kg (S/M)		
	1 kg (L/XL)		
Dimensions (necked)	Approx. 20 cm v 20 cm v 11 cm		
Dimensions (packed) Dimension on a coat rack	Approx. 39 cm x 39 cm x 11 cm Approx. 100 cm x 30 cm x 15 cm (S/M)		
Differsion on a coat rack	Approx. 110 cm x 40 cm x 15 cm (L/XL)		
	Approx. 110 cm x 40 cm x 13 cm (L/AL/		
Back height	40 cm (S/M), 46 cm (L/XL)		
Chest circumference	72-94 cm (S/M)		
chest circumerence	87-115 cm (L/XL)		
Hip circumference	69-100 cm (S/M)		
	86-120 cm (L/XL)		
Thigh circumference	49-63 cm (S/M)		
	57-73 cm (L/XL)		
Chemical composition	Main fabric: 100% Polyester		
	Spacer Mesh: 100% Polyester		
	Lining: 100% Polyester		
Ambient storage temperature range	15 – 25°C (59 – 77°F)		
Relative humidity (RH)	50 – 85%		

2.6 What kind of work is supported by the LiftSuit®?

It is important to understand during what kind of work the LiftSuit® provides support, and when it will not. By design, the LiftSuit® can support your back and hip muscles when you lean forward or reach down to pick and lift an object from below hip level.

The LiftSuit® (when activated), will support you each time when you pick something up, or while you remain in a forward leaning position. Consequently, you will benefit the most from the LiftSuit® if your work includes a lot of repetitive lifting tasks or prolonged periods in a forward leaning position. Specifically, this means that using the LiftSuit® should be considered for work that requires:



Repetitive lifting from below hip level.

Work requiring you to remain in a forward leaning position.

Handling objects while on your knees and having to reach for the objects.

2.7 What kind of work is not supported?

The LiftSuit® is NOT designed to support other movements or other muscles besides the ones shown above! It will not prevent you from doing these tasks, but it will not provide you with support. Specifically, this means you cannot expect support during tasks such as:



Handling jobs that are above hip level and do not require you to bent down or lean forward.

Overhead work where your upper body remains in an upright position.

2.8 What if my work includes multiple tasks described above?

If your job consists of several tasks, some of which are supported, some of which are not supported, you can still use the LiftSuit®. Simply activate the LiftSuit® during the suitable tasks and deactivate it when you do not need it.

3 Safety instructions

3.1 Important safety information

▲ DANGER

READ AND UNDERSTAND THIS MANUAL AND ITS SAFETY INSTRUCTIONS BEFORE USING THE LIFTSUIT®. FAILURE TO DO SO CAN RESULT IN SERIOUS INJURY OR DEATH.

• Do not operate the LiftSuit® in explosive atmospheric conditions, such as in the presence of flammable liquids, gases or dust. The equipment creates sparks which may ignite the dust or fumes.

▲ WARNING

READ AND UNDERSTAND THIS MANUAL AND ITS SAFETY INSTRUCTIONS BEFORE USING THE LIFTSUIT®. FAILURE TO DO SO CAN RESULT IN LOSS OF FUNCTIONALITY, INCLUDING LOSS OF SUPPORT, SERIOUS INJURY OR DEATH.

- Never conduct any work while wearing the LiftSuit® that is not considered safe without wearing the LiftSuit®.
- Do not use a damaged LiftSuit®.
- Do not make any changes to the LiftSuit® and its parts.
- Do not use the LiftSuit® in the near of flammable substances. The LiftSuit® is not fire resistant.
- Keep the LiftSuit® free of any liquids.
- Keep the LiftSuit® dry.
- Keep the LiftSuit® free from sand, dust and debris.
- Do not use the Elastic Energy Storage (EES) elements for more than 150.000 cycles or a period of 1 year.
- Use the LiftSuit® only for its intended purpose. For more information, see: 2.1 Intended use and reasonably foreseeable misuse.
- Do not use the LiftSuit® during work with a risk falling forward.
- Do not wear the LiftSuit® during work that requires the use of fall protection equipment. The LiftSuit® is not a safety harness that protects from falling. Put on the required fall protection before work.

▲ CAUTION

READ AND UNDERSTAND THIS MANUAL AND ITS SAFETY INSTRUCTIONS BEFORE USING THE LIFTSUIT®. FAILURE TO DO SO CAN RESULT IN DISCOMFORT OR PAIN.

- Always use the LiftSuit® with care.
- Stop using the LiftSuit® when experiencing discomfort or pain.
- Stop using the LiftSuit® when experiencing signs of overheating, like heavy sweating, dizziness or fatigue.
- Do not wear the LiftSuit® directly on the skin.
- Do not wear any tools below the LiftSuit®.
- Make sure that the LiftSuit® is adjusted properly before every use.

3.2 What to do in case of an emergency and exceptional situations

NOTICE

Consult your facilities security officer to ensure internal compliance with all applicable regulations.

In case of an emergency:

- 1. Do not remove the LiftSuit® unless it is absolutely necessary.
- 2. Make sure you are safe before assisting others.
- 3. Follow your emergency plan.
- 4. Get your emergency kit.

4 Putting on the LiftSuit®

4.1 Unpacking the LiftSuit®

- 1. Unpack the LiftSuit®. Dispose of the packaging and packaging waste in a correct manner.
- 2. Make sure that the package contains the following items:
 - LiftSuit® with a pair of EES
 - Manual instructions

4.2 Preparing the LiftSuit® for use

▲ WARNING

CHECK THE LIFTSUIT® FOR DAMAGES BEFORE PUTTING IT ON. FOR DETAILED INSTRUCTIONS ON HOW TO INSPECT THE LIFTSUIT®, SEE: 5.2 INSPECTIONS.

Before using the LiftSuit®, make sure all buckles are open and all straps are released to the maximum length.



How to put on the LiftSuit®

4.3.1 Put on the LiftSuit® loosely

OBJECTIVE: Before setting the LiftSuit® individually, all connections should be closed.









1 Put on the vest

- Place the vest loosely over shoulders
- All other components hang freely on the back

2 Close the hip belt and tighten it

- Grab both parts of the release buckle laterally at the right/left side of
- Close buckle always on left side of the body
- Tighten hip belt, but rather loosely







Loosely fasten the chest belt

- chest connection
- Extend distance if necessary (release)

Loosely close the cuffs

- Close the two parts of the release buckle of the Grab the buckle part at the loose end of the strap between the legs and run it through the guiding loop at the padded end of the cuff.
 - Close the release buckle on the front of the leg
 - Repeat with the other leg

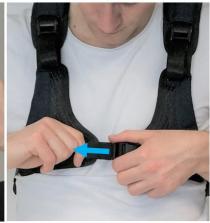
4.3.2 Adjusting the vest

OBJECTIVE: Adjusting the LiftSuit® to your size to achieve an ideal fit, and the best support effect with maximum comfort for chest and shoulders.

- The vest should sit tightly on the upper body so that a slight pressure on the chest can be felt when inhaling.
- With outstretched arms, the edge of the vest should not press against the arms.
- Activation buckles should be at collarbone level.







5 Tighten the vest at both side connections

- Unlock each side connection buckle, pull at the loose end of the strap, and lock the buckle
- If you cannot reach the buckles or straps, ask someone to help
- Note the scale for your setting, to be used next time

6 Tighten the vest at the chest belt

- Pull at the loose end of the strap
- For easier tightening, it can help to lift the buckle slightly
- The vest should fit tightly to the upper body







7 Check position and fit

- Stand upright and straight. Are the activation buckles positioned at collar bone level?
- Take a deep breath. Any pressure on the chest, ribs or back?
- Re-adjust if necessary

8 Check mobility

- Stretch out your arms and fold your hands: Evaluate the freedom of movement at the edge of the vest
- If the pressure/friction against arm base is uncomfortable >> Loosen vest slightly at sides and tighten chest belt

4.3.3 Adjusting the thigh cuffs

OBJECTIVE: Adjusting the LiftSuit® to your size to achieve an ideal fit, and the best support effect with maximum comfort for thighs and groin.

- The ideal degree of tightness of the cuffs is reached when a flat hand can be pushed between the thigh and the cuff without much effort.
- The connection from the thigh cuffs to the hip belt should be positioned vertically straight. If necessary, turn or move the thigh cuff to establish a vertically straight position of the connection.









9 Place and tighten the cuffs

- Adjust right and left side one after the other.
- Push upwards to the crotch of the trousers.
- Pull at the loose end of the strap and tighten until cuffs no longer hang loose.

10 Check position and fit

- Turn the cuff around the thigh until the connection is straight on both sides in a vertical direction







11 Check optimal tightness of cuffs

- Make sure that the cuffs have a tight fit without squeezing your leg. It shouldn't move in use and still be comfortable to wear.
- Make sure it's possible to slide your hand between the cuff and your thigh.
- When placed between cuff and leg there should be a light pressure on the hand.

12 Readjust/-position when working on knees

- When working on the knees or squatting, the position should be re-adjusted. Slightly loosen the thigh cuff by twisting the buckle and loosening the end of the strap.
- Align the connection on the sides if it has been shifted by readjustment.

4.3.4 Securing loose straps

▲ WARNING

USE THE SAFETY LOOPS TO PROPERLY STORE THE LOOSE STRAP ENDS TO PREVENT CLINGING TO PROTRUDING OBJECTS AND GETTING STUCK IN MOVING PARTS, MACHINES, OR VEHICLES.

- Ensure that the chest, hip belt, and thigh cuff strap ends are guided through the thread-back loops provided
- The thread-back loops should be positioned away from the buckle as far as possible.





13 Chest connection

- Put the strap end through the thread-back loop.
- Move the thread-back loop away from the release buckle as far as possible.

14 Hip belt

- Put the strap end through the thread-back loop.
- Move the thread-back loop away from the release buckle as far as possible.





15 Thigh cuffs

- Put the strap ends through the thread-back loops on both sides (left and right).
- Make sure the buckle runs through the guiding loop at the front end of the padding. If necessary, correct by unlocking the buckle and running the strap through the guiding loop at the padded end of the thigh cuff.

4.3.5 Adjusting the lower EES connecting straps

OBJECTIVE: Adjusting the LiftSuit® to your size to achieve an ideal fit and the best support effect with maximum comfort for the back.

- For effective activation, both lower EES connecting strap lengths must be adjusted to fit your body height.
- Both straps must be symmetric.
- This adjustment is needed for the first time use and may require assistance.



16 Adjust the lengths of both lower EES connecting straps

- In standing position, move the back length adjustment buckles up or down to adjust the length of both straps to your back length.
- When properly adjusted, the straps should be relaxed, but not too loose. The straps should also not be too tight, such that the EES is stretched before activating the LiftSuit®.
- $\hbox{-} When adjusting, you may sometimes have to pass the buckles through the hip belt tunnel in the middle.\\$
- Check that both straps are symmetric.

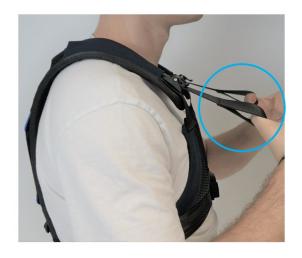
4.4 Activating and deactivating the LiftSuit®

Make sure that you activate the LiftSuit® when you want support. The LiftSuit® doesn't give support if it's not activated. Make sure to deactivate LiftSuit® once you have finished your task.



TO PREVENT LIMITATIONS IN MOVEMENT, ALWAYS DEACTIVATE THE LIFTSUIT® WHEN THE SUPPORT IS NOT REQUIRED, E.G. WHILE TAKING A BREAK, DRIVING A VEHICLE OR SITTING.

ACTIVATE



Put thumbs in the loops of activation straps and ...



... in an upright position pull forward until stop.

DEACTIVATE



Tilt the levers of the activation buckles upwards and...



 \dots slightly bend forward (activation loops slide as far as they will go).

4.5 Customisation options

When friction or pressure points occur during use, corrections can be made by readjusting the vest and thigh cuffs. This might be necessary especially during the first hour of use, when the LiftSuit® "settles" after putting it on, or when you change your workplace and you switch e.g. from standing work to working on your knees.

TIGHTEN

Pull the loose end of the strap away from the buckle to tighten it.

Tilt the buckle slightly to reduce tension.



How to tighten the chest belt



How to tighten the chest belt



How to tighten the chest belt

LOOSEN

Grab the buckle and tilt it to the side of the loose strap end and pull it.



How to loosen the chest belt



How to loosen the chest belt

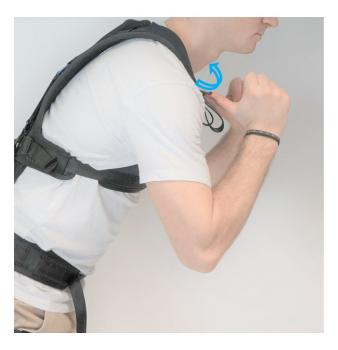


How to loosen the chest belt

4.6 How to take off the LiftSuit®

▲ WARNING

STOP USING THE LIFTSUIT® WHEN EXPERIENCING SIGNS OF OVERHEATING, LIKE HEAVY SWEATING, DIZZINESS OR FATIGUE.



1 - Make sure the system is deactivated before taking the LiftSuit® off.



2 - Open all 4 release buckles: the chest belt, the hip belt and both thigh cuffs.



 ${\bf 3}$ - Take off the vest. The hip belt and thigh cuffs will follow if you have opened all buckles.



4 - Hang up the LiftSuit®. This way it is easier to put it back on. Also, it will allow the LiftSuit® to dry in case it is wet from sweating.

5 Cleaning, Care and Maintenance

5.1 General care

- Always handle the LiftSuit® with care.
- Avoid contact between sharp or piercing objects and the LiftSuit®.
- Keep your LiftSuit® clean from oil and chemicals that could damage it.
- Ensure that the LiftSuit® is stored in a dry and ventilated place without direct sunlight.

5.2 Inspections

▲ CAUTION

PERFORM A VISUAL INSPECTION AT LEAST ONCE A MONTH TO ENSURE PROPER FUNCTION OF THE LIFTSUIT®. KEEP A LOG TO RECORD INSPECTIONS. IN CASE OF IDENTIFYING A POSSIBLE PROBLEM, REMOVE THE LIFTSUIT® FROM OPERATION AND CONTACT YOUR SUPPLIER OR AUXIVO.

For the visual inspection, follow the checklist below:

Activation Mechanism:

Are there any signs of wear and tear on the activation buckle, like e.g. outworn spikes?



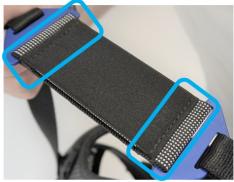
Activation Mechanism:

Are there any signs of wear and tear on the activation straps obviously created by abrasion and interaction with the buckle?



EES:

Are there any signs of abrasion on the back side of the EES elastics?



EES:

Are there any signs of excessive abrasion on the main fabric of the vest behind the EES?



EES:

Are there any signs that the hooks are slipping out the connecting loops?

Please run a short test by moving all 4 hooks quickly back and forth from the left to the right.





Thigh Cuffs:

Are there any signs of wear and tear at the cuffs? Please check especially the edges of the elastic part.



▲ WARNING

AFTER IDENTIFING WEAR AND TEAR OR OTHER DAMAGES, REMOVE THE LIFTSUIT® FROM OPERATION. IF POSSIBLE, REPAIR THE LIFTSUIT® AS INSTRUCTED IN 5.3 CHANGING THE ELASTIC ENERGY STORAGES (EES). IF REPAIR IS NOT POSSIBLE, CONTACT YOUR SUPPLIER OR AUXIVO FOR FURTHER ASSISTANCE.

5.3 Changing the Elastic Energy Storages (EES)

The Elastic Energy Storages (EES) are consumables that need to be replaced after 150'000 cycles or 1 year in use (what is achieved first). A cycle is defined as a one-time tensioning and releasing of the EES during normal use (e.g. a normal lifting movement). An EES shall also be replaced when wear and tear or other damages have been established.

WARNING

THE LIFTSUIT® SHALL ONLY BE USED TOGETHER WITH, AND NEVER WITHOUT, THE ORIGINAL ELASTIC **ENERGY STORAGES (EES) MANUFACTURED BY AUXIVO.**

Always remove the EES when washing or cleaning the LiftSuit®. It's possible to swap the EES with a different (stiffer or softer) EES produced by Auxivo to adjust the support to your personal needs. For replacement parts or any issues, please contact your supplier or Auxivo (see: 1.8 Information and support).

Please follow these instructions to attach, remove or replace the EES:

Detaching the EES



1 – Push the upper connecting strap loop to 2 – When the loop slips out of the EES hook, 3 – Repeat at the process with the other one side and pull it away from the EES hook. pull it out.

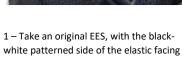




EES.

Attaching the EES



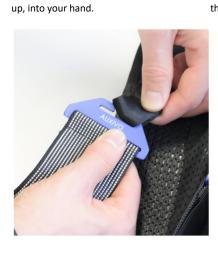




2 – Grab the lower connecting strap loop from the right thigh cuff. Make sure it runs through the right side of the hip belt tunnel.



3 – Insert the longer side of the EES hook into the loop. Then squeeze the loop onto the shorter side of the hook.



4 – Attach the upper connecting strap loop from the left shoulder to the hook of the upper end of the EES.



5 – Check that the black-white patterned side of the elastic are facing you.

6 – Repeat steps 1 to 5. Double check if the crossing section of the connecting straps is



6 – Repeat steps 1 to 5. Double check if the crossing section of the connecting straps is above the hip belt. Make sure the connecting straps are not twisted.

5.4 Cleaning the LiftSuit®

To wash the LiftSuit®, please follow these steps to prevent damage to the LiftSuit®:

- 1. Remove the elastic energy storages (EES) as described in chapter 5.3 Changing the elastic energy storages (EES).
- 2. Close all release buckles before washing.
- 3. Machine wash at 30°C. Do not use fabric softener. Use mild detergent. Wash separately. Only gentle spinning. Do not tumble-dry.
- 4. Air dry the LiftSuit®. Make sure that it is fully dried before using it again.
- 5. When also the paddings are completely dry, put both elastic energy storages back (EES) in as described in chapter 5.3 Changing the elastic energy storages (EES).
- 6. Conduct a quick inspection to ensure that all parts of the LiftSuit® are in a correct position and orientation for the next use.

5.5 Multiple users for one LiftSuit®

To ensure safety and comfort for all users, the LiftSuit® should be adjusted to every new user. For instructions, see: *4 Putting on the LiftSuit*®.



WHEN A LIFTSUIT® IS BEING USED BY MULTIPLE USERS, THE LIFTSUIT® SHOULD BE PROPERLY CLEANED AND WASHED IN BETWEEN USES. FOR MORE INFORMATION ON CLEANING THE LIFTSUIT®, SEE: 5.4 CLEANING THE LIFTSUIT®

6 Troubleshooting

Error

Activation mechanism does not work properly

Wrong height adjustment:
LiftSuit too long → EES too high

AUXIVO

Cause



Solution

Shorten height adjustment such as the EES are in the middle of the vest when activated

Deactivate LiftSuit is difficult



Vest too far up

→ Activation buckles not reachable



Position vest such as activation buckles are on collarbone level

Hollow cross while standing straight

Ground can't be reached



Too much pretension on the EES



A slight counterpressure is normal? release activation straps a little bit to reduce preload on the elastic energy storages

Friction in the crotch



Thigh cuff and/or hip belt twisted



Hip belt buckle must be positioned on the left side of the hips. Turn thigh cuffs until lateral height adjustments run vertically along the side seam of the pants.

Lateral chest pain



Straps under arms too much and/or breast belt too less tensioned



Loose straps under arms and tighten breast belt if necessary

7 Disposal

Dispose of the device and the packaging according to local regulation. By disposing of the product in the proper manner, you help to avoid possible hazards for the environment and public health that could otherwise be caused by improper treatment of waste. The recycling of materials contributes to the conservation of natural resources.

The packaging is made of environmentally friendly materials, which may be disposed of through your local recycling facilities. By disposing of the packaging and packaging waste in the proper manner, you help to avoid possible hazards for the environment and public health. The symbol on the packaging indicates that the packaging is made of PAP.

8 Legal Information

8.1 Liability

Auxivo AG cannot be held liable for:

- Personal injury or damage to property caused by not following the instructions and warnings in this handbook.
- Damage caused by changes and/or alterations to the LiftSuit®.
- Wear and damage as a result of improper use.
- Damage caused by the use of non-original product parts, e.g. replacement parts.

8.2 Warranty

Auxivo warrants that the LiftSuit® has the functions described in this handbook and are free from defects in material which eliminate or substantially reduce its functions upon delivery during a sending-in warranty period of 1 year. However, the LiftSuit® also contains consumables (defined in 5.3 of this handbook) that must be replaced by the customer regularly at own costs, depending on use, and are not covered by the 1-year warranty period. If a LiftSuit® has defects covered by the warranty, the supplier or Auxivo will replace the defective LiftSuit® or defective parts of LiftSuit®. This warranty shall be applicable only if the customer has inspected the LiftSuit® and a claim pursuant to this warranty is made in writing to the supplier or Auxivo within 14 days after delivery stating the serial number of the defective LiftSuit®, the date such LiftSuit® was delivered and a description of the defect. Subsequently, the defective LiftSuit® must be returned to the supplier or Auxivo.

No warranty is given in relation to LiftSuit®s that have been repaired or altered by anyone else than Auxivo, nor LiftSuit®s that have been subject to use contrary to this handbook, to negligence, to an accident or to misuse.

This warranty is in lieu of all warranties of Auxivo, express or implied.

For replacement parts or warranty issues, please contact your supplier or Auxivo (see chapter 8 in this handbook).

Accessories and Spare Parts

List of Accessories and Spare Parts

(DEU) Zubehör- und Ersatzteilliste (FRA) Liste des accessoires et des pièces détachées (ITA) Dichiarazione CE di conformità (ESP) Lista de accesorios y piezas de repuesto (NLD) Lijst van accessoires en onderdelen (PRT) Lista de accessórios e peças sobressalentes

Name	Article Number
Pair of elastic energy storages – medium support level	LiftSuit-EES-Blue
Pair of elastic energy storages – strong support level	LiftSuit-EES-Red

EC Declaration of Conformity

EG-Konformitätserklärung

(ENG) Declaration of conformity (FRA) Déclaration de conformité (ITA) Dichiarazione CE di conformità (ESP) Declaración de conformidad (NLD) Verklaring van overeenstemming (PRT) Declaração de conformidade

Hersteller: Auxivo AG

Adresse: Sonnenbergstrasse 74 8603 Schwerzenbach

Switzerland

5 TT 12 ST 14

Produktidentifikation Passives industrielles Exoskelett "LiftSuit"

Das oben beschriebene Produkt entspricht in der vorgeführten Form den Bestimmungen den folgenden Richtlinien:

2006/42/EG Maschinenrichtlinien

Die Konformität mit den Richtlinien wird durch die Anwendung der folgenden harmonisierten Normen sichergestellt:

2006/42/EG EN ISO 12100 Sicherheit von Maschinen –

Allgemeine Gestaltungsleitsätze -

Risikobeurteilung und Risikominderung

EN 1005-3+A1 Sicherheit von Maschinen -

Menschliche körperliche Leistung -Teil 3: Empfohlene Kraftgrenzen bei

Maschinenbetätigung

Schwerzenbach, 25.01.2022	Dr. Volker Bartenbach	Dr. Lijin Aryananda-Blatter
Ort, Datum	CEO Auxivo AG	CTO Auxivo AG