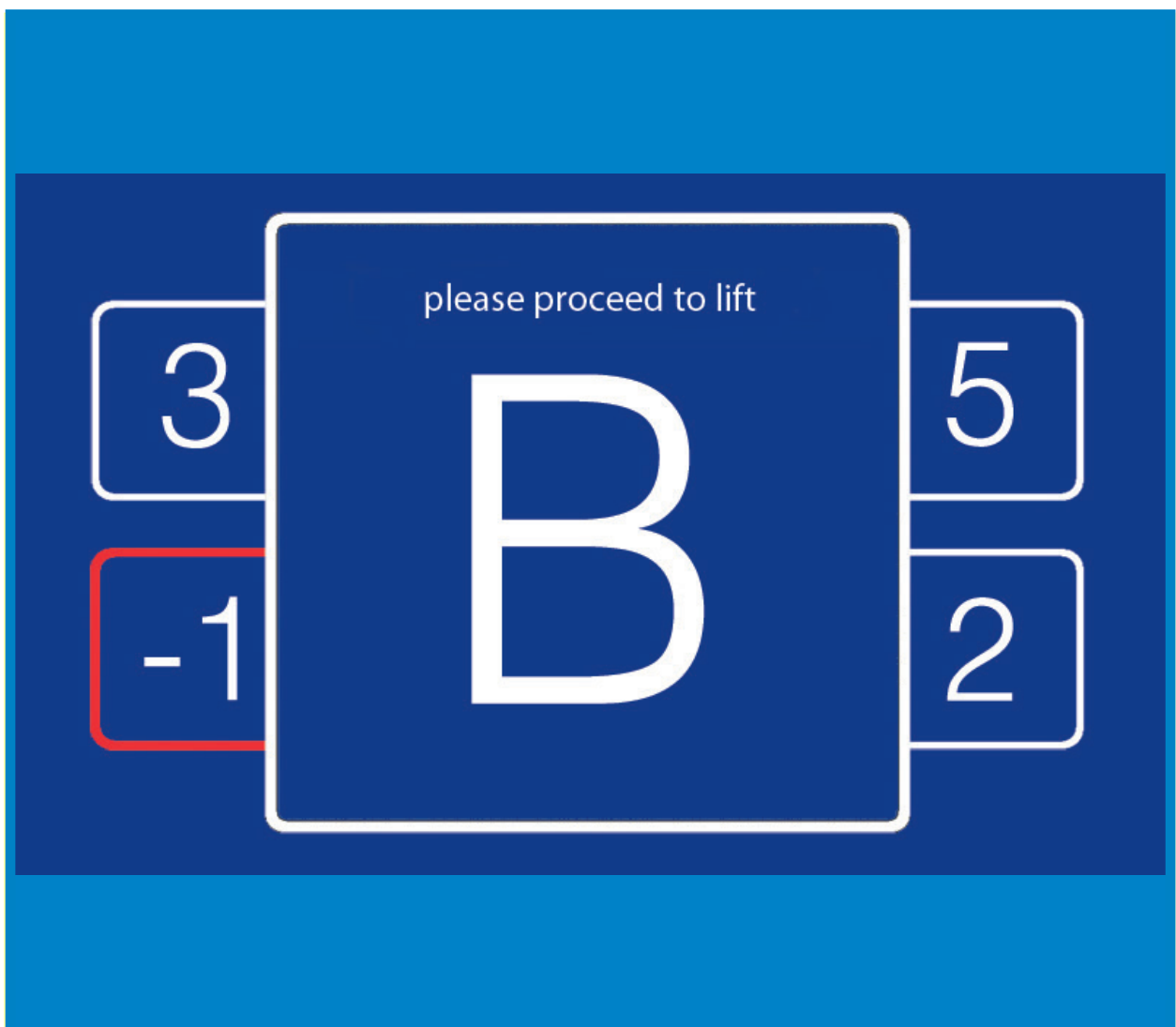


NEW LIFT *GST-Destino*
Destination controller

MANUAL



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1 General

The *GST-Destino* group circuit board can be used for all controllers of the FST product family. References to the manuals for controller types *FST-2*, *FST-2s* and *FST-2XT* are therefore generically referenced with *FST*. Further information, such as documentation, wiring diagrams, etc., is to be used according to the respective FST-Controller.

GST-Destino group circuit board; the GST-XT is located in a separate housing that is snapped onto the TS35 DIN rail in the control cabinet.

1.1 Abbreviations, characters and symbols used

Symbol/ abbreviation	Meaning
GST	Group circuit board of the FST controller
FST	Field bus controller
	Operational instructions Perform the tasks that follow this symbol in the specified order.
	Action step under the respective operational instruction
	Safety-relevant information This symbol is located in front of safety-relevant information.
	Information notice This symbol is located in front of relevant information.

1.2 Notation

Notation	Meaning
Bold	› Designations of switches and actuators › Input values
<i>Italics</i>	› Captions › Cross references › Designations of functions and signals › Product names
<i>Bold italics</i>	› Remarks
LCD font	› System messages of the controller

1.3 Further information

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

- › ADM manual
- › EAZ TFT.45.110.210 manual
- › EAZ-256 manual
- › EN81-20 manual
- › FPM manual
- › FST-2XT/s manual
- › Update backup analysis manual
- › FST-2XT MRL manual
- › GST-XT manual
- › LCS manual
- › RIO manual
- › SAM manual
- › UCM-A3 manual

These and other current manuals can be found in the download area of our website at <http://www.newlift.de/service/download/?L=0>

1.4 How to contact us

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

Tel +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

2.1 General safety regulations

The *GST-Destino* must only be operated in perfect working condition in a proper manner, safely and in compliance with the FST Installation and Commissioning manual, 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.

2.2 Handling electronic assemblies



Electrostatic charging

- ▶ Keep the electronic assembly in its original packaging until installation.
- ▶ Touch a grounded piece of metal before opening the original packaging to discharge any static electric charge on the electronic assembly.
- ▶ During work on electronic assemblies, periodically repeat this discharge procedure.
- ▶ Fit all bus inputs and outputs that are not in use with a terminator.

3 Functions of the *GST-Destino*

3.1 Destination controller

With the destination controller, the passenger specifies his or her desired target floor on the landing call terminals. The car assigned by the controller is displayed on the landing call terminal. The passenger enters the indicated car and travels on it to the target floor. Ideal grouping of the passengers on the respective lifts is ensured, thereby resulting in efficient utilisation of the system and optimised passenger flows.

Landing call terminals do not necessarily need to be directly at the lifts, but they can also be installed individually e.g. in the immediate vicinity of the entrances.

The *GST-Destino* offers you various programs for passenger distribution, amongst others:

- › Min. wait time
The controller calculates the passenger distribution in such a way that the passengers must wait the shortest possible time for the lift assigned to them.
- › Min. travel time with limited wait time
Passengers are distributed for optimum travel time. If it is anticipated that the set wait time will be exceeded, the call is given higher priority.
- › Min. number of stops
The travel times are grouped according to the target floors selected in the lift cars so as to optimise the number of stops.
- › Consideration of different shaft lengths
Building-specific features such as different shaft lengths of individual lifts or special shafts are recognised by the *GST-Destino* and taken into consideration for the passenger distribution.

Stored in the *GST-Destino* memory are copies of the parameter sets of all connected FST-Controllers. In this way, the *GST-Destino* can include information about door times, drive curves, drive calibration data and shaft dimensions of the individual controllers in the group algorithm.

If control parameters are changed in one of the FST menus, this is automatically detected by the *GST-Destino* and a copy of the changed parameter set stored in memory.

Should it be necessary to change date and time settings on a controller, all controllers of the group accept the new time settings in synch.

3.2 Communication

All electronic assemblies of the FST are based on LON-technology (local operating network technology). This open network technology is used, in particular, in building automation.

Communication is via a serial bus, the so-called LON bus. The processor assembly of the FST main circuit board coordinates all data traffic of the lift system from the control cabinet.

The LON bus is looped through from electronic assembly to electronic assembly with pre-assembled, four-core cables. External data exchange is subject to the standardised protocols of the LonMark standard.

By means of the LON technology, the *GST-Destino* becomes aware of all activities on the LON bus and, thus, of all measured and actual characteristics of all lift systems participating in group mode.



The GST-Destino is configured via the FST or the HHT hand-held terminal with the help of the GST menu.

For a group size of three or more lifts, a LAN (Ethernet) is used as backbone communication channel between *GST-Destino* and all connected FST controllers in addition to the LON bus.
See "8 LAN backbone" on page 39.

4 Technical data

4.1 Hardware

The *GST-Destino* group circuit board is a traffic control computer for FST-Controllers manufactured by NEW LIFT. It enables the interconnection of individual FST-Controllers into a group.

4.1.1 Equipment

- › Separate housing in one of the control cabinets of the group members
- › Installation on a TS35 rail
- › Separate 24VDC power supply (switching power supply), i.e., separate from the power supply of group members
- › 32-bit processor for processing the group controller algorithms
- › Neuron processor responsible for LON activities
- › Serial interface that offers all lifts of the group a central modem or fax connection possibility
- › RS232 serial interface enables the connection of the lift group to
 - » a PC for monitoring and remote control by means of the ELEVISION lift monitoring software
 - » a fax modem or
 - » a protocol adapter module (PAM) for evacuation controllers
- › It may be necessary to use a power repeater (depending on the number of BUS members of the shaft bus). This galvanically isolates the BUS modules from the *GST-Destino* or from the FST and amplifies the supply voltage as well as the data protocols.
- › Integrated SD card interface for possible recordings for traffic analysis.
- › USB connection for convenient *GST-Destino* software updates by means of a USB stick (optional)

4.1.2 Compatibility

The *GST-Destino* is suitable for the use of the following controller types:

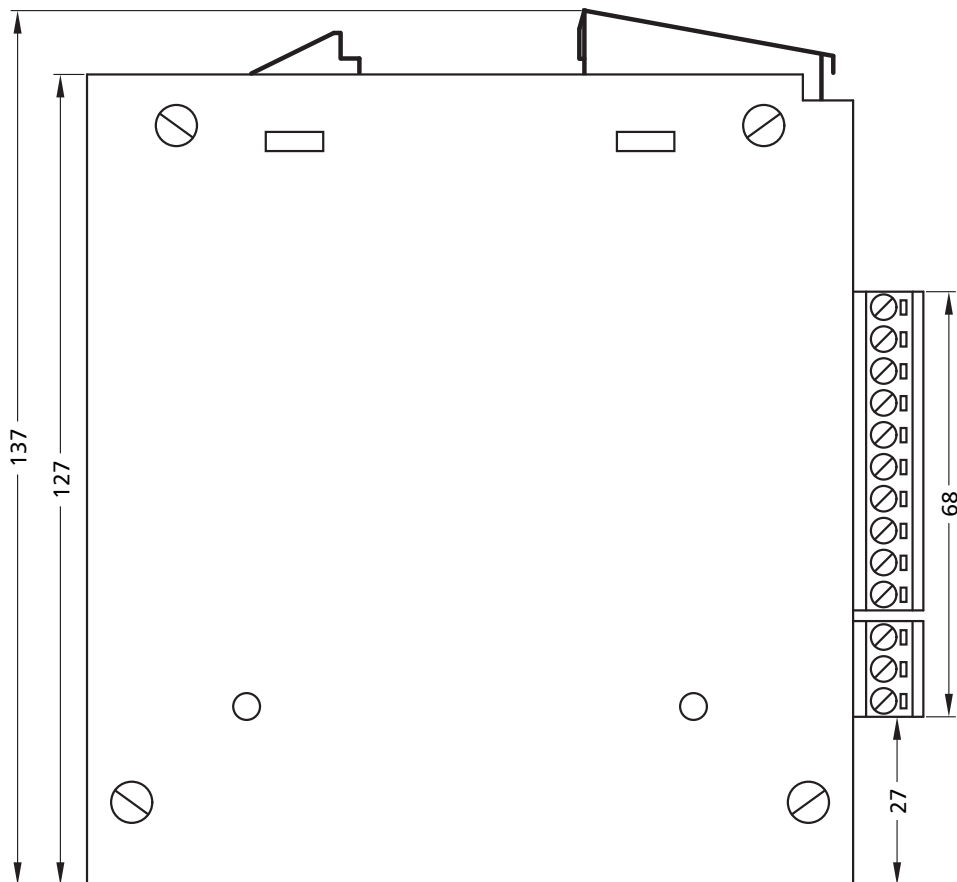
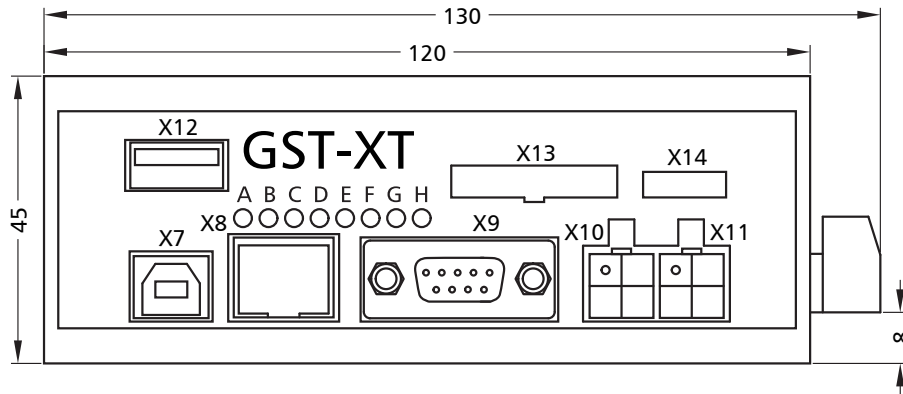
- › FST-2
- › FST-2XT and
- › FST-2s

Converting older group controllers of the FST product family requires an update of the current software.

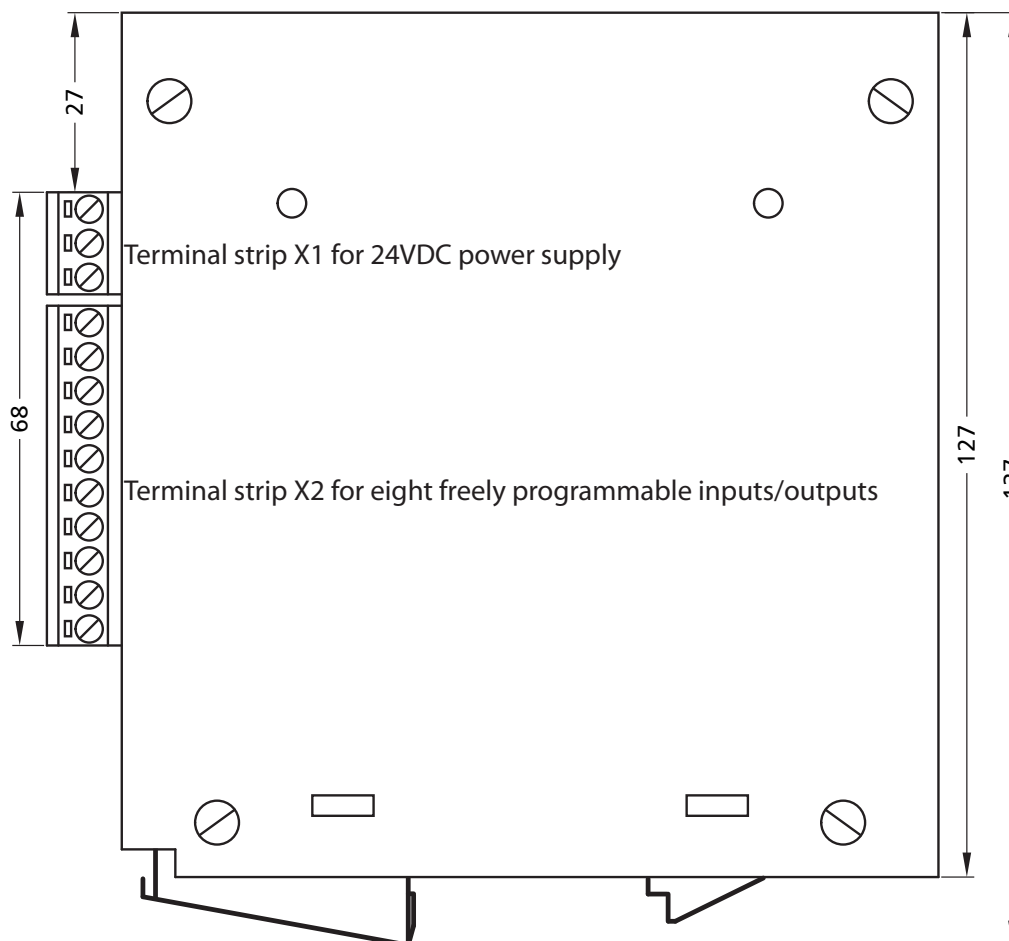
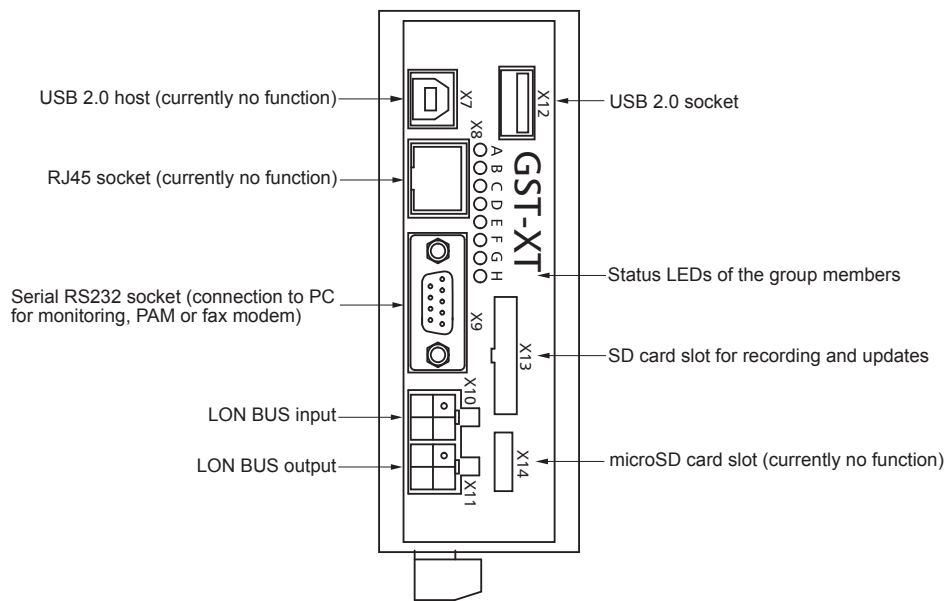
4.2 Housing and interfaces

The *GST-Destino* consists of an FST and the *GST-Destino* group circuit board, which is installed in a separate housing.

Power for the *GST-Destino*, as well as the shaft bus and its members, is supplied by means of an external 24VDC mains device. As a result, the *GST-Destino* remains switched on even after the FST is switched off. Not until the shaft bus input (F6) is switched off is the *GST-Destino* unpowered.



All dimensions in millimetres!



All dimensions in millimetres!

Supply voltage	24 V DC ±10%
Typical power consumption	300 mA
Outputs	Short circuit-proof
Length x height x depth	126 x 118 x 45 mm
Temperature range: Storage & transport / operation	-20 – +70 °C / ±0 – +60 °C
Relative humidity: Storage & transport / operation (non-condensing)	+5 – +95 % / +15 – +85 %
Protection type	IP20



Sensitive electronic components!

Use a housing with a minimum protection rating of IP52 to operate the GST-Destino.

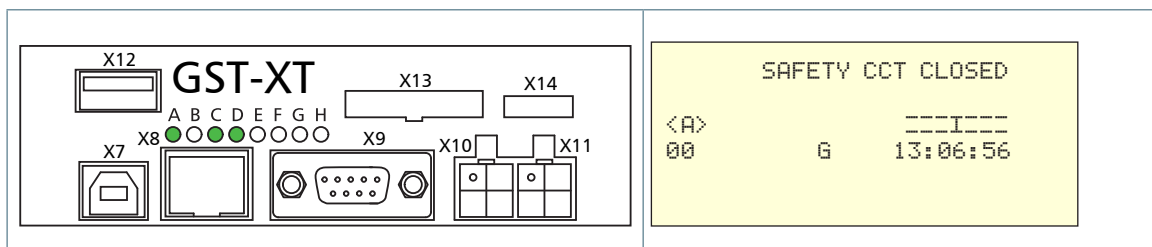
4.3 Terminal assignment and configuration

4.3.1 Terminal strips



X1	Power supply
1	+24VDC
2	GND
3	+ HSG
X2	Programmable inputs/outputs
1	+24V
2	Programmable input/output 7
3	Programmable input/output 6
4	Programmable input/output 5
5	Programmable input/output 4
6	Programmable input/output 3
7	Programmable input/output 2
8	Programmable input/output 1
9	Programmable input/output 0
10	GND

4.4 Operating state




The current operating state of the group members is indicated in the *GST-Destino* by LEDs A to H. The *GST-Destino* simultaneously generates a suitable status message on the displays of all FST controllers taking part in the group.



4.4.1 LEDs on the *GST-Destino*

One LED illuminates on each	Respective FST participates in group mode	
One LED flashes slowly on each	FST is detected but does not participate in group mode because it is not configured as a group member	Check parameters under <i>Config / Groups Settings / Group Member</i> and, if necessary, set YES.
	FST is detected but does not participate in group mode because the landing control on the FST is switched off.	Landing control OFF › manually via keypad › manually via key switch › as a result of active special function
	FST is detected but does not participate in group mode because the FST is automatically and temporarily excluded from group mode due to a special function.	Special function such as the following is active: › fire recall- or evacuation drive › priority drives › transport of dangerous goods or similar
One LED flashes briefly on each	Group enable is deactivated	
	<i>GST-Destino</i> is currently loading changed FST configurations into the <i>GST-Destino</i> memory	Changed configuration used only for the update and comparison of the <i>GST-Destino</i> memory.
Respective LED is off	FST is not detected because it is switched off.	Switch on FST and/or check power supply off.
	FST is not detected because it is not connected.	Check cable connection (group)
All LEDs flash on briefly	Group enable is deactivated	

4.4.2 TFT display of the FST controller

	This FST controller is a functional group member, i.e., group mode is OK.
	This FST controller wants to participate in group mode but cannot "see" the <i>GST-Destino</i> .
No display	This FST controller is not currently participating in group mode.
	FST is currently separated from group mode

5 Menu tree

The menu tree is used for quickly finding specific parameters and as a navigation aid within the GST menu. Following the depiction of the menu tree, all parameters are listed and described in table form.

Software version

The menu tree corresponds to the software version *GST-Destino V2.100-0050*.

Calling up the menu



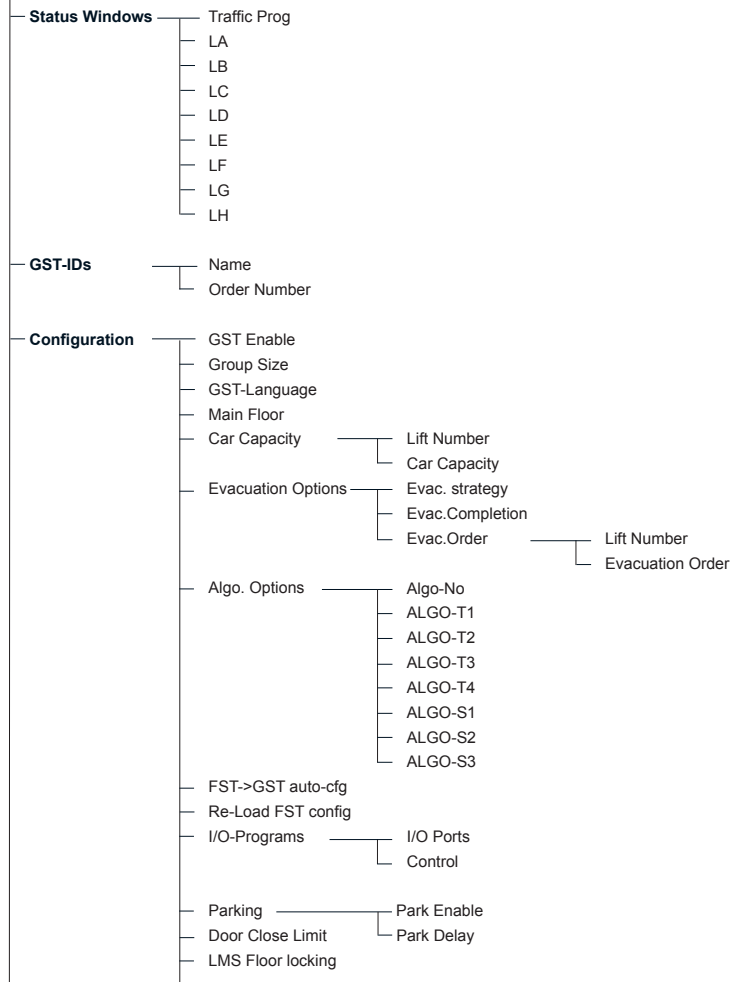
Only active group members have access to the GST menu!

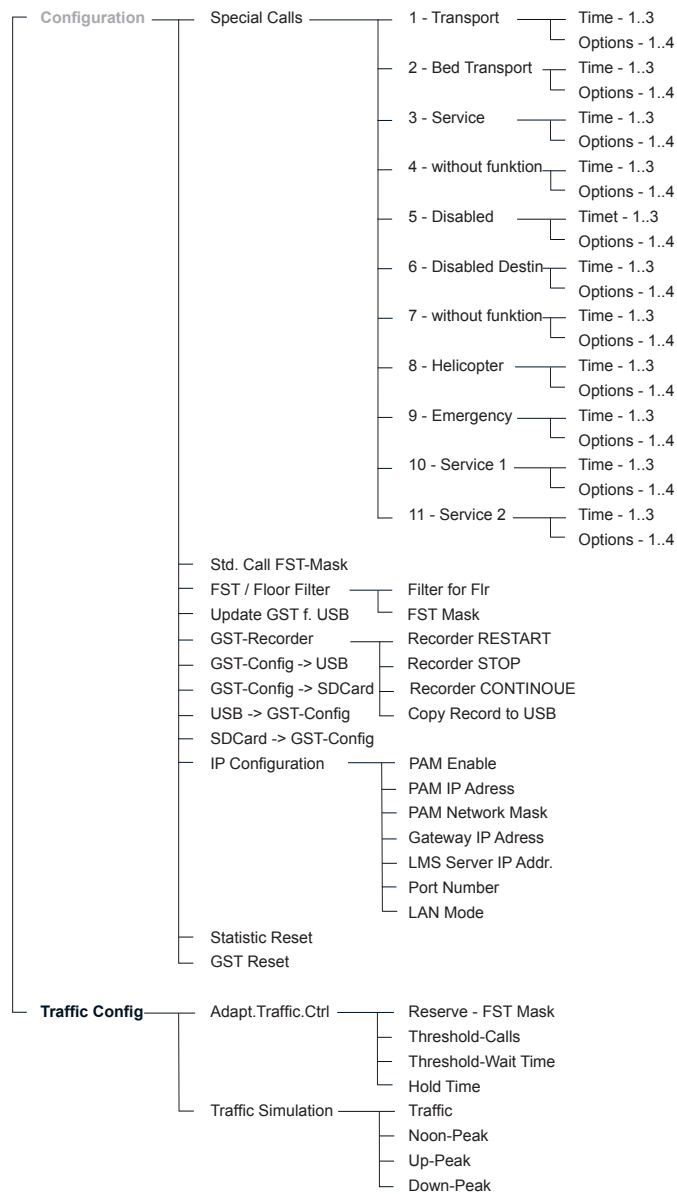
- ▶ Call up GST-Menu via the user interface of the FST under MAIN MENU/GST-Menu.
If the GST-Menu does not appear in the submenu:
Activate group participation.

Activating group participation

- ▶ Call up Main Menu/Config/Group Settings/Group Member/
- ▶ Set YES parameter
- ▶ Restart FST (warm start):
 - Press the four arrow buttons simultaneously or
 - switch the F4 controller fuse of the respective controller OFF and ON again

GST-XT MENUE





5.1 GST-MENU – Status display





Traffic Prog	Display of the current traffic program Recording Status	Normal Filling Empty Noon-Peak Remote Off
LA...LH	Status display for lifts A ... H: LA = Lift A, LB = Lift B ... Possible status displays: OK = Lift participates in group mode Not member = Lift does not participate in group mode (e.g., due to a fault) X = Lift not present	

5.2 GST-MENU – GST-IDs

Name	Project name or installation location of the GST	20 ASCII characters
Order number	NEW LIFT factory number of the GST	20 ASCII characters

5.3 GST-MENU – Configuration

Menu item	Description	Setting range
Release GST	Enable the group controller. Parameter must be set to NO until the final commissioning of the entire FST controller board. Set to YES after all installations of the group have been commissioned. Recommended setting: YES	YES NO
Number of cars	Number of FST-2 controllers (lifts) that belong to the group Recommended setting: Dependent on the number of FSTs.	2...8
GST language	The GST menu usually has the same language setting as the FST-2. This can, however, be changed via this menu item. Recommended setting: Dependent on the national language.	German English
Main Floor	Main access floor of the building (e.g., ground floor). This floor is significant for the processing of the traffic programs. The parameter also has meaning for programming the park drives (see on page 20). <i>Attention: Bottom floor = Floor 0!</i> <i>Recommended setting: Dependent on the main floor.</i>	0 ... top floor
Car Capacity	Lift Number Car Capacity (number of persons =	0...7 0...255
Evacuation Options - Evac.Strategy	Evacuation strategy in the event of an evacuation call to the GST-Destino (e.g., via a programmable input/output). Possible settings: EVACUATE TOGETHER: All installations are evacuated simultaneously EVACUATE BY WEIGHT: The car with the most passengers is evacuated first, then the next lighter car EVACUATE 1 by 1: The installations are evacuated in a defined sequence (see Evac.Order).	EVACUATE TOGETHER EVACUATE BY WEIGHT EVACUATE 1 by 1

Menu item	Description	Setting range
Evacuation Options - Evac.Completion	Behaviour of the <i>GST-Destino</i> following evacuation of all installations. Possible settings: 1 SET TO NORMAL MODE: One lift switches to normal operation, the others remain stopped on the evacuation floor REMAIN EVACUATED: All lifts remain on the evacuation floor until the evacuation signal ends. 2 SET TO NORMAL MODE: Two lifts switch to normal operation, the others remain stopped on the evacuation floor.	1 SET TO NORMAL MODE, REMAIN EVACUATED
Evacuation Options - Evac.Order	Lift Number Evacuation sequence for the EVACUATE 1 by 1 evacuation strategy. Use  +  to select the individual lifts. Possible settings: 0: Lift will not be evacuated. 1: Lift is evacuated first. 2: Lift is evacuated second.	0...7 0...8
Algorithm Options - Algorithm	Algorithm for the selection of the car	
Algo.Options - ALGO-T1	NEW <i>LIFT</i> internal setting	
Algo.Options - ALGO-T2	NEW <i>LIFT</i> internal setting	
Algo.Options - ALGO-T3	NEW <i>LIFT</i> internal setting	
Algo.Options - ALGO-T4	NEW <i>LIFT</i> internal setting	
Algo.Options - ALGO-S1	NEW <i>LIFT</i> internal setting	
Algo.Options - ALGO-S2	NEW <i>LIFT</i> internal setting	
Algo.Options - ALGO-S3	NEW <i>LIFT</i> internal setting	
FST->GST auto-cfg	Switch on automatic loading of all FST parameter sets in the <i>GST-Destino</i> controller following parameter changes. This parameter is to be set to YES after successful <i>GST-Destino</i> commissioning.	YES NO
Load FST Config	Load all FST-2 parameter sets in the <i>GST-Destino</i> controller board (manually). Only necessary during the initial commissioning.	YES NO
I/O Programs I/O Port	Same as FST	
I/O Programs Raw	Programs for the eight programmable inputs/outputs of the FST-2 <i>GST-Destino</i> (see "Programmable inputs/outputs"). Use  +  to select the individual ports.	00000000 ... FFFFFFFF
Parking Park Enable	Activation of park drive	YES NO
Parking Parking Intervals	Time interval before the park drive starts. Time runs for each FST-2 depending on parameter "Parking Active"	--- sec
Door Blocking Time	Time interval before the door is completely closed. Once this countdown begins, no further group calls are assigned.	--- sec
Block LMS Floor	Enable the "block floors" function with the help of the ELEVATION remote monitoring software	NO
Special Call 1 - Transport	A specified FST (preselection)	

Menu item	Description	Setting range
Special Call 2 – Bed Transport	The destination call is inserted at the end of the DP. No further normal calls are accepted. Other bed calls are first distributed to all available FSTs. If no further FSTs are available (see Parameters), the calls are assigned to the FSTs that already have bed calls in the DP.	
Special Call 3 – Service	Destination call is inserted at the end of the DP. No further normal calls are accepted. Drive to the pick-up floor with landing priority, then command AS-off. The target floor is ignored. Return to normal operation when FST returns to the group (controlled externally).	
Special Call 4 – no function	Currently no function	
Special Call 5 – Disabled	Destination call is inserted at the end of the DP. No further normal calls are accepted. Drive to the pick-up floor with landing priority, then switch to car priority. The target floor is ignored. Target floor is entered directly in the car. Return to normal operation when FST returns to the group.	
Special Call 6 – Disabled + Destination	The call is handled like a normal destination call. Exceptions: A voice message ("the lift at the right will be arriving for you shortly", or similar) is sent · ADR/CCB are sent with the "disabled" flag. Return to normal operation: if no further "Disabled-Destination" calls are present in the DP, the <i>GST-Destino</i> sends a general command to end the disabled mode in the FST.	
Special Call 7 – no function	Currently no function	
Special Call 8 – Helicopter	A call with this special mode is sent via a terminal or an IO port. The most quickly available car is selected. The DP is cleared. No further normal calls are accepted. Passengers in the car are unloaded at the pick-up floor unless the pick-up floor is the active inhibit floor. In this case, the passengers are unloaded on another suitable floor. The selected FST is available exclusively for the helicopter drive.	
Special Call 9 – Emergency Call	A call with this special mode is sent via a terminal. The most quickly available car is selected. The DP is cleared. No further normal calls are accepted. Passengers in the car are unloaded at the pick-up floor unless the pick-up floor is the active inhibit floor. In this case, the passengers are unloaded on another suitable floor. The selected FST is available exclusively for the emergency drive.	
Special Call 10 – Special Service 1	A DST call with start == destination is inserted at the end of the DP. No further normal calls are accepted. If the last DP entry is cleared, the door is held open until the timeout has elapsed. The car then returns to the normal group mode. If, during the timeout time, the car is removed from the group (from the landing control), the Destino waits until the car returns to the group, at which time normal operation resumes.	
Special Call 11 – Special Service 2	Functions exactly like Service 1, only that a separate parameter set (timeout, options) is used.	
Std. Call FST Mask	Lifts for which standard calls are accepted (bit-wise encoded)	00..FF
FST/Floor Filter – Filter Floor	An 8-bit FST mask is available for each floor. A bit set in this mask means that the FST of this floor receives no standard destination calls.	[0]...[64]
FST/Floor Filter – FST Mask	An 8-bit FST mask is available for each floor. A bit set in this mask means that the FST of this floor receives no standard destination calls.	00..FF
Update GST f. USB	An update can be loaded on the <i>GST-Destino</i> (X12) via a USB stick	YES NO

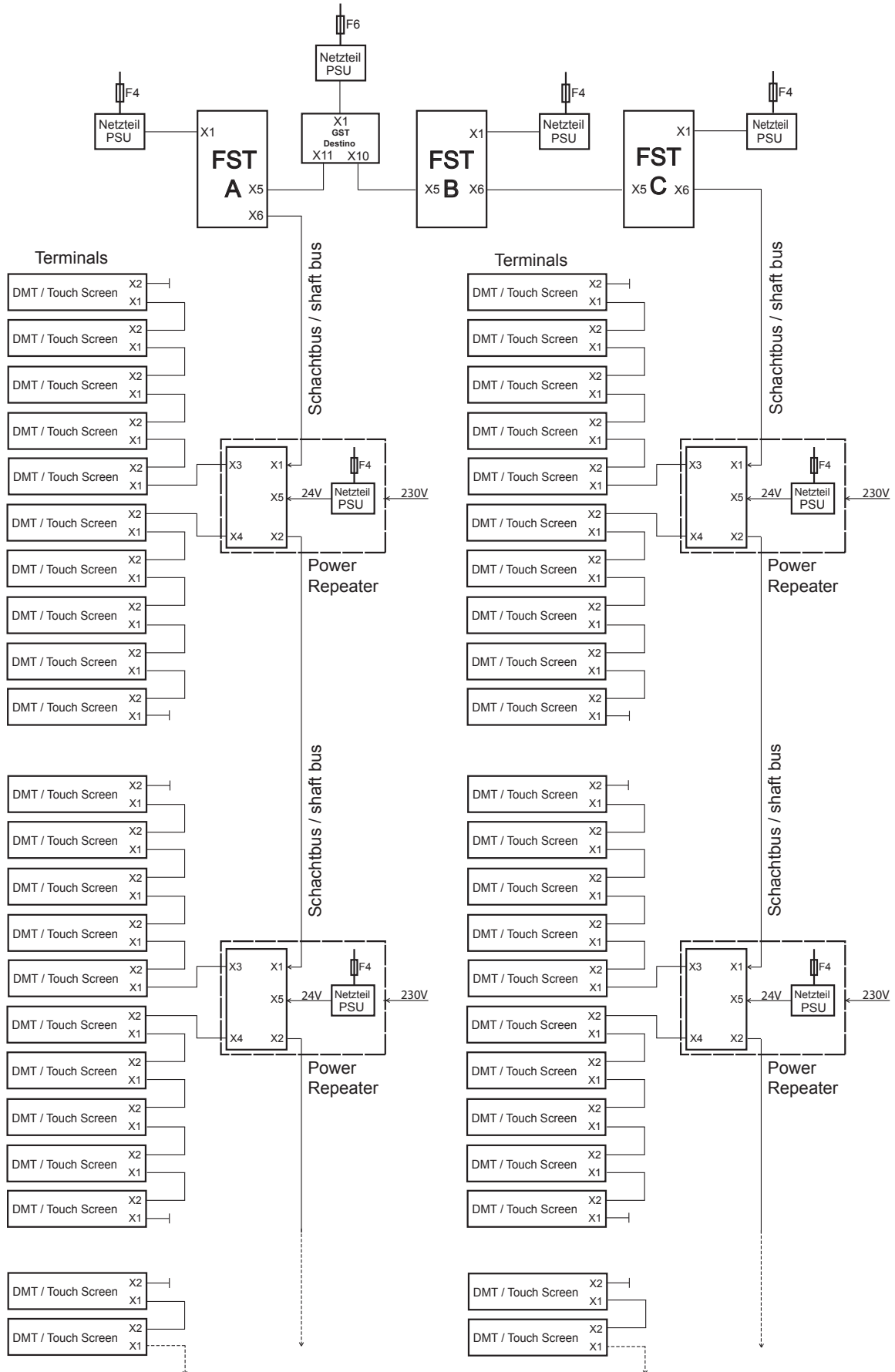
Menu item	Description	Setting range
GST recorder Recorder RESTART	Restart of the GST recorder. Certain internal events are recorded with date and time. Recording on a standard SD card (option) is possible. Recording starts only after the SD card has been inserted.	YES NO
GST recorder Recorder STOP	Stop GST recording.	YES NO
GST recorder Recorder CONTINUE	Continue the stopped GST recording.	YES NO
GST recorder - Record -> USBstick	This menu item copies the full-day <i>GST-Destino</i> recordings to a USB stick (option) in the recording folder.	YES NO
GST-Config -> USB	Save the current GST configuration on a USB stick	YES NO
GST-Config -> SDCARD	Save the current GST configuration on an SD card	YES NO
USB -> GST-Config	Copies the configuration file from a plugged-in USB stick to the GST config. Attention! The existing configuration is overwritten!	YES NO
SDCARD -> GST-Config	Copies the configuration file from an inserted SD card to the GST config. Attention! The existing configuration is overwritten!	YES NO
IP Configuration - PAM Enable	Switches the onboard PAM function on/off. The onboard PAM function is not currently supported for <i>GST-Destino</i> . The parameter should be set to OFF .	ON OFF
IP Configuration - PAM IP Address	IP address of the <i>GST-Destino</i>	---.---.-.---
IP Configuration - PAM Network Mask	Subnet mask for the <i>GST-Destino</i>	255.255.255.0
IP Configura- tion - Gateway IP Address	Network address of the transfer point, e.g., router, etc.	
LMS Server IP Addr.	Network address (IP) of the LMS-Elevision Server	
Port Number	Port number of the LMS-Elevision Server	8001
LAN Mode	Activate / deactivate LAN mode	YES NO
Statistic Reset	This menu item resets the internal statistical memory	YES NO
GST reset	Restart the <i>GST-Destino</i> software (warm start).	YES NO

5.4 GST-MENU – Traffic configuration

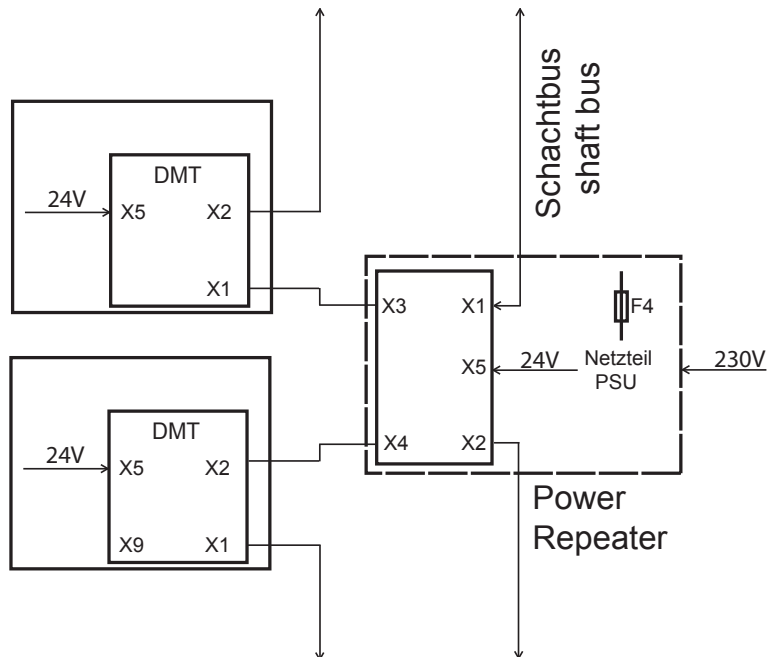
For all menu items with adjustable numerical values, the value "0" corresponds to deactivation of the respective function.

Menu item	Description	Setting range
Adapt.Traffic.Ctrl-Reserve-FST Mask	Lift is added if necessary (increased traffic volume)	00..FF
Adapt.Traffic.Ctrl-Threshold Calls	Loading level (in %) at which the additional lifts are added	0..100%
Adapt.Traffic.Ctrl-Threshold Wait Time	Wait time until additional lifts are connected	sec
Adapt.Traffic.Ctrl-Hold Time	Wait time until additional lifts are disconnected again	min.
Progr. Selection / after time	Time-dependent preselection of the traffic program (calendar control). Here, each day of the week can be divided into eight time zones during which different traffic programs are active (see Traffic Programs).	YES NO
Progr. Selection / Automatic	Automatic preselection of the traffic program	
Progr. Selection / External	The traffic program is preselected externally (e.g., via a programmable input/output or via the ELEVISION remote monitoring software).	YES NO
Call Transfer Time	If the anticipated arrival time is delayed by more than the time set here (e.g., due to an excessively long interruption of a light barrier), the assigned landing calls are assigned to the other cars.	10...500 sec
Traffic Simulation/ Traffic	The GST-Destino simulates passenger operation. Here, virtual passengers are generated who make landing calls, board, make car calls and then exit. Used for analysing group operation.	YES NO
Traffic Simulation/ Noon-Peak	Virtual passengers have random destinations. 0: None 10: all	0 10
Traffic Simulation/ Filling	Virtual passengers have destinations in the up direction. 0: None 10: all	0 10
Traffic Simulation/ Emptying	Virtual passengers have destinations in the down direction. 0: None 10: all	0 10

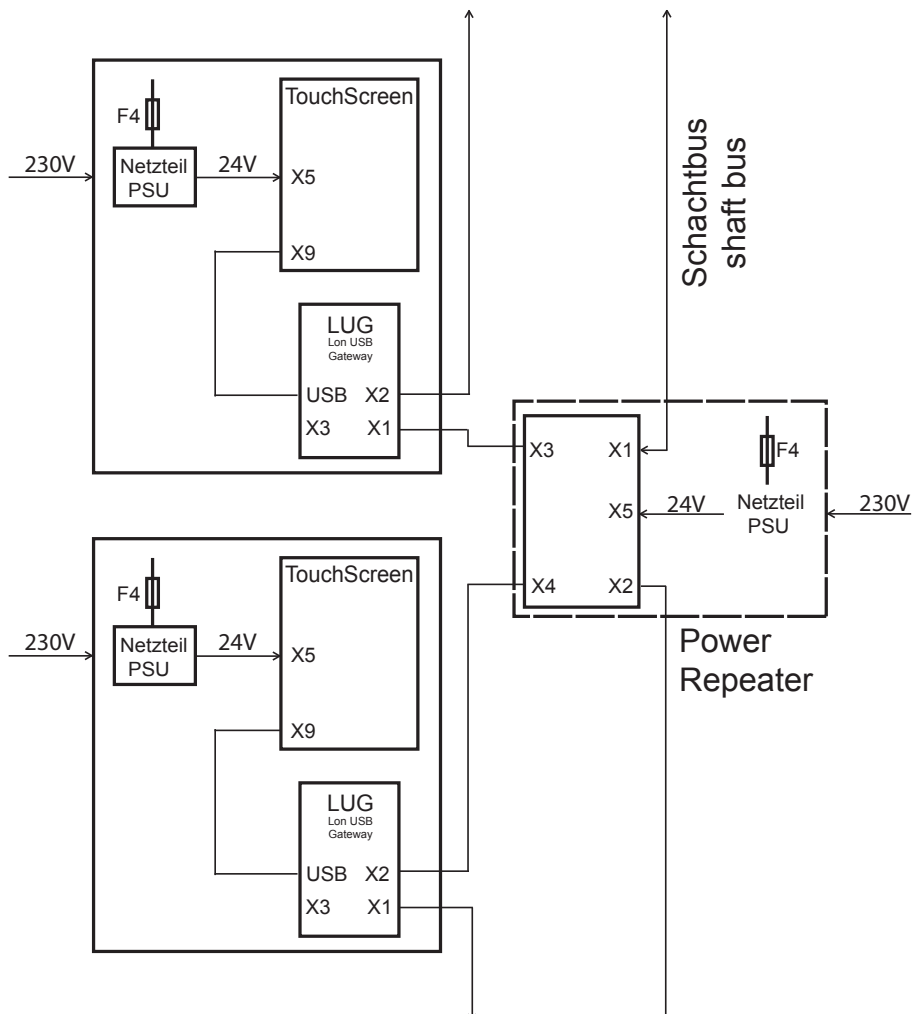
6 GST-Destino bus concept



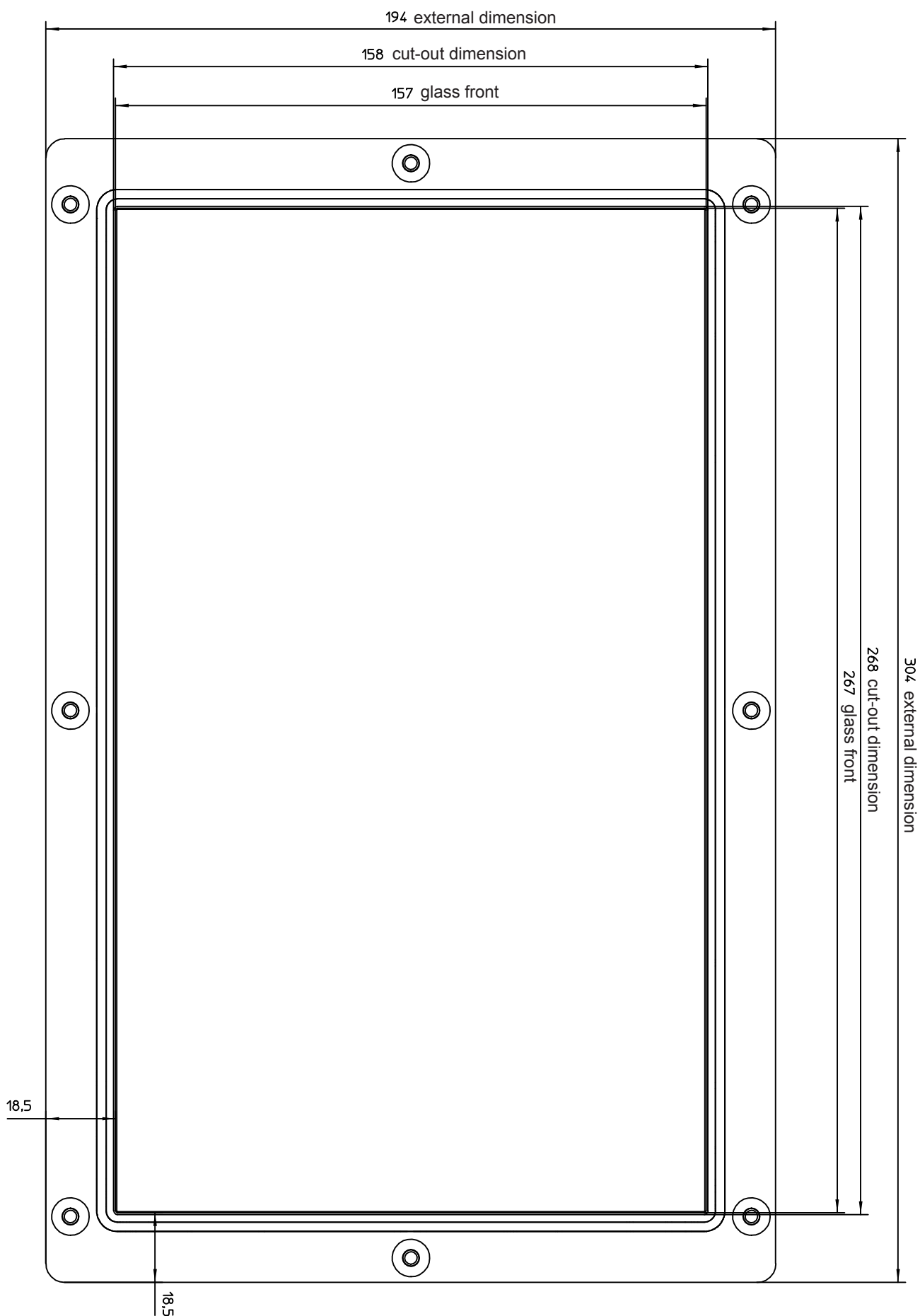
6.1 Floor terminal – DMT

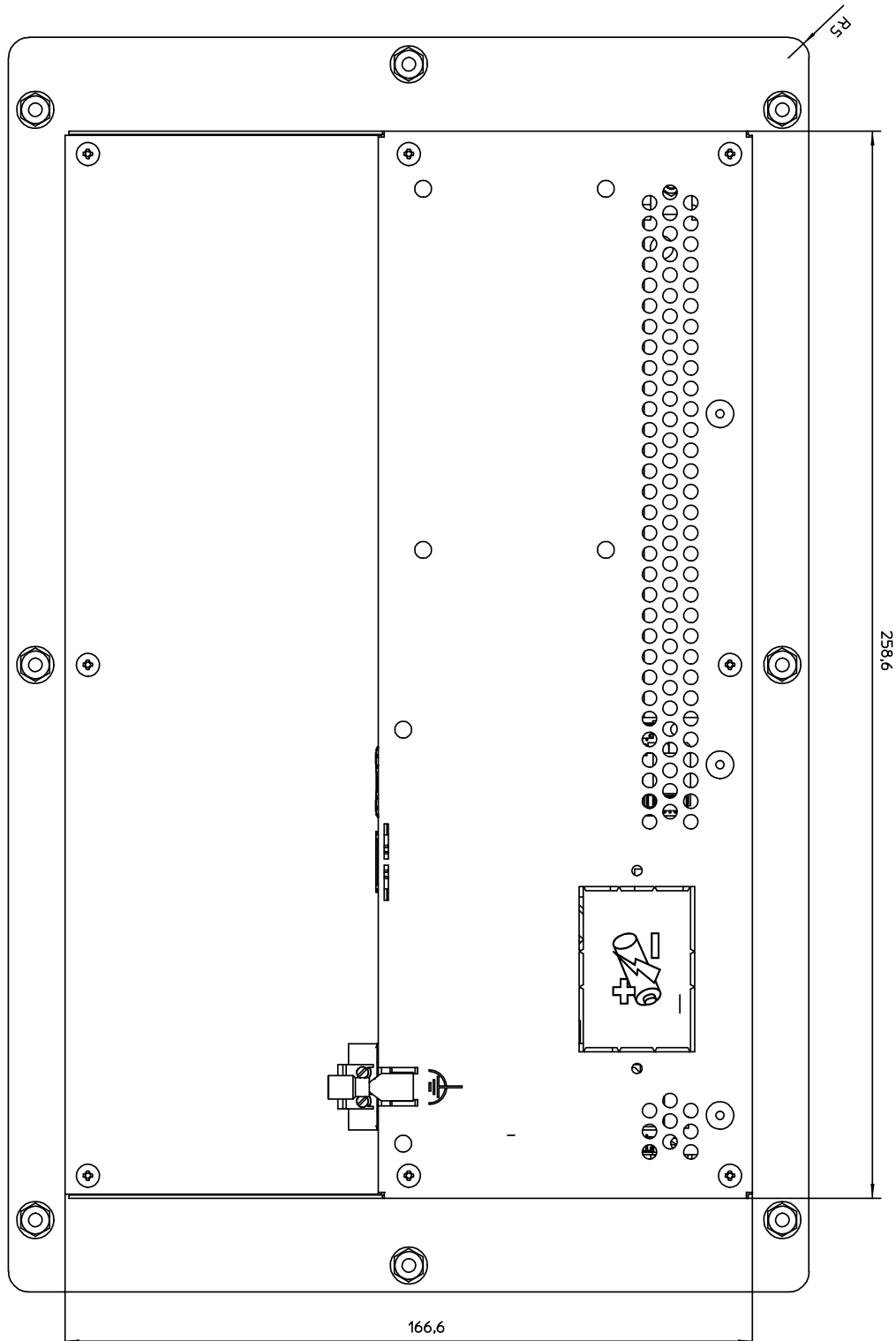
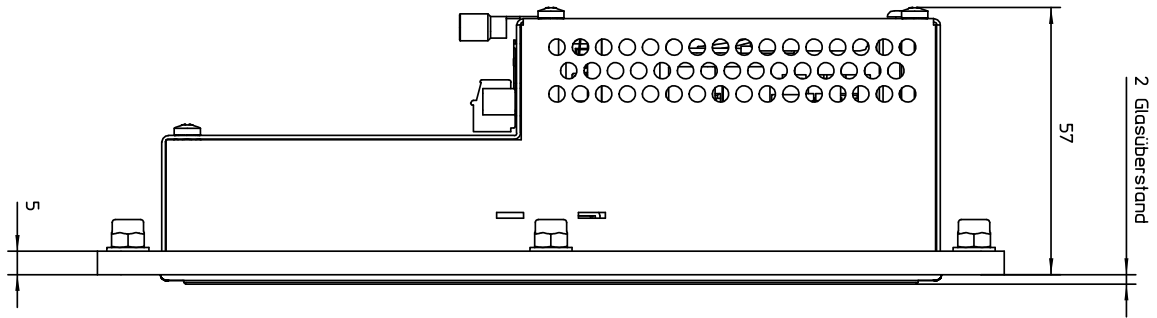


6.2 Floor terminal – Touch screen



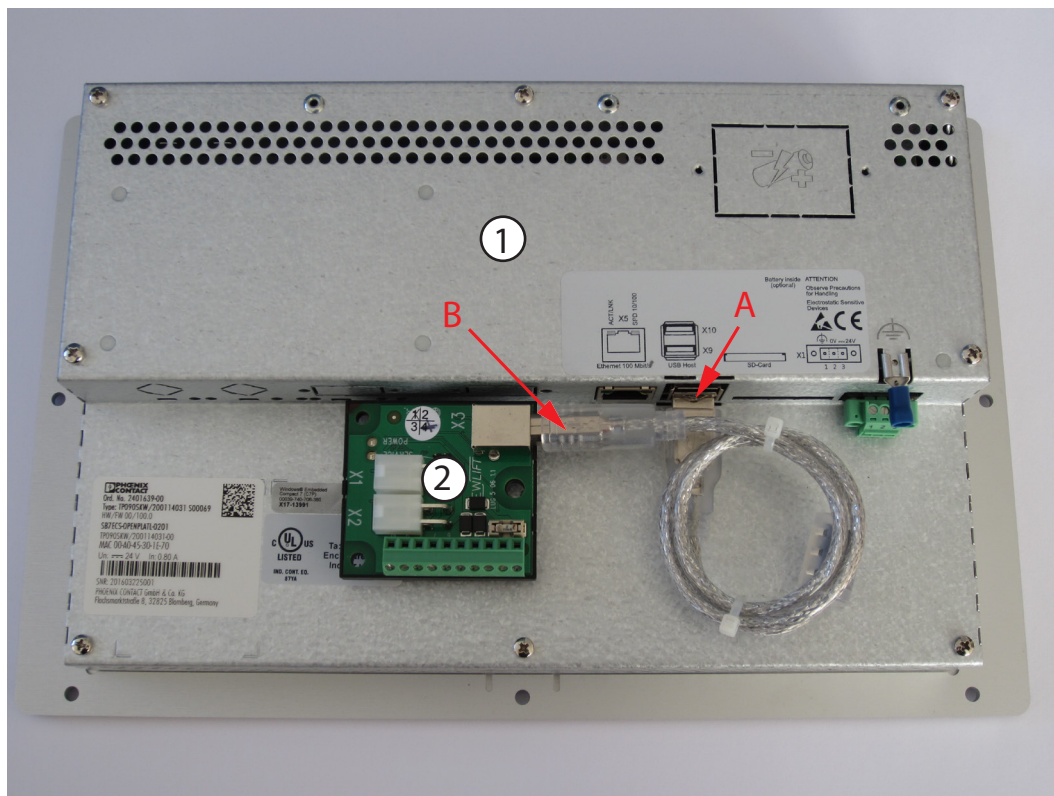
6.2.1 Installation dimensions for 9-inch touch screen





Connecting the touch screen

- ▶ Connecting the LUG module with a standard USB 2.0 cable (plug A - plug B) with the touch screen:
 - Connect plug A on the touch screen at any USB port.
 - Connect plug B at connection X3 of the LUG module.



- A USB port
- B Connection X3 on the LUG

- 1 Rear side of terminal
- 2 LUG module

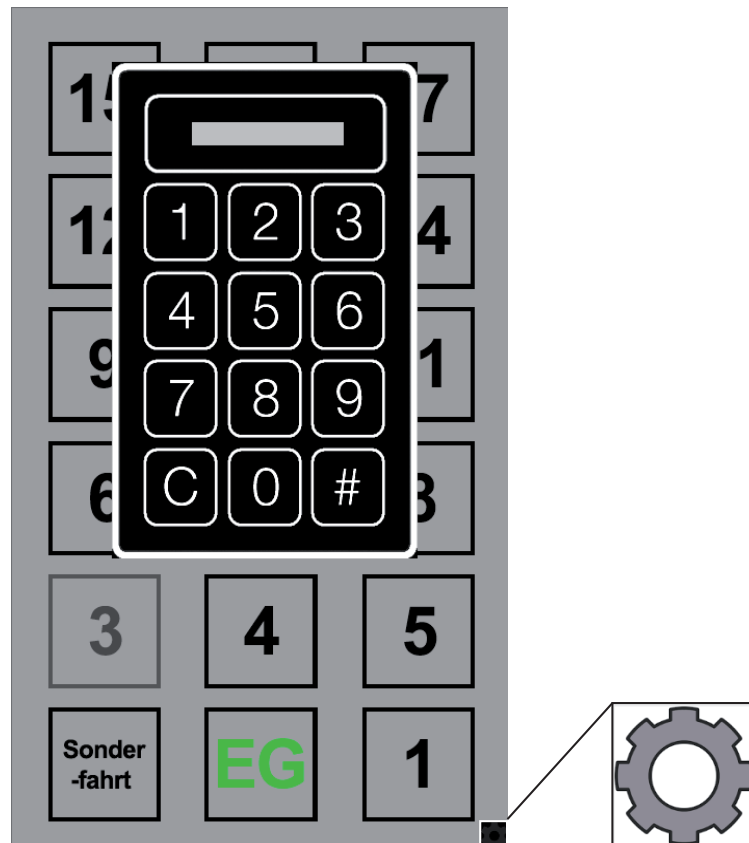
6.3 Settings



*The figures shown in the following are project-specific. Actual procedures and designs may differ from those shown here.
Contact the NEW LIFT service line for individual instructions.*

6.3.1 Activating the keypad input field

- ▶ Press the **gear** in the lower-right edge of the screen.
The keypad input field appears.



Design example with keypad input field

- ▶ Enter an individual code near the keypad input field. Contact the NEW LIFT service line to obtain your individual code if necessary.

Different codes can be assigned to the dialog boxes. The dialog box corresponding to the given code opens.

Sonderfahrt = Special drive

6.3.2 Changing access codes

- ▶ Activate the keypad input field and enter the individual code.
See “6.3.1 Activating the keypad input field” on page 27.
Depending the code that is entered, the *Access Codes* dialog box opens.

Zugangscodes	
Access Codes	898660
Terminal Settings	898661
Time Settings	898664
Load Info (USB)	898665

Close Application

OK Transmit Cancel

Protokol Version Calibrate Screen

You can assign or change the following codes here:

- › - the access code for the *Access Codes* dialog box
 - › - the access code for the *Terminal Settings* dialog box
 - › - the access code for the *Time Settings* dialog box
 - › - the access code for the *Load Info Images* dialog box
- ▶ Select the **OK** or **Transfer** button to accept the settings.
All settings made have global validity, i.e., they are transferred to and accepted by all other terminals connected to the LON network.

6.3.3 Changing terminal settings

- ▶ Activate the keypad input field and enter the code for the *Terminal Settings* dialog box. See “6.1.3 Activating the keypad input field” on page 27. The *Terminal Settings* dialog box appears after entering the code.

- *Terminal* dialog field:
You can assign numbers to the terminals here.
This is only relevant if there are multiple terminals on the same floor.
 - *Floor* dialog field:
Enter the number of the floor on which the terminal is located.
 - *Door* selection area:
Select the door side of the terminal.
 - *Brightness* dialog field:
You can adjust the screen brightness here.
- ▶ Exit the dialog box with **OK**.

FST Standard-Ruf = FST standard-call

FST Ruf = FST call

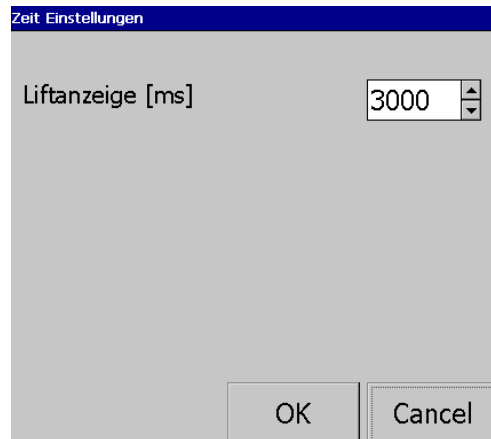
Behindert = Disabled

C" - Taste im Lokal Mode ist Behinderenruf = „C“ - button in local mode is disabled call

Etage wird ausgewählt = The floor will be selected

6.3.4 Time settings

- ▶ Activate the keypad input field and enter the code for the *Time Settings* dialog box.
See “6.3.1 Activating the keypad input field” on page 27.
The *Time Settings* dialog box appears after entering the code.



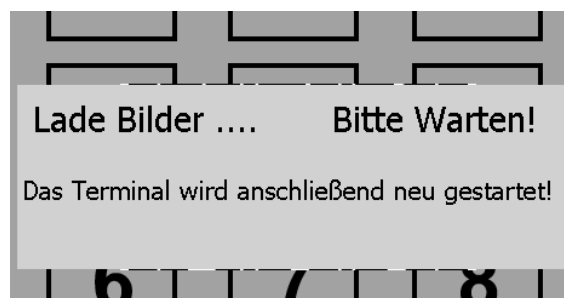
- ▶ In the *Lift Display [ms]* area, set how long an info text (e.g., *Lift X will be arriving for you shortly...*) is to be displayed. In the example shown below, a time of 3000 ms, i.e., 3 seconds, is set.

Zeit Einstellungen = Time settings

Liftanzeige = Lift indication

6.3.5 Loading info images

- ▶ Activate the keypad input field and enter the input code for the *Load Info Images* dialog box.
See “6.3.1 Activating the keypad input field” on page 27.



This application allows you to access images that are stored externally (USB stick) and assign them to individual floors.

- ▶ Contact the NEW LIFT service line if necessary to obtain information on further steps.

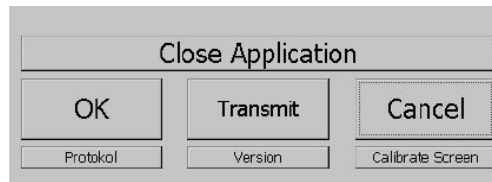
Lade Bilder ... Bitte Warten! = Upload pictures... please wait!

Das Terminal wird anschließend neu gestartet! = Afterwards, the terminal will be restarted!

6.3.6 Software update

Requirements:

- › USB stick with corresponding update files available.
- › The software update is performed during operation of a terminal application.
 - ▶ Plug the USB stick into the terminal while the application is running.
 - ▶ Activate the keypad input field and enter the individual code to open the *Access Codes* window. See “6.3.1 Activating the keypad input field” on page 27.
 - ▶ Press the **Exit Application** button.



The installation script starts automatically.

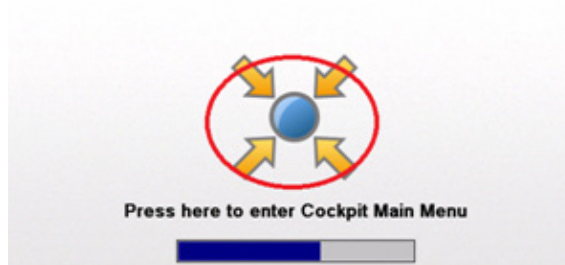
```
Copy File: \HardDisk\Install\Terminal\SerialLonCommunicator.dll to \StorageCard\Terminal\SerialLonCommunicator.dll
Copy File: \HardDisk\Install\Terminal\StaticDeviceSettings.dll to \StorageCard\Terminal\StaticDeviceSettings.dll
Copy File: \HardDisk\Install\Terminal\Terminal.exe to \StorageCard\Terminal\Terminal.exe
Copy File: \HardDisk\Install\Terminal\CFUtils.dll to \StorageCard\Terminal\CFUtils.dll
Copy File: \HardDisk\Install\Terminal\Cinortus.AssemblyInformationAttribute.dll to \StorageCard\Terminal\Cinortus.AssemblyInformationAttribute.dll
Copy File: \HardDisk\Install\Terminal\Cinortus.HardwareAccessInterface.dll to \StorageCard\Terminal\Cinortus.HardwareAccessInterface.dll
Copy File: \HardDisk\Install\Terminal\Cinortus.HardwareAccessLib.CF.dll to \StorageCard\Terminal\Cinortus.HardwareAccessLib.CF.dll
Copy File: \HardDisk\Install\STARTER.BAT to \StorageCard\STARTER.BAT
Installation is completed. Please Wait!
```

As soon as the *Please remove the USB Stick* request appears on the screen:

- ▶ Unplug the USB stick from the terminal
 - The system automatically performs a restart.

6.4 Initial installation

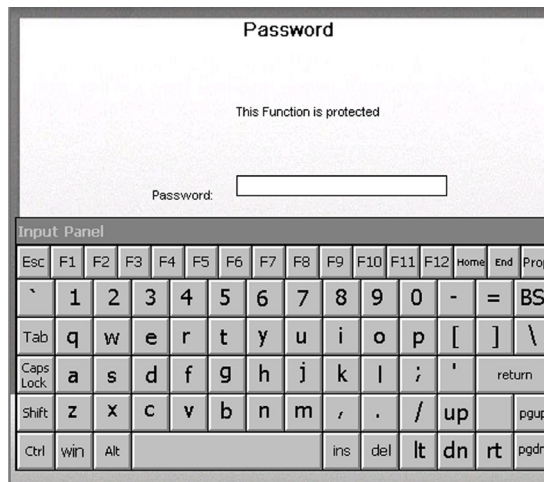
- ▶ Insert SD card in the card slot on the rear side of the terminal.
- ▶ Switch on terminal.
- ▶ Wait until the following view appears on the screen and press the blue dot.



- ▶ Touch the figure in the centre of the image.

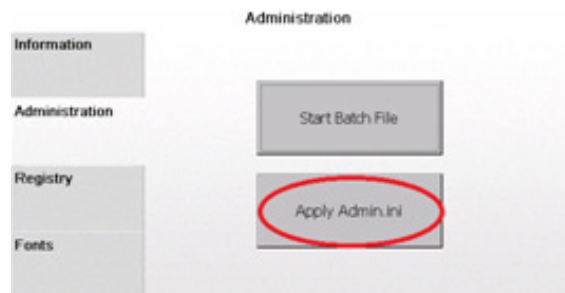


- ▶ Touch the *Password* dialog field and use the *Input Panel* to enter character string **+--+**.
Press the **Shift** button to make the plus character on the *Input Panel* visible.



- ▶ Plug the USB stick into the rear side of the terminal.
The *Administration* window appears on the screen.

- ▶ Touch the **Apply Admin.ini** button.



- ▶ Confirm the following two dialog boxes, *Cockpit unlocked* and *Standard Mode set*, by touching the green check mark on each.



The installation script starts automatically.

```
Copy File: \HardDisk\Install\Terminal\SerialLonCommunicator.dll to \StorageCard\Terminal\SerialLonCommunicator.dll
Copy File: \HardDisk\Install\Terminal\StaticDeviceSettings.dll to \StorageCard\Terminal\StaticDeviceSettings.dll
Copy File: \HardDisk\Install\Terminal\Terminal.exe to \StorageCard\Terminal\Terminal.exe
Copy File: \HardDisk\Install\Terminal\CFUtils.dll to \StorageCard\Terminal\CFUtils.dll
Copy File: \HardDisk\Install\Terminal\Cinortus.AssemblyInformationAttribute.dll to \StorageCard\Terminal\Cinortus.AssemblyInformationAttribute.dll
Copy File: \HardDisk\Install\Terminal\Cinortus.HardwareAccessInterface.dll to \StorageCard\Terminal\Cinortus.HardwareAccessInterface.dll
Copy File: \HardDisk\Install\Terminal\Cinortus.HardwareAccessLib.CF.dll to \StorageCard\Terminal\Cinortus.HardwareAccessLib.CF.dll
Copy File: \HardDisk\Install\STARTER.BAT to \StorageCard\STARTER.BAT
```

As soon as the *Please remove the USB Stick* request appears on the screen:

- ▶ Unplug the USB stick from the terminal
The system automatically performs a restart.

7 Commissioning

On delivery, the *GST-Destino* controller is preconfigured to your specific requirements. Commissioning the *GST-Destino* controller is therefore limited to:

- › setting (checking) a few parameters as well as
- › a number of simple tests for checking the group function

The *GST-Destino* controller is commissioned after all FST-2 controllers participating in group mode have been commissioned.

7.1 Requirements

- › Fully commissioned shaft positioning (calibration drive successfully completed)
- › All land call modules are connected to the appropriate control cabinets as per the bus plan
- › Enabled and functional landing control
- › LON BUS cable connection between *GST-Destino* and FST established. See bus diagram.
- › All shaft buses are functional, any necessary power repeaters (shaft or controller) are connected to LON BUS according to bus diagram and to the supply voltage (see wiring diagram) and are ready for operation.
- › Released and functional car doors (test menu)

7.2 Commissioning procedure

- ▶ Switching off all FST controllers and *GST-Destino* controller:
See “7.2.1 Switch off FST and *GST-Destino* controllers” on page 35
 - Switch off all controller fuses.
 - Switch off all group fuses.
- ▶ Establish bus connections according to bus topology
See “7.2.2 Establishing bus connections” on page 35.
- ▶ Switch on the FST-Controllers with controller fuses
- ▶ Checking settings of all FST controllers:
See “7.2.3 Checking basic settings in the FST controllers” on page 35
 - Check the lift ID-number
 - Activate group membership
 - Setting offset properties
 - Check bus mask.
- ▶ Switch on *GST-Destino* controller with group fuse.
- ▶ Checking setting of the *GST-Destino* controller:
See “7.2.4 Checking basic settings of the *GST-Destino* controller” on page 37
 - Release GST
 - Number of cars
 - Reconcile call preselection and, if necessary, other
- ▶ Configuration data of all FST controllers
 - Loading configuration data
See “7.2.5 Loading FST configuration data in the *GST-Destino*” on page 38.
- ▶ Testing group function
See “7.2.6 Testing group function” on page 38
 - Test landing calls
 - Test departure arrows
 - Test chime

7.2.1 Switch off FST and GST-Destino controllers

- ▶ Switch off all FST controllers with controller fuse F4 and GST-Destino group controller with F6.

7.2.2 Establishing bus connections



The designations of the controller and group fuses may differ from the previous controller, FST(-1). If necessary, check this using the wiring diagrams.

To ensure communication of the FST controllers participating in group mode with the GST-Destino controller, the connection cables between the individual FST control cabinets must be plugged-in according to the bus diagram.

- ▶
 - Have the wiring diagrams of each of the FST controllers participating in group mode at hand and open the bus diagram (last page before the legend: "Bus topology")
 - Establish the cross connections between the FST control cabinets specified in the bus plan using the bus cables intended for this purpose
 - Plug in terminators – designation "T" – according to bus diagram
- ▶ Switch on the FST-Controllers
 - Now switch on the FST controllers with controller fuse.
 - Wait until the boot process of the FST controllers has concluded.

7.2.3 Checking basic settings in the FST controllers

The basic settings of all FST controllers participating in group mode are checked in the FST under:

```
> --FST INFORMATION--
> MAIN MENU / Config / Group Settings
> MAIN MENU / Calls / Call Floor
```

Checking lift IDs



Controller malfunctions!

If the lift ID-number does not correspond to the jumper settings (see wiring diagram) of bus modules FSM and FPM as well as the configuration of the land call modules, the function of the FST controllers cannot be guaranteed!

Make certain that no lift IDs are assigned more than once!

- ▶ Simultaneously press **Enter** + **Shift** --FST INFORMATION-- appears on the first line.
- ▶ Use the **↓** button to scroll until the LiftID: appears
- ▶ Note the ID number: ABCDEFGH
- ▶ Press **Enter** to exit the FST information menu
- ▶ Under MAIN MENU / Config / Group Settings / Lift ID-Number, compare the ID number set here with the ID number noted previously
- ▶ Both IDs must match
- ▶ Repeat the procedure for all FST controllers participating in group mode.
 - Compare the ID of the next FST controller participating in group mode with the already noted IDs. These must NOT be the same.

Only change the IDs in consultation with the NEW LIFT service line!

All FST controllers participating in group mode must have a unique lift ID-number (FST A (No.0) ... FST H (No.7)).

Activating FSTs as group member

Select under MAIN MENU / Config / Group Settings / Group Member

- ▶ Set YES with **↑**/**↓** and confirm with **Enter**.

Setting offset properties

The group offset is the offset between the shafts of the FST controllers participating in group mode.

If the bottom floor of all FST controllers is the same physical floor of the building, the group offset = 0 (normal case). If this is not the case, the group offset of the FST controller that travels to the bottom floor is to be set to 0; for the other FST controllers, the value is to be set so that it corresponds to the floor offset of the shafts.



Controller malfunctions!

Error-free function of the GST-Destino controller board is ensured only if the group offset is set correctly.

In the event of uncertainties regarding the group offset, contact the NEW LIFT service line!

floor numbering	floor designation	A	B	C	A	B	C	A	B	C	D	E
floor 8	6	█	█	█	█	█	█				█	█
floor 7	5	█	█	█	█	█	█				█	█
floor 6	4	█	█	█	█	█	█	█	█	█	█	█
floor 5	3	█	█	█	█	█	█	█	█	█	█	█
floor 4	2	█	█	█	█	█	█	█	█	█	█	█
floor 3	1	█	█	█	█	█	█	█	█	█	█	█
floor 2	0	█	█	█	█	█	█	█	█	█	█	█
floor 1	P1	█	█	█	█	█	█	█	█	█	█	█
floor 0	P2	█	█	█	█	█	█	█	█	█	█	█
group offset settings		FST-A = 0 FST-B = 0 FST-C = 0			FST-A = 2 FST-B = 2 FST-C = 0			FST-A = 0 FST-B = 0 FST-C = 4 FST-D = 2 FST-E = 1				

Setting offset properties

▶ MAIN MENU / Config / Group Settings / Group Floor Offset.

▶ Set the group offset with and confirm with .

▶ Repeat the procedure for all FST-2 controllers participating in group mode.

If one of the FST controller has a group offset > 0, specify for this FST controller whether or not the set value is to affect control of the floor position indicator and departure arrow. This occurs separately for the position indicators in the car (flr offset-car) and on the floors (flr offset-landing).

Offset properties for position indicators car and landing

▶ Select MAIN MENU / Config / Group Settings / Flr Offset-Car or Flr Offset-Landing.

▶ Use / to set YES or NO and confirm with .

▶ Repeat the procedure for all FST controllers whose group offset is > 0.

How the group offset affects control of the floor position indicators and departure arrows is now set.







Controller malfunctions!

Correct function of the floor position indicators and departure arrows is only ensured if parameters Flr Offset-Car / Landing are set correctly.

In the event of uncertainties, contact the NEW LIFT service line.


Checking the call configuration




The calls of the floors must be in agreement with all other FSTs!







- ▶ Use MAIN MENU / Calls / Call Floor to check the calls of all floors
- ▶ Press and hold down the  button and also press  or  to select the individual calls for the floors Call Floor [XX].
- ▶ Now check the set call of all floors and compare them with all FSTs
- ▶ If necessary, adjust the call configuration with  under Config : .

Teaching the "Destination Floors" display field of the TFT car display




The display memories must be taught for each car display participating in group mode prior to initial commissioning.

- ▶ Connect the TFT car displays to the LON bus.
- ▶ Select FST MAIN MENU / Config / EAZ Config / LON-EAZ Type.
- ▶ Confirm selection with .

Use / to select the TFT type used in the car and confirm with .

- ▶ Select FST MAIN MENU / Config / EAZ Config / LON-EAZ Config
An eight-digit display 00000000 appears.
- ▶ Use   to navigate to the fourth position from left
- ▶ Set the display to 00010000 with   and confirm with .
- ▶ Exit menu and save settings with .
- ▶ Travel to all floors to save the floor texts for the planned stops in the display memory.
- ▶ Repeat the procedure for each other FST that is participating in group mode.

Concluding the check of the basic settings of the FSTs for group mode

- ▶ Press the  button several times to exit the submenu or main menu of the FST.
- ▶ If parameters were changed, the Save changed values? message appears, prompting for confirmation.
Use the  >YES< button if a change was knowingly made. Confirm selection by
Confirm by pressing the  button.

7.2.4 Checking basic settings of the GST-Destino controller





The basic settings of the GST-Destino (via FST) are checked under:

› MAIN MENU / GST MENU / Configuration

Enabling the group controller

- ▶ Select MAIN MENU / GST-Menu / Configuration / GST Enable.
- ▶ Confirm selection with .
- ▶ Select YES with  and confirm with .

Setting the group size

- ▶ Select MAIN MENU / GST-Menu / Configuration / Number of cars.
- ▶ Confirm selection with .
- ▶ Use / to set the number of lifts participating in group mode and confirm with .
- ▶ Use the controller fuse (F6) to switch the FST controllers OFF and back ON again.

► Check the status of the systems

Communication between the FST controllers and the *GST-Destino* controller boards is functioning properly if:

- › LEDs A ... H of the respective FST controllers constantly illuminate
- › A "G" appears on the display of all FST controllers
- › The FST controllers participating in group mode run in normal mode

7.2.5 Loading FST configuration data in the *GST-Destino*




Initialisation of the FST configuration data (Config File) in the *GST-Destino* controller is used for the initial reading-in of the control parameters of all connected FST controllers, particularly the assignment tables for landing calls and shaft doors.

Loading FST parameters

- Select MAIN MENU / GST-Menu / Configuration / Load FST Config.
- Select YES with  and confirm with .

The parameter sets of all connected FST controllers are transferred to the *GST-Destino* controller board via the LON bus. This procedure takes several seconds and is indicated by flashing of the corresponding LEDs A ... H and display of the Transfer: FST- X/X (X/X = FST ABCDEFG) message in the FST display.

Completing the check of the *GST-Destino* basic settings

- Now press the  button several times to exit the submenu or main menu of the FST.
- If parameters were changed, the Save changed values? message appears, prompting for confirmation.
- Use the  >YES< button if a change was knowingly made. Confirm selection by pressing the  button.

The standard display then appears.

See "4.4.2 TFT display of the FST controller" on page 13.

7.2.6 Testing group function

The function of the *GST-Destino* controller is tested by actuating the landing call and observing the call acknowledgement and the departure arrows and floor position indicators. This procedure must be repeated step-by-step on all floors and access sides.

The *GST-Destino* controller is now commissioned.

8 LAN backbone

8.1 Software requirements




Product	Required software version
FST-2XT FST-2XTs	V2.000-0133 or higher
GST-Destino	V2.100-0048

8.2 Making configuration settings




To use the LAN (Ethernet) as the backbone communication channel between the *GST-Destino* and all other connected FST controllers, the following steps must be performed:

- ▶ Make network settings on all FST controllers participating in group mode
See "Network settings of the FST" on page 39
- ▶ Make network settings on the *GST-Destino*
See "Network settings of the GST-Destino"
- ▶ Connect the *GST-Destino* and and all FST controllers participating in group mode with Ethernet cables.

Network settings of the FST

- ▶ Select MAIN MENU / Config / IP Configuration.
- ▶ Select the following submenus in succession, make settings with / and confirm with :
 - / IP Release = ON
 - / IP Address = ---, ---, ---, --- (set unique address! Must not be empty.)
 - / Subnet Mask = 255.255.255.0
 - / Standard Gateway = (Not normally used. Should be empty.)
 - / Server IP Address = (Set unique address! Must not be empty)
 - / Port Number = 8016

Network settings of the *GST-Destino*

- ▶ Select MAIN MENU / GST Menu / Configuration / IP Configuration.
- ▶ Select the following submenus in succession, make settings with / and confirm with :
 - / PAM Enable = OFF
 - / PAM IP Address = ---, ---, ---, --- (Set unique address! Must not be empty.)
 - / PAM Network Mask = 255.255.255.0
 - / Gateway IP Address = (Not normally used. Should be empty.)
 - / LMS Server IP Addr. = ---, ---, ---, --- (Not normally used. Should be empty.)
 - / Port Number = 8001
 - / LAN Mode = YES



If only the NEW IP network is used and no other IP systems need to be taken into account, the following settings are recommended:

Controller	PAM IP Address
GST	192.168.6.100

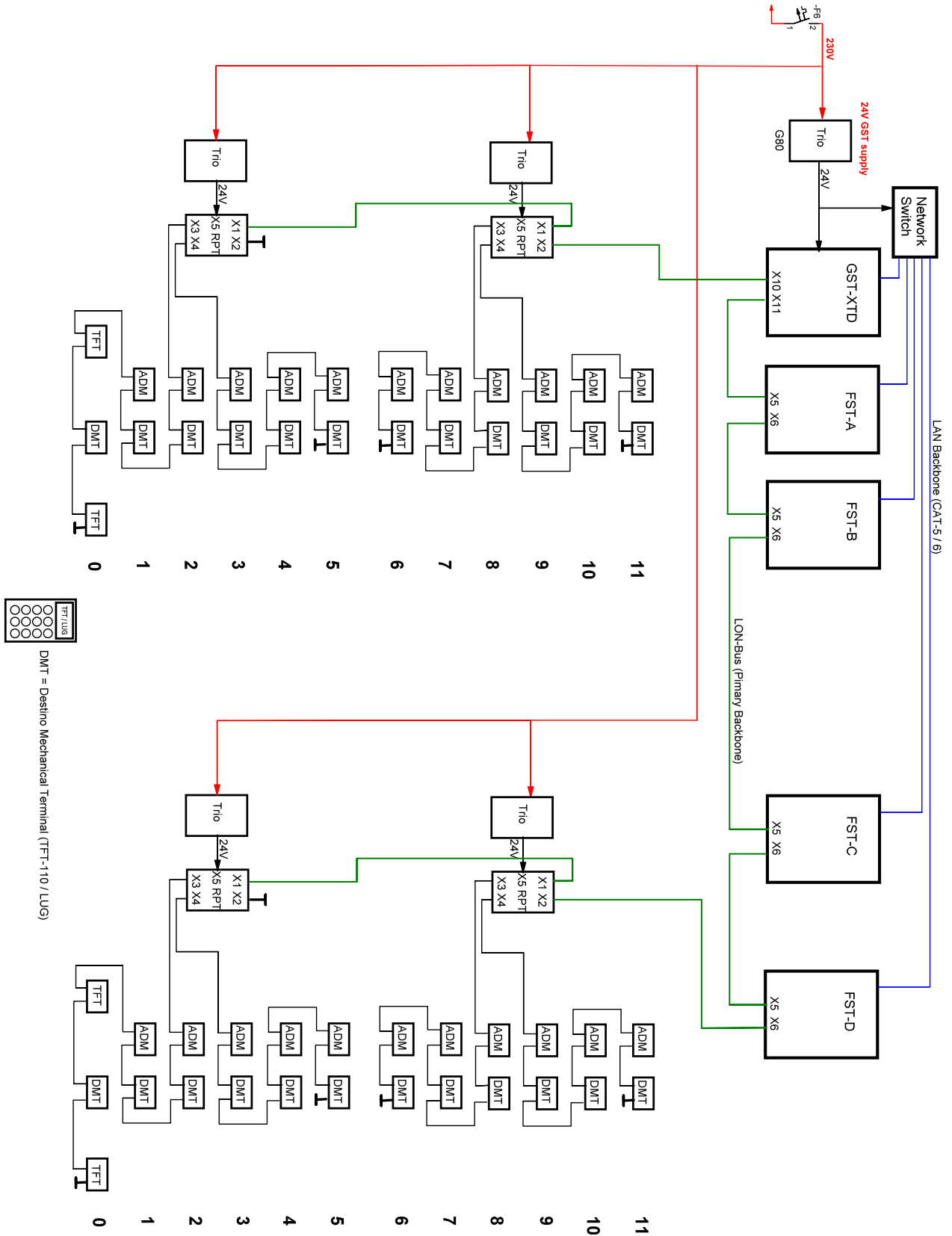
Controller	IP address
FST-A	192.168.6.101
FST-B	192.168.6.102
FST-C	192.168.6.103
FST-D	192.168.6.104
FST-E	192.168.6.105
FST-F	192.168.6.106
FST-G	192.168.6.107
FST-H	192.168.6.108



If only the LON (i.e., no additional LAN backbone) is used:

- ▶ Set the PAM `Enable` parameter in all FST configurations to OFF and
- ▶ Set the LAN `Mode` parameter of the GST-Destino to NO.

8.2.1 LON bus with LAN backbone





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