

Platform lift

A 5000

Operating and maintenance instructions



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1 Safety instructions

1.1 General

Work on the platform lift may only be carried out by trained and competent persons.

1.2 Safety actions prior to working on the platform lift

The lift must **always** be disconnected from the mains supply using the main power switch before work or emergency lowering is started. The lift may also need to be disconnected from the mains supply using an external disconnecter when work needs to be carried out on the main power switch or supply cables (external wiring is not included in the delivery, refer to local regulations).

Switch off the main power switch as follows:

1. Remove the electrical compartment panel situated on the right or left hand side of the platform lift door, on the bottom landing.
NOTE! The main power switch is behind the panel. The electrical compartment could also be situated on another floor, or be situated in an external electrical compartment.
2. Switch off the lift unit's main power switch and place a warning sign prominently at each platform lift entrance advising of work in progress.

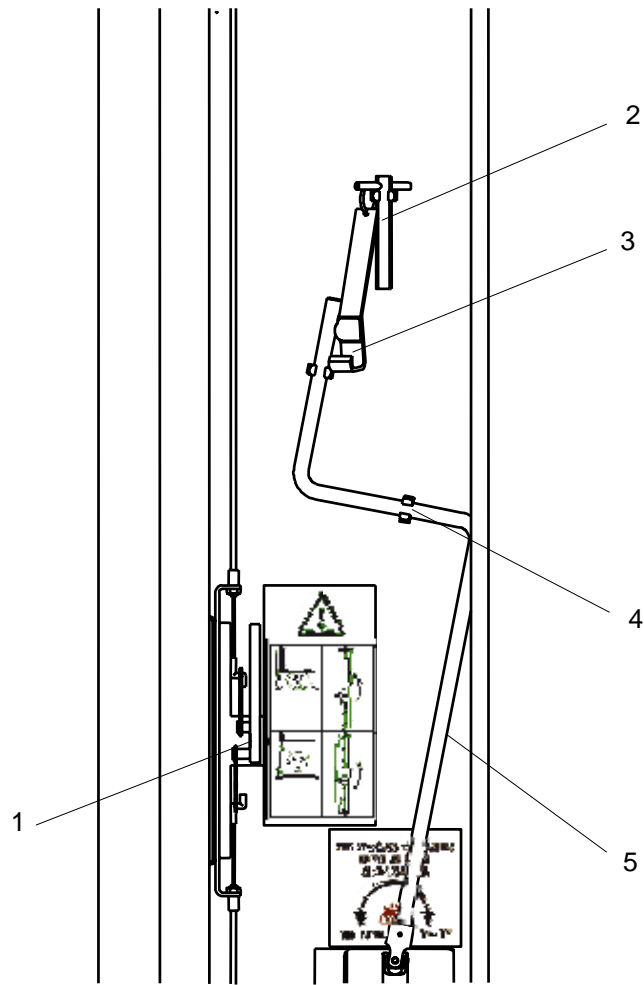


Fig. 5000_Op_20.wmf

Figure 1 Tool attachment

Item	Description	Item	Description
1	Handle to operate the pit prop and unlocking of the lower door	4	Tool holder
2	Emergency opening tool	5	Emergency lowering crank
3	Dismantling tool for shield wall		

Table 1

1.2.1 Only with work in the lift shaft

When working in the lift shaft, the lift must be run up at least one metre from the bottom of the shaft. The support Figure 2 item 2 can now be extended using the control handle item 5. The handle is removed manually by pulling out the set bolt and moving the handle to the safety position as shown on the sign located by the control handle. When the handle is in the safety position (vertical position) the support is extended, the power supply is off and the lower door is unlocked with the help of lock opening wire item 4.

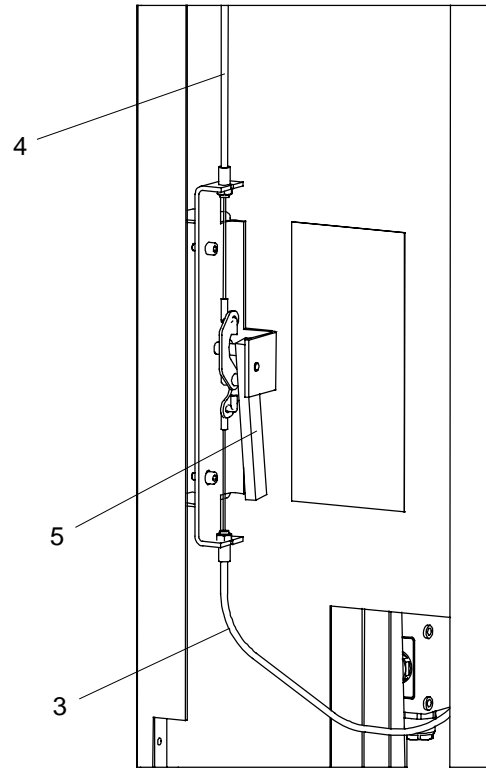
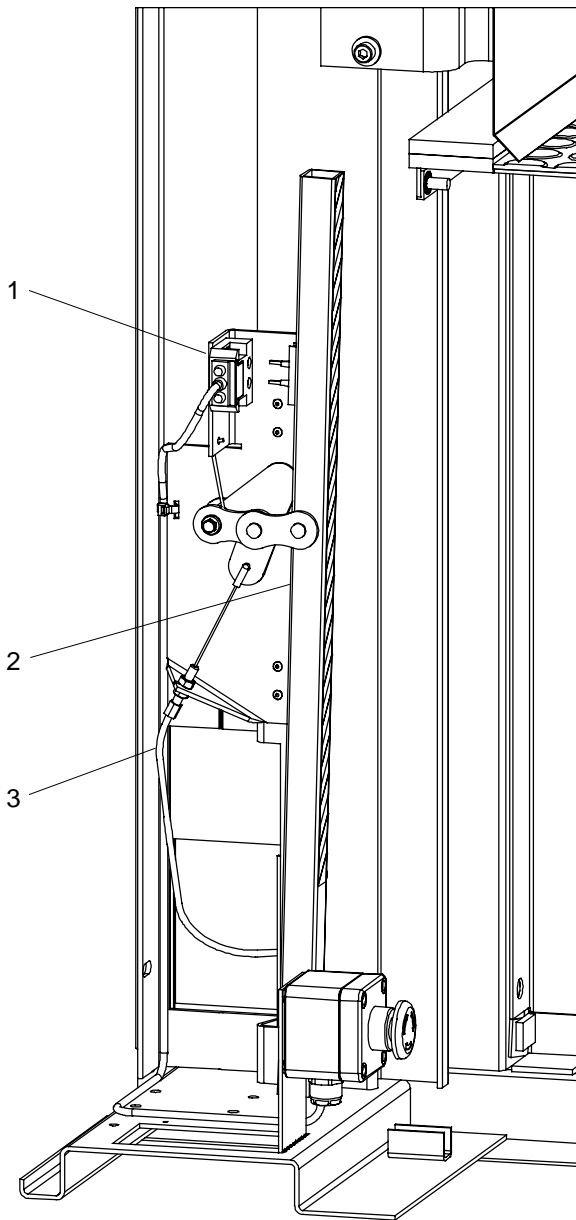


Fig. 5000_Op_02.wmf

Figure 2 Manoeuvring the pit prop

Item	Description	Item	Description
1	Pit prop 's electrical connector	4	Lock opening wire
2	Pit prop	5	Handle to open the door on the bottom landing and manoeuvre the pit prop
3	Wire		

Table 2

1.3 Risk of crushing

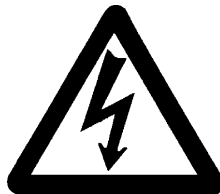


WARNING – Risk of crushing

There is a risk of crushing when checking for self-sustaining (section 6.2.3 “Drive unit”). Take great care whilst working.

Self sustaining i.e. no movement of the platform lift unless under power.

1.4 Frequency converter



WARNING – Highly dangerous voltage

When servicing the frequency converter – motor (extra option) the power must be disconnected for at least 20 minutes in order for the capacitors to discharge and prevent service personnel from being injured by live components.

1.5 Action to be taken in the event of an electrical accident

The following action is to be taken in the event of an electrical accident:

1. Switch the power off immediately. Should it not be possible to switch off the power, the injured person must be released from the live component. A non-conductive material must be used when removing the injured person, for example, rubber gloves. If possible, the person performing the freeing action should stand on an isolating surface.
2. If the injured person is not breathing, ensure that the airways are clear and start artificial respiration. In the event of cardiac arrest, give cardiac massage.
3. If the injured person is breathing, but is unconscious, he/she should be placed in the recovery position.
4. Summon personnel at the workplace trained in first aid and call an ambulance.

2 Operating instructions

2.1 Operation of the platform lift

2.1.1 Control panel

The platform is equipped with a handrail and a control panel with large, easy to use push buttons. The control panel has an alarm button item 5 an emergency stop button item 4 and a number of directional landing buttons item 2, see Figure 3. There are outside “call” buttons at each landing.

The push button must be kept depressed throughout the travel. If released, the platform lift will stop immediately. When the platform lift reaches the correct landing, it will stop automatically.

The inside platform push buttons take priority over the outside landing call buttons, i.e. the outside landing call buttons will not work if someone is travelling at the same time.

In the event of an emergency situation, there is an emergency stop button. This button cuts off the power to the platform lift, which will stop immediately. The emergency stop button must after it has been depressed be turned clockwise to enable the platform lift to operate again. Always check that the emergency stop button is not depressed if the platform lift is not working.

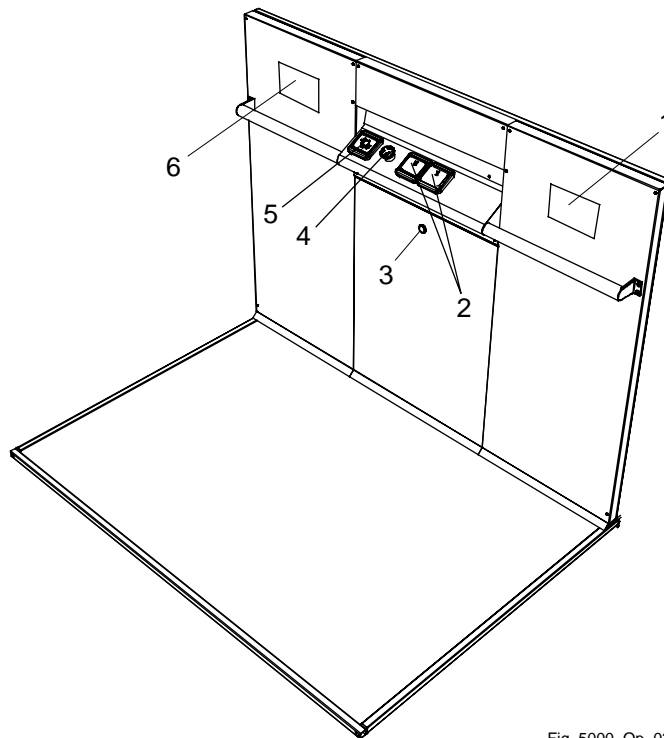


Fig. 5000_Op_03.wmf

Figure 3 Control panel

Item	Description	Item	Description
1	Manufacture details	4	Emergency stop
2	Directional landing push buttons	5	Alarm button
3	Service panel lock	6	Safe working load plate

Table 3

2.2 Emergency situation

2.2.1 Emergency signal and telephone

In order for a trapped person to be able to call for help with an operating failure, the lift is equipped with an emergency signal device. When the alarm button is pressed in the emergency signal sounds. The emergency signal can be forwarded to an alarm centre or the like via a potential free contact on the charge alarm card (located in the electrical compartment), see Figure 15 item 1. Refer to the wiring diagram for more information.

The emergency signal device is powered by the lift's own accumulator (battery) in the event of a power failure. The lift must always be connected to the telephone network either via the standard telephone or via the lift telephone, which automatically calls the alarm centre or the like.

Functions

- Emergency signal

The emergency signal sounds as long as the emergency signal button is held pressed in. When the button is kept pressed in for more than 10 seconds, a signal can be forwarded to the alarm centre, reception or the like via a potential free contact.

- Wall telephone

The incoming telephone line is connected to terminals 3 and 4 on the charge alarm card. Moving a jumper on the charge alarm card allows you to choose whether the telephone line should always be open (position A) or if it should be opened when the emergency signal button is held down for ten seconds (position B). When the jumper is moved this must be confirmed by pressing in the reset button on the charge alarm card, see figure 14 item 2.

- Automatic lift telephone

The incoming telephone line is connected to terminals 3 and 4 on the charge alarm card. The jumper on the charge alarm card must *always be in position B*.

When the emergency signal button is held down for 10 seconds the lift telephone automatically calls a pre-programmed number (can be to an alarm centre or caretaker, etc).

- In some countries, it is permitted to equip the lift with an intercom with a permanent connection between the transmitter and receiver.

The line to the emergency telephone/lift telephone is automatically reset after 1 hour. Can also be reset manually with the reset button, which is located on the charge alarm card in the lift's electrical compartment, see Figure 15 item 2.

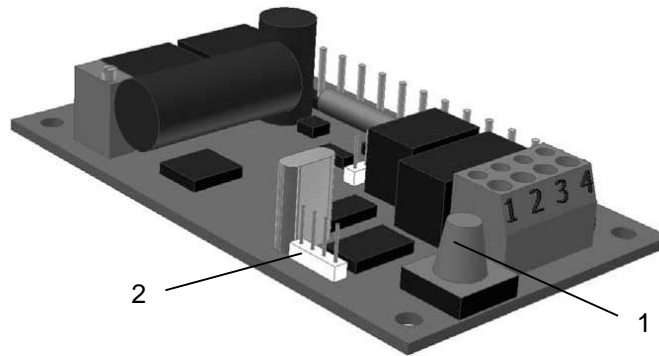


Fig 5000_OP_21.jpg

Figure 4 Charge alarm card

Item	Description	Item	Description
1	Reset button	2	Jumper block

Table 4

2.2.2 Manual lowering or raising

If the platform lift should stop and not restart, the platform can be manually lowered or lifted by using a manual crank. The crank is usually located at the bottom landing inside the electrical compartment (it may sometime be situated on another landing). It is easier to lower the platform lift downwards if it has stopped between two floors. It is possible to move the platform lift upwards but it requires much greater effort.

The lift is also available as an option with electrical emergency lowering.

If possible, carry out fault finding according to section 4.

Move the platform lift manually in the following way:

1. Switch off the main power switch in the electrical compartment see section 1.2.
2. Release the manual crank Figure 1 item 5 from the clamps item 4 (if not in place, check that the crank is not stored elsewhere).
3. Move the platform lift manually in either direction. The rotation is shown on sign beside the crank.

2.2.3 Emergency opening of doors from the inside and outside of the lift shaft

The doors can always be opened in an emergency from the outside with the help of the supplied triangular key.

Emergency opening from the outside

Carry out fault finding in accordance with section 4 and then manual lowering or raising according to section 2.2.2.

Emergency release the door according to the following.

1. Switch off the power in accordance with section .1.2
2. Remove the plastic plug located above the door leaf, see Figure 1 item 2. Place the special triangular tool, supplied on delivery, in the hole. Turn to the left or right (depending on how the door is hung) to lift the latch bolt and the door can then be opened.

3. For A60 and half height the plastic plug is placed to the right respectively left of the door leaf. I.e. the same side as the closing edge.



Figure 5 Emergency opening of the platform lift door from the outside

Item	Description
1	Plug, emergency opening

Table 5

Emergency opening from inside the shaft enclosure

Emergency opening is performed by extending the pit prop, see the section 1.2.1. Do not enter the lift shaft without extending the support shaft. There is a wire with a handle for angle mounted door fronts.

Emergency handle

The emergency handle is located on the floor in the lift shaft and is connected to the latch bolt on the ~~lowest~~ front. Should the lift door shut without the safety support being actuated, the lowest emergency handle, see Figure 6 can be used to open the door.

NOTE! that the safety support must **always** be used when servicing.

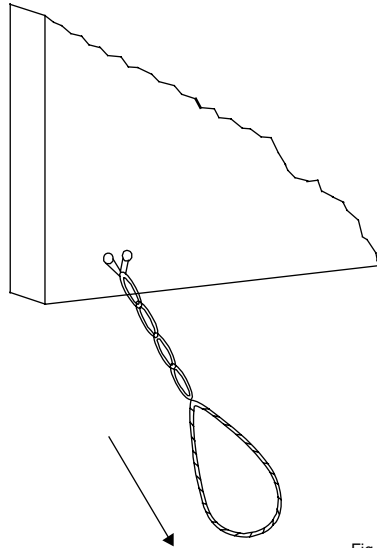


Fig. 5000_Op_04.wmf

Figure 6 Emergency handle

3 Design and configuration

3.1 Configuration

The platform lift is accessible in several variations, with up to six landings. The upper landing is available as normal front or half front. The door openings have through entry or adjacent entry. The most common variations are shown in Figure 7 till Figure 9.

As an option, the platform lift may be delivered with a frequency converter, 1 phase or 3 phase, which enables the platform lift to start and stop smoothly.

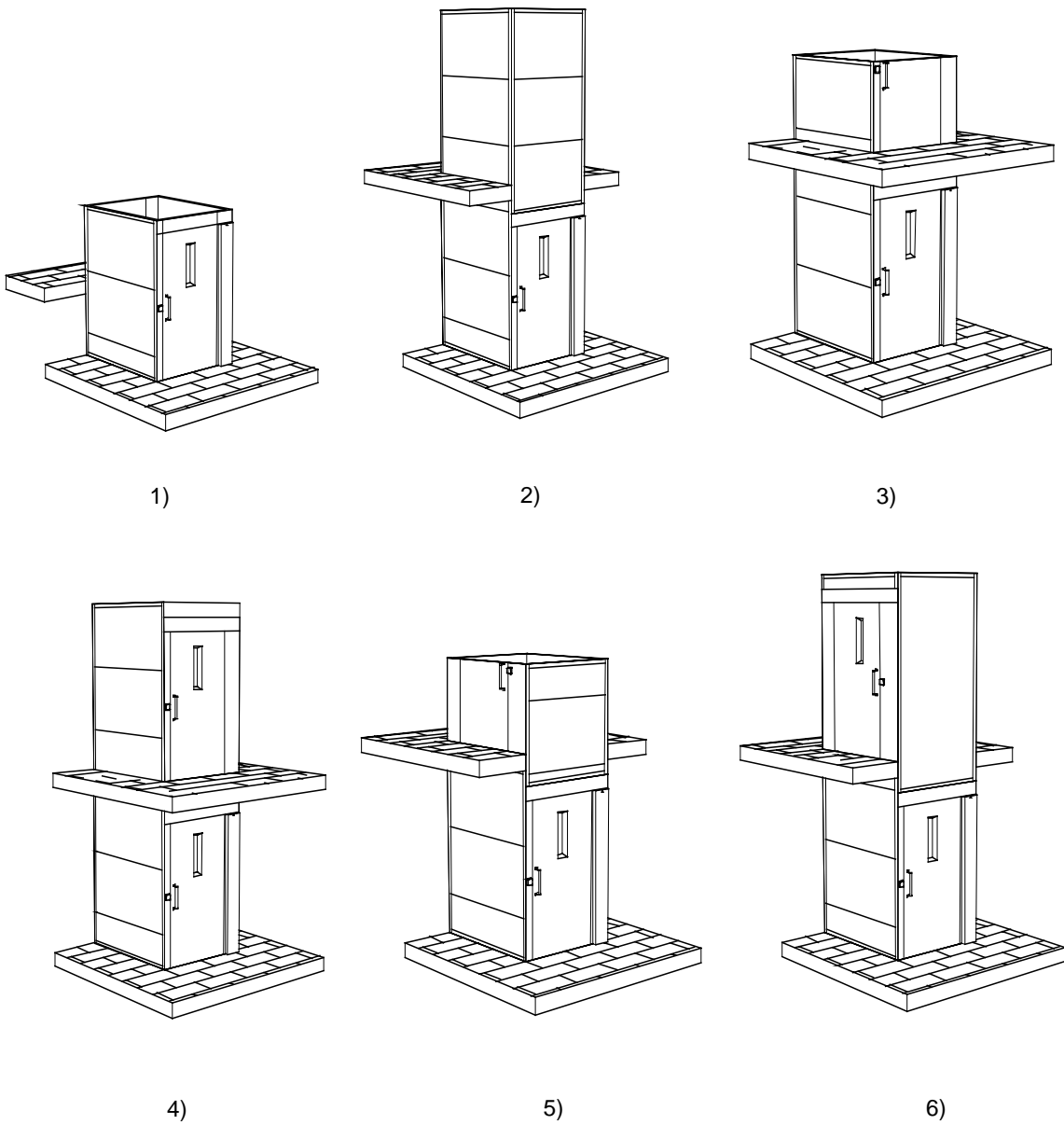
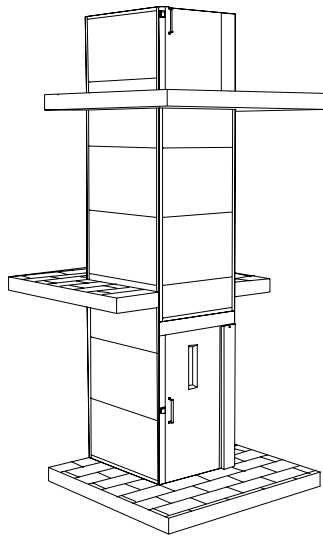


Fig. 5000_Op_05.wmf

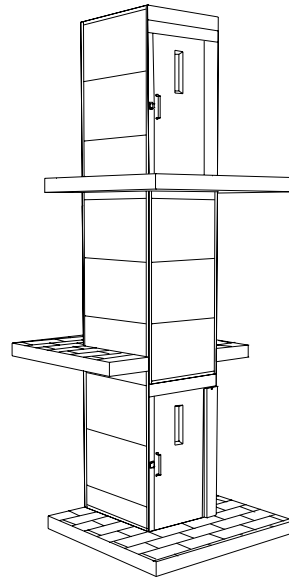
Figure 7 Two landings

Item	Description	Item	Description
1	Upper landing gate, through entry	4	Single entry
2	Through entry	5	Half front, adjacent entry
3	Half front	6	Adjacent entry

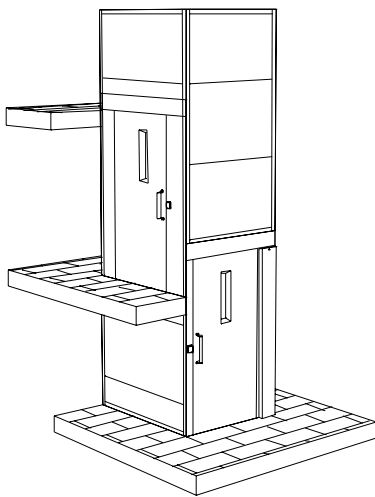
Table 6



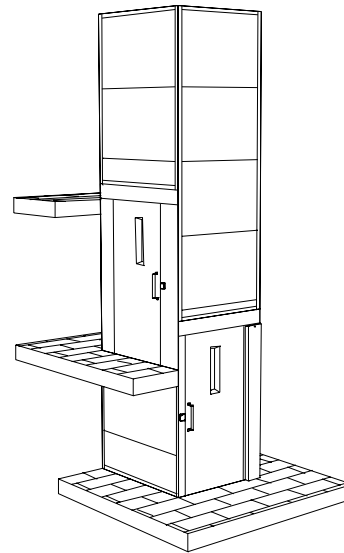
1)



2)



3)



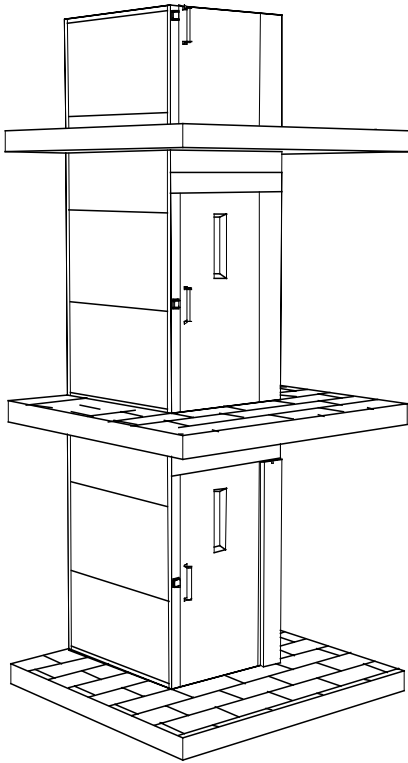
4)

Fig. 5000_Op_06.wmf

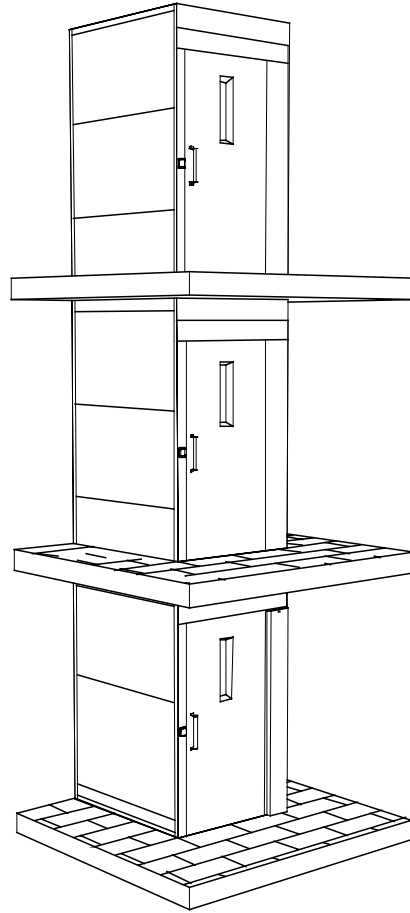
Figure 8 Three landings

Item	Description	Item	Description
1	Through entry	3	Adjacent, through entry
2	Through entry, 3 floor passage	4	Adjacent entry, 3 floor

Table 7



1)



2)

Fig. 5000_Op_07.wmf

Figure 9 Up to six landings

Item	Description
1	1100 mm high gate, upper landing
2	Single entry, 3 landings

Table 8

3.2 Platform lift shaft and shaft walls

The shaft is constructed from modular panels, which can be supplied as steel faced or of toughened laminated glass. The steel panels offer sound resistance as they are made from steel faced, cellular plastic. The “tongue and groove” edges ensure a totally smooth surface on the inside and outside of the shaft enclosure.

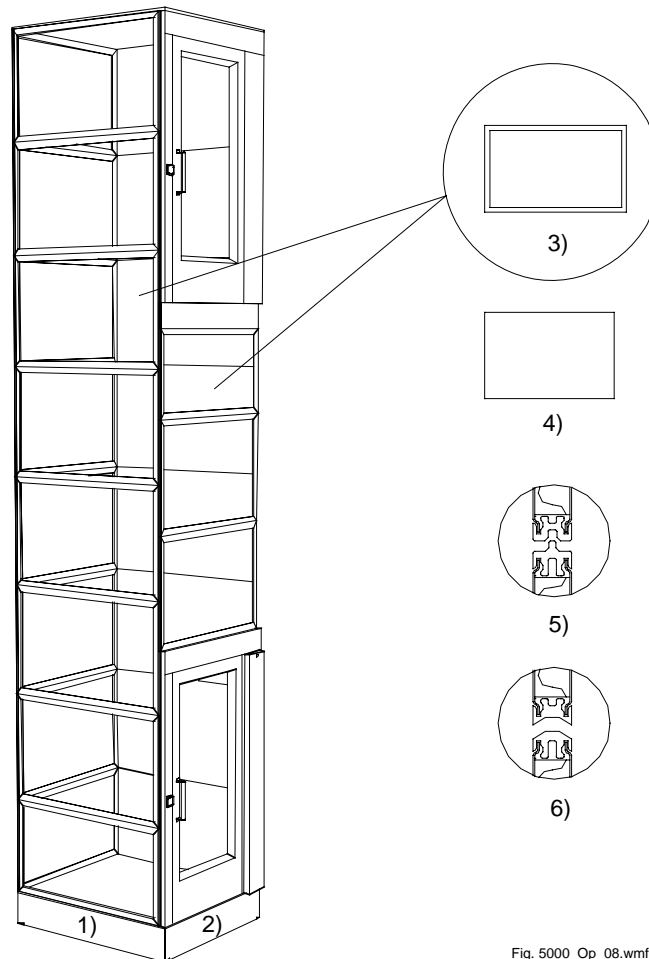


Fig. 5000_Op_08.wmf

Figure 10 Shaft with glazed walls

Item	Description	Item	Description
1	Long side	4	Standard panel, short side and long side
2	Short side	5	Aluminium profiles on shaft wall panels
3	Glazed panel, short side and long side	6	Aluminium profiles on shield wall panels

Table 9

3.2.1 Shield wall dismantling and mounting

NOTE!

When removing the whole shield wall you should always start from the top to minimise the risk of collapse.

You must use the shield wall opener in order to dismantle the shield wall, this is supplied with each lift see Figure 1 item 3.

Place the shield wall opener as shown in Figure 11, and press on the handle until the snap on profile releases its grip on the shield wall profile. The rest of the snap on profile can then easily be loosened by hand. Remove the snap on profiles on both sides of the shield wall panel. In order to remove a shield wall panel in the middle of the enclosure, the snap on profiles will have to be removed on two shield wall panels. The shield wall panels are then removed one at a time.

NOTE!

When dismantling shield wall panels under the lifting platform, the safety pit prop must always be in its activated safety position in accordance with section 1.2.1.

When mounting, replace the shield wall panels, set the snap on profile in the groove, and press along the whole of the snap on profile so that a clicking sound can be heard from the profile.

Check when servicing that the cassette positioned 900 mm from the floor is secured to the shield wall panel by two screws, positioned 60 mm in from the edge.

When the lift has a travel height greater than 6 metres the middle shield wall cassette with a height of 3 metres must also be screwed into position.

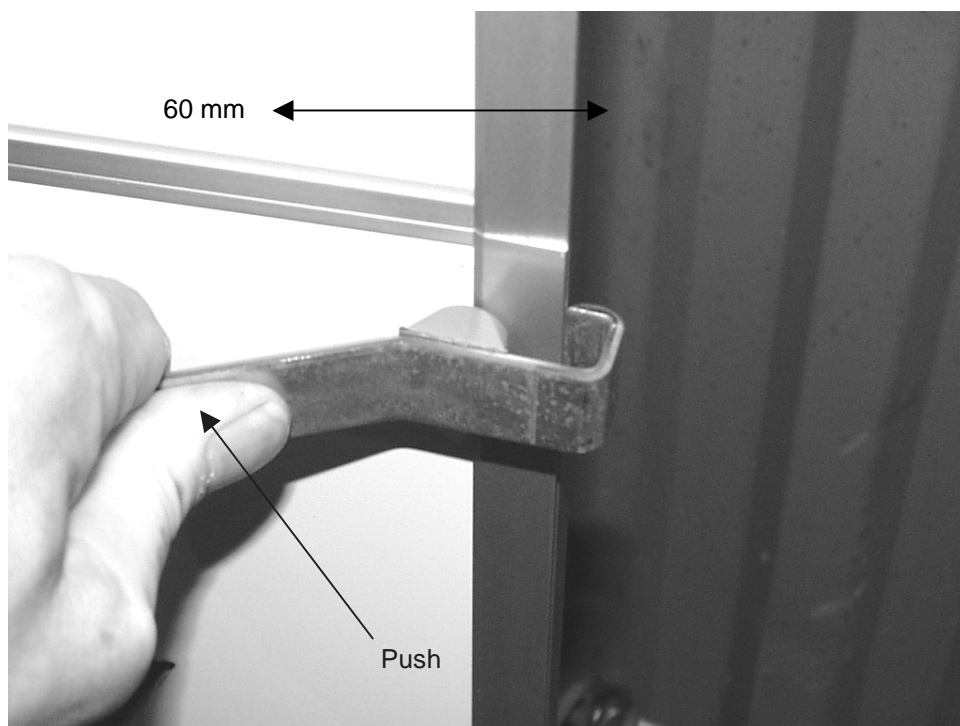


Figure 11 Dismantling of the shield wall

Doors and gates

The doors or gates are single panel doors and have full doors or gates, see Figure 12 and Figure 13. They can be hung on either the short or long sides of the platform lift. All doors, except the gates model type A1, feature a sight glass or are glazed. Some doors are also available in fire resistant designs or are fitted with toughened laminated glass. Aluminium doors for long side have a clear opening of 1050 x 2000, to make in and out passage easier for disabled persons. As standard the doors have a clear opening of 900 mm wide by 2000 mm high.

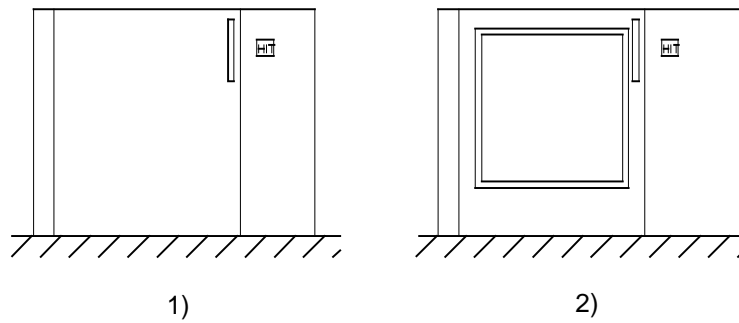


Fig. 5000_Op_01.wmf

Figure 12 Gates

Item	Description
1	Gate, short side, type A1
2	Gatet, long side, type A4

Table 10

Figure 12 and Figure 13 show all types of gates or doors available. The doors can also be hinged on the right side. All doors can be equipped with automatic electric door power operators.

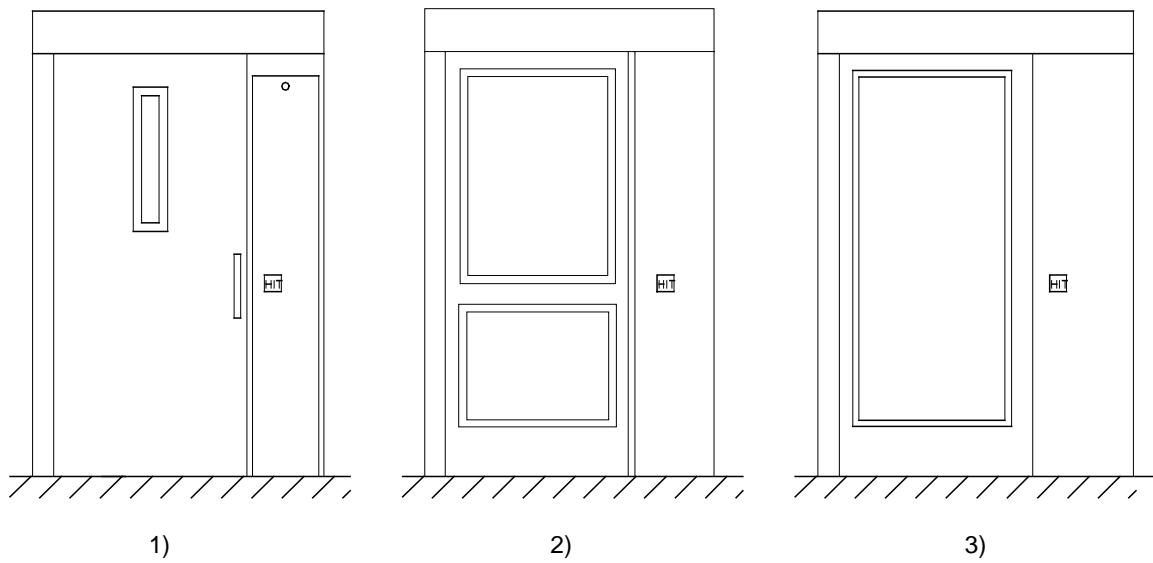


Fig. 5000_Op_09.wmf

Figure 13 Full fronts

Item	Description
1	Door, short side, type A1 or type A60 ¹⁾
2	Door, short side, type A2
3	Door, long side, type A4

¹⁾Fire-resistant

Table 11

3.2.2 Key locking

As an optional extra, the platform lift can be supplied with various alternatives of key locking.

- Alt.1 A spring-back key lock replaces the Call-button. The door is locked after desired time frame between 10 – 30 seconds. The door lock is unlocked when the key lock is activated.
- Alt.2 Key lock in series with Call-button, otherwise see alt. 1.
- Alt.3 The platform lift is equipped with the key power switch on/off. Located on the lifting platform's control panel or on the fronts and connected to the operating circuit. It can also be located externally.

3.2.3 Automatic door power opener

As an optional extra, the doors can be equipped with automatic door power openers. See the door power opener manual for a description of the function.

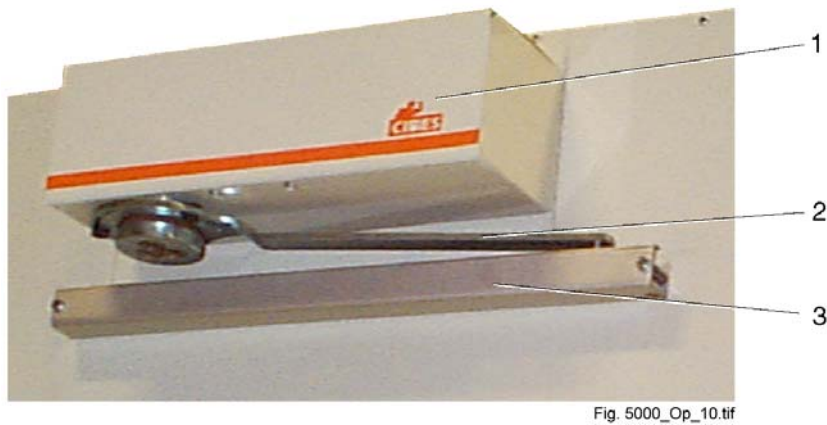


Figure 14 Automatic door power opener

Item	Description
1	Door power opener
2	Arm
3	Guide rail

Table 12

3.3 Overload protection

Cibes Lift A5000 is equipped with overload protection that prevents the lift from being operated with an excessive load.

The platform is tested at the factory and the overload protection is set to a value that does not exceed 20 % of the rated load. This value can be found on the test report supplied with the lift.

The overload protection is in the form of a mechanical torque arm. It acts through the platform bending when loaded and forcing an arm, which is attached on the rear edge of the platform, to move. This actuates a switch. When this occurs, an audio and visual signal is activated.

When the platform is overloaded when standing at a landing level, it is not possible to start the lift. The lift can only be started by reducing the load, so that the platform is loaded at the most with rated load, and the audio and visual signal has ceased.

If the overload protection is activated while travelling, the audio and visual signal will sound and flash, but travel continues to the next landing level. It is then impossible to start the lift until the load on the platform has been reduced.

3.4 Lighting

The platform lift is equipped with an emergency lighting situated above the control panel. This lighting is lit in the event of a power cut, and works from a 12 V emergency battery with power to last for 2 hours.

3.5 Finish

All steel doors are finished in factory applied primer as standard. The platform is powder coated.

3.6 Electrical compartment

The electrical compartment is usually located at the bottom landing and can be accessed by removing a lockable panel. Placement may vary see 1.2.

There is a reset button on the battery charger that should be pressed to reset the alarm system. See Figure 15 pos 2. See Figure 1 for the electrical compartment's lower section.

Electrical compartment for optional electrical emergency opening.

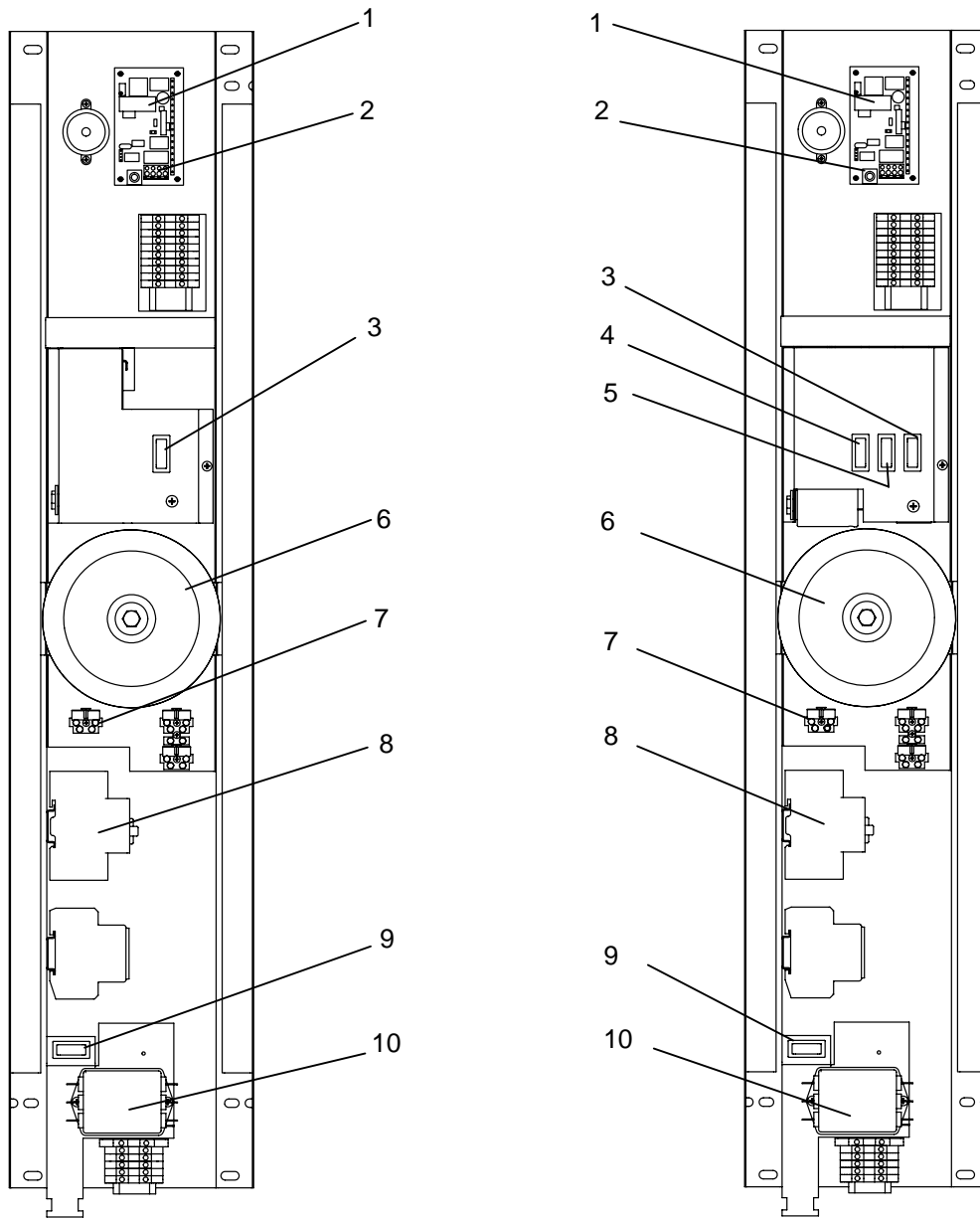


Figure 15 Electrical compartment, upper section

Item	Description	Item	Description
1	Charge alarm card	6	Transformer
2	Reset button alarm	7	Fuses
3	Operation button up and down	8	Power switch/ motor cut-out
4	Shift button emergency lowering	9	Brake release button
5	Operation button emergency lowering up and down	10	Mains filter

Table 13

Variations may occur depending of equipment.

3.7 Control system

The lift is equipped with a microcomputer control system. The circuit card is located behind the lifting platform's service hatch and is called the master node.

In the top section of each door front is a circuit card, this is called a door node.

Depending on how the lift is equipped and the number of landings, a number of different jumper combinations occur on the master and door nodes. The jumper placement options are evident from section 5.

The placement of the jumpers for each lift is evident from the wiring diagram.

Indications during operation

You can also see from the LEDs what is happening during normal operations, and whether any of the switches in the safety circuit are actuated. The following events give indications (see below).

1 The master node's LED flashes once per second, LED 3 is on = Door Landing 3 is not shut.							
● ↗ ↘	○	○	●	○	○	○	○
2 The master node's LED flashes once every two seconds, LED 2 is on = Latch bolt landing 2 is not in the locked position.							
● ↗ ↘	○	●	○	○	○	○	○
3 The master node's LED is on, LED 1 flashes = The pit prop is extended or the emergency stop in the shaft is pressed in.							
●	● ↗ ↘	○	○	○	○	○	○
4 The master node's LED is on, LED 2 flashes = Wear sensor switch is open							
●	○	● ↗ ↘	○	○	○	○	○
5 The master node's LED is on, LED 3 flashes = Sensitive edge switch is open							
●	○	○	● ↗ ↘	○	○	○	○
6 The master node's LED is on, LED 4 flashes = Emergency stop on the panel is pressed in.							
●	○	○	○	● ↗ ↘	○	○	○
7 The master node's LED is on, LED 5 flashes = Service hatch on the platform is open.							
●	○	○	○	○	● ↗ ↘	○	○

Table 14 Indications during operation

The LEDs for each level are situated here.
Level 0 at the top and level 6 at the bottom.

Jumpers

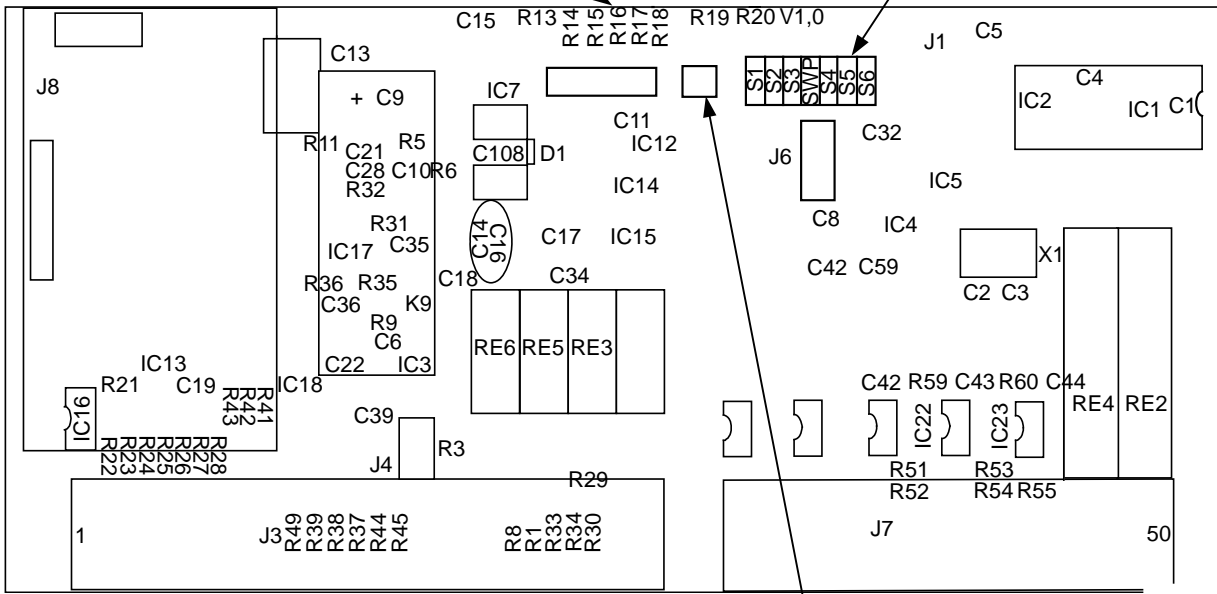


Fig. 5000_Op_11.dwg

The master node LEDs are located here

Figure 16 The Master node

4 Fault finding

Check the following if the platform lift does not operate:

Fault indication	Possible cause	Action taken
The platform lift does not start.	The emergency stop is pressed in.	Reset the emergency stop by turning the button clockwise.
	A door is not closed.	Check that all doors are closed.
	The safety edge is jammed down.	Check that the safety edge moves freely.
	The power is switched off.	Check that the main isolator (and any external isolator switch) is switched on.
	The main fuse has blown.	Check the fuses in the external isolator (16 A, delay action).
	The fuse has blown.	Check the automatic fuse behind the front panel on the lower landing has not tripped.
	Motor protection.	The motor protection may have tripped.

Table 15

4.1 Fault indications

When a fault occurs when the lift is set for normal operations, there are alarms for the following faults:

The master node's diode flashes twice per second

When any faults occur in the system the master node's LED and the LEDs for all the installed landings come on.

1 The master node's LED comes on, LED 3 flashes = Door node 3 does not respond							
●	○	○	● ↗ ↘	○	○	○	○
2 The master node's LED flashes, LED 1 comes on = Pulse counting does not function							
● ↗ ↘	●	○	○	○	○	○	○
3 The master node's LED flashes, LED 2 comes on = A lock could not be opened ¹⁾							
● ↗ ↘	○	●	○	○	○	○	○
4 The master node's LED flashes, LEDs 1 and 2 come on = A lock could not be closed close ¹⁾							
● ↗ ↘	●	●	○	○	○	○	○
5 The master node's LED flashes, LED 3 comes on = A door could not be opened ¹⁾							
● ↗ ↘	○	○	●	○	○	○	○
6 The master node's LED flashes, LEDs 1 and 3 come on = A door could not be closed ¹⁾							
● ↗ ↘	●	○	●	○	○	○	○
7 The master node's LED flashes, LEDs 2 and 3 come on = Fault in e2prom ¹⁾							
● ↗ ↘	○	●	●	○	○	○	○
8 The master node's LED flashes, LEDs 1, 2 and 3 come on = Landing level contact does not respond							
● ↗ ↘	●	●	●	○	○	○	○
9 The master node's LED flashes, LED 4 comes on = Phase error							
● ↗ ↘	○	○	○	●	○	○	○
10 Four door nodes LEDs come on, the system is working correctly							
●	●	●	●	●	○	○	○

¹⁾In normal mode the last fault is shown initially for approx. 2 seconds when the power is switched on.

Table 16 LED indications when the master node's LED flashes twice per second

4.2 Fault tracing the CAN-Bus system

1. **The solenoid does not draw back the latch bolt when the platform stops at the landing level.**
 - a. Check the landing level contact, it is very important that both parts of the contact are adjusted according to Figure 17. The recommended spacing between moving parts is 1.5-2 mm. Check that they are aligned with each other, if they are not aligned this can cause problems when using the lift.

Faults can result in unreliable door locking.

An incorrectly adjusted landing level contact can manifest itself by the lock not opening as it should.

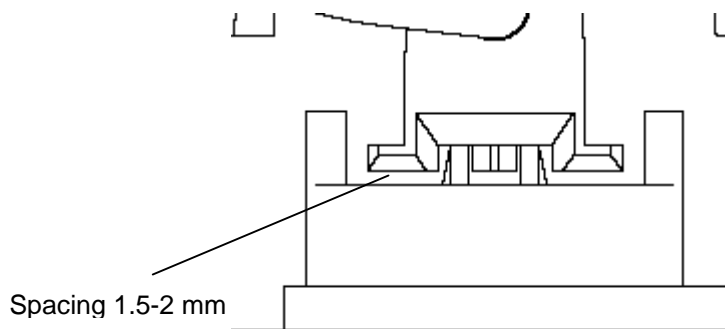


Figure 17 Setting the landing level contact

- a. Make a new setting to ensure all parameters are set correctly.
- b. If the landing level has been adjusted, replaced or in any other way moved from its position, a new setting must always be made.

2. If the problem with the solenoid still exists

- a. Try to hear whether the relay (orange coloured) on the door node works. It should be possible to hear the relay click when the platform stops at the landing level. If no fault is detected with the relay, measure the voltage on the door node between terminals 13 and 14, it should be 30-35 V when the platform is at the landing level and the solenoid is not moved back.

If the voltage is correct, it is possible to check the solenoid on jumper terminals 13 and 14 on the door node. If the solenoid is now moves back, the solenoid is not faulty; the fault lies on the relay and the door node must be replaced.

- b. If there is no voltage between terminals 13 and 14 on the door node, the voltage must be measured between the flat pin connector where the black wire is connected to the solenoid and terminal 13 on the door node. If the voltage is correct, a coil in the solenoid is broken or a wire between terminal 14 and the solenoid is broken.

If there is no voltage on the solenoid, measure on the landing level contact, between one of the two slots on landing level contact and 0 V DC on the door node (terminal 13). See the wiring diagram for more information.

3. The latch bolt is drawn back but releases after 4 seconds

- a. The auxiliary contact in the door lock does not work and this causes the latch bolt to release after 4 seconds. The latch bolt is not drawn back sufficiently to activate the auxiliary contact.

Loosen the solenoid from its mounting and place a shim or washer (approximately 2 mm) between the solenoid and the mounting to increase the distance from the solenoid to the door lock.

4. The lift does not function

- a. Check first that the emergency stop on the panel, the emergency stop in the bottom of the shaft, connector on the pit prop are not actuated, that all doors are closed, and that there is a supply voltage.
- b. Check the LED indicator on the master node, which is located on the platform. Open the service hatch on the platform and put a jumper on the connector (essential to get the right indication). Check the LED indicator and compare with Table 16.
- c. It is important to check the frequency on the flashing LED, as they show one of two possible events.
- d. If the frequency of the flashing LEDs is once per second, this is not a fault indication but an indication of an open switch or that a wire in the safety circuit is broken. See Table 14.
- e. If the frequency of the flashing LEDs is twice per second this indicates a fault. Fault indication explanations, see Table 16

5. The door node does not respond

- a. Means that the door node can not communicate with the master node and the other nodes in the system; this may be due to a broken wire or door node.
- b. In order to check the CAN bus circuit, measure the resistance (make the system dead first.) between terminals 22 and 23 on the master node (white and brown wires). The normal resistance is approximately 60 ohm. When a wire or node are faulty, the resistance is approximately 120 ohm.
- c. This can be a quick start to fault finding.
- d. When the resistance is approximately 120 ohm, check the continuity of the CAN-bus circuit, both the white and the brown wires in the screened cable. Before measuring, pull out the connector to the shaft cable, otherwise the measurement will be incorrect.
- e. If the wires are correct, replace the door node.

6. The pulse counter does not work

- a. Means that the pulse counter does not give a signal to the master node.
- b. This error message is shown when a start signal is given by pressing on an operation button on the panel, and the master node does not receive a signal from the pulse counter within 2 seconds.
- c. When the error message is show, the power must be switched off and on again to reset.
- d. The reason can be: relays on the master node or contactors in the contactor box do not work, poor contact on the contactors, the motor is faulty or the like. It is extremely unusual that there is something wrong with the pulse counter. Most of the time it is a case of a poor contact or a relay that is broken.

- e. Start by setting the master node to installation mode and operate the lift, if it works correctly normally there is nothing wrong with the relays, contactors or wires.
- f. If the lift does not work in installation mode, check the relays on the master node (listen whether the relay switches and measure, 24 V AC). Now follow the wire between the connectors to ensure it is not damaged, see the wiring diagram.

Also, check the wires and connectors between the pulse counter and the master node.

7. Fault in EPROM on the master node

- a. This means that the memory, which contains the parameters (pulses) for all the landing levels, is faulty.
- b. Put the master node in the setup mode and attempt to make a new setting, if this is not possible: replace the master node.

8. Phase error

- a. Can occur if the incoming phases have been shifted after installation.

5 Jumper settings on the circuit card

5.1 Landing level setting (Service mode)

1. Operate the lift to the landing level zone for landing 0.
2. Switch off the power and set the jumpers on the master node to the mode for the landing level setting (setup mode) see Figure 18.
3. Switch on the on power again.
4. Press in the alarm button just longer enough so the emergency signal can be heard.
5. Define the number of landings by first pressing the landing button for landing 0.
6. The LED (D12) on the master node for landing 0 should now come.
7. Press the landing button for the highest lift level.
8. The landing level LEDs for all existing levels should come to then go off after 2 seconds. The master node LED now starts to flash.

NOTE!

Before the next step, remember that the lift does not stop at any specific level. Remember to release the button at the upper level.

9. Define the position of the different levels by travelling with the lift to the highest level and then down again.
10. The master node's LED and the landing level LEDs for all existing levels should now be on. Configuration is now finished.
11. Switch off the power and set the jumpers on the master node to run mode, see Figure 18.
12. Switch on the on power again. The system now reads in the new parameters and runs in the normal operating mode.

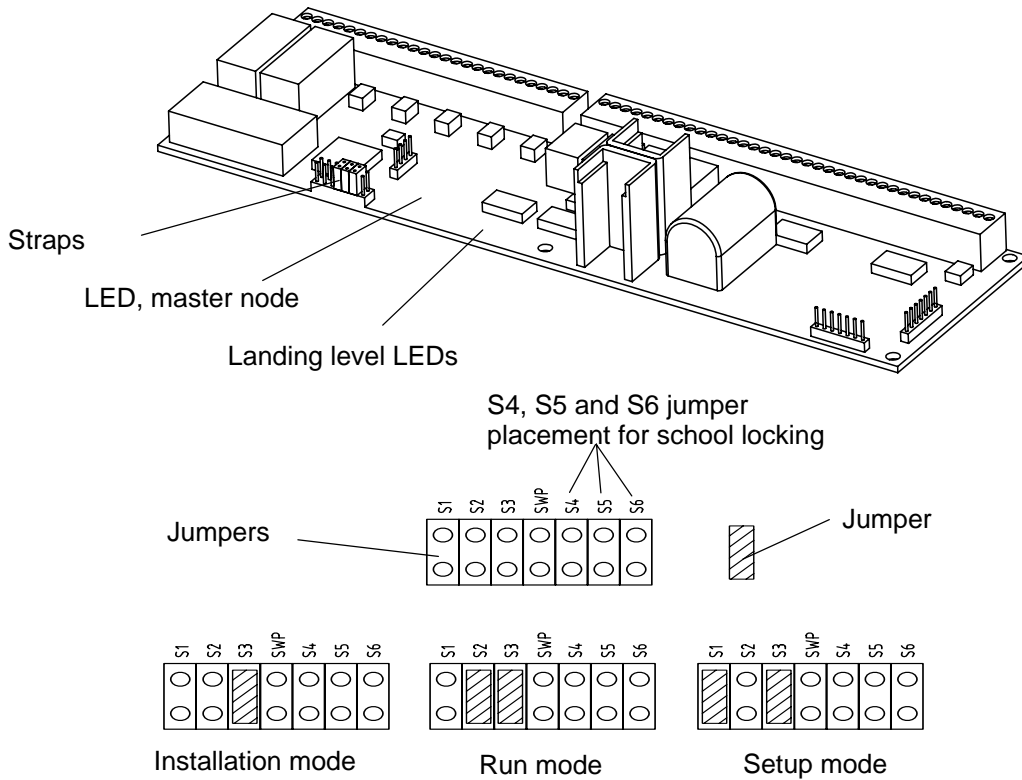
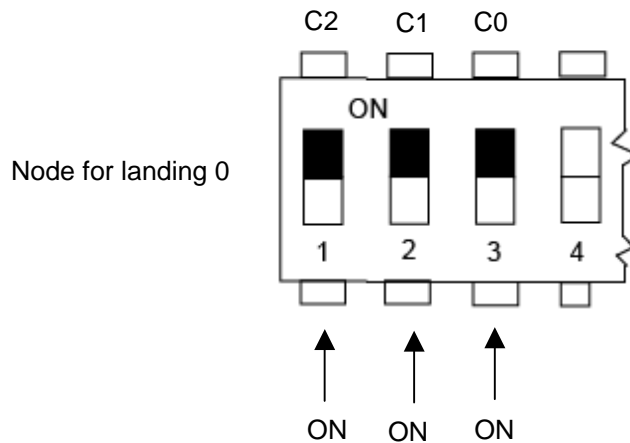


Figure 18 Jumper placement on the master node

5.2 Jumper placement on the door node on the node card

In order to give the node an ID number, the switches C2, C1 and C0 in are se to different positions. These are located on the node card (J3). The settings are made on a DIP-switch as set out below.



Node for landing	C2	C1	C0
0	ON	ON	ON
1	ON	ON	OFF
2	ON	OFF	ON
3	ON	OFF	OFF
4	OFF	ON	ON
5	OFF	ON	OFF
6	OFF	OFF	ON

Figure 19 Setting the door node

Jumpers

S1, see illustration see Figure 20 is strapped when the door is equipped with a door opener.

S2 is strapped when the door is equipped with an emergency signal.

C0, C1 C2 are strapped to give the door node an ID-number.

Note! CANTERM J1 is always fitted on the last door node. For example, if the electrical compartment is located on the base plate, J1 is strapped on the top level.

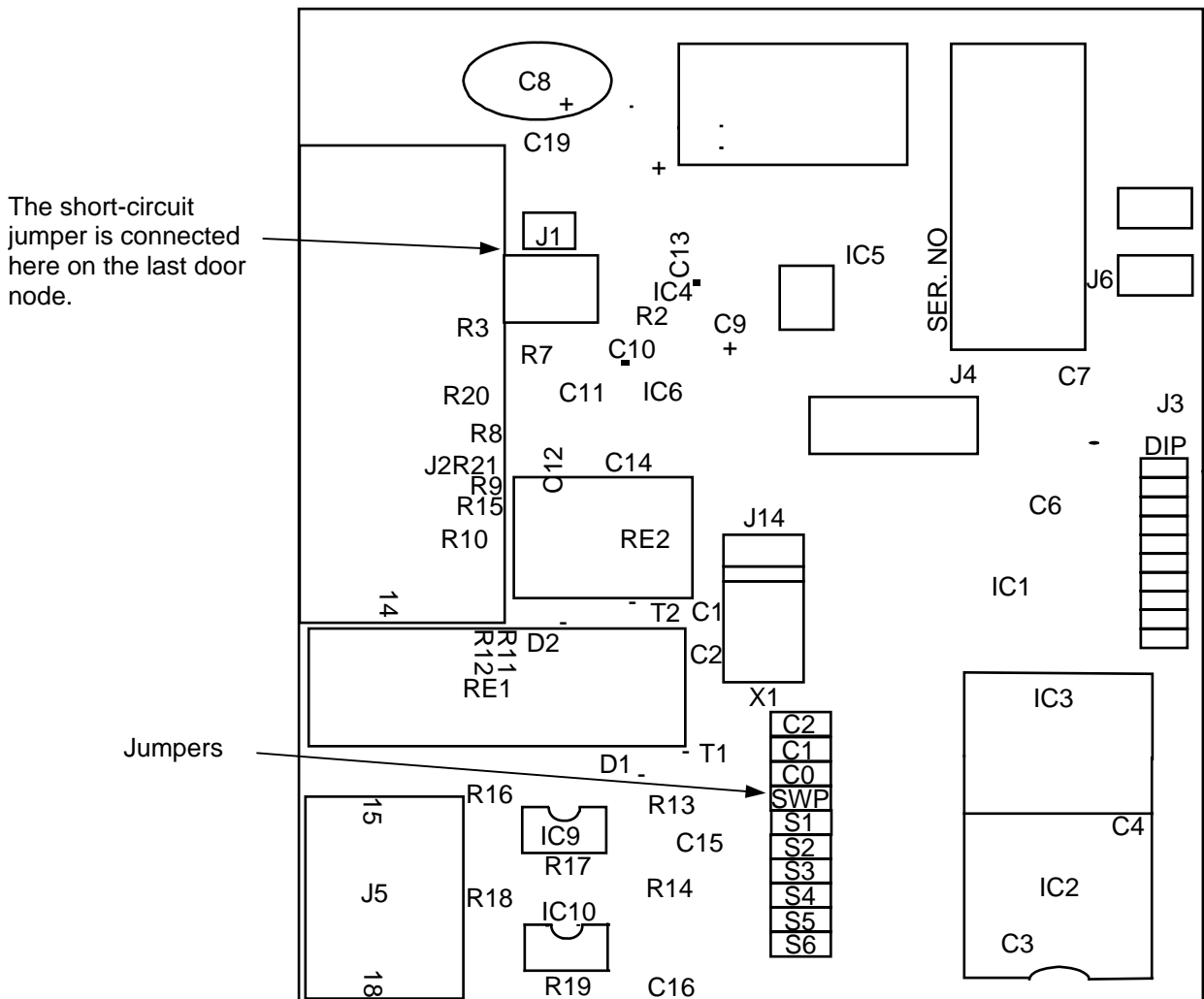


Fig. 5000_Op_12.dwg

Figure 20 Illustration of the door node

5.3 Jumper placement for school locking

When the lift is equipped with school locking, the time delay before the door is locked can be set with the help of the jumpers S4-S6 (J1 on the master node Figure 18 which is placed in a different position).

A setting from 10 to 31 seconds is possible, in 3 second increments.

	S4	S5	S6	Delay in seconds before the lift is locked:	S4	S5	S6	Delay in seconds before the lift is locked:
1.	○	○	○	31 s	●	○	○	19 s
	○	○	○		●	○	○	
2.	○	○	●	28 s	●	○	●	16 s
	○	○	●		●	○	●	
3.	○	●	○	25 s	●	●	○	13 s
	○	●	○		●	●	○	
4.	○	●	●	22 s	●	●	●	10 s
	○	●	●		●	●	●	

Figure 21 Jumper placement for school locking

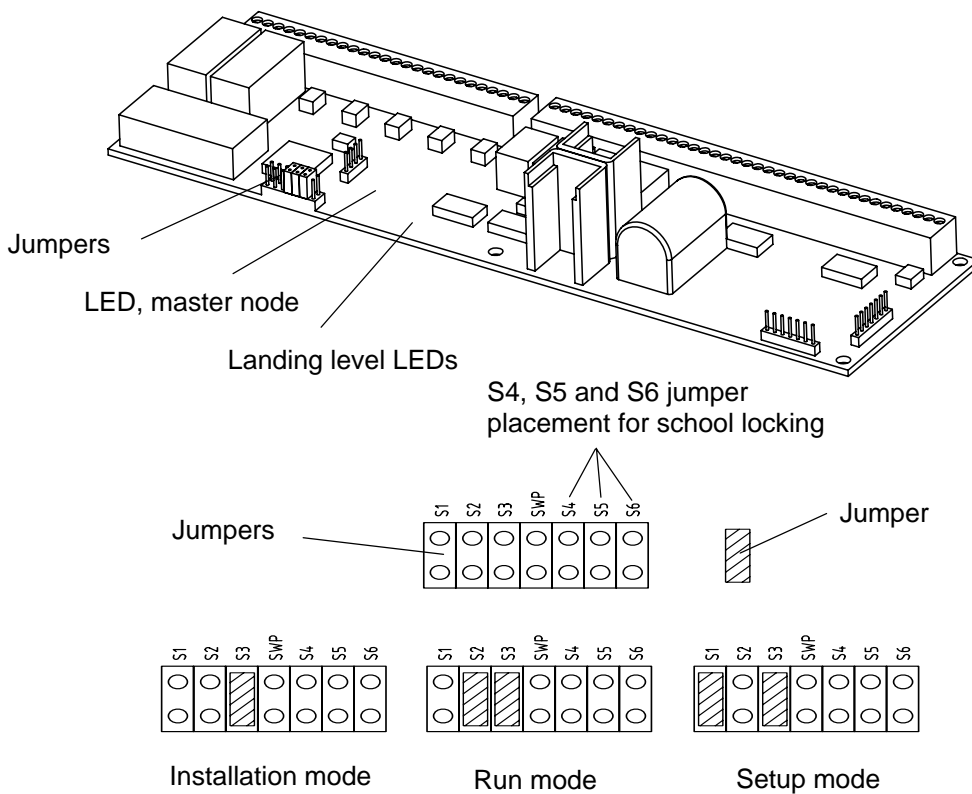


Figure 22 Jumper placement on the master node

6 Maintenance

6.1 General

Maintenance of the platform lift must be done at least once a year during normal operations. Maintenance measures are made from the following areas:

- the machinery
- the shaft
- the electrical compartment
- the lifting platform.
- Follow the maintenance procedures below.

6.2 Machinery

6.2.1 Lubrication

1. Dismantle the shield wall panel according to section 3.2.1. The lowest shield wall can be lifted off, which permits servicing. The next uppermost is screwed and must not be removed during a normal service.
2. Run the platform lift to the lower landing.
3. Switch off the power following the procedure in section 1.2.
4. Unlock the service panel on the platform and remove the panel from its position. Figure 3 item 3.
5. Check the lubrication sponge for wear and flexibility. If the sponge is worn, replace it with an equivalent sponge or order a new sponge from Cibes Lift AB.
6. Fill the oil container. The container holds 0.4 litres. Lubrication oil is to be Omega SAE20 or equivalent (transmission oil with reinforced adhesiveness). Saturate the sponge and refill.
7. Clean the machinery of any dirt, dust and oil splashes, using a mild soap solution.
8. **Warning!** If the platform lift is driven by a frequency converter the main power switch must be turned off for at least 20 minutes to allow the condensers to discharge. There is a risk of serious electric shock if this procedure is not followed when working on the frequency converter.
9. Mount the shield wall panel according to section 3.2.1.

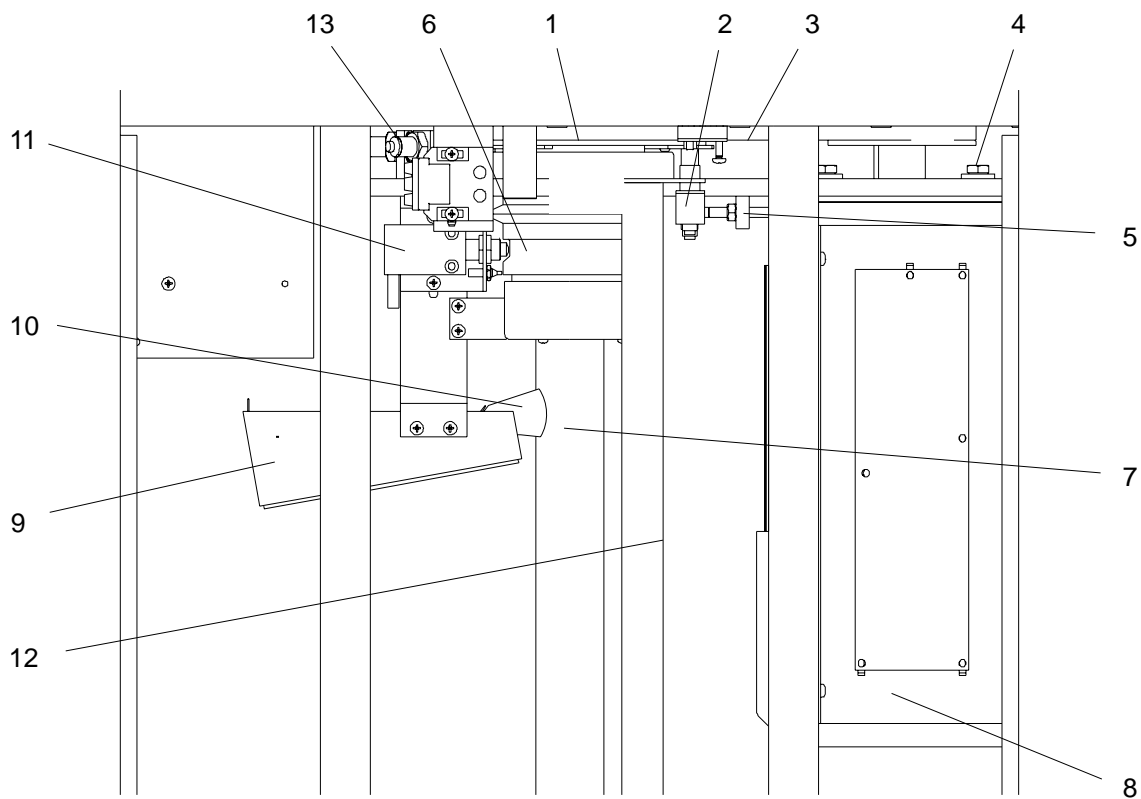


Fig. 5000_Op_13.dwg

Figure 23 The machinery behind the platform lift's access (service) panel

Item	Description	Item	Description
1	Lift nut	8	Motor
2	Limit switch for mechanical overload protection	9	Oil container for screw lubrication
3	Drive belt	10	Lubricating sponge
4	Motor fixing bolt	11	Nut wear sensor switch
5	Tension adjustment bolt	12	Mechanical overload lever
6	Safety nut, flange	13	Sensor for pulse counting, option
7	Drive screw		

Table 17

6.2.2 Visual inspection of drive nut

1. Check the nut wear with the gauge mounted at the safety nut lower edge. At a new installation, the lower edge of the gauge shall be aligned with the safety nut's lower edge. When the gauge's upper part is aligned with the safety nut's lower edge the wear is 2 mm, and the drive unit shall be replaced. The replacement shall be performed by authorised service personnel.

NOTE!

If the drive nut is completely worn, the platform will sink down on to the safety nut. The wear sensor switch Figure 23 item 11 will break the electrical circuit and it will not be possible to operate the platform lift. If this happens, the platform lift must then be manually

cranked to the landing.

2. After replacing the drive nut, align the position of the gauge. Note down the new x-value on plate. See Figure 24. Check that the switch breaks. A check is made using the gauge supplied with the lift.

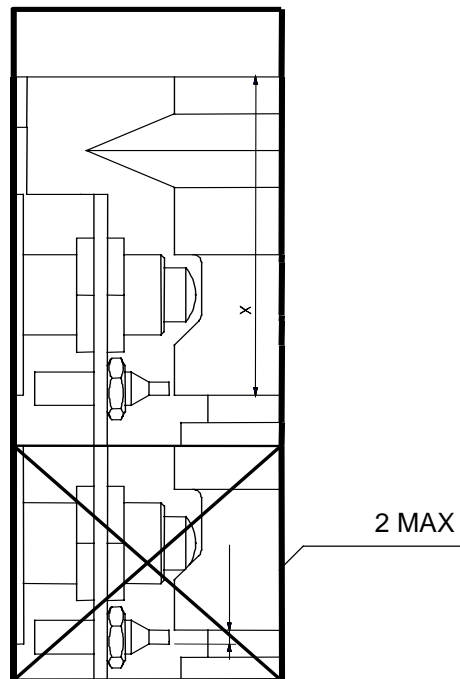


Figure 24 Distance for drive nut

6.2.3 Drive unit

Check the drive unit does not have excessive “free run”:

Warning!

Read the safety regulations in sections 1.2 and 1.3.

1. In order to check the self-sustaining, open the electrical compartment cover and run the lifting platform up approx. 1.5 metres above the bottom landing. For location of the operation button, see Figure 15.
2. Press on the button in the electrical compartment to release the brake, see Figure 15 item 9. The lifting platform should then still remain where it is. Then press on the operating button (↓) to get the lifting platform in motion. Then release the operating button. The lifting platform should stop within a metre. If the lifting platform does not comply with these requirements, contact Cibes Lift AB.
3. Close and lock the service panel see Figure 3, item 3 i.e.

Note that the service panel is electrically interlocked.

4. Switch on the main power switch.
5. Place the electrical compartment panel back and lock it.
6. Test run the platform lift.

6.2.3.1 Adjustment of the brake motor

Loosen the fastening screws Figure 25 item 2. Adjust by turning the three adjuster nuts item 1. The adjustment should be made when the brake is cold. The air gap (measurement O) should be adjusted to 0.2 mm. The maximum permitted air gap is 0.7 mm. Should this value be exceeded the characteristics of the brake can change and there is a risk that it will not work. When the air gap is too large, this can also cause the brake not to release, which can result in the brake and the motor overheating.

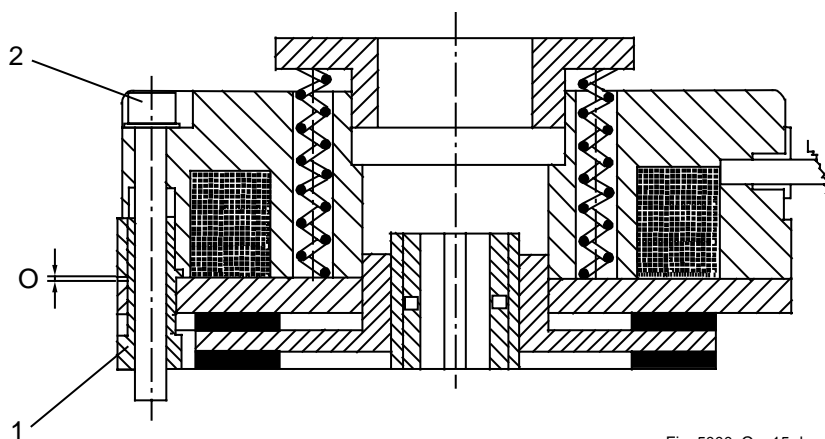


Figure 25 Brake motor

Item	Description	Item	Description
1	Adjuster nut	2	Securing screw

Table 18

6.3 Shaft

1. Run the lift up 2 metres so you can enter the shaft.
2. Lock the handle so the pit prop can be extended.
3. Check that the lift can not be run.
4. Switch off the power as set out in chapter 1.2.
5. Check the suspended cables with regard to wear.
6. Clean off any dirt and dust in the shaft.
7. Check the function of the door closer. Also, check the function of the door opener if the lift is equipped with a door opener. See the manual for door opener.
8. Check the contacts located in the door leaf and door frame. It should not be possible to operate the lift with the door open. Also, check that the lift does not stop when travelling by pressing/pulling on the door.
9. Check that the latch bolts easily engage when locking the doors
10. Check the play when the door is shut. If the play is too large, there is a risk of the door contact not making. If the play is too little, the locking mechanism will not be correct. If necessary, adjust the striking plate see Figure 26.

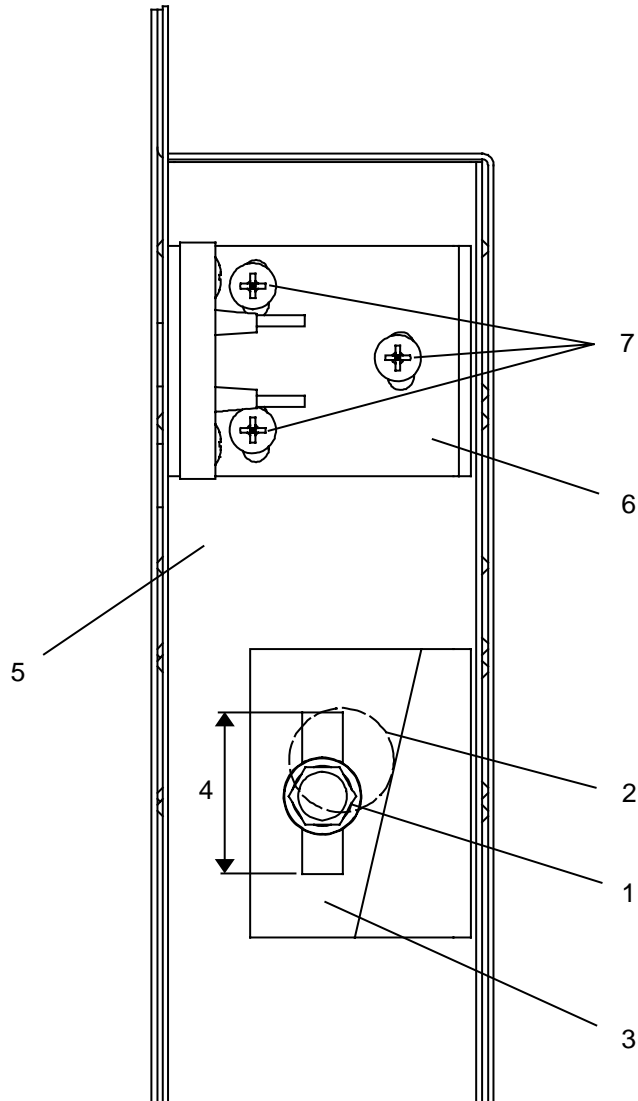


Figure 26 Striking plate

Item	Description	Item	Description
1	Locking screw for the striking plate	6	Short-circuiting plate for the door contact
2	Latch bolt	7	Adjuster screws for short-circuiting plate
3	Striking plate		
4	Adjustment measurement		
5	Door leaf		

Table 19

6.4 Electrical compartment

1. The electrical compartment's accumulator should be replaced every 3 years.
2. On lifts with electrical emergency lowering, change the accumulator every 3 years.
3. Check and if necessary adjust the lock opening wire and the wire to control the pit prop.
4. Refit the cover on the electrical compartment.
5. Check the emergency opening wire's function and for signs wear.

6.5 Platform lift

1. Check that the directional buttons on the platform console are functioning correctly.
2. Check that the lift stops when the emergency stop button is pressed in. Reset the button by pressing it down and turning clockwise.
3. Advise the customer that the alarms are being tested. Check that the alarm sounds when the button is pressed. If connected to a remote alarm, press and hold the button for 10 seconds. The remote alarm should then sound, see section 2.2.1. If the platform lift has a telephone, check that it functions correctly.
4. Reset the alarm with the re-set button on the alarm charge card. See Figure 15 item 2. It resets automatically after an hour.
5. Check that the sensitive edge and the safety edge function during operation. The platform lift should stop if either of these are pressed down.

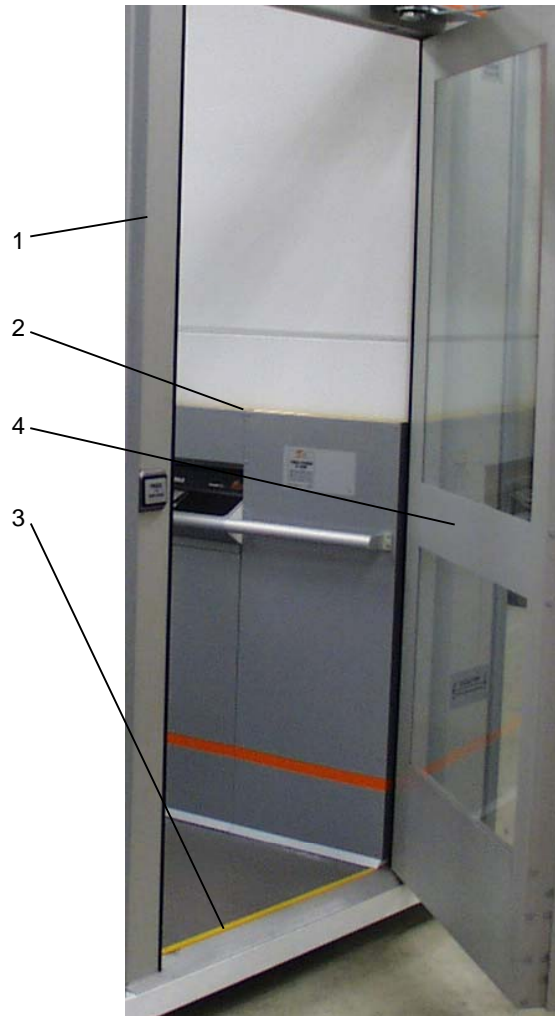


Figure 27 Position of sensitive edges

Pos	Description
1	Door frame
2	Sensitive edge
3	Safety edge
4	Door leaf

Table 20

6.6 Replacing the EPROM

Do not touch any electronic components without first discharging any static electricity in your body. This is done, for example, by touching any earthed metal part of the lift.

When a pin on the EPROM splays out too much to fit in the socket, hold the EPROM by its long side with the pin on a flat surface and carefully press until the pin has the right angle to fit in the socket.

1. Run the lift down to the bottom, switch off the power and set the master node in installation mode.

2. If there are jumpers, SWP, remove these on master and door nodes.
3. Remove the old EPROM from the master node. Exercise care not to damage any part of the card. Inset a new EPROM. Make sure you do not turn the EPROM upside and down, (see the marked end).
4. Switch on the power and run the lift to the different landings (the doors) and change the EPROM at each door. Remember to switch off the power when replacing the EPROM.
5. When all EPROM has been replaced, set the master node to Run mode and test all the functions.
It is not necessary to make new settings when replacing the EPROM.

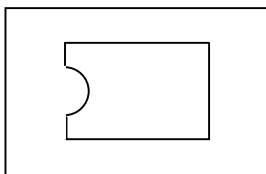
6.7 Identifying the EPROM

Master node

There are four different EPROMs for the master node. The latest version is 030923-B	
KSUSL	KSUSL = Direct start and stop without school locking
KSSL	KSSL = Direct start and stop with school locking
FOUSL	FOUSL = Slow start and stop without school locking
FOSL	FOSL = Slow start and stop with school locking

Door node

NODE	NODE = EPROM on the door node is marked with "NODE" and with the program version "030923-B"
------	---



It is important that the EPROM is turned the right way. See the half circle on the EPROM and on each card, these should correspond.

7 Code compliance

7.1 Directive and Standards

The platform lift A 5000 and is EC type-tested and certified and comply with the following Directive and standards:

- Machinery Directive 98/37/EC European Machinery Directive.
- AFS 1994:48 (AFS 1993:10) Swedish National Board of Occupational Safety and Health, Code of Statutes.
- ISO 9386-1 ISO standard for vertical platform lifts
- prEN 81-41 European standard for vertical platform lifts
- SS2097-7 Swedish standard for low speed platform lifts.
- EN 50 081-1, Class 1 Electro-magnetic radiation and screening
- EN 50 082-1, Class 1 Electro-magnetic radiation and screening
- BFS 1995:3 Swedish National Board of Housing, Building and Planning regulations

7.2 Marking

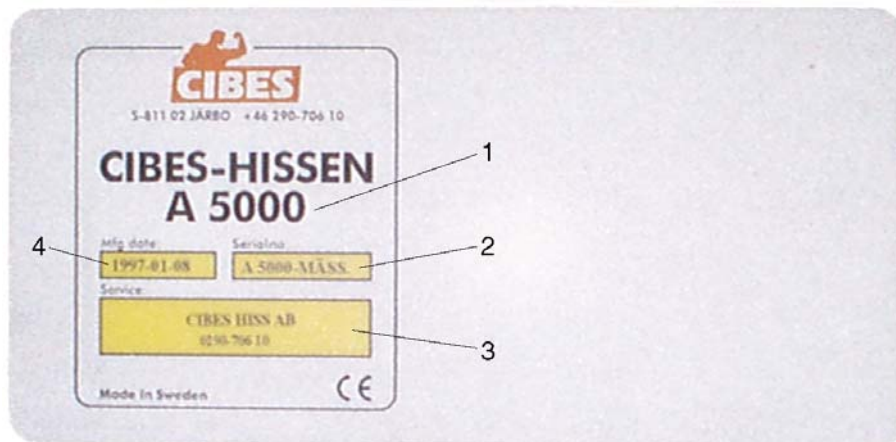


Fig. 5000_Op_19.tif

Figure 28 Marking N.B . The type plate could vary in design

Item	Description
1	Model type
2	Serial number
3	Service company
4	Manufacturing date

Table 21

8 Technical specification

8.1 Platform Lift A 5000

Rated load	4 persons or maximum 400 kg with a width of 1 004 mm. 4 persons or maximum 350 kg with a width of 1 104 mm
Rated speed	9 m/min (0.15 m/s)
Travel height	Max. 9 m
No. of landings	2 – 6
Platform size ¹⁾	1467 x 1004 mm, 1467 x 1104 mm.
Clear opening width ¹⁾	900 mm
Clear opening, height ¹⁾	2 000 mm
Other dimensions	See separate dimension drawing
Cable size ²⁾	5 x 2.5 mm ²
Main voltage ³⁾	400 V, 50 Hz, 3-phase
Frequency converter (optional extra)	1x230 V, 50 – 60 Hz, / 3x230 V 50 – 60Hz / 3x400 V 50 – 60 Hz
Motor power	2.2 kW, short-circuited brake motor
Main fuses ^{2), 3)}	16 A time fuse
Rated current	5.4 A
Control voltage 1	24 V AC
Control voltage 2	32 V DC
Control fuse 1	T 2 A
Control fuse 2	T 10 A
Panel lighting	12 V. 5 W bulb
Operating button light	24 V diode
Sound level (alarm)	< 70 dB(A)
Control	Microcomputer via CAN-bus
Landing adjustment	By pulse counting and landing contacts

¹⁾Standard design. Other measurements available on request.

²⁾Not included in delivery.

³⁾Depending on country codes.

9 Special tools

The platform lift is supplied with the following special tools:

No.	Special tool	Note
1	Key	Service panel and electrical compartment
2	Emergency opening key	Doors
3	Feeler Gauge	Drive nut

10 Spare parts

Platform lift has an estimated life span of 25 years with the prescribed maintenance and normally does not require any spare parts during maintenance. Guarantee for the lift and components refer to the delivery conditions. However, spare parts can always be ordered from Cibes Lift AB or from your nearest service representative.



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