



# FST-Controller

## Software Version History

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## **About this document**

This document provides an overview of the update history of the FST software.

The purpose of this document is to document the additional features, functional changes and error corrections with respect to the individual software updates of the FST controller software.

**FST-Software version V1.100-0399 (14/06/07)**

**New Feature 1:** Car-Operate-Panel-"2xCall=Clear" option: New "one-touch clear" mode added, which allows the passenger to clear any acknowledged car call by pressing it once again.

**System\Factory Menu\Settings\Miscel-7 = 00000100**

**FST-Software version V1.100-0398 (08/06/07)**

**New Feature 1:** Light-Safety-Curtain: new 2-door operation added, with separate pre-drive test outputs from the FSM-2 car top module.

**Doors\Doors-Basic\SS-Curtain A+B = Yes / No**

*NB: 1) for FST-2 only  
2) requires FSM-2 V09 software*

**Change 1:** Fireman Recall: will now prevent the lift from driving through those floors with active smoke-alarms.

**Change 2:** Special Call Mode „2-Floor,1-Button“: will now operate on cars with 2 doors sides.

**FST-Software version V1.100-0397 (21/05/07)**

**New Feature 1:** Retiring-Cam ON-delay parameter added:

**Doors\Doors-Basic\Door Lock Del. = 0-5.0 sec**

*NB: 1) for FST-2 only  
2) requires FSM-2 V08 software*

**New Feature 2:** Door Close/Open error mask option added: disables the open/close error detector

**System\Factory Menu\ Settings\Miscel-7 = 00000010**

**Change 1:** VIP mode: departure arrows now disabled during VIP mode

**FST-Software version V1.100-0396 (16/05/07)**

**New Feature 1:** Folding/Collapsible Apron: new run-off time parameter added. Extends the slow decent drive for a few extra millimeters to help the switch contact close reliably.

**Configuration \ Fold.Skirt Runoff = 0-255 mm**

**New Feature 2:** New SIGNAL – relevelling active: uses and modifies the existing "inside relevelling-area" SIGNAL, to provide an output whenever relevelling is operating.

**System\Factory Menu\ Settings\Miscel-7 = 00000000**  
(outputs when position of lift is inside relevelling up/down limits)

**System\Factory Menu\ Settings\Miscel-7 = 00000001**  
(outputs when lift is relevelling)

**Change 1:** VIP mode-2 change of characteristics car calls operate normally  
- no longer in "dead-man" mode  
- multiple car calls possible  
- initial drive to specified floor possible

**Change 2:** Lift-Off: "Turn-in-shaft" option (MISCEL-5=00100000) can now be used with Lift-Off operation.

**FST-Software version V1.100-0395 (01/04/07)**

**New Feature 1:** Lobby-Stop: new feature allows the lobby stop to be used selectively in the up and down directions only

**Configuration\Special Functions\Lobby-Stop\Control = 000000du**

u = 1: lobby stop is active at the pass by upwards

d = 1: lobby stop is active at the pass by downwards

**New Feature 2:** Loading-mode program 2 added: operates on all open doors as mode-1, otherwise has characteristics of mode-0 (cancelled by re-pressing loading or door-close buttons, not cancelled by car call)

**New Feature 3:** Beringer ELRV – new speed option added: V1-V2 now V1-V3

**Change 1:** Loading-mode: now cancelled by car priority activation

**Correction 1:** auxiliary drive: safety-circuit debounce time now employed before drive started

**Correction 2:** homing drive after DRM failure: the car stops unlevel, stopping as soon as the door zone appears. Problem present since V0381 – now corrected.

**Correction 3:** DRM-MOTOR FAILURE: following the initial drive stop (downwards direction), it is possible that the homing drive doesn't get accepted – now corrected.

**Correction 4:** I/O-function GST-Attika "repaired"

**Correction 5:** Apron control: error messages ON/OFF swapped

**Correction 6:** descent protection in inspection/auxilliary mode: ensure output port turns off when inspection/auxiliary drive is terminated (realized with I/O port function DRM-IO-Port)

**FST-Software version V1.100-0394 (20/02/07)**

**New Feature 1:** EMC224-Box menu added:

**Configuration\EMC224-Box\ ...**

**Change 1:** Giehl-AZRS and Pawl Control:

1. V0 output now used for lowering manouvre.
2. Down-valve shutoff control now added for fine-pump downwards
3. Giehl-AZRS + Pawl Control: in line with the configuration of other Pawl types, the settings for this drive type are:

**Drive\Regulator Type = "4 Valve-Hydr. + ASV"**

**Drive\Pawl-Control\HydrUnit = "GIEHLAZRS" (new option added)**

**Correction 1:** I/O-port "Drive-Pause" function, when using option allowing a controlled stop upon demand anywhere in the shaft:- change to calculation of stop position prevents prolonged crawl to eventual stop.

**Correction 2:** SAM, car-priority mode: prevent multiple messages being spoken

**Correction 3:** FST-Editor: if a FST configuration file is created from "scratch" entirely in the PC and then loaded into the FST via serial-cable or PC-card, this config file does not yet have a FST software version associated with it. Upon receiving the file, the FST will reboot and then assume the previous software version to be 0000, causing a number of parameters to be preset to default values – which may not be those settings in the original PC file. This problem will not occur if the source for the configuration file being worked on in FST-Editor

came originally from a FST, in this case the software version will be correctly marked. A correction has now been made to recognise an incoming configuration file with unfilled software version, in which case the current FST software is now assumed.

### **FST-Software version V1.100-0393 (09/02/07)**

**Correction 1:** Giehl-AZRS and Pawl-Control: V0 output now used for raise manoeuvre.

### **FST-Software version V1.100-0392 (08/02/07)**

**Correction 1:** MA35 (Austrian door-lock operation): correction to allow use of single door-open button (configured in **Configuration\Car-Operate-Panel\OPEN = A+B**)

### **FST-Software version V1.100-0391 (02/02/07)**

**New Feature 1:** SAM speech module menu added:

**Configuration\Speech Output\Speech Module Type = SAM-Module  
Configuration\Speech Output\SAM-Module\ ...**

**New Feature 2:** SIGNAL output port function added: Gong

This Signal mirrors the gong output programmed for use on the car.

**SIGNAL port value = 00003484 or 00003485**

**Correction 1:** DRM-I/O Port: it is possible for this condition to activate prematurely if the pre-opening door settings is being used, and the doors are re-opened at the last moment before closure. Now corrected.

**Correction 2:** Offset Groups (groups with members having different bottom floors): The following 3 changes have been made so that the floor is correctly used in an "offset-group" context:

1. group offset now correctly applied to the "2xCall=Clear" option
2. Configuration\LON-Config>Show-LON-Modules now reflect the floor-text correctly, when the RIGHT-key (clear-text) option is used.
3. Incorrect group offset applied to non-NEWLIFT floor-position displays corrected for case when **both** following menu parameters are set:

**Configuration\Group Settings\Flr Offset-Car = YES  
Configuration\Group Settings\Flr Offset-Landing = YES**

**Correction 3:** door settings: following nonsensical but possible menu setting could cause a standstill:

**Door\Door-selective\Type = "no car door" and  
Door\Door-selective\Decoupling = YES**

correction made to ignore the decoupling setting in this case.

**Correction 4:** Car Priority: if a "keyless" car-priority mode is used, eg. landing-priority, type-AUTO-2 which activates the car-priority mode automatically, and a car call is given to a locked-floor, the car-priority mode will continue indefinitely. Now corrected, the locked car call attempt is ignored.

### **FST-Software version V1.100-0390 (09/01/07)**

**New Feature 1:** Regulator-Type DEVEHISSAR: 2-pump control option added

**Correction 1:** Car-Operate-Panel-"2xCall=Clear" option: this allows a set car call to be cleared by the user if the button is pressed a further 2 times quickly. If the

LMS-Elevision monitoring program is being used, this call clearance event is not recognised and the acknowledged call will "hang" on the PC-screen. This modification corrects this behaviour, the screen "call-button" will now react in harmony with the real COP button.

### FST-Software version V1.100-0389 (22/12/06)

**Correction 1:** for Giehl-AZRS and Beringer-ELRV(Bucher) regulated hydraulic drive interface, the DOWN-Emergency Shutoff Valve added in FST V0384 results in an unwanted stop when changing speeds from fast to slow-inspection. Now corrected.

### FST-Software version V1.100-0388 (22/12/09)

**Change 1:** Speed Threshold I/O port function, "dynamic-speed-only" option added in V0386, now changed such that the port does not output during the acceleration phase of the next drive, ie. normally the port will activate during the deceleration drive phase, when the speed drops below the set threshold.

**Change 2:** Remote-I/O Port facility: the maximum number of remote ports has now been increased from 64 to 80. This now allows a remote I/O port to be used for an input on the car (RIO ports 72-77) on the FSM to an output on another RIO module (eg FST).

**Change 3:** "Secure Landing Priority" function: previously only available in a FST-Group, this has been changed to allow operation on a simplex FST. When the "Secure-Landing-Prio" option is set in the ADM module, the FST will continue to service all car-calls, and all existing landing-calls. Newer arriving landing-calls are enabled, will be acknowledged, but not serviced. When the last call has been serviced, and the doors are closed, only then does the normal landing-priority mode start as normal.

Set the following menu option for this feature:

**Configuration\Prio-Landing-Car\Keep-Landing-Calls=YES**

**Correction 1:** Emergency-Stop: change made to prevent automatic door re-opening if the FSM reversing-switch input for this door is active as the emergency-stop occurs.

**Correction 2:** Emergency-Stop during Car-Priority mode: if an emergency-stop condition occurs outside of the door-zone area, when car-priority is active, the doors may become "locked" and refuse to open subsequently. Now corrected.

**Correction 3:** Calibration Drive: correction made to prevent a DRM-Contactor-Monitoring failure condition occurring after the calibration drive has completed.

### FST-Software version V1.100-0387 (11/12/06)

**New feature 1:** Loher Dynavert drives:

- 1) main contactor pre-selection relay output added – K0.
- 2) 2nd (fast) intermediate speed added as option:

**Drive\Special-Params\Switch-2=ON**

**New feature 2:** Loher-DCP drives: main contactor pre-selection relay output added – K0

**Change 1:** Drive type Ziehl Abegg "Zetasyn-RC74" removed from FST menu

**Change 2:** Drive type Thyssen MFC 20-26 now separated into 2 individual drive types **Thyssen MFC 20/21** and **Thyssen MFC 30/31**

**Change 3:** PC-Card: when inserting a SRAM card with write-protection activated, the FST will now display: "REMOVE WRITE-PROTECT" since the FST needs to write to these card types to determine the memory capacity.

**Correction 1:** Ramp-control: overload now observed when ramp-control is active

**Correction 2:** Calibration Drive: when calibrating a very small shaft, the V3-speed, if used, is not correctly checked in the **Drive\Drive-speeds** menu, and must be manually entered. Now corrected.

**Correction 3:** Liftboy-Mode for "C&A" operation: correction to allow use of manual doors with the liftboy direction-change buttons

### FST-Software version V1.100-0386 (23/11/06)

**New feature 1:** new option added to "Speed Threshold" I/O port function: now allows the output to only activate when the motor is actually being driven. Normally if a speed threshold, for example, of 300mm/s is being used, this signal will remain active as long as the lift's speed is below 300mm/s including the time the car is spent stationary in the floor. Now by setting the "dynamic-speed-only" bit in the I/O port program, the output will deactivate when the lift is fully stopped.  
I/O port RAW settings:

**00ssssBC or 00ssssBD = output always set when lift < ssss mm/s**  
**01ssssBC or 01ssssBD = output only when lift is being driven**

**Change 1:** Error #46 – "UNEXPECTED-STOP" (for certain serial drives) now not output during Inspection/Auxillary or Installation Modes

**Change 2:** Hydraulic Lifts using Parkdrive.  
If the Hydraulic HOMING-TIME is in use (ie. > 0min), a park-drive will now only be actioned if the lift is not currently in the bottom floor. This prevents the lift oscillating between the homing (floor-0) and park destinations.

### FST-Software version V1.100-0385 (10/11/06)

**New feature 1:** Disabled calls: new option to allow a grouped FST driving to a "disabled" (wheelchair) landing call to remain in the group. The default (below bit='0') is that this controller is not eligible for further landing calls until the disabled condition expires.

**System\Factory Menu\ Settings\Miscel-6 = 01000000**

**New feature 2:** New option for SIGNAL-LEVEL (I/O port program 00200084):  
This output is normally active when the lift is within the set LEVEL-UP / LEVEL-DOWN limits AND either stationary on in the target floor whilst driving. This new option changes the function of this SIGNAL to be active when the lift is inside the ZONE-UP / ZONE-DOWN limits (software zone) of the nearest floor, and unlike the normal LEVEL signal, this is always output, irrespective of the lift status – driving, inspection, zone-enable etc.

**System\Factory Menu\ Settings\Miscel-6 = 10000000**

**New feature 3:** New error message for DCP03 drives:

**UNEXPECTED STOP (error #46)**

This error occurs when the lift start sequence has completed, the lift is underway, and the drive unexpectedly reports the motor has stopped, although the stop was not commanded by the FST. The same error monitoring has previously been use for the DIETZ-AS regulator-type alone.

**Change 1:** Calibration Drive: An extensive re-work of the FST Calibration Drive has now been made to control the following:

1. Problems calibration some hydraulic lifts using slow and often irregular or inconsistent crawl speeds.
2. Problems calibrating short shafts; the calibration drive would occasionally run out of space.
3. On some systems, calibration drive was not possible, and would be aborted even though points 1) and 2) were not valid

The revised calibration drive now starts with a short initial test run made at full speed to test the relationship of the shaft-length and the lift's measured dynamics. The FST assigns a "size" rating for the shaft which determines thereafter how the cal-drive will be executed. Using the new parameter listed below, the user can force this size rating should the need require.

Note: **System\Factory-Menu\Hidden-Menus** must be enabled to see this parameter.

**Configuration\Installation\Cal.Shaft Type = n (0..4)**

- value 0 = FST will automatically chose the best size rating (default)  
 1 = forces "large" sized shaft (no positioning-drives needed)  
 2 = forces "medium" sized shaft (some positioning-drives needed)  
 3 = forces "small" sized shaft (many positioning-drives needed)  
 4 = forces "x-small" sized shaft ("fast"-calibration drive performed)

Throughout the revised calibration drive the FST LCD display shows in clear text the details of the current drive-type, direction and speed used.

**Change 2:** Oil-Dinamic – 3100/2CHS: change to improve stopping, the following timer is now used to control the VMP-off delay:

**Drive\Special-Params\Timer-2**

**Change 3:** Menu parameter "3xCall=Clear", has now been changed to "2xCall-Clear". When activated, the user can clear any car call by pressing the call button twice in quick succession.

**Correction 1:** Out-Of-Order Indication on ADM's in Non-Collective call mode, can be disabled using the Supervisor setting MISCEL-5=00000010. Changes made for this to operate properly, and now also work with EAZ-256 displays.

**Correction 2:** Light Curtain: changes made to prevent error conditions occuring when the light curtain has been interrupted (emergency-stop) and a car call is pressed for the floor in which the lift is standing.

**Correction 3:** Manual Doors and Fire-recall mode: correction made to allow the door-cams to de-energize as soon as the lift reaches the recall floor, and not have to wait for the CAM-TIME-MAX delay.

**FST-Software version V1.100-0384 (15/09/06)**

**New feature 1:** for Giehl-AZRS and Beringer-ELRV(Bucher) regulated hydraulic drive interface, a new option added to switch the DOWN-Emergency Shutoff Valve. This output is acticated before downwards drive, and removed after the drive has completed. The pre-selection relay K11 is used for both FST-1 and 2 boards. The time between K11 activating and the normal remaining start/stop sequence can be set using:

**Drive\Down-Valve Shutoff (0..2999 msec)**

**New feature 2:** Support added for DCP03 operation with Brunner & Fecher drive



**New feature 3:** Beringer-ELRV(Bucher): new option for Fine-Relevelling-Downwards (uses auxillary pump)

**Drive\Special-Params\Switch-4 = ON** (fine-relevelling down enabled)

**Change 1:** "MICOVERT 2000 (Par.)" drive-type now remamed to "KW GOLIATH-60". The FST drive interface now requires stop-signalling via the brake-monitoring input (FST-1: X4pin-7 / FST-2: X1pins19,20). Compatibility with older/existing systems managed through the (automatic) setting of the following switch:

**Drive\Special-Params\Switch-2 = ON**

(ON=legacy mode,I/O port-7 used for stop-signalling. FST-1: X7pin11, FST-2: X1pin11)

**Correction 1:** Bank Control Mode: problem when using Bank-Control with both special-call mode=Non-Collective(Landing) AND FPM-Coupling=YES. If the door-open button was used to re-open the door, the door opened, closed and the Bank-Busy status ("B" on LCD) would subside, but the Landing-Calls-OFF condition would persist indefinitely. Now corrected.

**Correction 2:** Manual-Doors and "Austrian" Door-Lock option (door-lock-type=1):if the manual door was held open longer than the set "Car-Call-Priority" time, any currently set lift intended drive direction was cleared. Now corrected.

**Correction 3:** Learn Drive: problem with lifts having 2-floors and those using speed V1 for the learn drive. There is not enough space left to slow down and stop after the top floor zone switch has been read during the learn drive. Now changed, the learn drive for 2-floor lifts uses the KO switch to remove the V1 speed and crawl into the top floor.

Note: this problem is not present in lifts with more than 2 floors, since during the learn drive upwards, the speed is automatically reduced to crawl from the penultimate floor up.

### **FST-Software version V1.100-0383 (01/09/06)**

**Correction 1:** Special Call Mode – Non-Collective (Landing): correction to prevent opposite-side door opening when landing-call is entered to floor in which lift is standing.

**Correction 2:** Loading Button: "20 seconds left" warning light output on Door-C now corrected

**Correction 3:** Fireman-mode HongKong standard: if the first drive away from the fire main-floor was made with using a 'B'-side car call button, the doors will not reverse and re-open if the call button is released before total door closure. This incorrect condition occurs before the first fireman-mode drive only. Now corrected.

### **FST-Software version V1.100-0382 (24/08/06)**

**New feature 1:** VIP mode: option added to give **VIP-mode** a higher operating priority than **Lift-Off** mode. When activated, this feature will allow a lift currently operating in VIP-mode to ignore a Lift-Off condition request.

**System\Factory Menu\ Settings\Miscel-6 = 00100000**

**New feature 2:** Brake-monitoring: option added to allow an inverted brake monitoring signal. Normally 24V is applied to the FST input when the brake is RELEASED, if this option is used, 24V is applied when the brake is ON.

**Drive\Brake-Monitoring\ Input-Inverted = (YES/NO)**

**Drive\Brake-Monitoring\ Enabled = (YES/NO) \***

\* this is the main Monitoring enable signal previously shown in the Drive menu as **Drive \ Brake-Monitoring = (YES/NO)**

**Change 1:** Lift-Off: special option to leave the doors open in Lift-Off mode, is now applied to the doors specified in **Configuration\ Lift-Off \ Lift-Off-Doors** only. (was previously applied to all doors.

**Correction 1:** Special door-cam operation MA35 (Austrian stand: Correction to Inspection and Auxilliary mode, to ensure that the door cam will re-energized in preparation for the next drive if the door contact(s) has opened.

**Correction 2:** Inspection door test: door open/close operation interruption now corrected when using the door test mode during inspection mode with "de-energized" door types.

### FST-Software version V1.100-0381 (02/08/06)

**New feature 1:** SIGNAL output port function added: Car Ventilator-ON  
 This Signal will activate when the FSM or FSM-2 Ventilator relay is switched on. If Car-Ventilator\Output-Inverted = YES, then this SIGNAL logic is also inverted automatically. This output is intended to drive a signal lamp in the car-operating-panel  
**SIGNAL port value = 00003384 or 00003385**

**Change 1:** Car-Ventilator: if using manual ventilator control, \ Car-Ventilator \ Control-Mode = Manual On/Off, the ventilator will now be turned off automatically if the system is parked with a Lift-Off condition.

**Change 2:** DRM failures: since the door-zone enable is turned off in a DRM condition, the car must be inside the level-UP/DOWN floor limits in order for the door-open button to operate. In order to maximize the chances of passenger self-release, the criteria has now been widened to allow door opening within the zone-B limits during a DRM failure condition.

**Correction 1:** Non-Collective Call Mode (Change-2 V1.100-0380): correction to operation when using test-drives from the FST-keyboard in conjunction with car-priority mode.

### FST-Software version V1.100-0380 (26/07/06)

**New feature 1:** SIGNAL output port function added: Lift-Off-Completed.  
 This Signal will activate when the (standard) Lift-off program is fully completed, ie. The target floor is reached, the doors have opened and then closed again. This Signal can also be used for the special Lift-Off programs, eg. parking with open-door, or pseudo-floor parking. The "completed" state in each case reflects the program's final status.  
**SIGNAL port value = 00003284 or 00003285**

**Change 1:** Cars with both Manual and Automatic doors on opposite car sides: The factory menu switch **System\Factory Menu\Settings\Miscel-4 = 00010000** was introduced (FST V1.100-0295) to control the car-light-off handling for cars with mixed door types (NB: this option is not intended for a manual shaft-door / automatic car-door configuration used on the same car door opening). If using non-collective call mode, the car-busy status will previously only reflect the manual door opening status, not that of the automatic door. Now if the Miscel-4 switch shown above is set, car-busy status in non-collective call mode will function correctly for both door sides.

**Change 2:** Non-Collective Call Mode: previously, test drives entered directly from the FST

keyboard, did not cause the car-busy status to active during the drive. Now changed to do so.

**Correction 1:** Door-lock retiring cam: The menu parameter **Doors\Doors-Basic\Cam-Time-Max** sets the maximum time that the cam will be energized for. In an emergency-stop condition, the cam was previously prevented from retiring. This has now been corrected to limit the maximum on-time in all conditions.

**FST-Software version V1.100-0379 (20/07/06)**

**New feature 1:** SIGNAL output port function added: selective DRM. Using any of the error codes (in Hex form as shown), the Signal will activate when any particular DRM failure occurs.

**SIGNAL port value = 00nn2F84 or 00nn2F85**

| meaning              | value for nn |
|----------------------|--------------|
| DRM-START PROBLEM    | 0E           |
| DRM-DRIVE MONITOR    | 0F           |
| DRM-ENCODER FAILURE  | 10           |
| DRM-CAR COMMS FAIL   | 11           |
| DRM-END FLOOR SPEED  | 12           |
| DRM-MISSING ZONE     | 13           |
| DRM-BRAKE FAILURE    | 14           |
| DRM-MOTOR FAILURE    | 15           |
| DRM-FORCED STOP      | 16           |
| DRM-EMERG.LIMIT SW   | 17           |
| DRM-DOOR FAILURE-    | 18           |
| DRM-CONTACTOR MON.   | 19           |
| DRM-SPECIAL I/O-PORT | 1A           |
| DRM-ZONE BRIDGED     | 33           |

**New feature 2:** SIGNAL output port function added: Light-Curtain Interruption. This can be used to illuminate a tell-tale lamp in the car signifying that the light curtain has been interrupted and requiring the passenger to re-press his destination button.

**SIGNAL port value = 00003084 or 00003085**

**New feature 3:** SIGNAL output port function added: any door fully open. Either Door A,B,or C is fully open, ie. The door endswitch has opened. NB: It is recommended to use this Signal only with doors employing endswitches, otherwise the door open status is ambiguous.

**SIGNAL port value = 00003184 or 00003185**

**New feature 4:** Support added for CUS-71

**Correction 1:** DRM-Door-Failure: It is not possible to clear certain types of DRM door-failure failure using the **Test-Menu\Fault-Reset**. A controller reset is necessary. Now corrected.

**Correction 2:** DCP/ACP: correction to prevent an Inspection or Auxilliary drive from being attempted in spite of a disfunctioning DCP/ACP serial interface.

**Correction 3:** Door-Close-Error: Following an open-door-lock error, any open door contacts (A,B or C) which have opened and don't now close within 3 seconds, will wrongly generate a Door-Close-Error. Normally, the time limit used for door-closure monitoring is a multiple of the last measured successful door closure. Now corrected.

**FST-Software version V1.100-0378 (11/07/06)**

**New feature 1:** Manual-doors: optional to display a "doors-are-open" message on the EAZ-256 landing indicators. NB: currently this message is available in German only! – please contact NEW Lift if you require this option in English.

**System\Factory Menu\Settings\Miscel-6 = 00010000**

(NB: **Configuration\Hall-Stations\Special-Display-0** must be set to 1)

**Change 1:** Pawl-Control (Giehl/Beringer/Oil-Dynamic/Leistriz units): change made to allow inspection-mode door-test, when Drive \ Pawl-Control \ Door-Lock is activated. This would normally prevent any door-opening when the car is unsupported..

**Correction 1:** SDS (Selective-Door\_Security): corrections made for operation with Door-B

**FST-Software version V1.100-0377 (03/07/06)**

**New feature 1:** Support added for ELGO magnetic tape positioning system

**New feature 2:** Support added for DCP03 operation with Thyssen-MFC drive family (MFC-20,21,30 etc)

**New feature 3:** Pawl Control (4 VALVE HYDR. + ASV): New menu parameter added limiting the maximum time for pawl-operation (maximum allowed time was previously fixed at 5 sec).

**Drive\Pawl-Control\Pawl-Time-Max = (2..15 sec)**

**New feature 4:** Pawl Control (4 VALVE HYDR. + ASV): New I/O function allows the ASV operation to be temporarily disabled (for example, using a keyswitch mounted in the car panel).

**SPECIAL-FUNCTION input = 000026F2 or 000026F3**

**Change 1:** Fire-mode: "Pulsed" mode fire-status signalling is now usable with any Fire-Standard options (EN81-72 etc.). The pulsed mode uses a momentary set signal from the Building Automation to enter fire-mode, and a separate momentary reset signal to leave fire-mode, This was previously only available when using the Swiss-SIA standard.

**Configuration\Fire-Options\Fire Sig.Pulsed = (NO/YES)**

**Change 2:** Bridged-Zone-Signal Monitoring: the automatic detection of a bridged zone input is now limited to the FST-2 hardware only.

**Change 3:** Positioning with Schmersal-USP: Following the receiver changes made by Schmersal in Spring-2006 to their USP encoder system, the FST SSI / USP interface will now not work reliably when using SSI-cable lengths of greater than 10m. This change now allows cable lengths of up to 30m to be used.

**Correction 1:** When using a Bucher hydraulic drive, and Pawl-Control-OFF but have inadvertently set the Drive \ Pawl-Control \ Low-Pressure-Control option to ON, the pre-selection signals may be incorrectly switched due an activate Low-Pressure-Control logic. Now corrected such that the Low-Pressure-Control is disabled when the Pawl-Control is turned off.

**Correction 2:** Inspector's Endswitch-Test-Top/Bot: If either pre-opening doors or re-levelling are activated, and the door zone switch in the end floor finishes physically before the endswitch, the Endswitch-Test Drive will terminate prematurely and not reach the endswitch. Now corrected by internally disabling the zone-enable for the duration of the Endswitch-Test Drive.

**Correction 3:** Re-levelling with serial-drive interface: The serial-drive connection status is not

observed for the purpose of re-levelling. The FST will attempt to re-level if necessary, even though the serial-drive is disconnected. The consequence of this is that the main contactor will activate (providing the FST controls the contactor, eg. Dietz-ACP) although this will not result in any actual motor movement. Now corrected.

**FST-Software version V1.100-0376 (06/06/06)**

**Correction 1:** 1 & 2-speed traction lifts – problem occurs for very short drives (< 2 x levelling distance). Now corrected.

**Correction 2:** FST-2 with GST V2.4 board. Correction to resolve problem with GST's hardware reset line – which is now routed through to FST board.

**FST-Software version V1.100-0375 (22/05/06)**

**New feature 1:** Remote Entry Control (Penthouse) and SDS (Selective Door Security) can now be used together to provide security package. By using a CUS-66 module additionally on each protected floor, the resident can directly control the door opening when the guest is brought to the resident floor, denying the guest access if desired. Please contact NEW LIFT for details.

**Change 1:** FST-2's 2nd independant brake monitoring input now operational

**Change 2:** Error "Revision too fast" normally generated when the inspection or auxilliary drive speed exceeds 680mm/s is now suppressed in "Installation Mode"

**FST-Software version V1.100-0374 (15/05/06)**

**New feature 1:** FST-2 & FPM-2 New menu option added to turn FPM-2 audible click off.  
**Configuration\CarOperatePanel\Click-Off (Yes/No)**

**New feature 2:** Option added for full-load condition: if the car is inactive (doors-closed, not-driving, no direction, no calls set) then force the car doors open.  
**System\Factory Menu\Settings\Miscel-6 = 00001000**

**New feature 3:** Support added for new CUS-68 Rekoba interface module

**New feature 4:** Support added for Fax-Modem type US-Robotics 56K

**Change 1:** Gong output following a landing call from the same floor now given direction attribute for use with 2 tone gong.

**Correction 1:** Prevent FST coldstart difficulty at power-on-stage "9".

**FST-Software version V1.100-0373 (08/05/06)**

**New feature 1:** New I/O control added: allows an input signal on one I/O port to be repeated on any other specified remote I/O output port. The input is defined using a SPECIAL FUNCTION input port and the output using a SIGNAL output port.

**SPECIAL-FUNCTION input = 00nn25F2 or 00nn25F3**  
(where nn is the specified port number 0..63)

**SIGNAL output port value = 00nn2E84 or 00nn2E85**  
(where nn is the specified port number 0..63)

**New feature 2:** Support added for new CUS-67 Otis-REM interface module

**New feature 3:** Option added to force the inspection-door-test DO/DC buttons to open on specified door only – ignoring any other door-coupling options that may be set.

**System\Factory Menu\ Settings\Miscel-6 = 0000010**

**New feature 4:** Option added for FST-1 only – forces the FSM to ignore the safety-circuit light-curtain setting (Doors\Doors-Basic\SS-curtain) which normally uses the door-B relay outputs for generating the self-test signal needed by certain curtain interface modules. Setting this option allows retention of the basic light-curtain operating features but restores the door-B control as normal when using a 2-door light-curtain setup – providing the light-curtain module doesn't require an external self-test stimulation.

**System\Factory Menu\ Settings\Miscel-6 = 00000100**

**Correction 1:** The "occupied" signal output by the ADMs in the "Non-Collective (Landing)" call mode did not observe the ADR-Enable hold-off time. This meant the occupied signal lamp would extinguish (Configuration\Hall-Stations\Landing-Call-Enable) seconds before a new landing call would be accepted. Now corrected.

**Correction 2:** DRM-Contactor Monitoring: during a contactor-monitoring fault condition, if the monitoring contact was still active (interpreted by the FST to mean the contactors are still closed) the DO button would be disabled – preventing a trapped passenger from leaving the car. Now changed to allow door-opening.

**Correction 3:** Car Loading function : the loading button (mode-1 only) could be used to reverse the car door in fire-recall mode, preventing the drive to the refuge floor. Now made inoperative in fire-recall mode.

**FST-Software version V1.100-0372 (13/04/06)**

**New feature 1:** SIGNAL output port function added: Emergency-Call-Activated. Output is extended for an additional 5 seconds.

**SIGNAL port value = 00002C84 or 00002C85**

**New feature 2:** SIGNAL output port function added: Car-Free (car not reserved). This signal will be output when: no-direction + doors-closed + no-calls + arrival-timers-expired.

**SIGNAL port value = 00002D84 or 00002D85**

**New feature 3:** FST-2 hardware watchdog/reset function for FST/GST pair incorporated.

**New feature 4:** Evacuation status from Dietz-ACP now evaluated for use with the automatic-assisted evacuation drive feature (may require Dietz software update)

**New feature 5:** Drive interface for Magnetek DSD 412 added

**Drive\Regulator-Type = Magnetek DSD-412 DC**

**Change 1:** FST-2 hardware: Pawl-Control functionality added with new RIO-2 module

**Correction 1:** Pawl-Control: problem affects only lifts with no car-door fitted and also using the automatic door-lock feature (for an unsupported car). A correction to prevent a drive interruption should the low-pressure sensor switch car-supported → unsupported during the drive.

**FST-Software version V1.100-0371 (17/03/06)**

**New feature 1:** SDS – Selective-Door-Security. The SDS facility allows any defined landing



doors to remain closed upon the car arriving, and so limiting passenger access to the protected landings. An indicator output of a special LON module (CUS-66) mounted in the hall station, signals the cars arrival and allows the doors opening to be acknowledged from the awaiting passenger on the landing. The SDS can be configured to allow the car or landing passenger to control the door opening. An override option is available.

**Configuration\Special-Functions\Sel.Door-Security**

**New feature 2:** Automatic time switching for Australian Daylight-Saving added  
**System\Time-Date\Daylight Saving = Australian-system**

**Correction 1:** All Tüv-Test drives made from the Test Menu (Endswitch.V-Mon,Buffer) will not start if the respective end floor is currently subjected to floor-locking (via I/O port or LMS-monitoring). After the drive has been initiated, the lift will not start, and the FST must be reset to proceed. Now corrected to allow these special drives to over-ride any floor locking.

**Correction 2:** KEB "direct-drive" option corrected.

### **FST-Software version V1.100-0370 (09/03/06)**

**New feature 1:** PUBEL-standard (Russia) "Anti-surfing" protection now includes facility for remote shaft-door opening monitoring status supplied via ADM hall-station modules. will require software updates for ADM-20/21/30/31

**New feature 2:** New shaft configuration checkup facility will give detailed failure report when illegal shaft configuration has been detected. This covers many aspects of the shaft specifications including levelling and door-zone distances , floor-spacing etc.

**New feature 3:** New fireman standard included  
**Configuration\Fireman-Options\Fire Standards = EL AMA 98 (Sweden)**

**New feature 4:** Emergency-Call filter can now be disabled from the menu  
**Configuration\Anti-Nuisance\Emergency-Call = No Filter**

**Change 1:** The error messages used for serial-drive systems labelled "X12 SERIAL..." have been changed to read "DRIVE-SERIAL..." to prevent confusion across the FST-1 and FST-2 hardware platforms.

**Change 2:** Regulator-Type DEVEHISSAR: Levelling distances allowed to extend out up to the configured software zone positions when the lift is stationary.

### **FST-Software version V1.100-0369 (21/02/06)**

**New feature 1:** New drive type supported DEVEHISSAR (hydraulic with pawl system)  
**Drive\Regualtor-Type = DEVEHISSAR**

**New feature 2:** SIGNAL output option – Lift-Reserved (in-use lamp)  
Activated when any lift door is open, or has a set call direction  
**Configuration\I/O Configuration\I/O Ports\RAW = 00002B84**

**New feature 3:** Bank-control with Manual-doors now possible. The manual doors must be set to close as default, otherwise it is not possible no change the user-group.

**Change 1:** Supervisor Mode menus now re-include the **Srvc-Counter-Reset** option.

### **FST-Software version V1.100-0368 (16/02/06)**

**New feature 1:** Drive-KEB: new "direct-landing" option.

**Drive\Special-Params\Switch-2 = YES**

**New feature 2:** "Single-Call-Mode" new option: New Supervisor option will prevent the lift from answering a set landing call until the car becomes "empty". Landing calls during this time will be acknowledged as usual in the Single-Call-Mode.

**System\Factory Menu\ Settings\Miscel-5 = 1000000**

**Change 1:** Learn-Drive: Learn drive will now be cancelled following a "open-door-lock" error to aid fault finding.

**Correction 1:** Learn-Drive: A safety-circuit debouncing wait time now added to the drive-start at the commence of the learn drive.

**FST-Software version V1.100-0367 (15/02/06)**

**New feature 1:** Password security changes: All of the hidden menus previously only accessible in "Supervisor" mode can now be made visible without requiring a special password. This option setting is held in RAM and therefore not the configuration memory. The previously used Supervisor password is no longer valid, and cannot be used to gain access to the user defined passwords! The hidden menus can be made visible by setting:

**System\Factory Menu\Hidden-Menus = YES/NO**

**Change 1:** DCP/ACP-(remote drive) menu operation: Since FST V1.100-0334, the auto-repeat key function of the DCP/ACP menus used from the FST keyboard has been disabled – because of problems connected with the LMS-monitoring remote version of the FST keyboard. A change now allows the FST to recognise the source of the key events and this allows auto-repeating when using the keyboard locally and single-key mode when used remotely.

**Change 2:** Full-load: up until now the full-load status has been ignored when the car is stationary and only looked at when the car has started moving. Now changed to be operative in the floor as well. As before, once the car has started and the full-load status becomes set, it will remain set until the car stops. This modification can be negated by setting the following supervisor flag.

**System\Factory Menu\Settings\Miscel-5 = 01000000**

**Change 3:** Fire-recall: since FST V1.100-0344 the door-open button is enabled if the car is stationary with open doors in all floors outside the fire-main-floor prior to the evacuation drive. This is not conform with SIA (Swiss) regulations, but was required for HongKong. A new menu item allows the door-open enable for this condition to be set as desired. After updating with FST V1.100-0367, the following switch is left set to "YES" for fire-standard HongKong, and "NO" for all other standards.

**Configuration\Fireman Options\DO allowed = YES/NO**

**Change 4:** Remote Entry (penthouse control): New Project Code option for the Remote-Entry control:

**Configuration\ID's\Projekt-Code = 000124**

This will trigger the CUSTOM status in the FST when the guest has been collected and the lift is underway to the target floor. (feature used to generate an output for use with an alarm system preventing the car from being driven away unattended from the penthouse floor)

**Correction 1:** Levelling Correction – COP method: when using this installation correction method via the COP (from FST V1.100-0365) there are 2 possible problems:

- if the door–open button is held pressed too long when leaving the "edit"-mode the position correction can be entered more than once.



- It is possible to enter the "edit" mode whilst the car is driving. Both cases are now prevented.

**Correction 2:** Inspection mode: door-reversal can occur following a door lock failure. Corrected now to prevent the doors opening.

**Correction 3:** DRM encoder failure: This can occur erroneously during a FST coldstart due to an unsuccessful loading of the drive-processor configuration data. Now detected and corrected automatically.

**Correction 4:** Zone-failure: (FST-V2 only) a potential zone-signalling error caused by the permanent bridging of both zone-A and zone-B inputs to +24V will go unnoticed. A new routine has been added to detect and flag this error. new error message **#51 "DRM-ZONE-BRIDGED"**

A new DRM-autoreset flag has been added for this error type:

**System\Factory-Menu\Settings\LSU-RESET = 10000000**

**Correction 5:** Zone-failure: (FST-V2) possible DRM-missing-zone failure at power-up in conjunction with a Ziehl-Abegg drive when using the zone SK2 speed monitoring ( $V < 0.3\text{m/s}$ ) contact for routing one of the zone inputs signals. This problem has now been corrected by delaying the zone-enable signal for a few seconds following a cold start.

### **FST-Software version V1.100-0366 (23/01/06)**

**Correction 1:** Positioning with Schmersal-USP: USP devices from Schmersal delivered 2005 Q2-Q4 have received a software change that gives makes the SSI-interface unreliable with the FST. This change is offered as a temporary workaround to allow the FST to use a "single-read" SSI cycle instead of the more robust "double-read" cycle used as standard. The FST will still register occasional SSI errors, but these are should not cause the positioning problems from before this modification. To activate the "single-read" mode the following supervisor option should be set:

**Positioning\Global\encoder = 00000010**

(NB: a Schmersal software revision is now available)

**Correction 2:** Error message= "Stop-Abort" should be announced when the drive doesn't complete a stop within 8 secs. Under certain circumstances, this event was masked incorrectly and would not result in an error memory entry. Now corrected. This message is useful in helping the detection of certain system conditions such as brake or contactor monitoring failures.

### **FST-Software version V1.100-0365 (23/01/06)**

**new feature 1:** Levelling Correction – COP method: An alternative method of setting the floor levels from within the car using the DO and bottom floor buttons. A separate document describing this feature is available. Set this mode with the following menu setting:

**Configuration\Installation\Correct-Levels-COP=YES**

**new feature 2:** I/O-Function **drive-start-interlock = 00000n2A**  
n = xUNS

U = 1: locks upwards drives only

N = 1: locks relevelevelling additionally

S = 0:doors open while locked 1:doors allowed to close while locked

**new feature 3:** Changes for new EAZ-FIRE module added

- new feature 4:** I/O Evacuation port: "Pit-Flooding" option added.  
 Drives the car to a safe floor, turns all homing programs off, and allows releveling (for hydraulic lifts).  
 I/O-Port RAW pit-flooding bit: **Evacuate = 1000009A**
- Correction 1:** Bank-control: If the external control option "bank-mode-disable" is used (RIO or CUS module), under certain circumstances it is possible that the opposite door side will open although the door sides belong to different user-groups. Corrected.
- Correction 2:** Bank-control: If a landing call is given to door-side 'X' during the slow-down approach to door-side 'Y', in "bank" mode, the door 'X' will also open once in the floor – although 'X' and 'Y' belong to different user-groups. Corrected.
- Correction 3:** Light curtain: problems occur when the door cam is released following the interruption of the light curtain, when the car has stopped within a door zone. Now changed to keep the cam energized until the final drive target is reached.
- Correction 4:** Door opening following a door-lock failure: the menu option **Doors\Door-Basic\Lock Fail Open = ONE** is not correctly observed if the call-program for the current floor is set to any of the "sluice" door opening programs ("Order " or "Sequence"). Now corrected.

### FST-Software version V1.100-0364 (09/01/06)

- New feature 1:** Drive DIETZ-5445 (parallel): The speed applied for Auxillary drive can now optionally set to Ve (crawl) instead of Vn (re-leveling)  
**Drive\Special-Params\Switch-1 = OFF** → speed Vn (re-leveling)  
**Drive\Special-Params\Switch-1 = ON** → speed Ve (crawl)
- Change 1:** Door-C=Endswitch: triggering now allowed aslo whilst lift is stationary
- Correction 1:** Partition door: (FST-V2 only) problem with oscillating partition door status (on-off-on) now corrected.

### FST-Software version V1.100-0363 (21/12/05)

- new feature 1:** New Supervisor option: for special drives "Fire-recall", "lift-off", "Priority" etc. where normally the next possible floor is sought to turn direction in, this option allows the car to turn mid-shaft for buildings with large floor spacing.  
**System\Factory Menu\Settings\Miscel-5 = 0010000**
- new feature 2:** "Fast-Start" mode: The pre-limit door switch contact is now monitored to check that this opens during every door opening cycle – to detect a defective switch.  
 new error message **#50 "FAST START DOOR-SW."**

### FST-Software version V1.100-0362 (15/12/05)

- new feature 1:** I/O Option for the EAZ function **EAZ = 00004n34**: allows the HEX output to count from 1..n instead of the default 0..n.

### FST-Software version V1.100-0361 (14/12/05)

- Change 1:** Lift-off: new Supervisor option keeps the doors closed during the arrival at the Lift-off floor.  
**System\Factory Menu\Settings\Miscel-5 = 00001000**

**Change 2:** I/O-Function Signal: the direction output signal UP/DOWN can now be defined to reflect the physical direction of the position encoder rather than the controlled-motor direction or the system-direction as in the previously available options.

**System\Factory Menu\Settings\Miscel-5 = 00010000** (encoder-direction)

Other direction-signal options:

**System\Factory Menu\Settings\Miscel-4 = 00100000** (motor-direction)

when both above options are not set, system-direction is output.

**Correction 1:** The Line-3 status display "v=..." can cause the FST to reset if this speed has not been calibrated. Now corrected.

**Correction 2:** DRM-Drive-Monitoring failure: this normally latched failure status will be cleared if an emergency stop follows immediately. Now corrected to remain in a blocked DRM condition when the emergency-stop subsides.

**Correction 3:** Partition-door: (FST-V2 only) partition door status oscillates. Now corrected.

**Correction 4:** Drive DCP-Loher: automatic evacuation direction status (lift is light/heavy) swapped. Now corrected.

**Correction 5:** Inspection mode: In combination with "anti-sink-protection" and "preopening-doors", a safety-circuit interruption during an inspection drive leaves the Anti-sink output relay un-energized prohibiting further driving. Now corrected.

### **FST-Software version V1.100-0360 (15/11/05)**

**Change 1:** Door-open time: max time extended to 3600sec.

**Change 2:** Lift-Off: The car-light off delay time now extended from 10 to 20 secs.

**Correction 1:** Using the LMS-Elevation-2 (Version > 1.08), the monitored FST can experience a reset(s) when the elevation "View" includes this lift. This is now corrected in the FST software, but can also be prevented by making any recording with the FST recorder menu (with or without a PC-Card). This only happens to FST's which have never received a recorder "start" activation.

**Correction 2:** Calibration-drive: calibration drive will be aborted when the set drive speed is equal to the crawl speed. (the FST expects speeds  $V1..Vn > Vc$ ). Now corrected to tolerate this condition.