



↑↓HISSTEMA

System NP-1

Version 1.66.09 2020-05-04

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Introduktion

A brief introduction to Hisstema System NP-1

Developed by Nils Björkman

Congratulations!

You have just been given the opportunity to work with Hisstema AB's control system NP-1

A high-tech, modern high performance product.

System NP-1 has been developed by Hisstema AB to meet the increasing need for flexibility, user-friendliness, security, connectivity (data communication) and reliability in the 21st century.

*The system is built around the latest single chip computer technology with a high performance processor and plenty of memory.
The program written in the modern language C / C ++ is based on a real-time operating system to get maximum performance, maximum reliability and simplest software maintenance.*

*System NP-1 has a 1/4 VGA graphical display with very good readability to present information to you as a user in the best way.
A "real" keyboard with all digits makes entering all values easy. To enter text, just like on the mobile phone, each digit key corresponds to three letters except the digit.*

Development work has been ongoing since 2003 under the leadership of Per Holmberg and has been practically carried out by Nils Björkman.

Hisstema AB hopes that you will appreciate your new control system NP-1.

If you need support, simply call Hisstema AB +46 (0)8 554 230 70 during office hours. For contact at other times see the chapter "Support".

Hisstema System NP-1

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This manual is entirely aimed at competent and competent personnel. (Trained elevator installer or similar)

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All the people who have provided tips, ideas, views and advice regarding the development of system NP-1.

The suppliers who in every way put up material and knowledge.

Hisstema's staff who have endured all the experiments and tests that have taken both time and place.

And last but not least, To YOU who have shown Hisstema AB your confidence by purchasing this product.

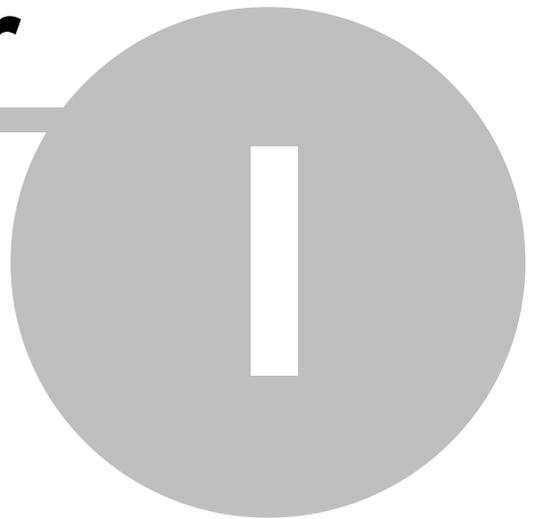
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Chapter



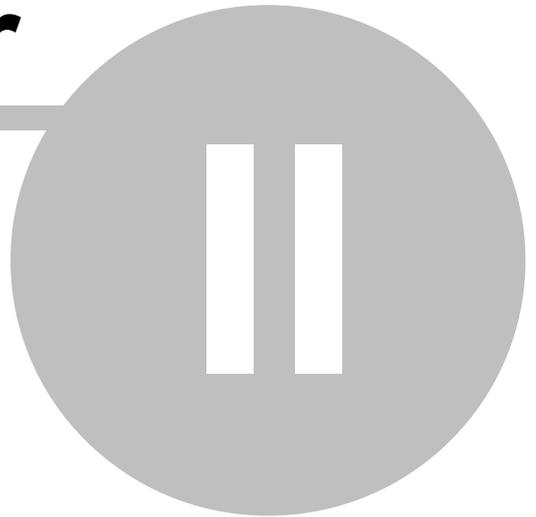
1 General

This manual is intended to simplify the handling of your NP-1 system from Hisstema AB.

This manual is based on program 1.66.09.

Congratulations on your new control from Hisstema AB

Chapter



2 Warranties

2.1 Warranty

Hisstema AB normally offers a 2-year warranty against manufacturing defects unless otherwise agreed upon writing.

The warranty covers replacement parts for all supplied materials, but not freight, assembly, any fines for being out of order, etc.

2.2 Storage

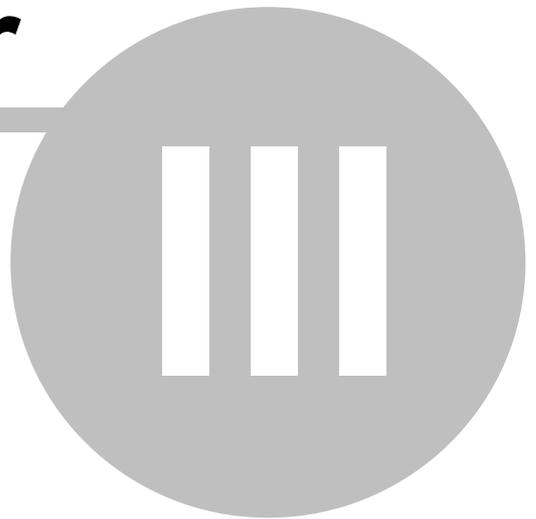
The warranty is valid only when a component from Hisstema AB is stored properly.

Proper storage facilities should be dry, ventilated, and should maintain an even temperature. This prevents condensation, which could lead to moisture and oxidation damage.

The cabinet should not be exposed to excessive impact. Too many bumps may damage the electronics.

The warranty does not cover damage caused by water.

Chapter



3 Getting started

3.1 Display and Keyboard

The NP-1 system has a high definition (320x240 pixels) 1/4 VGA STN blue negative screen with white backlight.

Press F1 (or any button) to turn on the back light.

The display turns off automatically (screen saver) after a few minutes.

If you are in any of the menus, the display does not shut off.

When the display shuts off, you are automatically logged out if you were logged in.

Key functions:

F1

Overload device (if Hisstema brand).

F2-F3

Switches functions depending on which menu you are in. The text over the button (in the display) shows the current operation. They are normally used for next/previous.

F4

Enter the menu system. Go back to the main page. When you return with F4, you can choose to save all parameters.

ESC

Leave the current page or current input. Everything you changed will still be active, but WILL NOT be saved.

After restarting the computer it will no longer be there! If you want to save your changes later, you press F4, F4 and Enter.

ENTER (Yellow angled arrow)

Confirm the selected function or entered value.

LEFT-ARROW

On the main page; CLOSE AUTOMATIC DOOR.

When inputting values; Delete incorrect values.

In Speed log: Move left after zooming in.

RIGHT-ARROW

On the main page; OPEN AUTOMATIC DOOR.

In Speed log: Move right after zooming in.

UP-ARROW

On the main page; Run lift to the top.

In the menu: Choose menu option on the top line. If the cursor is on the top row, the one under will be selected.

In Speed log: Zoom in.

DOWN-ARROW

On the main page; Run lift to the bottom.

In the menu; Choose the menu option on the row below. If the cursor is on the last row, the first row will be selected.

In Speed log: Zoom out.

0-9

On the main page; Enter the floor you want the lift to travel to. Confirm by pressing ENTER.

In the menu; Choose a menu alternative with a number.

At input; Enter the value wanted.

,

Decimal point. Used to enter decimals (e.g. 3.4) when inputting data.

-

Minus sign. Used to enter a negative number during input.

In Edit Connectors; it is used to go to a specific connector. For example: "-", 4, Enter" go directly to connector 4.

CALL (Hand).

Turns on and off call (call buttons on each floor).

When the yellow LED lights are lit, call is on.

ALARM

Resets the emergency alarm from the lift car.

When the red LED lights are lit the emergency alarm has been triggered.

This is only used when there is no emergency telephone installed. .

LEDs

GREEN Flashes 1 time per second to show that the system functions correctly.

YELLOW Lit when the external buttons (call) are active (activated).

RED Lit when the emergency car alarm has been set off.

3.1.1 PIN-code

A personal password (PIN code) is required to access all pages except for STATUS and HELP.

STANDARD PIN CODE for level 1, 2 and 3 is available in the drawing binder!

A PIN-code is normally 4 digits.

There are 6 access levels:

Level	PIN Code	Description
0	No code needed	Main page, MANUAL and the HELP page are the only accessible functions
1	PIN-1	"Building maintenance level" Standard code = 1111; ALL parameters are readable
2	PIN-2	"Service level" Everything as level 0-1. All parameters that normally may need to be changed for service and troubleshooting can be changed
3	PIN-3	"Installation level" Everything as level 0-2. All parameters that normally may need to be changed during installation and commissioning of the lift can be changed
4	PIN-4	"OEM level" Intended for other suppliers you buy system in bulk. Permits some configuration, disconnection of safety functions etc.
5	PIN-5	"Hisstema level"

		Everything as level 0-4. Completely unlocked. All parameters may be edited
6	PIN-6	"Special level" (Also called "Expert level") This level is solely intended for system developers.

When you log in to a level, you can change the PIN for that level as well as all lower levels.

When the screen saver is activated, you are automatically logged out.

Before the lift is SHAFT MEASURED, you are always logged into level 3.

If you, for any reason, need access to a level higher than that for which you now have access, you must contact Hisstema AB.

You can then get a temporary code for a higher level. This is valid only ONCE and for ONE system. Each new login requires a new temporary code.

3.1.2 Main page

The first image you see when the system is switched on is shown below.

This image provides most of the information you need to assess the lift's status



Description of the Main Page

Top:

To left: Lift number in group and status:

Single = Solitary lift that cannot communicate with another lift

Master = Lift with lowest number in a lift group. This controls all acknowledgments.

Slave = Lift with an higher number in a lift group. This only accepts calls on trunk that are unique for this lift.

In the Center: Object number (F-number) and program version

To the Right: During traffic control, the current status is shown. See further, under traffic control in the advanced manual.

2nd row left: The lift's position in 1/10 floor. KV.3 means approximately one-third of a floor above KV

2nd row right: The lift's destination. If the lift is standing still, the clock is shown here.

3rd row left: The lift's current speed. If the lift is standing still, the floor error in mm is shown here.

3rd row right: Remaining expected door time. If no door time is displayed, you will see your Access Level here.

4th row: Current errors. All errors regarding safety violations, etc. are shown here

5th row: Information texts

Left box Same information as row 4 but in graphic form. Thumbs up means EVERYTHING is OK.

Right box The 4 automatic doors' status is shown.

Right edge : Lift shaft showing the destinations that have been entered.

Middle row shows lift car and the right row call.

A lit symbol indicates that the message has been received and is now on the waiting

list.

Up Arrow:

Up Call.

Down Arrow:

Down Call.

Double Arrow:

Here (Directionless call) or special call.

P1:

Priority 1 Emergency operation.

P2:

Priority 2 Bed transport.

P3:

Priority 3.

Side Arrow:

Another lift in the group has a call of some kind.

Lower edge
Mode.

F1 No function, F2 provides Manual operation, F3 shows Status and F4 goes to Menu

Door status

Status of each automatic door (The order that is sent from the system to the door) is shown by a symbol.



Door A Closed Off



Door A Closed



Door A Open



Door A Opening



Door A Closing



Door A Parked Open



Photocell Door A Broken



Compressive Edge Door A Broken



Door Button



Door A Not Active



Radar

Status Symbols

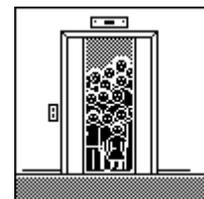
Most of the alarms have a symbol describing what the lift is waiting for



Fire alarm 1



Overload



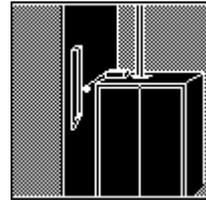
Full load



Speed governor



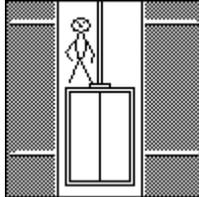
Button Stuck



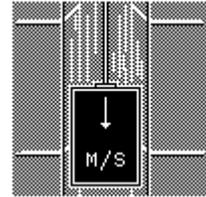
Limitswitch open



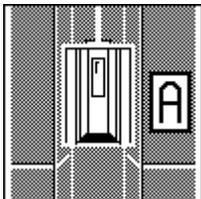
Emergency alarm



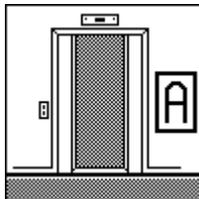
Inspection run



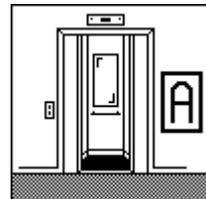
Excess speed



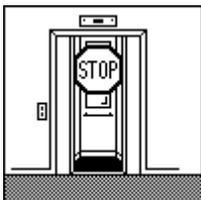
Car door A



Shaft door A



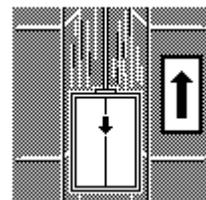
Automatic door A



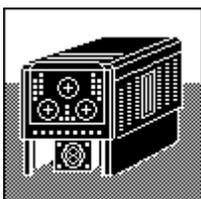
Blocking



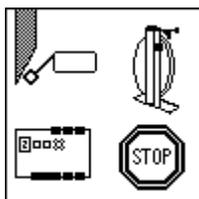
Free Safety 1



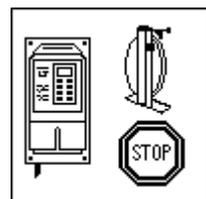
Wrong direction



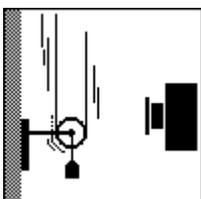
Frequency inverter fault



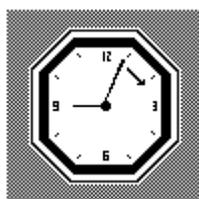
Combined hydraulics



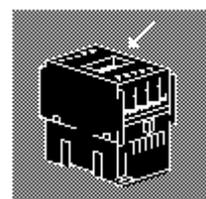
Limit, SG or Machine room



Pit safety



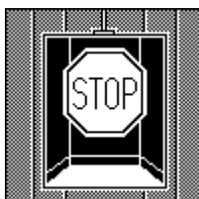
Delay



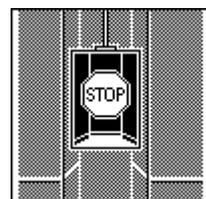
Contactor supervision



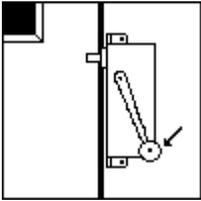
Fire fighter mode



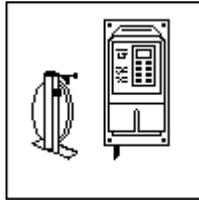
Lift car safety



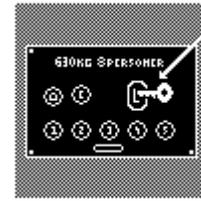
Lift car safety



Lock / Shoulder



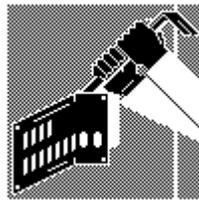
Machine room



Lift car priority



All OK



Sabotage



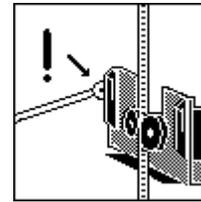
Overtemp Motor



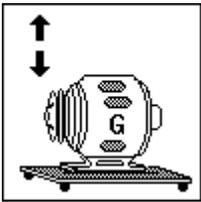
Pekab Photocell



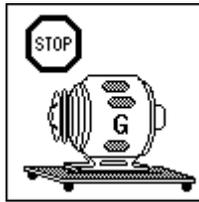
Priority 1



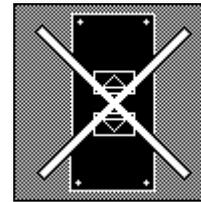
Reference error



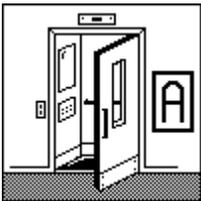
Emergency power Run



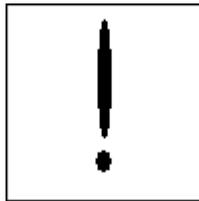
Emergency power block



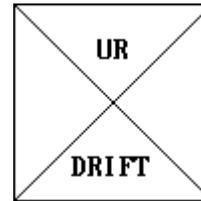
Call buttons off



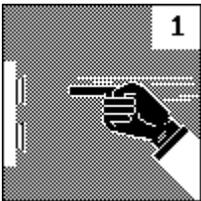
Swing door



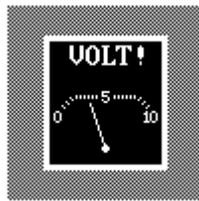
Warning



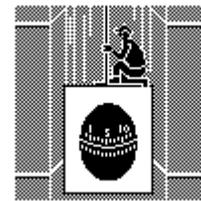
Out of Order



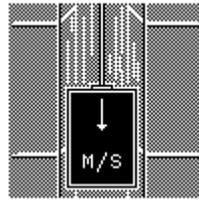
Waiting for acknowledgment
NOTE! Make a note of the number!



Voltage error



Time Controlled
Inspection Run



Overspeed

3.1.3 Status

If you press F3 STATUS, you come to the status menu.

1. Voltmeter: Digital voltmeter for troubleshooting. The measurement pin is connected to connection 9 pin 10 (Furthest to right on bottom row)
2. Safety circuit: Displays the safety circuit in graphic format. Here you can see if any safety is open or similar
3. System status: Display showing all the system's input voltages, battery status, cabinet temperature, etc.
4. Speed log: Displays the latest run in graphic format as a speed curve
5. GSM/GPRS: Display of selected GSM modems, Operator, Signal strength (good for antenna placement), etc
6. Lift / Lift Car: Displays all inputs/outputs on shaft node / lift car node

○ SHAFT-Bus Status

The first 32 nodes are shown. Each node has 8 positions. A number over each position indicates which row is which.

1. = Down call A side
2. = Up call A side.
3. = Down call B side.
4. = Up call B side.
5. = Hidden Door Switch (For low top / pit).
6. = Safety 1.
7. = Safety 2.
8. = Relay output, e.g. for door opener .

A "1" indicates activated, a "0" indicates not activated and a "-" indicates that the system does not have contact with the node

F2, toggles between Shaft and Car bus status

○ Lift Car Bus Status

The first 8 panel boards are shown together with the roof box node.

Each node has 14 positions. One / two digits above each position indicated the respective connector's status.

Roof box node shows connector 1, 2 and 9. Each position indicates the connector's status.

A "1" indicates activated, a "0" indicates not activated and a "-" indicates that the system does not have contact with the board.

If you press F2, who change to Shaft Bus Status.

7.Frequency: View all normally interesting variables for frequency inverter (Only YASKAWA). You can also send a RESET to the control this way. All error messages from the frequency control are shown here. This presumes that series communication with the frequency inverter is activated.

8.Destination: No function yet

9.Expansion board:

Shows all inputs/outputs etc. on expansion board.
Currently, type A and B boards are available.

A = 16 in/out/button NPN or PNP

B = Overload scale

If there is no board, the text "No Board" is shown.

A1: shows status for board A with unit number 1. 16 positions are shown. Each position corresponds to a connection on the board. 1-8 the inner connectors, 9-16 the outer.

A2: shows status for board A with unit number 2. 16 positions are shown. Each position corresponds to a connection on the board. 1-8 the inner connectors, 9-16 the outer.

B1: Shows status for overload unit with unit number 1. This only shows if the unit is active or not.

B2: Shows status for overload unit with unit number 2. This only shows if the unit is active or not. It is NOT possible to have 2 overload units (B) at the same time!

Should it say "HAS TO BE PNP !" on a row, it means that the system is set up for low top/pit with expansion board A, but the board is missing or is set up as NPN.

10. Communication: No function yet

3.1.4 Menus

When you press F4 MENU you access all menus.

1. User:

1. Menu level: You can choose here between three menu levels.

- BASIC - You only see the most common parameters.
- MEDIUM - You see all the parameters you are authorised to change.
- ADVANCED - You see ALL of the parameters.

2. Log out: If you want to log out manually, you choose this function. If you leave the system until the screen saver is activated you are logged out automatically!

3. Deliver cabinet Save all settings as DELIVERY. Resets the cabinet to a basic mode that is suitable for restarting the commissioning. Only works if you are logged on at level 5! **NOTE! After this the lift is NOT COMMISSIONED!!**

2. Calculator: Here you have a completely normal, standard calculator

3. DCP4 Frequency:

1. If you have a frequency inverter connected by DCP protocol you can see a copy of its display and use simulated buttons to control it.

4. Troubleshooting:

1. Service memory Chronological: Here you see all stored errors in the order they occurred
 2. Service memory Type order: Here you see each error category individually. Useful for checking the condition of the lift.
 3. [Event memory](#)  detailed: Here you see detailed information about each incident only 8 displayed at one time
 4. [Event memory](#)  overview: Here is an overview of the most recent incidents. 22 incidents are displayed at a time
 5. Delete Service memory: If you choose this, the service memory is cleared.
 6. Delete Event memory: If you choose this, the incident memory is cleared.
5. Statistics
1. [Operating statistics](#) : Information on the number of starts, down-time, etc.
6. Settings
1. Set the clock: Here you can enter the current time and date
 2. Communication:
 1. GSM:
 2. Frequency: Here you chose the type of frequency inverter, protocol etc.
 3. CAN-bus: Configuration of the CAN-bus
 4. ***: Vacant Menu
 5. Ethernet: Configuration of Ethernet connection (VLAN or Ethernet with module)
 6. ***: Vacant Menu
 7. COM port: Set baud rate (transmission speed) for all serial connections (including USB, Ethernet, etc.)
 8. Roof box: Here you edit all connectors in the roof box (CAN)
 9. Lift car board: Here you edit all connectors in the lift car panel (CAN)
 10. Shaft: Here you edit all connectors on the Shaft nodes (CAN)
 3. Doors and calls: Definition of which door should operate how on which floor.
 4. Door functions: Definition of all door times, door types, etc
 5. Brake data: Definition of all brake related parameters
 6. Contacts: Definition of each connector and pin on the system and Expansion board
 7. Floor positions: Definition of each floor and reference position in mm over the bottommost floor. NOTE! NOT floor setting!
 8. Speed curve: Here you determine how a frequency-controlled lift will behave during acceleration, braking, etc

- | | |
|----------------------|--|
| 9. Selector: | Definition of all selector related parameters |
| 10. Fire / Priority: | Definition of fire control and priority related operating parameters. |
| 11. Floor display: | Definition of what the floor display will show on each floor |
| 12. Overload: | All settings for the system's built-in overload scale Optional board B or HDD Hydraulic |
| 13. Analog: | Calibration data for all analogue measurements, voltages, etc. |
| 14. Code lock: | Definition of codes for all floors and other parameters that concern the code lock function |
| 15. Control: | Parameters for automatic return, valve control, movement monitoring, acknowledgements, bus operation, readjustments etc. |
| 16. Safety circuit: | Here is entered the order in which all safety detectors are connected. The first and the last MUST be filled in, the others just need to be in the order that they are connected |
| 17. Info-Link Par: | Information about the bus system INFO-link. Arrival signals, floor display, etc. |
| 18. System: | All system related parameters, PIN-codes, etc. |
| 19. PLC: | Select start, stop and free PLC programs |
| 20. Object: | Here you specify the object, name, installer, etc. |
| 21. Times: | Definition of the 7 possible time zones |
| 22. Operation: | Operating related parameters such as run time, lift speed, deceleration distances, etc. |
7. Inspection
- | | |
|------------------------|---|
| 1. Limit test: | Here you can run the lift in MANUAL 300 mm past the final floor |
| 2. Brake test: | Conducts a brake test to see if the brakes function as they should |
| 3. HDD Pipe rupture: | Test of pipe rupture valve on HDD hydraulics |
| 4. EN81-A3: | Test of involuntary movement outside door zone in accordance with EN-81/A3 |
| 5. Overload weighing: | Test of overload device (Reachable even from F1) |
| 6. Run time test: | Run time is set to 5 seconds. Acknowledge this function and run a trip that takes more than 5 seconds. The lift should emergency stop and write "Waiting for activation 2" and it should say "Run Time High Speed" in the Service Memory. After this trip, the run time is reset to its previous value. |
| 7. Start error test: | After the start, the Brake and S contactors are released in which connection the lift is prevented from moving. After 3-5 seconds, the lift cancels the trip and indicates "Start error". The next attempt to start should run as normal. In the Service Memory, there should be a note on "Start error". |
| 8. Hydraul valve test: | Testing of DLV (A3) valves on some hydraulics. |
8. Commissioning

1. Basic setting: Enter basic lift information such as number of floors, etc.
2. Autotune yaskawa: Sets the controller in mode suitable for autotune in frequency inverter
3. Shaft measurement: Performs a shaft measurement and divide the building into floors
4. Floor setting: Enter Run to all floors and enter measured floor errors in mm here
5. DCP4 Keypad: If you have a frequency inverter connected by DCP4 you can simulate its keypad here.
6. Reserved:
7. Manual Operation: Operate the lift in MANUAL (inspection-like run from the cabinet).
9. Online
 1. Send "Test mail": Send a test mail to current mail receiver
 2. Send "Mail memory failure":
 3. Send "Mail events":
 4. Send "Test SMS":

3.1.5 Data input

When you are in a menu and shall enter a value:

1. Choose the parameter you wish to change
2. **Press ENTER**
3. You now see min, max and current values.
 - a. You want to change: Input the chosen value with the number keys and end with ENTER
 - b. You approve current value: Press ENTER
 - c. You change your mind: Press F4
4. Done

If you have made one or more changes and you change your mind you have one last resort:

- Press ESC (does not work if you have already returned to the main page with F4)
 - Switch off the power so the system has no power
 - Switch on the power again.
-
- If you return to the main page by repeatedly pressing F4 and press ENTER, everything will be saved permanently.
 - If you when asked about saving press ESC, the new values will be used, but you are not given another chance to save.
 - If you go back to the main page by pressing ESC, the new values will be used, but will disappear when power is lost.
 - If you then want to save them permanently, just press F4 twice. This can be practical, if you want to test settings, but also have the chance to undo your changes.

Chapter



IV

4 System overview

4.1 Description of the system's functions

A description of the NP-1 system follows below

CONNECTORS

Connector 1 Safety detectors.

Pin 1	Neutral (What the safety circuit refers to)
Pin 2	
Pin 3	230V AC Safety detection 1
Pin 4	
Pin 5	230V AC Safety detection 2
Pin 6	
Pin 7	230V AC Safety detection 3
Pin 8	
Pin 9	230V AC Safety detection 4
Pin 10	
Pin 11	230V AC Safety detection 5
Pin 12	

Connector 2 Relay outputs.

Pin 1	Neutral (the same as Connector 1 Pin 1)
Pin 2	Relay 1 OUT (Zero from pin 1) Intended for contactors
Pin 3	Relay 2 OUT (Zero from pin 1) Intended for contactors
Pin 4	Relay 3 OUT (Zero from pin 1) Intended for contactors
Pin 5	Relay 4 Common
Pin 6	Relay 4 NO (Closing contact)
Pin 7	Relay 5 Common (Gold contacts)
Pin 8	Relay 5 NC (Opening contact)
Pin 9	Relay 5 NO (Closing contact)
Pin 10	Relay 6 NO (Closing contact) (Gold contacts)
Pin 11	Relay 6 Common
Pin 12	Relay 6 NC (Opening contact)

Connector 3 Car light detection.

Pin 1	Zero Lift Car light
Pin 2	
Pin 3	230V AC Phase after car light fuse

Connector 4 Digital IN / OUT / Button NPN (Negative)

Pin 1	Digital PNP input
Pin 2	Digital NPN IN / OUT / BUTTON
Pin 3	Digital NPN IN / OUT / BUTTON
Pin 4	Digital NPN IN / OUT / BUTTON
Pin 5	Digital NPN IN / OUT / BUTTON
Pin 6	Digital NPN IN / OUT / BUTTON
Pin 7	Digital NPN IN / OUT / BUTTON
Pin 8	Digital NPN OUT or INFO-Link OUT

Function is selected by a blue jumper inside the connector

Connector 5 Serial port RS232.

Pin 1	
Pin 2	TX Serial data out
Pin 3	RX Serial data in
Pin 4	BOOT signal in
Pin 5	Signal ground
Pin 6	
Pin 7	Reset signal in
Pin 8	
Pin 9	

Connector 6 Digital OUT PNP (Positiv 24V DC).

Pin 1	Digital PNP OUT (+24 V DC)
Pin 2	Digital PNP OUT (+24 V DC)
Pin 3	Digital PNP OUT (+24 V DC)
Pin 4	Digital PNP OUT (+24 V DC)
Pin 5	Digital PNP OUT (+24 V DC)
Pin 6	Digital PNP OUT (+24 V DC)
Pin 7	Digital PNP OUT (+24 V DC)
Pin 8	Digital PNP OUT (+24 V DC) (Acknowledgement can be turned off with blue jumper inside the connector)

Connector 7 Shaft equipment (Only when incremental encoder used)

Pin 1	Auxiliary reference input (Not yet used)
Pin 2	Lower reference sensor (Must be earthed since the lift is under the sensor)
Pin 3	Upper reference sensor (Must be earthed since the lift is over the sensor)
Pin 4	Pulse train A from encoder on the lift car roof
Pin 5	Pulse train B from encoder on the lift car roof
Pin 6	Signal ground

Connector 8 Communication Modules.

You can connect, for example, Ethernet, W-LAN or similar module here

Connector 9 Communication.

Top row

Pin 1	RS485 Tx to frequency control
Pin 2	RS485 Tx to frequency control
Pin 3	Screen
Pin 3	0-10 V Analog set point to frequency control
Pin 5	Signal ground

Bottom row

Pin 6	CAN+ Lift Car / Shaft Bus
Pin 7	CAN- Lift Car / Shaft Bus (A blue termination jumper is inside the connector)
Pin 8	Screen
Pin 9	Analog input (0-30V)
Pin 10	Voltmeter input (0-400V)

Connector 10 Selector

Pin 1	CAN- bus to selector
Pin 2	CAN+ bus to selector

(A blue termination jumper is inside the connector)

Pin 3 Screen

Connector 11 Digital INPUT / OUTPUT / BUTTON NPN (Negativ).

Pin 1	Digital NPN IN / OUT / BUTTON
Pin 2	Digital NPN IN / OUT / BUTTON
Pin 3	Digital NPN IN / OUT / BUTTON
Pin 4	Digital NPN IN / OUT / BUTTON
Pin 5	Digital NPN IN / OUT / BUTTON
Pin 6	Digital NPN IN / OUT / BUTTON
Pin 7	Digital NPN IN / OUT / BUTTON
Pin 8	Digital NPN IN / OUT / BUTTON

Connector 12 Digital IN / OUT / BUTTON NPN (Negativ).

Pin 1	Digital NPN IN / OUT / BUTTON
Pin 2	Digital NPN IN / OUT / BUTTON
Pin 3	Digital NPN IN / OUT / BUTTON
Pin 4	Digital NPN IN / OUT / BUTTON
Pin 5	Digital NPN IN / OUT / BUTTON
Pin 6	Digital NPN IN / OUT / BUTTON
Pin 7	Digital NPN IN / OUT / BUTTON
Pin 8	Digital NPN IN / OUT / BUTTON

Connector 13 Digital IN / OUT / BUTTON NPN (Negativ).

Pin 1	Digital NPN IN / OUT / BUTTON
Pin 2	Digital NPN IN / OUT / BUTTON
Pin 3	Digital NPN IN / OUT / BUTTON
Pin 4	Digital NPN IN / OUT / BUTTON
Pin 5	Digital NPN IN / OUT / BUTTON
Pin 6	Digital NPN IN / OUT / BUTTON
Pin 7	Digital NPN IN / OUT / BUTTON
Pin 8	Digital NPN IN / OUT / BUTTON

Connector 14 Digital IN / OUT / BUTTON NPN (Negativ).

Pin 1	Digital NPN IN / OUT / BUTTON
Pin 2	Digital NPN IN / OUT / BUTTON
Pin 3	Digital NPN IN / OUT / BUTTON
Pin 4	Digital NPN IN / OUT / BUTTON
Pin 5	Digital NPN IN / OUT / BUTTON
Pin 6	Digital NPN IN / OUT / BUTTON
Pin 7	Digital NPN IN / OUT / BUTTON
Pin 8	Digital NPN IN / OUT / BUTTON

Connector 15 Digital IN NPN (Negativ).

Pin 1	Digital NPN IN
Pin 2	Digital NPN IN
Pin 3	Digital NPN IN
Pin 4	Digital NPN IN
Pin 5	Digital NPN IN
Pin 6	Digital NPN IN
Pin 7	Digital NPN IN
Pin 8	Digital NPN IN

Connector 16 USB-HOST.
Intended for USB memory etc.

Connector 17 Voltages.

Pin 1	Signal ground (Minus)
Pin 2	Signal ground (Minus)
Pin 3	+ 15V DC out
Pin 4	+ 24V DC out common for buttons in selector
Pin 5	+ 24V DC out
Pin 6	+ 24V DC out
Pin 7	+ 20V DC unidirectional but not filtered in
Pin 8	- 20V DC unidirectional but not filtered in (Signal ground) (0 Volt)

Connector 18 Emergency power.

Pin 1	+ 12 V Battery 2 IN
Pin 2	+ 12 V Battery 1 IN
Pin 3	+ 12 V DC Battery OUT
Pin 4	+ +12V DC . NOTE! Max 100 mA. Mainly used for thermistors
Pin 5	Alarm button in NPN (Earthed down) (Jumper in the board's upper right corner switches between NO and NC)
Pin 6	Emergency light out (Earthed)
Pin 7	Alarm relay out Common
Pin 8	Alarm relay out NO (Closing)
Pin 9	Alarm relay out NC (Breaking)
Pin 10	Reset emergency alarm

Connector 30 Motor thermistor.

Pinne 1	+12V OUT.
Pinne 2	Return motor thermistor (Max voltage across the thermistor is 2.3 Volt) If you have a thermistor in the oil tank on a hydraulic lift, this is placed in series with the motor thermistor.

POTENTIOMETER

In the board's upper corner is a potentiometer for setting the emergency alarm delay

Turn the potentiometer clockwise for a longer time.

Adjustable between 1 and 45 seconds

JUMPERS

There are 5 jumpers on the board for selecting different functions:

Inside connector 4 pin 8	Selection of Normal Digital output NPN or High speed output for INFO-Link bus system, for example
Inside connector 6	Activates acknowledgement (LED) connector 6 pin 8 remove this jumper if the pin is used for the door zone board
Inside connector 9	Termination of CAN bus for Lift Car and Shaft

Inside connector 10

Termination of CAN bus for Selector

This jumper should be fixed onto the lift that is on each end of the selector bus (Cable) in the board's upper corner Selection of NO (Closing) and NC (Breaking)

Emergency alarm

BATTERY

A lithium battery has been mounted under the system for the real time clock. Always replace it with the same sort of battery. The battery must be a Lithium battery GP CR2025 or exact replacement by another brand.

Battery life is usually at least 5 years.

One sign that the battery needs replacing is when the system does not update the clock after a power failure

LEDs

A LED in the system's upper right corner indicates that the board is energised. When 5V (or something similar) is on the board, this the LED lights up.

In the middle of the bottom part of the system (Under the key . (full stop)) is an LED that should flash rapidly. This indicates that the hardware watchdog is active. This watchdog monitors that all inputs and outputs are regularly checked.

If it goes out or shines steadily, all outputs will be zeroed to ensure that the lift does not do anything undesirable due to any electronic or programming errors.

On the voltage board (mounted under the system) is an LED indicating that the voltage board has supply voltage and that the incoming fuse is whole.

Inside each input / output there is an LED that indicates status. If the diode is lit the pin is activated.

FUSES

On the system's power board in the upper right corner is a glass tube fuse. **If this had to be replaced, it MUST ALWAYS BE REPLACED BY THE SAME TYPE OF FUSE to prevent fire.**

The fuse must be a **5A Delay Action Fuse / 250 V** Glass tube fuse 5x20 mm.

All other fuses are of the "PolySwitch" type, which is a thermal circuit-breaker that automatically resets when the temperature in the fuse drops. If a short circuit or overload remains, the fuse will trip again. This is repeated until the short circuit or overload is removed.

BUTTONS

On the board, inside connector 3 (diagonally down approx 1.5 cm), there is a RESET button.

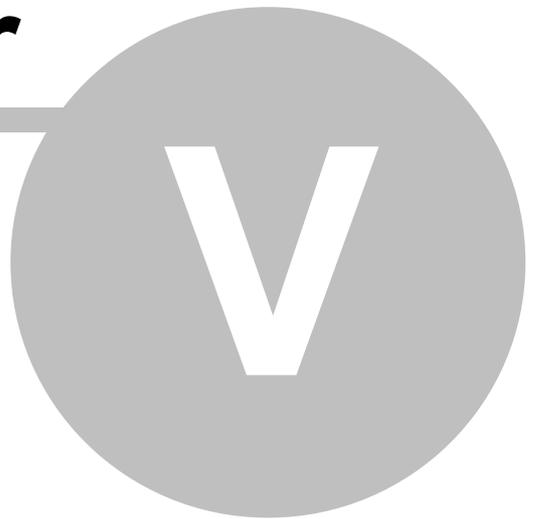
If you press it, the system restarts in the same way as when the power is turned on.

It may be practical to use this button instead of turning off the power if you want to restart the system.

4.1.1 Overview image



Chapter



5 Installation

5.1 Choice of installation location

The component cabinet should be placed in the lift motor room or other locked room specially designed for lift machinery, electrical installation or similar.

The room must be dry and well ventilated

The room must maintain a temperature between 5 and 30 degrees C.

If there is a risk the temperature could go outside these limits, measures must be taken such as installing heaters, fans, air conditioners, or similar.

For areas with high humidity, a dehumidifier must be installed.

If it is impossible to fulfil these conditions, contact Hisstema AB to discuss special arrangements, such as extra enclosure, forced cooling and similar measures.

Place the cabinet on a wall, stand or base, so you have plenty of free space in front of the cabinet.

There must be no risk that people could come in contact with the lift machinery's moving parts when they stand in front of the component cabinet.

In addition to these instructions, you should observe regulations EN-81: 1/2, Electrical Safety Agency's regulations and common construction standards.

Chapter



VI

6 Wiring

All cables must be laid in accordance with the Electrical Safety Agency's rules

Apart from these, the following applies:

1. Motor cables for a frequency-controlled motor **MUST** be laid at **LEAST** 150 mm from all other cables. When the cable for practical reasons, must cross another cable, it should cross it at 90-degree angle (Right angle) over / under all other cables. No other cable may, for example, be laid in the same cable channel, be clamped to or otherwise be laid in parallel with the motor cable, closer than the above-stated distance.
2. A motor cable for a frequency-controlled motor **MUST** be connected with EMC-approved unions to the motor's junction box. The screen is crimped firmly into the union according to instructions.
3. A motor cable for a frequency-controlled motor **MUST** be insulated and the screen clamped in place 360 degrees with special clamps in the machine cabinet as shown in the instructions.
4. Separate the low-voltage cables (over 48V) and extra-low-voltage cables (under 48V). In particular, the feed cable to the frequency-controlled automatic door, fluorescent lamps with HF unit and safety circuit must be kept at a distance from other cabling.
5. Remember that even if you place the low-voltage in one flat cable (cable car) and extra-low-voltage in the next, the cables are still very close and long. This can easily create cross-induction. Consult Hisstema AB about appropriate distribution of functions for the different lift car cables.
6. The encoder cable from the lift machinery must be kept well away from other cabling. This is especially important for gearless machinery. During SERVO OPERATION (Gearless) the sensor **MUST** be of the type EnDat! (ECN 413 or ECN1313)
7. The cable between component cabinets and externally mounted BRAKE RESISTOR must be treated in the **SAME WAY AS A MOTOR CABLE**.

Chapter



7 Start up

This chapter describes a normal commissioning.

Read the entire chapter though once before you start the work. This can save you unnecessary work and unnecessary mistakes.

7.1 Basic settings

To run the lift on "service" during the installation period, you need to connect a few things.

Connect the following in the component cabinet:

1. Incoming phases, Earth and possibly Neutral
2.
 - a. Motor 7, 8, 9 (If you have 2-speed or hydraulic, 57, 58, 59 may need to be connected) **NOTE! If you have a "Gearless machine" PMSM , the motor cables MUST be connected in U, V, W according to the motor's markings!**
 - b. If the motor has an encoder, connect this
3. Brakes 10, 11
4. Temporary running cable 64, 700,701,702
5. Stop button 17,18
6. Other safety circuit is bridged as needed. E.g. 14 -17,18 -20.

You must now make a **BASIC SETTING**

Press [**MENU (F4)**], Choose [**Start up (8)**], Choose [**Basic settings (1)**]

Here you enter:

- **Number of floors:** Number of floors with stops excluding any parking floors
- **Lift speed:** The lift's rated speed.

Yaskawa Frequency:

- **Retardation:** Select retardation according to instructions on previous page (Reference distance)

Hydraul / Zetadyn / LiftEquip

- **Ret distance:**
 - Select a deceleration distance that is suitable taking into consideration the lift's speed.
 - For Zetadyn Frequency Control, you read off the value "S31" in menu "03 - DIST" and enter this in mm.
 - For an Hydraulic lift, you start with a deceleration distance that is approx. 800-1000 mm depending on the lift's speed.

Go further with Frequency inverter in accordance with the next chapter, if applicable.

7.2 Frequency control

See separate instructions for your inverter.

7.3 Manual operation

You can "inspection run" the lift manually from the motor room using the MANUAL function.

Press **F2** when you have the main page up.

You will then see the following image:



Now, use the arrow keys on the system to run the lift.

- **Frequency controlled lift (Not Zetadyn):**

- Press Arrow UP and the lift begins to accelerate upwards.
- If you hold in the button, the speed will be limited to a maximum of 0.5 m/s
- If you release the button, the lift makes an emergency stop (dead man's handle)
- Press DOWN Arrow and it works the same as up except for the direction of movement
- If, while you hold the UP or DOWN buttons in, ALSO press the opposite button you LOCK
- If you wish to INCREASE speed, release the button pointing in the wrong direction.
- If you wish to DECREASE speed, release the button pointing in the direction of travel
- You may at any time press the other button and again LOCK the speed.

- **Hydraulic / 2-speed:**

- Press Arrow UP and the lift begins to ascend slowly.
- If you release the button, the lift makes an emergency stop
- Press Arrow DOWN and the lift begins to descend slowly
- If, while you hold in the button for the direction of travel, you ALSO press THE OTHER BUTTON, you SWITCH TO HIGH SPEED.
- If the parameter Operating no: 5 (Inspection run and Manual at high speed are activated, you will obtain the opposite function. The lift starts and goes normally at high speed, when you press the opposite button, it then switches to low speed.

You can run the lift all the way to the highest and lowest floor with MANUAL. If you chose high speed or similar, the lift slows down automatically in order to stop normally at the floor.

- **Description of image:**

- SPEED The lift's current speed in m/s
- POSITION The lift's position in mm above the bottom floor
- FLOOR The lift's position counted in floors. (1/10 floor)
- SAFETY If any safety is broken it will be shown here
- THERMISTOR Motor thermistor status
- REFERENCE If the lower or upper reference is activated

7.4 Shaft equipment

Installation of shaft equipment:

The toothed belt must be mounted so that it is not twisted, and so it does not get caught between the cog wheel and ball bearing. There should be 0.5 mm space between the toothed belt and ball bearing, so the toothed belt cannot skip over.

After the shaft equipment is installed, run manual runs and make sure that reasonable speed is displayed and that the position is counting UP when going UP.

7.5 Shaft measurement

When the shaft equipment is fitted, you should do a floor measurement so the system learns how long the shaft is and can measure lift speed to calculate of start and stop curves.

For shaft measurement for hydraulic or two speeds lifts, you can during the first "inspection run," press the button for the opposite direction while holding in the desired direction to run at high speed.

F4, 8, 3 Shaft measurement.

Follow the instructions on the screen.

When it says RUN DOWN:

Manually run the lift to near lowest floor. It does not matter if it is over or under.

When done, press ENTER

Now manually run the lift to near top floor.

When done, press ENTER

After the shaft measurement, the system has divided the building into the correct number of equally long floors. Now you can run the lift from floor to floor with the lift car and call buttons

The lift will most likely not stop at the true floors. This is remedied in the next step FLOOR SETTINGS.

When the shaft measurement is complete, you can activate the automatic door. The reason this should not be done before you have finished is that the door opens when it arrives at the very bottom; it may then not be possible to move away from there, since all the door functions are usually not yet connected, for example photocell or compressive edge; so the lift just stands with door open and will not move.

See PARAMETER LISTS / DOOR PARAMETERS no 2 and so on.

Should you FAIL with the shaft measurement and want to redo it, you have to first perform a BASIC SETTING again.

7.6 Floor setting

The last step in commissioning the lift is to perform a floor setting.

Turn off the call signal if it is on. Note that during measurement you should only stop at each floor once. Go into the lift car (the lift should stop correctly vertically, if you have entered the exact reference distance.) Run to the final floor, which is furthest from the motor room. Measure the margin of error where the lift stops (+20mm means 20mm above the floor, -20mm means below the floor.)

Write down the measurement, travel by pressing the lift car buttons to each floor, one at a time, and measure the margin of error where the lift stops. **Note that you should write down the actual error in distance, not the adjustment to be made!**

When you come to the last floor, block the lift by holding the door open, blocking the photocell or similar.

In the system press **F4, 8, 4, Enter**

Enter the error distance for each floor as you noted on your list.

Note that the bottommost floor is called 1, next floor is called 2 and so on. It does not matter what the floor display is showing.

Test run it once and see if the lift now stops correctly at each floor. If it does not, repeat the same sequence one more time.

If the system reports distance errors greater than 3 mm when stopping at a floor, you should run the lift a few more times to give it time to adjust the brake values, etc. If you do not reach 0 to 1 mm error after 20-30 trips, you should adjust either the brake values (see next section) or adjust the frequency control.

(If you know the inter floor distances it is possible to enter each floor position EXCEPT BOTTOM FLOOR in menu F4, 6,7, Enter.)

It is no use to fine-tune the floor (floor setting) before the indicated distance error (as shown on the screen) is less than 5 mm.

7.7 Test runs from the system

Now that the floors for the lift are set, you can run the lift between floors from the system.

Run FURTHEST DOWN: Press **Down arrow**

Run FURTHEST UP: Press **Up arrow**

Run to a specified floor : Input with **numbers** the desired floor, press **Enter**.

Cancel input: Before you press **Enter** you can press **ESC** and the input is deleted.

If you have **CALL OFF**, the automatic door will not open at arrival because you are running it from the system.

If you want to **open** the door press the door opening button (**Right arrow**)

If you want to **close** the door press the door closing button (**Right arrow**)

7.8 Brake value adjustment

If your lift does not indicate distance errors less than 3 mm once it has made 20-30 trips, you should check and adjust the brake values.

If you go into the brake menu (**F4, 6, 5, Enter**), you see a list of parameters

Parameter 7: Auto adjustment shows whether the lift will try to adjust the brake values, or if you must do this manually.

This function is activated as standard.

For a frequency-controlled lift, you adjust parameters 3 and 4 for ascent and descent, respectively. If the lift stops before the floor, reduce the value and if it stops after the floor, increase it.

For a 2-speed or hydraulic lift you adjust parameters 1 and 2 for ascent and descent, respectively. If the lift stops before the floor, reduce the value and if it stops after the floor, increase it.

Chapter



8 Overview

8.1 Limit test

Select this function to verify easily that the limits work properly.

1. Run the lift to the bottom.
2. Select function limit test: (Shortcut F4, 7, Enter)
3. You are now in manual run with the extra bonus that the stops on both ends have been extended to 300 mm past the respective final floors
4. Run the lift with the DOWN arrow until the limit is broken.
5. You now read from the display (floor error) the distance by which the limit exceeds the floor.
6. Bridge the limit (Or press the button "Run off limit") and the lift readjusts to the floor.
7. Repeat with the upper limit

8.2 Brake test

A frequency-controlled rope lift does not normally use the brake to stop. It is only used as parking brake. This means that it is difficult to keep an eye on the condition of the brakes.

A brake test is done as follows:

1. The lift is run to the bottommost floor if it is not already there
2. The lift starts with the destination at the very top
3. The lift emergency brakes in the middle of the shaft
4. The distance by which the lift slips from the braking point is measured.
5. If the slipping distance is less than the limit value, the lift returns to the floor it was at before the test. If the slipping distance is greater than the limit value, the lift will be blocked.
6. The current value for slippage is shown in the display.
7. Push a button to finish the brake test.

Permitted braking distance is calculated as:

$$s = (0.6 * v) + (v * v)$$

v is the lift's speed in m/s and s is the distance in metres that the lift is permitted to slide.

8.3 EN81-A3

For a Hisstema lift that has a machine with certified brake on outgoing axle, our certificate is fulfilled if it passes the following test.

Do as follows if you have Yaskawa Frequency Control:

1. Run the lift to the bottommost floor (EMPTY)
2. If the lift does not have a relay marked R154, you must bridge the brake's control (M1 and M2) in the Yaskawa control.
3. Select **F4, 7, 4** (Test EN-81 A3)
4. The brake is released and the lift is permitted to move freely until it exits the door zone.
5. The lift emergency brakes.
6. You can now read off the distance moved, max speed attained, max acceleration etc.

If the distance is less than 1 metre, the test is OK.

7. Press the DOWN button.
8. Run the lift to the very top and load (FILL LOAD)
9. Repeat from step 3.
10. If it also stops this time in less than 1 metre, the lift is approved.

8.4 Overload scale

This function is only available if the lift is equipped with Hisstema overload device or HDD hydraulics..

This overload device has the following features:

- It has automatic zero adjustment. If the lift is in standstill more than one hour and the load is not zero, but below 40 kg.
- If it get a negative load it is directly adjusted to zero
- It ha automatic compensation for rope weight, cable weight, balance chain
- Simple to test at certification
-

You have 4 buttons F1-F4

F1 - TEST

F2 - ZERO

F3 - PESO

F4 - EXIT

Setup procedure:

1. Run the lift to lowest floor
2. Check that the lift is empty
3. Press F2 (ZERO) and it starts to count down 10 seconds.
4. It saves this as 0 at bottom floor
5. Lift is run to top floor and repeats measuring the 0 for top floor.
6. Now you can run the lift to any floor to be able to load sample load (preferably as near rated load as possible)
7. Press F3 (PESO)
8. It asks for the weight of the load
9. Now it counts down 10 seconds before it saves this load.
10. Press F4 until you are asked to press ENTER to save
- 11.

From now you can (If you press F1) se current load.

For testing do as follows:

1. Press F1 (TEST)
2. Now the oveload is set to a lower value (By default 75 kg)
3. Enter the lift cabin (more than 75 kg) and check that the lift is indicating overload.
4. Press one COP button and check that the door stays open and the lift does not run.
5. Exit the lift and the door should close and the lift start to the entered floor.
6. Now the overload is reset to its original value automatic.
- 7.

8.5 Run time limiter test

Select this function to verify easily that the run time monitoring is working properly.

1. Run the lift to a floor.
2. Select function RUN TIME TEST: (**Shortcut F4, 7, 6, Enter**)
 - You will see the text:
 - **Run time is set to 5 seconds.**
 - **Press [ENTER] and the run the lift to a floor.**
3. Run the lift to a floor that is more than 5 seconds travel time away.
4. After 5 seconds, the lift should emergency stop and show;
 - **"Waiting for activation 2", which means that it is blocked for all normal travel.**
5. Press a button (as a suggestion [ESC]) to reset.

6. The lift adjusts to the closest floor.

8.6 Movement supervision

Select this function to verify easily that the start error monitoring is working properly.

1. Run the lift to a floor.
2. Select function START ERROR TEST: (**Shortcut F4, 7, 7, Enter**)
 - o You will see the text:
 - **Press [ENTER] and try to the run the lift to a floor.**
 - **It will trip for start error.**
 - **On try number 2, it will start."**
3. Press ENTER and then try to the run the lift to a floor.
4. After approx. 3 seconds, the lift should emergency stop (all contactors trip)
5. After 3-5 seconds, it is possible to try to start again and this time, it is successful.

On the first start, it will not move because the motor and brake contactors "happen" to trip directly after start.

Since NP-1 does not detect any motion for 3 seconds, the lift is stopped and a new attempt made. Should it fail 3 times in a row, "Waiting for activation 2" appears along with blocking and the lift must be reset from NP-1.

Chapter



9 Support and spare parts

9.1 Contact Hisstema

Contact:

If you need support with Hisstema's equipment you can always reach us at:

Telephone: +46 (0)8 554 230 70 From 07.00am to 16.00pm CET Weekdays.

Post: Hisstema AB
Hantverksvägen 13
151 65 Södertälje
Sweden

E-mail: support@hisstema.se

Enter your name, company, phone number, order number or elevator adress and a short explanation about the matter as well. We will return with feedback as soon as possible.

Spare parts:

Hisstema normally stocks all parts for immediate delivery.

You can either get the parts sent to you or visit us at the above address and get them from our take away store

Exchange System:

Hisstema AB uses an exchange system for most electronic products.

This means that you order, for example, a circuit board and we pack and send it to you.

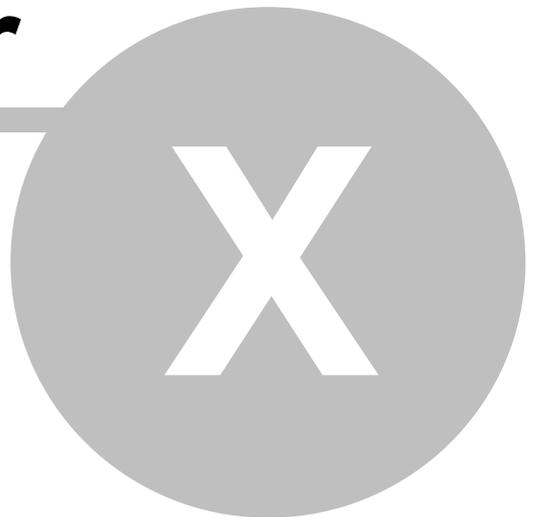
You get an invoice for the purchase price of the product.

When you have replaced this part on the lift, you return the old circuit board in the same packaging and enclose a copy of the (or the same) packing slip.

Upon receipt, and after we deem the return complete, we send out a credit invoice for the difference between the exchange and purchase price.

This is a way to keep down the costs for spare parts and to HELP THE ENVIRONMENT!

Chapter



10 Maintenance

10.1 Replacement of components

To avoid changing the system's and component cabinet's EMC characteristics, and thus risking disruption of other equipment, no components may be exchanged for anything other than original parts from Hisstema AB

All components have been carefully selected and tested to meet our high standards of reliability, availability and functionality.

10.2 Cleaning

At least once a year, all electrical equipment must be checked for cleanliness.

Especially, metal particles such as drill shavings, wire clippings, etc. must be removed without exception.

The reason for cleaning up this type of contamination away is that it could end up in the wrong place and cause personal injury or damage to material.

10.3 Inspection

Check your electrical installation at least once a year to make sure everything looks normal.

The follow areas must be checked:

1. Insulation on cables that is discoloured or melted. This may indicate heat in a contact point with potential fire hazard.
2. Check tighten connection screws for all incoming and motor lines.
3. Wire insulation showing
Kontrollera din elektriska anläggning minst en gång om året så att allt ser normalt ut.

Chapter



XI

11 Functions

11.1 Calculator

The system contains a built-in calculator.

This is can be useful for when you calculate motor values and the like.

Short cut: F4, 2



You use it like a standard calculator with +, -, * and /.

Up Arrow	=	+	Add
Down Arrow	=	-	Subtract
Right Arrow	=	/	Divide
Left Arrow	=	*	Multiply
Enter	=	=	Equals
ESC	=	C	Clear
F2	=	PI	3.141592654
F3	=	Rot	Square root
-	=	1/x	Invert the number
F4			Return to the main menu.

11.2 Speedlog

The system provides a function to graphically view set points and current value curves.

The lower curve shows the set point (The speed wanted for the trip)

The upper curve shows the current value. (The real speed during the trip)

These two curves have been placed a little over each other in order to be able to show which curve may have any irregularities or similar. You can place the curves on top of each other by pressing F2.

When you enter the speed log, results from the latest run are displayed. NOTE! Only the last 10 seconds are included. If you want an entire trip, run a shorter route that takes 20 seconds.

Each new trip updates the current results display.

Buttons:

F2	Place the curves equally (on each other)
F3	Place the curves separately (offset from each other)
Up Arrow	Zoom in one step
Down Arrow	Zoom out one step
Right Arrow	Move one step right on a zoomed-in picture
Left Arrow	Move one step left on a zoomed-in picture

Short cut: F3, 4

Chapter



12 IN / OUT / BUTTON

12.1 Inputs

All pins on the system that are marked with "IN" or "IN / OUT / BUTTON" can be programmed with optional input function

Short cut: F4, 6, 6, Enter

Select the connector wanted with F2 and F3

Select the pin wanted with UpArrow and DownArrow

Press Enter

Now you have three (3) rows to fill in:

1. Type: Select **IN**
2. Function: Select the function wanted as listed below
3. Closing: Choose NO or NC. NO means that the function is active when the input is earthed, NC means the function is active when the input is left un-activated. .

IN-Functions

Number	Internal Function	Function	Description
1	200	Not used	Not used function
2	201	Lock	Safety detection after Lock or Shoulder
3	202	Gate	Safety detection for a Lift Car Gate (Probably a manual gate)
4	203	Automatic door D	Safety detection after Automatic door D (Both the lift car and the shaft door in series)
5	204	Shaft door D	Safety detection for the shaft door D
6	205	Lift car door D	Safety detection for the lift car door D This detection is used both for normal automatic doors and an inner door that is covered by the side hung door
7	206	Automatic door C	Safety detection for Automatic door C (Both the lift car and the shaft door in series)
8	207	Shaft door C	Safety detection for Shaft door C
9	208	Lift car door C	Safety detection for the lift car door C This detection is used both for normal automatic doors and an inner door that is covered by the side hung door
10	209	Automatic door B	Safety detection for Automatic door B (Both the lift car and the shaft door in series)
11	210	Shaft door B	Safety detection for Shaft door B
12	211	Lift car door B	Safety detection for lift car door B This detection is used both for normal automatic doors and an inner door that is covered by the side hung door
13	212	Side hung door B	Safety detection for side hung door B This detection is used if a lift car door is installed. .
14	213	Automatic door A	Safety detection for Automatic door A (Both the lift car and the shaft door in series)

Number	Internal Function	Function	Description
15	214	Shaft door A	Safety detection for Shaft door A
16	215	Lift car door A	Safety detection for the lift car door A This detection is used both for normal automatic doors and an inner door that is covered by the side hung door
17	216	Side hung door A	Safety detection for side hung door A This detection is used if a lift car door is installed.
18	217	Lift car safety	Safety detection for lift car safety. This trips KAS-70 Stop permission for parameter System no: 11
19	218	Machine room / HR	Safety detection for the machine room, speed regulator, well, frequency control etc. This is used as a general detection for most things, except limit and stop button
20	219	Well safety	Safety detection for well safety.
21	220	Combi safety	Safety detection "combi" This is used for everything including the lift car safety, when there is a lack of safeties.
22	221	Frequency control	Safety detection for frequency controls
23	222	Limit / Stop button	Safety detection for limit and stop buttons in the component cabinet
24	223	Safety 1	Safety detection for freely programmable safety 1. This safety can be given any name in parameter System no 19
25	224	Safety 2	Safety detection for freely programmable safety 2. This safety can be given any name in parameter System no 20
26	225	Safety 3	Safety detection for freely programmable safety 3. This safety can be given any name in parameter System no 21
27	226	Safety 4	Safety detection for freely programmable safety 4. This safety can be given any name in parameter System no 22
28	227	Safety 5	Safety detection for freely programmable safety 5. This safety can be given any name in parameter System no 23
29	228	Safety 6	Safety detection for freely programmable safety 6. This safety can be given any name in parameter System no 24
30	229	Safety 7	Safety detection for freely programmable safety 7. This safety can be given any name in parameter System no 25
31	230	Safety 8	Safety detection for freely programmable safety 8. This safety can be given any name in parameter System no 26
32	231	Open limit A	Open limit for automatic door A
33	232	Open limit B	Open limit for automatic door B
34	233	Open limit C	Open limit for automatic door C
35	234	Open limit D	Open limit for automatic door D
36	235	Open button A	Open button for automatic door A Opens the door and resets normal opening time
37	236	Open button B	Open button for automatic door B Opens the door and resets normal opening time

Number	Internal Function	Function	Description
38	237	Open button C	Open button for automatic door C Opens the door and resets normal opening time
39	238	Open button D	Open button for automatic door D Opens the door and resets normal opening time
40	239	Close button A	Close button for automatic door A Closes the door after 1 second
41	240	Close button B	Close button for automatic door B Closes the door after 1 second
42	241	Close button C	Close button for automatic door C Closes the door after 1 second
43	242	Close button D	Close button for automatic door D Closes the door after 1 second
44	243	Compressive Edge A	Compressive edge reopens and changes door time to "photocell time"
45	244	Compressive Edge B	Compressive edge reopens and changes door time to "photocell time"
46	245	Compressive Edge C	Compressive edge reopens and changes door time to "photocell time"
47	246	Compressive Edge D	Compressive edge reopens and changes door time to "photocell time"
48	247	Photocell A	Compressive edge reopens and changes door time to "photocell time"
49	248	Photocell B	Compressive edge reopens and changes door time to "photocell time"
50	249	Photocell C	Compressive edge reopens and changes door time to "photocell time"
51	250	Photocell D	Compressive edge reopens and changes door time to "photocell time"
52	251	Radar A	Radar reopens and changes the time to radar time This function is repeated a maximum "radar number" of times.
53	252	Radar B	Radar reopens and changes the time to radar time This function is repeated a maximum "radar number" of times.
54	253	Radar C	Radar reopens and changes the time to radar time This function is repeated a maximum "radar number" of times.
55	254	Radar D	Radar reopens and changes the time to radar time This function is repeated a maximum "radar number" of times.
56	255	Loading A	Loading (Extended door time) Changes normal door time to extended door time. Door button, close button, repeated pressing on this after at least 5 seconds and lift car destination cancels the time.
57	256	Loading B	Loading (Extended door time) Changes normal door time to extended door time. Door button, close button, repeated pressing on this after at least 5 seconds and lift car destination cancels the time.
58	257	Loading C	Loading (Extended door time) Changes normal door time to extended door time. Door button, close button, repeated pressing on this after at least 5 seconds and lift car destination

Number	Internal Function	Function	Description
			cancels the time.
59	258	Loading D	Loading (Extended door time) Changes normal door time to extended door time. Door button, close button, repeated pressing on this after at least 5 seconds and lift car destination cancels the time.
60	259	Loading A-D	Loading (Extended door time) Changes normal door time to extended door time. Door button, close button, repeated pressing on this after at least 5 seconds and lift car destination cancels the time.
61	260	Overload	Overload function Prevents the door from closing Prevents start.
62	261	Full load	Full load blocks calls (external calls) When a choice is made, a request goes out to see if nother lift can provide faster service.
63	262	Contactor error	Full load blocks calls (external calls) When a choice is made, a request goes out to see if another lift can provide faster service.
64	263	Res.pwr. Active	The lift is sent to the evacuation floor and then blocked. In the selector system, it will first wait for its turn before it starts.
65	264	Res.pwr. Operation	When all the lifts have evacuated their passengers, a lift with this input will return to normal operation.
66	265	Block the lift	This input blocks the lift from all types of operation
67	266	Fire 1	Fire function 1 Executes the programmed function, such as run to preselected floor. etc
68	267	Fire 2	Fire function 2 Executes the programmed function, such as run to preselected floor. etc
69	268	Fire 3	Fire function 3 Executes the programmed function, such as run to preselected floor. etc
70	269	Fire 4	Fire function 4 Executes the programmed function, such as run to preselected floor. etc
71	270	School plane	Not implemented yet
72	271	Reserverad	Not implemented yet
73	272	Sabotage	Anti-jemmy protection to place behind the lift car panel. Blocks the lift and requires that a button in the component cabinet is pressed in order for the lift to enter operation again.
74	273	Lift car priority (71.EB)	Priority from the lift car according to (EL-AMA 71.EB) If you activate the input, all calls are turned off, the lift car is directly controlled, and the automatic door is open as long as the lift is on that floor.
75	274	Res.Top/well	Reset of low top / well function. If the ESL function is activated, the well or the top must be reset respectively with the call button and

Number	Internal Function	Function	Description
			closing door according to separate description (ESL).
76	275	Inspection Run on	Activate roof control (inspection run)
77	276	Inspection Run Up	Button for ascent during inspection run
78	277	Inspection Run Down	Button for descent during inspection run
79	278	Manual Up	Button for ascent during manual run
80	279	Manual Down	Button for descent during manual run
81	280	Manual On	Activate manual run
82	281	Door overbridging	Doors are bridged by UCM module
83	282	Min Start Voltage	Minimum voltage to start lift. This is applicable on battery powered lifts
84	283	iValve A3	Supervision if Bucher iValve safety check function
85	284	Drop all dest.	Drop all active destinations
86	285	Zeta-Dyn Brake	Indication that Zeta-Dyn 3BF released its brake contactor
87	286	Handle lock monit.	Supervision of door handle lock
88	287	Zero servo	Not implemented any more
89	288	Brakes released	Brake monitor. Indicates that the brake shoes have lifted so start is possible
90	289	Drive off shoulder	Run the lift up from the shoulder (descent block)
91	290	Release F gripp	Run the lift from ASG
92	291	Shoulder/HR contr	Switch to monitor the shoulder (descent block) and HR pin. The descent block is not permitted to activate this 1 time and the HR pin is permitted 5 times. If no other activation occurs after the permitted starts, the lift is left stationary.
93	292	Fireman run	Run function for fireman Photocells are disconnected Functions according to EL-AMA 71.EB
94-123	293-322	Free in 1-30	Free input to use for PLC
124-133	323-332	Mirrored 1-10	Input that is mirrored by CAN bus to corresponding mirrored output
134	333	Emergency lightning	Input to recognise the emergency light exit. Used in the bus system to the lift car to switch on the emergency light by means of the bus.
135	334	Close limit A	Indication that door A is closed
136	335	Close limit B	Indication that door B is closed
137	336	Close limit C	Indication that door C is closed
138	337	Close limit D	Indication that door D is closed
139	338	Direct control	The lift goes to Direct Control according to EL-AMA
140	339	Other reset floor	Choice of other automatic return floor. Can be used with external clock or switch, e.g. in reception etc.
141	340	QuickStart in	Not implemented
142	341	Door zone	Detection that the lift is in the door zone.
143	342	Inspection run timer	If the Inspection run timer input is activated, inspection run is permitted, the one in parameter Control No: 41. Set the parameter to 0 to disable this function. Ställ parametern på 0 för att avaktivera funktionen.

Number	Internal Function	Function	Description
144	343	Up button for Cabinet	This Up-button, runs the lift to the TOPMOST floor
145	344	Down button for Cabinet	This Down-button runs the lift to the BOTTOMMOST floor.
146	345	Half full load	Input from scale. Indication of half load, which is used for traffic systems.
147	346	Hidden Door Circuit	Input for hidden door switches in CAN shaft board
148	347	Motor Magn.	Signal from frequency control that the motor is magnetised and that it is OK to lift the brake.
149	348	Phase Error Low	Too low a voltage indicated by phase error relay. Missing phase indicated by phase error relay
150	349	Phase Error High	Too high a voltage indicated by phase error relay
151	350	Door button A-D	Door button that opens ALL doors that are activated on the current floor.
152	351	Photocell Test	Input for test of Cedes Ceguard Photocells. Connected via relay to SigOut on Photocell. Used together with output Photocell Test.
153	352	Shoulder Retracted	Indication that Shoulder is retracted. Used in cooperation with ...
154	353	Code Lock Lift Car	Input from card / code reader. This input blocks all lift car buttons when it is active. A floor can be exempted using parameter "Code Lock" no: 72.
155	354	Block. Dörr A	Blocks Door A
156	355	Block. Dörr B	Blocks Door B
157	356	Cleaning	Cleaning run The lift finished current lift car destinations. Goes to preset cleaning floor and stands with door open. Max 2 lifts in a group can be in Cleaning mode at the same time.
158	357	Code Override	Disconnects function 154 Code Lock
159	358	Res. Pwr. To Dest	On reserve power, the lift remains on the current floor or, if it is between floors, it goes to preset floor
160	359	INFO-LINK Off	Stops INFO-Link This means that the floor displays show Entry Forbidden / Out of Order.
161	360	"Threshold flash"	This input indicates that fold-away 'threshold flash' is lowered. This blocks all normal operation. This stops the lift during manual or inspection run 1500 mm above the bottommost floor.
162	361	Reset Well Buzzer	In this case, Warning Buzzer for lift well (door opened on floor lower than 2000 mm and low well activated) sounds. This is reset, for example, with extended boom.
163	362	Reset Top Buzzer	In this case, Warning Buzzer for lift top (door opened on floor higher than 2000 mm and low top activated) sounds. This is reset, for example, with extended boom.

Number	Internal Function	Function	Description
164	363	Closed lamp	This input activates closed lamp, e.g. in CAN bus.
165	364	Extra door switch A	When there is straight way through and both doors are open, a Lift Car Door B is not permitted (For side hung door + lift car door) to close before door A is closed. This can be bypassed with an extra door switch on the A-door in question's side hung door.
166	365	HR pin (brake) H	HR Pin that is controlled by brake contactor.
167	366	NGV A3 Ready	READY signal from GMV NGV-A3 hydraulics.
168	367	NGV A3 Run	RUN signal from GMV NGV-A3 hydraulics.
169	368	FÖS Alarm Block	Alarm blocking input for the SL FÖS system.
170	369	Close A-D	Close button that activates all doors
171	370	TL Well Out	Teknolift Automatic well stanchion in outer (open position)
172	371	TL Well In	Teknolift Automatic well stanchion in inner (closed position) (Operating position)
173	372	Battery Mode	ESL lift with battery operation. This indicates that supply has disappeared and ALL doors must be run on battery.
174	373	Man HT1609	Blocking of normal running when bypass is active
175	374	Run OK HT1609	Signal from bypass indicating car door closed.
176	375	Dockn. On	Activate docking run, where the lift can be permitted to run at reduced speed with open lift car door.
177	376	Dockn. Insp.	Inspection input for monitoring of relay that connects across the lift door circuit during docking operation.
178	377	Pit Rev On	Inspection running from pit activating
179	378	Pit Rev Up	Inspection running from pit UP
180	379	Pit Rev Down	Inspection running from pit DOWN
181	380	Service Floor	Not implemented yet
182	381	Auto Evac	Automatic evac. running requested
183	382	SBus Swingdoor A	Swing door A in plugin shaft safety switch
184	383	SBus Swingdoor B	Swing door B in plugin shaft safety switch
185	384	SBus Landing door A	Landing door A in plugin shaft safety switch
186	385	SBus Landing door B	Landing door B in plugin shaft safety switch
187	386	SBus Landing door C	Landing door C in plugin shaft safety switch
188	387	SBus Landing door D	Landing door D in plugin shaft safety switch
189	388	SBus Lock	Landing door lock in plugin shaft safety switch
190	389	Water in pit	Water indication from pit. When this is active the lift is prevented from entering the lowest floor.

12.2 Outputs

Short cut: **F4, 6, 6, Enter**

Select the connector wanted with F2 and F3

Select the pin wanted with UpArrow and DownArrow

Press Enter

Now you have three (3) rows to fill in:

1. Type: Select **OUT**
2. Function: Select the function wanted as listed below
3. Closing: Choose NO or NC. NO means that the output is activated (earthed down) when the function is active and NC means the opposite.

OUTPUT Functions

Number	Internal function	Function	Description
1	0	Not Used	Not used function
2	1	S-contactor	Contactora to place in series with drive motor. The contactora must also interlock the brakes
3	2	Brake 2	Contactora to start the micro-motor for running in to floors and readjustment.
4	3	Y-contactor	Y-contactor at y-d start of hydraulic pump
5	4	D-contactor	D-contactor at y-d start of hydraulic pump
6	5	Start-cont.	Start contactora for one speed or soft start hydraulic
7	6	Up	Up contactora. Retracts when start up is wanted
8	7	Down	Down contactora. Retracts when start down is wanted.
9	8	High	High contactora. Retracts when high speed is desired
10	9	Low	Low contactora. Retracts when low speed is desired
11	10	Medium speed	Medium speed contactora
12	11	Readj. speed	Relay that retracts during readjustment
13	12	Retiring Cam	Contactora that retracts the retiring cam magnet
14	13	Brakes	Contactora for engaging the brake magnet
15	14	Shoulder/HR-block	Contactora for operating the descent block (shoulder block) or HR-block
16	15	SG Solenoid	Solenoid for blocking Speed governor
17	16	Up Valve	Up valve for hydraulic lifts
18	17	Down Valve	Down valve for hydraulic lifts
19	18	High Valve	High valve for hydraulic lifts
20	19	High Valve Up	High valve up for hydraulic lifts
21	20	High Valve Down	High valve down for hydraulic lifts
22	21	Reset	Reset of frequency controls
23	22	Zervo-Speed	Not implemented
24	23	Enable	Enable signal to frequency controls This signal is for activating the output stage.
25	24	Door A open	Open command Automatic door A Is always on when the door should be open unless the parameter Doors no 45 is activated (Open and close limit). In that case, the signal is released when the open limit is broken.
26	25	Door A close	Close order Automatic door A Is always on when the door should be closed unless the parameter Doors no 45 is activated (Open and close limit). In that case, the signal is released when the close limit is broken.

Number	Internal function	Function	Description
27	26	Door B open	Open command Automatic door B Is always on when the door should be open unless the parameter Doors no 45 is activated (Open and close limit). In that case, the signal is released when the open limit is broken.
28	27	Door B close	Close order Automatic door B Is always on when the door should be closed unless the parameter Doors no 45 is activated (Open and close limit). In that case, the signal is released when the close limit is broken.
29	28	Door C open	Open command Automatic door C Is always on when the door should be open unless the parameter Doors no 45 is activated (Open and close limit). In that case, the signal is released when the open limit is broken.
30	29	Door C close	Close order Automatic door C Is always on when the door should be closed unless the parameter Doors no 45 is activated (Open and close limit). In that case, the signal is released when the close limit is broken.
31	30	Door D open	Open command Automatic door D Is always on when the door should be open unless the parameter Doors no 45 is activated (Open and close limit). In that case, the signal is released when the open limit is broken.
32	31	Door D close	Close order Automatic door D Is always on when the door should be closed unless the parameter Doors no 45 is activated (Open and close limit). In that case, the signal is released when the close limit is broken.
33	32	Close limit A-D	Output that simulates the close limit when the door needs to be live (active) during the trip to keep the door closed.
34	33	Nudging	This output pulls after the photocell has been blocked for the set time and the door starts to close. Intended to switch the door to low closing speed.
35	34	Photocell Test	Connects to SIG-IN on monitored photocell. Normally ON and switched OFF during test.
36	35	Readjst. UP	Output indicating the readjustment should be UPWARD.
37	36	Short-circ. Door	Short-circuits doors and locks during running in to floors for early door opening and readjustment with door open.
38	37	Short-circ. Photocell.	Short circuiting of the photocell while running in the lift to floors
39	38	Door zone	The lift is in a door zone
40	39	Arrival signal	Activated during running in to destination floors in response to a call.
41	40	Up Arrow	Collective arrow Ascent
42	41	Down Arrow	Collective arrow Descent
43	42	Here light	The lift is HERE
44	43	Busy light	The lift is busy. Door open, out of order, movement, call off

Number	Internal function	Function	Description
			activate this output
45	44	Overload	Overload detected by the overload scale
46	45	Full load	Full load detected by the overload scale
47	46	Quick Start	Not implemented
48	47	Priority 1	The lift is in PRIORITY 1 (Bed AMA) mode
49	48	Priority 2	The lift is in PRIORITY 2 (Emergency) mode
50	49	Priority 3	The lift is in PRIORITY 3 (Bed) mode
51	50	Door opener Shaft	Door opener in shaft board (CAN-BUSS)
52	51	Loading in progress A	Loading (extended door time) activated door A
53	52	Loading in progress B	Loading (extended door time) activated door B
54	53	Loading in progress C	Loading (extended door time) activated door C
55	54	Loading in progress D	Loading (extended door time) activated door D
56	55	Fire	Fire run active
57	56	Fireman	Fireman run active
58	57	Priority Buzzer	Priority 1-3 is active
59	58	Start Batt. 230V	Start battery supplied 230V AC on ESL lift (small frequency control)
60	59	Reserve power	The lift is in reserve power operation
61	60	Total alarm	Total alarm (error alarm) from lift Something is wrong and the lift requests help. Safety circuit, System error, Battery error, out of order, other incident that unintentionally blocks the lift. Time delay is sets in parameter System No: 1.
62	61	Emergency alarm	Emergency alarm tripped
63	62	Rope Brake	Triggering of ropebrake at UCM
64	63	Safe. Before door	Indication safety chain before doors
65	64	Safe. After door	Indication safety chain after doors
66	65	Here lamp Schaft	Lamp indicating lift at this floor
67	66	Inspection Spd.	Inspection speed active
68	67	Lift car light	Control of lift car light. Off when the lift is at rest. If all the safeties except lock are OK, the lift is started, the floors for the lift are set, the lift does not have a destination, the lift does not move, the lift car light is then permitted to go out after the set time (Parameter Control 40)
69-78	68-77	Free output 1-10	Free programmable output. Used by the PLC.
79-88	78-87	Floors 1-24	Digital floor display. Active when the lift is on floor 1-24
89-112	88-111	Plan 1-24	
113	112	Binary 0	Binary floor display lowest bit (value 1)
114	113	Binary 1	Binary floor display (value 2)
115	114	Binary 2	Binary floor display (value 4)
116	115	Binary 3	Binary floor display (value 8)
117	116	Binary 4	Binary floor display (value 16)
118	117	Binary 5	Binary floor display highest bit (value 32)
119	118	Cabinet fan	Controlled cabinet fan. Active when the cabinet temperature gets too high.(Temperature exceeding System parameter 4).

Number	Internal function	Function	Description
120	119	Lift car fan	Active when the lift is in motion, 30 seconds after each stop and when the safety circuit is broken.
121	120	Motor fan	Active when the motor is in operation, 60 seconds after each stop, and when high temperatures are indicated by the motor thermistor.
122	121	Run from limit down	Automatic bridging lower limit for hydraulic lifts
123	122	Lift car panel board relay	Relay Lift Car Roof Board
124	123	Speech Unit	Activated before arrival at the floor to trigger the speech unit with floor information
125	124	Energy Saving	Output that controls a contactor before the frequency control. This switches off when the lift has not been in use for 60 minutes.
126	125	Vacon Stop NOT OK	Activated before start when the last stop was NOT a perfect, smooth, controlled stop. Used so that Vacon together with KONE Ecodisk can perform a position measurement.
127	126	Handle lock	Together with low top / well, it is possible to switch off the power to the handle lock using a safety relay connected to this output. If it should not function, the SAVE contactor must be placed first in series and then drops out. If it has dropped out, the system must be restarted
128	127	On Evac. Floor	The lift has finished fire evacuation and is on the evacuation floor.
129	128	Cabinet light	control of cabin light
130	129	Inspection ON	Inspection mode activated
131	130	Load A-D	Extra long door time for loading. Controls all doors A-D
132	131	Boom stop	Disable automatic extension of safety stop boom in pit.
133	132	-----	Reserved
134	133	-----	Reserved
135	134	Close A+ B	Close output combined for door A+B
136	135	Top Well Tripped	Low Top /Well tripped
137	136	-----	Reserved
138	137	Lift out of service	Out of service indication
139	138	Bucher Safe	Allows Bucher hydraulics to run DOWN. Controls extra down valve
140	139	Gray code 0	Gray code lowest number
141	140	Gray code 1	
142	141	Gray code 2	
143	142	Gray code 3	
144	143	Gray code 4	Gray code highest number
145	144	On Fire Floor 1	The lift has reached fire alarm floor 1
146	145	On Fire Floor 2	The lift has reached fire alarm floor 2
147	146	On Fire Floor 3	The lift has reached fire alarm floor 3
148	147	On Fire Floor	The lift has reached fire alarm floor 4
149	148	Fan p2t	Fan controlled based on
150	149	Emergency lighting	Switch on emergency lighting. Detection on

Number	Internal function	Function	Description
			connector 3 does not have 230V AC.
151	150	Well alarm	Low top / well has been tripped by a door located lower than 2000 mm from the bottom. (Probably first or possibly second floor)
152	151	Top alarm	Low top / well has been tripped by a door located higher than 2000 mm from the bottom. (Probably floor 2 or higher)
153	152	HR Pin Hydr.	HR pin on hydraulic lift. This does not release if the lift stops between floors.
154	153	Brake Over C.	Relay for connecting over the brake's control in the frequency control. Yaskawa M1-M2 for example. This is to enable the system to pull the brake in A3 test. This relay must also lie in the contactor detection.
155	154	Readjust requested	The lift WANTS to readjust. It isn't certain that it can, due to safeties etc.
156	155	Readjust	Readjustment underway.
157	156	GMV A3 Valve	GMV DLV valve that is placed after the normal hydraulics in order to comply with EN81-A3. This is tested according to GMV's instructions. This output must NOT be programmed in if the valve does not physically exist! Since the lift will go on shoulder or piston stop descent.
158	157	HDD Valve	Hisstema HDD hydraulic main valve
159	158	HDD A3 Valve	Hisstema HDD hydraulic A3 valve
160	159	FÖS Alarm Block	FÖS (SL property surveillance) alarm blocking lamp to place on the cabinet.
161	160	S-kont + Lock	Combined S-contactor and Lock contactor.
162	161	TL Well Hold m.	Teknolift automatic well stanchion hold magnet in retracted position.
163	162	TL Well Reset	Teknolift automatic well stanchion reset magnet that retracts the stanchion for normal operation
164	163	TL Well Buzzer	Teknolift automatic well stanchion alarm that sounds during extension of the stanchion.
165	164	Reserverad	
166	165	Electr. SG Tripped	Electronic SG tripped If this output exists, the lift will be blocked with "Waiting for activation 2".
167	166	Dockn. Function	The lift is run with open inner door and reduced speed. This relay connects across the lift door circuit.
168		Car Door Lock	Control of electric car door lock
169		Weight 1	Cabin weight above limit 1
170		Weight 2	Cabin weight above limit 2
171		iValve Safe	Bucher iValve fault
172		Bypass Signal	Bypass activated. Used for audible signal.
173		En81-73 Signal	Low top / Pit tripped

12.3 Buttons

All pins on the [system](#)⁸⁴ that are marked with "IN / OUT / BUTTON" can be programmed with button input function

Short cut: F4, 6, 6, Enter

Select the connector wanted with F2 and F3

Select the pin wanted with **UpArrow** and **DownArrow**

Press **Enter**

Now you have three (3) rows to fill in:

1. Type: Select **BUTTON**
2. Function: Select the function wanted as listed below
3. Closing: Choose NO or NC. NO means that the output is activated (earthed down) when the function is active and NC means the opposite.
4. Floor: The floor (Starting from 1, 2, etc.) to which the button is to be connected
5. Trunk: The call trunk to which the button will belong. NOTE! If the button is a LIFT CAR BUTTON the trunk must be 0! Call buttons have number 1-7. Normally it is the first (only) trunk. no. 1. If several lifts are linked together, the electrical trunks must have the same number
6. Doors: The door(s) the button will open upon arrival
7. Time-Zone: The time zone in which the button will be active. Choose 0 if it should always be active.
8. Code lock: **ONLY CAR LIFT BUTTON!** On YES, it is necessary for a code be entered with the lift car buttons so the button will be activated. If BOTH time zone and code lock are selected, the lift will be unlocked during the time zone and code locked the rest of the time.

BUTTON Function

Number	Internal function	Function	Description
1	825	Not Used	Not used function
2	826	Lift car	Lift car button
3	827	Up Call	Button for collective up The lift stops on ascent to pick up passengers
4	828	Down Call	Button for collective down The lift stops on descent to pick up passengers
5	829	Call	Button for collective full The lift stops on both ascent and descent to pick up passengers
6	830	Priority 1	Priority call according to EL-AMA Bed transport
7	831	Priority 2	Priority call EMERGENCY. The lift gets there as quickly as possible. Changes direction where it is in the shaft as needed. Refuses other calls and forces the doors to close. The photocell in disconnected before arrival at the calling floor.
8	832	Priority 3	Priority call BED. The lift comes when it empty. No additional calls are served apart from the current lift car destinations
9	833	Lock Floor/Side	This function is also called "anti-button". If a button is programmed to this function, the normal destination button with the same door and trunk will not function. If a "Whole side" is set to YES, even the call buttons on the side and trunk are blocked. This function has been specifically developed to work

Number	Internal function	Function	Description
			with code lock and card reader. To lock a lift car button, the trunk is set to 0. To lock a call button (one floor and side), the trunk is set to the actual button's trunk.

12.4 Roof box connectors

Some pins on [Roof box board](#) ^[59] HT1043 can be programmed with any function you choose

Short cut: F4, 2, Enter, 8, Enter

Connector 1: Pin 3, 5 and 7 are safety detectors (Inputs)
 Connector 2: Relay connector (Output)
 Connector 9: Pin 1-5 (Inputs)

Other connectors and pins are fixed.
 (See manual for board HT1712)

Select the connector wanted with **F2** and **F3**
 Select the pin wanted with **Up Arrow** and **Down Arrow**

Press Enter

Now you have three (3) rows to fill in:

1. Type: Select **IN** or **OUT**
2. Function: Select the function wanted according to list for INPUTS and OUTPUTS respectively (See chapter [Inputs](#) ^[46] or [Outputs](#) ^[52])
3. Connection: Choose NO or NC. NO means that the function is active when the input is earthed down, NC means the function is active when the input is left un-activated

12.5 Panel board

Some pins on [Panel board](#) ^[59] HT1041 can be programmed with any function you choose

It is possible to connect 10 panel boards.
 Each of them has 14 programmable connectors.

Short cut: F4, 2, Enter, 9, Enter

Select the board wanted with **F2** and **F3**
 Select the connector wanted with **UpArrow** and **DownArrow**

Press Enter

Now you have three (3) rows to fill in:

1. Type: Select **IN**, **OUT** or **BUTTON**
2. Function: Select the function wanted according to list for BUTTONS, INPUTS and OUTPUTS respectively (See chapter [Buttons](#) ^[58], [Inputs](#) ^[46] or [Outputs](#) ^[52])
3. Connection: Choose NO or NC. NO means that the function is active when the input is earthed down, NC means the function is active when the input is left un-activated

12.6 Shaft board

Some pins on [Shaft board](#)^[60] HT1039 can be programmed with any function you choose

Short cut: F4, 2, Enter, 9, Enter

It is possible to connect 64 panel boards.

Connector 1-4: Can be programmed as wanted with INPUT, OUTPUT or BUTTON

Connector 5: Is ALWAYS hidden door switch on the floor corresponding to the board's number

Connector 8: Is a relay output. This can be either programmed with an OUTPUT as wanted or with the special "Door opener in shaft bus", which only opens on the floor corresponding to the board's number

Select the board wanted with **F2** and **F3**

Select the connector wanted with **UpArrow** and **DownArrow**

Press **Enter**

Now you have three (3) rows to fill in:

1. Type: Select **IN**, **OUT** or **BUTTON**
2. Function: Select the function wanted according to list for BUTTONS, INPUTS and OUTPUTS respectively (See chapter [Buttons](#)^[58], [Inputs](#)^[46] or [Outputs](#)^[52])
3. Connection: Choose NO or NC. NO means that the function is active when the input is earthed down, NC means the function is active when the input is left un-activated.

Chapter



13 Parameters

Below is a list of parameters sorted numerically.

This number is used for all communication with the NP-1 system.

If you want to come to a certain list, click on the list name.

List number	Name	Description
01	Door parameters	Activate doors, set door times, door zones etc.
02	Selector	Activate selector, trunks, time penalties, etc.
03	Brake parameters	Braking distances, brake adjustment, Brake monitors, etc.
04	Code lock	Enter all codes for the code locked floors
05	Speed curve	Enter the run profile for a frequency-driven lift
06	Control	Automatic return, readjustment, start problems, valve control, acknowledgements, school floor etc.
07	Times	Time zones for buttons, floors, etc. with predetermined time settings
08	Run parameters	Speed monitoring, deceleration and run time
09	Info-Link parameters	Arrival distance, run functions etc.
10	Priority / Fire	Fire and priority runs
11	System parameters	Error alarm, Languages, Access codes, KAS70, Warranty, "beep" button, etc
12	Plan / References	Position all floors, references etc.
13	Doors and Call	Which door will open on which floor and will it stand parked open
14	Safety circuit	Configuration of the order of and which safety detectors that exist
15	Object	Information about the lift facility
19	Overload scale	Overload scale
20	Emergency telephone	Not Implemented
21	Floor display	What the floor display shows on which floor
22	PLC	Selected start and stop sequences, free programs, etc. Also programming of new sequences.
23	Statistics	Statistical functions, start counter, operation time, error frequency, etc.
24	Communication frequency control	Communication settings for "bus-connected" frequency control
25	CAN-bus	The CAN-bus' setting for selector and accessory bus
26	Modem	Modem settings, e-mail addresses, mail server, etc.
27	Ethernet	Ethernet e-mail addresses, mail server, etc.
28	Bluetooth	Not Implemented
29	Memory card	Not Implemented
30	Service	Not Implemented

31	Expert (Not accessible to users)	
32	Analogue inputs	Scaling and thermistor levels
33	IO functions	Function on each connector and pin
34	Button flags	Pins programmed as buttons; Which floor, doors, trunks etc
35	Inspection	Inspector's menu. Useful functions for the inspector
36	Ports	Communication parameters for all serial ports

13.1 Door parameters

Door parameters

List: 01

Short cut: F4,6,4,Enter

Number	Standard	Min/Max	Parameter	Description	Level*
1	No	No/Yes	Door A Activated	Yes means that automatic door A can be opened This MUST also be set to YES for a side hung door if the selector is to function	2
2	2	0-4	Door A Type	Type of A-door 0 = No door 1 = Side hung door 2 = Automatic door 3 = Lift car door (covered by side hung door) 4 = Door opener (for side hung door)	3
3	4 Sec	0-255 Sec	Door A Open time	How long door A is kept open (excluding the opening time for: Door 7)	2
4	2 Sec	1-255 Sec	Photocell time A	How long door A is kept open after photocell has been passed	2
5	3 Sec	1-255 Sec	Radar time A	How long door A is kept open after radar has been activated	2
6	0 Sec	1-255 Sec	Max Open time A	Maximum time door A may be kept open. Useful for hydraulic door openers that become overheated if kept open for too long due to photocell or similar. 0 = Deactivated	3
7	3 Sec	1-255 Sec	Opening time A	The time it takes to open door A	3
8	No	Yes/No	Door B Activated	Yes means that the automatic door B can be opened	2
9	0	0-4	Door B Type	Type of B door 0 = No door 1 = Side hung door 2 = Automatic door 3 = Lift car door (covered by side hung door) 4 = Door opener (for side hung door)	3
10	4 Sec	1-255 Sec	Door B Open time	How long door B is kept open (excluding the opening time for: Door 14)	2
11	2 Sec	1-255 Sec	Photocell time B	How long Door B is kept open after photocell has been passed	2
12	3 Sec	1-255 Sec	Radar time B	How long door B is kept open after radar has been	2

Number	Standard	Min/Max	Parameter	Description	Level*
				activated	
13	0 Sec	1-255 Sec	Max Open time B	Maximum time door B may be kept open. Useful for hydraulic door openers that become overheated if kept open for too long due to photocell or similar. 0 = Deactivated	2
14	3 Sec	1-255 Sec	Opening time B	The time it takes to open door B	3
15	No	Yes/No	Door C Activated	Yes means that the automatic door C can be opened	2
16	0	0-4	Door C Type	Type of D-door 0 = No door 1 = Side hung door 2 = Automatic door 3 = Lift car door (covered by side hung door) 4 = Door opener (for side hung door)	3
17	4 Sec	0-255 Sec	Door C open time	How long door C is kept open (excluding the opening time for: Door 21)	2
18	2 Sec	1-255 Sec	Photocell time C	How long door C is kept open after photocell has been passed	2
19	3 Sec	1-255 Sec	Radar time C	How long door C is kept open after radar has been activated	2
20	0 Sec	1-255 Sec	Max Open time C	Maximum time door C can be kept open. Useful for hydraulic door openers that become overheated if kept open for too long due to photocell or similar. 0 = Deactivated	2
21	3 Sec	1-255 Sec	Opening time C	The time it takes to open door C	3
22	No	Yes/No	Door D Active	Yes means that the automatic door D can be opened	2
23	0	0-4	Door D Type	Type of D-door 0 = No door 1 = Side hung door 2 = Automatic door 3 = Lift car door (covered by side hung door) 4 = Door opener (for side hung door)	3
24	4 Sec	1-255 Sec	Door D open time	How long door D is kept open (excluding the opening time for: Door 28)	2
25	2 Sec	1-255Sec	Photocell time D	How long Door D is kept open after photocell has been passed	2
26	3 Sec	1-255 Sec	Radar time D	How long door D is kept open after radar has been affected	2
27	0 Sec	1-255 Sec	Max Open time D	Maximum time door D may be kept open. Useful for hydraulic door openers that become overheated if kept open for too long due to photocell or similar things. 0 = Deactivated	
28	3 Sec	1-255 Sec	Opening time D	The time it takes to open door D	3
29	30 Sec	1-255 Sec	Max Closed time	Maximum time from when closing began until the safety circuit is complete. If time is exceeded the door is	3

Number	Standard	Min/Max	Parameter	Description	Level*
				re-opened and a new closing attempt is made. When the maximum number of closing attempts (pair Door 31) are made, the door remains open until someone pushes a button. Then another maximum set of attempts at closing the door is made.	
30	0.5 Sec	0.1-25.5 Sec	Button for close time	The time the door remains open after a car button is pushed on the floor	3
31	3 St	1-10 St	Number of closing attempts	The number of attempts to get a complete safety circuit by closing the door before the door is left open. (See pair Door 29)	3
32	+/- 150 mm	1-350 mm	Door zone	The distance where the door is permitted to be open before and after the floor. At early door opening, the door opens when the lift comes into the door zone and the current speed falls below the set speed. If, for some reason, the lift leaves the floor with an open door and travels further than the door zone, the door closes automatically.	3
33	0.1 Sec	1-10.0 Sec	Time Door - Lock	With a side hung door, lock is delayed for this time after the door circuit is complete. Used to minimise problems with bouncing doors	3
34	5 Sec	1-30 Sec	Lock time	Maximum time for the lock to make the safety circuit complete.	3
35	4 Sec	1-60 Sec	Time lock	When a locking attempt fails, the lock is released and delayed this length of time before a new attempt is made.	3
36	3 St	1-50 St	Number of lock attempts	Number of attempts at closing the lock to complete the safety circuit	3
37	No	Yes/No	Open on car safety	If yes, opens and keeps the door open when the lift car safety is broken. Used, for example, when there is a door opener and photocell in the lift car opening	3
38	Yes	Yes/No	Open on arrival	The door will open automatically upon arrival at a floor. Normally YES for automatic doors and lift car doors, NO for door openers	3
39	No	Yes/No	Use retiring cam	Yes means that door opener waits until the lock is broken before it opens	3

Number	Standard	Min/Max	Parameter	Description	Level*
40	No	Yes/No	Door button becomes loading	If this door button is pushed when the door is open at rest, the door time is changed to loading time. (pair Door 41) Useful when it is wanted to add loading function at a later date without needing to add an extra button in the lift car panel.	3
41	5 Min	1-30 Min	Loading time	Door time at loading. If you push the Door button during loading, the time is exchanged for normal door time	2
42	3 St	1-10 St	Max reopening Radar	The maximum number of times the door reopens due to radar	3
43	No	30 Sec	Block between Up and Down Button	To prevent both the up and down call from being pressed simultaneously, a blocking time between the two directions can be entered.	3
44	No	Yes/No	Door C Without Lock	Does not wait for the lift car door to be parked open and for the lock to be broken in order to open the door opener.	3
45	No	Yes/No	Use the open limit	The opening limit is connected to the system to detect fully open door.	3
46	Yes	Yes/No	Permits several doors on the same floor	If No, only ONE door at a time opens on the same floor. If several doors have to be opened, they do so one at a time.	3
47	3 St	1-10 St	Number reopening with photocell	The number of times the door is permitted to reopen due to photocell before the door is left open	3
48	0 Sec	1-255 Sec	Time for nudging	If the photocell is broken longer than this time, the door will forcibly close at a slow speed. Output for nudging must be programmed and connected to the door controls. Set to 0 to disable this function	3
49	No	Yes/No	Early door opening	Activate early door opening For this to work, two outputs for short circuiting of doors needed to be used to retract the safety relays, which short circuit the door circuit. For it to be possible for the system to detect a door zone, an input for the door zone can be added. This is not necessary for the function but can be useful when inputting floor settings, etc.	3
50	No	Yes/No	Readjustment with open door	For this to work, two outputs for short circuiting of doors	3

Number	Standard	Min/Max	Parameter	Description	Level*
				needed to be used to retract the safety relays, which short circuit the door circuit. For it to be possible for the system to detect a door zone, an input for the door zone can be added. This is not necessary for the function but can be useful when inputting floor settings, etc.	
51	30 Sec	0-600 Sec	Max Active Radar time	Maximum time the door radar is active and reopens the door	2
52	0,15m/s	0-0,8 m/s	Opening speed	The top speed when early door opening is permitted	3
53	No	Yes / No	Folding door in lift car	When lift car bus board is used the answer should be YES if a Car door covered with a side hung door is connected	3
54	0	0-5 Sec	Delayed reopening car lift door due to side hung door	car lift door due to side hung door If the lift car door needs a pause between closing and opening when it is forced to turn during closing due to open side hung door.	3
55			----	Reserved	3
56	0	0-50	Delay open door A-B	Delayed opening of door A and B	3
57	0	0-50	Delay open door C-D	Delayed opening of door C and D	3
58	0	0-1	Load open door.	Button "loading" (Long door time) opens the door if it is closed.	2
59	1	0-1	Always lock on	Lock is always closed before running the lift. Even for readjustment.	3
60	0	0-10000	Light curtain Superv.	Supervision of Light curtains. This output turns the power OFF for testing purposes the time indicated. 0 means Disabled	3
61	0	0-48	Disable Light c	Disble supervision for set number of hours	3
62	0	0-64	Start Block Door A	When the input Block A door is activated, it is possible using this and the next parameter to select the range of floors that will be blocked. For example, if 62 to 3 and 63 to 6 are set, floors 3, 4, 5, and 6 will be blocked by the input "Block door A".	3
63	0	0-64	End Block Door A	See number 62.	3
64	0	0- 64	Start Block Door B	When the input Block B door is activated, it is possible using this and the next parameter to select the range of	3

Number	Standard	Min/Max	Parameter	Description	Level*
				floors that will be blocked. For example, if 64 to 3 and 65 to 6 are set, floors 3, 4, 5, and 6 will be blocked by the input "Block door B"	
65	0	0-64	End Block Door A	See number 64	3

* Nivå är den säkerhetsnivå som krävs för att kunna redigera parametern.

13.2 Selector

Selector

List: 02

Short cut: F4,6,9,Enter

Number	Standard	Min/Max	Parameter	Description	Level*
1	1	0-10	Group number	The lifts within the same selector can be divided into different groups, which cannot accept calls among themselves, but read status, etc.	5
2	1	1 -15 st	Number of lifts	Maximum number of lifts permitted in the selector. If too many lifts are connected the selector will be deactivated	5
3	0	0 - 63	Selector offset floor 1	If the lifts do not have the same bottommost floor, the lift(s) that go furthest down must have their number of extra down floors entered here. If this lift has 2 basements, which the other does not have, you input 2. Usually this parameter is 0.	3
4-18	No	No/Yes	Trunk 1-15 active	Yes means that the lift can accept calls with this trunk number. Used to select buttons for certain lifts.	3
19	0 Sec	0 - 255 Sec	Additional time available	The selector calculation add this penalty time to an available lift. This is to make it possible to prioritise a lift that is already in operation.	3
20	3 Sec	1 - 30 Sec	Normal stop time	The selector calculation uses this value to calculate time for a stop (deceleration to rest)	3
21	3 Sec	1 - 30 Sec	Normal start time	The selector calculation uses this value to calculate time for a start (acceleration to full speed)	3
22	30 Sec	1 - 255 Sec	Safety -> Dumping	The length of time during which the safety circuit is broken, or overload mode is active, before a call is sent out to the selector again.	3
23	2 Sej	0 - 255 Sec	Additional time standing	The selector calculation adds this penalty time to a lift that is not moving	3
24	3 St	0 - 10 St	Repeated presses - change	On repeated pressing on the same button occurs, another lift in the group may be called. 0 means that the function is deactivated	3

Number	Standard	Min/Max	Parameter	Description	Level*
25	2	0 - 15	Button held in -> trunk	When a call button is held in, the button can switch trunk number. This is used, for example, to make it possible to call the big lift by holding one button in longer than a certain amount of time. The time is set in Selector No: 26	3
26	0 Sec	0 - 30 Sec	Time for long press	Time for function in Selector No: 25 Set to 0 to disable this function.	3
27-41	0 Sec	0 - 255 Sec	Time penalty trunk 1-15	The selector calculation adds this value to this trunk to prioritise certain kinds of calls.	3
42	Yes	No/Yes	Mirror acknowledgements	On Yes, ALL the lifts that get a call of this type sent via the selector acknowledge. This is used when several lifts that work together have the same trunk number but are not connected together electrically.	3
43-57	1	1-15	Copy trunk 1-15 to trunk number	An incoming call on trunk 1, will be treated internally as trunk number:	3
58	2	0-15 Sec	Time deduction for Lift car destination	This time is subtracted during selector calculation if there already is a lift car destination for the floor. This is in order to give the lift an advantage over the one that does not have a lift car destination to that floor.	3
59	1	1-16	Unit Number	The lift's unit number in the selector	3
60	2	2-50 Sec	Time interval Destination check	The selector uses this interval to check if any lift can respond to a call better than the one that just acknowledged the call. A call can therefore switch lifts every 5 seconds until a lift has been directed to the call. When the bidding process ends	3

* Nivå är den säkerhetsnivå som krävs för att kunna redigera parametern.

13.3 Brake parameters

Brake parameters

List: 03

Short cut: F4,6,5,Enter

Number	Standard	Min/Max	Parameter	Description	Level*
1	10 mm	0 -100 mm	Mechanical Up	Distance from where the brakes / valve are released until the lift stands still. Does not apply for frequency controlled lifts with Yaskawa. For ZetaDyn, this should be set to 17 mm as standard.	3

Number	Standard	Min/Max	Parameter	Description	Level*
2	10 mm	0 - 100 mm	Mechanical Down	Distance from where the brakes / valve are released until the lift stands still. Does not apply for frequency controlled lifts with Yaskawa. For ZetaDyn, this should be set to 17 mm as standard.	3
3	0 mm	0 - 100 mm	Frequency Up	Correction of braking distance in order to attain 0 mm floor error	3
4	0 mm	0 - 100 mm	Frequency Down	Correction of braking distance in order to attain 0 mm floor error	3
5			Reserverad		3
6			Reserverad		3
7	No	No / Yes	Auto adjustment	For YES, 1-4 corrections are made at every normal stop	3
8	No	No/Yes	Brake monitoring	For Yes, the switch on the brakes is monitored	3
9	No	No/Yes	Auto test	Automatic brake test once a day. It runs down. Starts a up trip brakes in the middle of the shaft Returns to previous floor if pass.	3
10	No	No/Yes	Double brakes	ISIS Double Brakes	5
11	No	No/Yes	SG-Block (Brake)	SG locking cam controlled by brake	3

*The level is the safety level required to edit the parameter.

13.4 Code lock

Code lock

List: 04

Short cut: F4,6,14,Enter

Number	Standard	Min/Max	Parameter	Description	Level*
1	No	No/Yes	Code lock in the lift car	Yes means that when a button that has the flag CODE is activated, the text GIVE CODE is shown in the floor display and a code with the correct number of digits (Code lock No: 2) must be entered on the lift car buttons.	3
2	4 St	1 - 4 St	Number of digits in code	Number of digits in code on Lift Car buttons	3
3	1234	0 - 9999	Common code	A code that applies for all floors	3
4	No	No/Yes	Prog from the lift car	When this function is activated, every floor's code can be entered from the lift car register	4
5	1311	0 - 9999	VIP code 1	This code applies for all floors	4
6	0	0 - 9999	VIP code 2	This code applies for all floors	3
7	0	0 - 9999	VIP code 3	This code applies for all floors	3
8-71	1111	0 - 9999	Code floor 1-64	Separate code per floor. Code for floor 1-64	3

Number	Standard	Min/Max	Parameter	Description	Level*
72	0	0-64	No Code Floor	The floor that will be exempted from code lock connected to the input "Code lock in lift car" When the lift is in lock mode, the floor entered here is exempted.	3

* The level is the safety level required to edit the parameter.

13.5 Speed curve

Speed curve

List: 05

Short cut: F4,6,8,Enter

Number	Standard	Min/Max	Parameter	Description	Level*
1	No	No/Yes	Activate Frequency run	On YES, the lift's speed is given in the form of a 0-10 volt set point on connector 9 pin 3.	5
2	0%	0 - 20%	Initial moment Up	The initial set point that is put out before start up to compensate at start	3
3	0%	0 - 20%	Initial moment Down	The initial set point that is put out before start down to compensate, for example, for heavy lift cars, etc. Used if the lift tends to rollback during start down.	3
4	2 Sec	0,0 - 5,0 Sec	Brake delay	Time from start until the brakes are released	3
5	0,2 Sec	0,0 - 5,0 Sec	Magnetisation time	Time from when the brakes are released until the set point begins to increase	3
6	75%	0 - 100%	S-curve Acc start	"Softness" in transition from idle to acceleration. 0% means a hard and direct acceleration and 100% means a very soft transition.	3
7	40 m/s ²	0,1 - 2,0 m/s ²	Acceleration	Acceleration in m/s ² . 0.4 is normal, 0.2 is very soft and 1.5 is very fast	3
8	50%	0 - 100%	S-curve Acc end	"Softness" in transition from acceleration to full speed. 0% means an abrupt transition and 100% means a very soft transition.	3
9	0,7 Sec	0,2 - 10,0 Sec	Plateau time	The time during which the lift has to keep a uniform speed between acceleration and braking.	3
10	50%	0 - 100%	S-curve Ret start	"Softness" in transition from full speed to deceleration. 0% means an abrupt transition and 100% means a very soft transition.	3
11	0,40 m/s ²	0,1 - 2,0 m/s ²	Retardation	Retardation in m/s ² . 0.4 is normal, 0.2 is very soft and 1.5 is very fast	3
12	95%	0 - 100%	S-curve Ret end	"Softness" in transition from deceleration to stop. 0% means an abrupt transition and 100% means a very	3

Number	Standard	Min/Max	Parameter	Description	Level*
				soft transition.	
13	0,020 m/s	0 - 0,100 m/s	Crawling speed	The speed at which the speed curve shall level out. Best used on lifts that become extremely weak at low speeds. (Open loop, asynchronous motor, large slippage)	3
14	1 Mm	0 - 100 Mm	Crawling distance	The distance in mm that the lift will maintain crawling speed.	3
15	0,8 m/s ²	0,1 - 80 m/s ²	End retardation	End deceleration in m/s ² (from crawling speed)	3
16	0,1 Sec	0,0 - 5,0 Sec	Release brakes	Delay between the set point 0 and the brake being released	3
17	0,5 Sec	0,0 - 5,0 Sec	Direction from	Delay from the brake being released until the direction signals are released	3
18	0,5 Sec	0 - 5,0 Sec	Enable from	Delay from the brake being released until the Enable signal is released	3
19	0,15 m/s ²	0,1 -1,0 m/s ²	Inspection run Acc/Ret	Acceleration and retardation during Inspection and Manual runs	3

* The level is the safety level required to edit the parameter

13.6 Controls

Controls

List: 06

Short cut: F4,6,15,Enter

Number	Standard	Min/Max	Parameter	Description	Level*
1	No	No/Yes	Automatic return	Yes means the lift automatically returns to a predetermined floor after a set time.	2
2	1	1 - 64	Automatic return floor 1	Floor for normal automatic return	2
3	2	1 - 64	Automatic return floor 2	Floor for alternative automatic return	2
4	45 Sec	1 - 3600 Sec	Time automatic return	Time the lift stands at rest before automatic return is started	2
5	0	00.00.00 - 23.59.59	Auto ret 2 start	Time when alternative automatic return starts.	2
6	0	00.00.00 - 23.59.59	Auto ret 2 end	Time when alternative automatic return ends. If both start time and end time are 0:00:00, the function is deactivated.	2
7			Astra Operation		4
8			Astra Lift Height		3
9	1	1- 64	Cleaning Floor	When input (Cleaning) is activated, the lift runs to this floor and is then blocked	3

Number	Standard	Min/Max	Parameter	Description	Level*
10	0	0-15	Cleaning Doors	The door or doors that will be open during cleaning. 1 = A, 2 = B, 4 = C and 8 = D. Calculate the total value for the doors concerned and enter the value. 3 = A+B	3
11	3	0-5	Turn-off time	The time (in 25 ms intervals) the acknowledgement on buttons turns off in order for the system to know that an already acknowledged button is pressed. Need for "Long press", unlocks "Waiting for activation" etc	5
12	0 Sec	0 - 300 Sec	Blocking time start	Duration that the lift is blocked after the power is turned on. Used, for example, for emergency generator systems so that all the lifts do not start at the same time when the emergency power is connected.	3
13	0 Sec	0 - 10000 Sec	Motion run	0 means it has been deactivated, All other values give the time in seconds that the lift stands idle before is sent to alternately to the topmost and bottommost floors.	3
14	70 mm	10 - 100 mm	Readjustment zone	The zone +/- in mm that the lift considers to be "on floor". If the lift leaves this zone a readjustment is made. Do not enter TOO SMALL A value for this zone because it can cause the lift to be blocked and not start.	3
15	50 mm	10 - 100 mm	Wrong direction zone	The zone in mm in which the lift is permitted to move in the wrong direction before it is stopped	3
16	1000 mm	0 - 10000 mm	Inspection run, stop from top	How far from the top of the shaft the lift stops during inspection runs. This parameter is set equal to the upper reference distance during shaft measurement.	3
17	3 Sec	1 - 30 Sec	Minimum Standstill Time	The minimum time the lift can stand still on each floor	3
18	5 Sec	1 - 15 Sec	Start error time	Maximum time the lift may try to run without pulses from the encoder being registered.	3
19	2 m/Sec	0,01 - 0,05 m/Sec	Start error speed	Slowest speed that is considered to be movement	3
20	3 St	1 - 10 St	Max number start errors	Maximum number of attempts at starting before the lift is blocked	3
21	10 Min	1 - 60 Min	Time error on floor	Duration the safety circuits may be broken on the floor before the lift is taken out of service and	3

Number	Standard	Min/Max	Parameter	Description	Level*
				indicates an error in the error memory	
22	0,3 Sec	0,1 - 2,0 Sec	Time high/low: Y/D	Rest time between High and Low and between Y and D connectors, respectively	3
23	No	No/Yes	Start up ASCENT	The lift starts up in the opposite direction. Upper reference applies as the start up reference. Useful when the basement has restricted access	4
24	No	No/Yes	Hydraulic lift	Yes means that the lift is a Hydraulic lift	5
25			Latch time	Maximum Time for latch to be engaged	3
26			Reserverad		3
27	7 Sec	0,1 - 10,0 Sec	Y-time to D	The time the Y-connector is retracted before the D-connector retracts	3
28	5 Sec	0,0 - 10,0 Sec	D-time to valve	The time the D-connector is retracted before the up/high valve is retracted	3
29	0 St	0 - 10 St	Bus run in lift car	The maximum number of lift car destinations that are served consecutively without the side hung door opening or the photocell breaking. 0 means that the function is deactivated	3
30			Reserverad		3
31	No	No/Yes	Turn off both arrivals	Turn off both (Up and Down buttons) upon arrival at a floor.	3
32	No	No/Yes	Flashing acknowledgement	Yes means that a button flashes to acknowledge that the button was pushed. Continuous acknowledgement is lit when the lift is destined to the current floor.	3
33	No	No/Yes	Direct control	Yes means a directly controlled lift	3
34			Fan p2t	Fan controlled based on oil pressure and engagement time of pump. Used in HDD hydraulics	3
35	No	No/Yes	HR/Shoulder control	Monitoring of HR pin or Shoulder block (Descent)	3
36			Reserverad		4
37	No	No/Yes	Short circuit photocell	Yes activates the function photocell short circuit during running in to a floor.	4
38	300 mm	0 - 500 mm	Short circuit distance	The distance before the floor at which the photocell short circuits.	3
39	No	No/Yes	Delete Calls on "off"	Yes means that all current stored calls are deleted on call off	3
40	5 min	1--30 min	Lift car light time	Time from when the lift goes in to rest until the lift car light is turned off	2
41	0 min	0 - 240 min	Inspection run timer	If the input Inspection run timer is activated, the inspection run is permitted the set time. Set the parameter to 0 to disable this function.	3

Number	Standard	Min/Max	Parameter	Description	Level*
42	No	Yes / No	Zetadyn Frequency	Special mode for ZetaDyn 3BF frequency control (Also applies for LiftEquip together with Control no: 75)	5
43	60 min	1-120 Min	Energy saving	The time the power will be on for the frequency control, etc. after completed trip. In other words, if the lift is at rest for a period longer than this time, the frequency control is turned off.	3
44	0	0-100%	Reg switching point	The top speed for a trip that will select HIGH or LOW regulator. Normally, this is set to 0%, which means that ALWAYS HIGH regulator works. On a fast lift with short floors, it may be necessary to switch to LOW regulator for the short floor. In which case, set this to, for example, 20% and it will then use LOW if the max speed for the trip is less than 20% of max speed.	3
45	0	0 - 500	Acc feed forward Lo	Feed Forward value LOW regulator	3
46	300	0-500	Speed reg P-gain Lo	P-Gain LOW regulator	3
47	50	0-500	Speed reg I-gain Lo	I-Gain LOW regulator	3
48	100	0- 500	Speed reg D-gain Lo	D-Gain LOW regulator	3
49	0	0 -24 Tim	Time controlled disconnection LTG	To disconnect Low top / well temporarily for up to 24 hours.	3
50	0	0 -1000Mm	Switching between ramps	When operating with short floors, the longest distance that will give LOW ramps can be selected here. Suitable for short floor with fast lift to prevent too rapid braking when the top speed is reduced.	3
51	30	1 -100Ms2	Acceleration low	Acceleration during LOW	3
52	30	1 -100Ms2	Retardation low	Retardation during LOW	3
53	10	0 - 60 Sec	Delay after energy saving	Delay after the energy saving contactor retracts, in order for the frequency control to have time to start up and be ready for operation.	3
54			Regulator Max	Maximum value the position regulator can affect the speed setpoint	4
55	No	Yes / No	Auto reset Emergency Signal	The emergency signal is reset automatically once the lift has completed a normal trip	3
56	No	Yes / No	Quick start active	Quick start function.	5

Number	Standard	Min/Max	Parameter	Description	Level*
				This means that the lift gets the motor ready to run and bridges doors etc. during the time the doors are closed. Since all safeties are complete, the lift can start IMMEDIATELY by just releasing the brake.	
57			Quick start max time	Not implemented	3
58			Max kryptid	Maximum time the lift travels at crawling speed	5
59			Relay board 12	Usage of Histema Relay board 12. This can be used to control old floor indicators etc.	3
60	No	No / Yes	Cancel Dest Priority 1	Before the lift has started, the destination can be cancelled in case of priority 1 (Emergency). When new destination button is pressed, the previous one turns off.	3
61	No	Yes /No	EN-81/A3 Active	Monitoring of involuntary movement from floor	3
62	0	0-999	Snapshot Incident	When the given error number arises, all current data is stored on USB, if it is inserted. All RAM memory, Incident memory, Error memory etc, is saved	3
63	0	0-999	Snapshot Incident	See number 62	3
64	0	0-999	Snapshot Incident	See number 62	3
65	No	Yes / No	HDD Valve Active	Hisstema HDD hydraulic system active	4
66	No	Yes / No	HDD Zero	Select YES to start automatic zeroing. The lift will be run a bit.	3
67	0	9999999	HDD Cell Pump (PS1)	Enter CELL value from sensor PS1	3
68	0	9999999	HDD Cell Cyl. (PS2)	Enter CELL value from sensor PS2	3
69	0	9999999	HDD 0 Pump	Value that is stored during zeroing	5
70	0	9999999	HDD 0 Cylinder	Value that is stored during zeroing	5
71	0	9999999	HDD Cal. Set point	Value that is stored during zeroing	5
72			Reserverad		
73	0,60m/s	0,1-1,0 m/s	HDD Max speed	Max lift speed wanted on HDD	3
74	288V	250-600V	Min Start Volt	Lowest battery voltage a battery powered lift starts at.	4
75	No		LiftEquip Control	LiftEquip Frequency Control	3
76	3,0s		LiftEquip Delay Stop	Delay in stop for LiftEquip	3
77	4,0 Sec	0,0-10,0 s	SG Block disconn	Timedelay from stop to SG blockage is engaged.	3
78	No	Yes/No	Auto Parking	Automatic Return floor calculation. The lift is calculating the most optimal floor to rest on based an current traffic pattern. Settings below	5
79	20	10-49	Number of latest	How many trips the decision should be based on.	3
80	900	10-3600	Computing Time	The time interval the decision should be based on	3

Number	Standard	Min/Max	Parameter	Description	Level*
81	1	1-64	Lower Entrance Floor	The lower entrance floor if more than one. If only one, Lower and Upper are set to the same.	3
82	3	1-64	Upper Entrance Floor	The upper entrance floor if more than one. If only one, Lower and Upper are set to the same.	3
83	30%	1-100%	Active floor boundary	How many % of trips should be from a floor to set it as the preferred instead of using average calculation.	3
84	0	0-30s	Delay. Floor block	Delayd unlocking of locked floors	3
85	400	0-500	HDD_Max	Maximum pressure from HDD before tripping. Bar * 10	
86	35	0-100	HDD_Min	Minimum pressure from HDD before tripping Bar * 10 This is to prevent negative pressure at travel down.	
87	82	0-999999	HDD Temp Faktor	Factor to calculate oil temperature	
88	1422	0-999999	HDD Temp Offset	Offset to calculate oil temperature	
89	12	0-999	HDD Tryck Faktor	Factor to calculate oil pressure	
90	206	0-999	HDD Tryck Offset	Offset to calculate oil pressure	
91	400	0-9999	HDD Regulator Kp	Speed regulator Kp	
92	30	0-9999	HDD Regulator Ki	Speed regulator Ki	
93	200	0-9999	HDD Regulator Kd	Speed regulator Kd	
94	0	0-999999	HDD Skala BAR	Scaling Bar indication in display	
95	Nej	Nej/Ja	Altid KvittOFF	Always turn indication off during checking inputs om base board and expansion board.	
96	25	0-150	HDD Ki Ret Upp	Special Ki factor during retardation up	
97	100	0-30	HDD Ki Ret Ner	Specal Ki factor during retardation down	
98	0	0-30	Auto återst VPT4	Automatic reset Wait for response 4 KAS 70.	
99	33	0-100	HDD Offset Ner	Offset to get same speed down as up on HDD.	

* Nivå är den säkerhetsnivå som krävs för att kunna redigera parametern.

13.7 Times

Times

List: 07
Short cut: F4,6,21,Enter

Number	Standard	Min/Max	Parameter	Description	Level*
1	00.00.00	00.00.00 - 23.59.59	Start time zone 1	Start of time zone. Used for coding, for example buttons, to function during a certain time of the day.	3
2	235950	00.00.00 - 23.59.59	End time zone 1	End of the time zone. Used for coding, for example buttons, to function during a certain time of the day.	3
3	00.00.00	00.00.00 - 23.59.59	Start time zone 2	Start of time zone. Used for coding, for example buttons, to function during	3

Number	Standard	Min/Max	Parameter	Description	Level*
				a certain time of the day.	
4	235950	00.00.00 - 23.59.59	End time zone 2	End of the time zone. Used for coding, for example buttons, to function during a certain time of the day.	3
5	00.00.00	00.00.00 - 23.59.59	Start time zone 3	Start of time zone. Used for coding, for example buttons, to function during a certain time of the day.	3
6	235950	00.00.00 - 23.59.59	End time zone 3	End of the time zone. Used for coding, for example buttons, to function during a certain time of the day.	3
7	00.00.00	00.00.00 - 23.59.59	Start time zone 4	Start of time zone. Used for coding, for example buttons, to function during a certain time of the day.	3
8	235950	00.00.00 - 23.59.59	End time zone 4	End of the time zone. Used for coding, for example buttons, to function during a certain time of the day.	3
9	00.00.00	00.00.00 - 23.59.59	Start time zone 5	Start of time zone. Used for coding, for example buttons, to function during a certain time of the day.	3
10	235950	00.00.00 - 23.59.59	End time zone 5	End of the time zone. Used for coding, for example buttons, to function during a certain time of the day.	3
11	00.00.00	00.00.00 - 23.59.59	Start time zone 6	Start of time zone. Used for coding, for example buttons, to function during a certain time of the day.	3
12	235950	00.00.00 - 23.59.59	End time zone 6	End of the time zone. Used for coding, for example buttons, to function during a certain time of the day.	3
13	00.00.00	00.00.00 - 23.59.59	Start time zone 7	Start of time zone. Used for coding, for example buttons, to function during a certain time of the day. .	3
14	235950	00.00.00 - 23.59.59	End time zone 7	End of the time zone. Used for coding, for example buttons, to function during a certain time of the day.	3

* The level is the safety level required to edit the parameter.

13.8 Run parameters

Run parameters

List: 08

Short cut: F4,6,22,Enter

Number	Standard	Min/Max	Parameter	Description	Level*
1	100 m/s	0,1 - 10,00 m/s	Rated speed	The lift's rated maximum speed. This speed is measured and automatically adjusted during shaft measurement. This speed is used for all speed calculations, calculation of braking distances, braking errors, etc. NOTE! This is not an adjustment of the lift's speed! Only information to the system about the lift's speed.	3
2	125 m/s	0,01 - 10,00 m/s	Top speed	The speed at which the "electronic HR" will be tripped. Automatically set 15% over the rated speed during shaft measurement. .	3
3	5 m/s	0,001 - 0,100 m/s	Standstill speed	The speed under which the lift is considered to be at standstill. Used for example to open doors, etc.	3
4	0,50 m/s	0,01 - 0,60 m/s	Inspection run speed	Speed during inspection run and manual run. This only applies to frequency controlled lifts.	3
5	Nej	Nej/Ja	Man/Rev Highspeed	For hydraulic lifts. Run it at high speed during inspection run	3
6	No	No/Yes	Medium speed	Use medium speed. Used for example for short floors and Beringer hydraulic.	3
7	800 mm	100 - 10000 mm	High to Low Up	Deceleration point from High speed on ascent. Not frequency controlled lift	3
8	800 mm	100 - 10000 mm	High to Low Down	Deceleration point from High speed on descent. Not frequency controlled lift.	3
9	400 mm	0 - 5000 mm	Middle to Low Up	Deceleration point from middle on ascent. Not frequency controlled lift	3
10	400 mm	0 - 5000 mm	Middle to Low Down	Deceleration point from middle on descent. Not frequency controlled lift.	3
11	400 mm	100-5000 mm	Min Dist Middle	Minimum distance to start medium speed	3
12	800 mm	100-5000 mm	Min Dist High	Minimum distance to start high speed	3
13	50 Sec	1 - 300 Sec	Max Delay time High	Maximum run time in seconds on high speed. If the time is exceeded, the lift is emergency stopped and blocked. Only key press from the machine room will release the block.	3
14	50 Sec	1 - 300 Sec	Max Run Time Low	Maximum run time in seconds on Low speed. If the time is exceeded, the lift is emergency stopped and blocked. Only key press from the machine room will release the block..	3
15	50 Sec	1 - 300 Sec	Max Run Time Crawl	Maximum run time in seconds at Crawl speed. If the time	3

Number	Standard	Min/Max	Parameter	Description	Level*
				is exceeded, the lift is emergency stopped and blocked. Only key press from the machine room will release the block.	
16	3	1-10 Sec	Enable Off ZetaDyn	Delay in stop before ENABLE switches off to ZetaDyn frequency controls	3
17	0s	0-10s	NGV Block direction	Delay between change in direction on GMV NGV-A3 valves.	3
18	No	Yes / No	Yaskawa I/O controlled	Yaskawa frequency controlled with IO and not 0-10V	3
19	1000mm	500-1500mm	Well space LTG	Extra space in the well (same as stop from top) during inspection run.	3
20	Nej	Nej/Ja	Cancel between floor	Enable cancelling destinations by e-stop between floors	3
21	Nej	Nej/Ja	Turn off wrong direction	Disable car buttons in direction opposit to travel direction	3
22	200	1000	Max accel time 50%	Maximum time to accelerato to 1/2 speed. If not, e-stop	

* The level is the safety level required to edit the parameter.

13.9 Info-Link parameters

Info-Link parameters

List: 09

Short cut: F4,6,17,Enter

Number	Standard	Min/Max	Parameter	Description	Level*
1	300 mm	0 - 3000 mm	Arrival distance	Distance from the floor when the arrival signal is given	3
2	5 Sec	0 - 10 Sec	Arrival time	The time during which the arrival signal is on	3
3	No	No/Yes	Always arrival signal	YES: The arrival signal is given at all stops NO: The arrival signal is given at arrival for calls but not for the lift car destination.	3
4	No	No/Yes	No Arrow at Rest	YES - When the lift is at rest with the door closed without a destination, the arrows are off NO - Arrows always lit as long as the lift is at the floor	3
5			Direction arrow always		3
6	No	No/Yes	Roll opposite	Instructs the floor display to roll in the opposite direction to the normal direction.	3
7	No	No/Yes	Gong EN81-70	Activate arrival signal according to EN81-70. Different signals up/down etc	3
8	No	No/Yes	Arrows off for closed door	NO: Arrows on the floor are lit as long as the lift remains at that floor	3

Number	Standard	Min/Max	Parameter	Description	Level*
				YES: Arrows turn off as soon as the door is closed	
9			Show Service in Floor indicator		5
10	No	No / Yes	Direction arrows in the lift car	If direction (movement) arrows are be sent to the lift car board on the bus	3
11	Yes	No / Yes	Collective arrow in the lift car	If Collective arrows are to be sent to the lift car board via the bus	3
12	0	0-63	Volume Lift Music	0 = Quiet, 63 = max volume for lift music	2
13	Yes	No / Yes	Code 1.2.3 to the speech unit	Yes = Speech unit gets 1 then floor 1 gets 1, 2 for floor 2, etc. No = The speech unit get the same code as the floor display. For example -29 for Bottom Floor, -28 for the Basement Floor, 1 for 1, etc.	3
14	No	Yes / No	Special Texts MegaDot	Shall Fire, Emergency, Entre Code etc. be show on the floor displays	3
15	No	Yes / No	No arrows on lift car dest	Show no arrows on the floor if the lift arrives with lift car destination	3
16	No	Yes / No	Speak with lift car button	Shall the lift speak and say which button was pressed	3
17	No	Yes / No	Warn open gate	If someone gets out and forget to close the gate, a reminder will be given.	3
18	No	Yes / No	Energy saving Floor Indicator	Shall the floor display go into energy save mode at the same time as the frequency control.	3
19	No	Yes / No	MB30-AKPS	Control Digisign special floor display for reference to another lift	3
20	0	0-999	7-Step Parameter	Parameters to send to digisign's floor displays	3
21	63	0-63	Arrival Volume Night	Volume wanted for the arrival signal at night.	3
22	No	Yes / No	Use Day/Night volume	Activate switching between day and night volume for the arrival signal	3
23	63	0-63	Daytime Volume Arrival	Volume wanted daytime for the volume signal	3
24	No	Yes/No	Never return signal	Turn of retun signal complete.	3

* The level is the safety level required to edit the parameter.

13.10 Priority / Fire

Prioritet / Brand

List: 10

Short cut: F4,6,10,Enter

Number	Standard	Min/Max	Parameter	Description	Level*
1	1	1-2	Fire 1 Function	How the lift will behave on fire alarm 1: 1 - Not activated 2 - Fire functions according to EL-AMA 71.EC	3
2	1	1 - 64 planantal	Fire 1 Floor	Preselected floor for fire alarm 1.	2
3	1	1-2	Fire 2 Function	How the lift will behave on fire alarm 2: 1 - Not activated 2 - Fire functions according to EL-AMA 71.EC	3
4	2	1 -64 planantal	Fire 2 Floor	Preselected floor for fire alarm 2	2
5	1	1-2	Fire 3 Function	How the lift will behave on fire alarm 3: 1 - Not activated 2 - Fire functions according to EL-AMA 71.EC	3
6	1	1 -64 planantal	Fire 3 Floor	Preselected floor for fire alarm 3	2
7	1	1-2	Fire 4 Function	How the lift will behave on fire alarm 4: 1 - Not activated 2 - Fire functions according to EL-AMA 71.EC	3
8	4	1 -64 planantal	Fire 4 Floor	Preselected floor for fire alarm 4.	2
9	No	Yes / No	Emergency (Priority 1)	Activate emergency operation. This skips photocell, turns in shaft, in necessary. All current destination are turned off.	5
10	0 Sec	0 -65000 Sec	Priority 1 Holding Time After	The time the lift remains in the Priority mode after prioritised trip in order to enable several Priority trips in succession.	3
11	30 Sec	5 - 65000 Sec	Priority 1 Holding Time Before	The time the lift stay on the calling floor and waits for passengers. If the time is exceeded, the lift return to normal traffic.	3
12	No	Yes / No	Bed AMA (Priority 2)	Activate Bed operation according to EL-AMA The lift ceases to accept calls, current destination are served and only then does the lift go into Priority 2 mode.	5
13			Reserverad		3
14	30 Sec	5 - 65000 Sec	Bed AMA Holding Time	The lift is kept blocked with open doors at the requested floor for this length of time. Only lift car destination releases this block.	3
15	No	No / Yes	Transport (Priority 3)	Priority 3 Transport is activated. Functions like Priority 2 but has lower priority. Priority 2 and 1 can cancel this priority.	5
16	0 Sec	0 - 65000 Sec	Reserverad	Maximum waiting time before the lift interrupts its runs and goes directly to the requested floor.	3
17	30 Sec	5 - 65000 Sec	Transport Holding Tie	The lift is kept blocked with open doors at the requested floor for this length of time. Only lift car destination releases this block.	3
18			Reserverad		5
19			Reserverad		3

Number	Standard	Min/Max	Parameter	Description	Level*
20			Reserverad		3
21	No	No / Yes	Reserve Power Active.	Will the reserve power system be activated. If Yes, the lifts will one by one be sent to preselected floor. When all the lifts have been evacuated, the lifts that have signal (Reserve Power Operation (65)) will return to normal traffic	3
22	1	1-16	Reserve Power Number	The order in which the lifts will be evacuated.	3
23	30 Sec	5-255 Sec	Reserve Power Delay	How long a lift will wait for the previous one to start evacuation before it is skipped.	3
24	1	1-64	Reserve Power floor	The floor the lift will travel for evacuation	3
25	1	1-16 St	Reserve Power Number	Number of lifts in the group that will be evacuated before any of them are permitted to return to normal operation	3
26	0	0- 2	Function on a HERE call	Choose between: UP, DOWN, HERE. This is used, for example, to enable TWO DIFFERENT up buttons and the same floor and side.	4
27	0Sec	0-30s	Delay HERE button	The time the button must be depressed to activate.	1
28	No	Yes / No	DOOR STOP FIRE	Shall the lift stop with the door Closed or Open once it has carried out fire evacuation.	3
29	No	Yes / No	FD Show Fire always	If yes, the floor displays show FIRE as long as the fire alarm is active. If No, it goes from FIRE to CLOSED when the evacuation is completed.	3
30	No	Yes/No	Door Open Fire	If Yes will the elevator stand on floor with open door.	3
31	No	No/Yes	Door closed Res.kr	Lift is parked with closed door after evacuation in emergency power mode	
32	No	No/Yes	Door no fire in FD	Door does not open on landing call in fire mode	3
33	No	No/Yes	Korts F2-list Brand	Bypass F2 light barrier in fire mode	3
34	No	No/Yes	Speech at fire alarm	Enable speech at fire alarm	3
35	No	No/Yes	Speech at Prio	Enable speech at priority running	3
36	No	No/Yes	Speech at Travel	Enable speech at each start of travel	3
37	No	No/Yes	Speech at Load	Enable speech at loading time mode	3
38	No	No/Yes	Speech at Code lock	Enable speech at using code lock in COP	3
39	No	No/Yes	Speech at Pressure	Enable speech when pressing a car button	3
40	No	No/Yes	Speech gate reminder	Enable speech for car gate reminder	3

* Nivå är den säkerhetsnivå som krävs för att kunna redigera parametern.

13.11 System parameters

System parameters

List: 11

Short cut: F4,6,18,Enter

Number	Standard	Min/Max	Parameter	Description	Level*
1	10 Min	1 - 30 Min	Time for service relay	Delay Total alarm relay	3
2	50	0-70 Grader	Max Cabinet temp		5
3	0	0-2	Chosen menu language	Chosen language. 1 - Swedish 2 - English 3 - Finnish 4 - Norwegian	1
4	35 °	10 - 60 °	Permitted cabinet temperature	Highest permitted temperature at which the lift may be run normally. If this temperature is exceed, the lift will only take priority runs.	3
5	1111	0000 - 9999	PIN-code Level 1	PIN code for access to level 1 PIN code for level 1 may be changed	1
6	****	0000 - 9999	PIN-code Level 2	PIN code for access to level 2 PIN code for levels 1-2 may be changed	2
7	****	0000 - 9999	PIN-code Level 3	PIN code for access to level 3 PIN code for levels 1-3 may be changed	3
8	****	0000 - 9999	PIN-code Level 4	PIN code for access to level 4 PIN code for levels 1-4 may be changed	4
9	****	0000 - 9999	PIN-code Level 5	PIN code for access to level 5 PIN code for levels 1-5 may be changed	5
10	985	1 - 10000 St	Pulses / mm	Number pulses / metre from the harness.	5
11	No	No/Yes	Activate KAS 70	Call blocking after emergency stop from the lift car. Used for side hung doors when there is an emergency stop button / threshold available. Only for side hung door without inner door or gate	4
12	2	0 - 5 St	Warranty time in Years	Number of years the warranty is valid. This is entered by Hisstema AB	5
13	1	0 - 40	Beep time buttons	Duration for the beep noise when you push the system's buttons. 0 - Silent function 2 - Normal beep 10 - Long beep	3
14	No	No/Yes	Lift BASIC SETTINGS MADE	YES - The lift has received all "Basic settings" The lift can be operated manually or for inspection runs.	5
15	No	No/Yes	Lift SHAFT MEASURED	YES - The lift has been "Shaft measured"	5

Number	Standard	Min/Max	Parameter	Description	Level*
				The lift can be run with the normal buttons from floor to floor.	
16	No	No/Yes	Lift FLOOR SETTINGS	YES - The lift has received all "Floor settings" The lift knows where each floor to stop at is located.	5
17	No	No/Yes	Autotune Yaskawa	YES - Yaskawa frequency control is auto tunes and the lift is ready to run	3
18	10 Min	1 - 60 Min	Backlight time	Time during which the Backlight (lighted display) will be lit.	3
19	Fritext	Fritext	Free safety 1 text	Descriptive name for free safety detection 1	3
20	Fritext	Fritext	Free safety 2 text	Descriptive name for free safety detection 2	3
21	Fritext	Fritext	Free safety 3 text	Descriptive name for free safety detection 3	3
22	Fritext	Fritext	Free safety 4 text	Descriptive name for free safety detection 4	3
23	Fritext	Fritext	Free safety 5 text	Descriptive name for free safety detection 5	3
24	Fritext	Fritext	Free safety 6 text	Descriptive name for free safety detection 6	3
25	Fritext	Fritext	Free safety 7 text	Descriptive name for free safety detection 7	3
26			Speed relay in schaft test		3
27	No	No / Yes	Format FLASH	If this is set for YES, the FLASH disk will be formatted at the next restart NOTE! All set parameters will be lost and everything reset to default Requires RESTART	5
28	No	No / Yes	Delete FRAM	If this is set for YES, FRAM will be deleted at the next restart. Requires RESTART	5
29	No	No / Yes	Restore BACKUP	If this is set for YES, all parameters will be replaced by those saved at the most recent backup. A backup copy is saved every night at 02:05 hours. With this, you will return to the situation you were in yesterday. Requires RESTART	5
30	No	No / Yes	Restore DELIVERY	If this is set for YES, all parameters will be replaced by the settings that applied on DELIVERY from Hisstema. Requires RESTART	4
31	No	No / Yes	Update PLC	After restart all standard PLC-programs are written back to FLASH Requires RESTART	3

Number	Standard	Min/Max	Parameter	Description	Level*
32	0	0-999999	Program version	Program version in the form 12500 = 1.25.00	5
33	-	-	Reserverad		
34	0	0-500	Acc. feed forward High	Acceleration feed forward at retardation. This actuates the regulator	3
35	100 %	0-500 %	Regulator P-gain	Proportional gain in the position regulator HIGH	3
36	100 %	0-500 %	Regulator I-gain	Integrated part in the position regulator HIGH	3
37	100 %	0-500 %	Regulator D-gain	Derived (Speed dependent) part in the regulator HIGH	3
38	50	0-200 St	Reg connected steps	The number of steps by which the regulator will be slowly connected. This function prevents a jerk during the transition to deceleration if the measured speed and the calculated do not exactly match. HIGH	3
39			Reserved		5
40	No	Yes / No	Low Well / Top 2-16 floor	Activate Low Top / well with expansion board A for the first 16 floors. This board must be set to PNP and unit 1.	4
41	No	Yes / No	Low Well / Top 17-32 floor	Activate Low Top / well with expansion board A for the following floors (17-32) This board must be set to PNP and unit 2.	4
42	No	Yes / No	Handle lock	Function to turn off the power to the handle lock when the door opens. This is used when the lock switch is not permitted to have 230 V AC connected at open door.	4
43	Yes	Yes / No	Monitoring Secret	Shall the secret (hidden) door switch be compared with the normal door series?	4
44	No	Yes / No	Secret in shaft bus	Shall input for secret door switches be taken from CAN bus in shaft?	3
45			Reserved		4
46	0	0-64	Number of low top well monitoring	Number of floors to monitor. Set it to 0, and ALL are monitored. Set it, for example, to 3, and floors 1-3 are monitored.	3
47	No	Yes / No	Low top with photocell	Safety photocell is installed on the lift car roof and inputs on connector 16 on expansion board A. This is to detect if anyone has stepped into the lift.	4
48	0	0-2	Skip number in well	Set it to the number of floors counting downwards that are not to be monitored. 1 means that all floors except the bottom one are	3

Number	Standard	Min/Max	Parameter	Description	Level*
				monitored. Used when there isn't a low well, but there is low top.	
49	No	Yes / No	Rope Change ALARM	For plastic coated ropes, all changes in direction must be monitored. This function activated the monitoring. When only 10,000 changes in direction are remaining, an alarm message appears on the display and the lift is limited to 50% of normal speed. This is to ensure the user reports the lift and someone notes it is time to change ropes.	3
50	4800000	1000-5000000	Rope Change Counter	Number or turns remaining before it is time to change ropes.	5
51			Counts of breakpoints		3
52	No	Yes / No	LTG ESL version	Activate ESL Low top / well function with HR brake, separate monitoring of well and top with resetting from door and call button in combination with resetting from the cabinet	3
53	1	1-3	Menu Level	1 = Basic. The level when the cabinet is delivered Only the most common parameters are shown here. 2 = Medium At this level, you can see all the parameters you have access to change. 3 = Advanced All parameters can be seen here. Both those you can change and those you can't change.	1
54	No	Yes / No	Secret without monitoring	Use hidden door switches as extra door switches without monitoring low top/well.	3
55	0	9999	Mask away fault 1	Mask fault from fault mamory	5
56	0	9999	Mask away fault 2	Mask fault from fault memory	5
57	0	9999	Mask away fault 3	Mask fault from fault memory	5
58	0	0-1	Tillåtn. Gångtid	Allow maximum travel time one time	3
59	0e	0-2	Absolute encoder	0 = Incremental 1 = Limax 2 = Fraba	3
60	Yes	Yes	Inte Ret. Tabell	Do not use retardaton table pre calculated before start	3
61	0	0-45 deg	Tilt Max X	Tilt sensor max angle before tripping in X	3
62	0	0-45 deg	Tilt Max Y	Tilt sensor max angle before tripping in Y	3
63	0	15 sec	Tilt Max Tillslag	Time delay entering tilt blocking	3
64	0	30 sec	Tilt Max Frånslag	Time delay exititn lift blocking	3

Number	Standard	Min/Max	Parameter	Description	Level*
65			System D adapter	NP-1 with D-system Adapter	3
66			1-10V Höjdmätning	Special mode to indicate lift position in shaft in 1-10V dc. 1V = floor 1 10V = top floor.	3
67	No	No/Yes	Fri ut = Hemlig	Free out 1-10 indicates Hidden door contact floor 1-10	3

* Nivå är den säkerhetsnivå som krävs för att kunna redigera parametern.

13.12 Floor / References

Floor / References

List: 12
Short cut: F4,6,7,Enter

Number	Standard	Min/Max	Parameter	Description	Level*
1	5	2 - 64	Number floors	Number of stop floors the lift has.	3
2	0 mm	0 - 1000000 mm	Position Floor 1	Floor 1 is always placed at position 0 mm	3
3-65	0 mm	0 - 1000000 mm	Position Floor 2-64	Floors 2-64 placed in mm over floor 1	3
66			Antal extraref.		5
67	0 mm	0 - 1000000 mm	Ref. lower descent	Lower reference's placement above floor 1 during descent. This position is measured during shaft measurement NOTE! DO NOT CHANGE!	5
68	0 mm	0 - 1000000 mm	Ref. lower ascent	Lower reference's placement above floor 1 during descent. This position is measured during shaft measurement NOTE! DO NOT CHANGE!	5
69	0 mm	0 - 1000000 mm	Ref. upper (ascent)	Lower reference's placement above floor 1 during descent. This position is measured during shaft measurement NOTE! DO NOT CHANGE!	5
70	0 mm	0 - 1000000 mm	Ref. upper (descent)	Lower reference's placement above floor 1 during descent. This position is measured during shaft measurement NOTE! DO NOT CHANGE!	5
71					3

* The level is the safety level required to edit the parameter.

13.13 Doors and Calls

Doors and Calls

List: 13
Short cut: F4,6,3,Enter

Number	Standard	Min/Max	Parameter	Description	Level*
1-64	0,---,A---	0-7, ---- - ABCD ---- - ABCD	Door flags 1-64	Time zone: The time zone during which the door is permitted to open. 0 = Always	3

Number	Standard	Min/Max	Parameter	Description	Level*
				Open: These door will be open when at rest Active: These doors exist on the floor. A, B ,C, D are the different doors that can be selected E.g: T:0 Ö: B---, A: AB means that the floor is always open, Doors A and B may open on the floor, Door B will be parked open when the lift does not have a destination.	

* The level is the safety level required to edit the parameter.

13.14 Safety circuit

Safety circuit

List: 14

Short cut: F4,6,16,Enter

In order for the right text to be shown in NP-1's character window it is important that these are in the order that they are connected in reality.

It is of no importance if there are safeties in the table that are not connected in reality. These will be automatically skipped

It is OK to fill unused ones with 0, if you want to.

Number	Standard	Min/Max	Parameter	Description	Level*
1		0-31	Första Säkerhet	The first safety to detect in the safety chain. All safeties are scanned in the order that they are entered on this list. The first is the one closest to the fuse.	4
2			2:a Safety		4
3			3:e Safety		4
4			4:e Safety		4
5			5:e Safety		4
6			6:e Safety		4
7			7:e Safety		4
8			8:e Safety		4
9			9:e Safety		4
10			10:e Safety		4
11			11:e Safety		4
12			12:e Safety		4
13			13:e Safety		4
14			14:e Safety		4
15			15:e Safety		4
16			16:e Safety		4
17			17:e Safety		4
18			18:e Safety		4
19			19:e Safety		4
20			20:e Safety		4
21			21:e Safety		4
22			22:e Safety		4
23			23:e Safety		4

Number	Standard	Min/Max	Parameter	Description	Level*
24			24:e Safety		4
25			25:e Safety		4
26			26:e Safety		4
27	5		27:e Safety		4
28	4		28:e Safety		4
29	3		29:e Safety		4
30	2		Sista Safety	The safety closest to the contactors.	4

List of possible safeties to enter on the list above

Number	Safety
1	No safety
2	Lock
3	Gate
4	Automatic door D
5	Shaft door D
6	Lift car door D
7	Automatic doo C
8	Shaft door C
9	Lift car door C
10	Automatic doo B
11	Shaft door B
12	Lift car door B
13	Slagdörr B
14	Automatic doo A
15	Shaft door A
16	Lift car door A
17	Side hung door A
18	Lift car safety
19	Machine room HR
20	Well safety
21	Combi safety
22	Frequency control
23	Limit/Stop
24	Free safety 1
25	Free safety 2
26	Free safety 3
27	Free safety 4
28	Free safety 5
29	Free safety 6
30	Free safety 7
31	Free safety 8

* The level is the safety level required to edit the parameter.

13.15 Object

Object

List: 15

Short cut: F4,6,20,Enter

Number	Standard	Min/Max	Parameter	Description	Level*
1	Free text	Free text	Order number	Free text. The lift's order number For example: F10234	5
2	Free text	Free text	Object name	Free text: The lift's object name For example: Storgatan 34 Lift 1 This text is sent for all error messages.	4
3	Free text	Free text	Company	Free text: Installing company	4
4	Free text	Free text	Installation contractor 1	Free text: Installation contractor 1	3
5	Free text	Free text	Installation contractor 2	Free text: Installation contractor 2	3
6	00/00/00	0 - 99/12/31	Inst. date	The date basic set up was performed on the lift. This date is set automatically during basic set up The warranty applies from this date	5
7	00/00/00	0 - 99/12/31	Warranty end	The date the system warranty expires. This date is automatically set during the basic set up to a number of years after the installation date stated in the parameter System no: 12	5
8			Reserverad		3

* The level is the safety level required to edit the parameter.

13.16 Ethernet

Ethernet

List: 27

Short cut: F4,6,2,Enter,5,Enter

Number	Standard	Min/Max	Parameter	Description	Level*
1	0	0-2000	Interval Server access	The frequency the system shall connect to master Ethernet or WLAN server. 0 means the function is switched off.	3
2	No	Yes / No	Modbus HMI-Scada	Shall Ethernet connect to a SCADA system with Modbus-TCP, such as, for example, TUB-NET or similar	3
3	No	Yes / No	HT1311- GSM Module	Shall the Hisstema HT1311 GSM module be activated. This is used for communication with Hisstema's Server	3
4			APN	Not used	
5			Listener Port	Not used	
6			Server IP	Not used	
7			Server Port	Not used	
8			Modbus VARD	Nod used	

* Nivå är den säkerhetsnivå som krävs för att kunna redigera parametern.

13.17 Overload scale

Overload scale

List: 19

Short cut: F4, 6, 12, Enter, 1

Number	Standard	Min/Max	Parameter	Description	Level*
1	No	No / Yes	Reserved	.	3
2	Ingen	0-3	Type of scale	You select here the type of inbuilt overload scale. 1 = None 2 = Hisstema HDD 3 = Hisstema HT1245	3
3	500kg	0-10000kg	Rated load	You enter the lift's rated load here	3
4	575kg	0-11000kg	Overload	You enter the overload wanted here. Normally 15% greater than the rated load	3
5	300kg	0-10000kg	Full load	This is used in the selector it determine whether the lift shall accept a call or pass. Normally set at between 50 % and 75 % of the rated load. May vary depending on how the lift is used. If light but bulky objects are transported frequently, it should be set much lower than when transporting heavy and compact objects	3
6	200kg	0-10000kg	Reserved	.	3
7	50kg	0-10000kg	Reserved	Special	3
8	75kg	25-250 kg	Test load	This load is set as overload during inspection of the lift. It is activated in the inspection menu, Overload scale	3
9	No	No/Yes	No Auto 0	The scale is not performing automatic 0 adjustments	3
10	0	0-10000	Weight output 1	The weight to trigger output Weight 1	3
11	0	0-10000	Weight output 2	The weight to trigger output Weight 2	3

* The level is the safety level required to edit the parameter.

13.18 Floor Display INFO-Link

Floor Display INFO-Link

List: 21

Short cut: F4 , 6, 11, Enter

Number	Standard	Min/Max	Parameter	Description	Level*
1	1	0 - 7	Type	Here you select the kind of floor display you installed. 1 - NOR 1.00 Standard Norway 2 - H17 Hisstema Standard 3 - HU5 4 - HS75 5 - HS12 6 - HT12 7 - HV5 8 - FIN See table 1 below, which codes correspond to which signs.	3
2-65	0-31	0 - 60	Code Floors 1-64	Enter the code that corresponds to what the floor display	2

Number	Standard	Min/Max	Parameter	Description	Level*
				shows on the first floor. For example, you have a H17 floor display and want it to show KV. You then choose 33.	

* The level is the safety level required to edit the parameter.

Table

Number	NOR 1.00	H17	HU5	HS75	HS12	HT12	HV5	FIN
0	0	0	0	0	0	0	0	0
1	1	1	1	1	1	1	1	1
.								
.								
.								
30	30	30	30	30	30	30	30	30
31	E	E	E	E	E	E	E	E
32	BV	BV	A5	K, 5	09	2A	G2	BV
33	KU	KV	A4	P, 5	08	2B	G1	P
34	R	K	A3	L, 5	07	UA	B2	P3
35	2, 5	K1	A2	S, 5	06	UB	B1	P2
36	1, 5	K2	A1	V, 5	05	1A	R0	P1
37	S	09	A0	E, 5	04	A	R1	K
38	M	K3	B4	1, 5	03	B	R2	K3
39	G	K4	B3	2, 5	02	SV	R3	K2
40	P	K5	B2	3, 5	01	1B	R4	K1
41	KV	K6	B1	4, 5	00	3A	3N	YK
42	KJ	K7	C4	5, 5	U1	3B	3S	AK
43	SK	U	C3		U2	U	UV	3K
44	K	UK	C2	G	AK	M	UØ	2K
45	UE	P	C1	0, 5		UK	P	1K
46	UT	KJ	C0	B	U3	K	KJ	L
47	U3	L	BK	K	U0	VF	L	R
48	U2	UE	2K	6, 5	U4	U1	UE	V
49	U1	S	3K	G1	A1	U2	S	A
50	UK	08	4K	G2	B1	U3	08	U
51	U	V	BS	T	P1	KA	V	4.5
52	K2	ÖK	1S	L	P2	KB	-9	3.5
53	K1	NK	2S	-8	P3	IU	-8	2.5
54	P4	B	3S	-7	P4	OP	-7	1.5
55	P3	G	U	-6	P5	BV	-6	0.5
56	P2	-5	SP	-5	P6	N1	-5	-5
57	P1	-4	D	-4	U	N2	-4	-4
58	-3	-3	KV	-3	SO	N3	-3	-3
59	-2	-2	BV	-2	BO	01	-2	-2
60	-1	-1	R	-1	-1	V	-1	-1

13.19 PLC

PLC

List: 22

Short cut: F4, 6, 19, Enter

Number	Standard	Min/Max	Parameter	Description	Level*
1	0	0 - 4	Start program	Choose appropriate program for the start sequence 1 - Frequency controlled with 0-10 V set point	4

Number	Standard	Min/Max	Parameter	Description	Level*
				2 - GMV 3010 or Hydronic 2/300 Hydraulic 3 - Beringer/Bucher/iValve 4 - Frequency VACON Hisstema Lift appl. 5 - Bucher hydraulic 6 - GMV NGV-A3 hydraulic 7 - GMV NGV-A3 with Yaskawa Frequency. 8 - iValve Test	
2	0	0 - 5	Stop program	Choose appropriate program for the stop sequence 1 - Frequency controlled with 0-10 V set point 2 - Hydronic 2/300 Hydraulic 3 - GMV 3010 Hydraulic 4 - Beringer/iValve 5 - Reserved 6 - Bucher/NGV/(iValve) 7 - GMV NGV-A3 8 - JP NTD Hydraulics	4

* The level is the safety level required to edit the parameter.

13.20 Statistics

Statistics

List: 23

This data may only be viewed in menu F4, 5, 1, Enter

Changes may only be made with program NP LiftLine / LiftDef

Number	Parameter	Description
1	Starts Total	Total number of start since the lift was commissioned. Saved every hour to FLASH, which means that during a power outage, the last 0-60 minutes of operation are lost
2	Total Operation Time	Total time the lift has been active since the lift was commissioned
3	Starts Trip	Number of starts that can be reset
4	Operation time Trip	Operation time that can be reset to zero
5	Out of Order time Total	Total time the lift was out of order
6	Out of Order time Trip	Time out of operation that can be reset to zero
7	Voltage on Total	Total time the voltage has been on
8	Voltage on Trip	Time that the voltage has been on that can be reset to zero
9	Zero Trip	Zeroing trip

13.21 Communication Frequency

Communication Frequency

List: 24

Short cut: F4, 6, 2, Enter, 2, Enter

Number	Standard	Min/Max	Parameter	Description	Level*
1	1	1-2	Type	Type of frequency control.	5

Number	Standard	Min/Max	Parameter	Description	Level*
				1 - No computer communication 2 - Yaskawa L1000	
2	2	1 - 2	Protocol	Protocol 1 - Modbus via RS232 connector COM 2 - Modbus via RS485 connector 9	
3	9600	9600 - 115200	Baud rate	Baud rate. Choose from the following 9600 19200 115200	5
4	8	8 - 8	Bits	Number of data bits 7 8	5
5	0	0 - 0	Parity	Parity 0 - None 1 - Even 2 - Odd	5
6	No	Yes / No	Change Direction	Select opposite direction of rotation for motor. Only applies when parameter 7 (Only Databus) is set to YES	3
7	No	Yes / No	Only Databus	Use ONLY databus to control the frequency control. No IO signals used.	3
8	No	No/Yes	DCP4 communication	Use DCP4 serial protocol to control frequency inverter	3

* The level is the safety level required to edit the parameter.

13.22 CAN-bus

CAN-bus

List: 25

Short cut: F4, 6, 2, Enter, 3, Enter

Number	Standard	Min/Max	Parameter	Description	Level*
1	No	No/Yes	Activate selector bus	Activates selector bus CAN 1, connector 10. If this is NO the lift will not communicate with other lifts via connector 10	5
2			Reserved		
3	No	No/Yes	Car Control/ Shaft bus	Activate Car Control / Shaft bus CAN-2	5
4			Reserved		
5	5 Sec	1 - 120 Sec	Heartbeat out interval	Heartbeat out interval. How often the lift presents itself on the bus and says it is alive and which trunks it has	5
6	30 Sec	2 - 240 Sec	Heartbeat in timeout	Heartbeat timeout. The amount of time a lift may be quiet before it is removed from the selector's table of available lifts	5
7	No	No / Yes	Overload lift car board	If the Lift car control bus is connected and overload is connected on the car card.	5

* The level is the safety level required to edit the parameter.

13.23 Analogue inputs

Analogue inputs

List: 32

Short cut: F4, 6, 13, Enter

All values listed below are measured during the board test. These should normally NEVER be changed.

Number	Standard	Min/Max	Parameter	Description	Level*
1	25,2358	0,0000	Cabinet Temp Offset	Calibration offset temperature sensor. So that 0 degrees C will be 0 DO NOT ADJUST	5
2	0,9358	0,0000	Cabinet Temp Scaling factor	Calibration scaling factor for temperature sensor. This is so that 100 degrees C will be 100 degrees DO NOT ADJUST	5
3	1860399	0,0000	5V Scaling factor	5 Volt scaling factor. This is used so the system can measure 5-volts correctly. When you start to edit, this parameter shows a value [AD=]. Measure 5 volts and divide the AD value by the measured voltage. Input the quotient with 4 decimals. For example the system writes AD=745 and you measure 5.03 volts. Divide 754 by 5.03 and you get 148.1113, which you have to input	5
4	647444	0,0000	12V Scaling factor	12 Volt scaling factor. This is used so the system can measure 12-volts correctly. See point 3 for an example of calibration.	5
5	491988	0,0000	15V Scaling factor	15 Volt scaling factor. This is used so the system can measure 15-volts correctly. See point 3 for an example of calibration.	5
6	310145	0,0000 - 900,0000	24V Scaling factor	24 Volt scaling factor. This is used so the system can measure 24-volts correctly. See point 3 for an example of calibration.	5
7	0,4464	0,0000 - 900,0000	Voltmeter Offset	Zero set value for voltmeter Connect the voltmeters measurement pin to signal ground Switch to input mode Enter what is given as AD= value	5
8	25,0000	0,0000 - 900,0000	Voltmeter Scaling factor	Scaling factor for the Voltmeter. This is used so the system can measure voltage in a good way. Put the voltmeter's measurement pin at 24 volt and measure it with a digital voltmeter. Switch to input mode. Then do as described in point 3	5
9	63,1200	0,0000 - 900,0000	Battery Scaling factor	Scaling factor for input mode. See point 3 for an example of calibration. You now	5

Number	Standard	Min/Max	Parameter	Description	Level*
				measure the battery voltage with your digital voltmeter	
10	0	0-999999	Charge I offset	Current measurement offset for battery charger	5
11	0	0-999999	Charge I scale	Current scale for battery charger	5
12	0	0-999999	J4/ Voltage Offset	Voltage offset for voltmeter input	5
13	0	0-999999	J4/ Voltage Scale	Voltage scale for voltmeter input	5
14	0	0-999999	J4/ Voltage Scale	scale factor for voltmeter input	5
15	0	0-999999	Cabinet Temp Offset	Offset for cabinet temperature measurement	5
16	0	0-999999	Cabinet Temp Scale	Scale for cabinet temperature measurement	5
17	450	0 - 9000000	Thermistor level 1	Alarm level motor thermistor. High temp DO NOT ADJUST 0 = Inactivation of thermistor	5

* The level is the safety level required to edit the parameter.

13.24 Com Ports

COM-PORTS

List: 36

Short cut: F4, 6, 2, Enter, 8, Enter

All values listed below are measured during the board test. These should normally NEVER be changed.

Number	Standard	Min/Max	Parameter	Description	Level*
1	4	1-8	Baud rate RS232	Setting for transmission speed via port RS232 (J5) 1 = 9600 baud 2 = 19200 baud 3 = 38400 baud 4 = 57600 baud 5 = 115200 baud 6 = 230400 baud 7 = 460800 baud 8 - Not activated	4
2	8	1-8	Baud rate RS485	Setting for transmission speed via port RS485 (J9) 1 = 9600 baud 2 = 19200 baud 3 = 38400 baud 4 = 57600 baud 5 = 115200 baud 6 = 230400 baud 7 = 460800 baud	4
3	8	1-8	Baud rate Ethernet	Setting for transmission speed via Ethernet 1 = 9600 baud 2 = 19200 baud 3 = 38400 baud 4 = 57600 baud 5 = 115200 baud 6 = 230400 baud	4

Number	Standard	Min/Max	Parameter	Description	Level*
				7 = 460800 baud 8 - Not activated	
4	8	1-8	Baud rate Expansion 1-2	Setting for transmission speed via Expansion connector 1 or 2 1 = 9600 baud 2 = 19200 baud 3 = 38400 baud 4 = 57600 baud 5 = 115200 baud 6 = 230400 baud 7 = 460800 baud 8 - Not activated	3
5	8	1-8	Baud rate USB-Device	Setting for transmission speed via USB Device 1 = 9600 baud 2 = 19200 baud 3 = 38400 baud 4 = 57600 baud 5 = 115200 baud 6 = 230400 baud 7 = 460800 baud 8 - Not activated	3
6	8	1-8	Baud rate USB-Device	Setting for transmission speed via USB Device 1 = 9600 baud 2 = 19200 baud 3 = 38400 baud 4 = 57600 baud 5 = 115200 baud 6 = 230400 baud 7 = 460800 baud 8 - Not activated	3

Chapter



14 Troubleshooting

14.1 Event memory

Short cut: F4, 4, 3 or 4 depending on the overview or level of detail desired

The system stores all incidents in chronological order.

These are stored in FRAM, which is a memory that does not need power to keep its contents.

This means nothing disappears during a power outage.

The last 300 incidents are logged continuously.

A normal trip takes between 2 to 7 incidents, which means there is room to store around 80 trips back in time.

You have two versions of incident memory:

- Overview** This shows incidents in chronological order **without** time indication
- Detailed** This shows incidents in chronological order **with** time indication

This is how an overview can look:

21	Start down call to	4.0	
20	Reference passage lower	1.7	-2 mm
19	Stop at floor	4.0	1 mm
18	Opens Door A		
17	Closes Door A		
16	Start Lift car to floor	1.0	
15	Reference passage lower	1.7	-1 mm
14	Stop at floor	1.0	0 mm
13	Opens Door B		
12	Closes Door B		
11	Reopening Door B		
10	Closes Door B		
9	Door closing error B		
8	Closes Door B		
7	Door closing error B		
6	Closes Door B		
5	Start down call to	3.0	
4	Reference passage lower	1.7	0 mm
3	Stop at floor	3.0	1 mm
2	Opens Door A		
1	Closes Door A		
0	Reopening Door button A		

This shall be interpreted as meaning:

Row	Description
21-17	The lift made a normal trip from floor 1 to floor 4 where it stopped 21 mm above the floor in response to a down call. Passage of the reference switch was problem free
16-12	The lift went on lift car destination to floor 1 and stopped 1 mm below the floor
11-7	The lift tried to close door B but could not complete the safety circuit. Error (7) Door closing errors are registered in the error memory.

6-1	A normal trip to floor 3 in which it stopped 1 mm above the floor
0	Most recent incident, the door reopened during closing because someone pressed the door button. .

A complete description of all incident messages and error codes can be found in the next section

In Detailed mode, only 8 incidents are shown at one time. This mode, in addition to the above, provides information about the date and time for each incident.

You can browse pages back and forwards with the buttons **F2** and **F3**.

14.2 Service memory

Short cut: F4, 4, 1 or 2 Enter

The system stores all errors sorted in chronological order or according to type

These are stored in FRAM, which is a memory that does not need power to keep its contents.

This means nothing disappears during a power outage.

The last 100 incidents are logged continuously

Depending upon the level at which you are logged on, you see different amounts of information in the service memory!!

If you log in at level 1 or 2 (e.g. PIN=1111), you only see genuine ERRORS that have occurred.

This function is the most suitable one for assessing if the lift is functioning as it should.

(See description and similar)

If you log in at level 3 or higher, you will see many more messages.

This is suitable for troubleshooting. Not just genuine errors, but also consequences thereof are shown here.

It requires slightly more practise to interpret this memory correctly.

IN TYPE-ORDER SORTED LIST:

This is how an overview of the error memory can look:

1. 10 x 31 - Lock error while moving
2. 1 x 177 - Brake test
3. 2 x 15 - Side hung door on floor

This shall be interpreted as meaning:

A total of 13 errors are stored.

The locking circuit broke 10 times while moving

A brake test was performed 1 time

Side hung door A was kept open 2 x for more than 10 minutes, so the lift went out of service.

If you choose number 3 you will see something like the following:

1. 3.0 1 mm Side hung door A on floor Date: 15/07/2006 Time: 12:12:32
1. 2.0 0 mm Side hung door A on floor Date: 12/07/2006 Time: 08:17:12

This shall be interpreted as meaning:

The most recent error of this type (Side hung door A on floor) occurred on floor 3. The lift car stood 1 mm above the floor.

Time and date according to notification

The second to last (and even first) occurred on floor 2 and the lift car stood exactly at the floor.

In this way, you can go through every error type individually.

An error that occurs only 1 time does not need to be taken too seriously, but an error that repeats many times (Error 1

Lock error while moving), should be examined to find why it happened so many times.

A complete description of all [error codes](#) ^[101] can be found in the next section

You can browse pages back and forwards with the buttons **F2** and **F3**.

14.3 Incident number

Here follows a list with numbers for every error that can be registered in the error memory.
These are NOT errors. They only indicate what the lift has been doing.

Number	Event text	Description
1001	Start Lift Car Destination to floor	The lift starts due to lift car destination to the given floor
1002	Start Down Call to floor	The lift starts due to down call to the given floor
1003	Start Up Call to floor	The lift starts due to up call to the given floor
1004	Start Call to floor	The lift starts due to directionless call to the given floor
1005	Start Priority 1 to floor	The lift starts due to priority 1 to the given floor
1006	Start Priority 2 to floor	The lift starts due to priority 2 to the given floor
1007	Start Priority 3 to floor	The lift starts due to priority 3 to the given floor
1008	Reserved	
1009	Start Automatic Return 1 to	The lift starts due to automatic return to the given floor
10010	Start Automatic Return 2 to	
1011	Start from system to	The lift starts to the given floor due to initiation by the system itself. An example is, if motion run has been activated, these runs are then marked as system starts.
1012	Stop at floor	The lift stops at the given floor
1013	Opening Door A	Automatic door A opens
1014	Opening Door B	Automatic door B opens
1015	Opening Door C	Automatic door C opens
1016	Opening Door D	Automatic door D opens
1017	Closing Door A	Automatic door A closes
1018	Closing Door B	Automatic door B closes
1019	Closing Door C	Automatic door C closes
1020	Closing Door D	Automatic door D closes
1021	Reopening Door A	Reopening of Automatic door A
1022	Reopening Door B	Reopening of Automatic door B
1023	Reopening Door C	Reopening of Automatic door C
1024	Reopening Door D	Reopening of Automatic door D
1025	Close button A	Close button door A has been pressed
1026	Close button B	Close button door B has been pressed
1027	Close button C	Close button door C has been pressed
1028	Close button D	Close button door D has been pressed
1029	Call A	Call page A has been detected to floor
1030	Call B	Call page B has been detected to floor
1031	Call C	Call page C has been detected to floor
1032	Call D	Call page D has been detected to floor
1033	Lift car button A	Lift car button pressed on side A has been detected to floor
1034	Lift car button B	Lift car button pressed on side B has been detected to floor
1035	Lift car button C	Lift car button pressed on side C has been detected to floor
1036	Lift car button D	Lift car button pressed on side D has been detected to floor
1037	Photocell A broken	Photocell door A Breaks
1038	Photocell B broken	Photocell door B Breaks
1039	Photocell C broken	Photocell door C Breaks

Number	Event text	Description
1040	Photocell D broken	Photocell door D Breaks
1041	Compressive Edge A broken	Photocell door A Breaks
1042	Compressive Edge B broken	Photocell door B Breaks
1043	Compressive Edge C broken	Photocell door C Breaks
1044	Compressive Edge D broken	Photocell door D Breaks
1045	Readjustment	Readjustment starting
1046	Overload	Overload detected
1047	Start up	Start up of the lift. The lift does not know its location but must search for the lower (upper) references to calibrate itself. Normally after the power is turned on or software is reset..
1048	Full load	Full load has been detected
1049	Blocking / Priority	Blocking / Lift car priority has been activated
1050	Call on	Call (external buttons) has been activated
1051	Call off	Call (external buttons) has been deactivated
1052	Brake check in progress	The brake check has been initiated
1053	Reference correction top	Correction of calculated position at the upper reference
1054	Reference correction bottom	Correction of calculated position at the lower reference
1055	No: 1054	Reserverad
1056	No: 1055	The lift has stopped and opened the door more than 3 times without anyone passing the photocell (NP-1 Photocell input broken). All current lift car destinations are turned off. Check that NP-1 really does detect the photocell, to make sure it does not just input into the door control or is bridged. If this is the case, the function must be switched off. (Parameter, Control)
1057	Lift out of order	The lift has been taken out of service due to an error that was active more than then set time (normally 10 minutes) This is commonly due to broken safety.
1058	Reopening Radar A	Automatic door A reopens due to radar
1059	Reopening Radar B	Automatic door B reopens due to radar
1060	Reopening Radar C	Automatic door C reopens due to radar
1061	Reopening Radar D	Automatic door D reopens due to radar
1062	Inspection run stopped by ref.	Inspection run (lift roof run) stopped because it activated the upper references. The lift normally stops at the reference to ensure there is enough rescue room available above the lift car
1063	Stopped by program	The lift is stopped by an internal incident.
1064	Inspection run turned off	Inspection run (roof control) has been turned off
1065	Waiting for activation	The lift is waiting for a button to be pressed. The type of button expected varies. The system's buttons always work, the lift car buttons usually and call buttons sometimes work.
1066	Inspection Run On	Inspection run mode (roof control) has been turned on

Number	Event text	Description
1067	Power on	Power on. The lift was without power before this.
1068	No: 1068	Reserverad
1069	No: 1069	Reserverad
1070	Reference Passage Upper	Travel past upper reference
1071	Reference Passage Lower	Travel past lower reference
1072	Estop	The program has emergency stopped the lift due to broken safety or internal check
1073	Stop All	Command to stop everything. This a variant of emergency stop initiated by the system. If, for example, the lift goes past a floor with stop, a "Stop All" signal is triggered to prevent the lift from going too far past the floor
1074	Deceleration Point	The lift passes the deceleration point and starts retardation to the floor.
1075	Change Destination	While travelling, the lift has changed destination. For example, if it was ascending to take a DOWN call on floor 4 and, during the course of the trip, a DOWN call arrives from floor 6, this will be served first. The lift then changes destination.
1076	Overload Autoadjust	The inbuilt overload scale has made an automatic adjustment. The happens, for example, if the lift stands still for several hours with a small (Less than 50 kg) load, it is then automatically set to 0 kg. If it should show - (Negative) weight for more that a short while, the scale is zeroed
1077	Low top/well reset	Low top/well has been reset using the rest button

14.4 Error number

Here follows a list with numbers for every error that can be registered in the error memory.

Number	Feltext	Description
1	Lock broken on floor	Safety detection for LOCK has been broken more than SERVICE TIME with the lift standing still on floor
2	Side hung door open on floor	Safety detection for SIDE HUNG DOOR has been broken more than SERVICE TIME with the lift standing still on floor
3	Automatic door A on floor	Safety detection for AUTOMATIC DOOR A has been broken more than SERVICE TIME with the lift standing still on floor
4	Automatic door B on floor	Safety detection for AUTOMATIC DOOR B has been broken more than SERVICE TIME with the lift standing still on floor
5	Automatic door C on floor	Safety detection for AUTOMATIC DOOR C has been broken more than SERVICE TIME with the lift standing still on floor
6	Automatic door D on floor	Safety detection for AUTOMATIC DOOR D has been broken more than SERVICE TIME with the lift standing still on floor
7	Shaft door A on floor	Safety detection for SHAFT DOOR A has been broken more than SERVICE TIME with the lift standing still on floor
8	Shaft door B on floor	Safety detection for SHAFT DOOR B has been broken more than SERVICE TIME with the lift standing still on floor
9	Shaft door C on floor	Safety detection for SHAFT DOOR C has been broken more than SERVICE TIME with the lift standing still on floor
10	Shaft door D on floor	Safety detection for SHAFT DOOR D has been broken more than SERVICE TIME with the lift standing still on floor
11	Lift car door A on floor	Safety detection for LIFT CAR DOOR A has been broken more than SERVICE TIME with the lift standing still on floor
12	Lift car door B on floor	Safety detection for LIFT CAR DOOR B has been broken more than SERVICE TIME with the lift standing still on floor
13	Lift car door C on floor	Safety detection for LIFT CAR DOOR C has been broken more than SERVICE TIME with the lift standing still on floor
14	Lift car door D on floor	Safety detection for LIFT CAR DOOR D has been broken more than SERVICE TIME with the lift standing still on floor
15	Side hung door A on floor	Safety detection for SIDE HUNG DOOR A has been broken more than SERVICE TIME with the lift standing still on floor
16	Side hung door B on floor	Safety detection for SIDE HUNG DOOR B has been broken more than SERVICE TIME with the lift standing still on floor
17	Lift car safety on floor	Safety detection for SIDE HUNG DOOR C has been broken more than SERVICE TIME

Number	Feltext	Description
		TIME with the lift standing still on floor
18	Machine room / HR on floor	Safety detection for SIDE HUNG DOOR D has been broken more than SERVICE TIME with the lift standing still on floor
19	Pit safety on floor	Pit safety has been broken more than SERVICE TIME with the lift idle on the floor
20	Limit / Stop /Machine room	Limit, stop, or machine room safety has been broken more than SERVICE TIME with the lift idle on the floor
21	Frequency control on floor	Frequency control has been broken more than SERVICE TIME with the lift idle on the floor.
22	Limit/Stop button on floor	Limit or stop button has been broken more than SERVICE TIME with the lift idle on the floor.
23	Safety 1 on floor	Safety 1 has been broken more than SERVICE TIME with the lift idle on the floor.
24	Safety 2 on floor	Safety 2 has been broken more than SERVICE TIME with the lift idle on the floor.
25	Safety 3 on floor	Safety 3 has been broken more than SERVICE TIME with the lift idle on the floor.
26	Safety 4 on floor	Safety 4 has been broken more than SERVICE TIME with the lift idle on the floor.
27	Safety 5 on floor	Safety 5 has been broken more than SERVICE TIME with the lift idle on the floor.
28	Safety 6 on floor	Safety 6 has been broken more than SERVICE TIME with the lift idle on the floor.
29	Safety 7 on floor	Safety 7 has been broken more than SERVICE TIME with the lift idle on the floor.
30	Safety 8 on floor	Safety 8 has been broken more than SERVICE TIME with the lift idle on the floor.
31	Lock error during run	Safety sensor function for LOCK broken with lift car in movement
32	Side hung door open during run	Safety sensor function for SIDE HUNG DOOR broken with lift car in movement
33	Automatic d. A during run	Safety sensor function for AUTOMATIC DOOR side A broken with lift car in movement
34	Automatic d. B during run	Safety sensor function for AUTOMATIC DOOR side B broken with lift car in movement
35	Automatic d. C during run	Safety sensor function for AUTOMATIC DOOR side C broken with lift car in movement
36	Automatic d. D during run	Safety sensor function for AUTOMATIC DOOR side D broken with lift car in movement
37	Shaft door A during run	Safety sensor function for SHAFT DOOR side A broken with lift car in movement
38	Shaft door B during run	Safety sensor function for SHAFT DOOR side B broken with lift car in movement
39	Shaft door C during run	Safety sensor function for SHAFT DOOR side C broken with lift car in movement
40	Shaft door D during run	Safety sensor function for SHAFT DOOR side D broken with lift car in movement
41	Lift car door A during run	Safety sensor function for CABIN DOOR side A broken with lift car in movement
42	Lift car door B during run	Safety sensor function for CABIN DOOR side B broken with lift car in movement

Number	Feltext	Description
43	Lift car door C during run	Safety sensor function for CABIN DOOR side C broken with lift car in movement
44	Lift car door D during run	Safety sensor function for CABIN DOOR side D broken with lift car in movement
45	Side hung door A during run	Safety sensor function for SIDE HUNG DOOR side A broken with lift car in movement
46	Side hung door B during run	Safety sensor function for SIDE HUNG DOOR side B broken with lift car in movement
47	Lift car safety during run	Safety sensor function for CABIN SAFETY broken with lift car in movement
48	Machine room / HR during run	Safety sensor function for MACHINE ROOM, HR, PIT broken with lift car in movement
49	Pit safety during run	Safety sensor function for PIT SAFETY broken with lift car in movement
50	Limit / Stop / Machine room	Safety sensor function COMBI. Can be LIMIT, STOP BUTTON. MACHINE ROOM, HR, PIT, etc. broken with lift car in movement
51	Frequency control during run	Safety sensor function for CABIN SAFETY broken with lift car in movement
52	Limit/Stop button during run	Safety detection for LIMIT or STOP BUTTON broken with lift car in movement
53	Safety 1 during run	Safety detection for OTHER SAFETY 1 broken with lift car in movement
54	Safety 2 during run	Safety detection for OTHER SAFETY 2 broken with lift car in movement
55	Safety 3 during run	Safety detection for OTHER SAFETY 3 broken with lift car in movement
56	Safety 4 during run	Safety detection for OTHER SAFETY 4 broken with lift car in movement
57	Safety 5 during run	Safety detection for OTHER SAFETY 5 broken with lift car in movement
58	Safety 6 during run	Safety detection for OTHER SAFETY 6 broken with lift car in movement
59	Safety 7 during run	Safety detection for OTHER SAFETY 7 broken with lift car in movement
60	Safety 8 during run	Safety detection for OTHER SAFETY 8 broken with lift car in movement
61	High temp	The motor thermistor (plinth 135 and 136) has detected an excessive motor temperature this could also be error from HT0640 Monitored battery charger. If the motor is cold, check that it is not shining red on the charger, if there is one.
62	Error in contactor detection	Detector for the contactors' retraction and release does not work Check detection and check that no contactor stuck inside
63	Reopening Photocell A	Door A has reopened due to the photocell more than the permitted number of times.
64	Reopening Photocell B	Door B has reopened due to the photocell more than the permitted number of times.
65	Reopening Photocell C	Door C has reopened due to the photocell more than the permitted number of times.
66	Reopening Photocell D	Door D has reopened due to the photocell more than the permitted number of times.
67	Reopening Compressive Edge A	Door A has reopened due to compressive edge more than the permitted number of times.
68	Reopening Compressive Edge B	Door B has reopened due to compressive edge more than the permitted number of times.

Number	Feltext	Description
69	Reopening Compressive Edge C	Door C has reopened due to compressive edge more than the permitted number of times.
70	Reopening Compressive Edge D	Door D has reopened due to compressive edge more than the permitted number of times.
71	Reopening Door button A	Door A has reopened due to door button more than the permitted number of times.
72	Reopening Door button B	Door B has reopened due to door button more than the permitted number of times.
73	Reopening Door button C	Door C has reopened due to door button more than the permitted number of times.
74	Reopening Door button D	Door D has reopened due to door button more than the permitted number of times.
75	Reopening Call A	Door A has reopened due to call more than the permitted number of times.
76	Reopening Call B	Door B has reopened due to call more than the permitted number of times.
77	Reopening Call C	Door C has reopened due to call more than the permitted number of times.
78	Reopening Call D	Door D has reopened due to call more than the permitted number of times.
79	Reopening Car button A	Door A has reopened due to lift car button more than the permitted number of times.
80	Reopening Car button B	Door B has reopened due to lift car button more than the permitted number of times.
81	Reopening Car button C	Door C has reopened due to lift car button more than the permitted number of times.
82	Reopening Car button D	Door D has reopened due to lift car button more than the permitted number of times.
83	Door closing error A	Door A has not completed its safety circuit within the max closing time.
84	Door closing error B	Door B has not completed its safety circuit within the max closing time.
85	Door closing error C	Door C has not completed its safety circuit within the max closing time.
86	Door closing error D	Door D has not completed its safety circuit within the max closing time.
87	Nr 87	Reserved
88	Electronic HR tripped	The lift has exceeded the speed set in parameter Operation No:2. The lift emergency stopped.
89	Automatic door does not open	The control system has sent out a command to open the door but the safety circuit has not been broken.
90	Failed brake test	During a brake test the lift slid farther on the brakes than permitted. The formula for calculation of max permitted distance is $s = (0.6 * v) + (v * v)$ v is the lift's speed in m/s and s is the distance in metres that the lift is permitted to slide
91	Brake monitor error	Micro-switch for monitoring brake movement has detected that the brakes do not follow given commands.
92	Lower reference error	While passing the lower reference, the position differed more than 4 mm from the calculated value.
93	Upper reference error	While passing the upper reference, the position differed more than 4 mm from the calculated value
94	Bus run in lift car	The lift has stopped more that the permitted (normally 3) number of times without Side hung door A opening or the automatic door B Photocell being broken. When this occurs all the remaining lift car destinations are turned off

Number	Feltext	Description
95	24V Low	The system has detected that 24 Volts is too low Make sure that there no short circuits or similar. Measure the voltage connector 17/1 to 17/5
96	15V Low	The system has detected that 15 Volts is too low Make sure that there no short circuits or similar. Measure the voltage connector 17/1 to 17/3
97	12V Low	The system has detected that 12 Volts is too low Make sure that there no short circuits or similar. Measure the voltage connector 17/1 to 18/4
98	5V Low	The system has detected that 5 Volts is too low Measure on connector 17/1 and screw J36
99	2,5V Low / High	The system has detected that 2.5 Volts is too low or high Measure the voltage between connector 17/1 and the capacitor C15 + (upper end)
100	Battery 1 Error	On check of charge in battery 1, too little charge was detected. Measure the battery voltage with both the system connected and without. Check that the voltage is higher when the system is connected and charging. (You should have over 13 Volts when the charger is connected) If the voltage during charging is low, you should wait 30 seconds and measure again, since the charging turns off at regular intervals for measurement of the battery. If the error remains for more that a couple of hours and the system charges correctly, you should change the battery
101	No: 101	Reserved
102	No: 102	Reserved
103	Reference passage 0-speed	Reference sensors have been passed without any speed being detected. Check both reference switches to see if any of them are loose, loosened by vibrations or similar.
104	Start error	no movement was detected during the set time when the lift was expected to move. This may be because the lift is actually standing still or no pulses from the encoder on the lift car roof have been detected.
105	Directional error	The lift is moving in the in the opposite direction to the one ordered. Start manual operation and verify that the lift goes up when you press the up button and down when you press the down button. If this is so, switch round the pulses on terminal blocks 123 and 124 from the encoder. If the lift runs the wrong direction, you must ensure that the lift runs in the other direction. 1-2-speed: Switch round the 2 motor wires on terminal blocks 7 and 8 Frequency controlled: switch round run order up and down, connector 4 pin 2 and 3
106	Max time Door Opener	The door opener has been blocked by the photocell or similar longer than max time and has therefore been closed to prevent overheating.
107	Sabotage switch tripped	Sabotage switch in the lift car panel has detected an attempt to tamper. The lift is blocked and can not be restarted without pressing a button in the

Number	Feltext	Description
		component cabinet.
108	Shoulder/HR control	Monitoring of descent block (shoulder) or HR-block does not work. Check that the block moves freely as it should and that the switch in rest mode is activated.
109	Photocell A blocking	Door A does not close because the photocell is blocking for more than the permitted time
110	Photocell B blocking	Door B does not close because the photocell is blocking for more than the permitted time
111	Photocell C blocking	Door C does not close because the photocell is blocking for more than the permitted time
112	Photocell D blocking	Door D does not close because the photocell is blocking for more than the permitted time
113	Compressive Edge A blocking	Door A does not close because compressive edge is blocking for longer than the permitted time
114	Compressive Edge B blocking	Door B does not close because compressive edge is blocking for longer than the permitted time
115	Compressive Edge C blocking	Door C does not close because compressive edge is blocking for longer than the permitted time
116	Compressive Edge D blocking	Door D does not close because compressive edge is blocking for longer than the permitted time
117	Door button A blocking	Door A does not close because the door button is blocking for longer than the permitted time
118	Door button B blocking	Door B does not close because the door button is blocking for longer than the permitted time
119	Door button C blocking	Door C does not close because the door button is blocking for longer than the permitted time
120	Door button D blocking	Door D does not close because the door button is blocking for longer than the permitted time
121	Radar A blocking	Door A does not close because radar is blocking for longer than the permitted time
122	Radar B blocking	Door B does not close because radar is blocking for longer than the permitted time
123	Radar C blocking	Door C does not close because radar is blocking for longer than the permitted time
124	Radar D blocking	Door D does not close because radar is blocking for longer than the permitted time
125	Max run time High Speed	Max run time high speed exceeded. Check that the set time is enough to travel the entire shaft.
126	Max run time Low Speed	Max run time low speed exceeded
127	Max run time Crawl	Max run time crawl speed exceeded
128	No 128	Reserved

Number	Feltext	Description
129	No 129	Reserved
130	NMI interrupt	Internal system error Contact Hisstema AB
131	Stack Overflow	Internal system error Contact Hisstema AB
132	Stack Underflow	Internal system error Contact Hisstema AB
133	Class B Trap	Internal system error Contact Hisstema AB
134	Basic settings made	This is NOT an error. It is only a note that a basic setting has been made.
135	Shaft measurement performed	This is NOT an error. It is only a note that shaft measurement has been performed
136	Floor settings completed	This is NOT an error. It is only a note that floor settings have been completed.
137	No:137	Reserved
138	5V High	The system has detected that 5 Volts is too high. Measure on connector 17/1 and screw J36
139	12V High	The system has detected that 12 Volts is too high. Make sure that there no short circuits or similar. Measure the voltage connector 17/1 to 18/4
140	15V High	The system has detected that 15 Volts is too high. Make sure that there no short circuits or similar. Measure the voltage connector 17/1 to 17/3
141	24V High	The system has detected that 24 Volts is too high. Make sure that there no short circuits or similar. Measure the voltage connector 17/1 to 17/5
142	HW Watchdog tripped	The system's Hardware watchdog, which makes sure that the program reads and updates all inputs and outputs continuously, has detected an error (more than 200 mS without reading / writing). This may be because the system had a lot to do for the moment. This should occur only very rarely. When this occurs, the lift is immediately emergency stopped to prevent it missing decelerations, etc.
143	FLASH memory, Maintenance	This is NOT an error! This is only an indication that defragmenting and similar maintenance is being performed on the FLASH file system. If this occurs OFTEN, you should contact Hisstema AB
144	No:144	Reserved
145	CPU Watchdog reset	Internal system error Contact Hisstema AB
146	Software Reset	Indication that the system has been restarted by the software. Does not necessarily mean something is wrong. If it often occurs, contact Hisstema AB
147	Shoulder does not retract	Descent block (Shoulder) or HR-block does not retract
148	Retardation monitoring	Non-specified error
149	Restart / HW reset	Indication that the system has been restarted by the hardware. Does not necessarily mean something is wrong. If it often occurs, contact Hisstema AB
150-175	Info 0-25	Internal information for Hisstema AB Should any of these errors occur, and you experience problems with the lift, you should contact Hisstema AB
176	Unknown error	Occurs frequently after program update. If there is an error message in the memory that no longer has any significance, you receive this message,

Number	Feltext	Description
177	Brake test	Not an error. Indication that a brake test has been performed
178	Reference error greater than MAX	When passing a reference the calculated value differed by more than 40 mm from the real position. The lift has been emergency stopped and is readjusting to the floor. This error should not normally occur. Check the encoder, reference switch, etc.
179	CAN Stuff Error	Internal system error If this happens frequently, contact Hisstema AB
180	CAN Form Error	Internal system error If this happens frequently, contact Hisstema AB
181	CAN Acc Error	Internal system error If this happens frequently, contact Hisstema AB
182	CAN Bit 1 Error	Internal system error If this happens frequently, contact Hisstema AB
183	CAN Bit 0 Error	Internal system error If this happens frequently, contact Hisstema AB
184	CAN CRC Error	Internal system error If this happens frequently, contact Hisstema AB
185	CAN Error	Internal system error If this happens frequently, contact Hisstema AB
186	GPRS transmitter error	Transmitter error during GPRS communication (GSM) If you have many of these errors, you should check the placing of the antenna.
187	Lift taken out of service	Attendant error. If the lift due to another error has been still for more than 10 minutes, it is taken out of service. Among other things, this means it is no longer included in the selector.
188	Lift car button stuck	Lift car destination button has stuck while pressed in
189	UP button stuck	Up button has stuck while pressed in
190	DOWN button stuck	Down button has stuck while pressed in
191	HERE button stuck	Here button (Directionless) has stuck while pressed in
192	PRIORITY 1 button stuck	Priority 1 (Emergency) button has stuck while pressed in
193	PRIORITY 2 button stuck	Priority 2 (Bed AMA) button has stuck while pressed in
194	PRIORITY 3 button stuck	Priority 3 (Transport) button has stuck while pressed in
195	Bus Operation Lift Car	The lift has stopped and open the door 3 times in succession without anyone passing the photocell. All lift car destinations are turned off. In this case, check that NP-1 is detecting when someone passes the photocell.
196	Retardation monitoring	The lift has difficulty following deceleration ramp. Check that it isn't too abrupt (high value) retardation is set and that the frequency control has appropriate motor data entered so the lift can follow the ramp wanted
197	Final floor deceleration	Same as 196, but it occurred during deceleration towards final floor. NP-1 places strict requirements to prevent the lift from running into limits.
198	Reference missing	The lift has passed the location with a reference magnet was expected without detecting it. If the UPPER reference is missing, the lift runs normally and will function as it should except for this error message every time it passes.

Number	Feltext	Description
		If the LOWER reference is missing the lift will not manage a restart without running at full speed to either upper or lower limit!!
199	Waiting for activation 1	Blocking caused by, for example, door closing error or similar. Released when ANY button is pressed. (See the next chapter)
200	Waiting for activation 2	Blocking caused by, for example, run time error or similar. Only released from NP-1. (See the next chapter)
201	Waiting for activation 3	Blocking after inspection run on lift car roof. Released either from NP-1 or if, while the door is open, you press the call button when you step off the lift. (See the next chapter)
202	Waiting for activation 4	Blocking caused by the lift car safety while moving. Released when Destination is pressed in the lift car. (See the next chapter)
203	No: 203	Reserved
204	Flash read error	Read error for parameter files. Warning: all settings COULD be lost if this repeats many times.
205	CAN B Stuff Error	Interference on CAN Bus to lift car / shaft
206	CAN B Form Error	Interference on CAN Bus to lift car / shaft
207	CAN B Ack Error	Interference on CAN Bus to lift car / shaft
208	CAN B Bit 1 Error	Interference on CAN Bus to lift car / shaft
209	CAN B Bit 0 Error	Interference on CAN Bus to lift car / shaft
210	CAN B CRC Error	Interference on CAN Bus to lift car / shaft
211	Power On Reset	The system has restarted.
212	Read error ALL parameters	The system has failed totally to read in parameter files. ALL settings are lost. Try "Restore backup" (System menu), and you may get the lift running again.
213	Read error Parameter 1	First parameter in the list corrupted. Warning: all settings COULD be lost if this repeats many times. .
214	Read error Parameter 2	First parameter in the list corrupted. Warning: all settings COULD be lost if this repeats many times. .
215	Read error Parameter 3	First parameter in the list corrupted. Warning: all settings COULD be lost if this repeats many times.
216	Brake monitoring	If the monitoring is activated (Brake parameter), a check is made BOTH that the brake is released before start and that it pulls on start. Checks micro-switch on brake or HR pin.
217	Reopening on start	he door has done completely, [sic] The system decided to start and thereafter the door has opened again. Can either be due to someone opening a side hung door before the lock caught or a bouncing door switch of some sort.
218	No: 219	Reserved
219	Vacon No Load	Vacon frequency control is giving no information that current is flowing in the motor within 5 seconds after a start command.
220	High temp	Over-temperature in motor, hydraulic tank or fault on battery charger HT0640.
221	Overload	The overload scale indicates overload
222	Low Top/Well	Hidden door switch for detecting opening at low top/well has tripped. Either it has broken at a floor where the lift isn't present, or the normal door switch has broken and been broken for more than 3 seconds without the secret switch

Number	Feltext	Description
		breaking.
223	Phase Error / Power Supply	Input from phase error relay indicates phase error. Low/overvoltage, phase sequence or loss of phase.
224	Photocell test error	Monitored photocell failed test. To pass a test, it is necessary that BOTH the control signal from photocell control AND the lift car safety circuit break within the set max time (Normally 500 ms)
225	Floor Passed	The lift failed to brake enough, instead it passed the floor
226	ZetaDyn Brake 1	Does not detect contactor BRAKE1 in connection with ZetaDyn frequency control.
227	CAN A Lost Message	Interference on CAN BUS to selector
228	CAN B Lost Message	Interference on CAN BUS to Lift Car / Shaft
229	CAN B Restart board	Interference on CAN BUS to Lift Car / Shaft
230	RS485 Lost Data	Serial communication with the frequency control affected by interference.
231	Stopped by System	The lift has been stopped by the system. May be due to error during reference passage, over-speed, brake text etc.
232	Waiting for activation 6	Stopped DUE TO EN81-A3 error. The lift has unwanted left floor.
233	Reference during dec.	Reference has been passed during deceleration. The magnets must NOT be placed so close to a floor that they are passed during deceleration. This results in uncertain floor setting and can mean the lift sometimes misses floors by up to 15 mm.
234	Read / Write Error clock	It is not possible to read or write to the battery powered clock. Does not result in any great problem except that times in error and incident memories may be slightly wrong. Switch off the power and restart the system COMPLETELY to get rid of this error
235	HR Pin monitoring	Detection of HR pin has failed more than 3 times in succession.
236	Error EN81-A3 test	The lift has failed (Moved more than 1000 mm) during test of EN81-A3.
237	HDD Overpressure	Hisstema Hydraulic HDD warn for overpressure
238	HDD Negative pressure	Hisstema Hydraulic HDD warn for negative pressure
239	HDD Error Pump Sensor	Hisstema Hydraulic HDD warns for error on pressure sensor on the pump side
240	HDD Error Cylinder Sensor	Hisstema Hydraulic HDD warns for error on pressure sensor on the cylinder side
241	Restart NGV/Yaskawa	NGV-A3 has signalled error during start or the lift has received a start error. In which case, the power is switched off (the energy save contactor releases) for 20 seconds and is then switched back on. This is to try to restart the unit and succeed with the start next time.
242	Nr:243	Reserved
243	Nr:244	Reserved
244	Nr.245	Reserved
245	Nr:246	Reserved
246	Nr:247	Reserved
247	Nr:248	Reserved
248	Modbus Write Error	Interference during communication with Frequency Control
249	Buffer Overfull	Interference during communication with Frequency Control
250	Nr:251	Reserved

Number	Feltext	Description
251	Nr:252	Reserved
252	Nr:253	Reserved
253	Nr:254	Reserved
254	Nr:255	Reserved

14.5 View of safety chain

You can produce a visual image showing the safety chain's current status.

Every detection in the safety circuit is noted here with the connectors and pins to which it is connected.

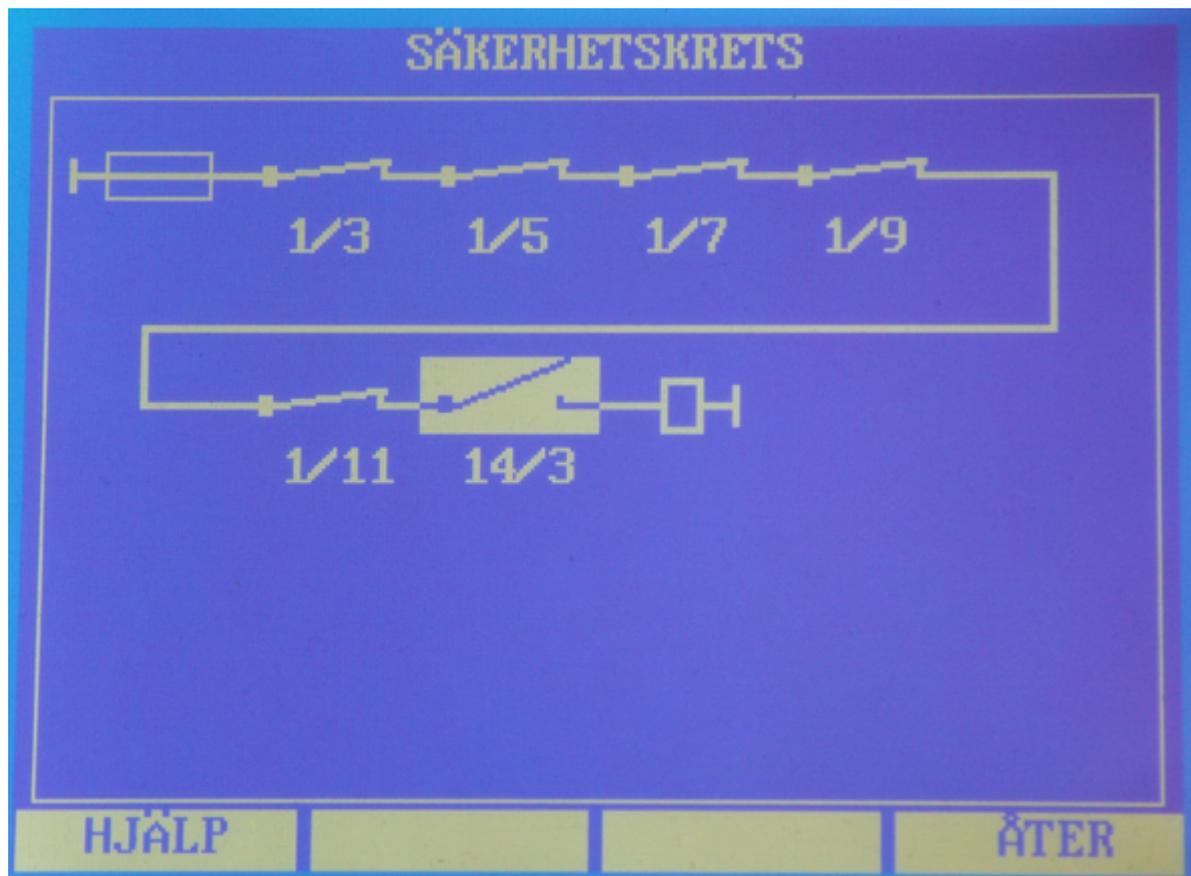
- For example **2/3** means **connector 2 pin 3**.

A point that is shown inverted (in a white box) is a point WITHOUT POWER. It is the first without power that is broken.

This image is updated constantly so you can see if you have succeeded in fixing the error.

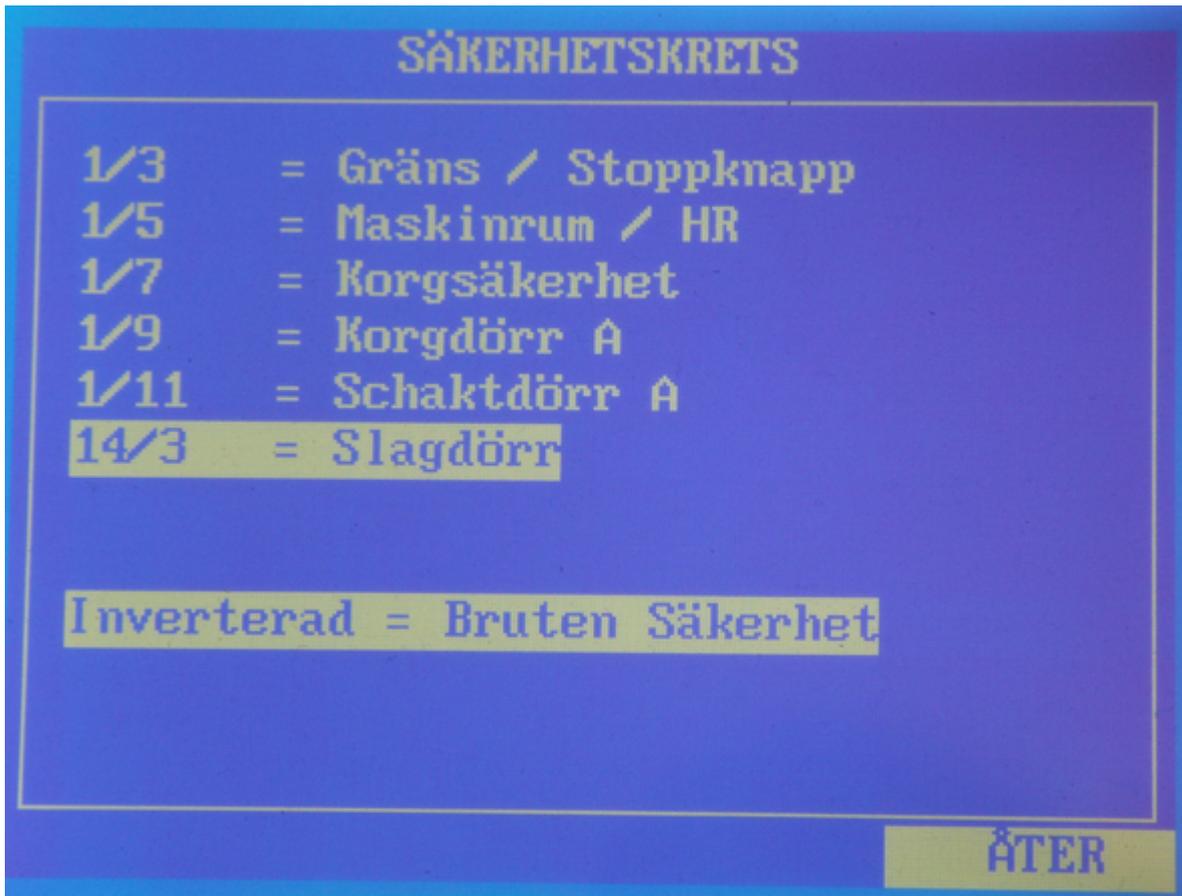
If you do not know which function is on a certain pin press **F1**. You then obtain a list of which functions correspond to which pin.

Short cut: F3, 2



In the image above, the safety on pin 14/3 is broken.

For help, press F1



When you press F1, this image is shown. It says that a SIDE HUNG DOOR is breaking the safety chain

This is a HELP PAGE! It is not updated if the changes in the safety chain occur while it is displayed.

14.6 Waiting for respons

The function "Waiting for activation" indicates that the lift is blocked in some way.

There are 8 different versions with different degrees of severity for the error.

The four levels are as follows:

1 General error

• Possible causes

- Too many reopenings photocell
- Too many reopenings compressive edge
- Too many reopenings door button
- Door closing error
- Lock error
- Shoulder / HR monitoring
- Excess speed rope lift
- Test of monitored photocell failed.
- Brake monitoring
- Emergency stop HDD

- HR Brake faulty
- HR Pin monitoring faulty

- **Reset with:**
 - Lift car button, call button or button on the control system

2 Serious error

- **Möjliga anledningar**
 - Failed brake test
 - Brake test performed manually
 - Repeated start problem
 - Sabotage switch (Anti-jemmy protection)
 - Hydraulic limit run ascent
 - Hydraulic Excess Speed
 - Brake adjustment too large
 - Run time tripped
 - EN81-A3 test faulty

- **Reset with:**
 - Button on the control system

3 Inspection run blocking

- **Possible causes**
 - Completed inspection run from lift car roof

- **Reset with:**
 - Button on the control system, lift car button or call button when the door is open.

4 KAS 70

- **Possible causes**
 - Lift car safety is broken during travel

- **Reset with:**
 - Button on the control system or lift car button

5 Low TOP / WELL

- **Possible causes**
 - Door has opened on a floor where the lift isn't present.
 - The door series has broken on a floor without the hidden door switch breaking within 5 seconds
 - Low TOP photocell activated
 - Hidden switch on emergency opening knob for automatic doors activated

- **Reset with:**
 - Lockable button in the component cabinet. **Press for 5 seconds!**

6 EN81-A3 Test failed

- **Possible causes**
 - The lift has involuntarily left floor.
 - The lift, during test off EN81-A3, has moved more than 1000 mm from floor.

- **Reset with:**
 - Button on the control system.

7 Low WELL ESL

- **Possible causes**

- Door has been emergency opened to well. (The door is lower than 2000 mm from the bottom)
- **Reset with:**
 - Open the door (a door lower than 2000 mm up the shaft), press and hold in the call button, close the door, keep the button pressed in a few seconds

8 Low TOP ESL

- **Possible causes**
 - Door has been emergency opened to top. (The door is higher than 2000 mm from the bottom)
- **Reset with:**
 - Open the door (Any door that is preferably higher than 2000 mm up the shaft), press and hold in the call button, close the door, keep the button pressed in a few seconds.

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