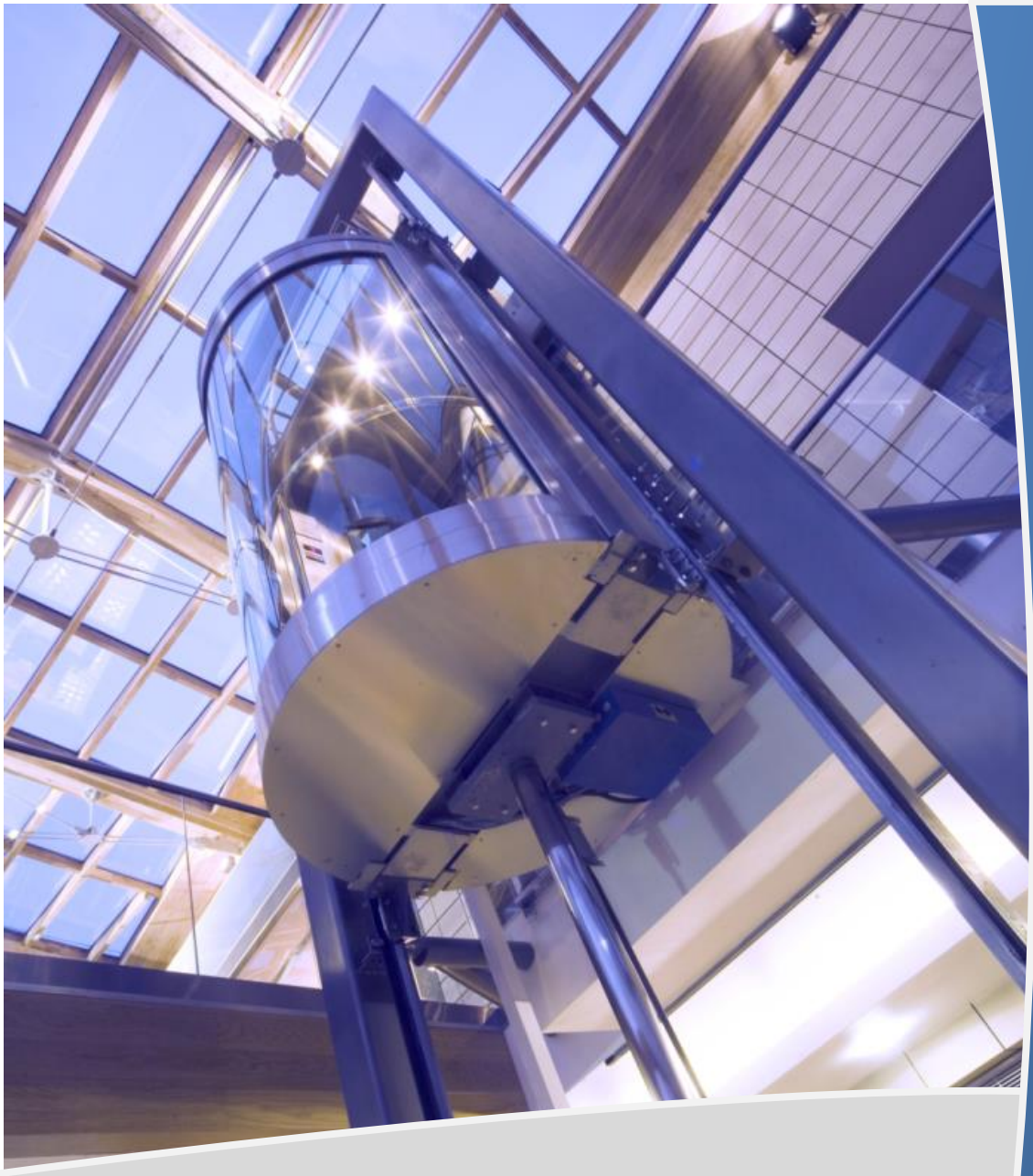

USER MANUAL

ASP116 EVOLUTION

Lift controller

Hydraulic version

Edition 10-2022

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Reference Document :B-DP-18-003-06

Presentation

This manual is the reference document for installation and maintenance of your "**ASP 116 evolution**" control panel. It explains in detail the configuration and diagnostic of your control panel.

This new range of control panels designed by Sprinte introduces the latest technology to meet lifts' new requirements. The "**ASP 116 evolution**" control panel is modular and particularly suited to modernising lifts.

Main functionalities:

- 32 floors
- CANopen LIFT compliant

Power control options:

- Variable frequency control 4 kw to 55 kw (Gear and Gearless)
- One or two speed control
- Speed until 1.6 m/s
- Optimization of energy consumption

Car positioning

- Magnetic reader with magnets on guide rails
- Optic fork (224SP)
- Absolute encoder with notched band (K04SP)
- Absolute reader with encoded stainless steel band./

Operation type:

- Universal travel, Up or Down Collective, Full Collective
- Up to quadruplex control
- Fire EN 81-73
- Inspection and emergency operation
- Key "reserved car"
- Overload detection
- Access codes with the car operating panel
- Two car operating panel

Door controls

- 2 doors
- Manual doors
- Fully automatic doors
- VVF doors (Nudging)
- Door open levelling
- Two doors with passing or selective mode
- Automatic and manual landing doors on the same face

Indicators

- Positions indicators (Dot matrix, LCD, TFT colour)
- Direction and next departure arrows
- Voice announcement of floor

Main advantages:

- Only one flat cable
- MP3 speech synthesizer
- Security chain pre-wired
- Configuration and application software saved on the SDCard
- 2 lines * 20 characters LCD display
- All defaults saved on the SD-CARD
- Time and date of the faults
- Control of Machine room temperature
- Voice assistance for the technical

1.1 Safety instructions

1) The control panel must be installed in a dry, clean room and only accessible to authorised staff.
2) The room temperature must not exceed 40° and must be greater than 0°
3) The lift must be taken out of service if the two-way communication system is not working

1.2 Mechanical characteristics

Cabinet size:

Power / Operation	4 to 11Kw	15 to 30Kw	37 to 55Kw
Frequency variation	800 x 600 x 300	1200 x 800 x 400	1600 x 900 x 400
Hydraulic control	800 x 600 x 200	800 x 600 x 200	800 x 600 x 200
Electric 1 and 2 speeds	800 x 600 x 200	800 x 600 x 200	800 x 600 x 200

- The cabinet size can vary according to options
- The control panel weight varies between 25Kg and 100Kg according to power

1.3 Electrical characteristics

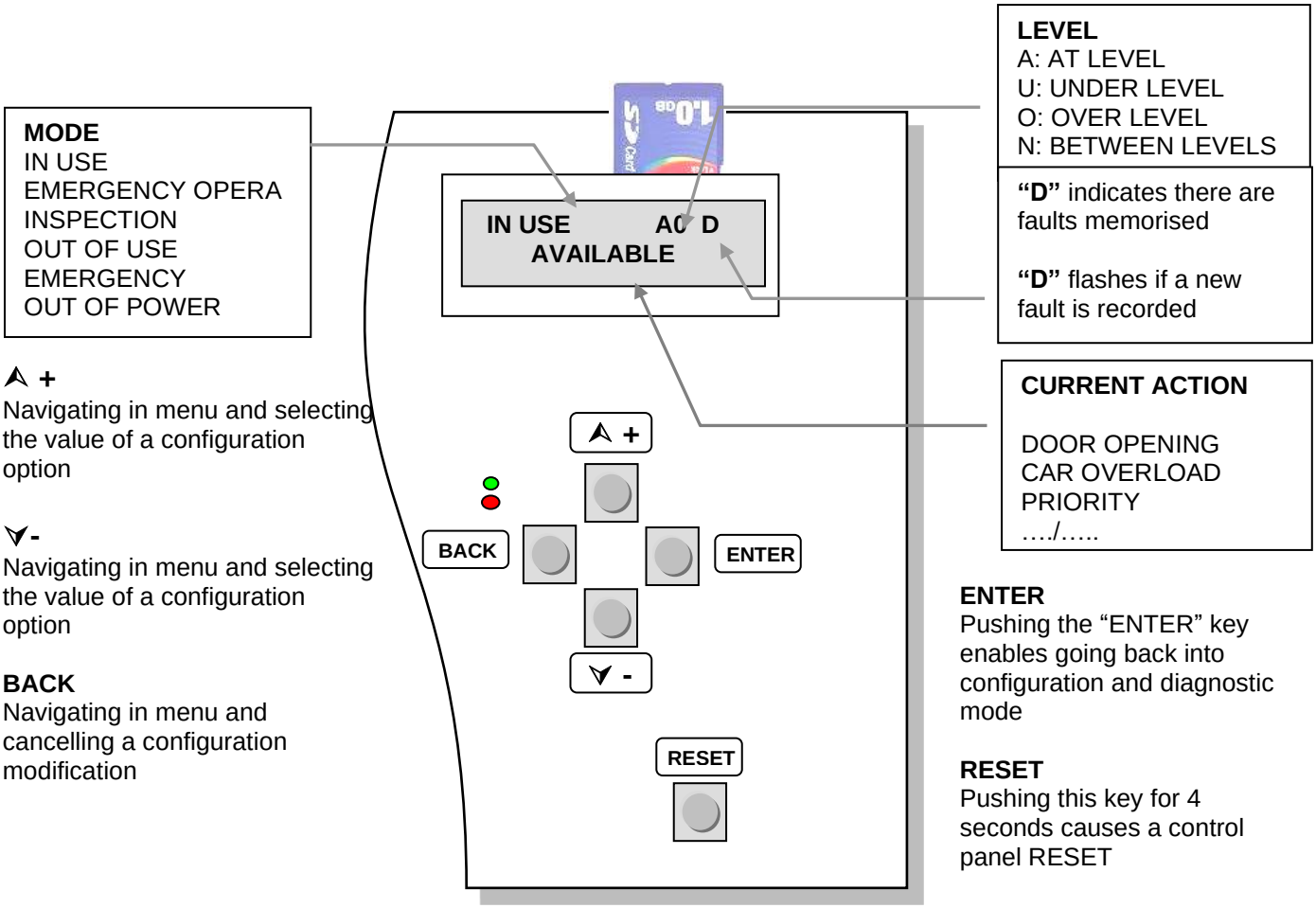
The control panels are serial equipped with a protection system against lightning and all the contactors are installed on Silentblocs in order to reduce noise emission outside the control panel

Working voltage	220Vac / 230Vac single phase or three phase, 380Vac / 400Vac three phase
Power consumption	70VA no load
Available voltage	24V full-wave 2A, 55V / 70V full-wave 4A, 110Vac / 1A, 220V “220F” /2A
Safety chain voltage	110VAC
Emergency voltage	Battery 12V / 2,1Ah or 7,1 Ah
Call / Car buttons	Inputs / outputs single wire, earth return, voltage 24V continuous Type of indication (LED or light 24V / 50mA max)

This manual describes the functions of the software. It is possible that older versions of software do not have all the features described. Check the version of the software before you start reading the manual.

1.4 Control panel

The control panel comprises an alphanumeric screen and navigation keypad equipped with five integrated buttons. The control panel screen enables the lift's status to be known at all times. The SDCard contains the lift's configuration and the lift's software to enable restarting under the same conditions if the board is changed.



Contrast adjustment

Press and hold down the "**BACK**" key and press "**+**" to increase contrast or "**-**" to decrease it.

Navigating in the menus

Press the "**ENTER**" key on the keyboard to go into the lift's configuration and diagnostics menu. Then press the "▲" or "▼" keys to navigate in the main menu. Push the "**ENTER**" key again to go into the desired submenu and the "**BACK**" key to come back out of it.

2 Setup the lift equipments

The "**SETUP**" menu is used to adapt the control panel to your lift. It defines the lift's system requirements as well as the settings enabling the installation's performance to be optimised.
All the control panels are delivered preconfigured according to the client's datas.

The parameters with a start indication (example: « **[**PARAM**]*** ») are the default parameters

2.1 Modifying a setting

Modifying a setting is only authorised if the "PROTEC CONFIG" setting is set to "NOT PROTECTED". If not a message "MODIF NOT AUTH." will appear.

To modify a setting, select it and press the "ENTER" key, the current value starts flashing. Pressing the "⋏" or "⋎" keys changes its value. To validate your selection press the "ENTER" key again, the new value is saved and does not flash. To cancel your modification press the "ESC" key.

Takes account of modifications
The modifications are not taking account while the lift is in use.
To save the modifications, press the "**BACK**" key several time to return to the main menu

The following message appears:

SAVE? **YES (+) NO (-)**	Press "+" to confirm the modification or "-" to cancel If you pressed "+" the message "MODIFIED CONFIG" appears

After 2 seconds, you can switch to the standard indication by pressing "**BACK**" key.

Take account of new settings

Wait until the lift is in an available state, ensure there is no-one remaining inside the car then press the "RESET" key for two to three seconds. The lift restarts after initialisation with the new settings.

2.2 Reloading factory settings

The configuration used by the control panel is saved in the DCF.txt file. Each setting modified by the console is therefore saved in this file. In case of a problem loading the configuration or incorrect operation following a configuration modification, you can go back to the factory settings. This configuration is backed-up in the EDS.txt file.

To go back to the factory settings:

1) Press the "⋏ **+**" button and the "⋎ **-** " button
2) Do a reset by keeping the "⋏ **+**" and "⋎ **-**" buttons pressed down

FACTORY SETTINGS **CONFIRMATION OK>**

3) Press the "**ENTER**" key.
4) The lift control panel is configured with the factory settings

2.3 MyLift, application for smartphone.

"MyLift" application is a software for android-based devices designed to the lift's owners and intended to help them customize their lift this application gives access only to all of the user's settings of the lift (voice synthesizer, music, displays, access codes, date & time, etc...). Changes made with this application are taken instantly in account by the controller, no need to reset it.
This application needs the second 230SP board, to give a separate bluetooth access from the first 230SP.

MyLift is available on Google PlayStore

Every editable settings with Mylift , are identified throughout this document by the logo of the application:

2.4 SETUP MENU

CONTROL PANEL	Protection of settings modification, selection of display language on the digital console, date and time adjustment
EQUIPMENT	Control panel series type, consulting software version, number of expansion boards
TEMPERATURE	Machinery temperature adjustment detection
POWER SUPPLY	Phase inversion
IDENTIFICATION	Name of client, address of lift, serial number, lift number in multiplex
HOIST	Hoist mechanism : Hydraulic systems, drive systems
LEVELLING	Levelling of the car with the doors opened
BUILDING	Number of levels, car stop level,..
OPERATIONS	type of operation, car light timer, car priority timer, car priority key
FIRE	Configuration of stricken floors, type of fire operation
VOICE SYNTHESIS	Voice synthesis configuration
INDICATORS	Configuration of type of displays landings and car with configuration of display at each level. Type of arrow on landing and in car
DOORS	Type of doors, nudging, timers, CPC, SHOCK, opening/closing button, electro cam, pre-opening.
CAR POSITION	Type of reader, recalibration, close levels, crossed flags
CAR LOAD	Overload ,complete
OVERSPEED	Settings for the overspeed monitor
ALARM	phone alarm configuration
ENERGY SAVINGS	Settings for the energy savings mode of the lift.
BOARDS I/O	Input-output settings for electronic boards of the controller

2.5 Control panel characteristics

SETUP ► CONTROL PANEL

SETUP	**Protection of settings modification**
	[PROTECTED]* Consulting the configuration. No setting can be modified in this mode [NOT PROTECTED] Consulting and modifying the configuration
LANGUAGE	**Choix de la langue d'affichage sur la console de l'armoire**
	[FRENCH**]*** **[**ENGLISH**]**
DATE 	**Date display**
	Date setting : Press « ENTER » and press the arrows to change the day, the month and the year. Press « ENTER » to validate the new date or « ESC » to cancel.
TIME 	**Time display**
	Time setting : Press « ENTER » and press the arrows to change the hour, the minutes and the second. Press « ENTER » to validate the new time or « ESC » to cancel.
NIGHT START 	**Display of start time for night schedule** The night range is used to reduce the sound volume of the vocal synthesis during the night
	Adjustment as for TIME setting
NIGHT END 	**Display of end time for night schedule**
	Adjustment as for TIME setting

2.6 Equipment characteristics

CONFIGURATION ► EQUIPMENT

VERSIONS	**Application version and electronic boards version of the equipment**
	[y.z]
POWER BOARD	**Type of power board connected to the 216SP board**
	[NO BOARD**], [**220SP**], [**220SP+226SP**]**
PIT INSPECT. BOX	**Presence of an inspection box in the pit.** If this box is present on your lift, you can plug it on 137SP board connected on the landing CAN bus, or directly on 216SP main board Be aware that in case of 137SP ,this board is not to be considered in the **« LAND. BOARDS NB »** (see below in this table). This 137SP board **is fixed to ID #27**, e.g. DIP1 DIP2 DIP4 and DIP5 set to ON, all others set to OFF
	[NO], [ON CN7/137SP**], [**ON PE3M/216SP**]**
PIT INSP.REARM.	**Selection of the reset system after exiting pit inspection mode** This reset system may be fulfilled : • either by ASP116 Evolution (procedure is fully detailed in the installation manual B-DP-13-006 Ann.2-5), • or by an external autonomous device
	[BY ASP116-EVO], [BY EXT.SYSTEM**]**
PIT INSP.VOLUME	**Volume adjustement of pit inspection box.** This setting is available only if the pit inspection box is managed by a 137SP board .
	[0..7]
DBD (Door Bypass device)	**Presence of Door safety contacts bypass device.** This device is required by EN81-20 standard for maintenance of the doors' contacts.
	[NO], [YES**]**
217SP BOARDS NB	**Number of 217SP boards**
	[0*..2] 
223SP BOARDS NB	**Number of 223SP boards**
	[0*..2]
LAND. BOARDS NB	**Number of 228SP and 137SP boards on landing CanBus**
	[0*..25] The boards are identified by the JT1 selector of the boards. The identification is binary code: DIP 1 = 1 if DIP1 is ON, DIP 2 = 2 if DIP2 is ON, DIP 3 = 4 if DIP3 is ON, DIP 4 = 8 if DIP4 is ON, DIP 5 = 16 if DIP5 is ON, Board = V _DIP1 + V_DIP2 * 2 + V_DIP3 * 4 + V_DIP4 * 8 + V_DIP5 * 16 Examples : Board 0 : All the DIPs OFF Board 10 : DIPs 2, 4 are ON Board 23 : DIPs 1, 2, 3, 6 are ON The "0 board" is the last on the bus (she has a tank circuit). The previous board is numbered 1 and so on.

230SP BOARDS NB	**Number of 230SP boards** This board is used for Bluetooth communication and remote alarm LEDs
	[0*..2]
BLUETOOTH PIN	**Access code to the gateway 230SP n°0** This code secures bluetooth access to the lift control panel with EvoPAD application.
	[XXXX]
CUST.BTOOTH PIN 	**Access code to the gateway 230SP n°1** This code secures bluetooth access to the lift control panel with the application dedicated to the final customer (“MyLift” app., ...)
	[1234] (default value)
MPLEX	**Multiplex gateway** Using a gateway between the lift control panels to separate the floors CANbus This parameter can’t be disabled if there is at least one board connected on the landing bus (landing panel board ,pit inspection board , flexypage..).
	[OUI] * [NON**]**

2.7 Temperature control

SETUP ► TEMPERATURE

Chapter 0.4.16 of the standard EN81-20:2014: To ensure the correct functioning of the equipment in the well and machinery space(s), i.e. taking into account the heat dissipated by the equipment, the ambient temperature in the well and the machinery space(s) is assumed to be maintained between +5 °C and +40 °C.

Temperature control in the control panel This security prohibiting lift operation if the temperature in the control panel exceeds the maximum tolerances authorised by the electronic components.	
MAX PANEL T°	**Maximum temperature in control panel** If the temperature exceeds this threshold, the lift makes the passengers exit and goes out of service until the temperature comes back down below the threshold
	[20..70] °C (70°C by default)
MIN PANEL T°	**Minimum temperature in control panel** If the temperature goes below this threshold, the lift makes the passengers exit and goes out of service until the temperature goes back up above the threshold
	[-10..15] °C (0°C by default)
Temperature control in machine room Security prohibiting lift operation if the temperature in the machine room exceeds the maximum tolerances authorised by the standard.	
MACHINE ROOM T°	**Activation of the temperature controls in the machine room** Le control sis done by a 132SP temperature captor that it is connected to the MC2M connector of the 216SP board.
	[YES]* [NO**]**
MAX MACHINE T°	**Maximum temperature in machine room** If the temperature exceeds this threshold, the lift makes the passengers exit and goes out of service until the temperature comes back down below the threshold
	[20..60] °C (40°C by default)
MIN MACHINE T°	**Minimum temperature in machine room** If the temperature exceeds this threshold, the lift makes the passengers exit and goes out of service until the temperature comes back down below the threshold
	[-10..15] °C (0°C by default)
HEATING	**Switching on heating if temperature is lower than the threshold** Output CN6I-CHAUF / 220SP is activated
	[-10..18] °C (5°C by default)
VENTILATION	**Switching on ventilation if temperature is greater than threshold** Output CN6I-VENT / 220SP is activated
	[22..60] °C (30°C by default)

2.8 Power supply

SETUP ► POWER SUPPLY

PHASE CONTROL	**Detection of phase inversion or failure**
	[NO DETECTION**]** **[DETECTION]***

2.9 Identification

CONFIGURATION ► IDENTIFICATION

CLIENT	**Name of client** Name of company
	[16 characters]
REFERENCE	**Reference name** Lift address where control panel is installed
	[16 characters]
SERIAL NUMBER	**Control panel serial number**
	[YYMMXXX] YY : Year of manufacture MM : Month of manufacture XXX : Number in the month
SIMPLEX NUMBER	**Multiplex lift number**
	[1*..4] In multiplex each lift must have a separate number
LIFT MARK	**Serial lift number displayed in car**
	N° [16 characters]
CE MARK	**CE mark displayed in car**
	[XXXX**]**
CONSTRUCT.YEAR	**Construction year of the lift** This construction year will be displayed next to the CE mark on the load plate of the 236SP1 display.If the year is set to 0, nothing will be displayed.
	[XXXX**]**

2.10 Hoist mechanism

CONFIGURATION ► HOIST

TYPE HYDRAULIC	**Type of hydraulic pack**
	[STANDARD] [INVERTER] [BUCHER LRV] [GMV NGV A3] [BUCHER IVALVE]
INSPECTION SPEED	**Selection of movement speed during inspection**  Inspection speed must not exceed 0.63 m/sec
	[LOW SPEED]* [HIGH SPEED]
UP STARTING	**Type of start of the gear for the going up movements.**
	[DIRECT] [STAR-DELTA]
STAR-DELT TIMING	**Star / Delta timing**
	[0..5] seconds (1,5s by default)
TIMING UP VALVE	**Timing delay of the up travelling valve actuation, with regard to the line contactor**
	[0..5] seconds (0s by default)
SH. DOWN UP VALVE	**Shutdown the up valve before or after the line contactor with the « TIMING UP VALVE » temporization**
	[BEFORE MOTOR] **[AFTER MOTOR] ***
A3 VALVE	**Drive of the safety valve required by the A3 amendment**
	[NO] * [YES]
A3 TEST AUTO	**Down and A3 valves automatic test.** On the 4th of each month, an automatic test of the valves will be launched at 4 a.m.. A down movement is ran, first only with A3 valve opened, then only with down valve opened. If the car has moved downward in one of both cases, a fault is recorded and the lift is set out of order.
	[OUI] * [NON]
A3V. ON DELAY	**Timing delay between the opening of the safety valve and the going down valves**
	[0..2] seconds (0s by default)
A3V. OFF DELAY	**Timing delay between the closing of the safety valve and the going down valves**
	[0..2] seconds (0s by default)
OIL HEAT SWITCH	**Temperature control of the oil heat switch of the oil hydraulic unit** Check the temperature of the oil in the reservoir. If the input captor plugged on **CN13I-STH / 220SP** is actived, the car stop to the next level and the lift is out of order.
	[NO] **[YES]***
OVERPRESSURE	**Overpressure control of the oil hydraulic unit**

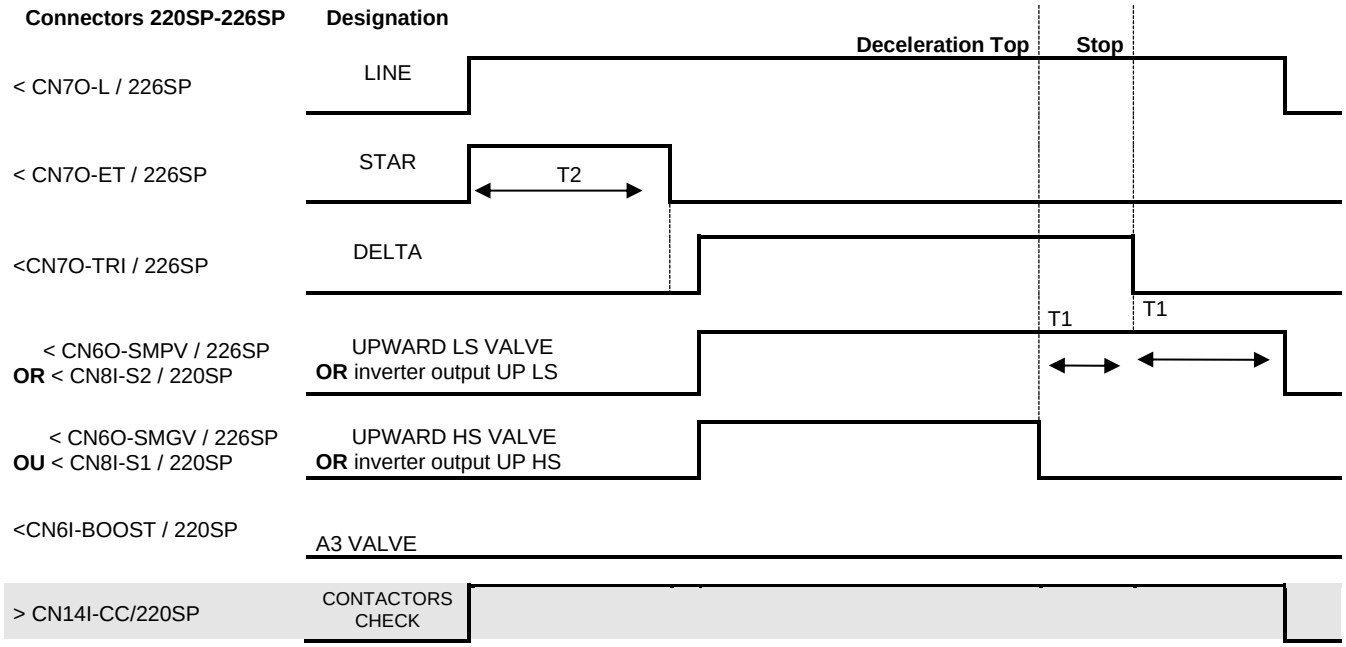
	If the input **CN13I-SPR / 220SP** is actived, the lift is immediately in “out of service” mode but the emergency going down operation keeps working.
	[NO**]** **[YES]***
NO CAR MOVEMENT	**Timing to detect a no movement of the car** Maximum car movement time without having information from position reader. Once time is passed, the lift is faulty. This security is deactivated in INSPECTION mode and LEVELLING mode
	[1..20] seconds
MAX ACCELER.	**maximum authorized acceleration of the car measured by K04SP/K05SP**
	[0..2,5] m.s2 (2,5 sec by default) « 0 » value disables the function
MAX LS TIMING	**Maximum low speed movement lift in normal service**
	[10..90] seconds (20 s by default)
THERMAL PROTECT	**Type of thermal protection of the traction machine** Use the input **CN12I-ST / 220SP**
	[NO PROBE**]** **[**RESISTIVE PROBE**]** **[DRY CONTACT]***

Timing sequences for hydraulics hoists and valves

- **Going up in direct or in star/delta mode** :

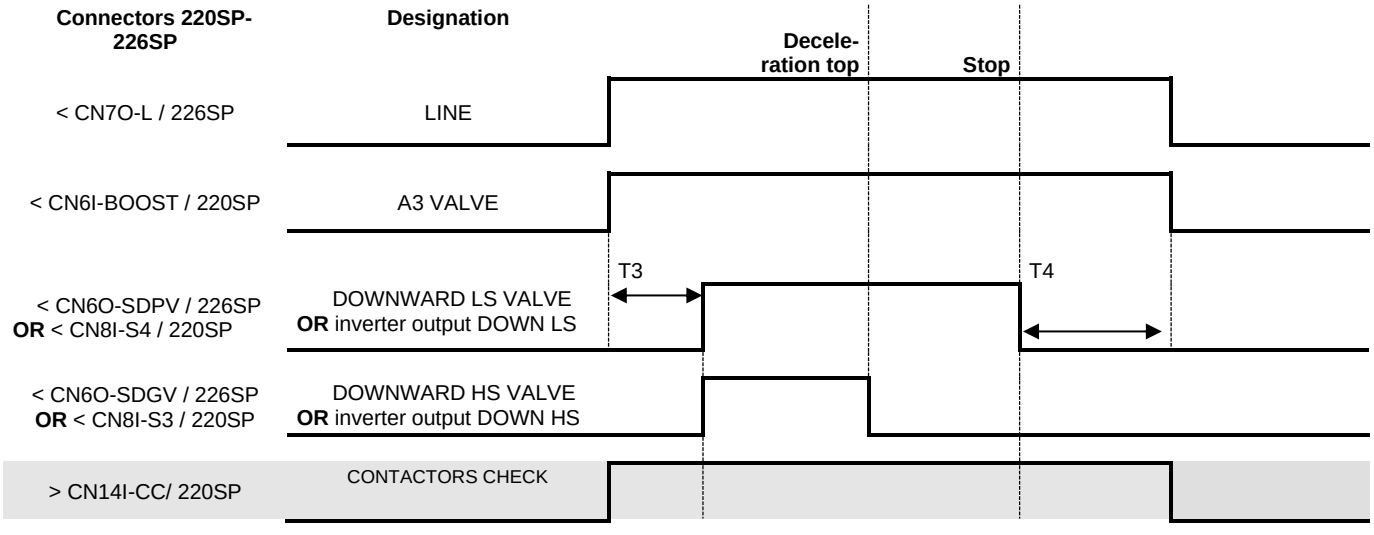
  DIRECT :
  DELTA output is driven immediately

  START/DELTA :
  First **STAR** output is driven during T2 delay, then **DELTA** output is driven simultaneously with upward valves.



T1	Upward valve delay (before OR after DELTA)
T2	STAR delay

- **Going down**

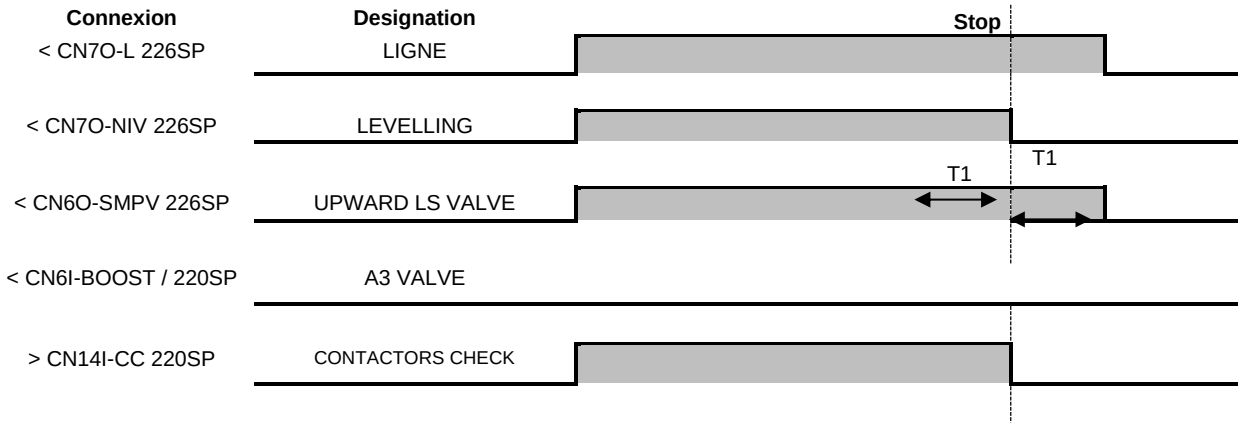


T3	A3 valve opening delay
T4	A3 valve closing delay

- **Levelling**

Downward, levelling is managed the very same as a normal low speed downward movement..
Upward, levelling is managed the very same as a normal low speed upward movement,
EXCEPT when the hoist has an auxiliary pump motor for levelling. (see §2.11) , it will be driven in Direct mode (output NIV-CN7-0 on 226SP board) instead of the standard pump motor.

Upward levelling with an auxiliary motor :



T1	Upward valve delay (before OR after DELTA)

- **Emergency going down operation**

In case power supply failure, the car going down to the most lower level
The output “CN6-O SDS / 226 SP” is driven only if the safety chain is closed.

2.11 Re-levelling operation

SETUP ► LEVELLING

LEVELLING	**LEVELLING OPERATION** Maintaining the car at landing level with doors open. This function is deactivated in call or inspection mode Connector CB10 / 211SP
	[NO**]** No pickup is done if the car drifts in door area. Only forced closing of doors if the car exits the door area **[**YES**]** Movement of the car with doors open in the door area due to activation of security relay to level the car in case of drift. Movement is done at low speed with spring cam.
LEVELLING MOTOR	**Selection of the levelling motor** The levelling motor can be the main motor or an auxiliary motor.
	[AUXILIARY MOTOR**]** **[**MAIN MOTOR**]**
LEVELLING TIME	**Maximum levelling time** This is the maximum time to regain level in case of car backstop. If the car has not regained its level within this time, a fault “LEV. TOO LONG” is given.
	[05..30] seconds
LEVELLING CT	**Levelling counter** A limited number of levellings is authorised on the landing. A fault “LEV REPEATED” is activated if the threshold is exceeded.
	[5..15]
LEVELLING TPO	**Holding time of levelling** Once the floor is reached, the levelling is still ON until the duration of this delay. This delay creates an hysteresis on the levelling trigger.
	[0..10] seconds (0s by default)

2.12 Building

SETUP ► BUILDING

LEVELS NUMBER	**Number of levels served by lift**
	[2..32] Adjustable from 2 to 32 level
MAIN LEVEL	**Main level** On Collective, the landing buttons below the main level are “up land” and the other landing buttons “down land”. The car goes back to main level in case of fire operation
	[0..31] *This setting is reset to zero if it is higher than the numbers of levels.*
GAPS LEVELS	**Management of gaps levels for bank of lifts (multiplex)** . The elevator that going down to the lowest level will have **GAPS LEVELS** = 0. Other lifts that can not going down to the lowest level indicates the number of levels they cannot serve with this parameter. Example of a duplex: The elevator that has 3 subsoil has **GAPS LEVELS** = 0 The elevator that has 1 subsoil has **GAPS LEVELS** = 2 The levels of the landings buttons are configured by referring to the elevator coming down the lowest. Levels of the car buttons are configured as a simplex
	[0..31]
RETURN TO FLOOR	**Return to a dedicated floor after a waiting time**
	[NO**] [**YES**]**
TIME STOP FLOOR	**Waiting time before the car returns to its stopped floor**
	[0..20] minutes
STOPPED FLOOR	**Level of the stopped floor** In hydraulic, the stopped floor is obligatory the lowest.
	[0..31]
‘OUT OF USE’ LVL	**Level of the ‘Out of Use’ operation** When this operation is activated , the lift will park at this floor.
	[0..31]
OOU.DOORS OPENED	**Parking doors opened in ‘Out Of Use’ operation**
	[NO] [YES**]**
CAR BLOCK TIMER	**Detection time of a blocked lift** Maximum time limit for taking calls into account. If the lift has calls waiting and the time expires, then the lift is put into blocked state. In this state, car sending and landing calls in progress are erased to warn the users that the car will not be coming. In multiplex, is excluded from the bank. If the cause of the blocking disappears and a new call is made, this will be responded to.
	[Disabled, 30sec, 1mn, 1mn30sec, 2mn,…..9mn30sec, 10mn] (2mn default value)

RETRAC TOE-GUARD	**Retractable toe-guard** It is necessary to indicate the use of a retractable toe-guard as safety is deactivated by a cam on the lowest level (connector DETECT 1m 210SP board). The control panel must check that the cam returns correctly to normal position once the car has exited the area.
	[NO**] [**YES**]**
LVL ACCESS CODE	**Access code with the car buttons to reserve an access to a floor.** Levels can be protected by a code entered using the button box cab. Ten levels can be protected and it is possible to choose which side door is secure. The access code is 4 digits.
	ACCES 1…ACCES 10 DOOR [1..2] **LEV [0..31] CODE [XXXX]**
LEVEL CODE ACTI.	**Access code Schedule of the protected floors** The access codes may be active night and day or only part of the day or by activation of an external input
	[DAY ONLY**] [**NIGHT ONLY**] [**NIGHT AND DAY**] [**EXTERNAL INPUT**]**
BUILD.ACC.CODE	**Access code of the building** Protection of all the floors by a unique code.
	[ON/OFF**]** CODE **[XXXX]**
BUILD. CODE SCHED	**Access code schedule of the building** The access code may be active night and day or only part of the day or by activation of an external input
	[DAY ONLY**] [**NIGHT ONLY**] [**NIGHT AND DAY**] [**EXTERNAL INPUT**]**
INTERCOM TPO	**Timer to re-enable car call** A disabled car call (via input BLOCK CAR) will be re-enabled during this delay once the matching input « UNBLCK CAR » is activated.
	[0..255] seconds

2.13 User operation

CONFIGURATION ► OPERATIONS

OPERATION	**Operation type**
	[UNIVERSAL**] [**UP OR DOWN**] [**FULL COLLECTIVE**]**
DOUBL.CALL ERASE	**Erase the up and down floor button** Erase the up and down floor button when the car arrives at the level
	[NO]* **[**YES**]**
REDUCE PARKING	**Reduction of the parking temporization** If this option is "YES" pressing a button in the cabin shortens the delay of parking and improves the performance of the elevator in buildings with low traffic.
	[NO]* **[**YES**]**
CAR LIGHT TIME	**Car light on time** Time during which the car remains lit up when the lift is in an available state
	[3..60] seconds
CAR PRIORITY TIME	**Car priority timer** A user in the car must have a minimum of 2 secs after the doors close to select his destination (5.12.4.2 EN 81-20). Operation during timer duration: In collective operation, if no movement direction is assigned, the user in the car has priority on the next destination. In blocking operation, the landing buttons indicate car occupation and the user in the car has priority on the next destination.
	[0..10] seconds
CAR PRIO KEY	**Car priority key** This key in the car reserves the lift for car calls, landing calls are suspended. “series 1” PE3M-CCC / 216SP “series 2” CB9-CCC / 211SP
	[NO**] [**YES**]**
FIREMEN PRIO KEY	**Priority call for firemen** Enables rapid intervention by fireman, brings the car to priority level. Input TR1M-CPO / 216SP
	[NO**] [**YES**]**
FIREMEN LEVEL	**FIREMEN LEVEL** Car call level in case of firemen priority call
	[0..31]
INSPECT. EXIT TIME	**Inspection exit time** Minimum time to return to normal mode after exiting inspection mode. This time is a safety measure, it enables leaving the technician time to exit the car roof before the lift goes back into normal mode
	[10..120] seconds (10 seconds par default)
INS. END LIMIT	**Inspection movement beyond the end decelerator** Select here whether you want to forbid the inspection movement beyond the end decelerators (top and bottom)
	[MOVEMENT ALLOW.] [MOVEMENT FORBID.**]**

HWAY.ACC.DETECT	**Hoistway access detection** The hoistway access detection sets the lift out of order(“HOISTWAY ACCESS” fault, see 4.4.11), in the case a landing door has been detected opened for longer than 8 seconds (thanks to the landing doors safety locking contact), out of a normal car parking in user mode. The presence of a technician is mandatory to set back the lift in user mode. This detection only occurs in user mode *Caution : this detection can’t operate properly with a lift compliant to EN81-20 standard , as in that case the landing doors are always unlocked when the lift is idle in user mode.*
	[NO.] [YES]

2.14 Fire operation

CONFIGURATION ► FIRE

Configure here how the lift is managed in case of fire

TYPE	**Fire operation type** **Operation 81-73** brings the car back to the secure floor, evacuate the passengers, then the lift is set out of order **Operation according to U36/G36** only disables stops on stricken floors, the lift is still in service for users
	[DESACTIVATED**]** **[**EN81-73 STANDARD**]** **[**U36/G36 STANDARD**]**

DETECTION	**Type of fire detection** Choose here how the fire operation is launched “STIRCKEN FLOORS” inputs are set on 217SP board “MANUAL CALL” is on TR1M-CPO 216SP board
	[STRICKEN FLOORS**]** **[**MANUAL CALL**]**
SECURE FLOOR	**Fire security floor** Security floor where the car goes when the fire operation is launched.
	[0..31]
SUBSTITU. FLOOR	**Substitution floor** If the “fire security floor” is stricken, the car goes to this substitute floor
	[0..31]
DOOR OPEN	**Parking door open** Choose the parking mode once the car is at the fire security floor
	[NO**]** **[**YES**]**

2.15 Voice synthesis

CONFIGURATION ► VOICE SYNTHESIS

2.15.1 Voice synthesis in car

CONFIGURATION ► VOICE SYNTHESIS ► CAR

VOICE	**Voice synthesis activation**
	[NO**] [YES]***
DAY VOLUME	**Volume adjustment for day time**
	[0..7] (3 by default)
NIGHT VOLUME	**Volume adjustment for night time**
	[0..7] (3 by default)
DOOR 1 ANNOUNCE **and** **DOOR 2 ANNOUNCE**	**Configuration of messages on arrival at landing for each door**
	No message or “Basement 6” to “Basement”. “Ground floor”, “Floor 0”, “Floor 0 0 “ “1st floor” to “35th floor “ “Shops” , “Exit floor”, “Exit”, “Garage”, “Main floor”, “Parking”, “Lobby” “Cafeteria”, “Hotel” . “Floor 1 / 2” to “Floor 34 / 35” “SPECIAL1“ to “SPECIAL16“. *You can create your own floor messages, choose* “SPECIAL1“ to “SPECIAL16“. *and rename your MP3 files into "SPECIAL1.mp3" to "SPECIAL2.mp3" then copy it in the folder "SPECIAUX " of the SDcard of 211SP board (car roof)*
START ANNOUNCE	**Choice of setting off of message announcement on arrival at landing**
	[SLOWING]* [ARRIVAL**]**
OPENING DOORS	**Announcement of the doors opening**
	[NO ANNOUNCE]* [OPENING**] [**OPENING DOORS**]**
CLOSING DOORS	**Announcement of the doors closing**
	[NO ANNOUNCE]* [CLOSING**] [**DOORS CLOSING**]**
DEPART ANNOUNCE	**Sound announcement of next car departure** If the option is selected, there will be one tone for going up and two tones for going down in accordance with the 8170 standard or a voice message saying UP or DOWN.
	[NO ANNOUNCE] [VOICE MESSAGE**] [**GONG 1T/2T n°1**] [**GONG 1T/2T n°2**] [**GONG 1T/2T n°3**]**
CAR BUTTON BEEP	**A beep is generate when a car button is actived**
	[NO**] [YES]***
MUSIC **ENTER >>**	**Submenu for music broadcast in car**
	See chapter 2.15.2 below

CAR ALERT	**Vocal request to stay away from the door.** In case the door is blocked more than 15s after the parking timer (because of light barrier or Reopen button), then on each new hall call request, a vocal announcement is launched in car requesting to stay away from the door.
	[NO**]** **[**YES**]**

2.15.2 Music in the car

CONFIGURATION ► VOICE SYNTHESIS ► MUSIC.

ACTIVATION CODE	**Unlocking of the function** For broadcast licensing reasons, this code will be provided if you want to use the function. A broadcast license fee will also be provided. This broadcast license is valid for only one lift. All musical settings below will then become accessible..
	[00000..99999] 5 digits code.
STYLE	**Choice of musical style** Set the musical style you want to have in the car. Choosing « NO » will stop the function. By choosing a predefined style , you will broadcast the music provided by Sprinte. ***The musical files provided by Sprinte are under license (©) . This boradcast license is available for only one and only lift.*** By choosing « CUSTOM », you will broadcast the musical files located in the folder « User » of the SDcard of the 211SP car roof board. ***If you want to broadcast your own musical files, be sure that you have the legal rights to do it.***
	[NO] **[**CUSTOM**]** **[**CLASSICAL ©**]** **[**ELECTRO ©**]** **[**LOUNGE ©**]** **[**JAZZ ©**]** **[**POP ©**]**
RANDOM PLAY	**Random play of musical files**
	[NO] **[**YES**]**
DAY VOLUME	**Volume adjustment for day time**
	[0..7] (3 by default)
NIGHT VOLUME	**Volume adjustment for night time**
	[0..7] (3 by default)

Music is broadcasted only in user's operation of the Lift. It starts at the very first user's call and stops only when the car becomes available again, when car's light is switched off. The music restarts on the next user's call, continuing the musical files that was interrupted.
The floors' announcements and users' vocal messages are a priority on music.
The music stops immediately when exiting user's operation (Inspection, Emergency operation, Out of order, …).

2.15.3 Voice synthesis on the car roof

CONFIGURATION ► VOICE SYNTHESIS ► CAR ROOF

VOICE	**Voice synthesis activation**
	[NO**] [YES]***
DAY VOLUME	**Volume adjustment for day time**
	[0..7] (3 by default)
NIGHT VOLUME	**Volume adjustment for night time**
	[0..7] (3 by default)
OPENING DOORS	**Announcement of the doors opening**
	[NO ANNOUNCE]* [OPENING**] [**OPENING DOORS**]**
CLOSING DOORS	**Announcement of the doors closing**
	[NO ANNOUNCE]* [CLOSING**] [**DOORS CLOSING**]**
DEPART ANNOUNCE	**Sound announcement of next car departure** If the option is selected, there will be one tone for going up and two tones for going down in accordance with the 8170 standard or a voice message saying UP or DOWN.
	[NO ANNOUNCE] [VOICE MESSAGE**] [**GONG 1T/2T n°1**] [**GONG 1T/2T n°2**] [**GONG 1T/2T n°3**]**
ARRIVAL GONG	**Generate a gong at the arrival of the car at the destination**
	[NO GONG]* [ARRIVAL**] [**SLOWING**]**

2.15.4 Voice synthesis on floors

CONFIGURATION ► VOICE SYNTHESIS ► ON FLOORS

(Only if « LAND. BOARDS >0)

VOICE	**Voice synthesis activation**
	[NO**] [YES]***
SYNTH. CHOICE	**Choice of the synthesis type at each levels**
ENTER >>	**[**LANDING LOUDSP**] [ROOF LOUDSPEAKER]***
DAY VOLUME	**Volume adjustment for day time at each level**
ENTER >>	**[0..7] (3 by default)**
NIGHT VOLUME	**Volume adjustment for night time at each level**
ENTER >>	**[0..7] (3 by default)**
OPENING DOORS	**Announcement of the doors opening**
	[NO ANNOUNCE]* [OPENING**] [**OPENING DOORS**]**
CLOSING DOORS	**Announcement of the doors closing**
	[NO ANNOUNCE]* [CLOSING**] [**DOORS CLOSING**]**
DEPART ANNOUNCE	**Sound announcement of next car departure** If the option is selected, there will be one tone for going up and two tones for going down in accordance with the 8170 standard or a voice message saying UP or DOWN.
	[NO ANNOUNCE] [VOICE MESSAGE**] [**GONG 1T/2T n°1**] [**GONG 1T/2T n°2**] [**GONG 1T/2T n°3**]**
ARRIVAL GONG	**Generate a gong at the arrival of the car at the destination**
	[NO GONG]* [ARRIVAL**] [**SLOWING**]**

2.16 Visual indications

CONFIGURATION ► DISPLAYS

2.16.1 Visual indications in car

CONFIGURATION ► INDICATION ► CAR

DISPLAY	**Display type**
	[NO DISPLAY**] [**61SP/63SP**] [**122SP/123SP**] [**LCD WECO**]** **[**232SP COLOR**] [**235SP BLUE**] [**VEGA**] [**236SP COLOR**] [**FLEXYPAGE**]**
FLEXYPAGE NB	**Number of flexyPage in car. (**only if DISPLAY = FLEXYPAGE) As the flexyPage display is mastered by the controller on the CANopen bus, it shall be informed how many are connected on.
	[0..2]
LOAD PLATE (only with 236SP)	**Informations to display on the load plate of 236SP**
	[NON**]** : No load plate on the display. **[**1 : NOM LOAD**] :** Nominal load of the car and number of persons. (Set both values in menu **CONFIGURATION -> CAR LOAD**) **[**2 : 1+SERIAL NB.**]** : NOM LOAD + Serial number of the lift (Set the value in menu **CONFIGURATION -> IDENTIFICATION**) **[3 : 2+ CE MARKING]** : NOM LOAD + SERIAL NB+ CE marking with symbol (Set the value in menu **CONFIGURATION -> IDENTIFICATION**)
CUSTOMER LOGO (only with 236SP)	**Display of the customer's logo on the 236SP**
	[YES] [NO**]**
ORIENTATION (only with 232SP)	**Select the 232SP display orientation**
	[LANDSCAPE**] [**VERTICAL**]**
1 BKGND/FLOOR (only with 236SP)	**The background of 236SP is associated with each level.** On level 0 , file 001.BMP is displayed ; on level 1 , file 002.BMP; on level 1 , file 003.BMP etc.... The parameter « BACKGROUND PIC.» (see below) won't be available anymore.
	[YES**] [**NO**]**
BACKGROUND PIC. (232SP and 236SP)	**Select background display**
	• 232SP : **[**BLUE**] [**RED**]** • 236SP : **[**SLIDESHOW**], [**FILE 001.BMP**]**… **[**FILE 028.BMP**]** Choose a specific image file for the background or a slideshow of the 28 image files available
SLIDESHOW TIM. (only with 236SP)	**Time for the display of an image in slideshow mode**
	[1min**], [**3min**], [**5min**], [**10min**], [**15min**], [**30min**], [**1h**], [**3h**], [**5h**], [**10h**], [**24h**]**
TIME AND DATE (232SP & 236SP)	**Displays the time and date**
	[YES**] [**NO**]**
LAST VISIT (only with 236SP)	**Displays the date of the last maintenance visit.** This date has to be updated in ASSISTANCE-> VISITE DONE.
	[YES] [NO**]**

NEXT VISIT (only with 236SP)	**Sélection de la périodicité de la prochaine visite en semaines** The date of the next visit is calculated by adding this value here , to the date of last visit.
	[NON], [1 WEEK**]**… **[**6 WEEKS**]**
DEVICE MESSAGE (only with 236SP)	**Display of emergency device presence message**
	[YES] [NO**]**
EMCY. LIGHT (232SP and 236SP)	**The display act as the emergency light in case of car light failure**
	[YES] [NO**]**
FLOORS INDICATION **ENTER >>**	**Choice of indication to display at each floors** Display possibilities depend on the display type
	See appendix for available display depending on the display present in the equipment
ARROWS	**Arrows type**: Output arrows direction of movement board 211SP CB1-FD , CB1-FM Output arrows next departure board 211SP CB9-FDP, CB9-FMP
	[NO ARROWS**] [**61SP/63SP**] [**122SP/123SP**] [**DIRECT**]**
BUTTON FLASHING	**Flashing car buttons**
	[YES**] [NO]***

2.16.2 Visual indications on floors

CONFIGURATION ► INDICATION ► ON FLOORS

CONFIG.FLOORS	**Sub-menu for configuration floor by floor (see table on next page)** *(Only if there are landing boards with your equipment installation AND no flexyPage are used on floors)* • Display type • Floor indication • Specific options of the display
ENTER >>	**[**ON FLOOR 00**]… [**ON FLOOR 31**]**
216SP DISPLAY	**Display connected on 216SP Board** Output AFT-TR3M on 216SP board , for 61SP/122SP/ LCD WECO displays type. Output CN1-M on 216SP board for 235SP/232SP/236SP displays type.
	[NO DISPLAY**] [**61SP/63SP**] [**122SP/123SP**] [**LCD WECO**]** **[**232SP COLOR**] [**235SP BLUE**] [**VEGA**] [**236SP COLOR**]**
FLOOR/DISPLAY	**Choice of indication to display at each floors** Display possibilities depend on the display type
ENTER >>	See appendix for available display depending on the display present in the equipment
FLEXYPAGE NB	**Number of flexyPage on floors.** As the flexyPage display is mastered by the controller on the CANopen bus, it shall be informed how many are connected on.
	[0..2]
TIME AND DATE (232SP and 236SP)	**Displays the time and date**
	[YES**] [**NO**]**
CUSTOM LOGO 236 (only with 236SP)	**Display of the customer's logo on the 236SP**
	[YES] [NO**]**
236 BCKGND PIC. (only with 236SP)	**Select background display for 236SP**
	[FILE 001.BMP**]**… **[**FILE 028.BMP**]** Choose a specific image file for the background .
232 BCKGND PIC. (only with 232SP)	**Select background display for 232SP**
	[BLUE**] [**RED**]**
ORIENTATION (only with 232SP)	**Select the 232SP display orientation**
	[LANDSCAPE**] [**VERTICAL**]**
ARROWS	**Arrow type** Outputs TR3M FD, FM / 216SP for traditional wiring
	[NO ARROWS**] [**61SP/63SP**] [**122SP/124SP**] [**DIRECT**]**
ARROWS INDIC	**Arrow indications** The arrows have to be arrows for moving in blocking
	[MOVEMENT**] [**NEXT DEPARTURE**]**
BUTTON FLASHING	**Buttons flashing during movement**
	[NO**] [YES]***

ARRIVAL GONG	**Gong signal of arrival of car at landings** Gong outputs are controlled on the 217SP expansion board by the output “GONG ARRIV NIV**XX**” where **XX** is the arrival level
	[NO GONG **] [**STOPPED **] [**SLOWING**]**

CONFIGURATION ► INDICATION ► ON FLOORS ► CONFIG.FLOOR ► ON FLOOR 00 … 31

This menu is available only if there are landing boards with your equipment AND no flexyPage are used on floors

For each floor :

LANDING DISPLAY	**Display type**
	[NO DISPLAY**] [**61SP/63SP**] [**122SP/123SP**] [** LCD WECO**]** **[**232SP COLOR**] [**235SP BLUE**] [**236SP COLOR**]**
FLOOR/DISPLAY	**Choice of indication to display at this floor.** Display possibilities depend on the display type
	See appendix for available display depending on the display present in the equipment
BACKGROUND PIC	**Select background display for 236SP**
(only with 236SP)	**[**FILE 001.BMP**]**… **[**FILE 028.BMP**]** Choose a specific image file for the background .
ORIENTATION	**Select the 232SP display orientation for this floor**
(only with 23SP)	**[**LANDSCAPE**] [**VERTICAL**]**

2.17 Doors

CONFIGURATION ► DOORS

NB DOORS	**Number of doors**
	[1..2]
DOOR 1	**Door 1 configuration**
DOOR 2	**Door 2 configuration**
FLOORS	**Configuration of doors types on different landings**
	If option one door: **[**DOOR 1**]** **[**BLOCKED**]** **If option one door with two different type (automatic, manual)** **[**TYPE DOOR 1**]** **[**TYPE DOOR 2**]** **[**BLOCKED**]** **If option two doors:** **[**DOOR 1**]** **[**DOOR 2**]** **[2** DOORS PASSING**]** **[2** DOORS SELECTIVE**]** **[**BLOCKED**]**

Doors Configuration

CONFIGURATION ► DOORS ► DOORS 1
OR CONFIGURATION ► DOORS ► DOORS 2

MANUFACTURER	**Door manufacturer reference**
	[STANDARD] [SCHINDLER QSK8-9**]**
	Doors SCHINDLER QSK8-9 - Automatic Doors with limit switch closure and opening. - Maintained close command during car movement. -Shunt not controlled during the stop level.
2 DOORS TYPES	**One door face and two doors types** It is possible to manage doors and automatic doors on the same service door
	[NO**]** **[**YES**]**
DOORS TYPE	**Selection of the door type**
	[NO DOOR **]** : no control of door opening or closing **[**AUTOMATIC**]** : automatic door in car and landing **[**MANUAL LANDING**]** : automatic door in car and manual landing **[**FLUSH SHAFT**]** : no car door, with control of light barrier.
DOOR # SWITCH (only for MANUAL LANDING door type)	**Safety contact wiring for car door** Depending on the wiring diagram, this contact may be plug on Car Shunt, or Lock . Check on which input of CB20 plug of 210SP is wired the safety door contact.
	[ON LCOK**]** Choose this if door is wired on VERC1-CB20 / 210SP **[**ON CAR SHUNT**]** Choose this if door is wired on SHC1-CB20 /210SP
PRE-OPENING	**Pre opening of the door in door unlock area** The opening of the door will start in door unlock are, just before the car completely stops on the destination floor.
	[NO] **[**YES**]**
PRE-OPENING TRIG	**Trigger for pre-opening of the door** Select here at which distance from the level, the pre-opening has to start. With a 224SP reader, the choice is done by position flag events. With a K04SP reader, the choice is done in centimeters.
	224SP : [DOOR-AREA ENTRY**]** **[**STOP-FLAG ENTRY**]** **[**STOP-FLAG EXIT**]** **K04SP / K05SP : [5..30] cm**
MAINTAINED CLOSE	**Forced closing during car movement** Maintaining doors closed command while car is moving
	[NO**]** **[**YES**]**
NUDGING	**Closing doors in NUDGING mode** Door closing command at low speed and with high torque if the door is not shutting. A voice signal is broadcast to warn of danger. Door control by nudging: NUD1-CB8 / 211SP
	[NO**]** **[**YES**]**
CLOSING TIMER	**Maximum door opening time**

	The opening command is stopped by “closing limit switch” or end of timer.
	[2..45] seconds
OPENING TIMER	**Maximum door opening time** The opening command is stopped by “closing limit switch” or end of timer.
	[2..45] seconds
PARKING TIMER 	**Car parking time with door open** Time during which the car stays with door open to let users exit and enter in car Shorten time: Automatic door: Press car button “Door closing” manual door : Closing landing door
	[2..20] seconds
TMR ON REOPENING 	**Car stopping time when reopening** In case of reopening of the door because of a shock or alight barrier event, the door will be kept opened during this following value :
	[1..10] seconds
TP DEBOUNCING SH	**Temporization of shunt debouncing on floor doors** This temporization is launched once the floor door is closed. With manual landing doors, this temporization delayed the car door closing With automatic landing doors, this temporization delayed the reopening of the doors caused the de shunt debouncing.
	[0..3] seconds
PHOTO CELL	**Door closing protection by cell** Causes reopening if the cell is cut and the car is in a door area and closing with nudging if the car is outside of door area. This protection is not active if the door is closed.
	DOOR 1 : [NO**] [**CB8 / 211SP-24Vdc**] [**CB19 / 210SP-220Vac**]** **DOOR 2 : [**NO**] [**CB36 / 223SP-24Vdc**] [**CB16 / 210SP-220Vac**]**
DOOR SHOCK	**Door closing protection for shock** Complete reopening of doors if a shock is detected during closing. Doors remain open if closing was not possible after several attempts and while input is active. **Connector** « CHC1-CB8 / 211SP »
	[NO**] [**YES**]**
CLOSE BUTTON	**Accelerated closing of doors button** **Connector** « FAC1-CB1 / 211SP »
	[NO**] [**YES**]**
REOPEN BUTTON	**Door reopening button** **Connector** « OAC1-CB1 / 211SP »
	[NO**] [**YES**]**
CLOSING SWITCH	**Doors with limit switch closing**
	[NO**] [**YES**]**

OPENING SWITCH	**Doors with limit switch opening**
	[NO**]** **[**YES**]**
THERMAL PROTECT	**Presence of thermal protection for door motor** The presence of this protection will enable the management of the door's motor overheat monitoring Probe for Door 1 : input **CB4-I1 / 211SP** Probe for Door 2 : input **CB4-I2 / 211SP**
	[NO**]** **[**YES**]**
RETIRING CAM	**Management of the retiring cam device to unlocking the landing doors.** The cam is automatically released if the car is stopped. Connector door 1 « CAM 1-CN11-I / 220SP » Connector door 2 « CAM 2-CN9-I / 220SP »
	[NO CAM**]** **[**STANDARD CAM**]**
CAM RELEASE	The cam can be released either before or after opening doors. In case of cam released before door opening, **"TP CAM RELEASE**" time gives a delay between cam release and door opening. In case of cam released after door opening, **" TP CAM RELEASE**" gives a delay between door opening and cam release.
	[BEFORE OPENING**]** **[**AFTER OPENING**]**
TP CAM RELEASE	**Temporisation of cam release for landing doors unlock.**
	[1..30] tenth of seconds.

2.18 Car positioning systems

CONFIGURATION ► CAR POSITION

READER	**Type of reader**
	[224SP/211SP**]** **[**K04SP**]** **[**K05SP**]** **[**SENSORS/211SP**]**

Settings for flags' reader systems (224SP, SENSORS)

CONFIGURATION	**Flags configuration** STANDARD : flags are automatically set according the to kind of deceleration flags for each level (see below **DECELERATION FLAG**) SCREEN BY SCREEN : flags have to be completely set separetaly .Choose this flag configuration , only if you can't use the configuration STANDARD
	[STANDARD.**]** **[**SCREEN BY SCREEN**]**
DECELERATION FLAG	**Adjustment of deceleration flags for each level** Depending on the distance between landings and the car speed, the deceleration flags need to be configured
	[NORMAL**]** **[**CROSS-OVER**]** **[**CLOSE LEVELS**]**
SCREEN SETUP	**Adjustment of each deceleration flag.** Every single flag has to be configure separately : choose first the kind of flag (Top Decelerator **TD**, level stop **LVL** or Bottom decelerator **BD**), then choose the associated level (**[**xx**]** **)**
	[LVL**]** **[**TD**]** **[**BD**]** … **[**xx**]**
INTER FLOOR TPO	**High speed inter floor movement timer** This timer is used to set a high speed setting time between two levels if the car keeps in low speed for a too long time due to the deceleration flags position
	[0..10] seconds
CALIBR RISE TIME	**Rise time for the cab before reader calibration phase** This delay serves to raise the car enough to reach its high speed before detecting the low speed limit switch
	[0..9] seconds
RESET SKIDDING	**RESET SKIDDING** In some case with a 224SP reader, if where there is a big distance between floors or if the lift is a very low speed lift, the SLIDDING security can be set if the travel time without seeing a flag is superior to 20 sec. To avoid this, it is necessary to activate this option and to plug a magnetic finger to the input DTC of the 211SP board.
	[NO] **[**YES**]**

2.18.1 Configuration of K04SP/ K05SP

SLOWDOWN FLAG	**Relative position of the slowdown flag**
	[0..300] centimeters
UP STOP FLAG	**Position of up travel stop flag**
	[10..100] centimeters
DOWN STOP FLAG	**Position of down travel stop flag**
	[10..100] centimeters
FLOORS POSITION	**Absolute position of the floors (PALIER 0 to PALIER 31)**
	[0..150] meters
DOWN SLOWDOWN	**Relative position of the “down slowdown flag” for near floors movement**
	[0..300] centimeters
UP SLOWDOWN	**Relative position of the “up slowdown flag” for near floors movement**
	[0..300] centimeters

2.19 Car load controls

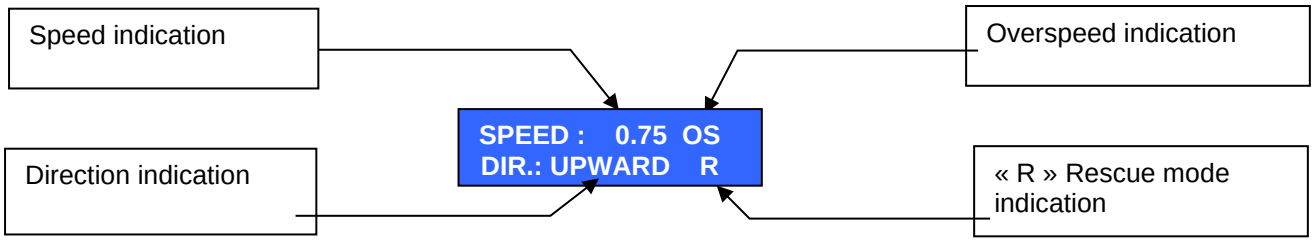
CONFIGURATION ► CAR LOAD

LIFT CAPACITY	**Car nominal load in kilograms** This value is displayed on the 236SP if chosen in the display settings (see §2.16.1)
	[0…9999**] kg**
NB. OF PEOPLE	**Car nominal load in number of persons** This value is displayed on the 236SP if chosen in the display settings (see §2.16.1)
	[0…99**]**
OVERLOAD	**Car overload detection**
	[NO DETECTION**] [**PE2M-SU / 216SP**] [**CB7-SU / 211SP**]**
NON STOP FULL	**Non stop full detection**
	[NO DETECTION**] [**PE2M-NSC / 216SP**] [**CB7-NSC / 211SP**]**

2.20 Overspeed monitor for machineroomless lifts.

CONFIGURATION ► OVERSPEED

The overspeed monitor watches the speed of the car in every operation mode of the Lift.(user, out of power, maintenance). The speed and direction of the car are displayed as soon as the lift switches in 'OUT OF POWER' mode. This menu is displayed only in case of K04SP or K05SP shaft reader (see §2.18.1).



The lift will be set 'Out of Order' whether

- The car speed exceeds the nominal speed in user mode.
- The car speed exceeds the rescue speed in out of power mode.
- The car speed exceeds the maintenance speed in inspection mode.
- No datas is received from the K04SP/K05SP reader while trying to move.

DETECTION	**Overspeed monitor**
	[NO**] [**YES**]**
RATED SPEED	**Nominal speed of the car** The lift will be set out of order if the car speed exceeds 15% this speed
	[0.01..2] m/s
EMCY SPEED	**Maximum speed of the car in out of power mode.** This speed shall be set during the installation of the lift, with tests in out of power mode. The overspeed indication 'OS' will be displayed if this speed is 10% exceeded.
	[0.01..2] m/s

2.21 Emergency telephones

CONFIGURATION ► EMERGENCY PHONE

ALARM FILTER	**Filtering alarm call in car** Output DIS-CB6 / 211SP
	[NO**]** **[**YES**]**

2.22 Energy savings

CONFIGURATION ► ENERGY SAVINGS

STOP&GO MODE	**This mode reduces the consumption of the inverter while the Lift is stopped in user mode.** Before enabling this function, be sure your cabinet is equipped with KSG contactor. This mode is activated once the lift is stopped for 20 minutes. Then, “STOP & GO” is displayed on Controller. The « STOP&GO » can be tested in the menu ASSISTANCE ► INVERTER FREQ ► STOP&GO ACTIVATE
	[NO**]** **[**YES**]**
DISPLAY STANDBY	**This mode reduces the consumption of 232SP, 235SP displays on floors and in the car. The backlight of the screens is switched off.**
	[NO**]** **[**YES**]**
STANDBY TIMER	**Timer value before activating the DISPLAY STANDBY**
	[0…20] min

3 Configuration of electronic boards « inputs / outputs »

I / O boards are fully programmable electronic

CONFIGURATION ► I/O BOARDS

211SP BOARD	Inputs / outputs of 211SP
216SP BOARD	Inputs / outputs of 216SP
217SP 0 BOARD	Inputs / outputs of 217SP (extension 1)
217SP 1 BOARD	Inputs / outputs of 217SP extension 2)
220SP BOARD	Inputs / outputs of 220SP
223SP 0 BOARD	Inputs / outputs of 223SP (extension 1)
223SP 1 BOARD	Inputs / outputs of 223SP (extension 2)
230SP BOARD	Inputs / outputs of 230SP (Bluetooth)
LANDING BUS BOARDS	Inputs / outputs of 137SP and 228SP landing bus

3.1 Car and floors buttons

3.1.1 216SP

CONFIGURATION ► I/O BOARDS ► 216SP

PE5M, TR2M	**Lift buttons connectors**
[TYPE] [LEVEL]	**[**NO CONNECTED**] [**CAR DOOR1**] [**CAR DOOR2**] [**UP FLOOR DOOR1**]** **[**UP FLOOR DOOR2**]] [**DOWN FLOOR DOOR1**] [**DOWN FLOOR DOOR2**]**

3.1.2 217SP

CONFIGURATION ► I/O BOARDS ► 217SP

To assign the connectors to lift calls the following parameter must be configured:

[CONNECTOR] = [LIFT BUTTONS]

ES1-X, ES2-X **ES3-X, ES4-X**	
[TYPE] [LEVEL]	**[**NO CONNECTED**] [**CAR DOOR1**] [**CAR DOOR2**] [**UP FLOOR DOOR1**]** **[**UP FLOOR DOOR2**]] [**DOWN FLOOR DOOR1**] [**DOWN FLOOR DOOR2**]**

3.2 Configuration of special I/O of 217SP

CONFIGURATION ► I/O BOARDS ► 217SP

To assign the connectors to special functions, the following parameter must be configured:

[CONNECTOR] = [SPECIAL I/O]

ES1-X, ES2-X ES3-X, ES4-X	**[TYPE] [LEVEL]**
[NOT CONNECTED]	The I/O isn't used
[CAR AT LVL] [LVL##]	The output indicates that the car is stopped at the level and the car doors are opened.
[STRICK.LVL] [LVL##]	Input for stricken level (input NC) : note, the fire operation must be active (see §2.14)
[ARRIV.GONG] [LVL##]	pulse output of 9 seconds to command the arrival gong (68SP type)
[FLOOR LIGH] [LVL##]	pulse output of 0.5 seconds to command the floor lighting at the car arrival
[CAR POSIT.] [LVL##]	The output indicates the car position at the slowdown
[>LVL ACCES CODE]	Activate the levels access codes.
[>BUILD.ACC.COD]	Activate the building access code.
[>H CALLS DISABLE]	Deactivation of the floor calls. This option permit to condemn a lift
[>SET OUT OF USE]	This input sets the lift out of use when activated. All calls are cleared and the car goes to the 'out of use' level (cf 2.12 "BUILDING"). Once arrived the lift is set out of use (the fireman operation keeps priority).
[<LIFT OUT OF USE]	This output indicates the status of 'OUT OF USE' operation.
[BLOCK CAR] [NIVxx]	This input when activated inhibits the matching car call.
[UNBLCK CAR] [NIVxx]	This input ,when activated, enables the matching previously disabled car call, during the timer set in INTERCOM TPO (see §2.12)
[ENB. COD NO] [NIVxx]	This normally opened input, when activated, enables the matching access code in car. This input is effective only if parameter "**LEVEL CODE ACTI.** " is set to "EXTERNAL INPUT" (see §2.12)
[ENB. COD NC] [NIVxx]	This normally closed input, when activated, enables the matching access code in car. This input is effective only if parameter "**LEVEL CODE ACTI.** " is set to "EXTERNAL INPUT" (see §2.12)

3.3 Configuration of floor indication

CONFIGURATION ► I/O BOARDS ► 217SP

To assign the connectors to **LEVEL INDICATOR**, the following parameter must be configured:
[CONNECTOR] = [LEVEL INDICATOR]

The level is in gray code

Level	code	output ES1-X8- ES1-X1ES1
0	0x0	0000 0000
1	0x1	0000 0001
2	0x3	0000 0011

3	0x4	0000 0010
4	0x6	0000 0110
5	0x7	0000 0111
6	0x5	0000 0101
7	0x6	0000 0100

../..

3.4 Configuration I/O supervision

CONFIGURATION ► I/O BOARDS ► 217SP

To assign the connectors to **I/O REMOTE**, the following parameter must be configured:
[CONNECTOR] = [I/O REMOTE]

ES1-X, ES2-X ES3-X, ES4-X	**Entry options**
[>AUTO MOVEMENT**]**	Generates car's travels at all levels
[>GOTO TOP FLOOR**]**	Generate a call to the highest floor
[>GO LOWEST FLOOR**]**	Generate a call to the lowest floor
[>OPEN DOOR 1**]**	Open door 1
[>OPEN DOOR 2**]**	Open door 2
[>REMOTE RESET**]**	Reset the lift controller

ES1-X, ES2-X ES3-X, ES4-X	**Output options**
Powers state	
[<CAR LIGHT FAULT**]**	Indicates a fault on the Car light
[<POWER FAILURE**]**	Main power supply is off
[<PHASE ERROR**]**	Fault on one phase of the main power supply
Safety chain state	
[<S.CHAIN CLOSED**]**	The safety chain is closed (VERR)
[<LOCKING FAULT**]**	Fault with the locking contact of the landing doors
[<CAR S.CHAIN**]**	Car door is closed (SHC)
[<FLOORS S.CHAIN**]**	Floors doors are closed (SHP)
[<PASSIVE S.CHAIN**]**	Passive safety (STOP, LIMITER, SAFETY GEAR)
[<ALIM. S.CHAIN**]**	Safety chain is powered
Elevator operating mode	
[<OVERLOAD**]**	Lift is in overload
[<OUT OF USE**]**	Lift out of service
[<EMERGENCY OPERA**]**	Lift in emergency operation

[<FIREMEN]	Lift in firemen operation
[<INSPECTION]	Lift in maintenance operation
[<LIFT IN USE]	Lift in user's mode operation
Car movement	
[<CAR AT LEVEL]	Car stopped at a level
[<MOVING]	Car is moving
[<CAR MOVING UP]	Car is moving up
[<CAR MOVING DOWN]	Car is moving down
Doors	
[<DOOR 1 OPENING]	Request indication of « door 1 » opening
[<DOOR 2 OPENING]	Request indication of « door 2 » opening
[<DOOR 1 CLOSING]	Request indication of « door 1 » closing
[<DOOR 2 CLOSING]	Request indication of « door 2 » closing
[<OLS DOOR 1]	Open door 1 limit switch
[<OLS DOOR 2]	Open door 2 limit switch
[<CLS DOOR 1]	Close door 1 limit switch
[<CLS DOOR 2]	Close door 2 limit switch
[<SHOCK DOOR 1]	Shock on door 1
[<SHOCK DOOR 2]	Shock on door 2
[<CELL DOOR 1]	Cell on door 1
[<CELL DOOR 1]	Cell on door 2
[<REOPEN. BUTTONS]	Door 1 or 2 Reopening button is pressed
[<ALARM BUTTON]	User's alarm button in car is pressed
[<CALL PENDING]	An user's request is pending or in progress.

3.5 I/O configuration of the bus floors (228SP, 137SP)

CONFIGURATION ► ► I/O BOARDS ► FLOORS BOARDS

Configuration of the landing buttons. The boards are identified from 0 to 24.

LEVEL	**Level assigned to the landing board**
	[0..32**]**
DOOR	**Door assigned to the landing board**
	[DOOR 1**]** **[**DOOR 2**]**
LIFT 1 2 3 4	**Lift affected to the landing board**
	ASC 1 2 3 4 **[0 0 1 0] (the board is associate to lift n°3)**
CN4, CN5-E1, CN7	**Landing buttons**
	[NOT CONNECTED**]** **[**CAR CALL**]** **[**UP FLOOR BUTTON**]** **[**DN FLOOR BUTTON**]** **[**FIREMAN KEY NC**]** **[**FIREMAN KEY NO**]** **[**SET OUT OF USE**]** **[**H.CALLS DISABLE**]**
CN5-S2, CN5-S3	**Special output at the floor**
	[NOT CONNECTED**]** **[**MOVING UP**][**MOVING DOWN**]** **[**CAR AT LVL IND**]** **[**OUT OF USE**]**

4 Lift controller maintenance

4.1 Make calls with the controller

Press the "⮝ +" to send the car to the highest level or "⮟ -" to send it to the lowest level. Then confirm the request by pressing the "**ENTER**" key.
If you wish to move the car to other levels, simply press the "⮝ +" key then "⮟ -"

4.2 Technical assistance menu

AUTO MOVEMENT	**Automatic movement of car** This mode is used to do a lift endurance test. It causes sending the car up and down. Sending the car and landing calls by users are always taken into account and have priority over this operation. Caution, this test may cause motor overheating, ensure that the "Motor temp probe" security is operating.
	[NON**] [**BETWEEN FLOORS**] [**RANDOM**]**
DOOR BLOCKING	**Prevention of door opening** This option carries out automatic movement without opening the doors
	[NO**] [**YES**]**
H. CALLS DISABLED	**Disable the floors calls buttons during auto movement test**
	[NO**] [**YES**]**
BLACK BOX	**Lift black box** Records all information on lift operation activity in a log file
	[NO**] [**YES**]**
VTA	**Voice technical assistance** This option guides the technician by voice when troubleshooting the system
	[NO**] [**YES**]**
DISPLAY TEST	**Test for correct operation of displays and speech synthesis** Carries out a test cycling through the configured displays
	[NO**] [**YES**]**
LIMIT SWIT. TEST	**Test the shaft limit switch** With this test, the car goes to the selected limit switch in low speed This test is performed only when the car is in user mode, Car must be stopped at the lowest level for the low limit switch test Car must be stopped at the highest level for the high limit switch test
	[NON**] [**LOW LIMIT SWITCH**] [**HIGH LIMIT SWITCH**]**
A3 VALVE TEST	**A3 safety valve test** This test helps to check the correct functionality of A3 valve. It executes a down-movement for 5s , first with A3 valve off-driven and Slowdown valve on-driven. then with A3 valve on-driven and Slowdown valve off-driven. In both cases, If the valves are in good condition, the car should not move.
	[NO**] [**YES**]** See the installation manual for the full detailed procedure of the test.

SKIDDING TEST	**Skidding fault detection test.** This test moves the car in slow speed, ignoring all information's datas from the sahft reader. Once the « NO CAR MOVEMENT » timer (see §2.10) has elapsed, the « SKIDDING » fault must have been detected and recorded.
	[NO**]** **[**YES**]** See installation manual for full description of this test.
LEVELLING TEST	**Levelling functionality test** This test moves the car with the doors opened, then you can check the automatic relevelling of the lift.
	[NO**]** **[**YES**]** See installation manual for full description of this test.
REPROG. BOARDS	**Launch a software upgrade for a distant board** Use this function, if there is a « VERS. BOARD » in the controller's fault list, in case you have replaced a distant board (211SP or 230SP in car, or 228SP, 137SP on floors), in order to upgrade the software according to the one of the controller.
POSITION DISPLAY	**Displays absolute reader (K04SP/K05SP) information** - speed, altitude, precision stopping, direction of travel
	[NO**]** **[**YES**]**
VISIT DONE	**Updates the date of the last maintenance visit** Selecting "YES", the date of the last maintenance visit is updated to the current date of the controller. This date will be displayed on the 236SP color display in car if you have selected the option (see §2.16.1).
	[NO] **[**YES**]**
LAST VISIT	**Displays the date of the last maintenance visit**

4.3 Diagnosis menu

Indication of errors encountered during lift operation. All anomalies encountered during lift operation are recorded and can be consulted in this menu.

FAULT LIST	**FAULT LIST** Recording of last twenty faults. Each fault is numbered from 1 to 20 from the oldest to the most recent. On each fault press Enter to have more detailed informations
MULTIPLEX BUS	**STATUS OF MULTIPLEX BUS CONNECTIONS** Gives indications on operational status of multiplex bus. Each lift has a status: 0 => not connected 1 => connected
SERIAL LINKS	**STATUS OF CONTROL PANEL'S SERIAL LINKS** Gives indications on operational status of communications CN1 (RS485), CN2 (RS485), CN5 (CANBUS), CN6 (CANBUS), CN7 (CANBUS), CN11 (217SP expansion board)
TEMPERATURE	**TEMPERATURES DETECTED BY 132 PK SENSORS** Depending on number of sensors, this menu displays current temperature of 216SP SENSOR and machine room sensor
STATISTICS	**STATISTICS** Gives information on lift use Counter of number of starts Travels counter per floor Date of last power failure Rope wear counter
SAFETY CHAIN	**State of Safety contacts inputs**
I/O 220SP BOARD	**State of 220SP board inputs outputs**
I/O 211SP BOARD	**State of 211SP board inputs outputs**
I/O 223SP 0/1 BOARD	**State of 223SP board inputs outputs**
VOLTAGES	**Display of low voltage on the 211SP**

4.4 Faults list

Pressing the "ENTER" key gives the number of faults recorded than pressing on the "▲ " or "▼" keys scrolls through the list of recorded faults.
Pressing and holding down the "ENTER" key on a fault gives the day, time and floor where the fault appeared.

To delete the faults list, scroll through the faults list until you get to "DELETE FAULTS?" Then press the "ENTER" key

Type of faults:

(OOM) OUT OF ORDER MAINTENED: The lift is out of order, only intervention by a technician can put it back in service. You have to delete the faults in the diagnosis menu to get the Lift back in user mode.

(OO) OUT OF ORDER: The lift is out of order, when the fault disappears the lift goes back in service.

ALARM: The control panel indicates a minor fault but the lift remains in service.

4.4.1 Power supply

POWER SUPPLY		
OO	**POWER FAILURE**	**Power failure or no V24**
The lift goes into emergency mode, all commands in progress are stopped. - Check the input voltage - Check fuses on "PFS1" fuse and position of "PFS1" micro-circuit breaker - Check T380, T0, V24 fuses on 104SP power supply board		
OO	**PHASE ERROR**	**Absence or reversal of phases (EDF mains supply)**
Detection of this fault can be deactivated by the configuration menu Reverse phases L1, L2, L3 and check voltage between each phase on control panel's input terminal block.		
ALARM	**CAR LIGHTING**	**The car lighting is out of order**
The car is illuminated by emergency lighting. Check car lighting power supply. The car goes to the destination floor and goes out of service - The 211SP board LCP LED and the 212SP board D2 LED must be ON, check the 212SP board's LCP fuse		

4.4.2 Lift

LIFT		
ALARM	**STRICKEN FLOOR**	One or more levels are stricken
- Check inputs on 217SP board		
ALARM	**FIRE CALL**	The lift is called by the firemen
Check manual call input CPO-216SP and stricken levels		

4.4.3 Control panel

CONTROL PANEL		
OO	**217SP N°XX OO**	**217SP extension board is out of service**
The control panel no longer manages to interact with 217SP expansion boards. - Check that the configuration switch is in the correct position - Check the connector CN1/ 217SP then do a reset. - If the problem persists, change the 217SP then 216SP board.		
OO	**223SP N°XX OO**	**223SP extension board is out of service**
The control panel no longer manages to interact with 223SP extension boards. Check the connector CN3 /223SP, do a reset, change the 223SP then 211SP board. **XX = 00** for board with **SW1** 1 =OFF **XX = 01** for board with **SW1** 1 =ON		
OO	**MACHINE BUS OFF**	**Frequency inverter bus is cut off**
Serial communication with the frequency inverter is cut off. - Check CN6M / 216SP - Check the CANopen connector of the frequency inverter - Change 216SP board		
OO	**MULTIPL BUS OFF**	**Multiplex bus is cut off**
Serial communication between the machinery board (216SP board) and the other 216SP boards of other battery control panels is cut off - Check CN8M / 216SP - Check the presence of resistors at the each extremities of the multiplex bus		
OOM	**WINCH BOARD**	**Communication fault with winch board 220SP**
Serial communication between the machinery board 216SP and the winch board 220SP - Check CN4M/216SP		
ALARM	**FAULTY SD**	**Files error on SD card**
The controller is not able to write files on the SD card due to deficient sectors found. The Lift is still working but it's not possible to modify any settings. - Change the SD card and contact our AfterSales department in order to recover your files.		
ALARM	**SD WRITING**	**Files error on SD card**

The writing of parameters file failed and is not possible anymore. The Lift is still working but it's not possible to modify any settings. - Change the SD card and contact our AfterSales department in order to recover your files.		
ALARM	**FILE OPEN**	**Parameter file is unreadable**
The controller's parameter file is unreadable or not present on the SD card. The Lift is still working but it's not possible to modify any settings. - Change the SD card and contact our AfterSales department in order to recover your files.		
ALARM	**CONFIG VERSION**	**Invalid parametre file**
The controller's parameter file is not compatible with the software version of the controller. The Lift is still working but it's not possible to modify any settings. - Change the SD card and contact our AfterSales department in order to recover your files.		
OO	**CONFIG SDCARSD**	**Configuration fault**
No valid configuration exists in the controller (nor in memory neither on SDcard). The controller and so the lift can't operate. - Change the SD card and contact our AfterSales department in order to recover your files.		
ALARM	**DIAL LIFT. N°XX**	**Error on CAN multiplex communication**
The "CAN" communication between the control panels is not operating correctly. The lifts can operate in multiplex. - Check the CN7M / 216SP and CN8M / 216SP connectors - Check the that the cable is not near from a power cable		
ALARM	**MULTIPLEX NUMB**	**Error of the lift identification on the multiplex bus**
At least, 2 lifts have the same lift number - Modify the number of one lift in the menu IDENTIFICATION		
ALARM	**CLOCK OFF**	The 216SP board's clock is not working
- Change the 216SP board		
ALARM	**CLOCK SETTING**	The clock is not set.
- Please set time and date in the CONFIGURATION -> CONTROL PANEL		
ALARM	**MISSING SD 211**	La SD card of 211SP board (car roof) is missing.
Therefore vocal messages can't be broadcasted anymore. - Check if the SD card is present and properly inserted. - Otehrwise, replace the SDcard		
ALARM	**211 INIT AUDIO**	The audio system of 211SP had to be reinitialized
An audio file could not be broadcast, the problem has been detected and corrected by the 211SP card. This defect is just informative, everything works as before.		
ALARM	**SECU SOFTW XX**	**Software security**
This fault is a software security. - Make a reset and inform our After Sales department.		
OO	**DBD SWITCHED ON**	**Door Bypass Device was engaged**
This device is engaged and therefore , the lift can't operate in normal user mode. Only emergency recall operation and inspection mode are allowed)		

4.4.4 Car boards

CAR BUS		
OO	**COMM. BOARD 211**	**Communication error with 211SP board**
CANbus communication between the car (211SP board) and the machinery (216SP board) is not operating correctly - Check the CN5M / 216SP connector and PE1 / 211SP connector - Check cabling in inspection box. Ensure that the high voltage wires do not go over the top of the 211SP board. - In case of door control by 380V, ensure that the 69SP filters are connected		
OO	**211SP REPROGR.**	Error on car roof 211SP board programming
- Make a new software update of the control panel - Change the 211SP board		
OO	**211SP VERSION**	**The software version of the 211SP car is wrong**
- Make a new software update of the control panel		
ALARM	**COMM 230 SP #XX**	**Communication error with 230SP board**
CANbus communication between the car (230SP board) and the machinery (216SP board) is not operating correctly - Check the CN5M / 216SP connector and CN1 / 230SP connector		
ALARM	**230 #XX REPROGR.**	Error on 230SP Bluetooth board programming
- Make a new software update of the control panel - Change the 230SP board		
ALARM	**230SP #00 VERS.**	**The software version of the 230SP car is bad**
- Make a new software update of the control panel		
ALARM	**230SP #XX SAME ID**	**The both 230SP boards have the same Canbus ID**
- Make a new software update of the control panel		
ALARM	**COMM. FLEXYPAGE #X**	**Communication error with flexyPage (#1 or #2)**
- Check the CAN bus connection of the flexyPage		

4.4.5 Floor boards

FLOOR BOARDS		
ALARM	**COM BOARD N°XX**	**Communication error with a floor board**
The 216SP board meet some communication error with a floor board - Verify the connectors - Change the 228SP or 137SP board		
ALARM	**WRONG VERS. N°XX**	**Wrong software version of the floor board**
The software version of the floor board is not compatible with the control panel software.		

- Make a new software update of the control panel
ALARM REPROG BOARD N°XX Software upgrade error of a floor board
The software upgrade of floor board N°XX didn't ended properly - Try once again a new software upgrade - Change the board
ALARM SAME ID N°XX Two floor boards have the same identifier
- Modify the switches position of the floor boards
ALARM COMM. FLEXYPAGE #X Communication error with flexyPage (#1 or #2)
- Check the CAN bus connection of the flexyPage
ALARM COMM. PIT INSPEC. Communication error with the pit inspection board 137SP
The 216SP board met some communication error with a the pit inspection board 137SP - Verify the connectors - Change the 137SP board
ALARM VERS. PIT INSPEC. Wrong software version of the pit inspection board 137SP
The software version of the pit inspection board 137SP is not compatible with the control panel software. - Try once again a new software upgrade
ALARM PROG. PIT INSPEC. Software upgrade error of the pit inspection board 137SP
The software upgrade of the pit inspection board 137SP didn't ended properly - Try once again a new software upgrade - Change the board
ALARM ID. PIT INSPEC. Two boards have the identifier of the pit inspection board 137SP
- Check the DIPs of the floor boards. - Only one shall have ID number #27. (ID number dedicated to the pit inspection board 137SP).

4.4.6 Shaft reader

READER		
ALARM	**CELL C**	**Cell detection error door area**
- Check the reader's "cell C"		
ALARM	**FLAG READER**	**Flag reader error**
This fault makes a car repositioning for reader calibration. - Check the placement of the counting flags - Check the reader position - Check flag position with sequences imposed by the configuration (Crosse-over, close levels)		
OO	**DTC INPUT**	**The reader 224SP is out of service**
- Check the configuration matches the reader in place. - Check connection of DTC inputs, C, A, B on CB3-211SP connector (a disconnected wire on one of the inputs causes a DTC error). - Check operation of 224SP reader		
ALARM	**READER ERROR**	**Reader internal error**
- Change the reader		
OOM	**RECALIBRATION**	**Reader recalibration error**
Check flags, sensor installation and state of rockers or ILS of top and bottom decelerators.		
OOM	**RECALI CELL XX**	**Magnetic reader error**
Check flags, sensor installation and state of rockers or ILS of top and bottom decelerators. **XX = A** : Check cell A is operating correctly **XX = B** : Check cell B is operating correctly **XX = AB** : Check cells A and B are operating correctly		
ALARM	**LOSS DOOR AREA**	**Loss of door area while car is stopped**
The doors are closed automatically if the "DOOR AREA" signal is lost during opening or when stopped - Check the cell C for a magnetic selection, check the distance between the sensor and the magnet - Check the position of the door area screen for an optical selection. - Check the operation of 224SP optical reader.		
ALARM	**OUT OF DOOR AREA**	**Door opening request outside area**
The car wanted to open its doors without the door area being detected. . - Check the reader, check the door area, check the safety chain		
OO	**DOOR AREA ON**	**The door area is always active.**
The door area information is always active on the controller, whatever the car position . - Check cell C for magnetic reader. - Check the operation of 224SP optical reader.		

4.4.7 K04SP/K05SP

K04SP/K05SP		
OO	**DIAL COM**	**The com can't be established with the reader**
- Check CB11 / 211SP - Check that the cable is not near a power cable		
OO	**ERR. POSITION**	**Floors position error**
- Restart a shaft learning procedure		
OO	**OUT OF WORK AREA**	**The reader is out its work area**
- Remake a reader calibration at each floors		
OO	**BATTERY**	**The battery is out of services (K04SP only)**
- Replace the K04SP		
OO	**TEMPERATURE**	**La temperature is too high (K04SP only)**
- Check the reader temperature		

4.4.8 Safety chain

SAFETY CHAIN		
OO	**CHAIN POWER**	**Safety chain power supply fault**
- Check the safety chain power supply - Check the fuse CHS on the 214SP board. The CHS LED must be ON		
OO	**EMERGENCY STOP**	**Lift in emergency stop**
- Check the primary safety chain : MACHINERY STOP, STOP RECESS, PARACHUTE, SPEED GOVERNOR, TENSION PULLEY		
ALARM	**SHORT CIRCUIT**	**The chain may be short circuited**
On door opening, the control panel has not detected the disappearance of SHUNT or LOCKING. - Check that the doors open when they are commanded - Check opening of the shunt in automatic door and locking in manual door during opening - Check the door opening time		
OOM	**END LIMIT SWITCH**	**Lift at end limit**
- Check the distance of DHCS contact hydraulically - Check the distance of FCH and FCB contacts electrically		
OO	**SH TOE GARD**	**Shunt toe gard**
The retractable toe-gard is permanently shunted by the cam « detect 1m » that is at the bottom level. - Check the switch.of the cam « detect 1m »		
ALARM	**SHUNT**	**SHUNT detection problem**

During door closing, the shunt has not been detected after several attempts.

- Check cabling and correct operation of SHUNT
- Check the door closing time covers the actual time for door closing
- Check if CLS does not appear too soon before the SHUNT or if it is not simply disconnected

ALARM	**LOCKING**	**Door locking problem**

The doors are not locked after several attempts

- Check correct operation of locking

ALARM	**MOV. LOCKING**	**Breaking LOCKING while moving**

- Check that the locks' wheels are not hooked by the cam or the door clip during movement

4.4.9 Levelling

The levelling and relevelling faults are detected and managed in compliance with chapter 5.6.7 of EN81-20:2014 standard.

LEVELLING		
OO	**SAFETY RELAY ON**	**The safety relay is active even though the control panel is not in "levelling operation"**
The VISO contactor's state is continually controlled to avoid any safety risk - Check the contactor, change the power board 220SP		
ALARM	**VISO OFF**	**The VISO contactor is not active even though the levelling order is present**
The contactor's state is continually controlled to avoid any safety risk - Check the contactor, change the power board 220SP		
OO	**LEV. TOO LONG**	**The "LEVELLING TIME" time limit has passed**
The car has not succeeded in reaching the level within the time limit, in case of backstop, the car goes to its security level - Check the security relay is engaged in ISO area - Check the reader, check the electric plant, increase the "LEVELLING TIME" time limit		
OO	**LEV REPEATED**	**Levelling counter at the max value**
The number of car levelling has been exceed during the 2 minutes In case of backstop, the car goes back to its security level. Only erasing these faults puts the car in service again. - Check reader, check the hydraulic circuit		
OOM	**SAFE.REL.CUTOFF**	**The car went out of the door area while levelling or relevelling**
The car went out of door area with doors opened, while levelling (preopening of the door) or relevelling. - Check the position of the magnet for the door area - Check your braking system		
OOM	**ELECTRIC DRIFT**	**The lift is blocked in backstop "NF82-212"**
The car has backstop upwards doors closed for grip winch or downwards for coupled winch Or car has backstop "doors open" and "out of ISO area" before the LEVELLING function can bring car to level. - Check brake function, check reader and erase flag from stop area if necessary This fault keeps lift out of order even in case of mains power cut. The memorised faults must be erased for the lift to go back into service again.		

4.4.10 Movement

MOVEMENT		
OO	CONTACTOR STICK	**Check if motor control contactors are sticking when a move request**
The power contactors are not stuck when requesting movement. The equipment remains out of order during the **"BLOCKED CAR TIME**" then comes into service again. - Check power contactors' control loop - Check the input CC-CN14I / 220SP		
ALARM	**CONTACTOR CHECK**	**Check if contactors are released before a start**
The power contactors are stick before a move request - Check air gap between contactors, clean them - Verify the input CC-CN14I / 220SP		
ALARM	**CONTACTR UNSTICK**	**Check if contactors are released after a travel**
The power contactors aren't unstuck after a car travel - Check air gap between contactors, clean them - Verify the input CC-CN14I / 220SP		
ALARM	**SLIDING**	**Car sliding**
Car sliding out of the door area causes re-levelling of car - Check the brake, valves, cable grip		
ALARM	**ACCELERATION**	**A sudden acceleration has been detected while moving (K04SP only)**
During a car movement command, the controller checks that acceleration doesn't exceed the threshold set (see §2.10). This control of acceleration is intended to detect a breaking of the K04SP belt. - Adjust the value the **MAX ACCELER.** parameter (**see §2.10**).		
OOM	**SKIDDING DISTANC**	**The distance travelled during 10s is too short. (K04SP & K05SP readers only)**
During a car movement command, the distance travelled during 10s by the car is only about few centimeters. - Check the brake, valves, cable grip, motor power supply, inverter…		
OOM	**SKIDDING**	**The car has not moved on a command from control panel**
This fault is detected if the controller doesn't receive any information from the reader during the time set (see §2.10) - Check the shaft reader. Brake, motor power supply, variator etc.… - Adjust the "**NO CAR MOVEMENT**" parameter (see §2.10)		
ALARM	**STOP PRECISION**	**Stop precision**
The car doesn't stop at the level with a good precision. The reader encroachment on second stop screen on arrival at level. Check spacing between stop flag , speed variator's deceleration slopes, distance between slowing down and stop flags		
OO	**BOT DECELERATOR**	**The bottom decelerator switch isn't detected**
- Check operation of bistable ILS or switches, check ILS or bistable rocker is active until stop on level.*This fault is detected only in normal mode.*		
OO	**TOP DECELERATOR**	**The top decelerator switch isn't detected**

- Check operation of bistable ILS or switches, check ILS or bistable rocker is active until stop on level. *This fault is detected only in normal mode.*		
OO	**DECELERATORS**	**The TOP and BOTTOM decelerators are both active**
- Check operation of bistable ILS or switches - Check connection of CB2 / 211SP *This fault is detected only in normal mode.*		
ALARM	**MOV. DIRECTION**	**Control order different from car's movement direction**
The direction commands from control panel do not match the reader's movement direction. If the car is moving in the correct direction, check that spacing between screens is sufficient This fault causes a recalibration of the reader - Check sensor installation, reverse motor phases		
OO	**THERMAL PROBE**	**Motor overheating**
If the motor thermal probe fault appears when car is stopped, the lift is immediately out of order until fault disappears. If the fault is detected during a movement, the car stops at the next landing and remains out of order until the fault disappears. - Check motor ventilation, motor thermal probe		
OO	**CC THERMAL PROBE**	**Fault motor thermal probe sensor**
Check motor's thermal probe connected on connector ST-CN12 / 220SP		
ALARM	**EXIT FROM COURSE**	**The lift has gone beyond limits of its normal course**
The fault causes a recalibration of the reader - Check programming of level number, check slowing down distance		
ALARM	**MAX LS TIMER**	**Maximum movement time at low speed elapsed**
Check low speed time in the configuration, check bottom level slowing down distance		

4.4.11 Doors

DOOR **XX = S1** : service door 1 **XX = S2** : service door 2		
ALARM	**CELL XX**	**Cell protection**
The door has not managed to close due to CELL protection. - Check correct operation of cell. Door 1 Connectors : CPC1-CB8 /211SP or CPC1-CB19 /210SP. Door 2 Connectors : CPC2-CB36 /223SP or CPC2-CB16 /210SP.		
ALARM	**SHOCK XX**	**Shock protection**
The door has not managed to close due to shock protection. - Check shock contact. Connector CHC1-CB8 /211SP (door 1) or CHC2-CB36 /223SP (door 2)		
ALARM	**CLOSING LS XX**	**No detection of door service closing limit switch**
The closing limit switch has not been detected when closing the door - Check correct operation of CLS. Connector FCF1-CB8 /211SP (door 1) or FCF2-CB36 /223SP (door 2) - Adjust door closing time - If your door does not have a CLS, indicate this in the door configuration		
ALARM	**OPENING LS XX**	**No detection of door service opening limit switch**
The opening limit switch has not been detected when opening the door - Check correct operation of OLS. Connector FCO1-CB8 /211SP (door 1) or FCO2-CB36 /223SP (door 2) - Adjust door opening time - If your door does not have an OLS, indicate this in the door configuration		
OO	**THERMAL PROBE XX**	**Door's Motor overheating**
If the motor thermal probe fault appears when car is stopped, the lift is immediately out of order until fault disappears. If the fault is detected during a movement, the car stops at the next landing and remains out of order until the fault disappears. - Check motor ventilation, motor thermal probe		
ALARM	**SR OFF/OPENING**	**Problem with the safety relay during pre-opening of the doors**
The safety relay didn't close for the doors pre-opening request - Check the right location of the door zone magnet - Check the trigger level of pre opening operation in the menu.		
ALARM	**OVRSPD/OPENING**	**Overspeed detected during pre-opening of the doors**
The car's speed exceeded 0,8 m/s at the beginning of doors pre-opening operationa(**cf 5-12-1-4c EN81-20**) - Check the deceleration distance in the menu		
OOM	**HOISTWAY ACCESS**	**An abnormal access in the hoistway has been detected**
A landing door has been detected opened for more than 8 seconds ,out of a normal car parking .		

4.4.12 Overspeed

OVERSPEED		
OOM	**USER OPERATION**	**Overspeed in user operation**
The car speed exceeded the value allowed in user operation - Check your parameters in the OVERSPEED menu - Check the inverter parameters		
OOM	**INSP OPERATION**	**Overspeed in inspection operation**
The car speed exceeded the value allowed in inspection operation - Check your parameters in the OVERSPEED menu - Check the inverter parameters		
OOM	**EMCY OPERATION**	**Overspeed in emergency operation**
The car speed exceeded the value allowed in emergency operation - Check your parameters in the OVERSPEED menu		

4.4.13 Temperature

TEMPERATURE		
OO	**PANEL T° > MAX T° ou PANEL T° < MIN T°**	**Exceeding operating temperature in control panel**
The 216SP board is equipped with an internal temperature sensor. The control panel if put out of order if the temperature exceeds the temperature authorised in the configuration menu - Check the temperature indicated by the sensor menu: "DIAGNOSTIC -> TEMPERATURE - > 216SP SENSOR" - Check temperature threshold of control panel "CONFIGURATION ->EQUIPMENT->216SP MAX T"		
OO	**MACH T° > MAX T° ou MACH T° < MIN T°**	**Exceeding operating temperature in machinery**
132PK external temperature sensors may be connected on MC2-M connector of 216SP board - Check the temperature indicated by the sensor in the menu: "DIAGNOSTIC -> TEMPERATURE - > EXT SENSOR **XX**", **XX** equal to 1 to 3 depending on number of sensors connected - Check temperature threshold in the configuration "CONFIGURATION ->EQUIPMENT-> MAX MACHINE TEMP"		
OO	**132PK PROBE OO**	**Temperature probes are not responding**
- Check the 132PK probes connection on MC2-M connector of 216SP - Check that the configuration matches the number of probes connected		
OO	**216SP PROBE OO**	**The 216SP board temperature probe does not respond**
- Change the 216SP board		

4.4.14 Hydraulic hoist

HYDRAULIC		
OO	**DOWN VALVES OFF**	**Check the down travel valve during car movement**
The contactor «down travel valve » hasn't been set on a control panel order. The lift goes in "out of service mode" during all "CAR BLOCKED" timing and goes back in service after. - Check the contactor - Change the 226SP board		
ALARM	**DOWN VALVES ON**	**Check the down travel valve during car stop**
The contactor «down travel valve » hasn't been released on a car stop - Check the contactor - Change the 226SP board		
OO	**OIL PRESSURE**	**The oil's pressure is too high**
If the oil pressure fault appears when car is stopped, the lift is immediately out of order until fault disappears.		
ALARM	**SAFETY CH RESCUE**	**Check the safety chain in rescue mode**
The safety chain is open, the rescue down travel isn't possible - Check the safety chain. - Change the 226SP board		
OO	**OIL TOO HEAT**	**The oil's temperature is too high**
If the thermal probe fault appears when car is stopped, the lift is immediately out of order until fault disappears. If the fault is detected during a movement, the car stops at the next landing and remains out of order until the fault disappears. - Check the temperature of the oil in the reservoir - Check the probe connected to STH -CN13I / 220SP input		
OOM	**A3 VALVE FAILURE**	**Detected only during A3 automatic test**
During automatic test of A3 valve, the car has moved downward, while driving only the standard downward valve. A3 valve may be damaged .		
OOM	**DOWN VALVE FAIL.**	**Detected only during A3 automatic test.**
During automatic test of A3 valve, the car has moved downward, while driving only the A3 valve. The standard downward valve. may be damaged ..		

4.4.15 GMV NGV A3 Hoist faults

GMV NGV A3		
OOM	READY NGV A3 OFF	Ready signal error on stop
Lift stopped.		
OOM	RUN NGV A3 OFF	Run signal error while moving..
While moving.		
OOM	READY NGV A3 ON	Ready signal error while moving..
While moving.the car is moved to the closest floor.		
OOM	RUN NGV A3 ON	Run signal error on stop..
Lift stopped.		

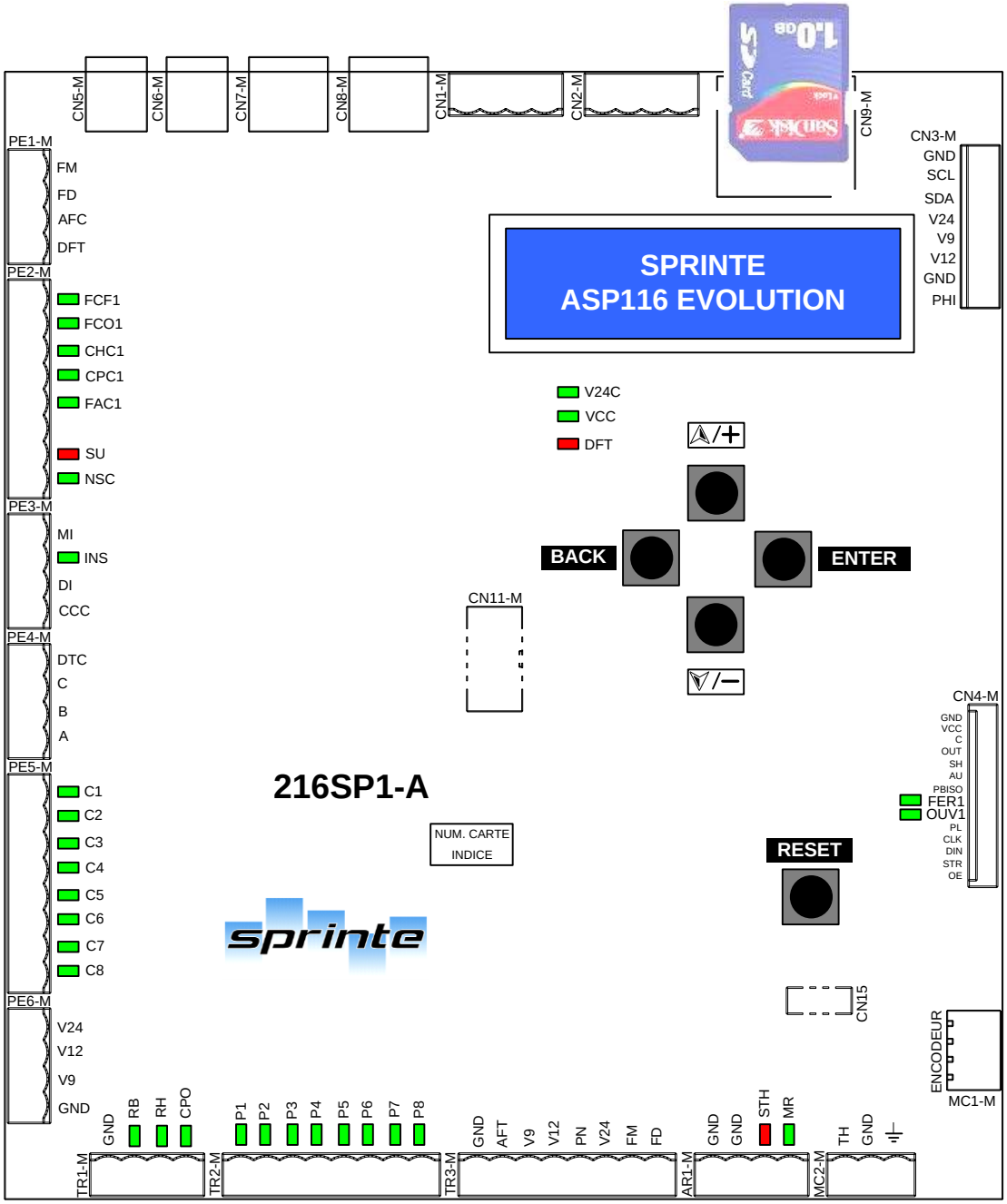
4.4.16 BUCHER iVALVE Hoist faults

BUCHER IVALVE		
OOM	SMA IVALVE STOP	SMA signal error on stop
A l'arrêt.		
OOM	SMA IVALVE MOV.	SMA Signal error while moving
While moving.		

5 Electronics boards

5.1 Electronics board in machinery

5.1.1 Lift controller boards « 216SP »



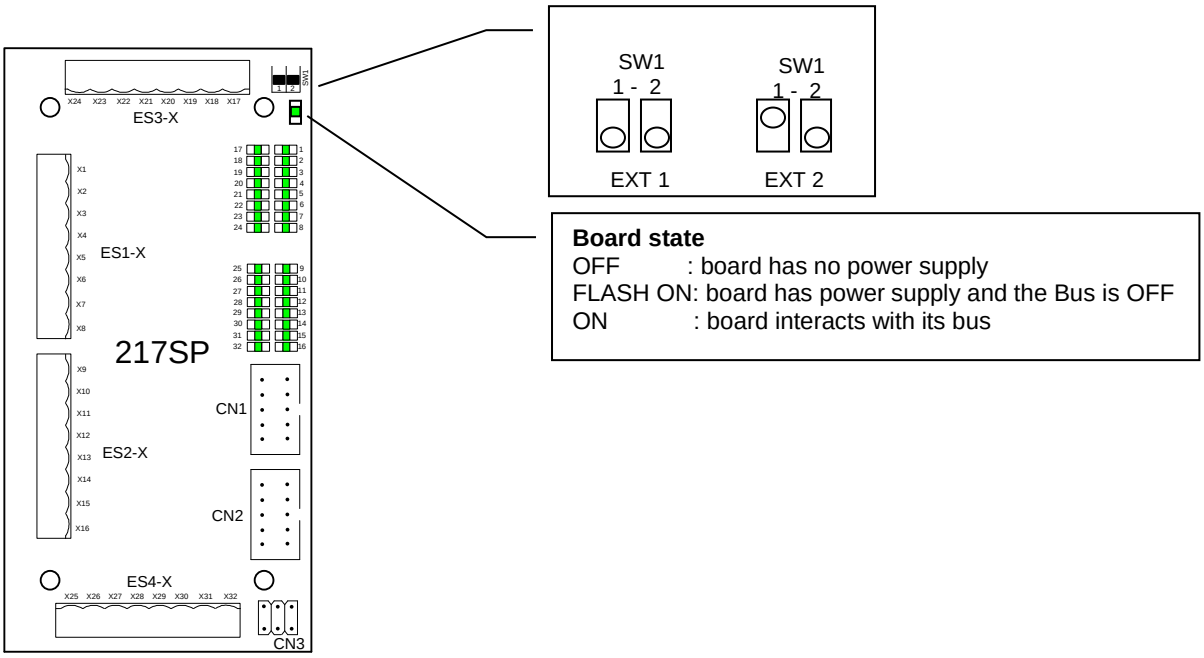
CN4-M
Connector connecting 216SP controller board to power board 220SP
CN3-M
Connector connecting 216SP controller board to 214SP power supply board
CN11-M
Connector connecting 216SP controller board to 217SP expansion boards

outputs « < » ; inputs NO « > » inputs NC « > / »

PE1-M		**AR1-M**	
< FM	(not used)	< GND	ground
< FD	(not used)	< GND	ground
< AF	(not used)	> STH	Oil heat switch
< DFT	Out of service	> MR	Emergency operation switch
PE2-M		**MC2-M**	
> / FCF1	(not used)	> TH	Machinery heat switch
> / FCO1	(not used)	< GND	ground
> CHC1	(not used)	< masse	screening
> / CPC1	(not used)	**MC1-M**	
> FAC 1	(not used)	> 1	(not used)
< GO	GONG	< 2	(not used)
> SU	Overload	< 5	(not used)
> / NSC	No full stop	< 8	(not used)
PE3-M		**CN2-M RS485**	
> MI	Inspection up	< 1	Data + (A)
> INS	Inspection switch	< 2	Data – (B)
> DI	Inspection down	< 3	GND
> CCC	(not used)	< 4	GND
PE4-M		**CN1-M RS485**	
> DTC	(not used)	< 1	Data + (A)
> C	(not used)	< 2	Data – (B)
> B	(not used)	< 3	GND
> A	(not used)	< 4	GND
PE5-M		**CN5-M**	
>C1 à C8	Car and floor buttons	< 1	24 V
PE6-M		< 2	ground
< V24	24 V DC	< 3	24 V
< V12	12 V DC	< 4	ground
< V9	9 V DC	< 5	CANH
< GND	ground	< 6	CANL
TR1-M		**CN6-M**	
< GND	ground	< 1	24 V
> /RB	(not used)	< 2	GND
> /RH	(not used)	< 3	24 V commanded
> /CPO	Fire man key	< 4	ground
TR2-M		< 5	CANH
> P1 à P8	Car and floor buttons	< 6	CANL
TR3-M		**CN7-M et CN8-M**	
< GND	ground	< 1	24 V
< AF	Landing display	< 2	GND
< V9	(not used)	< 3	24 V
< V12	12 V DC	< 4	ground
< PN	ground	< 5	(not used)
< V24	24 V DC	< 6	(not used)
< FM	Up arrow	< 7	CANH
< FD	Up arrow	< 8	CANL

LED	STATUS	INFORMATION
V24C	ON	24V commanded
VCC	ON	216SP board powered
DFT	ON	Indicates that the device is not working the LED flashes if boot is faulty
CABINE		
MACHINE		
MULTIPLEX		
FCF1	ON	(not used)
FCO1	ON	(not used)
CHC1	ON	(not used)
CPC1	ON	(not used)
FAC1	ON	(not used)
SU	ON	110% of maximum authorised car load reached.
NSC	ON	80% of maximum authorised car load reached.
INS	ON	(not used)
CCC	ON	(not used)
DTC	BLINK	(not used)
C	OFF	(not used)
B	OFF	(not used)
A	OFF	(not used)
C1 à C8	ON	Sending taken into account.
RB	ON	(not used)
RH	ON	(not used)
CPO	ON	Fireman's key activated.
P1 à P8	ON	Call taken into account.
STH	ON	(not used)
MR	ON	Control panel in emergency mode
OUV1	ON	Door 1 opening command activated.
FER1	ON	Door 1 closing command activated.

5.1.2 217SP expansion board

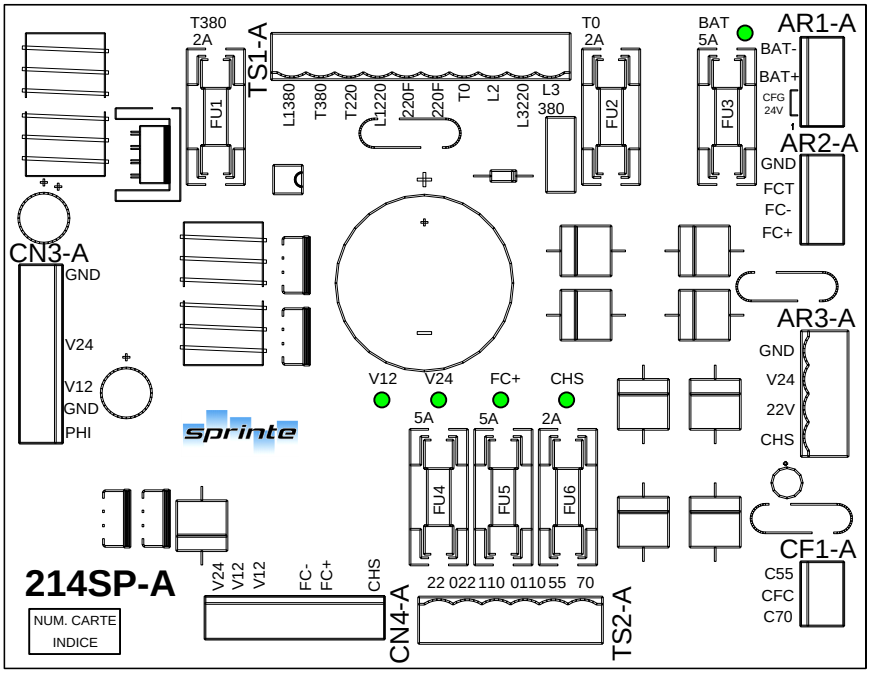


outputs « < » ; inputs NO « > » inputs NC « > / »

CN1	CN2
Connector connecting the 217SP expansion board to the 216SP board	Connector connecting the 217SP expansion board no. 2 to the 217SP expansion board no. 1
CN3	
Not used	
ES1-X, ES2-X, ES3-X, ES4-X	
X1 à X32 Expansion board inputs / outputs X25 BUZZER output forced closing of doors X26 Service 1 nudging output	

LED	STATUS	INFORMATION
1 à 32	OFF	Expansion board inputs / outputs activated

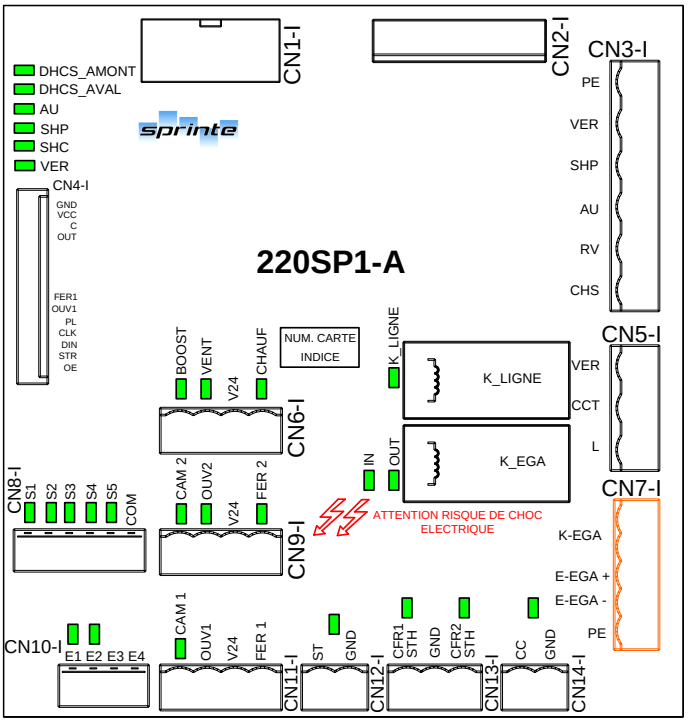
5.1.3 214SP Power supply board



CN3-A	➔ CN3-M / 216SP
V24	24 V dc
V12	12 V dc
GND	ground
PHI	Detection of reversal or missing phase
CN4-A	**➔ CN2-I / 220SP, CN2-0 / 225SP**
V24	24 V dc
V12	12 V dc
GND	ground
FC-	-55 V or -70 V dual alternating
FC+	+55 V or +70 V dual alternating
CHS	110 Vac safety chain
TS1-A	**➔ transformer, terminal block**
L1.380	Entry 400V mains GRID (400V TRI)
T380	Entry 400V from transfo
T220	Output 230V from transfo
L1.220	Entry 230V mains EDF (230V MONO)
220F	Output 230V from transfo
220F	Output 230V from transfo
T0	Output 0V from transfo
L2	Entry 400V mains EDF (400V TRI)
L3.220	Entry 230V mains EDF (230V MONO)
L3.380	Entry 400V mains EDF (400V TRI)

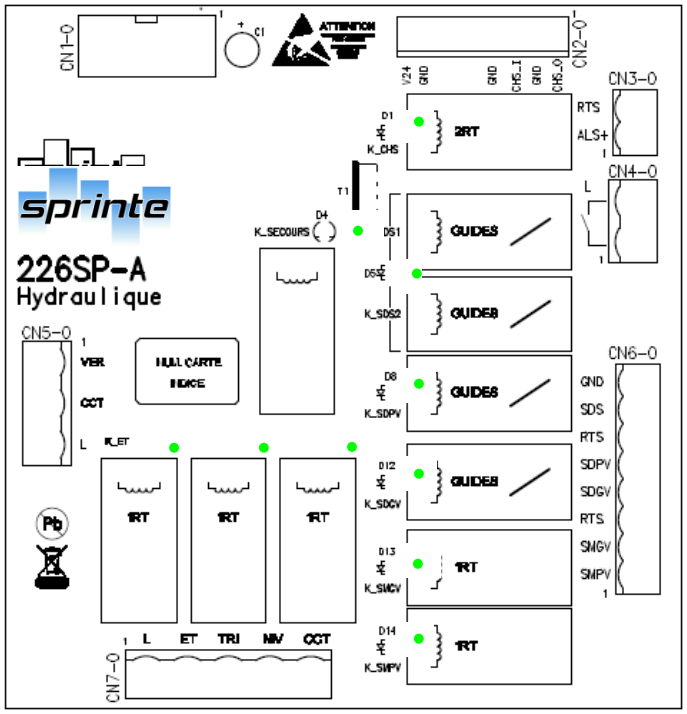
TS2-A	➔ transformer
22	Output 22V from transfo
022	Output 0V from transfo
0110	Output 0V from transfo
110	Output 110V from transfo
55	Output 55V from transfo
70	Output 70V from transfo
CF1-A	**(configuration brake voltage)**
C55	Configuration FC+ / FC- in 55V
CFC	Common Configuration FC+ /FC-
C70	Configuration FC+ / FC- in 70V
AR1-A	**➔ battery, load configuration**
BAT-	Battery supply -
BAT+	Battery supply +
CFG 24V	Config. battery charge in 24Vdc
CFG 24V	Config. battery charge in 24Vdc
AR2-A	**➔ contactors**
GND	ground
FCT	Brake / cam timed
FC-	-55 V or -70 V dual alternating
FC+	+55 V or +70 V dual alternating
AR3-A	**➔ voltage outputs**
GND	ground
V24	24 V dc
22V	Info 24V not safeguarded (max 5A)
CHS	110 Vac safety chain

5.1.4 220SP motor interface board



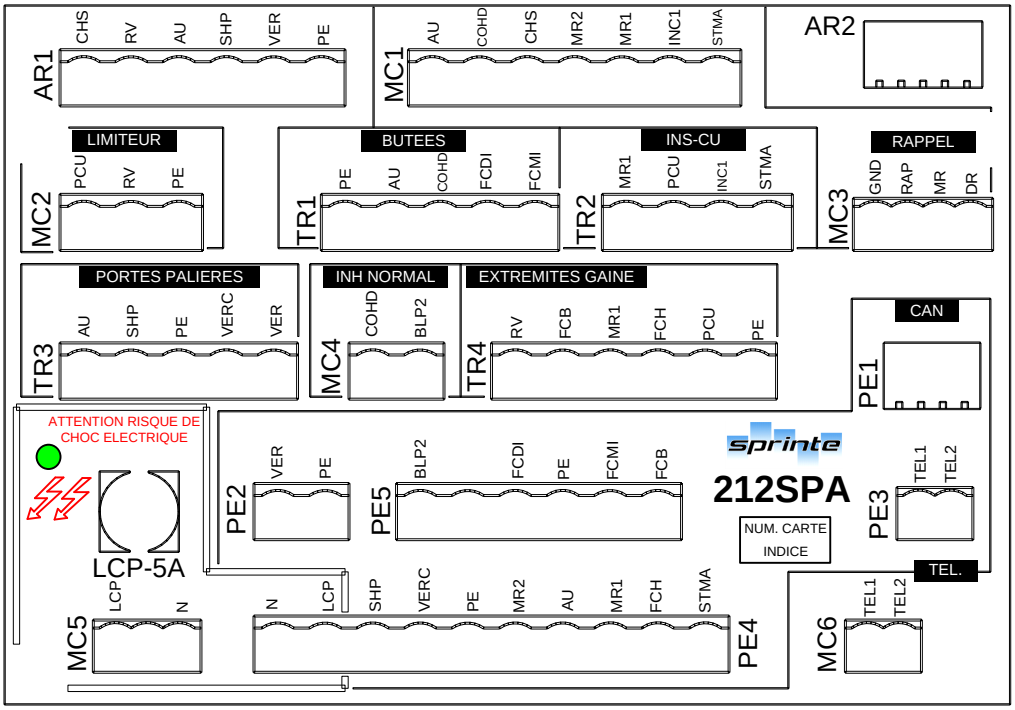
CN1-I	**CN2-I**
Connector connecting the 220SP power board to the 225SP and 226SP expansion boards	Connector connecting the 220SP to the 214SP power supply board
CN3-I Safety chain inputs: 48-230Vac or 24Vdc	**CN4-I**
>PE >VER Locking >SHP Landing shunt >AU Emergency stop >CHS Safety chain power supply	Connector connecting the 220SP power board to the 216SP board
CN5-I	**CN6-I**
<VER Locking <CCT Common contactor <L Line	<BOOST Brake boost control <VENT Fan control V24 <CHAUF Heating control
CN7-I	**CN8-I**
< K_EGA Shaft lighting control > E_GA Shaft lighting detection Opto-isolated / 24 Vdc to 230 Vac PE	<S1 … S5 VF controls COM
CN9-I	**CN10-I**
<CAM 2 Door 2 cam control <OUV 2 Door 2 opening control V24 24 V <FER 2 Door 2 closing control	>E1 Opto-isolated / 12-24 Vdc >E2 Opto-isolated / 12-24 Vdc GND GND
CN11-I	**CN12-I**
<CAM 1 Door 1 cam control <OUV 1 Door 1 opening control V24 24 V <FER 1 Door 1 closing control	>ST Thermal probe GND
CN13-I	**CN14-I**
>STH/CFR1 Oil thermal probe / Brake state GND GND >SPR/CFR2 Brake state	>CC Contactors control GND

5.1.5 226SP Hydraulic expansion board



CN1-0	CN2-0
Connector connected to 220SP power board CNI-I connector	Connector connected to 214SP power supply board CN4-A connector and to 220SP board CN2-I connector
CN3-0	**CN4-0**
>RTS Valve return >ALS+ Valve power supply	>L Line input
CN5-0	**CN6-0**
Connector connected to the CN5-1 connector of 220SP power board	<GND Common emergency descent valve <SDS Emergency descent valve <RTS Valve return <SDPV Low speed descent valve <SDGV High speed descent valve <RTS Valve return <SMGV High speed ascent valve <SMPV Low speed ascent valve
CN7-0	
<L Line output <ET Star contactor output <TRI Triangle contactor output <NIV Levelling contactor output <CCT Common contactor	

5.1.7 212SP safety chain distribution board

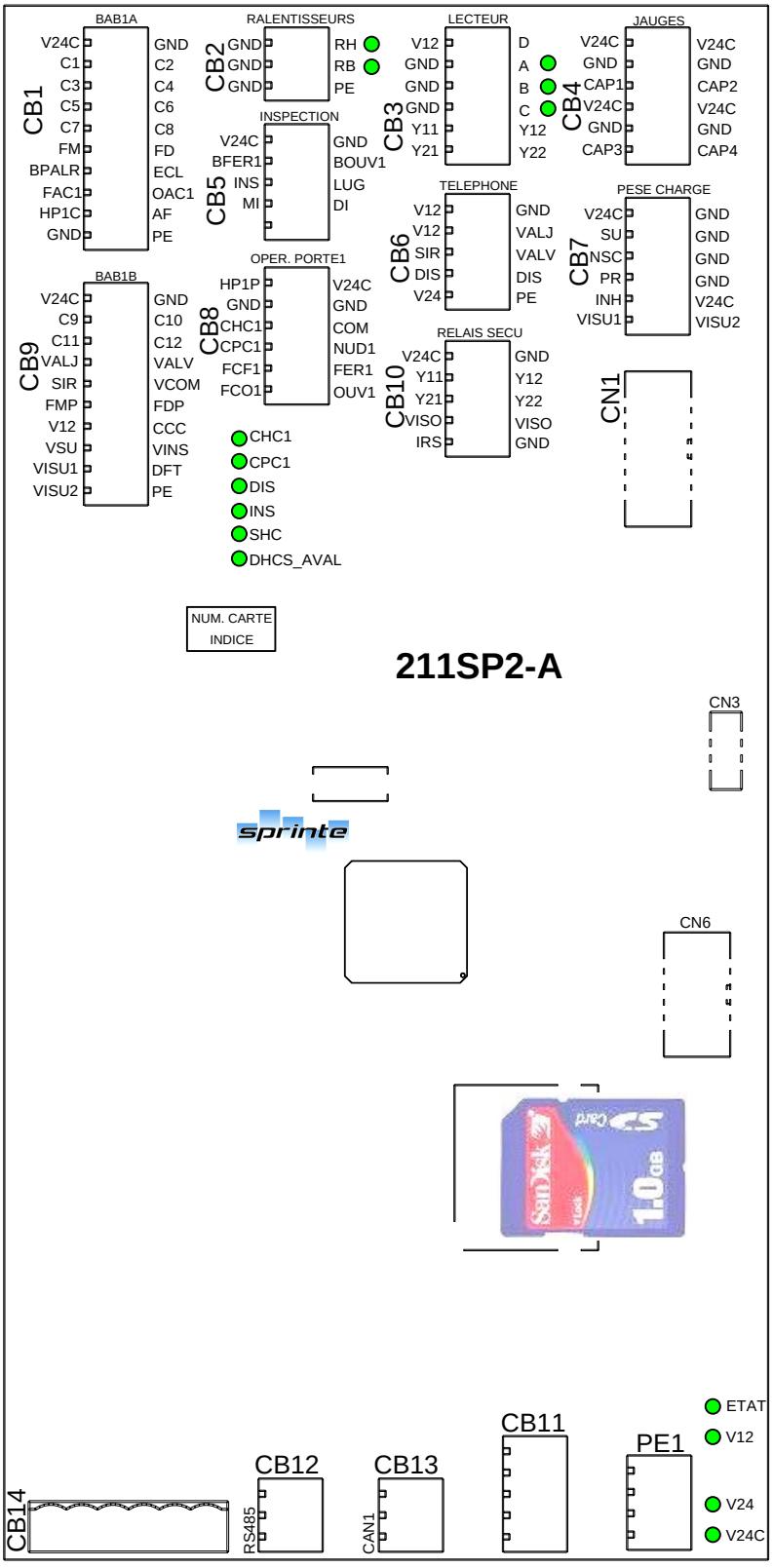


AR1	**MC1**
Connector connecting 212SP board 220SP boards (Safety chain taking information)	Connector connecting call operation to 212SP board (Safety chain)
MC2	**TR1**
Connector connecting speed limiter to 212SP board	Connector connecting the end stops (reduced stand-by option)
TR2	**MC3**
Connector connecting pit inspection (Pit inspection option)	Connector connecting emergency operation to 212SP board (command)
TR3	**MC4**
Connector connecting the shunts and landing lockings (door securities)	Connector connecting top, bottom control (reduced stand-by option)
TR4	**PE2**
Connector connecting shaft safety mechanisms (Stop pit, tightener pulley etc…..)	Connector linking trailing cable to 212SP to 210SP boards (levelling safety)
PE5	**PE3**
Connector connecting trailing cable to 212SP to 221SP boards (reduced stand-by + pit inspection)	Connector connecting the trailing cable to 212SP to 210SP boards (telephone line)
MC5	**PE4**
Connector connecting car light DTU entry to the 212SP board	Connector connecting the trailing cable to 212SP to 210SP boards (main safety chain)
MC6	**AR2**
Connector connecting telephone line entry to 212SP board	Connector connecting the 212SP board to the 216SP board (Call information + CAR CAN BUS)

LED	STATUS	INFORMATION
LCP	On	Continuous 230V power supply (Car lighting)

5.2 Electronic cars in inspection box

5.2.1 211SP car controller board



CB1 - BAB 1A	
<V24C	24 V controlled
<GND	ground
>C1 to C8	Car button 1 to 8
<FM	Up arrow
<FD	Down arrow
>BPALAR	Alarm button
>ECL	Emergency lighting
>FAC1	Accelerated closing service 1
>OAC1	Accelerated opening service 1
>HP1C	Car loud speaker
<AF	Display
<GND	ground
<PE	Equipotential protection

CB4 – load weighing gauge	
<V24C	24 V controlled
<V24C	24 V controlled
<GND	ground
<GND	ground
>CAP1	Input gauge 1
>CAP2	Input gauge 2
<V24C	24 V controlled
<V24C	24 V controlled
<GND	ground
<GND	ground
>CAP3	Input gauge 3
>CAP4	Input gauge 4

CB2 - decelerators	
<GND	ground
>RH	Top decelerator
<GND	ground
>RB	Bottom decelerator
<GND	ground
<PE	Equipotential protection

CB3 - Reader	
<V12	12 V
>D	Reader fault
<GND	ground
>A	Reader input A
<GND	masse
>B	Reader input B
<GND	ground
>C	Reader input C
>Y11	ILS1 input for levelling
>Y12	ILS1 input for levelling
>Y21	ILS2 input for levelling
>Y22	ILS2 input for levelling

CB5 – inspection	
<V24C	24 V controlled
<GND	ground
>BFER1	Closing button service 1
>BOUV1	Opening button service 1
>INS	Inspection button
>LUG	Shaft light button
>MI	Inspection up
>DI	Inspection down
>BTELI	Telephone button
>BTELI	Telephone button

CB6 – telephone

<V12	12V
<GND	ground
<V12	12V
<GND	ground
<BTELI	Telephone button
<BTELI	Telephone button
< DIS	Discriminator (dry contact)
< DIS	Discriminator
<V24	24 V
<PE	Equipotential protection

CB8 – Door 1 operator

<HP1P	Landing loud speaker
<V24C	24 V controlled
<GND	ground
<GND	ground
<CHC1	Shock
<COM	Common outputs opto-coupled doors
>CPC1	Cell safety
>NUD1	Opto-coupled control of forced door closing
>FCF1	Closing end limit
<FER1	Opto-coupled control of door closing
>FCO1	Opening end limit
<OUV1	Opto-coupled control of door opening

CB10 – Safety relay

<V24C	24 V controlled
<GND	Earth
<Y11	ILS1 input to safety relay
<Y12	ILS1 input to safety relay
<Y21	ILS2 input to safety relay
<Y22	ILS2 input to safety relay
<VISO	Levelling request
<VISO	Levelling request
>IRS	Safety relay status
<GND	Earth

PE1 – CANBUS machinery

>V24	Input 24 V
>GND	ground
>V12	Input 12V
BLI	CANBUS shielding
(reserved)	
(reserved)	
>CAN0_H	Input CANBUS 0 HIGH
>CAN0_L	Input CANBUS 0 LOW

CB7 – load weighing

<V24C	24 V controlled
<GND	ground
>SU	Overload
<GND	earth
>NSC	Non stop full
<GND	ground
>PR	Presence
<GND	ground
>INH	Inhibiting load weighing
<V24C	24 V controlled
>VISU1	Analogue overload display
>VISU2	Analogue overload display

CB9 – BAB 1B

<V24C	24 V controlled
<GND	Earth
>C9 à C12	Car button 9 to 12
VALJ	Yellow remote alarm indicator light
VALV	Green remote alarm indicator light
>BTELI	Telephone button
>BTELI	Telephone button
<FMP	Arrow next departure up
<FDP	Arrow next departure down
<V12	12V
CCC	Car priority key
<VISU	Output overload indicator light
<VNSC	Output non stop full indicator light
<VISU1	Overload analogue display
<DFT	Output out of order indicator light
<VISU2	Overload analogue display
<PE	Equipotential protection

CN1 – connection 210SP

Connector connecting the 211SP board to the 210SP board

CN6 – connection 223SP

Connector connecting the 211SP board to the 223SP boards

CB12 –RS485 expansion

<V24C	24 V controlled
<GND	ground
<RS485_H	Output RS485
<RS485_L	Output RS485
<V24C	24 V controlled
<GND	ground

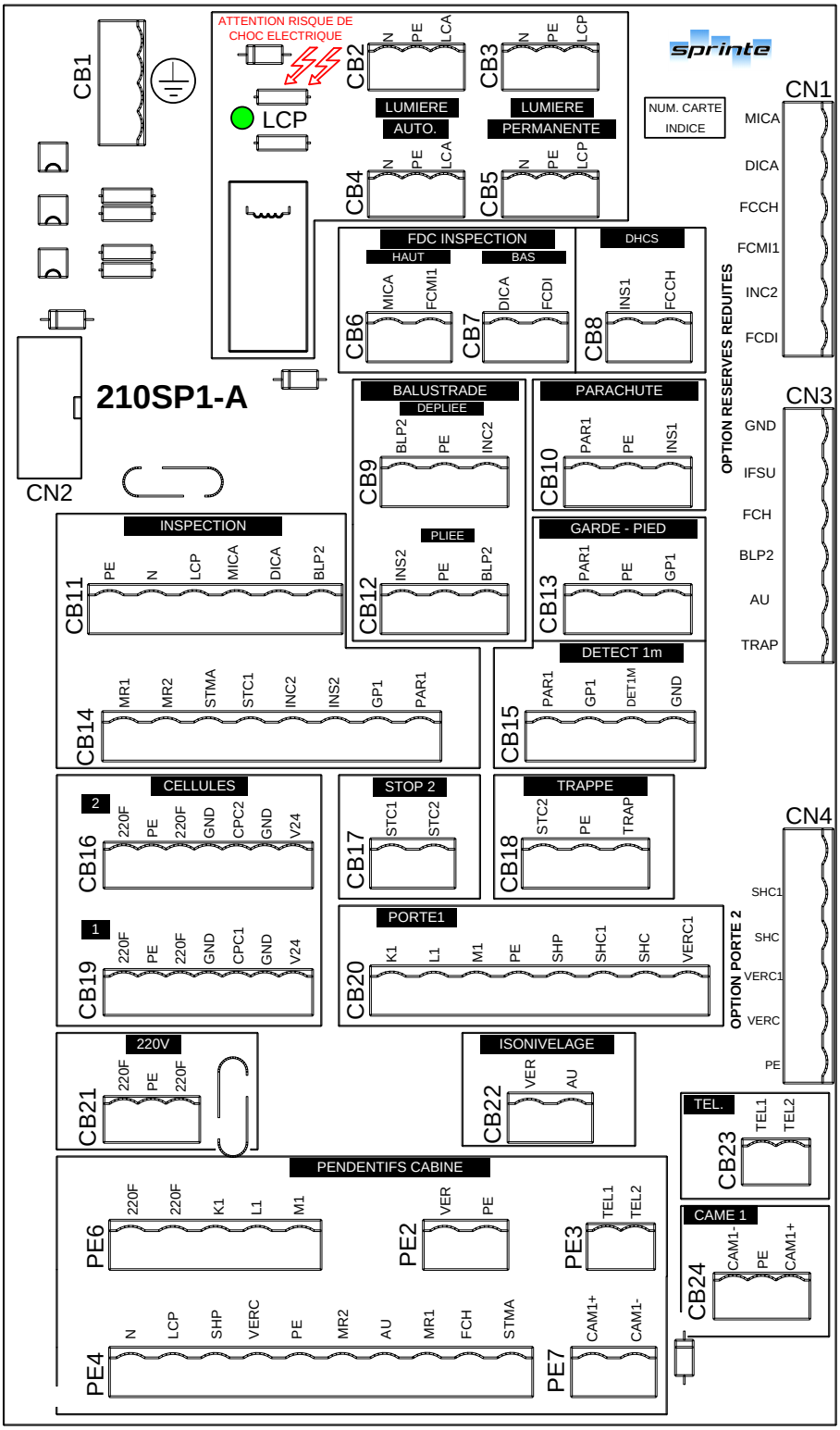
CB11 – CANBUS / RS485 expansion	
<V24	24 V
<GND	ground
(reserved)	
(reserved)	
<SCD_SUIV	Next control
>BLI	Shielding
<RS485_H	Output RS485
<RS485_L	Output RS485
<CAN0_H	CANBUS 0 HIGH
<CAN0_L	CANBUS 0 LOW

CB14 – Power supplies	
<V24	24 V
<GND	ground
<V24	24 V
<GND	Earth
<V12	12 V
<GND	ground

CB13 – CANBUS output	
<V24C	24 V controlled
<GND	ground
<GND	ground
>BLI	Shielding
<CAN1_H	CANBUS 1 HIGH
<CAN1_L	CANBUS 1 LOW

LED	INFORMATION
CHC1	Shock Input
CPC1	Cell output
DIS	Discriminator output
INS	Inspection input
ISHC	
IDHCS_AV	
RH	Top decelerator
RB	Bottom decelerator
A	Reader A input
B	Reader B input
C	Reader C input
ETAT	CANBUS status
V12	12 V present
V24	24 V present
V24C	24 V controlled present

5.2.2 210SP safety chain distribution board

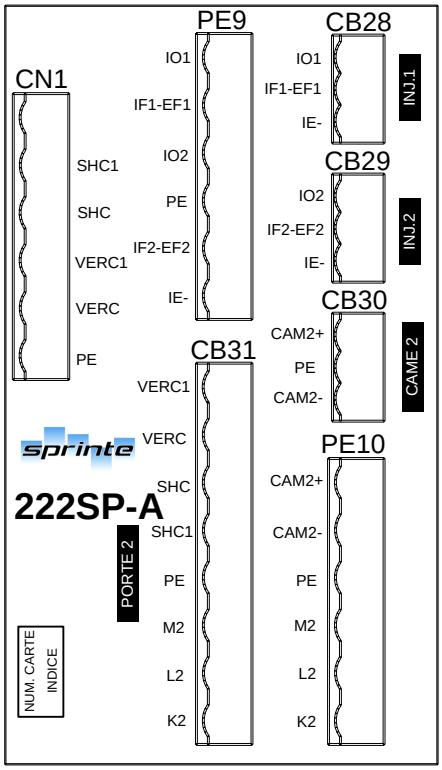


AR1	CB2
Earths connection (PE)	Connection of automatic car light 230V (managed by timer)
CB3	**CB4**
Connection of continuous car light 230V	Connection of automatic car light 230V (managed by timer)
CB5	**CB6**
Connection of continuous car light 230V	Connection of top inspection end limit
CB7	**CB8**
Connection of bottom inspection end limit	Connection of top and bottom inspection end limit
CB9	**CB10**
Connection of folded out balustrade	Connection of safety gear
CB11	**CB12**
Connection of inspection box (Inspection safety + plug car roof)	Connection of folded up balustrade
CB13	**CB14**
Connection of automatic or manual toe-guard	Connection of inspection box (Inspection safety)
CB15	**CB16**
Connection of rocker detection 1 m for automatic toe-guard + contact toe-guard status	Cell connection by 24Vdc or 230Vac (DOOR2)
CB17	**CB18**
Connection of 2nd service stop	Connection of car trap-door
CB19	**CB20**
Cell connection by 24Vdc or 230Vac (DOOR1)	Connection door 1 motor power supply + door safety
CB21	**CB22**
Additional 230V power supply (Power supply provided by transfo in control panel)	Connection of safety relay (levelling door open)
CB23	**CB24**
Connection telephone line on telephone	Connection cam 1 (power supply configurable in control panel)

PE2	PE3
Connector connecting trailing cable to 210SP to 212SP boards (Levelling safety)	Connector connecting trailing cable to 210SP to 212SP boards (telephone line)
PE4	**PE6**
Connector connecting trailing cable to 210SP to 212SP boards (main safety chain)	Connector connecting trailing cable to terminals in control panel (Power supply 220F + Power supply motor)
PE7	**CN1**
Connector connecting trailing cable to terminals in control panel (Power supply cam 1)	Connector connecting 210SP board to the 221SP board (reduced stand-by + pit inspection option)
CN2	**CN3**
Connector connecting 211SP board to 210SP board	Connector connecting 210SP board to the 221SP board (reduced stand-by + pit inspection option)
CN4	
Connector connecting 210SP board to 222SP board (Option 2nd door service)	

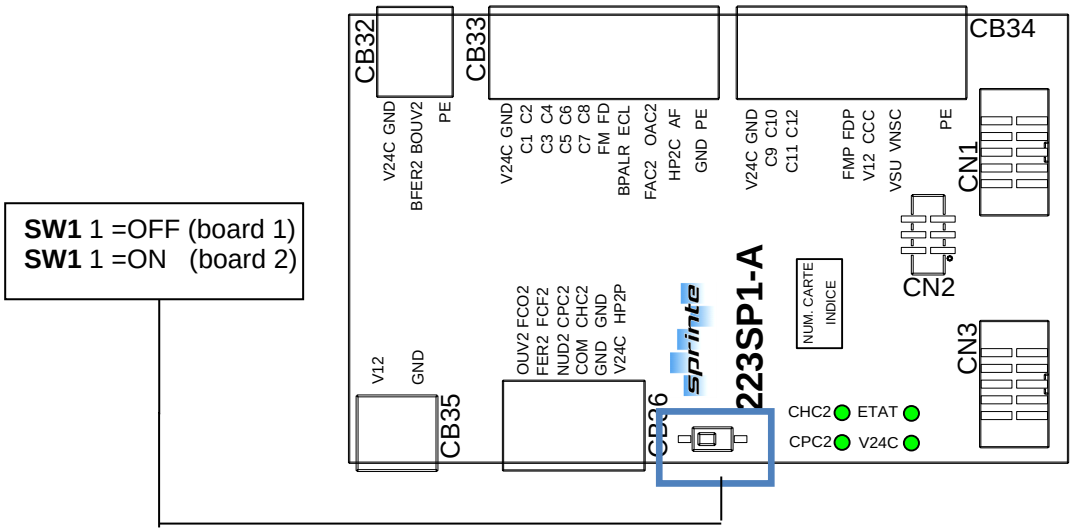
LED	STATUS	INFORMATION
LCP	On	Continuous 230V power supply (Car lighting)

5.2.3 222SP power board for door second service



CN4
Connector connecting 222SP board to 210SP board (Option door 2nd service)
PE9
Connector connecting the trailing cable to terminals in the control panel (Power supply motor brake injection door 1 & 2)
CB31
Connection power supply motor door 2 + door safety
PE10
Connector connecting the trailing cable to terminals in the control panel (Power supply motor door 2 + power supply cam 2)
CB30
Connection cam 2 (power supply configurable in control panel)
CB29
Connection motor brake injection door 2
CB28
Connection motor brake injection door 1

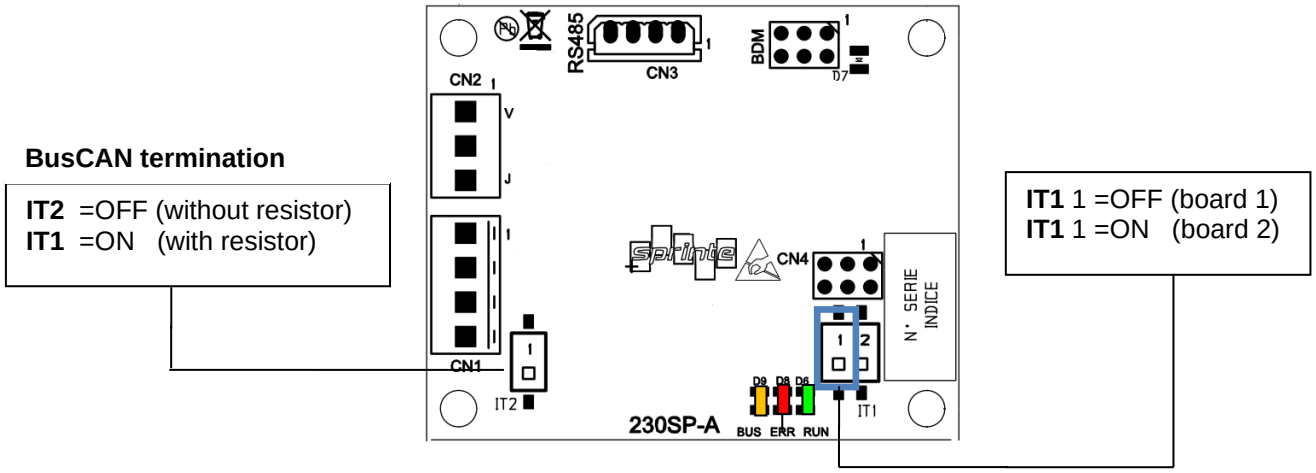
5.2.4 223SP extension board for door second service



CB32 inspection	
<V24C	24 V controlled
<GND	ground
>BFER2	Closing button door 2
>BOUV2	Opening button door 2
<PE	Equipotential protection
CB35 Power supply	
>V12	Input 12 V
<GND	ground
CB36 Door 2 operator	
<HP2P	Landing loud speaker
<V24C	24 V controlled
<GND	ground
<GND	ground
<CHC2	Shock
<COM	Common outputs opto-coupled doors
>CPC2	Cell safety
>NUD2	Opto-coupled control for forced door closing
>FCF2	Closing end limit
<FER2	Opto-coupled control for door closing
>FCO2	Opening end limit
<OUV2	Opto-coupled control for door opening
CN1	
Connector connecting 211SP board to 223SP boards	
CN3	
Connector connecting the 223SP board to another 223SP board	

CB34 BAB 2B	
<V24C	24 V controlled
<GND	ground
>C9 à C12	Car button 9 to 12
(not used)	
(not used)	
((not used)	
(not used)	
<FMP	Next up departure arrow
<FDP	Next down departure arrow
<V12	12V
CCC	Car priority key
<VSU	Overload light indicator output
<VNSC	
(not used)	
(not used)	
(not used)	
<PE	Equipotential protection
CB33 BAB 2A	
<V24C	24 V controlled
<GND	earth
>C1 à C8	Car button 1 to 8
<FM	Up arrow
<FD	Down arrow
(not used)	
>ECL	Emergency lighting
>FAC2	Accelerated closing service 2
>OAC2	Accelerated opening service 2
>HP2C	Car loud speaker
<AF	Display
<GND	ground
<PE	Equipotential protection

5.2.5 230SP Bluetooth board



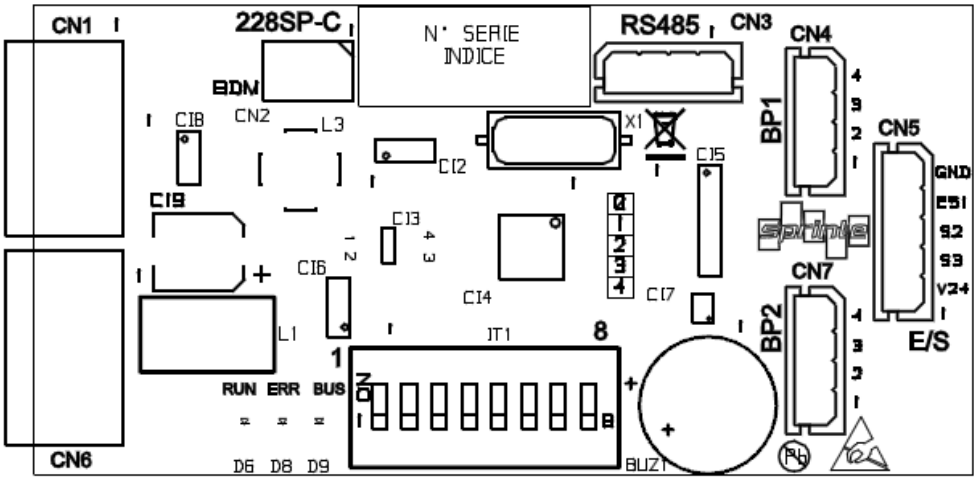
CN1 BUS CAN input	
>1	24 V
>2	CANH
>3	CANL
>4	GND

CN3 RS485	
>1	V24
>2	A
>3	B
>4	GND

CN2 input LED telealarm	
>V	input green LED
>CO	common
>J	input yellow LED

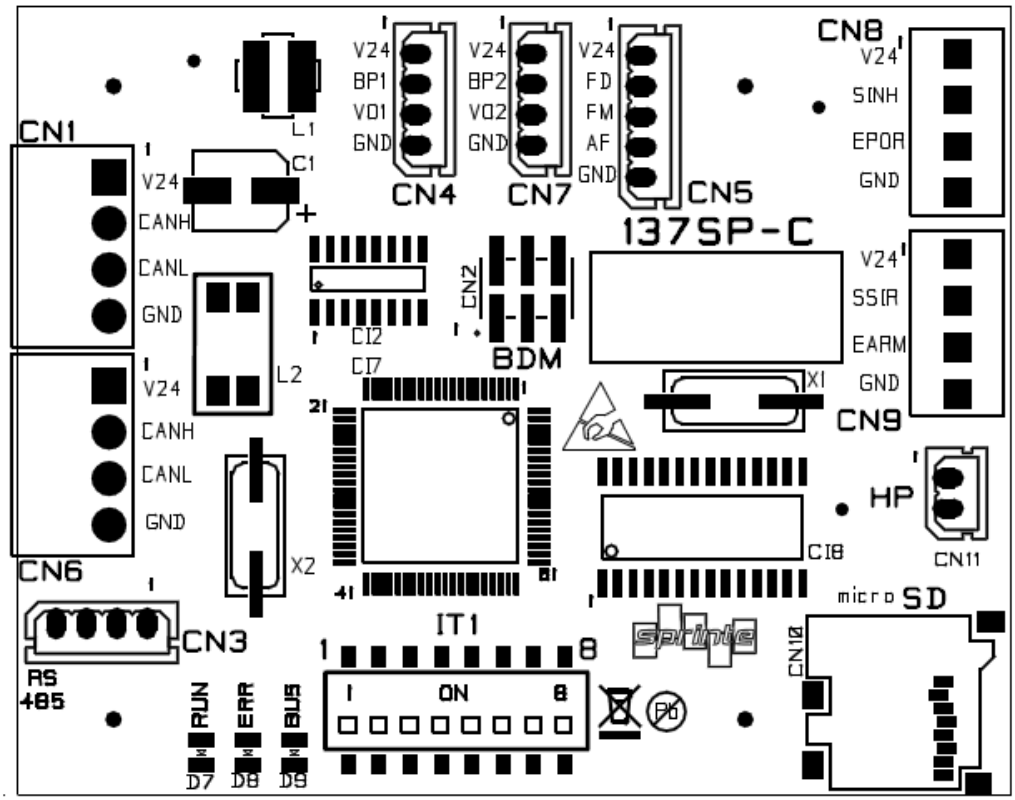
5.3 Landing electronics boards

5.3.1 228SP landing board



CN1 CANBus input		CN5 Display	
>1	24 V DC	<1	24 VDC
>2	CANBUS 0 HIGH	>2	S3
>3	CANBUS 0 LOW	>3	S2
>4	GND	>4	S1/E1
CN3 RS485		<5	GND
<1	24 V DC	**CN6 CANBus output**	
>2	485H	<1	24 V
>3	485L	<2	CANBUS 0 HIGH
<4	GND	<3	CANBUS 0 LOW
CN4 landing button 1		<4	GND
<1	24V DC	**CN7 landing button 2**	
<2	BP1	<1	24V DC
>3	LED	<2	BP2
<4	GND	>3	LED
		<4	GND

5.3.2 137SP landing board with voice synthesizer



CN1 CANBus input	
>1	24 V DC
>2	CANBUS 0 HIGH
>3	CANBUS 0 LOW
>4	GND
CN3 RS485	
<1	24 V DC
>2	485H
>3	485L
4	GND
CN4 landing button 1	
<1	24V DC
<2	BP1
>3	LED
<4	GND

CN5 Display	
<1	24 V DC
>2	S3
>3	S2
>4	S1
<5	GND
CN6 CANBus output	
<1	24 V
<2	CANBUS 0 HIGH
<3	CANBUS 0 LOW
<4	GND
CN7 landing button 2	
<1	24V DC
<2	BP2
>3	LED
<4	GND

CN8 Landing door	
<24 V	24 V DC
<SINH	Blocking door
>EPOR	Landing door state
<GND	GND
CN9 Door alarm	
<24 V	24 V
<SSIR	Alarm output
>EARM	rearmament
<GND	GND

CN11 Speaker	
GND	HP
<HP	HP