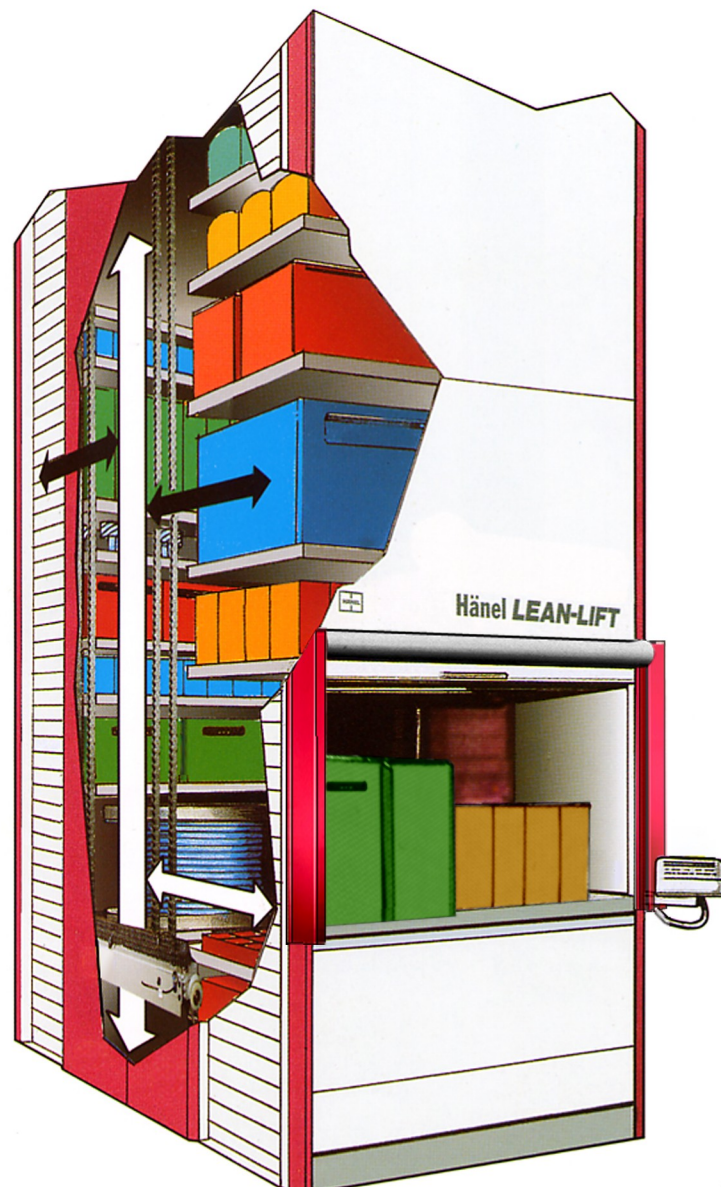




Operating Instructions Hänel Lean-Lift - Original User Guide -



Operating Instructions

Lean-Lift

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Operating Instructions

Lean-Lift

1. Introduction

Thanks for purchasing a Hänel lift!

1.1 Required qualification of operating personnel

Note that only trained operating personnel is permitted to use the lift.

In order to obtain the required qualification for lift operation ("trained operator"), the operator must fulfil the following requirements:

- Be at least 16 years old
- Have sufficient knowledge of the language of the country of use
- Has, at the very least, obtained initial instruction in lift operation and has carefully read the information in the User Guide and has an in-depth understanding of this information, which allows them to operate the lift safely
- Receives follow-up training with regard to all workplace safety matters pertaining to the lift at least 1 × per year

However, a qualification as a "trained operator" does not authorise you to enter the lift (even if the lift is switched off!).

For personnel inside the lift, there is an acute risk of fatal injury from the machine movements and suspended loads. Therefore, the lift must be entered only by instructed and specially trained and authorised personnel (such as Hänel after-sales service technicians) and following special safety precautions!

If there are questions and/or a lack of clarity, contact the supervisory personnel.

1.2 Notes on this user guide

This user guide contains information on safety instructions, work with the lift and required maintenance to ensure that it is always in a flawless condition.

For the regular maintenance, the service technicians of the Hänel manufacturer and its authorised representatives are available, to ensure high availability over a long period.

This user guide describes the lift model(s) mentioned on the front side in the respective standard model. The illustrations used are examples of a possible lift version.

You can find additional information on operating the micro-processor control system of your lift and any optional supplementary features of the lift in the provided lift machine documentation. Read this information also carefully.

This user guide is part of the lift. Store it on site in the lift machine documentation near the lift for the entire service life of the lift so that it is always at hand. Missing or incomplete copies must be replaced immediately. You can order this user guide—as well as the entire lift machine documentation—as a spare part from Hänel, the manufacturer.

Operating Instructions

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1. Introduction (continued)

1.2 Notes on this user guide (continued)

Hänel is constantly making new developments to its products.
We reserve the right to make changes.

In addition, no legal rights can be derived from the information in the user guide. If you have questions, please contact Hänel, the manufacturer.

Note:

Refer to the following for additional information for the respective lift features:

- In the "User Guide for the Microprocessor Control System MP12_ Lean-Lift"
- In the "User Guide for the Microprocessor Control System MP14_ Lean Lift"
- In the optional supplementary descriptions

The respective documents are part of the lift machine documentation.

1.3 Keep in an accessible place as a complete document

- This User Guide is a part of the lift and must be stored in a location that is accessible to authorised personnel at all times.
- Pages may never be removed from this User Guide. If the User Guide or any of its pages are lost or missing, they must be replaced immediately.

1.4 Change service

This User Guide and the further documents of the lift machine documentation are not subject to the manufacturer's change service. The manufacturer retains the right at all times to change and improve all technical data, information and figures for the purpose of further technical development.

1.5 Copyright

All text and images are the protected intellectual property of Hänel® GmbH & Co. KG. Any use that is not expressly permitted by law, specifically including reprinting, reproduction, electronic processing or translation, requires approval from Hänel® GmbH & Co. KG.

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2. Intended use and misuse

Contents

This section describes which activities can be carried out using the lift and which are prohibited, even if the application seems possible.

2.1 Intended use

Hänel lifts are intended exclusively for storage and warehousing purposes in offices and industrial facilities.

The following points in particular must be fulfilled:

- Under no circumstances will an operator enter the lift, even after they have completed training.
- Lift operation is performed only by trained operators.
- Lift operation is performed only if all service openings/lift panelling sections are properly sealed.
- Lift operation is performed only if all the safety equipment on the lift is fully functional.
- Nobody leans or reaches into the lift and/or sits, stands or walks inside of the lift.
- The containers are loaded and unloaded via the access opening only.
- For standard lifts, the permitted ambient temperature range is from +5 °C to +40 °C (+41 °F to +104 °F).
- The maximum permitted load carrying capacity of the lift and the containers, which is displayed on the type plate, must not be exceeded. The owner/operator is responsible for ensuring the correct load.

2.2 Misuse

The following points or activities in particular shall be deemed by us to be prohibited use:

- Lift operation is performed by a untrained operator.
- Lift operation is performed when the maintenance opening or lift panelling is not sealed properly.
- Lift operation is performed when the safety equipment is not fully functional.
- Somebody leans or reaches into the lift and/or sits, stands or walks inside of the lift.
- A trained operator or a person who has not been instructed and specially trained and authorised enters the lift.
- Climbing into the lift through the access opening.
- Operating the lift outside of the permitted ambient temperature.
- Operating the unit without protection from external forces such as loads from wind and snow.
- Storing hazardous or explosive materials in solid, liquid or gas form (packaged or unpackaged).

Operating Instructions

Lean-Lift

2. Intended use and misuse (continued)

2.2 Misuse (continued)

- Operating the lift in an explosive, aggressive or corrosive environment, since hot surfaces and sparks are possible inside the lift.
- Storing loose foodstuffs in standard lifts. For lifts in which storing packaged foodstuffs is permitted, additional information about cleaning, disinfection and detergent procedures is provided in a supplement to the operating manual.
- Storing articles, which:
 - Exceed the maximum container load (see type plate, container loading sign)
 - Can shift, open automatically in the lift or are not/cannot be stored such that they are protected from tipping over. These stored articles can fall out or damage the lift
 - Protrude beyond the inner contour of the containers from the side or the front/rear. These stored articles can fall down or block the lift run
 - Exceed the maximum permitted fill level of your lift. In the standard version, the maximum permitted fill level is between 695 mm [27.36 in.] and 735 mm [28.94 in.], depending on the lift/container version. You can find the maximum permitted fill level of your lift in the order confirmation in the lift machine documentation.
 - Has a diameter or edge length of less than 5 mm [0.2 in.] and transparent stored articles, assuming that these stored articles are protruding beyond the container edge or partitioning hardware. These stored articles cannot be detected by the light barrier system of the article height detection.
- Removal of parts that are screwed on, such as edge reinforcements that are screwed onto containers.
- Adding additional containers, exchanging containers between lifts, and replacing containers of a lift without proof of release by Hänel.

Without a release, when operating multiple Hänel Lean-Lifts, containers may be used only in the lift for which they were intended.
- Loading using robots or similar automated systems is not permitted without suitable supplementary equipment approved with the manufacturer.
- Operation with modifications that are not approved by the manufacturer.
- Non-compliance with the service intervals and regulations.
- Transporting humans or animals.
- Using a lift that is or has been exposed to rain, water or non-negligible vibrations.

Operating Instructions

Lean-Lift

3. General safety

Contents

Here, you will find basic information about the safety of the lift.

The signal words, colours and symbols used have the following meanings:

3.1 Signal words and warning colours used

Signal word and colour

(Symbol in accordance with ISO 3864 or manufacturer-specific)



- Safety instruction
- Preventive measure

Meaning

High risk of danger

Safety alert symbol with the keyword "DANGER".

High risk, warning of fatal injuries in the event that instructions/requirements are not observed.

White text on red background.

A specific symbol to explain the danger appears in the box to the left.

(Symbol in accordance with ISO 3864 or manufacturer-specific)



- Safety instruction
- Preventive measure

Moderate risk of danger

Safety alert symbol with the keyword "WARNING".

Moderate risk, warning of possible severe to fatal injuries in the event that instructions/requirements are not observed.

Black text on orange background.

A specific symbol to explain the danger appears in the box to the left.

(Symbol in accordance with ISO 3864 or manufacturer-specific)



- Safety instruction
- Preventive measure

Low risk of danger

Safety alert symbol with the keyword "CAUTION".

Low risk, warning of possible minor to moderate injuries in the event that instructions/requirements are not observed.

Black text on yellow background.

A specific symbol to explain the danger appears in the box to the left.

(Mandatory instruction sign)



- Safety-related instructions and safety-compliant workflows

Safety instructions

Keyword "SAFETY INSTRUCTIONS"

Instruction for safe work.

White text on green background.

A specific mandatory instruction symbol may appear which explains the required safety measure.

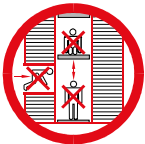
Operating Instructions

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3. General safety (continued)

3.2 Warning symbols used

Symbols	Meaning
---------	---------



This symbol informs you that the following are prohibited:

- Entering the lift via the access point.
- Sitting or standing inside the access point or underneath the unsecured extractor.
- Riding in a container or on the extractor.



This symbol informs you that the following are prohibited:

- Entering the lift via the access point.
- Sitting, standing or walking inside the access point
- Access for unauthorised persons



Notes with this symbol warn you of possible general hazards.



Notes with this symbol warn you of a hazard caused by electrical current.



Notes with this symbol warn you of a hazard caused by suspended loads that can fall a bit or even crash to the ground.



Notes with this symbol warn you of a crushing hazard caused by moving machine parts.



Notes with this symbol warn you of a hazard caused by being pulled in or grasped by moving machine parts.



Notes with this symbol warn you of a hazard caused by parts that tip over.



Notes with this symbol warn you of a hazard caused by falling.

Operating Instructions

Lean-Lift

3. General safety (continued)

3.2 Warning symbols used (continued)

Symbols	Meaning
	Notes with this symbol warn you of hand injuries caused by moving machine parts (crushing, cutting, etc.).
	Notes with this symbol warn you of a hazard caused by hot surfaces.
	Notes with this symbol warn you of a hazard caused by: • Storing explosive materials in the lift • Storing these materials in the area surrounding the lift • Development of explosive atmospheres.
	Notes with this symbol warn you of a hazard caused by storing hazardous materials, particularly aggressive or corrosive media.
	Notes with this symbol warn you of a hazard caused by machine movements triggered automatically.
	Notes with this symbol warn you of a hazard caused by the risk of damage to the stored articles due to static electricity.

Operating Instructions

Lean-Lift

3. General safety (continued)

3.3 Note symbols used

Symbols	Meaning
---------	---------



Switch off and secure the main switches!

This symbol informs you that, before beginning a task, you must switch off the main switch and secure it from being switched on again using a personal padlock.



Secure the actuator latch/magnet!

These symbols inform you that, before beginning a task, you must lock a personal padlock onto the actuator latch/magnet of the open service door to keep it from closing.



See operating manual!



This symbol informs you that the operating manual contains safety-related information for instructed and specially trained and authorised personnel (such as Hänel after-sales service) that must be observed.



Note

The word "Note" marks important information that absolutely must be followed.

Note:

The word "Observe:" marks additional information intended to help you prevent errors.

Operating Instructions

Lean-Lift

3. General safety (continued)

3.4 Safety instructions

Follow these safety instructions at all times in order to prevent harm to your health from the hazards listed below.



Fatal crushing injuries from moving machine parts and falling loads.
For personnel inside the lift, there is an acute **risk of fatal injury** from the machine movements and suspended loads. Therefore, as an operator, do not enter the lift under any circumstances!

A qualification as a "trained operator" does not authorise you to enter the lift (even if the lift is switched off!).

The lift must be entered only by instructed and specially trained and authorised personnel (such as Hänel after-sales service technicians) and following special safety precautions!



DANGER

- Never climb into the lift through the access point. If the lift is switched on at that moment, there is an acute **risk of fatal injury** from moving machine parts or falling loads, e.g. articles!
- Do not transport people or animals in the lift, even for inspection purposes.
- Do not remove any locks or warning signs that secure the lift from being switched on. These usually indicate that someone is working inside the lift.



DANGER

Risk of fatal injury from explosive materials and atmospheres

The lift is not suited for storing explosive or combustible hazardous materials, or for being operated in an explosive atmosphere; these are all prohibited. Solid materials and aerosols can accumulate in gaps inside the lift.

- Do not store any explosive or combustible materials or materials that can create an explosive atmosphere.
- Before switching on the lift, remove all explosive and combustible materials from the danger zone of the lift.

Operating Instructions

Lean-Lift

3. General safety (continued)

3.4 Safety instructions (continued)



Risk of fatal injury from electric current

The lift operates at high voltage and correspondingly high amperages.

If work on the electrical equipment is not carried out properly, there is a **risk of fatal injury**! Therefore, these tasks may be performed by qualified electrically skilled personnel only. Even an amperage as low as 44 mA can be fatal.

A qualification as a "trained operator" does not authorise you to open the electrical drawer or covers of electrical equipment on the lift, even if the lift is switched off!



DANGER

- Ensure that the openings and other means of access to the electrical equipment remain closed at all times. Operation with open electrical devices is prohibited. If you find open electrical equipment, do not resume lift operation; instead, contact the supervisory personnel immediately.
- Beware of damaged electrical leads and connections. If you find damaged electrical leads and connections, do not resume lift operation; instead, contact the supervisory personnel immediately.
- Do not remove any locks or warning signs that secure the lift from being switched on. These usually indicate that someone is working on or inside the lift.
- The keys for the means of access to the electrical equipment must be kept in such a way that they are accessible to supervisory personnel/ electrically skilled people only.



Hazard from aggressive and corrosive materials

It is prohibited to store hazardous materials in the lift. Stored hazardous materials can be harmful to the health of the operator and cause property damage to the lift or stored articles.



WARNING

- Do not store any aggressive, corrosive or otherwise hazardous materials.
- For flooding the interior of the lift with media other than air, Hänel currently approves only nitrogen (N₂). The owner/operator must carry out corresponding measures for the safety of the operating personnel.



Crushing injuries from moving machine parts

When articles are put into storage or retrieved from storage, there is a danger of severe crushing injuries from the containers and extractor.



WARNING

- Do not reach into moving machine parts.
- Before using the lift, always check that the safety equipment in the area of the access point(s) is functioning properly.
- Manually move containers using the grips provided on the front of the containers. Never grip below or within the containers for this purpose!

Operating Instructions

Lean-Lift

3. General safety (continued)

3.4 Safety instructions (continued)



CAUTION

Hazard caused by improper loading of the lift.

The load of the containers and the lift is not monitored automatically.

If containers are not loaded properly, this can result in loads and overloads in some places.

Excessive differences in the load of a container over its width will cause loading in one area of the lift and thus lead to damage and/or premature wear.

Here, you will find detailed notes and information on proper loading of the lift in Chapter 5.3

The owner/operator is responsible for monitoring the loading process to ensure it is being done properly.

After loading a container, check to make sure that the total weight of the stored articles does not exceed the permitted maximum.

If possible, use the optional internal scale for the monitoring.

If your lift is not equipped with this scale, we recommend always weighing the entire container load using a suitable external weighing device.

Refer to the type plate and load sign for the permitted load per container and for the entire lift.

You will find detailed notes and information on proper loading of the lift in Chapter 5.3.

Operating Instructions

Lean-Lift

4. Safety equipment on the lift

4.1 Position and function of the safety equipment

Contents

Here, you will find an overview of the safety equipment on the lift and its basic functions.



DANGER

Safety equipment that is not openly accessible or malfunctioning safety equipment is dangerous!

All the safety equipment on the lift must be unobstructed and accessible at all times during lift operation.

Operating the lift with safety equipment that is defective, bypassed, modified or removed is not permitted.

SAFETY INSTRUCTIONS

Check that the safety equipment is functioning properly!

- After switching on the lift, always check that the safety equipment in the area of the access point(s) is functioning properly.
- One annual lift safety inspection is necessary to ensure safe operation of the lift at all times. In this context, pay attention to the safety badge on the lift (at the first access point) and its expiry date. If you have questions, contact the supervisory personnel.

Overview of the safety equipment integrated into the lift

Item	Name and function
1	Main switch
2	Emergency stop button
3	Safety light curtain/barriers
4	Service door
5	Article height detection
6	High-speed door

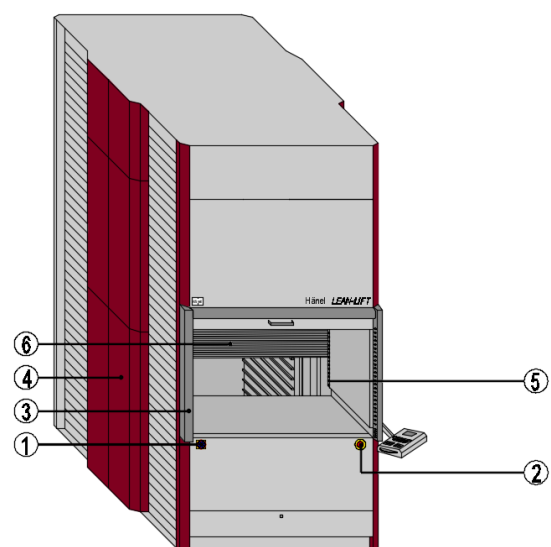


Fig. 2: Integrated safety equipment

Operating Instructions

Lean-Lift

4. Safety equipment on the lift (continued)

4.1 Position and function of the safety equipment (continued)

Item	Name and function
------	-------------------

1	Main switch
---	--------------------

Each lift is equipped with a main switch for switching the lift on and off. The standard location for this on the left side of the access point.

The main switch is operated through rotation. When the main switch 0 (0 = off) is switched off, the mains supply is interrupted and established again after it is switched on I (I = on). Before you switch on the main switch, observe the procedure described in Chapter 5.2. (Establishing operational readiness).

The main switch of the lift also has an emergency stop function. If the main switch is switched off during live operation by rotating it to position 0, then the mains supply is interrupted, and the lift stops immediately and remains stationary in this position.

After all, the main switch has a shutdown function for certain lift malfunctions and/or supplementary features (Eco-Mode). In this case, the main switch automatically moves to a centre position between I (I = on) and 0 (0 = off).

Before you switch on the main switch from this position, observe the procedure described in Chapter 5.2. (Establishing operational readiness).

The switched-off main switch can be secured from being switched on again by attaching a padlock. Never remove a padlock that is attached to the main switch. If necessary, contact the supervisory personnel.

Lift with multiple access points

In the case of lifts with multiple access points, the main switch is at the first access point only.

The emergency stop button (see item 2) can be pressed to stop lift operation immediately at all other access points. This does not interrupt the mains supply of the lift.

Lifts in multi-unit networks

For lifts in multi-unit networks, only the mains supply of the respective individual lift interrupts the switch-off process for the main switch. The mains supply for all the remaining lifts in multi-unit networks cannot be affected by this.

The emergency stop function of the main switch for lifts in multi-unit networks functions in the same manner. Only the lift run of the respective lift is interrupted; all the remaining lifts in multi-unit networks cannot be stopped in this process.



Fig. 1: Main switch

SAFETY INSTRUCTIONS

Switching on the main switch

Before you switch on the main switch, observe the procedure described in Chapter 5.2. (Establishing operational readiness).

Secured main switch

Never remove a padlock that is attached to the main switch. If necessary, contact the supervisory personnel.

Observing individual warning signs for the maintenance personnel

Do not switch on the lift if this is prohibited by warning signs and, if necessary, contact the supervisory personnel.

Switch off lifts in multi-unit networks!

For lifts in multi-unit networks, only the mains supply of the respective individual lift interrupts the switch-off process for the main switch. The mains supply for all the remaining lifts in multi-unit networks cannot be affected by this.

Operating Instructions

Lean-Lift

4. Safety equipment on the lift (continued)

4.1 Position and function of the safety equipment (continued)

Item	Name and function
------	-------------------

2	Emergency stop button
---	------------------------------

	Every lift access point is equipped with an emergency stop button.
--	--

	When you press the button, the lift comes to an immediate stop, stays in this position and the button engages in the pressed position.
--	--

	Unlock the emergency stop button by rotating it and follow the instructions on the operating panel display to resume lift operation after the emergency stop situation has been remedied. Ensure that the emergency stop situation has been remedied before unlocking the emergency stop button. If necessary, contact the supervisory personnel.
--	---

	The emergency stop button can be pressed to stop lift operation immediately at all other access points. This does not interrupt the mains supply of the lift.
--	---

	For standard lifts, the emergency stop button is on the right side below the access point.
--	--

	<u>Lift with multiple access points</u>
--	---

	For lifts with multiple access points, each access point has an emergency stop button.
--	--

	<u>Lifts in multi-unit networks</u>
--	-------------------------------------

	For lifts in multi-unit networks, pressing an emergency stop button interrupts only the lift run of the respective individual lift. The lift runs of all remaining lifts in multi-unit networks cannot be stopped through this process.
--	---

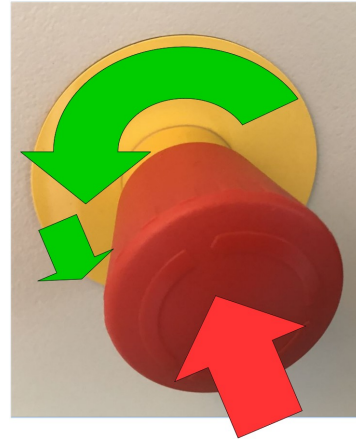


Fig. 2: Pressing/disengaging the emergency stop button

SAFETY INSTRUCTIONS

Disengage the emergency stop button

Ensure that the emergency stop situation has been remedied before unlocking the emergency stop button. If necessary, contact the supervisory personnel.

Emergency stop button for lifts in multi-unit networks

For lifts in multi-unit networks, pressing an emergency stop button interrupts only the lift run of the respective individual lift. The lift runs of all remaining lifts in multi-unit networks cannot be stopped through this process.

Operating Instructions

Lean-Lift

4. Safety equipment on the lift (continued)

4.1 Position and function of the safety equipment (continued)

Item	Name and function
------	-------------------

3	Safety light curtain / light barriers with emergency stop function
---	---

	Each access opening is safeguarded by default on the outer edge by a self-monitoring safety light curtain or safety light barriers.
--	---

	If the safety light curtain or one of the safety light barriers is interrupted, the lift comes to an immediate stop or is prevented from starting up. To continue the lift run, follow the instructions on the display of the operating panel.
--	--

	In case the safety light barrier system of the lift has been tripped by protruding stored articles or parts of the inner container equipment (e.g. flaps) that are not completely closed, position these stored articles properly/close the respective parts properly.
--	--

	<u>Lift with high-speed door</u>
--	----------------------------------

	For lifts with a high-speed door or doors, the safety light curtain or safety light barrier function is disabled when the high-speed door is closed.
--	--

	<u>Lift with multiple access points</u>
--	---

	For lifts with multiple access points, the lift run is stopped for all access points when a safety light curtain or safety light barrier is tripped.
--	--

	<u>Lifts in multi-unit networks</u>
--	-------------------------------------

	For lifts in multi-unit networks, triggering a safety light curtain or safety light barrier interrupts only the lift run of the respective individual lift. The lift run of all remaining lifts in multi-unit networks is not affected by this process.
--	---

Safety light curtain/barriers

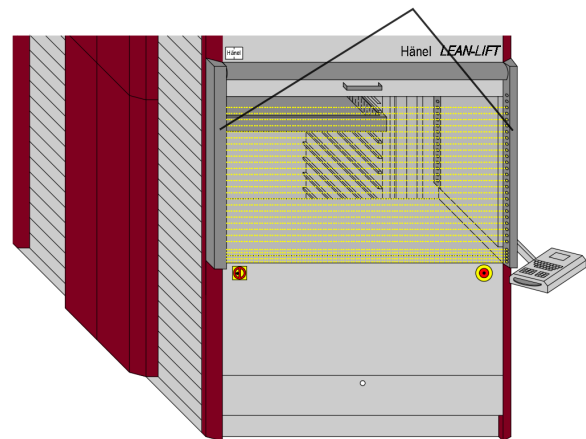


Fig. 3: Safety light curtains/light barriers

Observe:

For the optional supplementary features with the safety concept "Lift run with sliding doors closed only", there is no safety light curtain/are no safety light barriers.

SAFETY INSTRUCTIONS

Keep access points free of objects!

The access points of the lift are used exclusively for storage and retrieval operations of containers and therefore must not be used as a work surface or storage surface during a lift run. Keep all access points free of objects to prevent property damage and personal injury from collisions with retracting/extending containers.

No protruding stored articles

Note that no stored articles may protrude at the sides or forwards/backwards over the inner contour of the containers or partitioning hardware. These stored articles can fall down or block the lift run. In particular, there must be no transparent or transparently packaged articles or articles with a diameter or edge length of less than 5 mm [0.2 in.] stored, assuming these stored articles protrude beyond the container edge or the partitioning hardware. These stored articles cannot be detected by the light barrier system for the article height detection.

Operating Instructions

Lean-Lift

4. Safety equipment on the lift (continued)

4.1 Position and function of the safety equipment (continued)

Item Name and function

4 Service door

Each lift is equipped with at least one service door, which exclusively enables direct side access to the inside of the lift by carrying out maintenance tasks. Inside the lift, there is an acute **risk of fatal injury** from the machine movements and suspended loads. **Therefore, as an operator, do not enter the lift under any circumstances!**

If a service door is open, the lift run is stopped immediately or startup is blocked.

As an operator, you are not permitted to open any service doors!

If you find an open service door, do not close it! Do not remove any padlocks or warning signs that secure the lift from being switched on! There may be people on the inside of the lift! Do not continue lift operation, but contact the supervisory personnel immediately.

Lifts in multi-unit networks

For lifts in multi-unit networks, the service door enables direct access to the inside of all lifts in the multi-unit network. If a service door is open, the lift run of all lifts in the multi-unit network is stopped immediately or startup is blocked.

In this case, the main switches of all the lifts in the multi-unit network automatically switch to a centre position between I (I = on) and 0 (0 = off) to display a fault. Before you switch on the main switch from this position, observe the procedure described in Chapter 5.2. (Establishing operational readiness).

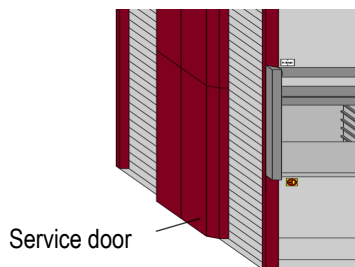


Fig. 4: Service door (standard left)

! DANGER

Risk of fatal injury inside the lift!

- Moving parts and suspended loads inside the lift can fall down, crush, shear, bump or catch and lead to fatal injuries.
- There is a risk of fatal injury when leaning or reaching into the inside of the lift through an open service door and when entering the lift.
- **Qualification as a "trained operator" does not authorise you to reach into the lift through an open service door, lean into the lift or enter the lift (even when the lift is switched off!).**
- Never climb into the lift through the access point. Never use the lift to transport persons - not even for inspection purposes.



SAFETY INSTRUCTIONS

Do not open and close service doors

As an operator, you are not permitted to open any service doors! If you find an open service door, do not close it! There may be people on the inside of the lift! Do not continue lift operation, but contact the supervisory personnel immediately.

Operating Instructions

Lean-Lift

4. Safety equipment on the lift (continued)

4.1 Position and function of the safety equipment (continued)

Item	Name and function
------	-------------------

5	Article height detection
---	---------------------------------

	The article height detection is a light barrier system in the rear of the access point.
--	---

	A check is run for each storage operation using this system to determine if the articles to be stored exceed the maximum permitted height or are protruding beyond the inner container edge on the front and rear sides of the container. This prevents parts from falling down or blocking the lift run due to stored articles that are too high or protruding.
--	--

	If the stored articles exceed the permitted height or protrudes beyond the inner container edge, the container is not stored; instead, the storage operation is stopped and the container automatically returned to the access position. Wait until this operation is complete, and do not reach into the access point during the operation.
--	--

	To continue the lift run, follow the instructions on the display of the operating panel.
--	--

6	High-speed door
---	------------------------

	(For lifts of type <= 3420, optional supplementary features, for lifts of type > 3420, standard model)
--	--

	The high-speed door is in the rear area of each access point.
--	---

	The closed high-speed door impedes a container or object in the access point from protruding into the lift shaft or falling over into it and colliding with the extractor as a result.
--	--

	For lifts with a high-speed door or doors, the safety light curtain or safety light barrier function is disabled when the high-speed door is closed.
--	--



Note

In conjunction with the article height detection, you must also observe that the storage of the following is not permitted:

- Stored articles that have a diameter or an edge length of less than 5 mm [0.2 in.]
- Transparent stored articles, assuming that these stored articles are protruding beyond the container edge or the partitioning hardware

These stored articles cannot be detected by the light barrier system for the article height detection.

4.2 Safety equipment for optional supplementary features

If the lift has optional supplementary features, additional safety devices can be present on the lift.

For important notes about the position and function of these additional safety devices, refer to the respective, optional Supplementary Description in the machine documentation. Observe any additional safety instructions that may be associated with this! If there are questions or anything is unclear, contact the supervisory personnel.

Operating Instructions

Lean-Lift

5. Lift operation

5.1 Position and function of the operating elements

Contents

This chapter provides important information about the position of the operating elements, establishing the operational readiness of the lift, operating the lift and switching the lift off properly.

Before operating this lift, familiarise yourself with the safety equipment on the lift, see Chapter 4.

Overview of operating elements

The following shows the position of the operating elements that you find at each access point of the lift in the standard version. For lifts with multiple access points, however, the main switch is present at the first access point.

Item	Name and function
------	-------------------

- | | |
|---|---|
| 1 | Main switch |
| 2 | Emergency stop button |
| 3 | Sliding door |
| 4 | Operating panel
for controlling the lift functions
(with interfaces) |

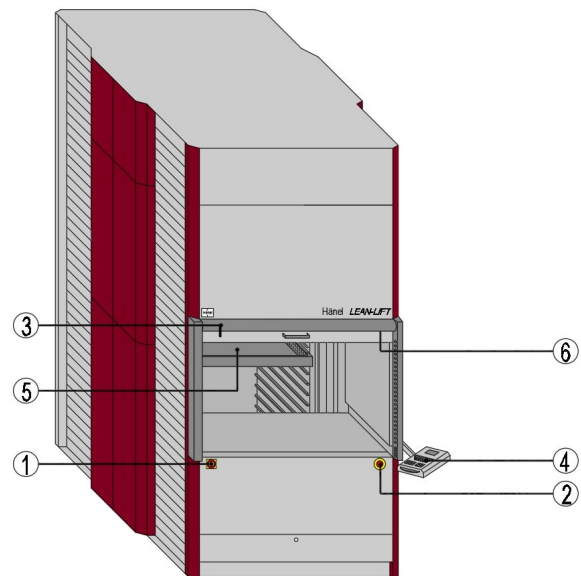


Fig. 5: Overview of operating elements

- | | |
|---|---|
| 5 | Containers
for holding the stored articles
For manual movement, the containers can be equipped
with grips on the front. |
| 6 | On/off switch for anti-glare lighting (optional) |

Note:

To refer to containers, the microprocessor control system uses the term shelf. A shelf corresponds to a container.

Operating Instructions

Lean-Lift

5. Lift operation (continued)

5.1 Position and function of the operating elements (continued)

Item	Name and function
------	-------------------

1	Main switch
---	--------------------

Each lift is equipped with a main switch for switching the lift on and off. The standard location for this on the left side of the access point.

The main switch is operated through rotation. When the main switch 0 (0 = off) is switched off, the mains supply is interrupted and established again after it is switched on I (I = on). Before you switch on the main switch, observe the procedure described in Chapter 5.2. (Establishing operational readiness).

The main switch of the lift also has an emergency stop function. If the main switch is switched off during live operation by rotating it to position 0, then the mains supply is interrupted, and the lift stops immediately and remains stationary in this position.

For additional important information about the function of the main switch, refer to Chapter 4

In addition, the main switch has a shutdown function for certain lift malfunctions or supplementary features (Eco-Mode). If such a shutoff occurs, the main switch automatically moves to a centre position between I (I = on) and 0 (0 = off).

Before you switch on the main switch, observe the procedure described in Chapter 5.2 (Establishing operational readiness).

2	Emergency stop button
---	------------------------------

Every lift access point is equipped with an emergency stop button.

When you press the button, the lift comes to an immediate stop, stays in this position and the button engages in the pressed position. This does not interrupt the mains supply of the lift. For additional important information about the function of the emergency stop button, refer to Chapter 4.

Unlock the emergency stop button by rotating it and follow the instructions on the operating panel display to resume lift operation after the emergency stop situation has been remedied. Ensure that the emergency stop situation has been remedied before unlocking the emergency stop button. If necessary, contact the supervisory personnel.



Fig. 6: Main switch

SAFETY INSTRUCTIONS

Switching on the main switch

Before you switch on the main switch, observe the procedure described in Chapter 5.2. (Establishing operational readiness).

Secured main switch

Never remove a padlock that is attached to the main switch. If necessary, contact the supervisory personnel.

Observing individual warning signs for the maintenance personnel

Do not switch on the lift if this is prohibited by warning signs and, if necessary, contact the supervisory personnel.



Fig. 7: Pressing/disengaging the emergency stop button

SAFETY INSTRUCTIONS

Disengage the emergency stop button

Ensure that the emergency stop situation has been remedied before unlocking the emergency stop button. If necessary, contact the supervisory personnel.

Operating Instructions

Lean-Lift

5. Lift operation (continued)

5.1 Position and function of the operating elements (continued)

Item	Name and function
------	-------------------

3	Sliding door (standard model)
---	--------------------------------------

	By opening and closing the sliding door, direct access to the access point can be granted or prevented. By locking the sliding door, it can be secured against unwanted opening. In the standard model, the lift run is possible only if the sliding door is completely open.
--	--

	<u>Lifts with multiple access points</u>
--	--

	If lifts are equipped with multiple access points with sliding doors, a lift run is possible by default, even if the sliding doors are completely open at multiple access points.
--	---



Fig. 8: Sliding door handle with lock

SAFETY INSTRUCTIONS

Keep access points free of objects!

The access points of the lift are used exclusively for storage and retrieval operations of containers and therefore must not be used as a work surface or storage surface during a lift run. Keep all access points free of objects to prevent property damage and personal injury from collisions with retracting/extending containers.

Lifts with automatic sliding doors (optional)

The automatic sliding door does not have a handle.

There is a risk of injuries from crushing, striking or cutting injuries when the electrically operated sliding door closes. Therefore, do not reach into the area of the sliding door or access point.

Lifts with automatic closing sliding door in case of fire (optional)

Make sure the automatically closing sliding door closes on its own in the following cases because of its own weight:

1. Each time the lift is switched off,
2. In the event of a power outage,
3. By pressing the test button,
4. By the signal from an operator-side fire detection system.

Consequently, if you reach in when the door is closing, it is possible to receive a crushing, cutting or impact injury.

Therefore, this emergency system may not be used for regular operation of the lift.

For additional important information about optional sliding door versions, refer to the respective, optional Supplementary Description in the machine documentation. Observe any additional safety instructions that may be associated with this! If there are questions or anything is unclear, contact the supervisory personnel.



! WARNING

Risk of injury when closing the electrical sliding door!

- There is a risk of crushing, striking or cutting injuries when the electrically operated sliding door closes.
- Therefore, do not reach into the area of the sliding door during the closing process.



! WARNING

Risk of injury for automatically closing sliding door!

- When the automatically closing sliding door is closing, there is a danger of crushing, impact or cutting injuries.
- Therefore, do not reach into the area of the sliding door during the closing process.

Operating Instructions

Lean-Lift

5. Lift operation (continued)

5.1 Position and function of the operating elements (continued)

Item Name and function

4 Operating panel

An operating panel is attached at every access point of the lift. The operating panel is used to control all lift functions and consists of a display (with touch function where applicable depending on the control system) and input keys (function keys, number and letter keys). For additional information, refer to the "Operating Manual for the Microprocessor Control System" MP12_ Lean-Lift or MP14_ Lean-Lift valid for your lift.

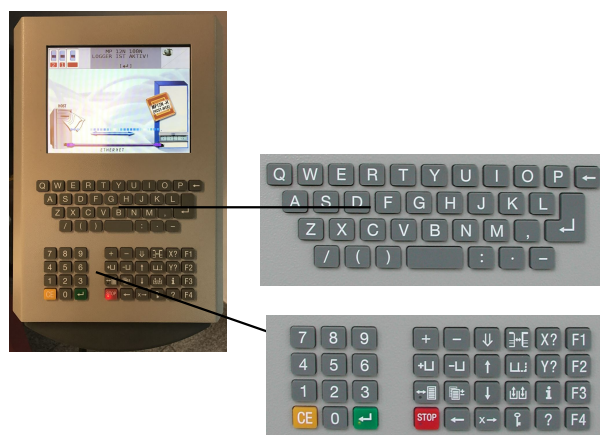


Fig. 9: Example for MP12N: Operating panel

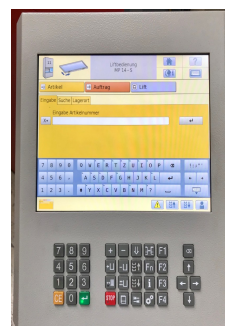


Fig. 10: Example for MP14: Operating panel

Operating Instructions

Lean-Lift

5. Lift operation (continued)

5.1 Position and function of the operating elements (continued)

Basic functions of the operating panel

Item	Name and function
4-a	Main operating panel for controlling all lift functions.
4-b	Display
4-c	Main key block for entering characters and letters (only for MP12_, main key block, for MP14, can be called up only in display with touch function)
4-d	Function keys for calling up individual functions and navigating in input fields. You can see which keys have been assigned on the display.
4-e	"Red stop button" for stopping the lift immediately. The illumination of the red LEDs integrated into the "stop" button signals that the lift is either not yet ready for operation or a fault is present.
4-f	"Green return key" (↵) for confirming inputs and carrying out the safety system self-test. The illumination of the green LED integrated into the "return key" signals that the lift is ready for operation.
4-g	"Orange CE key" for clearing entries
4-h	Number block for entering numbers such as when: - For selecting containers - for entering article numbers, quantity, article names etc.

Note:

To refer to containers, the microprocessor control system uses the term shelf. A shelf corresponds to a container.

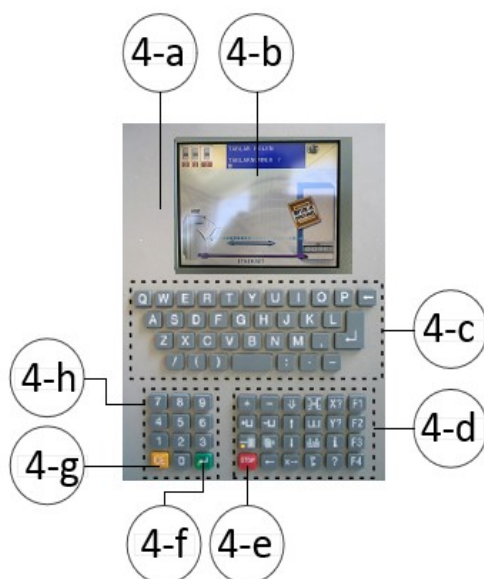


Fig. 11: Example for MP 12N: Operating panel

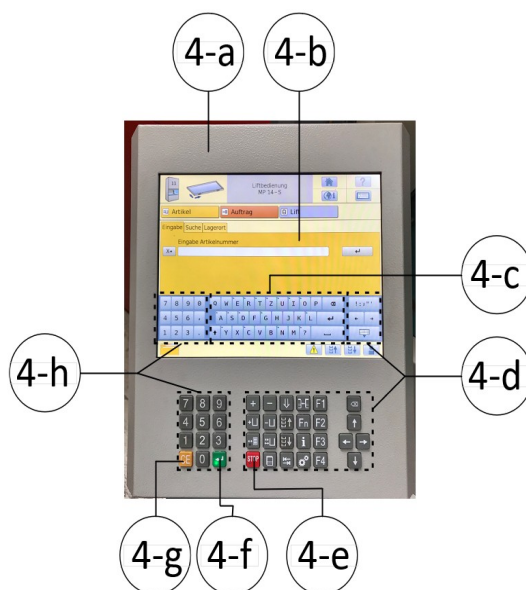


Fig. 12: Example for MP 14: Operating panel

Operating Instructions

Lean-Lift

5. Lift operation (continued)

5.1 Position and function of the operating elements (continued)

Item	Name and function
------	-------------------

5	Containers
---	-------------------

5	Containers are used to hold your stored articles for storage in the lift or to make them available for retrieval and removal. Depending on the makeup of the stored articles, there are different container versions. Depending on the model, the containers are equipped with different handles for manual movement. Grasp the containers only by the provided handles.
---	---

5	For each lift, an <u>individual, maximum container load</u> is defined, which you can obtain from the container loading sign. By default, this type of sign is on the right side of the interior of each access point.
---	---

5	When operating the lift, ensure the following:
---	---

- | | |
|---|--|
| 5 | <ul style="list-style-type: none">– Stored articles must, at all times, be stored in the container versions (if necessary, with the corresponding inner equipment) provided for this purpose.– Container versions with locking mechanisms are properly locked after each loading and unloading operation. |
|---|--|

5	For further information about the proper loading of the containers, refer to Chapter 5.3.
---	--

6	On/off switch for anti-glare lighting (optional)
---	---

6	To improve visibility conditions at the access point, optional anti-glare lighting is available. This lighting system can be switched on and off using a separate switch that is located above the access point. The lighting can also be switched on and off by operating the main switch.
---	--

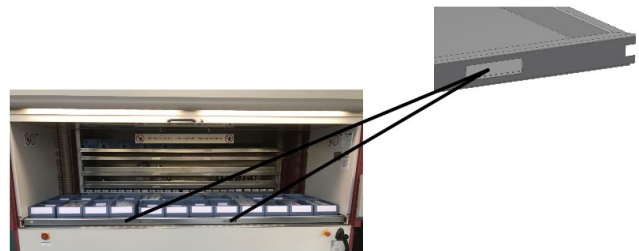


Fig. 13: Container handles

SAFETY INSTRUCTIONS

Use container handles

For manual movement, the containers are equipped with grips on the front. Grasp the containers only by the provided handles, and be sure not to grasp the containers from the bottom or reach inside them!



Note

Adding additional containers, exchanging containers between lifts, and replacing containers of a lift without proof of release by Hänel are not permitted. Without proof of release by Hänel, when operating multiple lifts, containers must be used only in the lift provided for them.

Note:

To refer to containers, the microprocessor control system uses the term shelf. A shelf corresponds to a container.



Fig. 14: On/off switch for antiglare lighting

Operating Instructions

Lean-Lift

5. Lift operation (continued)

5.2 Establishing operational readiness

Contents

Here, you can learn how to establish the operational readiness of the lift and which steps are necessary to do so. You cannot operate the lift until operational readiness has been established.



DANGER

Risk of fatal injury inside the lift!

- Moving parts and suspended loads inside the lift can fall down, crush, shear, bump or catch and lead to fatal injuries.
- There is a **risk of fatal injury** when leaning or reaching into the inside of the lift through an open service door and when entering the lift.
- **Qualification as a "trained operator" does not authorise you to reach into the lift through an open service door, lean into the lift or enter the lift (even when the lift is switched off!).**
- Never climb into the lift through the access point. Never use the lift to transport persons - not even for inspection purposes.



DANGER

Risk of fatal injury for personnel in the lift!

- Do not remove any of the padlocks on the lift. They indicate that persons are working in or on the lift.
- Do not switch on the lift if this is prohibited by warning signs.



DANGER

Risk of fatal injury from explosive materials and atmospheres

- Do not store any explosive or combustible materials or materials that can create an explosive atmosphere.
- Before switching on the lift, remove all explosive and combustible materials from the danger zone of the lift.

Operating Instructions

Lean-Lift

5. Lift operation (continued)

5.2 Establishing operational readiness (continued)

Proceed as follows when switching on the lift:

Step	Task
------	------

1	Switching on the lift
---	------------------------------

Before each time the lift is switched on, it is mandatory to ensure the following:

- No persons are in the lift
- All service openings / lift panelling sections are properly sealed and
- The lift does not have any obvious damage.

In case not all the above-mentioned points are present or there is doubt about this, do not switch on the lift and contact supervisory personnel immediately.

If you find an open service door, do not close it! Do not remove any padlocks or warning signs that secure the lift from being switched on! There may be people on the inside of the lift!

The main switch is operated through rotation. When the main switch 0 (0 = off) is switched off, the mains supply is interrupted and established again after it is switched on I (I = on).

Switch the main switch from 0 to the I position.

Main switch in centre position

The main switch has an additional shutdown function for certain supplementary features (Eco-Mode) and/or lift malfunctions. If such a shutoff occurs, the main switch automatically moves to a centre position between I (I = on) and 0 (0 = off). If you find the main switch in the centre position between 0 and I, you first have to turn it to the 0 position before you can turn the main switch to I position.

If you cannot switch on the main switch, an error is present. In this case, do not attempt to switch on the lift again, but contact the supervisory personnel immediately.

SAFETY INSTRUCTIONS

Lift operation is performed only by trained operators.

The lift may be operated only by trained operators who are familiar with the function of the lift and the safety equipment of the lift (see Chapter 4).



Fig. 15: Example: Main switch for switching the lift on and off

Note:

For lifts with multiple access points, the main switch is at the first access point.

SAFETY INSTRUCTIONS

Switching on the main switch

Before each time the main switch is switched on, it is mandatory to ensure the following:

- No persons are in the lift
- All service openings / lift panelling sections are properly sealed and
- The lift does not have any obvious damage.

In case not all the above-mentioned points are present or there is doubt about this, do not switch on the main switch and contact supervisory personnel immediately.

Secured main switch

Never remove a padlock that is attached to the main switch. If necessary, contact the supervisory personnel.

Observing individual warning signs for the maintenance personnel

Do not switch on the lift if this is prohibited by warning signs and, if necessary, contact the supervisory personnel.

Operating Instructions

Lean-Lift

5. Lift operation (continued)

5.2 Establishing operational readiness (continued)

Step	Task
------	------

2	Opening the access point
---	---------------------------------

	By default, each lift is equipped with a manually opening sliding door with a handle on each access point. If your lift has a <u>deviating safety concept for operation</u> (e.g. lift run with sliding door closed only, multiple access points, high-speed door), refer to the lift machine documentation for the respective procedure. If there are questions or anything is unclear, contact the supervisory personnel.
--	--

	Unlock the sliding door at the access opening at which you want to work by turning the key on the lock and use the handle to open the sliding door all the way.
--	--

	<u>Lifts with automatic sliding doors (optional)</u>
--	---

	The automatic sliding door does not have a handle. Refer to the respective lift machine documentation for the corresponding procedure for opening the automatic sliding door. If there are questions or anything is unclear, contact the supervisory personnel.
--	--

	<u>Lifts with multiple access points</u>
--	---

	If lifts are equipped with multiple access points with sliding doors, a lift run is possible by default, even if the sliding doors are completely open at multiple access points.
--	--

	To improve visibility conditions at the access point, the lighting available as an option can be switched on.
--	--

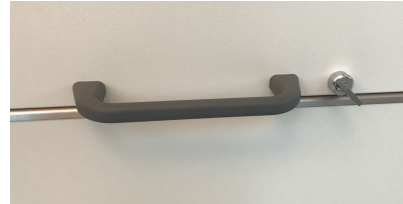


Fig. 16: Handle on the sliding door

SAFETY INSTRUCTIONS

Keep access points free of objects!

The access points of the lift are used exclusively for storage and retrieval operations of containers and therefore must not be used as a work surface or storage surface during a lift run. Keep all access points free of objects to prevent property damage and personal injury from collisions with retracting/extending containers.

Note:

If the sliding door cannot be opened because of an interlock, observe the display of the operating panel. If there are questions or anything is unclear, contact the supervisory personnel.

Operating Instructions

Lean-Lift

5. Lift operation (continued)

5.2 Establishing operational readiness (continued)

Step Task

3 Operating panel (safety self-check of control system error message)

Wait until after the lift has switched on until the control system is ready to start. When it is ready to start, the following appears on the display:

- The control system type (MP)
- The version No. of the control system
- The "Return" symbol (↵).

Press the green "Return" key and hold it for approx. 1 second to start the safety system self-test.

If the safety system self-test is successful, the red LED in the "Stop" key subsequently goes out and the green LED in the "Return" key is illuminated. The lift is now ready for operation.

If an error message appears during the safety system self-test, follow the display instructions or contact the supervisory personnel.

Note:

The following explains only a few of the basic functions of the operating panel in conjunction with establishing the operational readiness.

For additional information on operating the lift, refer to the "Operating Manual for the Microprocessor Control System" MP12_ Lean-Lift or MP14 Lean-Lift.



Fig. 17: Example for MP 12N: Operating panel "Return" key

SAFETY INSTRUCTIONS

If you see error messages, follow the instructions on the display, contact supervisory personnel if anything is unclear

In case an error message appears on the display of the operating panel, follow the instructions on the screen exactly; contact supervisory personnel if anything is unclear.

When the lift is ready for operation, the input window shown here appears.

The lift is now ready for input.



Fig. 18: Example for MP 12N: Operating panel input window display

Operating Instructions

Lean-Lift

5. Lift operation (continued)

5.3 Store/remove articles

Contents

This chapter tells you what you must be aware of for proper loading of the lift (requirements for stored articles), how to select a container and how to store and remove articles.



DANGER

Risk of fatal injury inside the lift!

- Moving parts and suspended loads inside the lift can fall down, crush, shear, bump or catch and lead to fatal injuries.
- There is a risk of fatal injury when leaning or reaching into the inside of the lift through an open service door and when entering the lift.
- **Qualification as a "trained operator" does not authorise you to reach into the lift through an open service door, lean into the lift or enter the lift (even when the lift is switched off!).**
- Never climb into the lift through the access point. Never use the lift to transport persons - not even for inspection purposes.



DANGER

Risk of fatal injury from explosive materials and atmospheres

- Do not store any explosive or combustible materials or materials that can create an explosive atmosphere.
- Before switching on the lift, remove all explosive and combustible materials from the danger zone of the lift.



WARNING

Hazard from aggressive and corrosive materials!

- Do not store any aggressive, corrosive or otherwise hazardous materials.
- Stored hazardous materials can be harmful to the health of the operator and cause property damage to the lift or stored articles.

Operating Instructions

Lean-Lift

5. Lift operation (continued)

5.3 Store/remove articles (continued)

Due to the wide variety of possible operating variants, the following information pertains solely to manual storage of articles in the lift (loading products for storage, removal from storage / access) without using storage management functions.

By default, the microprocessor control system of each lift has a storage management function that is used to collect data about the articles to be loaded for storage and allow them to be located and removed from the lift at a later requested date. Alternatively, the lift can be equipped with a program version that enables an external storage management system (HOST).

For additional information about the type and scope of the storage management function of your lift and the details about their operation, refer to the "Operating Instructions for the Microprocessor Control System MP Lean-Lift" in the lift machine documentation and, for external storage management of the user guide, the corresponding HOST application.

SAFETY INSTRUCTIONS

Lift operation is performed only by trained operators.

The lift may be operated only by trained operators who are familiar with the function of the lift and the safety equipment of the lift (see Chapter 4).

Operating Instructions

Lean-Lift

5. Lift operation (continued)

5.3 Store/remove articles (continued)

Requirements for the stored articles

When putting articles into storage in the lift, it is mandatory to observe that not all objects or materials may be put into storage. For more information, note the detailed information in the right-hand column.

In particular, make sure that no stored articles are put into storage that:

- Must not be stored in the lift for safety reasons
- Are not detected by the height detection system of the lift
- Are not stored in the container in a way that is protected from slipping/tipping over or is not properly sealed and/or
- Cause the maximum container load of the respective lift to be exceeded (see below for additional instructions about this)

If there are questions or anything is unclear, contact the supervisory personnel immediately.

SAFETY INSTRUCTIONS

Requirements for the stored articles

In conjunction with the storage of stored articles, it is mandatory to observe the points listed below:

No articles must be placed into storage that:

- Exceed the maximum container load (see type plate, container loading sign)
- Can shift, open automatically in the lift or are not or is not/cannot be stored such that they are protected from tipping over. These articles can fall out or damage the lift.
- They protrude beyond the inner contour of the containers from the side or the front/rear. These stored articles can fall down or block the lift run.
- Exceed the maximum permitted fill level of your lift By default, the maximum permitted fill level is between 695 mm [27.36 in.] and 735 mm [28.94 in.], depending on the lift/container version. You can find the maximum permitted fill level of your lift in the lift machine documentation.
- Have a diameter or an edge length of less than 5 mm [0.2 in.] and transparent stored articles, assuming that these stored articles are protruding beyond the container edge or the partitioning hardware. These stored articles cannot be detected by the light barrier system of the article height detection system.
- Contain unpackaged foodstuffs (in standard lifts)
- Do not store any hazardous or explosive materials in solid, liquid or gas form (packed or unpacked).

Operating Instructions

Lean-Lift

5. Lift operation (continued)

5.3 Store/remove articles (continued)

Requirements for the stored articles

Observe maximum container load

For each storage operation of articles in the lift, it is mandatory to ensure that the maximum container load is not exceeded.

For each lift, an individual, maximum container load is defined, which you can obtain from the container loading sign. By default, this type of sign is on the right side of the interior of each access point.

Distributing the load uniformly within a container

Distribute the load within a container uniformly over its entire width. A heavy load in some places causes premature wear and damage to the lift.

Observing the maximum total load of the lift

Do not exceed the maximum total load of the lift according to the type plate. The type plate is located at the first access point of standard lift, to the right and below this access point.



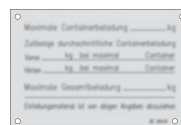
CAUTION

Hazard from overload of the lift.

- The load of the containers and the lift is not monitored automatically. If containers are not loaded properly, this can result in loads and overloads in some places.
- Excessive differences in the load of a container over its width will cause loading in one area of the lift and thus lead to damage and/or premature wear.
- The maximum container load as described in the type / container load sign must not be exceeded.
- Do not exceed the maximum total load of the lift according to the type plate.
- The owner/operator is responsible for monitoring the correct load.
- If possible, use the optional internal scale for the monitoring.
If your lift is not equipped with this scale, we recommend always weighing the entire container load using a suitable external weighing device.

If there are questions or anything is unclear, contact the supervisory personnel immediately.

Container loading signs



Type plate



Fig. 19: Position of type plate (only at the first access point) / container loading sign (at each access point)



Note

Please note that, even for lifts in multi-unit networks, every lift can have an individual maximum container load!

Operating Instructions

Lean-Lift

5. Lift operation (continued)

5.3 Store/remove articles (continued)

Storing articles

You can store articles manually as follows:

Note:

Before you can store or retrieve articles, you may first have to establish the operational readiness of the lift in accordance with Chapter 5.2. After the switch-on operation, wait until the control system is ready to start.

Observe: :

To refer to containers, the microprocessor control system uses the term shelf. A shelf corresponds to a container.

If auxiliary equipment such as lifting gear (crane, cable pull or chain block, etc.) or motorised loading equipment (forklifts, high lift trucks, etc.) are used to store/remove articles, you must ensure the following:

- The aforementioned auxiliary equipment is used exclusively by operators who are authorised to use this equipment
- The applicable safety instructions and provisions regarding workplace safety are complied with
- The operator does not lean or reach into the container, particularly while it is being loaded/unloaded using the auxiliary equipment for this purpose. Swinging loads can cause accidents
- When using forklifts or similar motorised loading equipment, the lift has to be secured with a suitable collision barrier

To store articles in the lift, it is necessary for there to be a suitable container in the access point into which the stored articles can be introduced.

The container is entered numerically in the lift control system. The respective container number is shown to you on the display.

If there is no suitable container in the access point, such a container as those described below must be selected and requested manually:

SAFETY INSTRUCTIONS

Lift operation is performed only by trained operators.

The lift may be operated only by trained operators who are familiar with the function of the lift and the safety equipment of the lift (see Chapter 4).

Stored articles that have fallen down, objects that have fallen down

In the event that articles which are improperly packaged, stored or sealed or other objects fall in the lift, discontinue lift operation and notify supervisory personnel immediately. Do not enter the lift under any circumstances.

Keep access points free of objects!

The access points of the lift are used exclusively for storage and retrieval operations of containers and therefore must not be used as a work surface or storage surface during a lift run. Keep all access points free of objects to prevent property damage and personal injury from collisions with retracting/extending containers.



WARNING

Risk of injury when using auxiliary equipment for loading and unloading!

- Swinging loads can cause injuries through crushing, shearing, bumping or catching.
- Therefore, do not reach into the loading/unloading area during the loading/unloading process.



Note

Observe the mandatory requirements for the stored articles described in detail at the beginning of this chapter (Note: Requirements for the stored articles).

Operating Instructions

Lean-Lift

5. Lift operation (continued)

5.3 Store/remove articles (continued)

Storing articles

Step Task

- 1 Using the function keys, select the "Get shelf" function by pressing the ↓ key.

Note:

To refer to containers, the microprocessor control system uses the term shelf. A shelf corresponds to a container.

Note:

Due to the wide variety of possible operating variants, the following information pertains solely to manual storage of articles without using storage management functions. For more information on the use of the storage management function of your lift, refer to the "Operating Instructions for the Microprocessor Control System MP Lean-Lift" in the lift machine documentation.



Fig. 20: Example for MP 12N: Operating panel ↓ key

- 2 Enter the number of the desired container on the number block.

The number you enter appears in the blue field on the display.



Fig. 21: Example for MP 12N: Display of input window and number block operating panel

- 3 Press the "Return" key to confirm your input. This starts the lift and drives the selected container to the access point.

Note:

In case the lift run does not start when pressing the "Return" key, follow the instructions on the display. If there are questions or anything is unclear, contact the supervisory personnel.



Fig. 22: Example for MP 12N: Operating panel "Return" key

Operating Instructions

Lean-Lift

5. Lift operation (continued)

5.3 Store/remove articles (continued)

Storing articles (continued)

Step	Task
------	------

- | | |
|---|---|
| 4 | Wait until the selected container is all the way in the access point. You can now store the articles. |
|---|---|



Fig. 23: Access point

SAFETY INSTRUCTIONS

No protruding stored articles

Note that no stored articles may protrude at the sides or forwards/backwards over the inner contour of the containers or partitioning hardware. These stored articles can fall down or block the lift run. In particular, there must be no transparent or transparently packaged articles or articles with a diameter or edge length of less than 5 mm [0.2 in.] stored, assuming these stored articles protrude beyond the container edge or the partitioning hardware. These stored articles cannot be detected by the light barrier system for the article height detection.

SAFETY INSTRUCTIONS

Using container handles

For manual movement, the containers are equipped with grips on the front. Grasp the containers only by the provided handles, and be sure not to grasp the containers from the bottom or reach inside them!



Note

Observe the mandatory requirements for the stored articles described in detail at the beginning of this chapter (Note: Requirements for the stored articles).

Operating Instructions

Lean-Lift

5. Lift operation (continued)

5.3 Store/remove articles (continued)

Storing articles (continued)

Step Task

- 5 After you have properly loaded the articles into the container, you can conclude the storage operation by transporting the container into the lift for storage.
Using the navigation keys, select the "Store shelf" function by pressing the ↑ key.



If you do not use the storage management function of your lift or any software-supported, external storage management system (HOST), we recommend that you document which container the stored articles you have just put into storage are located in. This makes it possible to locate and remove articles that have been placed into storage later.

The container is entered numerically in the lift control system. The respective container number is shown to you on the display.



Fig. 24: Example for MP 12N: Input window and operating panel display

- 6 Press the "Return" key to confirm your input.
This starts the lift and the container is transported into the lift.

If the stored articles exceed the permitted height or protrudes beyond the inner container edge, the container is not stored; instead, the storage operation is stopped and the container automatically returned to the access position. Wait until this operation is complete, and do not reach into the access point during the operation.

To continue the lift run, follow the instructions on the display of the operating panel.

Note:

After the container has been transported into the lift, the lift automatically comes to a stop. You can now select another container or switch off the lift.

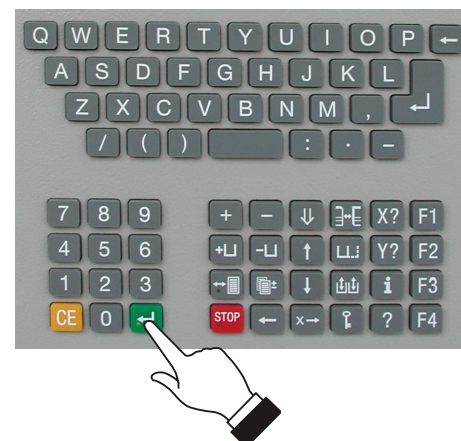


Fig. 25: Example for MP 12N: Operating panel "Return" key

Operating Instructions

Lean-Lift

5. Lift operation (continued)

5.3 Store/remove articles (continued)

Removing stored articles

You can store articles manually as follows:

Note:

Before you can retrieve articles, you may first have to establish the operational readiness of the lift in accordance with Chapter 5.2. After the switch-on operation, wait until the control system is ready to start.

Observe:

To refer to containers, the microprocessor control system uses the term shelf. A shelf corresponds to a container.

Step	Task
1	To remove articles from the lift, you have to manually select and request the container that contains the articles to be removed (as described below): Using the function keys, select the "Get shelf" function by pressing the "↓" key.

SAFETY INSTRUCTIONS

Lift operation is performed only by trained operators.

The lift may be operated only by trained operators who are familiar with the function of the lift and the safety equipment of the lift (see Chapter 4).

Stored articles that have fallen down, objects that have fallen down

In the event that articles which are improperly packaged, stored or sealed or other objects fall in the lift, discontinue lift operation and notify supervisory personnel immediately. Do not enter the lift under any circumstances.

Keep access points free of objects!

The access points of the lift are used exclusively for storage and retrieval operations of containers and therefore must not be used as a work surface or storage surface during a lift run. Keep all access points free of objects to prevent property damage and personal injury from collisions with retracting/extending containers.



Fig. 26: Example for MP 12N: Operating panel "↓" key

Operating Instructions

Lean-Lift

5. Lift operation (continued)

5.3 Store/remove articles (continued)

Removing stored articles

Step	Task
------	------

- | | |
|---|--|
| 2 | Enter the number of the desired container on the number block.
The number you enter appears in the blue field on the display. |
|---|--|

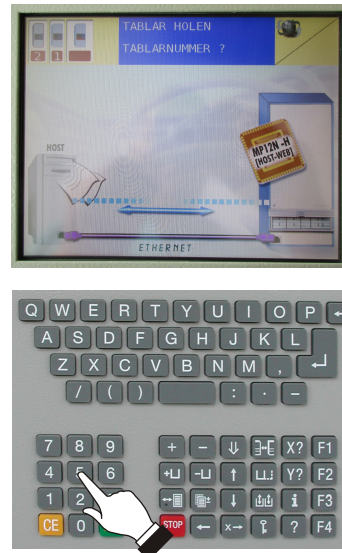


Fig. 27: Example for MP 12N: Operating panel "Number block" key and input window display

- | | |
|---|--|
| 3 | Press the "Return" key to confirm your input.
This starts the lift and drives the selected container to the access point. |
|---|--|

Note:

In case the lift run does not start when pressing the "Return" key, follow the instructions on the display.
If there are questions or anything is unclear, contact the supervisory personnel.

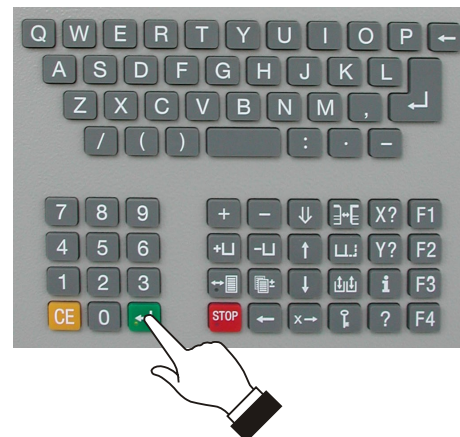


Fig. 28: Example for MP 12N: Operating panel "Return" key

Operating Instructions

Lean-Lift

5. Lift operation (continued)

5.3 Store/remove articles (continued)

Removing stored articles (continued)

Step	Task
------	------

- | | |
|---|---|
| 4 | Wait until the selected container is all the way in the access point. You can now retrieve/remove the articles. |
|---|---|

If you do not use the storage management function of your lift or any software-supported, external storage management system (HOST), we recommend that you document which articles you have removed from which container. This ensures that your stored article documentation always remains current.



Fig. 29: Access point

SAFETY INSTRUCTIONS

Using container handles

For manual movement, the containers are equipped with grips on the front. Grasp the containers only by the provided handles, and be sure not to grasp the containers from the bottom or reach inside them!

- | | |
|---|---|
| 5 | After you have removed the stored articles from the container, you can conclude the retrieval operation by transporting the container into the lift for storage.
Using the navigation keys, select the "Store shelf" function by pressing the "↑" key. |
|---|---|



Fig. 30: Example for MP 12N: Operating panel "↑" key

Operating Instructions

Lean-Lift

5. Lift operation (continued)

5.3 Store/remove articles (continued)

Removing stored articles (continued)

Step **Task**

- 6** Press the "Return" key to confirm your input.
This starts the lift and the container is transported into the lift.

Note:

After the container has been transported into the lift, the lift automatically comes to a stop.

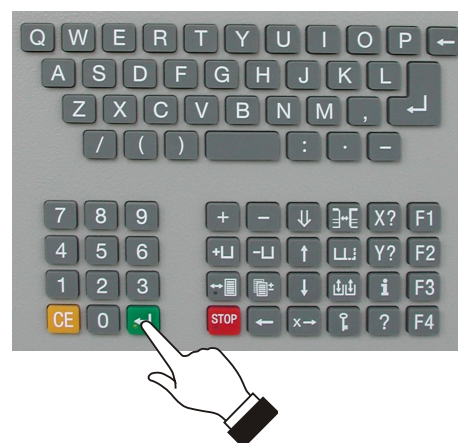


Fig. 31: Example for MP 12N: Operating panel "Return" key

Operating Instructions

Lean-Lift

5. Lift operation (continued)

5.4 Switching off the lift

The main switch can be switched off through rotation. When the main switch 0 is switched off (0 = off), the mains supply of the lift is interrupted. For lifts with multiple access points, the main switch is at the first access point only.

The main switch of the lift also has an emergency stop function. If the main switch is switched off during live operation by rotating it towards the left, then the mains supply is interrupted, and the lift stops immediately and remains stationary in this position.

For lifts in multi-unit networks, only the mains supply of the respective individual lift interrupts the switch-off process for the main switch. The mains supply for all the remaining lifts in multi-unit networks cannot be affected by this.

For additional important information about the function of the main switch and its importance in the safety concept of the lift, refer to Chapter 4.



Fig. 32: Main switch

SAFETY INSTRUCTIONS

Lift operation is performed only by trained operators.

The lift may be operated only by trained operators who are familiar with the function of the lift and the safety equipment of the lift (see Chapter 4).

Lifts in multi-unit networks!

For lifts in multi-unit networks, only the mains supply of the respective individual lift interrupts the switch-off process for the main switch. The mains supply for all the remaining lifts in multi-unit networks cannot be affected by this.

Step	Task
1	If no emergency stop or emergency off situation is present, ensure that before switching off, storage or retrieval operations at all access points of the lift are completely finished.
2	Only then may you switch off the lift by turning the main switch to the 0 (0 = off) position. The entire mains supply is now disconnected.
3	If the lift will not be used any more, we recommend that you close and lock the sliding door present in the standard model of the lift.

Operating Instructions

Lean-Lift

6. Maintenance and service

Contents

Information about the required care and maintenance of the lift.

Caring for the lift

Contamination on the outside of the lift, particularly in the area of the access point, should be removed promptly. Do not try to remove contamination on the lift by entering the inside of the lift. For this purpose, contact the supervisory personnel immediately.

For cleaning, always use a soft dry cloth first.

You can wipe away clinging dirt using a damp cloth, along with a pH-neutral cleaner where necessary.

Do not use any basic or acidic substances. In particular, metallic powder finishes are sensitive to this.

If you need to use special cleaners for certain kinds of dirt, first test the cleaner on a hidden location.

Regular visual inspections

Check the lift—as far as possible from the outside—for the presence of obvious damage. If you identify damage, contact the supervisory personnel immediately. Damage can be safety-related even if it does not appear to be at first glance.

Annual safety inspection

An annual lift safety inspection by instructed and specially trained and authorised personnel (such as Hänel after-sales service) is mandatory. In this context, pay attention to the safety badge on the lift (at the first access point) and its expiry date.

These safety inspections are used in part to determine whether the respective condition of the lift still meets the applicable safety instructions and whether service and/or repair measures are necessary.

If you have questions, contact the supervisory personnel.

DANGER

Risk of fatal injury inside the lift!

- Moving parts and suspended loads inside the lift can fall down, crush, shear, bump or catch and lead to fatal injuries.
- There is a **risk of fatal injury** when leaning or reaching into the inside of the lift through an open service door and when entering the lift.
- **Qualification as a "trained operator" does not authorise you to reach into the lift through an open service door, lean into the lift or enter the lift (even when the lift is switched off!).**
- Never climb into the lift through the access point. Never use the lift to transport persons - not even for inspection purposes.



SAFETY INSTRUCTIONS

Annual safety inspection

An annual lift safety inspection by instructed and specially trained and authorised personnel (such as Hänel after-sales service) is mandatory. In this context, pay attention to the safety badge on the lift (at the first access point) and its expiry date. If you have questions, contact the supervisory personnel.

Operating Instructions

Lean-Lift

7. Faults

Contents

This chapter provides information about how to behave in case of faults and how to correct faults.

Behaviour in case of faults

If the lift control system detects that a proper lift run is not possible, the lift run is interrupted automatically and a corresponding error message appears on the display of the operating panel. For multiple access points, the error message appears on the display of the operating panel at the active access point. Do not try to remove a fault that has occurred by leaning into the inside of the lift, reaching into it or entering the inside of the lift. For this purpose, contact the supervisory personnel immediately.

Correcting faults

In the event of error messages, follow the operator prompts shown on the display. If a fault cannot be corrected from outside of the lift—without leaning into, reaching into or entering the inside of the lift—the fault has to be corrected by instructed and specially trained and authorised personnel. For this purpose, contact the supervisory personnel immediately.

For further information about faults of the lift control system, refer to the "User Guide for the MP Control System". If there are questions or anything is unclear, contact the supervisory personnel.

DANGER

Risk of fatal injury inside the lift!

- Moving parts and suspended loads inside the lift can fall down, crush, shear, bump or catch and lead to fatal injuries.
- There is a **risk of fatal injury** when leaning or reaching into the inside of the lift through an open service door and when entering the lift.
- **Qualification as a "trained operator" does not authorise you to reach into the lift through an open service door, lean into the lift or enter the lift (even when the lift is switched off!).**
- Never climb into the lift through the access point. Never use the lift to transport persons - not even for inspection purposes.



SAFETY INSTRUCTIONS

If you see error messages, follow the instructions on the display, contact supervisory personnel if anything is unclear

In case an error message appears on the display of the operating panel, follow the instructions on the screen exactly; contact supervisory personnel if anything is unclear.

Operating Instructions

Lean-Lift

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