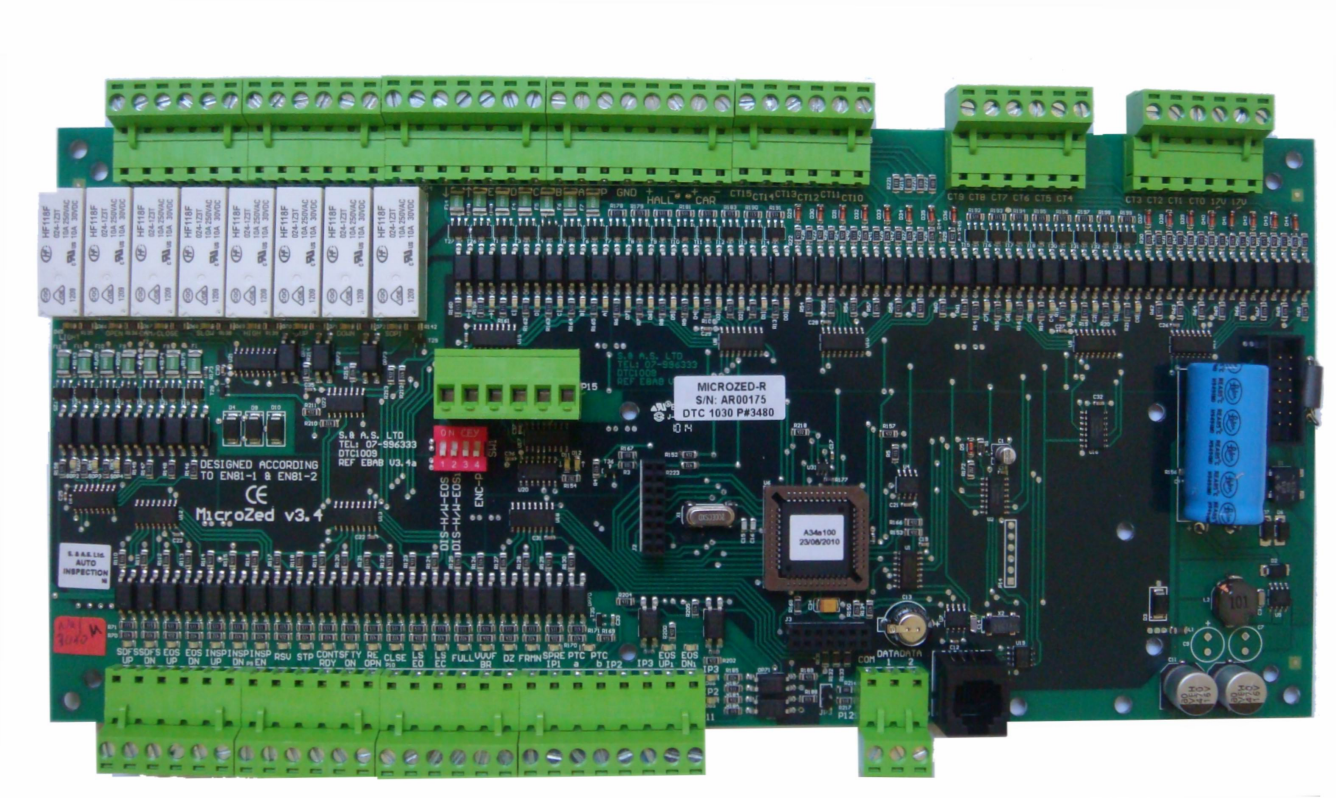
MicroZed

S. & A.S. LTD

ELEVATOR CONTROL MODULE
8/9/10/16/24/32 COLLECTIVE – VERSION 3.4
REF. MICROZED V3.4a



USER'S MANUAL

FOR S/W VERSION 1.00RE2
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1 GENERAL DESCRIPTION

The MicroZed v3.4 elevator controller module contains all the necessary components to control the elevator and to simultaneously insure the protection of the elevator and user against faulty conditions. It can operate in a group of up to 4 elevators. In addition, this module has a user-friendly interface consisting of one 24-characters by 2-lines LCD alphanumeric display and three push buttons to access the different pages, menus and parameters editing (the display is sold separately). The outputs are capable of driving both AC and DC contactors. Controller has an incremental encoder interface used optionally for floor information (Slow down and final stop). All spare outputs are user configurable. In call multiplexing mode, the controller can service up to 16 floors in down collective simplex.

Furthermore, the MicroZed v3.4 controller has a serial RS485 port enabling it to be connected to a hand held diagnostic tool (sold separately). A new communication port is implemented.

It accepts the following optional interface cards:

1. Serial calls
2. Ethernet interface
3. RS232 interface for GSM modems

1.1 MAIN FEATURES

Platform	Microcontroller
Type	AC 1 speed – AC 2 speed – VVVF – Hydraulic[1]
Mode	Simplex or group[1]
Self diagnostic	Fault messages describing common faults related to periphery inputs
Status information	Status of the elevator and the door are permanently displayed
Fault count	Count of level II faults (refer to section 4.1) is permanently displayed
Shaft information	End of shaft in the up direction End of shaft in the down direction Slow down and final stop in the up direction Slow down and final stop in the down direction Door zone (recommended but not obligatory) Car position is saved following a power failure[2]
Indicator signal	Gray code, provided by the board (binary or other types can be supported optionally)
Number of stops	8, 16[3], 24[3] or 32[3] stops collective down – 6, 11[3], 16[3] or 22[3] stops collective selective[1] – 16 stops collective Mul↓[4], 9 stops collective MulF[4]
Door type	Swinging, automatic or ½ automatic door[1]
Door controls[5]	Input for re-open, photocell and door jam switch + input to bypass closing delay[6]
Door parking status	Parking with door opened or door closed[1]
Floor Stop time	Can be defined by the user[1]
Main landing	Can be defined as any stop[1]
Car light	Automatic switch off after preset time
Automatic return	To main landing floor
Gong output	Three seconds pulse to signal the arrival of the elevator
Inspection mode[7]	For installation and maintenance purposes using slow speed
Reservation[8]	System responds to car calls only, outside calls are canceled
Minimum load[1]	Car calls are canceled if car stops twice on a car call and no passengers exit car
Full load[9]	Only car calls are served, outside calls are still registered
Emergency stop	Car is stopped, car calls canceled, outside calls retained, car restarts on a car call
Firemen operation[10]	Evacuation to main landing, blocking all calls and allowing firemen operation
Terminals	All terminals are individually labeled according to function to facilitate identification
Communication	RS-232C port ready for group operation or two way communication with a PC
Software	Monitoring and controlling elevator installation, software runs under Windows™

[1] Selection by presetting a parameter in the menu, refer to section 5.
[2] When power returns, elevator resumes from where it was without the need of a homing trip unless Power-ON homing is enabled, refer to section 5.
[3] Requires optional extension boards.
[4] Requires no extension and the elevator must not in group mode.
[5] For automatic or ½ automatic door only.
[6] Activated by a push button in the car.
[7] Activated by an external key switch and two push buttons.
[8] Activated by a key switch in the car.
[9] Activated by an external contact.
[10] Activated by a key switch in the main landing floor.

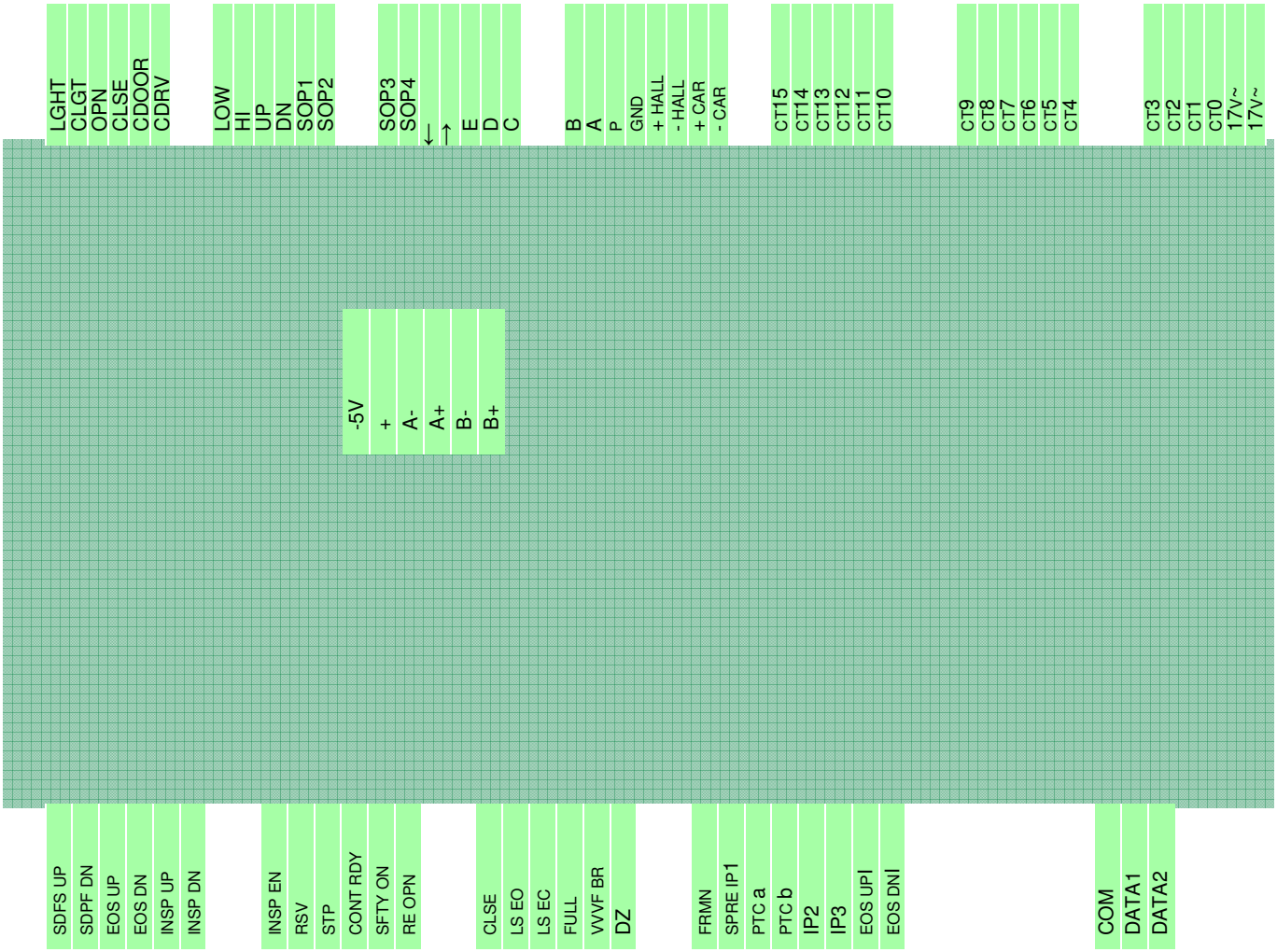
1.2 TECHNICAL DATA

Supply voltages	Board supply: 17vac +15% -25% - 120mA Periphery supply: 22vdc +15% -25%
Inputs	Each input has a led to indicate its status – all inputs are optically isolated Input active voltage level is 22vdc
Control outputs	Each output has a led to indicate its status – all outputs are dry relay contacts Rated at 250Vac 10A[1]
Call terminals	Each call has a led to indicate its status Each call terminal consists of a combined input/output which is optically isolated Call active voltage level is zero volts (GND) Call terminals are capable of driving lamps up to 3 watts operating on 22vdc Each call terminal is protected by an additional output transistor The + and – supplies of Car and Hall are short circuit protected
Indicator outputs	Each output has a led to indicate its status – all outputs are optically isolated For A,B,C,D,E, LED On: Output voltage level is 22vdc (P) For arrow up and arrow down LED On: Output voltage level is 0vdc (GND)
Connection	Screw type, plug-in connectors

[1] Care should be taken to add a freewheeling diode in parallel with the coil of each DC contactor or DC relay driven from the board.

2 TERMINAL DESCRIPTION

2.1 TERMINAL LAYOUT



2.2 INPUT TERMINALS

SDFS UP	Slow down and final stop in the up direction magnetic switch
SDFS DN	Slow down and final stop in the down direction magnetic switch
EOS UP	End of shaft in the up direction magnetic or limit switch to force slow speed
EOS DN	End of shaft in the down direction magnetic or limit switch to force slow speed
INSP UP	Inspection up
INSP DN	Inspection down
INSP EN	Inspection enable (when input is inactive)
RSV	Reservation – outside calls are canceled (when input is active)
STP	Emergency stop (when input is inactive)
CONT RDY	Should be active prior to initiating travel (ensures that all contactors are in their OFF state)
SFTY ON	Should be active when lift is moving (used to read the status of the safety circuit)
RE OPN	Re-open for automatic door (when inactive) / door closed for swinging door (when active)
CLSE	Bypasses reclosing delay in automatic door
LS EO	Limit switch end of opening
LS EC	Limit switch end of closing
FULL	Full load – only car calls are served with outside calls still being registered (when input is active)
VVVF BR	A VVVF signal that prompts the controller that the drive has engaged the mechanical brake
DZ	Door zone magnetic switch
FRMN	Firemen switch
SPRE IP1	Spare input 1
PTC a	Input from the PTC
PTC b	Input from the PTC
IP2	Spare input 2
IP3	Overload
EOS UPI	End of shaft in the up direction magnetic or limit switch to force intermediate speed
EOS DNI	End of shaft in the down direction magnetic or limit switch to force intermediate speed

2.3 OUTPUT TERMINALS

2.3.1 OUTPUT TERMINALS FOR AC 1 SPEED AND AC 2 SPEED

P +22V	Biasing voltage from periphery supply – positive side[1]
GND	Biasing voltage from periphery supply – negative side[1]
LGHT	Car light relay
CLGT	Common for LGHT output
OPN	Open door relay or contactor[2]
CLSE	Cam contactor[3] / Close relay or contactor[2]
CDOOR	Common for CLSE and OPN outputs
CDRV	Common for DN, UP, HI, LOW and SOP1 outputs
LOW	Low speed contactor
HI	High speed contactor
UP	Up direction contactor
DN	Down direction contactor
SOP1	Spare output 1
SOP2	Spare output 2
SOP3	Spare output 3
SOP4	Spare output 4

2.3.2 OUTPUT TERMINALS FOR VVVF

P +22V	Biasing voltage from periphery supply – positive side[4]
GND	Biasing voltage from periphery supply – negative side[1]
LGHT	Car light relay
CLGT	Common for LGHT output
OPN	Open door relay or contactor[5]
CLSE	Cam contactor[6] / Close relay or contactor[2]
CDOOR	Common for CLSE and OPN outputs
CDRV	Common for DN, UP, HI, LOW and SOP1 outputs
LOW	Low speed contactor
HI	High speed contactor
UP	Forward contactor
DN	Reverse contactor
SOP1	Spare output 1
SOP2	Spare output 2
SOP3	Spare output 3
SOP4	Spare output 4

2.3.3 OUTPUT TERMINALS FOR HYDRAULIC

P +22V	Biasing voltage from periphery supply – positive side[7]
GND	Biasing voltage from periphery supply – negative side[1]
LGHT	Car light relay
CLGT	Common for LGHT output
OPN	Open door relay or contactor[8]
CLSE	Cam contactor[9] / Close relay or contactor[2]
CDOOR	Common for CLSE and OPN outputs
CDRV	Common for DN, UP, HI, LOW and SOP1 outputs
LOW	Releveling relay
HI	High speed valve
UP	Pump delta contactor
DN	Down direction valve
SOP1	Spare output 1
SOP2	Spare output 2
SOP3	Spare output 3
SOP4	Spare output 4

[1] Although this is not an output, it is listed with the outputs for convenience.
[2] For automatic door only.
[3] For swinging door.
[4] Although this is not an output, it is listed with the outputs for convenience.
[5] For automatic door only.
[6] For swinging door.
[7] Although this is not an output, it is listed with the outputs for convenience.
[8] For automatic door only.
[9] For swinging door.

2.3.4 INDICATOR OUTPUT TERMINALS

FACE	Up direction arrow
↓	Down direction arrow
A	Floor information A for Gray code indicator
B	Floor information B for Gray code indicator
C	Floor information C for Gray code indicator
D	Floor information D for Gray code indicator
E	Floor information E for Gray code indicator

2.4 INCREMENTAL ENCODER TERMINALS

GND	Negative supply
ENC VCC	Positive supply
ENC A-	Phase A inverted
ENC A+	Phase A
ENC B-	Phase B inverted
ENC B+	Phase B

2.5 CALL TERMINALS

2.5.1 CALL TERMINALS LOCATED ON BOARD

The allocation of calls on call terminals depends on whether one or more extension boards are present. The table below shows how the calls are allocated:

Without Extension	Down[1] Collective	Full Collective	Mul↓ Collective	MulF Collective
CT15	Down 7	Down 5	Car+Down 15	Down8
CT14	Down 6	Down 4	Car+Down 14	Down7
CT13	Down 5	Down 3	Car+Down 13	Down6
CT12	Down 4	Down 2	Car+Down 12	Down5
CT11	Down 3	Down 1	Car+Down 11	Down4
CT10	Down 2	Up 4	Car+Down 10	Down3
CT9	Down 1	Up 3	Car+Down 9	Down2
CT8	Down 0	Up 2	Car+Down 8	Car+Down1
CT7	Car 7	Up 1	Car+Down 7	Car+Up7
CT6	Car 6	Up 0	Car+Down 6	Car+Up6
CT5	Car 5	Car 5	Car+Down 5	Car+Up5
CT4	Car 4	Car 4	Car+Down 4	Car+Up4
CT3	Car 3	Car 3	Car+Down 3	Car+Up3
CT2	Car 2	Car 2	Car+Down 2	Car+Up2
CT1	Car 1	Car 1	Car+Down 1	Car+Up1
CT0	Car 0	Car 0	Car+Down 0	Car+Up0
17V~	Board power supply – 17v~ b[2]			
17V~	Board power supply – 17v~ b[2]			

With 1 Extension	Down[1] Collective	Full Collective
CT15	Car 15	Up 4
CT14	Car 14	Up 3
CT13	Car 13	Up 2
CT12	Car 12	Up 1
CT11	Car 11	Up 0
CT10	Car 10	Car 10
CT9	Car 9	Car 9
CT8	Car 8	Car 8
CT7	Car 7	Car 7
CT6	Car 6	Car 6
CT5	Car 5	Car 5
CT4	Car 4	Car 4
CT3	Car 3	Car 3
CT2	Car 2	Car 2
CT1	Car 1	Car 1
CT0	Car 0	Car 0
17V~	Board power supply – 17v~ b[2]	
17V~	Board power supply – 17v~ b[2]	

[1] Down calls starting at ground floor level and below are internally converted to up calls. The position of the ground floor is determined by setting the number of basements; refer to section 5. For instance if there are no basements, then the ground floor is on the first level and consequently Down 0 call will be internally interpreted as an Up 0 call.

With 2 or 3 Extensions	Down Collective[1] or Full Collective
CT15	Car 15
CT14	Car 14
CT13	Car 13
CT12	Car 12
CT11	Car 11
CT10	Car 10
CT9	Car 9
CT8	Car 8
CT7	Car 7
CT6	Car 6
CT5	Car 5
CT4	Car 4
CT3	Car 3
CT2	Car 2
CT1	Car 1
CT0	Car 0
17V~	Board power supply – 17v~ a[2]
17V~	Board power supply – 17v~ b[2]

2.5.2 CALL TERMINALS ON EXTENSION BOARDS

If more than one extension board is required, the boards should be cascaded. The table below shows how the calls are allocated on the extension board #1:

With 1 Extension	Down Collective[1]	Full Collective
P +22V	Biasing voltage from periphery supply – positive side[2]	
GND	Biasing voltage from periphery supply – negative side[2]	
EC0	Down 0	Up 5
EC1	Down 1	Up 6
EC2	Down 2	Up 7
EC3	Down 3	Up 8
EC4	Down 4	Up 9
EC5	Down 5	Down 1
EC6	Down 6	Down 2
EC7	Down 7	Down 3
EC8	Down 8	Down 4
EC9	Down 9	Down 5
EC10	Down 10	Down 6
EC11	Down 11	Down 7
EC12	Down 12	Down 8
EC13	Down 13	Down 9
EC14	Down 14	Down 10
EC15	Down 15	-

[1] Down calls starting at ground floor level and below are internally converted to up calls. The position of the ground floor is determined by setting the number of basements; refer to section 5. For instance if there are no basements, then the ground floor is on the first level and consequently Down 0 call will be internally interpreted as an Up 0 call.
[2] Although this is not a call, it is listed with the calls for convenience.

With 2 Extensions	Down Collective[1]	Full Collective
P +22V	Biasing voltage from periphery supply – positive side[2]	
GND	Biasing voltage from periphery supply – negative side[2]	
EC0	Down 0	Up 0
EC1	Down 1	Up 1
EC2	Down 2	Up 2
EC3	Down 3	Up 3
EC4	Down 4	Up 4
EC5	Down 5	Up 5
EC6	Down 6	Up 6
EC7	Down 7	Up 7
EC8	Down 8	Up 8
EC9	Down 9	Up 9
EC10	Down 10	Up 10
EC11	Down 11	Up 11
EC12	Down 12	Up 12
EC13	Down 13	Up 13
EC14	Down 14	Up 14
EC15	Down 15	-

With 3 Extensions	Down Collective[1]	Full Collective
P +22V	Biasing voltage from periphery supply – positive side[2]	
GND	Biasing voltage from periphery supply – negative side[2]	
EC0	Down 0	Up 0
EC1	Down 1	Up 1
EC2	Down 2	Up 2
EC3	Down 3	Up 3
EC4	Down 4	Up 4
EC5	Down 5	Up 5
EC6	Down 6	Up 6
EC7	Down 7	Up 7
EC8	Down 8	Up 8
EC9	Down 9	Up 9
EC10	Down 10	Up 10
EC11	Down 11	Up 11
EC12	Down 12	Up 12
EC13	Down 13	Up 13
EC14	Down 14	Up 14
EC15	Down 15	Up 15

[1] Down calls starting at ground floor level and below are internally converted to up calls. The position of the ground floor is determined by setting the number of basements; refer to section 5. For instance if there are no basements, then the ground floor is on the first level and consequently Down 0 call will be internally interpreted as an Up 0 call.
[2] Although this is not a call, it is listed with the calls for convenience.

The table below shows how the calls are allocated on the extension board #2:

With 2 Extensions	Down Collective[1]	Full Collective
P +22V	Biasing voltage from periphery supply – positive side[2]	
GND	Biasing voltage from periphery supply – negative side[2]	
EC0	Car 16	Down 1
EC1	Car 17	Down 2
EC2	Car 18	Down 3
EC3	Car 19	Down 4
EC4	Car 20	Down 5
EC5	Car 21	Down 6
EC6	Car 22	Down 7
EC7	Car 23	Down 8
EC8	Down 16	Down 9
EC9	Down 17	Down 10
EC10	Down 18	Down 11
EC11	Down 19	Down 12
EC12	Down 20	Down 13
EC13	Down 21	Down 14
EC14	Down 22	Down 15
EC15	Down 23	-

With 3 Extensions	Down Collective[1]	Full Collective
P +22V	Biasing voltage from periphery supply – positive side[2]	
GND	Biasing voltage from periphery supply – negative side[2]	
EC0	Car 16	Down 1
EC1	Car 17	Down 2
EC2	Car 18	Down 3
EC3	Car 19	Down 4
EC4	Car 20	Down 5
EC5	Car 21	Down 6
EC6	Car 22	Down 7
EC7	Car 23	Down 8
EC8	Car 24	Down 9
EC9	Car 25	Down 10
EC10	Car 26	Down 11
EC11	Car 27	Down 12
EC12	Car 28	Down 13
EC13	Car 29	Down 14
EC14	Car 30	Down 15
EC15	Car 31	Down 16

[1] Down calls starting at ground floor level and below are internally converted to up calls. The position of the ground floor is determined by setting the number of basements; refer to section 5. For instance if there are no basements, then the ground floor is on the first level and consequently Down 0 call will be internally interpreted as an Up 0 call.
[2] Although this is not a call, it is listed with the calls for convenience.

The table below shows how the calls are allocated on the extension board #3

With 3 Extensions	Down Collective	Full Collective
P +22V	Biasing voltage from periphery supply – positive side[1]	
GND	Biasing voltage from periphery supply – negative side[1]	
EC0	Down 16	Car 16
EC1	Down 17	Car 17
EC2	Down 18	Car 18
EC3	Down 19	Car 19
EC4	Down 20	Car 20
EC5	Down 21	Car 21
EC6	Down 22	Up 16
EC7	Down 23	Up 17
EC8	Down 24	Up 18
EC9	Down 25	Up 19
EC10	Down 26	Up 20
EC11	Down 27	Down 17
EC12	Down 28	Down 18
EC13	Down 29	Down 19
EC14	Down 30	Down 20
EC15	Down 31	Down 21

2.6 COMMUNICATION TERMINALS CONNECTION

COM, DATA1 and DATA2 should be connected in all controllers in a group mode.

[1] Although this is not a call, it is listed with the calls for convenience.

3 CONTENTS OF PAGES DISPLAYED ON LCD

Page 1	Company name, Software version Time, date and day of the week[1]
Page 2	1st line: Elevator status → Normal, Inspection, Homing, Reservation, Full Load, Landing, Fault, MCIHCAssign Speed → Hi, Lo[2] Direction → ↑, ↓[2] Floor → FL ## 2nd line: Door status: For swinging door → Opened, Closed, Locking, Locked For automatic & 1/2 automatic door → Opened, Closed, Opening, Closing, ½open, Unknown
Page 3[3]	Current fault description
Page 4[4]	Fault Log with the possibility of viewing the last 99 faults with the floor where each fault has occurred
Page 5[5]	Shows the number of MCI-HC detected online If Details is selected, shows the status of MCI-HC on each floor (online/ offline)
Page 6	Homing trip request
Page 7	Summary of the elevator settings: Elevator mode and board address Collective mode Door type Drive type Count of extensions Minimum load feature (MD: Disabled, ME: Enabled) Main Landing feature (LD: Disabled, LE: Enabled) Parking Door status[6] (PDC: Closed, PDO: Opened)
Page 8	Boards detected On Bus (supported only when diagnostic tool is used)

4 VIEWING FAULTS AND FAULTS DESCRIPTION

4.1 HOW TO VIEW THE FAULTS

Faults detected by the board are divided into three levels:

1. Level I faults: faults that block the elevator when they occur. But the elevator can resume operation right after the fault disappears.
2. Level II faults: faults that can be tolerated for a few occurrences before the elevator is blocked by the board. The count of level II faults is shown on LCD Page 4. When the count of level II faults reaches the preset number[7], the board will block the elevator.
3. Level III faults: faults that the board considers to be fatal and will block any further operation of the elevator.

Pressing the **Select** push button while on LCD Page 4 will prompt the board to start displaying the last 99 faults saved in memory. The board begins by displaying the last fault followed by the floor number where the fault occurred. Press **Previous** or **Next** push buttons to display the previous or next fault.

4.2 HOW TO ERASE THE FAULTS

To erase the faults as well as the count of level II faults from memory, enter the menu, go to **Empty Fault Log** and press **Select** push button. You will be prompted to confirm your request. If **Yes** is pressed all faults are erased, if **No** is pressed, faults are not affected.

[1] When the RTC device is installed.
[2] When the elevator is moving.
[3] Appears only if there is a fault.
[4] Appears only if fault log is not empty.
[5] Appears only if D-CAN board is connected to MicroZed.
[6] Relevant in automatic or ½ automatic door. Refer to section 5.
[7] Refer to section 5.

4.3 FAULT CODE DESCRIPTION

Fault Message	Fault Description	Level	Action taken
Sfty opnd in travl	Safety circuit and/or door opened during travel[8]	I	Waits for safety circuit to close
Sfty opnd in travl	Safety circuit opened during travel[9]	I	Waits for safety circuit to close, cancels calls if fault persists more than 5sec[1]
Lock opnd in travl	Door lock circuit opened during travel[8]	I	Waits for lock circuit to close, cancels calls if fault persists more than 5sec[1]
Door clsd, not sfty	Safety circuit failed to close after door closing[9]	I	Cancels calls and opens door[1]
Fail to lock cam	Failure in locking door after 3 attempts[8]	I	Cancels calls[1]
Fail to close door	Failure in closing door[9]	II	Cancels calls, opens door[1]
EOS_UP Fault	EOS-UP fault	III	Blocks elevator[2]
EOS_DN Fault	EOS-DN fault	III	Blocks elevator[2]
Shaft Info Flt	SDFS-UP or SDFS-DN or EOS-UP or EOS-DN or DZ[3] fault	II	Performs a homing trip
Shaft Info Flt	SDFS-UP or SDFS-DN or EOS-UP or EOS-DN or DZ[3] fault	II	Performs a homing trip
No EOS Info	EOS-UP and EOS-DN faults (both open)	III	Blocks elevator[4]
Emergency stop	Emergency stop	I	Waits for a car call to resume
Car is jammed	Motor has been powered for 25 sec, car did not move	III	Blocks elevator[2]
Door is obstructed	Door has been opened for more than Door Obstructed Del[5]	I	Waits for door to close[6]
Fail to open door[9]	Failure in opening door	II	Close door and resume
Operat. days exprd	Preset number of operating days expired	III	Blocks elevator[7]
Contactors jammed	All orders on contactors were removed, one contactor or more is still engaged	I	Waits all contactors to be released
Motor overheating	Motor temperature has exceeded its maximum allowable operating temperature	I	Elevator is stopped at the nearest floor. Waits for the motor to cool down
External err.(VVVF)	VVVF external error	I	Elevator is stopped at the nearest floor. Waits for external VVVF error to be removed
Wrong dir. Moving	Lift is moving in the opposite direction	III	Make sure that lift is going in the right direction, if not switch up and down directions outputs. Otherwise, switch encoder signals
No MCI CANx2 Data	Serial communication between the Microzed main control panel and MCI-DCAN is corrupted or interrupted	I	Elevator is stopped at the nearest floor. MicroZed cabin control will open the door and wait for the communication to be re-established to resume operation
No Data from Cabin	CAN bus communication between MCI-DCAN of the Microzed main control and MCI-DCAN of the Microzed cabin control is corrupted or interrupted	I	Elevator is stopped at the nearest floor. MicroZed cabin control will open the door and wait for the communication to be re-established to resume operation

The last 50 faults are permanently stored along with the time, date of occurrence (if RTC is installed) and the floor where the error occurred. Faults can be accessed through the Select option on LCD Page 4.

[1] Waits for a call to resume operation.
[2] When the cause of the fault is diagnosed and fixed, empty the faults log or request a homing trip so that the elevator resumes operation.
[3] When DZ magnetic switch is installed. Refer to section 5.
[4] When the cause of the fault is diagnosed and fixed, the elevator will automatically resume operation.
[5] Relevant in duplex mode only - Refer to section 5.
[6] In case of automatic door, waits for obstacle to clear.
[7] To recover from this fault, access menu and clear the count of elapsed days. Refer to sections 5.
[8] For swinging or ½ automatic door.
[9] For automatic door.

5 MENU

5.1 PASSWORD

A password is required for accessing the menu. The password consists of 6 digits. Two passwords can access the menu. The first is provided by S. & A.S. Co. Ltd. and is referred to as client password. This password can only be changed by S. & A.S. Co. Ltd. The second password is referred to as the user password. The user password can be modified in the menu. The client password accesses all the items in the menu whereas the user password is denied access to all menu items related to time restriction.

5.2 ACCESSING THE MENU

To access the menu, press the right most push button on the LCD Display while on pages 1, 2, 3 or 6[1]. You will be prompted to enter a password. The first digit on the left starts blinking. Use the left most push button to decrement the digit and the middle push button to increment the digit. When the desired digit is reached, push the right most push button. The digit is accepted and replaced by "*". The next digit starts blinking. Repeat the above procedure for all remaining five digits. If you have entered the right password, access to the menu will be granted, otherwise access will be denied. Note that the push buttons have dynamic functions and their functions are at all times shown on the lower line of the display.

[1] Refer to section 3

5.3 MENU DESCRIPTION

What you see on the display	Description and Comments	Normal Mode	Insp Mode	Visibility Condition	Range	Default Value
V100RE2		V[1]	V			
Normal FLxx		V	V			
View Faults (Fatal=--)		If faults exist				
Homing trip?		V	V			
Simplex(1)Full Swinging		V	V			
Simulate calls		V/A[2]	NV[3]/NA[4]			
Inspection operation		NV/NA	V/A			
Boards detected On Bus		if DT exists				
Enter Password		V/A	V/A			
Empty Fault Log	Empties the fault log	if faults exist				
Light Time	Car light turn off delay in sec	A	A	N/A[5]	5 to 99sec	10sec
Floor Stopping Time	Time between travel in sec	A	A	N/A	1.0 to 9.9sec	3.0sec
Parking Door	The parking status of the door	A	A	Auto/Half Auto door	Opened/Closed	Closed
Door Nudging/Obst	When disabled, the RE OPN input is bypassed to clear any obstacle blocking the door/ When enabled and the door is held open, it is considered to be obstructed after this delay	A	A	N/A	Ena/ Dis, 5 to 99sec	Dis, 90sec
Hydraulic Star Time	Star starting time of the hydraulic pump	A	A	Hydraulic elevator	0.0 to 9.9sec	1.0sec
VVVF Start Delay	The delay in sec between providing direction and speed reference outputs	A	A	VVVF drive	-9.9 to 9.9sec	1.0sec
VVVF/ Hyd Stop Delay	The delay in sec between removing direction and speed reference outputs	A	A	VVVF drive	-9.9 to 9.9sec	3.0sec
Gong Time	The gong time in seconds	A	A	Spare1 or Spare2 function=gong	0.0 to 7.5sec	3.0sec
Minimum Load	When this feature is enabled, car calls are canceled if car stops twice on a car call and no passengers exit car	A	A	N/A	Disabled/Enabled	Disabled
Main Landing	Sets the landing floor along with the delay before making a main landing trip given that the elevator has no calls to serve	A	A	N/A	None, 0… 31-0'10" to 9'59"	None
PTC Detection	When this feature is enabled, the motor PTC is continuously monitored	A	A	N/A	Disabled/Enabled	Disabled
Power On Homing[6]	When enabled, the elevator makes a homing trip upon every power-on When disabled following power on and if lift is not parked on a floor , the controller will take it to the nearest floor traveling in the same direction prior to power failure When set to NoDZ and the lift is on a floor, no action is taken. Otherwise, lift will do homing trip upon power-on	A	A	N/A	Disabled/Enabled/ NoDZ	Disabled
Light Inverted	When this feature is enabled, the output logic of the car light is inverted	A	A	N/A	Disabled/Enabled	Disabled
Re-leveling	When preset to selective, the re-leveling is done only when the door is closed and the elevator has no calls to serve	A	A	Hydraulic elevator	Always/Selective/ Dist(mm) 10 to 100[7]	Selective/ 10

[1] V means visible
[2] A means accessible
[3] NV means not visible
[4] NA means not accessible
[5] N/A means not assigned
[6] If there are 2 close floors or the elevator slips more than ½ distance of the floor, "Power On Homing" must be set to enabled
[7] Appears only if drive is VVVF and Encoder is installed

What you see on the display	Description and Comments	Normal Mode	Insp Mode	Visibility Condition	Range	Default Value
EOS During Insp	When this feature is enabled, the elevator is prevented from crossing the end of shaft limits in inspection mode	A	A	N/A	Disabled / Enabled	Disabled
Cam close delay	The delay in seconds between the closing of the swinging door and the Cam /Close signal	A	A	Swinging door	0.0 to 7.5sec	0.0 sec
Cam engage time	Maximum delay in seconds to Sfty on after engaging the cam	A[1]	A	Swinging door	5 to 99sec	5 sec
Contactor start del	The delay in seconds between providing the Cam/Close signal and the direction/Speed outputs	A	A	N/A[2]	0.0 to 7.5sec	0.5sec
Update Counter	Selects when the floor distance counter is updated	NA	A	VVVF Drive & Encoder installed	Always/At stop/ At Start	Always
Offset Applied	Offsets the difference in distance when on all floors lift traveling down stops lower or higher than the position at which it stops when it is traveling up for the same floor. Value shown is the last offset applied.	NA	A	VVVF Drive & Encoder installed	-9.9999 to +9.9999	0.0000
Time Restrict.	When this feature is enabled, the elevator is blocked when the number of days counted reaches the preset count of days	A	A	Client P/W	Disabled / Enabled	Disabled
Elapsed Cnt Of Days	Shows the number of days elapsed since the Time Restriction feature was enabled or since the last reset of the Elapsed Cnt Of Days	A	A	Client P/W	N/A	
Preset Count Of Days	Sets the maximum count of days of operation	A	A	Client P/W	1 to 999	1
Max. Count Of Err.	Sets the maximum count of Level II faults before blocking the elevator	A	A	N/A	None, 1…99	10
Car jammed delay	The car is considered jammed after this delay.	A	A	N/A	Dis, 5 to 99sec	25sec
Auto Door Operation	The Auto door is considered jammed after this delay	A	A	Auto/Half Auto door	Dis, 5 to 99sec	20sec
Inspection speed	Sets the inspection speed	A	A	Not VVVF drive	Lo/Hi	Lo
Ramp to stop w Insp	When this feature is enabled, the lift will ramp to stop when the inspection up or down button is released	A	A	VVVF drive	Dis/Ena	Dis
Basements	Sets the count of basements	NA[3]	A	N/A	0 to 9	0
Door Type	Selects the type of the elevator door. Select ½ automatic door if there is an electric cam to lock the door in addition to the automatic door drive.	NA	A	N/A	Swinging/ Automatic / ½ Automatic	Swinging
Permanent Close	When this feature is enabled, the door closing signal is permanently engaged during travel (required for specific types of door drives)	A	A	Automatic door	Disabled/Enabled	Disabled
RE-OPN i/p	Sets the logic of the re-opn input	A	A	N/A	no/nc	nc
Reset time on re-opn	When this feature is set to Y and the door is counting Floor Stopping Time to start closing, Then if the photocell is cut, Restart counting Floor Stopping Time	A	A	Auto/Half Auto door	N/Y	N
Door Zone	When this feature is installed, the controller looks for the DZ magnetic switch signal upon every floor stop. The absence of this signal on floor level prompts the controller to register a Level II fault and to perform a homing trip	A	A	N/A	None/Installed	None
Pre-opening	When this feature is enabled, door starts opening when DZ is reached	A	A	DZ installed	Disabled / Enabled	Disabled
First Stop	Selects the gray code output for the first stop	A	A	N/A	0 / 1	0

[1] A means accessible
[2] N/A means not assigned
[3] NA means not accessible

What you see on the display	Description and Comments	Normal Mode	Insp Mode	Visibility Condition	Range	Default Value
Collective	Selects between collective selective, down collective and multiplexing modes	NA	A	N/A	Full / Down / APB / Mul↓/ MulF	Down
Carcall priority	Gives priority to car calls over hall calls	NA	A	Collective#APB	N/Y	N
Encoder	Set to installed to implement direct approach	NA	A	VVVF Drive & Door Zone installed	None / Installed	None
Pulses/Revolution	Sets the count of pulses per revolution of the incremental encoder	NA	A	Encoder installed	0 to 9999	1024
Roping	Selects the roping ratio of the installation	NA	A	Encoder installed	1:1, 2:1 or 4:1	1:1
Nominal RPM	Nominal RPM of machine	NA	A	Encoder installed	0 to 9999	1500
Machine speed m/s	Sets the speed of the machine	NA	A	Encoder installed	0 to 9.999	2.000
HiSpd reached (m)	Distance traveled to accelerate from zero to high speed	NA[1]	A[2]	Encoder installed	0 to 9.999	3.500
IntSpd reached (m)	Distance traveled to accelerate from zero to intermediate speed	NA	A	Encoder installed	0 to 9.999	1.400
LoSpd reached (m)	Distance traveled to accelerate from zero to low speed	NA	A	Encoder installed	0 to 9.999	0.060
SlowDown dist. m	Distance traveled to decelerate from high speed to zero	NA	A	Encoder installed	0 to 9.999	3.500
Int. SlowDown m	Distance traveled to decelerate from intermediate speed to zero	NA	A	Encoder installed	0 to 9.999	1.400
Lo SlowDown m	Distance traveled to decelerate from low speed to zero	NA	A	Encoder installed	0 to 9.999	0.060
Extension Boards	Sets the count of extension boards installed and thus the distribution of the car and land calls	NA	A	N/A[3]	None, 1, 2 or 3	None
Mode	Selects between simplex and group modes.	NA	A	N/A	Simplex/Group	Simplex
Drive	Selects the drive type	NA	A	N/A	AC 2speed / Hydraulic / VVVF	AC 2speed
Intermediat Speed	Selects when intermediate speed is used	NA	A	VVVF drive & Encoder not installed	None, 1FL, 2FL	None
Homing Speed	Select the homing speed	NA	A	VVVF drive	Insp/ Hi/ Int	Insp
Spare1	Sets the Spare1 output function	NA	A	Not Hydraulic	Fan/Gong/Int.Speed/ Base Block[4]/Out Of Serv. /Door Buzzer	Fan
Spare2	Sets the Spare2 output function	NA	A	Not 1/2 Auto. door	Fan/Gong/Int.Speed/ Base Block[4]/Out Of Serv. / Hyd Up Valve[5]/ Door Buzzer	Gong
Spare3	Sets the Spare3 output function	NA	A		Fan/Gong/Int.Speed/ Base Block[4]/Out Of Serv. / Hyd Up Valve[5]/Door Buzzer	Out Of Serv.
Spare4	Sets the Spare4 output function	NA	A		Fan/Gong/Int.Speed/ Base Block[4]/Out Of Serv. / Hyd Up Valve[5]/Door Buzzer	Fan
Passenger Capacity	Sets the passenger capacity of the elevator	A	A	Group mode	1 to 99	5
Display Type	Selects the hall and car display type	A	A	N/A	Gray / Binary / Enhanced	Gray
Total Trips	Counter for the number of trips made by the elevator. The counter value can be edited and modified	A	A	N/A	0 to 999999	N/A

[1] NA means not accessible
[2] A means accessible
[3] N/A means not assigned
[4] Int Speed and Base Block appear only in VVVF drive
[5] Hyd Up Valve appears only in hydraulic drive

What you see on the display	Description and Comments	Normal Mode	Insp Mode	Visibility Condition	Range	Default Value
Language	Sets the language	A	A	N/A	English / French / Arabic	English
Board Address	Sets the address of the board (each board in a group must have a unique address)	A	A	N/A	1 to 4	1
User Password	Shows and edits the user password	A	A	Client P/W	******	000000
Co.	Shows and edits the company name displayed on the first page	A	A	N/A	16 characters	
RTC Device	Shows if the RTC Device is installed.	A[1]	A	SAS P/W	None / Installed	
Max Trips/h	Shows the maximum recorded count of trips in one hour along with the time of the day when it happened	A	A	RTC installed	N/A[2]	
Adjust Time	Sets the time of the day	A	A	RTC installed	N/A	
Adjust Date	Sets the date	A	A	RTC installed	N/A	
Adjust Day	Sets the day of the week	A	A	RTC installed	Mon to Sun	
Upload settings to DT	Upload the settings from MicroZed to DT	A	A	DT connected		
Dnload settings from DT	Download the settings from DT to MicroZed	NA[3]	A	DT connected		
Learning trip	Initiates a learning trip to calculate all floor positions	A	NA	VVVF drive & Encoder installed	N/A	
Manual Floor adjustment	Allow manual floor position adjustment	A	A	VVVF drive & Encoder installed	N/A	
Calc. HiSpd Distances	Initiates a trip to calculate the distance traveled to accelerate from zero to high speed as well as distance traveled to decelerate from high speed to zero	NA	A	VVVF drive & Encoder installed	N/A	
Calc. IntSpd Distances	Initiates a trip to calculate the distance traveled to accelerate from zero to intermediate speed as well as distance traveled to decelerate from intermediate speed to zero	NA	A	VVVF drive & Encoder installed	N/A	
Calc. LoSpd Distances	Initiates a trip to calculate the distance traveled to accelerate from zero to low speed as well as distance traveled to decelerate from low speed to zero	NA	A	VVVF drive & Encoder installed	N/A	
MCI-HC Assignment?[4]	Selects Hall calls assignment mode that configures hall call boards to corresponding floors	A	A	MCI-DCAN connected to MicroZed	N/A	
Load Factory Settings	Loads the settings of the factory	NA	A	N/A	N/A	
Exit Menu Temporarily	Exits the menu allowing reentry with no password for 10 minutes	A	A	N/A		
Exit Menu	Exits the menu	A	A	N/A		

[1] Hyd Up Valve appears only in hydraulic drive
[2] N/A means not assigned
[3] NA means not accessible
[4] Refer to MCI DCAN+MCI HC Catalog to configure hall call boards to corresponding floors

5.3.1 MENU TRANSLATION INTO FRENCH AND ARABIC

ENGLISH	FRENCH	ARABIC
V100RE2	V100RE2	100RE2
Normal FLxx	Normal Etxx	عادي ط أ
View Faults (Fatal=--)	Voir Fautes (Fatal=--)	اظهار الأخطاء (حاسم=--)
Homing trip?	Parcours d'initialisat.	رحلة أولية
Simplex(1)Full Swinging	Simplex(1)Sel. Battante	مفرد(1) نزول باب عادي
Simulate calls	Simuler appels	محاكاة الطلبات
Inspection operation	Operation Revision	عملية فحص
Boards detected On Bus	Cartes detectees sur Bus	لوحات موجودة على الخط
Enter Password	Entrer Le Code	أدخل الرقم السري
Empty Fault Log	Vider Journal De Fautes	امح لائحة الأخطاء
Light Time	Duree D'eclairage	وقت الاضاءة
Floor Stopping Time	Duree Arret Etage	مدة وقوف على الطابق
Parking Door	Stationemt Porte	الوقفة: الباب
Door Nudging/Obs	Porte Coup/Coincee	الباب وكزة/عالق
Hydraulic Star Time	Duree Etoile Hydr.	مدة نجمة هيدروليكي
VVVF Start Delay	Delai Depart VVVF	تأخير الاقلاع VVVF
VVVF/Hyd Stop Delay	Delai Arret VVVF	تأخير الوقوف VVVF
Gong Time	Duree Gong	مدة الزمور
Minimum Load	Charge Minimale	الحمل الأدنى
Main Landing	Retour Et.Pr.	تأمين مدخل
PTC Detection	Detection PTC	حساس PTC
Power On Homing	Initial. & EDL	رحلة أولية-تيار
Light Inverted	Eclair. Inverse	اضائة معكوسة
Re-leveling	Corrig. Niveau	تصحيح مستوى
EOS During Insp	EOS Et Revision	أخر جولة + فحص
Cam close delay	Delai fermetu. serr	تأخير اقفال
Cam engage time	Duree fermetu. serr	مدة اقفال
Contactor start del	Delai Depart Cont.	تأخير الإقلاع كنتكتور
Update Counter	Compteur	Update Counter
Offset Applied	Offset Appliq.	Offset Applied
Time Restrict.	Compteur Jours	تقييد الوقت
Elapsed Cnt Of Days	Jours Deroules	عدد الأيام المنقضية
Preset Count Of Days	Nb. De Jours Desires	تحديد عدد الأيام
Max. Count Of Err.	Nbre Max. D'erreurs	أقصى عدد الأغلاط
Car jammed delay	Delai cabine bloquee	العربة عالقة بعد مرور
Auto Door Operation	Operation porte auto.	عملية باب أوتوماتيك
Inspection speed	Vitesse de Revision	السرعة خلال الفحص
Ramp to stop w Insp	Ramp avec revision	انحدار مع فحص
Basements	Sous-sols	عدد الأدوار السفلية
Door Type	Type De Porte	نوع الباب
Permanent Close	Ferm.Permanente	اغلاق دائم
RE-OPN i/p	Entree RE-OPN	مدخل RE-OPN
Reset time on re-opn	Reset dure apres reopn	محو عداد الوقوف على الطابق
Door Zone	Door Zone	مستوى الباب
Pre-opening	Pre-ouverture	فتح مسبق
First Stop	Premier Arret	الوقفة الأولى
Collective	Collective	تجميع
Carcall priority	Priorite pour cabine	أفضلية للعربة
Encoder	Encoder	المرمز
Pulses/Revolution	Pouls/Revolution	نبض/دورة
Roping	Corde	الحبل
Nominal RPM	RPM nominale	Nominal RPM
Machine speed m/s	Vitesse machine m/s	سرعة المكنة
HiSpd reached (m)	GV atteinte (m)	مسافة بلوغ HiSpd.
IntSpd reached (m)	VInt atteinte	مسافة بلوغ IntSpd.
LoSpd reached (m)	VPetite atteinte (m)	مسافة بلوغ LoSpd.
SlowDown dist. m	Ralentissage m	مسافة البطئ
Int. SlowDown m	Ralentissage Int m	مسافة البطئ Int
Lo SlowDown m	Ralentissage Lo m	مسافة البطئ Lo
Extension Boards	Nbre D'extensions	عدد لوحات مضافة
Mode	Mode	مصعد

ENGLISH	FRENCH	ARABIC
Drive	Moteur	المحرك
Intermediat Speed	Vitesse intermed.	سرعة متوسطة
Homing Speed	Vitesse initialisat.	سرعة رحلة أولية
Spare1	Spare1	اضافي1
Spare2	Spare2	اضافي2
Spare3	Spare3	اضافي3
Spare4	Spare4	اضافي4
Passenger Capacity	Nbre de personnes	عدد الأشخاص
Display Type	Type d'afficheur	المؤشر
Total Trips	Nb. De Parcours	عداد الرحلات
Language	Langage	اللغة
Board Address	Adresse de la carte	عنوان اللوحة
User Password	Code Utilisateur	رقم سري للفني
Co.	Co.	شركة
RTC Device	RTC	RTC
Max Trips/h	Parcrs Max/h	أقصى رحلات / س
Adjust Time	Ajuster L'heure	ضبط الوقت
Adjust Date	Ajuster La Date	ضبط التاريخ
Adjust Day	Ajuster Le Jour	ضبط اليوم
Upload settings to DT	Enregistrer param.sur DT	حفظ الضبط على DT
Dnload settings from DT	Telecharger param. du DT	تنزيل الضبط من DT
Learning trip	Parcours d'apprentissage	رحلة تعلم
Manual Floor adjustment	Ajustement manuel etages	تسوية يدوية للطوابق
Calc. HiSpd Distances	Calc. Distances de GV	تخمين مسافات السريع؟
Calc. IntSpd Distances	Calc. Distances de VInt	تخمين مسافات الوسط ؟
Calc. LoSpd Distances	Calc. Distances de PV?	تخمين مسافات البطئ؟
MCI-HC Assignment?	Affectation MCI-HC?	تعيين MCI-HC؟
Load Factory Settings	Configuration Initiale	اعادة قيم المصنع
Exit Menu Temporarily	Sortie temporaire Menu	خروج مؤقت من الائحة
Exit Menu	Sortir Du Menu	خروج من الائحة

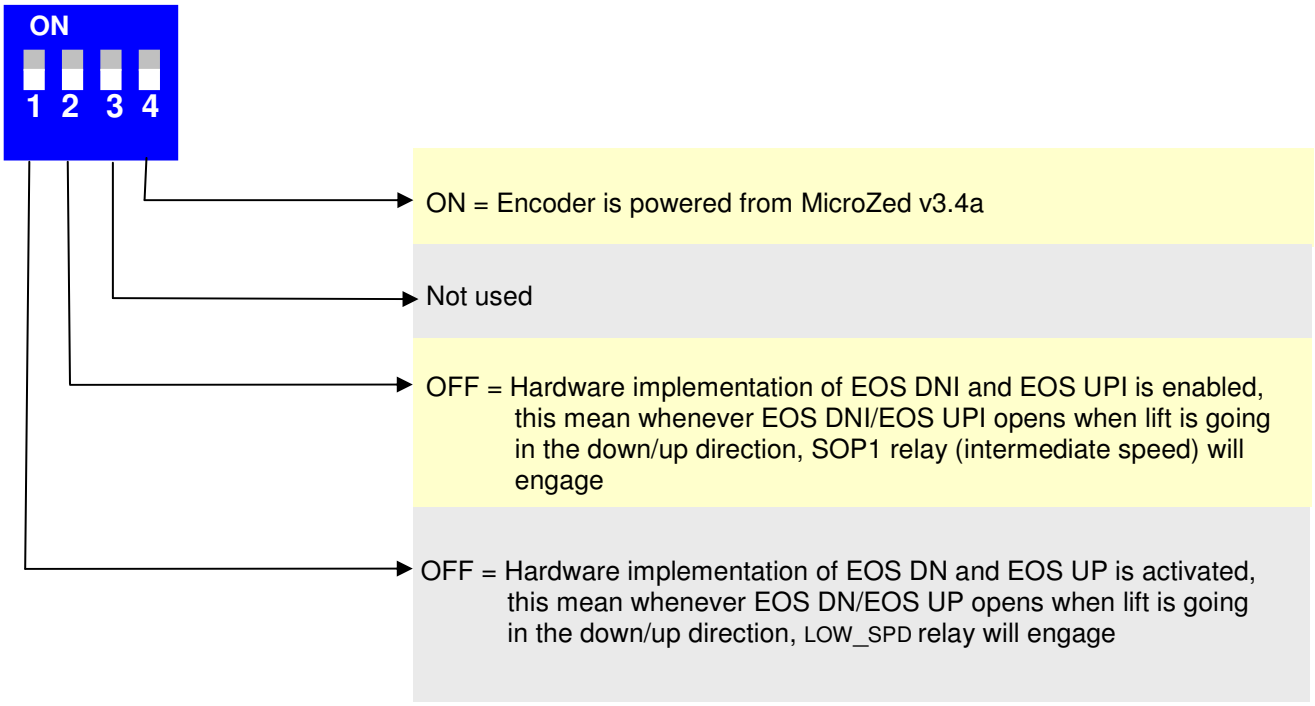
5.3.2 ON-BOARD CALL REGISTRATION FUNCTION

The operator can give calls using the page “Simulate calls” to test the lift. Lift has to be in normal operation with no faults. When SELECT is pressed, the display will show FL#. Use the PREV and NEXT push buttons to change the floor selection. Once the desired floor is displayed, press SELECT push button, the display will show the calls available on the floor selected. Push the appropriate button, the call for this floor is registered and the appropriate led will light on the board as well as in the car or hall. The lift will proceed to serve this call. If no buttons are pressed within 5 seconds, the display will exit the call registration mode. The display will exit the floor selection mode if no buttons are pressed for 5 seconds.

5.3.3 ON-BOARD INSPECTION OPERATION

The display has to be on “Inspection operation” page. Lift has to be in inspection mode. When SELECT is pressed, the NEXT and PREV push buttons acts as INSP_DN and INSP_UP inputs respectively. To exit the inspection direction mode, press SELECT push button. The board will also exit the inspection direction mode if no buttons are pressed within 10 seconds. The INSP_DN and INSP_UP inputs have higher priority and will override the NEXT and PREV push buttons.

6 DIP SWITCHES FUNCTION DESCRIPTION



7 IMPLEMENTAION OF DIRECT APPROACH (USING ENCODER)

7.1 ELEVATOR INSTALLATION

1. The elevator must be in inspection mode.
2. DZ magnetic switches must be installed.
3. EOS UP and EOS DN must be installed at a distance of 1 m from last floor and first floor respectively.
4. EOS UP1 and EOS DN1 must be installed at a distance of 1.5 m from last floor and first floor respectively.
5. Encoder must be connected to MicroZed v3.4a controller.

7.2 SETTINGS IN THE MAIN MENU

1. Set the “Drive” type to VVVF.
2. Set “Door Zone” to installed.
3. Set “VVVF Start Delay” and “VVVF/ Hyd Stop Delay” depending on the VVVF type used (“VVVF/ Hyd Stop Delay” should be greater than time required to decelerate from high speed to zero).
4. Set “Endocer” to installed.
5. Set “Pulses/Revolution”, “Roping”, “Machine speed m/s” and “Nominal RPM” to their appropriate values.
6. Set “Homing Speed” to inspection speed.
7. Set “Spare1” output to intermediate speed.
8. Make sure that lift is going in the right direction (when inspection up, ↑ green led must be ON and when insp dn, ↓ red led must be ON). If not switch Up and DN direction outputs. Otherwise, switch encoder signals.

7.3 LEARNING TRIP PROCEDURE

1. Adjust the elevator at a position about 1m above EOS DN.
2. Set Dip switches 1 and 2 to ON.
3. Set the elevator to normal mode. The display will show “Must do a Learning trip”.
4. Enter to the menu and select “Learning trip”[1], Select yes when “Are you sure?” message appears.

[1] To do Learning trip, Collective type must not be set to MUL↓ or MULF. Otherwise, the controller will prompt the user to change the collective type and will give this message ” Modify collective type to Down or Full”

5. The controller starts learning trip at homing speed.
6. At the end of learning trip procedure, “Learning trip succeeded” message is displayed for 2 seconds.
7. After the learning trip, the user is prompted to save the results. “Save procedure result” message appears on the display.
8. If Yes is selected, the results are saved and the controller does a homing trip and stops on floor 0.
9. If No is selected, then the message “Must do a Learning trip” will reappear.

7.4 DISTANCE CALCULATION

1. Set the elevator to inspection mode.
2. Implement the necessary tuning on the VVVF drive to ensure close tracking of reference speed.
3. Adjust the position of the elevator on floor1 with DZ magnetic switch active.
4. Set the elevator to normal mode.
5. Enter to the menu and select “Calc. HiSpd Distances “, Select yes when “Are you sure?” message appears.
6. At the end of high speed distance calculation, “Calculate distance succeeded” message is displayed for 2 seconds.
7. After the calculation, the user is prompted to save the result where “Save procedure result” message appears on the display.
8. Select yes to save the result.
9. Repeat from step 4 while selecting “Calc. IntSpd Distances “.
10. Repeat from step 4 while selecting “Calc. LoSpd Distances “.
11. When all the 3 distances are calculated, do homing trip.
12. Adjust the position of EOS DN and EOS UP to “Int. SlowDown m” minus 5cm from floor0 and last floor levels respectively (Not from DZ edge).
13. Adjust the position of EOS DNI and EOS UPI to “SlowDown dist. m” minus 5cm from floor0 and last floor levels respectively (Not from DZ edge).
14. Set Dip switches 1 and 2 to off to activate hardware implementation EOS UP, EOS DN, EOS UPI and EOS DNI.

8 MANUAL FLOOR ADJUSTMENT

Manual floor adjustment allows the installer to fine-tune the floor stopping position of the lift and should only be done after learning trip procedure and distance calculation. Normally, if all DZ flags (or magnets) are accurately positioned on the floor level, no additional floor tuning would be necessary. To manually adjust the floor level, the following steps must be implemented:

1. Put lift in normal mode
2. Give a car call to the lowest floor and record in a table the floor stopping position next to floor 0 and proceed by giving car calls to stop on all the floors in the building and on each stop record the difference in the floor stopping position next to the corresponding floor starting from floor1. It is good practice to use positive values for stops lower than the floor position and to use negative values for stops higher than the floor positions.
3. Enter the menu and go to “Manual Floor Adjustment”
4. Starting from floor 0, edit to position and add to it the value recorded in the table next to floor0
5. Repeat step4 for all subsequent floors
6. Give a car call to floor 0, Check to floor stopping position which should be correct by now
7. Repeat step6 for all subsequent floors
8. Proceed from last floor by giving a car call to the floor before last floor and record the difference in the floor stopping position if any (more than 5mm)
9. Repeat step8 until floor0 is reached
10. If there is a constant difference in the floor stopping position, enter the menu and go to “Offset Applied”, edit it and put this value and press enter. Note that the display will always show the value of the last offset applied. For instance, if an offset of 20mm is applied, the display will always show 20mm. To undo this offset and return to zero offset, the user needs to apply an offset of -20mm and not an offset of zero.

9 INSTALLATION GUIDE

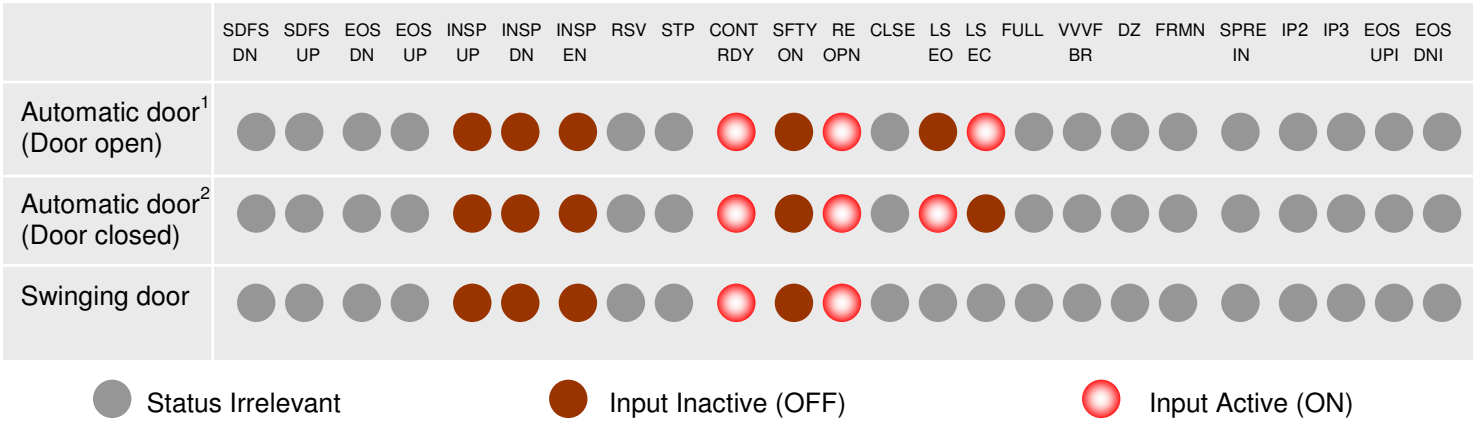
For the following analysis, we are assuming that the PTC is either disabled or properly connected, the DZ magnetic switch is not installed and its parameter in the menu is set accordingly and EOS during Insp is disabled.

Step 1

- Install and wire the panel according to wiring diagrams provided by the panel assembler.
- Double-check all connections.

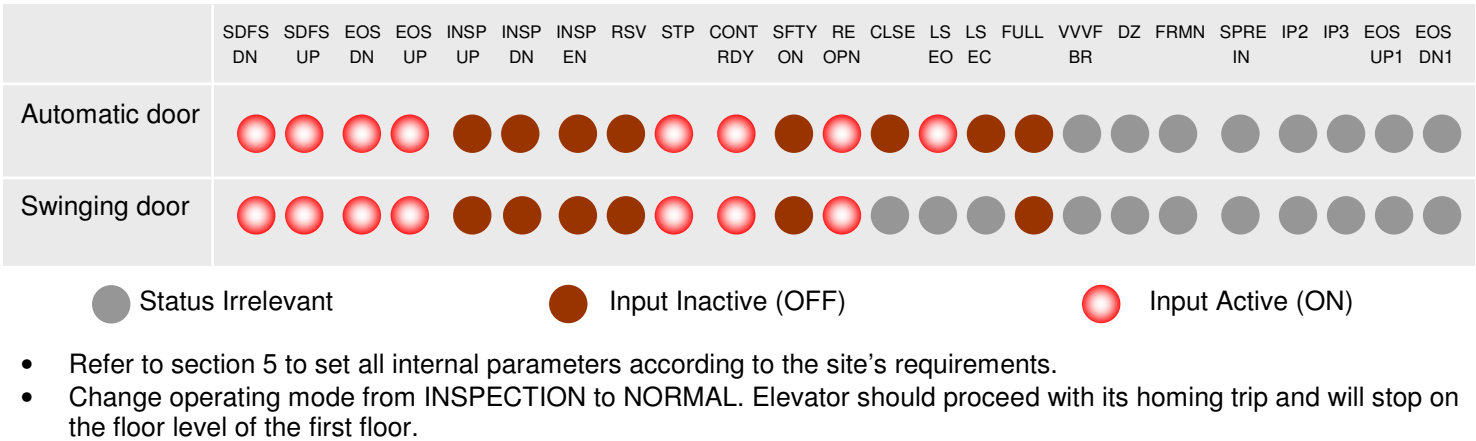
Step 2

- Make sure that the board is in the Inspection Mode (Inspection switch should be opened)
- Power the panel.
- The floor number may be unknown (FL--). This is normal and it indicates that the board does not have a previous car position in memory. As soon as the elevator is switched from inspection to normal operation, it will make a homing trip and floor display will show 0 when the elevator reaches the first stop.
- If all safety circuits are closed, inspection up and inspection down push buttons are active (therefore inspection travel only requires the closing of safety circuit). Below is a visual indication of what the status of the input LEDs should be so that the elevator operates in the inspection mode:



Step 3

- Using the elevator in the inspection mode, adjust the position of all magnets according to the layout provided on the MICROZED V3.4 WIRING DIAGRAM – INPUTS (SHEET 3 of 10); refer to section 10 APPENDIX A.
- If you are using bi-stable magnetic switches, proceed with inspection travel to terminal floors to properly set their contacts.
- When you finish, and prior to changing the operating mode from inspection to normal, the inputs should look as follows (given that elevator is on any intermediate floor and on floor level):



- Refer to section 5 to set all internal parameters according to the site's requirements.
- Change operating mode from INSPECTION to NORMAL. Elevator should proceed with its homing trip and will stop on the floor level of the first floor.

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[1] When an inspection up or down is given, board proceeds by closing the door before moving. Door is then kept closed. This applies also for ½ automatic door.
[2] This applies also for ½ automatic door.

10 APPENDIX A

This appendix contains all wiring diagrams relevant to assembling the board in a panel.