MANUAL



GATEWAY ELEVISION 4.0





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1 General

1.1 Functional description

The PAM.E4 is used to connect the lift controller (NEWLIFT FST controller or a different controller) to the *Elevision 4.0* web platform.

Using the PAM.E4

- > the lift system can be monitored in real-time via the Elevision 4.0 system
- > availability data can be collected and then provided for further evaluation
- > the lift system can be checked by means of the lift attendant function in combination with *Elevision 4.0*.

1.2 Abbreviations, characters and symbols used

Symbol / abbreviation	Meaning
>	Operational instructions Perform the tasks that follow this symbol in the specified order.
•	Action step under the respective operational instruction
\triangle	Safety information This symbol is located in front of safety-relevant information.
(i)	Information notice This symbol is located in front of relevant information.
FSM	Car control module; always required in combination with an FST controller. The two versions of the FSM are FSM-1 (FST-1 controller) and FSM-2 (FST-2 controller).
HSG	Auxiliary power unit
AWE	Lift warden unit
AWM	Lift warden module
AKM	Additional module for installation in the cabin
ASM	Additional module for installation in the control cabinet



1.3 Notation

Notation	Meaning
Bold	Designations of switches and actuatorsInput values
Italics	 Captions Cross references Designations of functions and signals Product names
Bold italics	> Remarks
LCD font	> System messages of the controller

1.4 Further information

The following documents, among others, are available for the FST controller and its components.

- > FST-2XT/s manual
- > GST-XT manual
- > ELEVISION 4.0 manual

These and other current manuals can be found in the download area of our website at https://www.newlift.de/downloads-311.html

1.5 How to contact us

If, after referring to this manual, you still require assistance, our service line is there for you:

Phone +49 89 - 898 66 - 110

E-mail service@newlift.de

Mon. - Thurs.: 8:00 a.m. - 12:00 p.m. and 1:00 p.m. - 5:00 p.m.

Fr: 8:00 a.m. - 3:00 p.m.



2 Safety

The PAM.E4 must only be operated in perfect working condition in a proper manner, safely and in compliance with the instructions, the valid accident prevention regulations and the guidelines of the local power company.



The safety guidelines of the FST manual and the FST Installation and Commissioning manual apply for this product.

2.1 Handling electronic assemblies



Electrostatic charging

- > Keep the electronic assembly in its original packaging until installation to prevent damage.
- > Before opening the original packaging, a static discharge must be performed! To do this, touch a grounded piece of metal.
- > During work on electronic assemblies, periodically repeat this discharge procedure!
- > Equip all bus inputs/outputs not in use with a terminal resistor (terminator) to prevent malfunctions.

2.2 Residual dangers and protective measures



Dangerous electrical voltage!

In its installed state, the PAM.E4 is connected to the 230 V AC power supply. Touching electrically live parts either directly or indirectly can result in an electric shock.

► Take particular care when carrying out all work.



3 Technical data

Software requirements

> PAM.E4 v1.6.1604

Hardware requirements

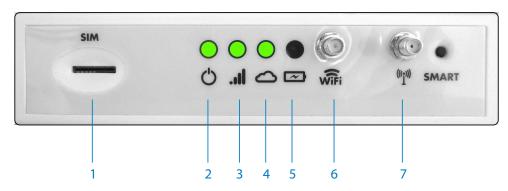
> PAM.E4 (GSR 140B)



At present, the PAM.E4 system can be used only in combination with FST controllers.

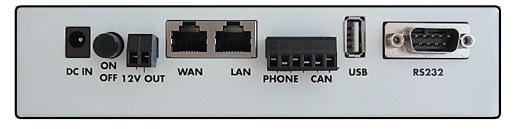
3.1 Overview

Front side



1	SIM card slot	5	LED – battery charge level
2	LED – power ON	6	WiFi antenna port
3	LED - LTE connection present	7	LTE antenna port
4	LED - E4 cloud connection present		

Rear side



Interface	Function
DC IN	Power supply
ON/OFF	Power button
12 V OUT	12V / 1A output
WAN	Connection to the Internet
LAN	Connection to the control system
PHONE	Telephone interface (not available)
CAN	CAN interface (not available)
USB	Not available
RS232	Connection to the controller / modem



3.2 Technical data

Mechanical data	Туре	PAM.E4 (standard version)
	Dimensions without cable	L x W x H = 177 x 90 x 45 mm
	Weight	Approx. 500 g
	Cable length – serial cable (null modem, 1:1)	Max. 2 m
	Cable length – patch cable (cat5)	Max. 100 m
	Feed line length – LTE antenna	3 m
Ambient conditions	Storage temperature	-20°C +65°C
	Operating temperature	-20°C +65°C
	EMC emitted interference / interference immunity	In compliance with (EMC) 2014/30/EU
	RED (Radio Equipment Directive)	2014/53/EU
	LVD (Low Voltage Directive)	2014/35/EU
Mobile network	GSM / GPRS / EDGE bands	900 / 1800 MHz
	WCDMA / HSDPA / HSPA+ bands	B1/B5/B8
	TDD-LTE bands	B38/B40/B41
	FDD-LTE bands	B1/B3/B5/B7/B8/B20
Wireless network Electrical data	Wifi support	150M 2.4 GHz WiFi, 802.11 b/g/n
	12VDC output	1A
	Lithium battery	2500 mAh
	Avg. consumption	400 mA
	Max. consumption	2A (18VDC)
	Working range	12VDC - 24VDC



4 Installation

4.1 Delivery contents

- > 1x PAM.E4 gateway
- > 1x Power supply cable
- > 1x GSM/LTE antenna
- > 1x Quick Guide
- > 1x Quick Guide Base GSM13 (optional)

Variant 1 - Control: Ethernet / Elevision 4: LTE (Standard)

- > 1x Patch cable (2 meter)
- > 1x NEW SIM card (optional)

Variant 2 - Control: Ethernet / Elevision 4: Ethernet

> 2x Patch cable (2 meter)

Variant 3 - Control: Ethernet / Elevison 4: Base GSM13

- > 1x Patch cable (2 meter)
- > 1x RS232 (2 meter, 1:1, female:male)

Variant 4 - Control: RS232 / Elevision 4: LTE

> 1x RS232 (2 meter, null modem, female:female)

Variant 5 - Control: RS232 / Elevision 4: Ethernet

- > 1x RS232 (2 meter, null modem, female:female)
- > 1x Patch cable (2 meter)



- ► Check the components packaged in the delivery contents against the shipping note to ensure that all items are present
- ► Check the packaged components for transport damage. If transport damage has occurred:
 - Report any transport damage immediately to the carrier or parcel service.
- ► Check that all cables are present and of the correct length. In the case of complaints:
 - Report missing components immediately to the NEW LIFT service line.
 - When reordering items, have the following information to hand:
 - > 8-digit NEW LIFT factory number, e.g.: RC980591 (refer to the shipping note)
 - > Designation of the missing NEW LIFT component (refer to the shipping note)
 - > type and length of missing cable (refer to the shipping note)
 - > Your phone/fax number or e-mail address so we can contact you if necessary



4.2 Overview of connection options



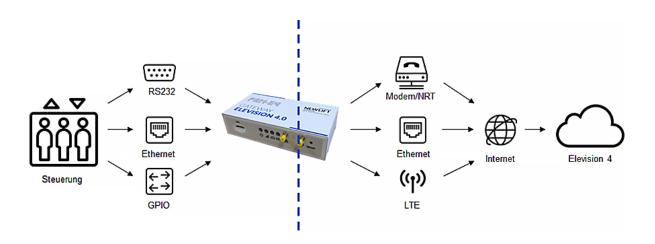
Dangerous electrical voltage!

Direct or indirect contact with exposed live parts may result in electric shock.

- ▶ Disconnect the system from the power supply before starting installation work.
- ► Take particular care when carrying out all work.

The type and location of attachment will vary depending on the PAM.E4 version and the local circumstances.

- > Installation in the control cabinet
- > Freely selectable installation location



Controller side Server side



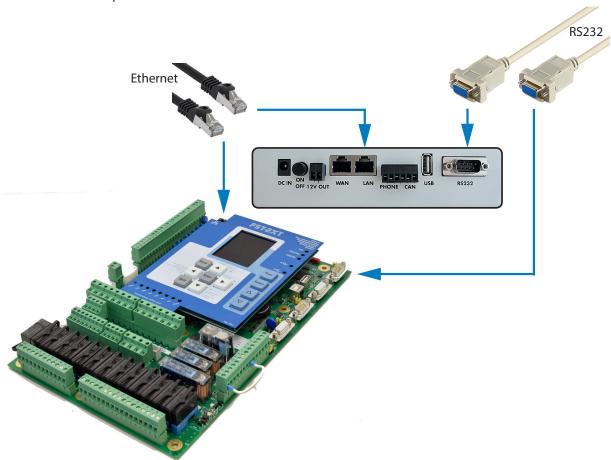
4.3 Controller side - Connecting PAM.E4 to FST

Depending on the version of the FST controller, set up the connection either via Ethernet or via RS232:

- ► For FST-2XT(s) controllers as of version V2.000-0152, use an Ethernet cable (patch cable):
 - Connect the cable to the LAN port on the rear side of the PAM.E4 and
 - to the LAN port of the FST.

OR

- ► For FST-1 and FST-2 controllers as well as FST-2XT(s) controllers up to version V2.000-0151, use an RS232 cable (null modem):
 - Connect the cable to the RS232 port on the rear side of the PAM.E4 and
 - to the RS232 port of the FST.



► For Ethernet only:

After connecting the PAM.E4 and controller, check the IP settings of the FST: See "5.4.1 Settings for connection to Elevision 4 / Connectivity" on page 23.

• IP: 192.168.7.10

Mask: 255.255.255.0Server IP: 192.168.7.2

• Port number: 8002



Default settings can be changed.



4.4 Server side - Connection to ELEVISION 4

4.4.1 RS232 or Ethernet / LTE

► Connect the connector plug of the LTE antenna to the front side of the PAM.E4.



► Check the settings of the SIM card.



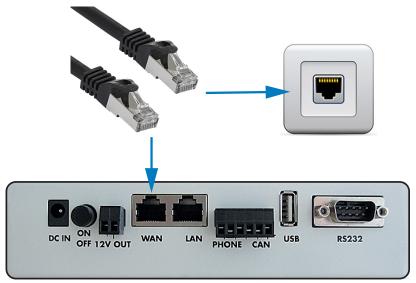
To unlock the SIM card:

Please contact the NEWLift service line. See "1.5 How to contact us" on page 6.



4.4.2 Ethernet / Ethernet

- ► Connect the two connector plugs of the Ethernet cable
 - to the WAN port on the rear side of the PAM.E4 and
 - to the network socket.

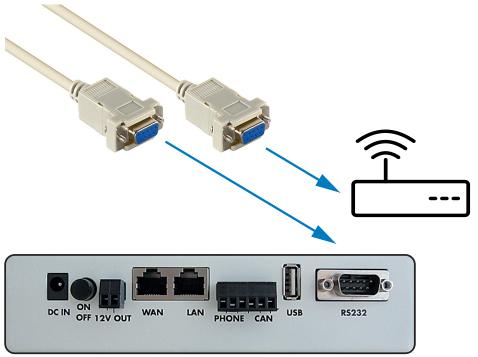


► Check the IP settings.

See "Configuration of WAN interface" on page 24.

4.4.3 RS232 / modem

- ► Connect the two connector plugs of the RS232 cable (null modem or 1:1, depending on the modem)
 - to the RS232 port on the rear side of the PAM.E4 and
 - to the modem.



► Check the modem settings.

See "Configuration of modem interface" on page 25.



Connection via modem is only possible for FST controllers as of version V2.000-0152. On earlier versions, the RS232 port must be reserved for connection to the FST.



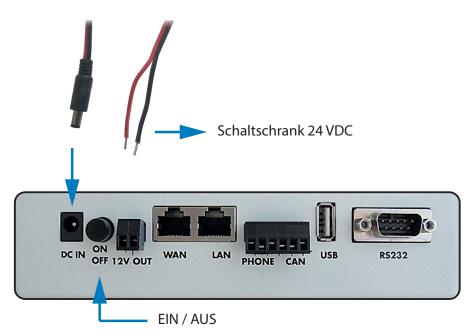
Supported modems

> BASE GSM 13

(Software update of Base modem required, firmware: GSM13-U-3MR-R1.0.17-T9).

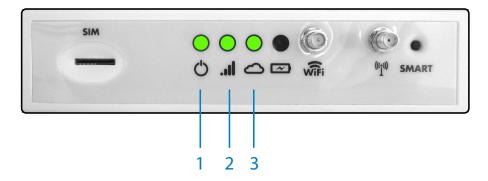
4.5 Connecting mains supply line (Power)

- ► Connect the supplied power supply cable to a 24 V DC source at the control cabinet and connect to the PAM.E4.
- ▶ Depending on the configuration, connect the mains cable in the control cabinet or plug in the mains plug.
- ▶ Plug in the DC plug at the DC port on the rear side of the PAM.E4.
- ▶ Press the ON/OFF button.



4.6 Checking status of connection

- ▶ Watch the LEDs on the front side of the PAM.E4:
 - The Power ON LED must light up green.
 - When an LTE antenna is connected, the LTE LED must light up green.
 - As soon as the connection to the E4 is set up, the Cloud LED lights up for approx. one minute.



1	LED - power ON	3	LED - E4 cloud connection present
2	LED – LTE connection present		



In the event of connection problems: See $\mbox{,7 FAQ}$ on page 55 .



5 Configuration

Preconfigured

The PAM.E4 units are usually delivered preconfigured and are immediately ready for use.

Not preconfigured

A number of minimal configuration steps are required at the PAM.E4 so that the system can log in to the ELEVISION 4 server:

REQUIREMENTS

> Laptop or PC with network port and appropriate configuration privileges

> Configuration of the network settings on the PC/laptop

IP address: 192.168.6.x (except for PAM.E4 gateway IP: 192.168.6.2)

Network mask: 255.255.255.0 Minimal PAM.E4 configuration

► Set up the interface to the controller (Ethernet or RS232, controller type)

➤ Set up the interface to the *ELEVISION 4* server (LTE, Ethernet, RS232, modem, connection behaviour, routine call, *PAM.E4* wakeup, *ELEVISION 4*-server)



5.1 Login and logout

Login

- ► Connect a patch cable to the WAN interface.
- ▶ Make sure that your laptop/PC is configured correctly. See "Requirements" on page 16
- ➤ Open the browser (FIREFOX or CHROME) and enter the following IP address in the address bar http://192.168.6.2



With Ethernet, the IP address is already preset. Otherwise, the IP address must be requested locally.

The login dialogue shown below appears.

► Enter the password **0000** and click on the **Login** button. The *Configuration Portal* starts automatically.

The IP address and password can be changed.

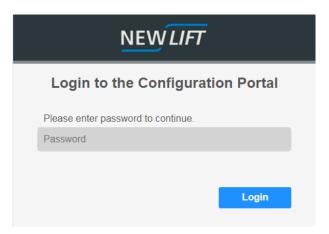


Fig. 1 Login dialogue



Remember to log out of the *Configuration Portal* when you leave your workplace. This will prevent unauthorised persons from viewing confidential data.

Logout



► Click on the logout icon at the top right edge of the screen. The current settings are saved automatically.



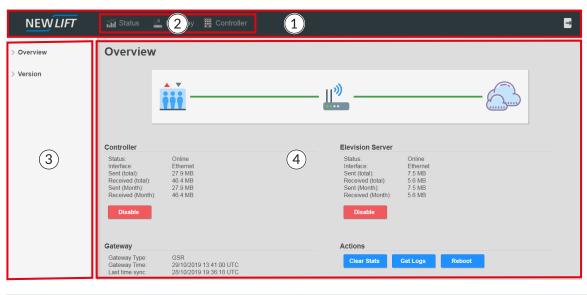
5.2 Menu structure

The following sections provide an overview of the structure of the *Configuration Portal* as well as information on how to use the different interface elements.

5.2.1 Main window

The main window displays the respective working area, depending on which tab you have clicked in the menu bar.

When the program is started for the first time, the working area for the Status tab is displayed.



1	Menu bar with logout	3	Navigation area
2	Tabs	4	Information and configuration area

5.2.2 Menu and tabs

Menu

In the menu bar, you can select tabs, manage data and close the program again.

Tabs

You use the tabs to open the respective working area.



Fig. 2 Menu bar with tabs

Tabs	Function
Status	Opens the <i>Status</i> working area. The <i>Status</i> working area displays the general state and statistics of the gateway. Further options are available.



Tabs	Function
Gateway	Opens the <i>Gateway</i> working area. The <i>Gateway</i> working area contains the gateway configuration for connectivity to the Internet and for behaviour with respect to <i>ELEVISION 4</i> , as well as general functions (e.g. import/export of the configuration).
E Controller	Opens the <i>Controller</i> working area. The <i>Controller</i> working area contains the gateway configuration for connectivity and behaviour with respect to the controller.
<u>⊪</u> ° Modbus	Opens the <i>Modbus</i> workspace. The <i>Modbus</i> workspace contains the configuration of the gateway regarding connectivity and behaviour towards the controller.

5.2.3 Buttons and slide controls

Buttons

You use buttons to confirm and leave a dialogue or to change to a different view or tab.

Slide controls

You use slide controls to

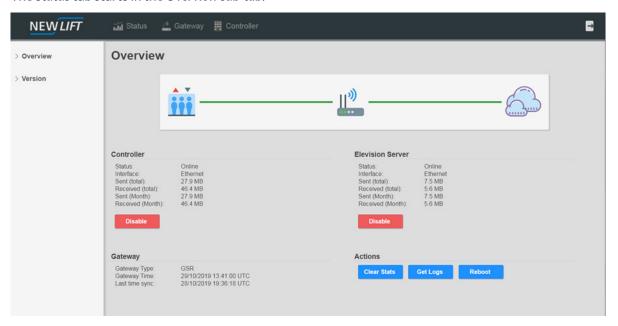
- > switch conditions on or off or
- > set values within a predefined range.

Button	Function
Status	Opens the respective tab Here e.g. the <i>Status</i> tab
Reboot	Executes the respective action. Here e.g. the gateway reboots.
^ ~	Opens / closes a submenu
3 day(s) 1 day(s) 10 sec	To change the value of the slide control: ▶ left-click the slide control handle ▶ hold down the mouse key and slide the handle to the desired position. The set value is displayed.
	Switches a condition on/off > green: switched on > red: switched off



5.3 Status tab

The Status tab starts in the Overview sub-tab.



5.3.1 Overview

The quick overview

- > shows the status of the connection to ELEVISION 4 and to the controller
- > shows the transmitted data volume (in bytes)
- > shows information on the gateway (gateway type, system time, ...)
- > provides actions (reboot, download logs, ...)

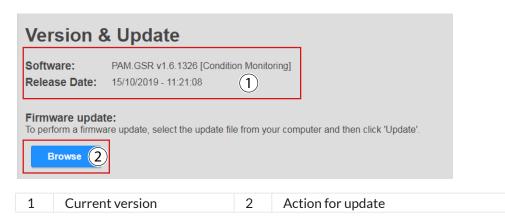




Button	Function	
Disable	Disconnects the connection to the controller or server and prevents a new connection from being set up.	
Clear Stats	Clears the statistics on data consumption.	
Reboot	Reboots the gateway.	
Get Logs	Downloads log files.	

5.3.2 Version

► Select the Version tab / the Connectivity sub-tab is opened.



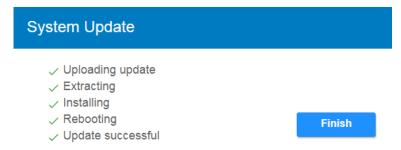
Installing update

- ► Click on the **Browse** button to upload the update file
- ► Check the displayed update information
- ► Click on the **Update** button and watch the update process that then starts

System Update

- Uploading update
- > Extracting
- > Installing
- > Rebooting

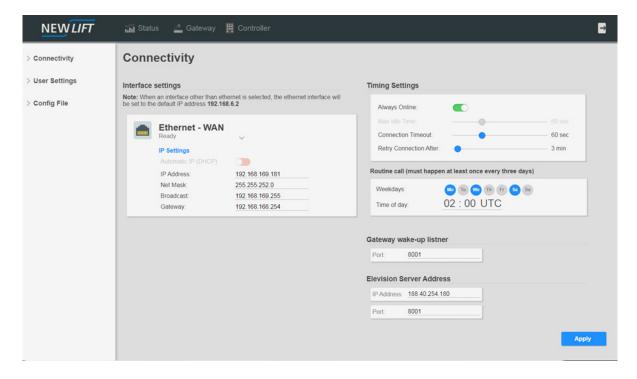




► As soon as the "Update successful" message appears: Click on the "Finish" button to finish the process.

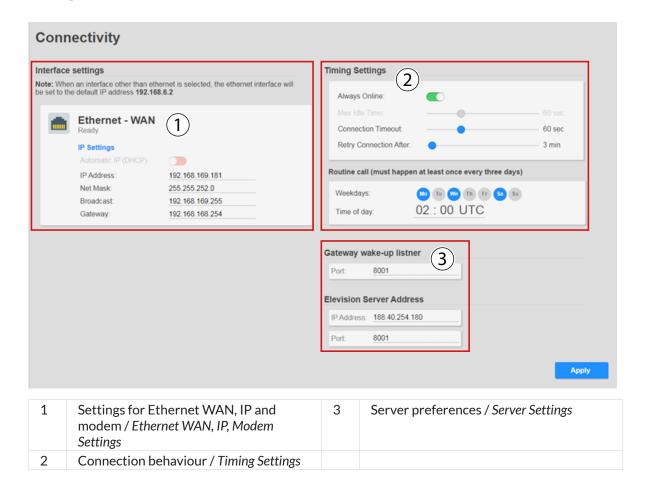
5.4 Gateway tab

► Click on the **Gateway** button to change to the *Gateway* tab. The *Gateway* tab / *Connectivity* sub-tab is opened.





5.4.1 Settings for connection to ELEVISION 4 / Connectivity



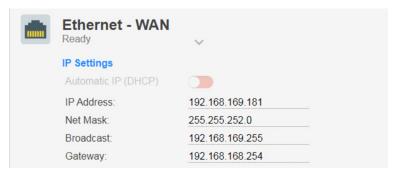
Button	Function
Apply	Saves the settings



Interface Settings

Configuration of WAN interface

- > The IP settings must be preset by the customer
- > It must also be ensured that the PAM.E4 always has access to the Internet.



Ethernet		
IP address	Unique addressing of the gateway (default setting: 192.168.6.2)	
Network mask	Definition of the network (default setting: 255.255.250)	
Broadcast	Broadcast (default setting: 192.168.6.255)	
Gateway	Interface to the next node	



DHCP is currently not available.

After changing the IP address, the IP configuration of the laptop/PC may have to be adjusted.

Attention!

Changing the IP address can lead to the unit no longer being accessible.

Configuration of mobile interface

- ► Configure the SIM settings as per the specifications (APN and SMS Center)
- ▶ Insert the SIM card and monitor the status and signal strength



Mobile		
Status	Status of the SIM card – in the example above: No SIM Card	
APN	Access Point Name – device access point to the Internet	
Card SMS Center	SMS management on the SIM card	
Phone number	Telephone number of the SIM card (if available)	





If Newlift SIM cards are used, extended service options for commissioning are available to our employees. (Example: direct access to the PAM.E4).

Configuration of modem interface

- ► Select the modem type
- ► Set the baud rate
- ► Connect the modem to the PAM.E4



Modem	
Status	Status of the modem – in the example above: Ready
Modem type	Modem designation
Baud rate	Transmission speed

Supported modems

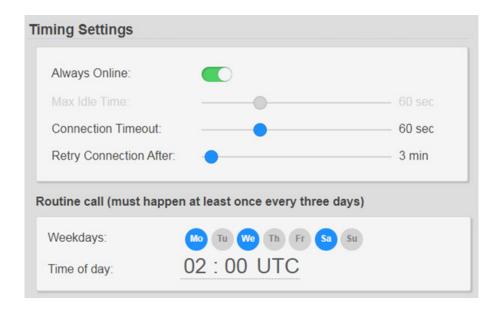
> BASE GSM 13

(Software update of Base modem required, firmware: GSM13-U-3MR-R1.0.17-T9). See "7 FAQ" on page 55 .



Setting connection behaviour / Time Settings

- > Setting of the connection type (always online or only when required)
- > Maximum time in the case of inactivity
- > Maximum time for connection setup
- > Next connection setup attempt
- > Routine call

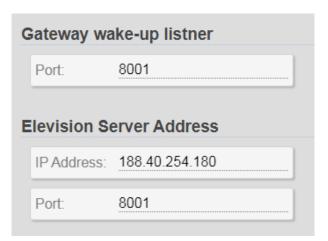


Parameter	Meaning	
Always Online	Active (green): The connection is permanently active. If the connection is terminated, then an attempt is made to set it up again	
Max Idle Time	If the connection is idle, it is terminated after the set time has expired	
Connection Timeout	Period during which attempts are made to set up a connection.	
Retry Connection After	Time after which an attempt is made to set up a new connection following a failed connection attempt	
Weekdays	Selection of the weekdays for the routine call	
Time of day	Time at which a new routine call is started	



Setting IP of ELEVISION 4-server / ELEVISION 4-server settings

- > Configuration of the server (server IP and port)
- > Configuration of the wakeup (the gateway can enter sleep mode)
 - ▶ Make sure that port 8001 on the firewall is open for both directions.



Paramter	Meaning of gateway wakeup listener	
Port	Port (gateway wakeup listener) for incoming messages	
Parameter	Meaning of Elevision server address	
IP address	IP address of the ELEVISION 4-server	
Port	Port of the ELEVISION 4- server for incoming messages	



5.4.2 User preferences / User Settings

- ► Click on the **Gateway** button to change to the *Gateway* tab.
- ► Select the *User Settings* sub-tab.

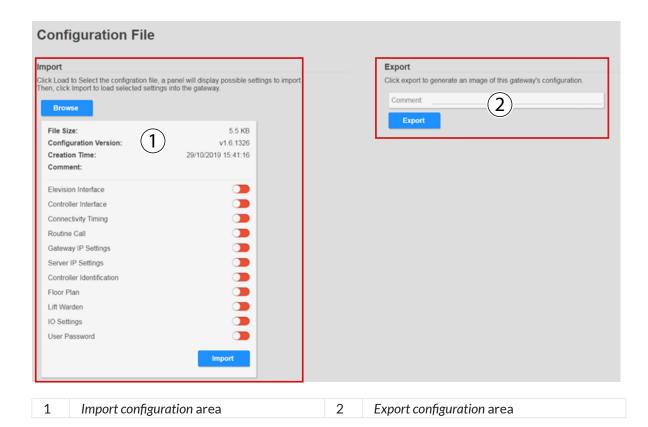
The user password can be changed in this menu. The old password is required to do this.

Default password: 0000



5.4.3 Configuration / Config File

- ► Click on the **Gateway** button to change to the *Gateway* tab.
- ► Select the Config File sub-tab.



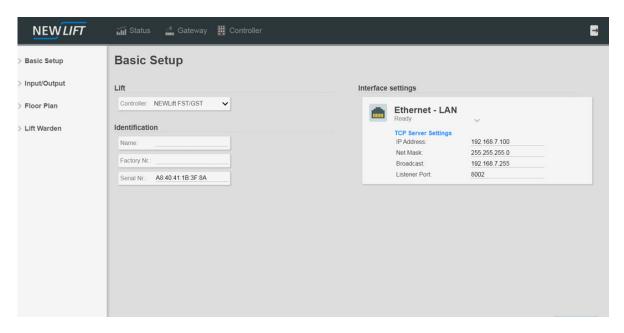
Import/export configuration

- > With an **import**, the local configuration file is loaded to the gateway. It is possible to set import filters.
- > With an export, all existing settings are saved and the current configuration is downloaded.

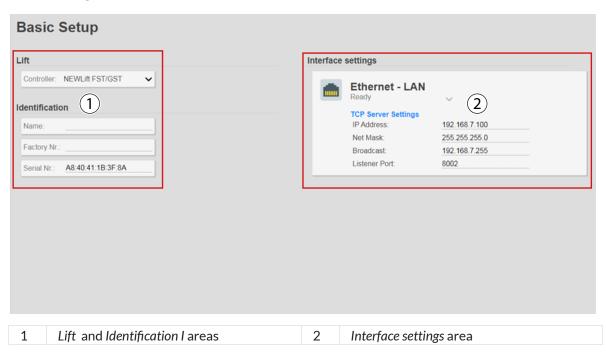


5.5 Controller tab

- ► Click on the **Controller** button to change to the *Controller* tab.
- ► Select the *Basic Setup* sub-tab.



5.5.1 Basic settings / Basic Setup





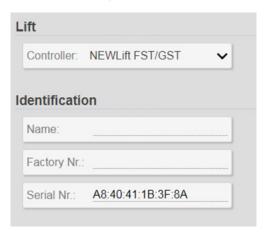
Lift / configuration of lift type and identification

- > Selection of the lift type (FST or third-party controller)
- > Identification settings (only with third-party controller)



At present, only FST-2(XT) controllers are supported by the PAM.E4.

The Name, Factory No. and Serial No. fields are written to automatically for Newlift controllers.



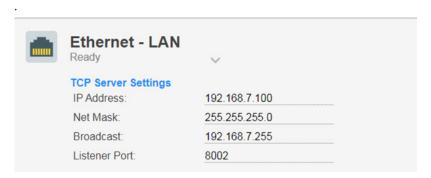
Configuration of connection to controller / Interface Settings

Ethernet-LAN

- > Setup of the IP network between the PAM.E4 and controller
- > From the perspective of the controller, the PAM.E4 is the ELEVISION 4-server
 - ▶ In the controller, enter the IP address of the LAN interface.



Check the settings on the controller!

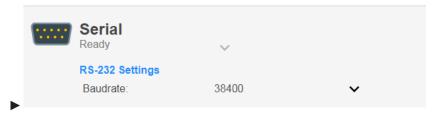


RS 232

- > Setup of the serial interface between the PAM.E4 and controller
- > From the perspective of the controller, the PAM.E4 is the Elevision server
 - ▶ In the controller, enter the IP address of the LAN interface.



Check the settings on the controller!





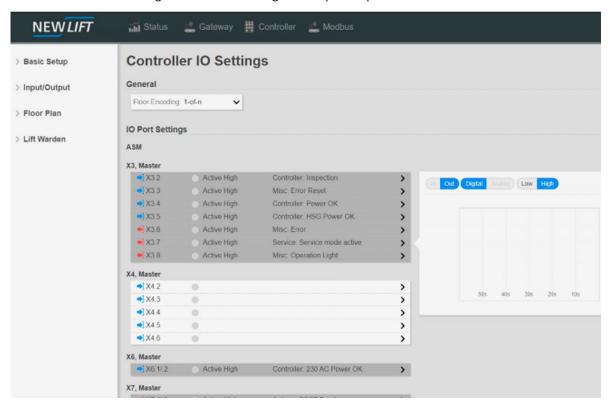
5.5.2 Input and output settings / Input/Output



The PAM.E4 hardware does not have its own ports. These are provided with separate modules. Currently, these modules are only available in conjunction with an FST from V2.000-0158.

- ▶ Select the **Controller** button to switch to the *Controller* tab.
- ► Select the Input / Output sub-tab.

 The Controller IO Settings window for setting the I/O ports opens.



Ports

A port is structured as follows:

Signal direction	Input and Output
Port name	e.g. X3.2
Signal status	Signal is present or signal is not present
Signal interpretation	high-active or low-active
Function	e.g. Flush reference

- ▶ Use the wiring diagram of the system as a guide when setting the ports.
- ► Standard assignments :

 See "Standard assignments for GSR" on page 31
- ► Other port assignments
 See "PAM.E4" on page 36
 See "LMS247 / Ethernet-PAM" on page 37.



Standard assignments for GSR

AWE car module (AKM)

Port X3		
Port	Direction	Description
.1	-	+24 Volt
.2	Input	Flush reference
.3	Input	Door A Limit switch
.4	Input	Door A Open
.5	Input	Emergency call
.6	Output	Test "Door A Open" - button
.7	Output	Test "Door B Open " - button
.8	Output	Test "Emergency call" - button
.9	-	GND

Port X4		
Port	Direction	Description
.1	Input+	Cabin light monitoring
.2	Input+	
.3	Input-	
.4	Input-	

The main board can be extended by two additional slave modules. These slave modules provide 16 additional inputs and outputs each.

Slave 1/2 Port X3/X4		
Port	Direction	Description
.1	-	+24 Volt
.2	Input / Output	freely programmable input and output
.3	Input / Output	freely programmable input and output
.4	Input / Output	freely programmable input and output
.5	Input / Output	freely programmable input and output
.6	Input / Output	freely programmable input and output
.7	Input / Output	freely programmable input and output
.8	Input / Output	freely programmable input and output
.9	Input / Output	freely programmable input and output
.10	-	GND

AWE control cabinet module (ASM)

Port X3		
Port	Direction	Description
.1	-	+24 Volt
.2	Input	Installing engineer on site with LED acknowledgement
.3	Input	Fault reset with acknowledgement LED
.4	Input	24V DC monitoring
.5	Input	HSG DC monitoring
.6	Output	Fault LED
.7	Output	Service LED
.8	Output	Ready for operation LED



Port X4		
Port	Direction	Description
.1	-	+24 Volt
.2	Input / Output	freely programmable input and output
.3	Input / Output	freely programmable input and output
.4	Input / Output	freely programmable input and output
.5	Input / Output	freely programmable input and output
.6	Input / Output	freely programmable input and output
.7	-	GND

Port X6		
Port	Direction	Description
.1	Input+	230V AC Monitoring
.2	Input+	

Port X7		
Port	Direction	Description
.1	NC	Relay K1 (SCCT break)
.2	NO	
.3	СОМ	
.4	NC	Relay K2 (Stop)
.5	NO	
.6	СОМ	
.7	NC	Relay K3 (Reserve)
.8	NO	
.9	СОМ	

The main board can be extended by two additional slave modules. These slave modules each provide 16 additional inputs and outputs.

Slave 1/2 Port X3/X4		
Port	Direction	Description
.1	-	+24 Volt
.2	Input / Output	freely programmable input and output
.3	Input / Output	freely programmable input and output
.4	Input / Output	freely programmable input and output
.5	Input / Output	freely programmable input and output
.6	Input / Output	freely programmable input and output
.7	Input / Output	freely programmable input and output
.8	Input / Output	freely programmable input and output
.9	Input / Output	freely programmable input and output
.10	-	GND

5.5.3 Shaft settings / Floor Plan - for third-party controllers



This submenu is not yet available for the PAM.E4.



5.5.4 Shaft settings / Lift Warden / for third-party controllers

The lift warden system takes over the regular checks to be carried out on the lift system. These checks can be monitored by the device alone (automatic operation) or carried out by specialist personnel in a control room (manual operation).

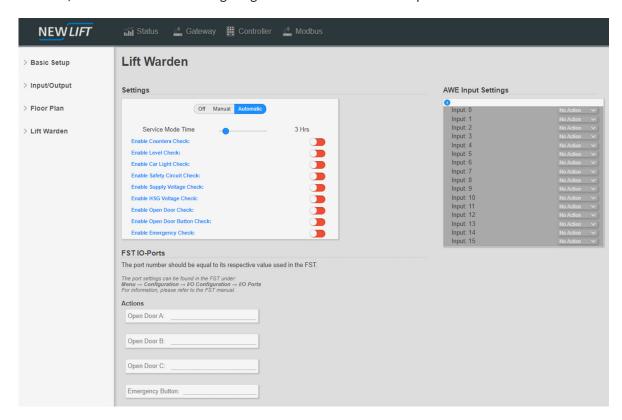
The system performs the following checks:

- > Monitoring of the stopping accuracy
- > Monitoring of the car light
- > Monitoring of the safety circuit during travel
- > Monitoring of the door for complete opening
- > Monitoring of the "door open" button (optionally with self-triggering)
- > Monitoring of the "emergency call" button (optional with self-triggering)
- > Monitoring of
 - »Mains voltage (230VAC)
 - »Operating voltage (24VDC) and
 - »Auxiliary voltage (24VDC)
- > Monitoring of the service interval

In addition, remote shutdown of the system in the event of a fault is supported as an option.

- ▶ Select the **Controller** button to switch to the *Controller* tab.
- ➤ Select the Lift warden sub-tab.

 The Lift warden window for configuring the lift warden behaviour opens.





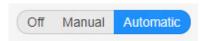
Operating modes

Operating mode	Description
Off	No lift warden data is generated
Manual	A manual check is carried out on the ELEVISION 4-server.
	Only signals are transmitted to <i>ELEVISION 4</i> , an evaluation of the signals on the gateway does not take place.
Automatic	The evaluation of the signals takes place at the control centre by trained personnel. An automatic test is carried out on the unit. The signals are evaluated and the results are transmitted to <i>ELEVISION 4</i> . In addition, the gateway can shut down the lift control by means of remote shutdown.

Activate, deactivate lift warden

- ▶ Select the **Controller** button to switch to the *Controller* tab.
- ➤ Select the Lift warden sub-tab.

 The Lift warden window for configuration the lift warden behaviour opens.
- ▶ Use the **Off / Manual / Automatic** slider to set the mode of the lift warden.



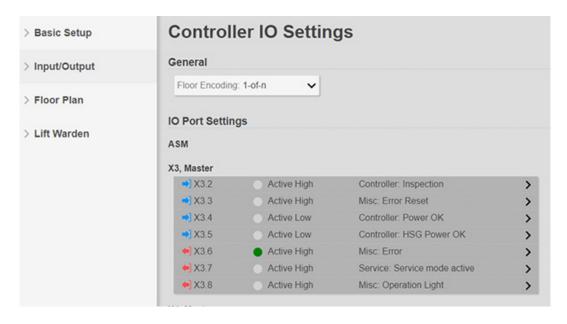


The CUS modules AKM (lift warden car module) and ASM (lift warden cabinet module) are required for the lift warden function. These modules can be used in conjunction with the FST from version V2.000-0158.

Configure signals

- ► Select the **Controller** button to switch to the *Controller* tab.
- ➤ Select the *Input / Output* sub-tab.

 The *Controller IO Settings* window for setting the I/O ports opens.



See "5.5.2 Input and output settings / Input/Output" on page 31



PAM.E4

Signal	Signal which
Flush reference	AKM
Zone	Control
In motion	Control
Entry	Control
Car light error	AKM
Car light warning	Not available
Car light exception	Control
Door contact	Control
Door open signal	Control
Door limit switch	Control
Safety circuit	Control
Emergency call signal	Control
HSG OK	ASM
24 V OK	ASM

Service mode (Installing engineer on site)

This function informs the system that a technician is present at the unit.

Activate, deactivate service mode

▶ Press the button on the ASM.

As soon as the function is activated, a message is sent to *ELEVISION 4*.. The service LED on the ASM also lights up.

The service LEB on the Asim also lights up.

► Activate service mode via the actions Retrieval and / or Inspection.

While the service mode is activated, the lift warden checks are not carried out..

► Use the Service Mode Time slider to set the lift warden mode.

The set time (default: 3 hours) corresponds to the time after which the service mode is automatically reset.





When activated, the service timer (default: 3 hours) is started. The "mechanic on site" mode resets automatically after the timer has expired or by pressing the button again.

▶ If necessary, press the button on the ASM again to deactivate the service mode.

The message to ELEVISION 4 is cancelled.

Error reset

The error reset function resets an error detected by the lift warden system.

Performing an error reset

▶ Press the **error reset** button on the ASM module and hold it down for at least 10 seconds.

As soon as the button is pressed,

- »a message is sent to ELEVISION 4
- »the errors in the lift warden are reset
- »the LED Error goes out
- »the remote shutdown triggered by the AWE is cancelled.



Counter reading monitoring

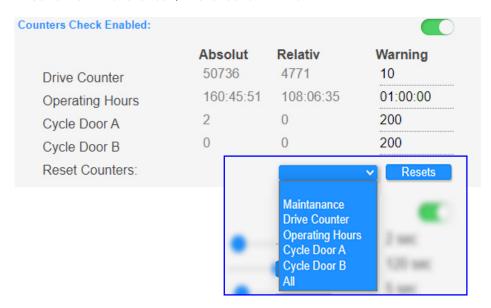
With the counter reading monitoring, the trip counter, the operating hours and the door cycles of door A and B are monitored. If a counter expires, a message is sent to Elevision 4.

The absolute counter reading is transferred by the control unit (managed by *PAM.E4* for third-party controls). The relative counter reading shows the counter reading since the last counter reset. A message is sent for the routine call when the test interval has expired. The test interval has expired when [Current counter reading] - [Counter reading at reset time] >= [Test interval]. This message is then repeated every 24 hours.

Activate, deactivate counter reading monitoring

- ► Select the **Controller** button to switch to the *Controller* tab.
- ➤ Select the Lift warden sub-tab.

 The Lift warden window for configuring the lift warden behaviour opens.
- ▶ Use the slider to activate / deactivate the counter check.



Parameter	Description
Enabled	Switching on/off the counter reading monitoring
Drive Counter (abs.)	Absolute drive counter reading
Drive Counter (rel.)	Relative drive counter reading since last reset
Drive Counter Warning Level	Trigger interval
Operation Hours (abs.)	Absolute operating hours counter
Operation Hours (rel.)	Relative operating hours counter since last reset
Operation Hours Warning Level	Trigger interval
Cycle Count Door A (abs.)	absolute door play counter reading for door A
Cycle Count Door A (rel.)	relative door-play counter reading for door A since last reset
Door A Warning Level	Trigger interval
Cycle Count Door B (abs.)	absolute door cycle counter reading for door B
Cycle Count Door B (rel.)	relative door-play counter reading for door B since the last reset
Door B Warning Level	Trigger interval
Reset Counters	
-> Maintenance	Reset maintenance counter
-> Drive Counter / Cycle Door A / Cycle Door B	Reset selected counter
-> All	Reset all counters



Flush monitoring / Level Check

With flush monitoring, the holding accuracy of the car is monitored. The *flush reference* signal is used for this purpose. This signal is picked up by the *PAM.E4* via a port on the AKM module.

Manual lift warden

During the manual lift warden check, the PAM.E4 sends the data required for the check (lift warden and controller data) to ELEVISION 4.

The data is displayed on ELEVISION 4 under Controller / Lift warden.

During this test, all signals are displayed and can be compared with each other. The inspector decides whether the condition is "OK".

In addition, the inspector has the possibility to move the car by inside and outside calls. After the manual test has been completed, the inspector must acknowledge the **pass** or **fail** by clicking on the buttons. The result is entered in the *ELEVISION 4* event log.

Electronic lift wardenr

With the electronic lift warden check, the evaluation of the flush check is carried out on the gateway. The check is carried out per floor.

Checks

The flush monitoring consists of three tests:

- > Testing the signal when entering with door opening
- The test starts when a standstill of the car (no in motion signal) is detected and the door contact (SHK-TK) opens. The flush reference signal must switch to flush within an adjustable time. The signal is sampled at 500 ms intervals. If no flush is detected, an event / error is generated.
- > Testing the signal with the door open (catch-up monitoring)
- The test monitors the stopping accuracy with the door open.
- If the lift leaves the flush position during this phase, the lift must return to the flush position within an adjustable time (catch-up).
- If this is not the case, an event / error is generated.
- > Testing the signal while driving (signal change detection)
 - This test is used to monitor the functionality of the flush reference switch..
 - It is checked during travel whether the flush position is left. This can be done during each movement or at an adjustable interval. The movement between two floors with door opening is defined as a movement. The check begins as soon as an in motion signal is detected.
 - The flush reference signal must change once before the movement is terminated. If this does not happen, an event / error is generated depending on the interval..
- > The interval is reset as soon as a signal change is detected. If an error occurs,
 - »the error counter of this floor is increased by 1
 - »an event / error is generated and sent to E4.
 - »the system is optionally switched off depending on the error counter (remote shutdown).



Activate, deactivate flush monitoring

▶ Use the slider to activate / deactivate the flush monitoring.



Parameter	Range	Description
Enable Level Check	ON/OFF	indicates whether this test is active
Check Delay	130s	specifies the maximum time until flush must be active after opening the door contact
Relevel Delay	1240 s	specifies the maximum time until the flush must be restored (catch-up).)
Trip Detection Delay	160s	specifies from when the movement is recognised as a trip (distinction between trip and catch-up).
Level Signal Change Range	every 1100. drive	specifies after how many trips the flush signal must change
Shut down on error	ON/OFF	specifies after how many trips the flush signal must change
Shut down after n fails	1 128 faults	specifies after how many faults (per floor) the lift should be switched off



Relevel Delay must be greater than Check Delay, otherwise checks 1 (entry) and 2 (catch-up) may conflict.



Car Light Check

Car light checks whether the car light is activated while driving or when the door is open.

Manual lift warden

With the manual lift warden check, the gateway forwards the car light data to *ELEVISION 4*. The evaluation is then carried out on *ELEVISION 4* under *Controller / Lift warden*.

During this test, the car light error and car light warning signals are displayed.

The inspector has the possibility to move the lift in order to detect changes in the signal.

If the test has been carried out, the inspector must confirm this by clicking on **passed** or **failed**. The result is entered in the event log.

Electronic lift warden

In the electronic lift attendant check, the evaluation of the car light check is done on the gateway. An error is generated if

> the light was off during the entire door opening phase.

The light signal at the time of the opened door (door limit switch open) is considered.

- the light was off for at least one second during the journey.
 The light can be off during special trips due to the control system. For this purpose, the test can be bypassed by means of an option.
- > With the FST, the following exceptions exist for which the cabin light can be switched off:
- > Retrieval
- > Parking trip
- > Catch-up

The error can be cancelled if the remote shut-off function is deactivated. This is done when a trip with cabin light has been detected again after an error. This will also result in a message on *ELEVISION 4*.

Only with LMS 24/7:

It is possible to detect a partial defect (failure of a lighting connected in parallel). In this case, a message *car light warning* is issued.

- ► Select the **Controller** button to switch to the *Controller* tab.
- ► Select the Lift warden sub-tab.

The Lift warden window for configuring the lift warden behaviour opens.

▶ Use the slider to activate / deactivate the car light check.



Parameter	Range	Description
Enable Car Light Check	ON/OFF	indicates whether this test is active
Warning enabled	ON/OFF	specifies whether a light warning is to be sent in the event of a partial defect (only with LMS 24/7)
Special Drive supervision	ON/OFF	specifies whether light monitoring should be active during special trips (e.g. catch-up) Attention: Depending on the control system, the car light may be switched off during special drive
Shut down error	ON/OFF	indicates whether the lift should be switched off if there is a light fault



Safety circuit monitoring

Safety circuit checks whether the safety circuit is closed during travel or whether the door safety circuit is bridged during standstill.

Manual lift warden

During the manual lift warden check, the gateway only forwards the safety circuit data to ELEVISION 4. This is displayed on ELEVISION 4 under Controller / Lift warden.

In this test, all safety circuit signals are displayed and can be tested together. Here the inspector has the possibility to move the lift in order to detect changes in the signal. If the test has been carried out, the examiner must confirm this by clicking on **passed** or **failed**. The result is entered in the event log.

Electronic lift warden

With the electronic lift warden check, the evaluation of the safety circuit check takes place on the gateway. The safety circuit must be closed during travel. If an interruption is detected over a longer period of time (adjustable signal setting time from 100 ms to 2 s, an error is generated and sent to *ELEVISION* 4.

If configured, a shutdown takes place

- ▶ Select the **Controller** button to switch to the *Controller* tab.
- ➤ Select the Lift warden sub-tab.

 The Lift warden window for configuring the lift warden behaviour opens.
- ▶ Use the slider to activate / deactivate the safety circuit check.



Parameter	Range	Description
Enable Safety Circuit Check	ON/OFF	indicates whether this test is active
Check Delay	100 2000 ms	specifies how long the SHK may be interrupted during the drive
Shut down on error	ON/OFF	switches the shutdown ON or OFF.

Door opening monitoring

Door open monitoring checks whether a door opens fully on arrival or after key actuation.



Parameter	Range	Description
Enable Open Door Check	ON/OFF	indicates whether this test is active
Opening delay	100 2000 ms	specifies how long the SHK may be interrupted during the drive
Error after n fails	1 128 faults	specifies after how many faults (per floor) the lift should be switched off.



Manual lift warden

During the manual lift warden check, the gateway only sends the door data to *ELEVISION 4*. The evaluation is then carried out on *ELEVISION 4* under *Controller / Lift warden*.

During this check, all door signals are displayed and can be checked against each other.

The inspector has the possibility to move the lift in order to detect changes in the signal. If the test has been carried out, the inspector must confirm this by clicking on **passed** or **failed**. The result is entered in the event log.

Electronic lift warden

With the electronic lift warden check, the evaluation of the door opening takes place on the gateway.

The door is recognised as open when the door limit switch Open is detected. If this does not happen within the required time (*Door Open Delay*), an error is generated and transmitted to *ELEVISION 4*.



Currently, no remote shutdown is provided in the event of a fault.

Monitoring door open button

When monitoring the *door open* button, it is checked whether the button was pressed within the test interval.

Manual lift warden

During the manual lift warden check, the gateway sends the door data to *ELEVISION 4*. The inspector has the possibility to move the lift to detect changes in the signal.

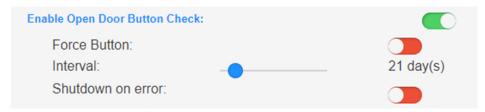
If the test has been carried out, the examiner must confirm this by clicking on **passed** or **failed**. The result is entered in the event log.

Electronical lift warden

With the electronic lift warden check, the evaluation of the *door open* button check takes place on the gateway. It is checked whether the *door open* button in the car has been pressed within the test interval and the door has opened completely (*open door contact and door limit switch set to active*).

If this is not actuated, this can optionally be triggered by the gateway. Push-button must be able to be attracted by a technical device. If the check fails, an error is generated and transmitted to ELEVISION 4.

The test can be omitted if the pushbutton is designed to be vandal-proof.



Parameter	Range	Description
Enable Open Door Button Check	ON/OFF	switches the door monitoring ON or OFF
Force Button	ON/OFF	switches the DOOR OPEN button test ON or OFF
Interval	1 21 days	specifies when, in which time interval (can be set up to 21 days) the door opener must be pressed at least once.
Shutdown on error	ON/OFF	Indicates whether the lift should be switched off if there is a door fault.



Monitoring emergency call button

When monitoring the *emergency call* button monitoring, it is checked whether the button was pressed within the test interval.

Manual lift warden

During the manual lift warden check, the gateway only sends the emergency call data to ELEVISION 4. The evaluation takes place on ELEVISION 4 under Controller / Lift warden.

During this test, the emergency signal is displayed and can be tested.

The inspector has the possibility to move the lift in order to detect changes in the signal.

If the test has been carried out, the inspector must confirm this by clicking on **passed** or **failed**. The result is entered in the event log.

Electronical lift warden

With the electronic lift warden test, the evaluation of the test of the emergency call button takes place on the gateway.

The physical button in the cabin or control cabinet must be actuated within the test interval. If this is not actuated, this can optionally be triggered by the gateway. The push button must be able to be attracted by a technical device.

The test can be omitted if the button is vandal-proof and the emergency call device is self-checking. If the test fails, an error is generated and reported to *ELEVISION 4*.



Parameter	Range	Description
Enable Emergency Check	ON/OFF	switches the emergency call button test ON or OFF
Force Button	ON/OFF	specifies whether the gateway should try to attract the key by means of command
Interval	13 days	specifies when, in which time interval (adjustable up to 3 days) the emergency call button must be pressed at least once
Connection Delay	13s	indicates the maximum time it takes to establish a connection
Shut down on error	ON/OFF	indicates by when a response must be made



HSG-Monitoring

HSG monitoring checks whether the HSG voltage is present at the AWE module.

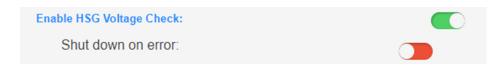
Manual lift warden

This is not currently displayed on ELEVISION 4.

Electronical lift warden

During the electronic lift attendant test, the evaluation of the HSG voltage takes place on the gateway. If a voltage failure is detected during operation, an error is generated and reported to *ELEVISION 4*.

Optionally, the control can be set to stand still.



Parameter	Range	Description
Enable HSG Voltage Check	ON/OFF	switches the monitoring ON or OFF
Shut down on error	ON/OFF	specifies whether the lift should be switched off if the test fails

Monitoring control network and 24 volt supply

When monitoring the control network and the 24 volt supply, it is checked whether the 230 volt AC control voltage and the 24 volt supply are present.

Manual lift warden

This is not currently displayed on ELEVISION 4.

Electronical lift warden

During the electronic lift attendant test, the control network voltage is evaluated on the gateway. If a voltage failure is detected during operation, an error is generated and reported to *ELEVISION 4*.

Optionally, the control can be set to stand still.



Parameter	Range	Description
Enable Supply Voltage Check	ON/OFF	switches the monitoring ON or OFF
Shut down on error	ON/OFF	specifies whether the lift should be switched off if the test failst



Special features FST

Emergency call via FST

In order for the emergency call button connected to the FST to be recognised, the following requirements must be met:

> The emergency loop must be complete.

FST: X17.0 => NRT Shaft pit => X17.1 => X30.13 =>

FSM: => X30.13 => X13.3 => NRT Car tableau => X13.4 => X20.2 => NRT Car bottom (optional) => X20.1 => X26.2 => NRT Inspection box => X26.1

Any I/O port of the FST must be configured with the value 00002C84.

This port is used to reset the emergency call signal.

Remote-IO via FST

In order for a push button, for example, to be attracted via the FST, a remote I/O must be configured in the FST. To do this, an I/O port must be set in the FST with the value 00nn2E84.

nn stands for the port number. This must match the one in the gateway.

Example: I want to control a *door open* button.

Port 5 is configured on the PAM.E4 for door.

I/O port 5 on the FST is configured with 00052E84.

After saving, as soon as the *door open* function is triggered, a signal change will be detectable at port 5 of the FST.

5.5.5 Modbus configuration file

The Modbus Config File is available on the PAM.E4 gateway.

The Modbus functionality is only available on this gateway type.

Modifying or updating a Modbus configuration file is necessary if one of the following three conditions applies:

- > The order of the holding registers or coils has been changed.
- > New holding registers or coils (the info must then also be provided by a new FST version in the source data stream) have been added.
- > Existing holding registers or coils have been removed.

The request from the Modbus entity to the PAM.E4 can either request Holding Registers or Coils.

The holding registers and coils are always read from the first holding register or coil.

The number of holding registers (currently max. 14) or coils (currently max. 85) to be returned must be specified.

- ► Select the Action cogwheel to download / upload the file.
- ▶ In my opinion, a screenshot or more information is missing here!!!!!

Example

The first characters are for documentation purposes. All subsequent characters define either a coil (bit) or a holding register.

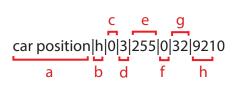
Example 1: floor|h|3|1|63|0|16|0999

Example 2: free definable input port 8 | c | 30 | 1 | 1 28 | 0 | 1 6 | 0 9 9 9

Example holding register

car position|h|0|3|255|0|32|9210





Column	Description
а	A name up to 90 characters long
b	h - for holding register
С	Indication from which byte the data stream coming from the FST starts, here from byte 0
d	Number of bytes in the data stream of the FST, here 3 bytes
е	Bit mask with which the bytes are rounded, here 255. This value always corresponds to 255 for multi-byte values.
f	Number of bits by which the bytes are shifted to the right, here 0 byte. This value always corresponds to 0 for multi-byte values.
g	Indication of whether the target data stream is a 16 or 32 bit register, here 32 bit.
h	 › Mapping of the bytes from the source to the destination data stream. The 9 here means that the first byte is always zero. › Mapping for the second byte. The second byte in the target data stream comes from byte 2 in the source data stream. › Mapping for the third byte. The third byte in the target data stream comes from byte 1 in the source data stream. › Mapping for the fourth byte. The fourth byte in the target data stream comes from byte 0 in the source data stream.

Example Coil

zone|c|3|1|128|0|16|0999



Column	Description
а	A name up to 90 characters long
b	c - for <i>coil</i> or d - for <i>dummy coil</i> (a gap filler bit that is always 0.)
С	Byte 3 in the data stream from the FST contains the information for this bit
d	The coil is in a byte (should always be 1 for coils).



Column	Description
е	Bit mask with which the bytes are rounded, here 128.
f	Number of bits by which the bytes are shifted to the right, here 0 byte. ith coils, this should always be 0.
g	Specification of the holding register size. This is ignored for coils.
h	The mapping of the bytes is always 0999 for coils.



6 Events

6.1 List of events / Event List



The event list can be viewed but not edited.

Class 1: Door		
Туре		
1	Lock warning	
2	Open	
3	Close	
4	Light curtain / light barrier	
5	Door OPEN button	
6	Door CLOSE button	

Class 2: Drive				
Туре				
1	Brake monitoring			
2	Motor monitoring			
3	Contactor monitoring			
4	Relevelling			
5	Runtime monitoring			
6	Travel monitoring			
7	Direction			
8	Inverter			
9	Cable			
10	Pawl-control			

Class 3: Positioning		
Туре		
1	Zone	
2	Sensors	
3	Position	
4	Level	

Class 4: Drive	
Туре	
1	Emergency stop
2	Door
3	Blocking agent / lock



Class 4: Drive		
Туре		
4	Manual door	
5	Safety circuit bridged	
6	End switch	
7	Monitoring	

Class 5: System					
Туре					
1	Controller status				
2	Mains voltage				
3	Rechargeable battery / battery				
4	Emergency call				
5	Car light				
6	Collective fault				
7	Maintenance				
8	Service Mode change				
9	Reset error				
10	Bus module				
11	Customer-specific error				
12	Inspection				
13	Auxiliary mode				
14	Evacuation				
15	Machine room temperature exceeded				
16	Routine snapshot				

Class 6: Call	
Туре	
1	Car button
2	Landing button
3	Call blocked

Class 7: Communication		
Туре		
1	Inverter	
2	Door	
3	Internet connection	
4	Data volume exceeded	



Class 7: Communication		
Туре		
5	Car communication	

Class 8: I/O ports	
Туре	
1	Digital
2	Analogue

Class 9: AWE (lift attendant substitute)		
Туре		
1	ОК	
2	Level	
3	Car light	
4	Safety circuit	
5	Door OPEN button	
6	Emergency call button	



6.2 Event assignments – FST controllers

FST error		Event	
ERR_NMI	1	5/1	System - Controller status
ERR_NOT_DEFINED_1	2	-	Not defined
ERR_EMERGENCY_STOP	3	4/1	Safety circuit – Emergency stop
ERR_RESET_SELF	4	5/1	System - Controller status
ERR_DRV_BOOT	5	5/1	System - Controller status
ERR_DRV_WDOG	6	2/5	Drive - Runtime monitoring
ERR_DRV_FILEXFER	7	5/1	System - Controller status
ERR_NOT_DEFINED_3	8	-	Not defined
ERR_TKSP_OPENED	9	4/2	Safety circuit – Door
ERR_MISSED_TARGET	10	3/3	Positioning – Position
ERR_DOOR_OPENING	11	1/3	Door - Open
ERR_DOOR_CLOSING	12	1/4	Door - Close
ERR_LOCK_FAILURE	13	1/1	Door – Lock
ERR_DRM_START	14	2/5	Drive - Runtime monitoring
ERR_DRM_DRIVE	15	2/5	Drive - Runtime monitoring
ERR_DRM_ENCODER	16	3/3	Positioning – Position
ERR_DRM_CABIN_COMMS	17	7/5	Communication – Car communication
ERR_DRM_V80XS	18	-	Not defined
ERR_DRM_NOZONE	19	3/1	Positioning / Zone
ERR_DRM_BRAKE	20	2/1	Drive - Brake monitor
ERR_DRM_MOTOR	21	2/2	Drive - Motor monitoring
ERR_DRM_FORCED_STOP	22	2/6	Drive - Travel monitoring
ERR_DRM_EMERGENCY_ STOP_SW	23	4/1	Safety circuit – Emergency stop
ERR_DRM_DOOR	24	1/1	Door - Lock
ERR_DRM_CONTACTOR	25	2/3	Drive – Contactor monitoring
ERR_DRM_IOPORT	26	8/1	IO ports – Digital
ERR_SLIP_LEVEL	27	3/4	Positioning – Level
ERR_SLIP_ZONE	28	3/1	Positioning – Zone
ERR_H8CHKSUM	29	5/1	System - Controller status
ERR_MIP_TIMEOUT	30	5/1	System - Controller status
ERR_STARTABORT	31	2/6	Drive – Travel monitoring
ERR_STOPABORT	32	2/6	Drive - Travel monitoring



FST error		Event								
ERR_RELEVELLING	33	2/4	Drive - Relevelling							
ERR_BYPASS	34	3/1	Positioning – Zone							
ERR_LOCK_TIMEOUT	35	1/1	Door - Lock							
ERR_CAR_LIGHT	36	5/5	System – Car light							
ERR_REGULATOR	37	2/8	Drive - Inverter							
ERR_DRV_BHG_TOUT	38	2/9	Drive - Cable							
ERR_LIGI_BREAK	39	1/5	Door – Light curtain / light barrier							
ERR_LIGI_FAIL	40	1/5	Door – Light curtain / light barrier							
ERR_SERIAL_FAIL	41	7/1	Communication - Inverter							
ERR_SERIAL_BAD	42	7/1	Communication - Inverter							
ERR_USV_FAIL	43	5/3	System – Rechargeable battery / battery							
ERR_KSS_FAIL	44	-	Not defined							
ERR_DRM_EMERGENCY_ STOP_TEST	45	4/1	Safety circuit – Emergency stop							
ERR_UNEXPECTED_STOP	46	2/6	Drive – Travel monitoring							
ERR_ASV	47	2/10	Drive – Regulator							
ERR_DRM_MOTOR_ROOM	48	5/15	System – Machine room temperature exceeded							
ERR_INSP_AUXILIARY_MODE_ SPEED	49	5/12	System - Inspection							
ERR_QS_DOOR_SW	50	1/3	Door - Close							
ERR_DRM_ZONEFIX	51	3/1	Positioning – Zone							
ERR_SHK_BRIDGE	52	4/5	Safety circuit – Safety circuit bridged							
ERR_DRM_CMM	53	5/10	System – Bus module							
ERR_DRM_ENCODER_SLIP	54	3/3	Positioning - Position							
ERR_ENCODER_DIR	55	3/3	Positioning - Position							
ERR_DRM_BRAKE_AUX	56	2/1	Drive – Brake monitor							
ERR_DRM_NHTIMEOUT	57	2/4	Drive - Relevelling							
ERR_ROPE_TENSION	58	2/9	Drive - Cable							
ERR_LCS_TIMEOUT	59	5/10	System – Bus module							
ERR_DRM_LITHIUM	60	5/3	System – Rechargeable battery / battery							
ERR_DRM_USER1	61	5/11	System – Customer-specific error							



FST error		Event								
ERR_DRM_USER2	62	5/11	System – Customer-specific error							
ERR_DRM_USER3	63	5/11	System – Customer-specific error							
ERR_DRM_DRIVE	64	2/2	Drive - Motor monitoring							
ERR_REGULATOR_RELAYS	65	2/8	Drive - Inverter							
ERR_DRM_A3_UCM	66	2/6	Drive – Travel monitoring							
ERR_DRM_A3_DRV	67	2/6	Drive – Travel monitoring							
ERR_DRM_FHV	68	2/6	Drive – Travel monitoring							
ERR_DRM_INSP_PRELIMIT_SW	69	4/6	Safety circuit – End switch							
ERR_DRM_10xNH	70	4/1	Safety circuit – Emergency stop							
ERR_DRM_ASS	71	2/6	Drive - Travel monitoring							
ERR_DRM_UG_BRIDGE	72	3/1	Positioning – Zone							
ERR_DRM_PROTECTED_AREA	73	2/6	Drive – Travel monitoring							
ERR_DRM_SAFETY	74	2/6	Drive – Travel monitoring							
ERR_DRM_SPEEDGOV	75	2/6	Drive – Travel monitoring							
ERR_PHOTOCELL	76	1/5	Door – Light curtain / light barrier							
ERR_DRM_SHK_BRIDGE	77	4/5	Safety circuit – Safety circuit bridged							
ERR_GLASS_DOOR	78	1/3	Door - Open							
ERR_SCCT_MON	79	4/7	Safety circuit – Monitoring							
ERR_DRM_PHOTOCELL	80	1/4	Door – Light curtain / light barrier							
ERR_COLD_START	128	5/1	System - Controller status							
ERR_INSPECTION	129	5/12	System - Inspection							
Not used	130	-	Not defined							
ERR_POWER_FAIL	131	5/1	System - Controller status							
ERR_GC_CMD_RESET	132	5/1	System - Controller status							
ERR_CALIBRATION	133	5/1	System - Controller status							
ERR_LEARN	134	5/1	System - Controller status							
ERR_SW_UPDATE	135	5/1	System - Controller status							
ERR_EVAC	136	5/8	System – Evacuation							
ERR_SERIAL_OK	137	7/1	Communication – Inverter							
ERR_MONITOR	138	5/1	System - Controller status							
ERR_KSS_OPEN	139	5/1	System - Controller status							
ERR_ORIENTATE	140	5/1	System - Controller status							



FST error		Event	
ERR_BATT_FAIL	141	5/1	System - Controller status
ERR_AUXILIARY_MODE	142	5/13	System – Auxiliary mode
ERR_FIRE_RECALL	143	5/1	System - Controller status
ERR_ZONE0_CORR	144	5/1	System - Controller status
ERR_LCS_DRIFT_COMP	145	5/10	System – Bus module
ERR_GLT_SIGNAL	146	5/1	System - Controller status
ERR_ARREST_TEST	147	5/1	System - Controller status
ERR_A3_ACTTEST	148	5/1	System - Controller status
ERR_NANOX	149	5/1	System - Controller status
ERR_SDCARD	150	5/1	System - Controller status
ERR_BYPASS_SWITCH	151	4/7	Safety circuit – Monitoring



7 FAQ

7.1 How do I commission a Base GSM13 in combination with the PAM.E4?

Requirements

> Firmware: GSM13-U-3MR-R1.0.17-T9 > Connection to PAM.E4: RS232, 1:1, female-male

Step 1: Configure the Base GSM13 modem

- ► Check the firmware:
 - Send an SMS with the text Status 1 to the modem and wait for the answer from the modem. The modem sends the firmware version as the answer.

If the firmware version shown in the answer does not match the required version named above:

- Have the firmware updated by a *Base* employee. For this purpose, have the serial number and telephone number of the GSM13 at the ready!
- ▶ Perform configuration according to the instructions from the manufacturer: Check whether the settings match those in the list below and change the settings where necessary.
 - »Mode = Base
 - »Listen in = OFF
 - »Wireless technology menu = OFF
 - »Modem menu = ON
 - »Baud rate = 115200
 - »Automatic answer = ON
 - »Fcho = OFF
 - »AT command answer = Detailed answer text
 - »Direct connection = ON
- ► Set the APN, server IP and ports:

Send the serial numbers and APN as an SMS in the following format to the modem:

[Serial number of Base GSM13] apn:[APN name]; usn:[user name of SIM card]; psw:[password of SIM card]; ip6:elevision.de; port6:8001; op6:8001;

► Check the SMS configuration:

Send an SMS with the text Para_ to the modem. (Enter space characters and / new lines where necessary).



Further information on configuration: see the installation instructions for the GSM13 https://base-engineering.com

Step 2: Configure the PAM.E4

- ► Start the PAM.E4 web GUI
- ▶ Open the Gateway => Connectivity menu and make the following settings.
 - » Interface setting = Modem
 - »Modem type = Base GSM13
 - » Baud rate = 115200
 - » Connection behaviour and server IP if necessary



Step 3: Log in the system to Elevision 4

As soon as a controller has been detected and the connection has been set up, the system automatically logs in to the *Elevision 4* system.

► Enter the telephone number of the Base GSM13 modem in the technical details of the system. The system is then detected by the Elevision 4 system.

7.2 Why can't I set up a connection to the ELEVISION-4 server?

► Check the following points according to the connection variant:

LTE connection

- »Has the APN been configured correctly (with Newlift SIM cards: wm)?
- »Has the correct antenna (LTE) been connected?
- »Has the LTE antenna been connected correctly?
- »Is the signal strength sufficient?
- » Has the SIM card been activated?
- »Have the IP address and the port of the Elevision server been configured correctly? (IP address: NEW SIM card: 10.64.119.125; third-party SIM card: 188.40.254.177 port: 8001, wakeup port: 8001)

Ethernet connection

- »Has the cable been connected to the WAN interface?
- »Have the IP settings been configured correctly (IP, network mask, broadcast, gateway)?
- »Have the IP address and the port of the Elevision server been configured correctly? (IP address: 188.40.254.177, port: 8001, wakeup port: 8001)
- »Is the port on the firewall enabled?

Modem connection

- » Has the correct cable been used?
- »Has the correct modem been selected?
- »Has the correct transmission rate been set?
- »Has the correct firmware been installed on the modem?
- See "7.1 How do I commission a Base GSM13 in combination with the PAM.E4?" on page 55
- »Has the modem been configured correctly?
- See "7.1 How do I commission a Base GSM13 in combination with the PAM.E4?" on page 55

7.3 Why can't I set up a connection to the controller?

► Check the following points according to the connection variant:

Ethernet connection

- »Have the IP settings been made on the FST?
- » Has the cable been connected to the LAN interface of the PAM.E4?
- »Has the PAM.E4 been configured for LAN operation?
- »Have the IP settings been configured correctly?

Serial connection

- »Has the correct cable (null modem cable) been used?
- »Has the PAM.E4 been configured for serial operation?
- »Does the baud rate match the baud rate of the FST?

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