APPENDIX C

CONTROLLER MONITORING INTERFACE
JRT-LCD

VERSION 4.1

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Operation Instructions for JRT-LCD

1. NOTES AND PRECAUTIONS:

The "LCD" is protected by a TVS and by a fuse that can short-circuit in case of an incorrect connection. Verify their operation and replace them if necessary.

2. OPERATION CONDITIONS:

Input Voltage	24VDC
Input current	0,5 Amp
Frequency	60HZ
Communication port	Port RS-232
Liquid crystal display	4 lines of 16 characters (LCD 16x24)
Operation temperature	0 to 45°C

Is it possible to install the "LCD" on an already existing elevator controller? **YES** but the controller must however satisfy to certain criteria in order to use these tools:

- Have, at least, a programmable PLC, CQM1-CPU-21.

- Have a serial port or peripheral port available.

- Provide a power supply of 24VDC.

3. PRESENTATION:

The "LCD" was designed to achieve an easy installation and operation. It allows visualizing the state of the elevator controller (floor, speed in RPM, perforated tape position, alarms, etc.), to modify the PLC configuration registers as well as to record/place remote car and hall calls. Moreover, it has a language option that allows displaying the information either in English or in French. For that reason, it is important to read this manual entirely, for a quick and safe use.

The "LCD" has many different "LED" lights. The "POWER" led indicates the "LCD" is activated. The "LED2" light blinks to indicate the program is operating normally. However, if the "LED2" light remains off or on continuously, it means the program is not in working order. To arrange this, turn the "LCD" power off for 2 to 3 seconds, and then turn it back on. If the problem persists, contact Automatisation JRT.

When the elevator controller is in fault, the "LCD" blinks to advise the user.
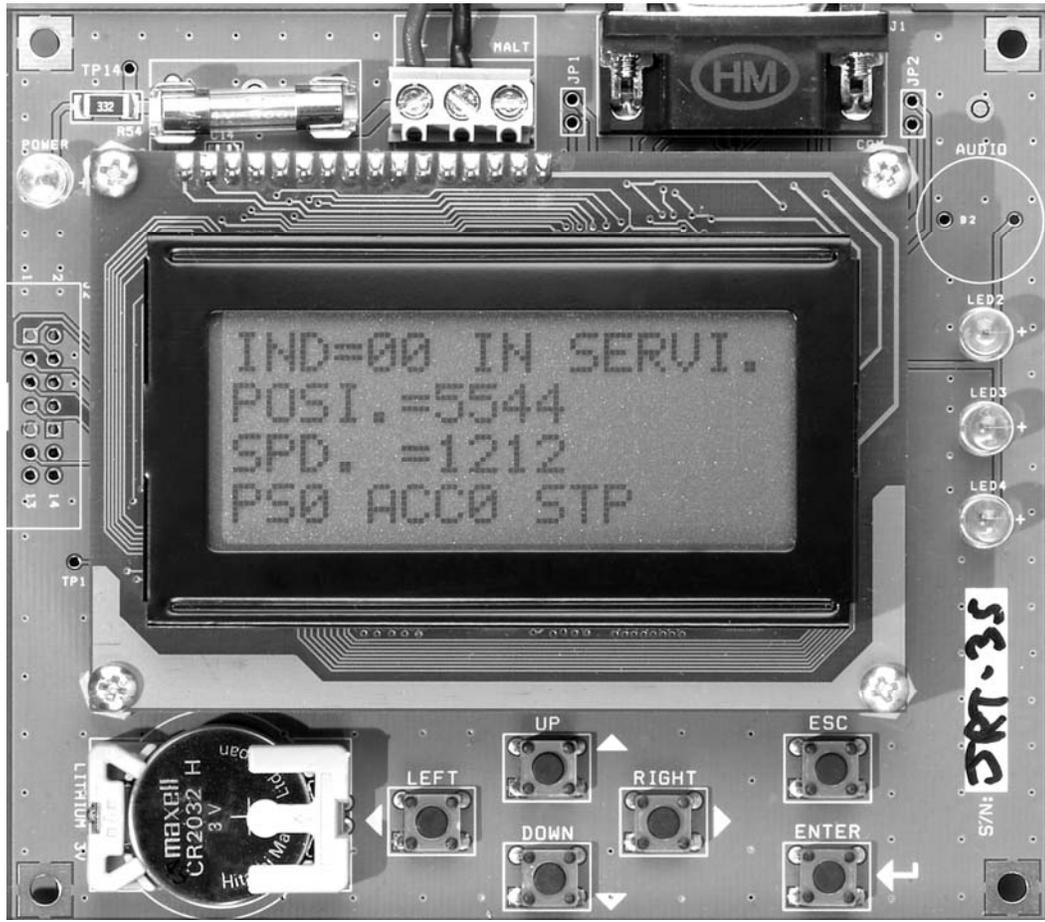
4. OPTIONS:

The "LCD" may have (on demand):

- Buzzer

- Communication RS-485

- Special Programming

The "LCD" can easily be updated. Using a computer and a "Pin-To-Pin" direct cable, the user can transfer a new version via an application and the update file provided by Automatisation JRT.

5. KEY PUSH BUTTONS:

The "UP/DOWN" keys allow access to the main menus or to the sub-menus. Moreover, they allow changing of a parameter value.

The "LEFT/RIGHT" keys allow to position the cursor on the parameter to modify.

The "ENTER" key allows access to a sub-menu. It is also used to save a new value.

The "ESC" key allows to go back to the previous menus or to cancel modifications made to a parameter.

6. MENUS:

The menu structure as many levels.

LCD MENUS DIAGRAM
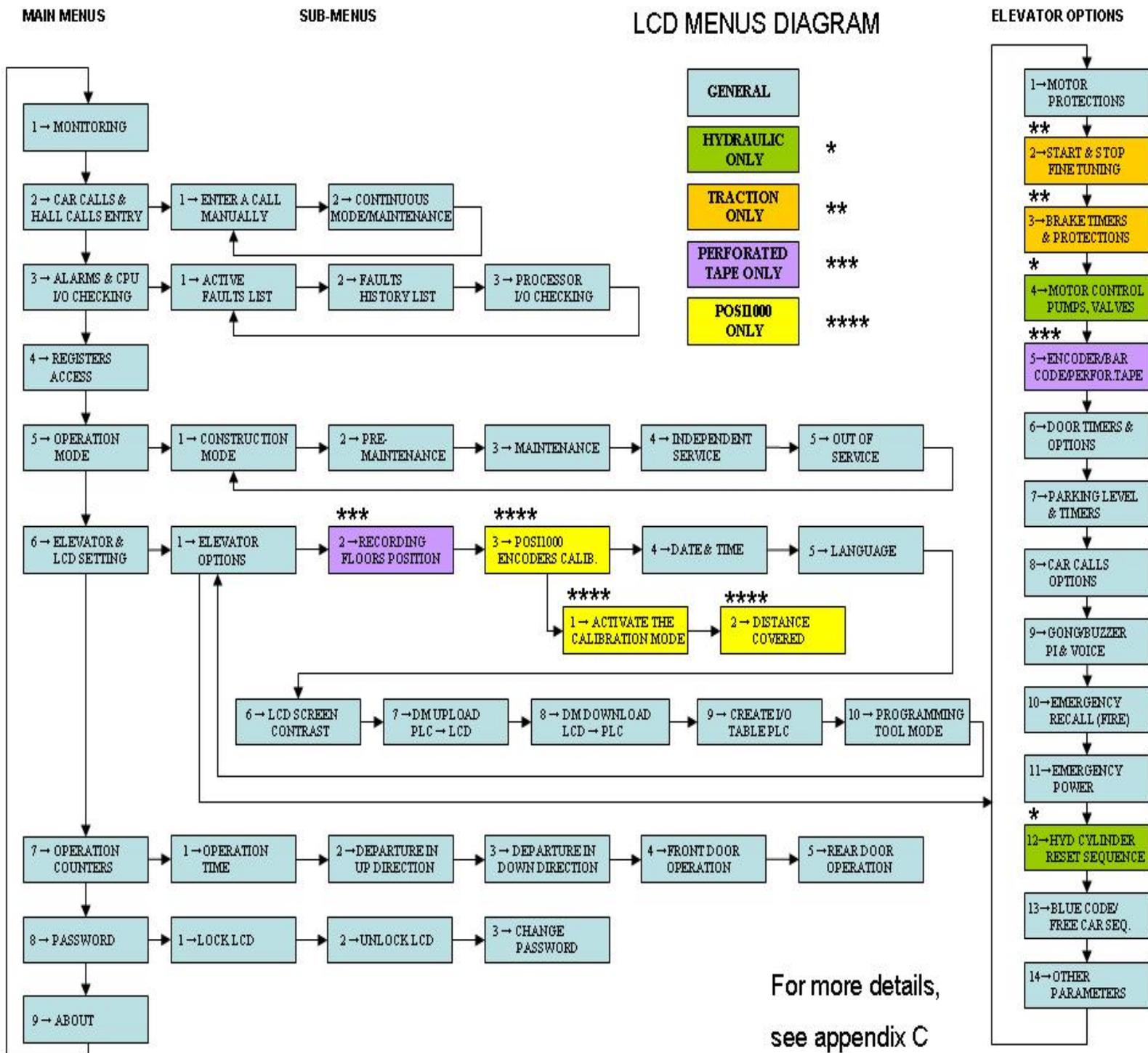
The access time for each menu is 2 hours. Every time a key is pressed, the timer is reset. After 2 hours, the monitoring screen will be shown.

To access a menu:

- Press the "UP/DOWN" keys to select the menu.

- Press the "ENTER" key to access the menu.

- Press the "ESC" key to go back to the main menus.

6.1. MONITORING:

The monitoring menu shows, in actual time, the data of the elevator's status. This information can be used during the temporary and final start-up. When starting or after 2 hours of keyboard inactivity, the following screen will be shown:
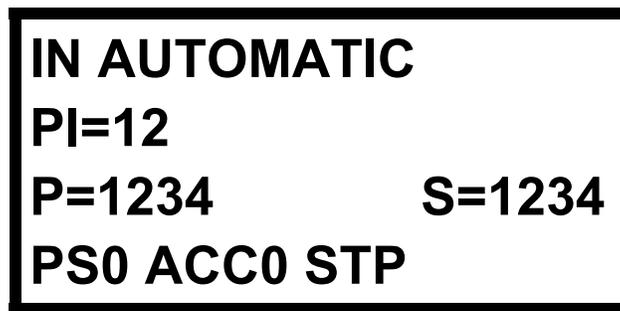
```
IN AUTOMATIC
PI=12
P=1234              S=1234
PS0 ACC0 STP
```

Monitor screen informations:

- AUTOMATIC = Actual status of the elevator (See next page for the complete list).

- PI. = Floor where the elevator is located.

- P = Actual position of the perforated tape (only if the controller has a perforated tape).

- S = Elevator actual speed in FPM (only if the controller has a perforated tape).

- If the elevator is traction, the last line is for the drive.

  ➢ PSX = Preset speed X. PS0 = Preset speed 0 (see the drawings at the drive page)

  ➢ ACCX = Accel or decel X. ACC1 = Accel 1 (see the drawings at the drive page)

  ➢ FOW = Forward, REV = Reverse, STP = Stop

- If "Soft-Start", the last line is for the "Soft-Start".

> STOP = The elevator is not moving.

> RUN = The elevator is moving.

> Up to speed = The elevator reaches the maximum speed.

If there is more than one status in the PLC, the "LCD" will scroll them one after the other.

When the elevator controller is in floor position upload cycle, the "LCD" displays "DM483" at the position "PI.=". It is possible to see if the number of door zone magnets (DZO) is the same as the number of floors.

6.1.1.   Status list:

STATUS	DESCRIPTION
IN AUTOMATIC	Elevator in automatic mode.
CONTINUOUS CALLS	Continuous car call entry sequence activated.
OUT OF SERVICE	Elevator out of service.
LW1 LIMIT	LW1 sensor activated (load weight device). Do not answer hall calls. To much load in the car.
LW3 LIMIT	LW3 sensor activated (load weight device), 25% in the car.
UPS, RESCU POWER	Rescupower or UPS activated.
HOLD KEY SWITCH	Hold key activated.
PARKING	Parking activated.
OUT OF GROUP	Elevator out of group.
GEN1 SIGNAL	Emergency power signal.
GEN2 SIGNAL	Emergency power signal (pre-transfer signal).
FIRE ALARM PH 1	General fire signal.
FIRE OPERATION 2	Firefighter operation.
CODE BLUE	Hospital service activated.
FREE CAR	Free car activated.
MAINTENANCE	Maintenance service mode activated.
INDEPENDENT SERV	Independent service mode activated.
CAR STOP SW	Car stop switch activated.
INSPECTION	Inspection service activated.
TROUBLE	Elevator in trouble.
PROGRAM MODE	The plc is in program mode.
EMERGENCY BRAKE	Emergency brake applied.
CAR STOP J9-J9A	Firefighter stop switch.
FLOOR RECORDING	Floor position recording sequence activated.
ENC. CALIBRATION	Encoder calibration sequence activated (POSI1000 only).
CONSTRUCTION	Construction mode activated.
IND.SERV. GRID	Independent service grid activated.
OUT OF SERV GRID	Out of group grid activated.
CAR ACCES GRID	Car call access grid activated.
HALL ACCES GRID	Hall call access grid activated.
DOOR JAMMED OPEN	Door jammed while opening. Check door close mechanical lock.
LRB,LRH TROUBLE	LRB and LRH switch activated at the same time. Check wiring.

STATUS	DESCRIPTION
PC/PP DOOR OPEN	Door lock jumpers are detected. The door reopens.
SI, MNT, TPR	Car calls cancel on SI, MNT, TPR.
LNB TROUBLE	LNB switch opened when the car position is not at bottom floor.
LNH TROUBLE	LNH switch opened when the car position is not at top floor.
MOTOR OVERLOAD	Motor overload input (OVL).
EXCESSIVE VS PH	Excessive car calls counter regards to the photocell.
EARTHQUAKE	Earth quake sensor activated.
ELE.INTERRUPTION	Elevator interruption, contact JRT.
GEN AND NO ORDER	Emergency power operation but not allowed to move.
C-W DISPLACEMENT	Counter weight displacement occurred. Verify switch contact.
CALL CANCEL CDS	Counter weight displacement car call cancellation.
SPEED DEVIATION	The motor speed did not follow the speed command in the error range.
SBR TROUBLE	Brake supply problem. SBR relay.
SEE ALARMS	Car faults. Check the alarm list.
CVI	Uncontrolled speed 150 FPM supervision tripped in levelling or inspection.
DZO STUCK	DZO or DZO1 stuck on.
CL 5 TIMES	The front door did not close after 5 attempts.
RCL 5 TIMES	The rear door did not close after 5 attempts.
HT1/HT2 TROUBLE	Encoder or perforated tape reader problem.
OVERHEAT THM	Motor over temperature (THM).
RESYNCH. LEV. LD	LD sensor synchronisation.
CP1L STOP/ISR	The CP1L CPU (ETSL) is stopped or in inspection.
CAN COMM. LOST	Can master communication lost. Check 232 port cable + flashing leds on master can.
X START NO BRAKE	X starts without brake switch confirmation.
WATER DETECTION	Water level sensor activated in the hoistway.
AUX. POWER LOWER	Car call cancel on emergency power return to lobby sequence.
ANTI FUGUE	Anti fugue detector activated. Very the in car sensor operation.
PEELLE INT. TRB.	Trouble with one or more Peelle door switches.
ZNS STUCK	Peelle door ZNS zone confirmation stuck on.
EMERG. STOP ACT.	Emergency stop activated (POSI1000 only).
POSI MODE SIMUL.	POSI1000 in simulation mode (POSI1000 only).
ENC. COMM LOST	Lost of positioning encoders in the POSI1000 (POSI1000 only).
NB OPENING MAX	Maximum door opening counter reached.
POSI1000 STP/TRB	POSI1000 at stop or in trouble (POSI1000 only).
CAR NETWORK LOST.	CAN 2 line lost with the car station.

6.2. CAR CALLS & HALL CALLS ENTRY:

6.2.1. Enter manually a call at a specific floor:

This menu allows entering a hall or a car call. When there is a dispatcher in the elevator group, or if you are using the elevator B in a duplex, it is impossible to place hall calls, for they are managed by the dispatcher or by the elevator A in a duplex. Furthermore, it is possible to see at which level the elevator is located.

```
HALL        FBU RBU
CAR         FBC RBC
PI.= 10
F=FRONT  R=REAR
```

To enter a call:

- Press "**LEFT/RIGHT**" keys to position the cursor on the type of call desired (car call front/rear, hall call front/rear).

- Press "**UP/DOWN**" keys to select the call.

- Press the "**ENTER**" key to save.

    or

- Press the "**ESC**" key to go back to the previous menu.

If the choice is not available, the message "NOT AVAILABLE" will be shown. Moreover, if the controller does not have a rear call, Rxxx will be shown instead of rear calls.

If the start parameters are not right, this menu will not be available and the "LCD" will show "INVALID SETUP" Communicate with Automatisation JRT to verify DM1400 to DM1411 and the communications parameters.

6.2.2. Continuous mode in maintenance:

This menu allows to setup an automatic car call entry sequence for 2 different levels. The user must specify a lower level value and higher level value. The controller will place continuously car calls at those 2 levels.

```
┌─────────────────────────────┐
│ LOWER LEVEL                 │
│ TO REACH                    │
│                        0012 │
│ ↑ ↓ OTHER  <> CHG           │
└─────────────────────────────┘
```

Sequence activation:

- Press **"UP/DOWN"** keys to select the parameter to modify: (lower level to reach, higher level to reach, stop delay between calls).

- Press **"LEFT/RIGHT"** keys to be in edition mode.

- Press **"LEFT/RIGHT"** keys to place the cursor at the good position.

- Press **"UP/DOWN"** keys to increase/decrease the digit number.

- Press the **"ENTER"** key to change the value in the CPU and quite the edition mode.

- Press the **"ESC"** key to exit without saving the value.

- Repeat for all other parameters

.

6.3. ALARMS & CPU I/O CHECKING:

6.3.1. Active faults list:

This menu allows to visualize the different alarms in the controller. The "LCD" shows "NO ALARM" when the elevator controller has no alarms recorded.

```
REPLACE OMRON
CPU BATTERY
HR8001
ENTER->ERASE
```

<u>**To erase alarms:**</u>

- Press the **"ENTER"** key and the following screen will appear to confirm the alarms erasing.
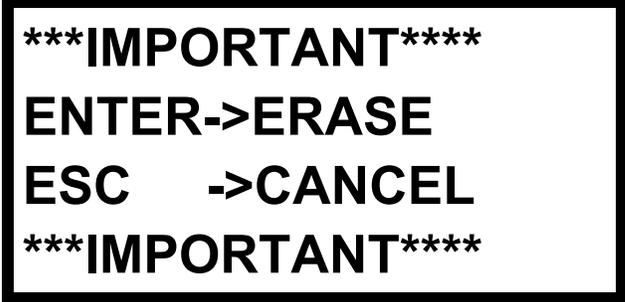
```
***IMPORTANT****
ENTER->ERASE
ESC    ->CANCEL
***IMPORTANT****
```

If the alarm is still present, it will automatically show up again in the alarms list menu. Erasing an alarm through the "LCD" does not reset the alarm in the elevator controller.

6.3.2. Faults history list:

```
REPLACE OMRON
CPU BATTERY
2009-07-13
10:12:22PM      H8001
```

This menu allows observation of different alarms in the controller. The "LCD" displays the 20 most recent alarms. If the alarms history menu already contains 20 alarms, the less recent will be deleted of the list when there will be a new alarm.

Visualizing the alarms:

- Press **"UP/DOWN"** keys to visualize the different alarms.

- Press the **"ESC"** key to go back to the previous menu.

This menu shows, for each alarm, the corresponding number and the date and time when it occurred.

In a code B44-00 or more, the alarms are registered in the "HR" and for a code B44-94 or less, they are registered in the "CH" (see elevator user manual).

To erase the history:

- Press the "**ENTER**" key and the following screen will appear to erase or not the faults history.
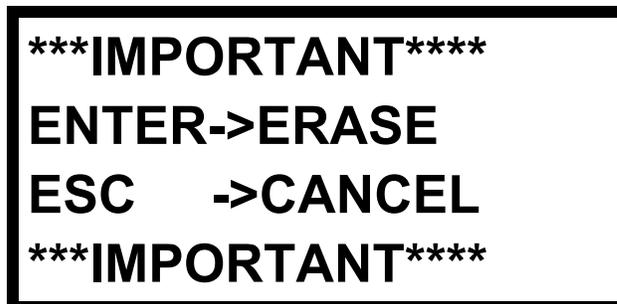
```
***IMPORTANT****
ENTER->ERASE
ESC    ->CANCEL
***IMPORTANT****
```

6.3.3. Controller I/O diagnostic:

It is possible to visualize the controller's inputs/outputs with the electrical drawings supplied with the controller. In the inputs/outputs pages, the "Channel CH" number is written above the module. If the module has more than one channel, the underlined one is the right one.

Example:
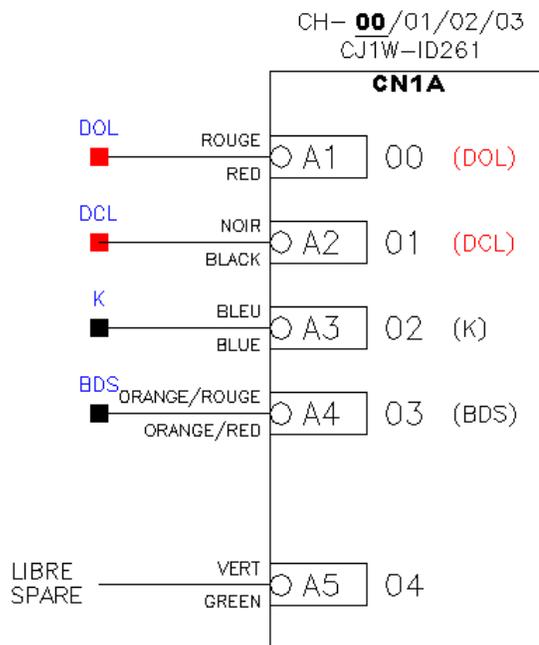
This example indicates that "BIT 0" and "BIT 3" are activated. So, inputs "DOL" and "BDS" are activated.

"BIT 0" is always on the right.

"BIT15" is always on the left.

The numbers 8, 4 and the symbol "^" help to find the corresponding bit number.

Selecting the register number:

- Press "**LEFT/RIGHT"** keys to place the cursor on the number to modify.

- Press "**UP/DOWN"** keys to modify the number.

- Press the "**ENTER"** key to save and go to the next menu.

- Press the "**ESC"** key to go back to the previous menu.

- Press **"UP/DOWN"** keys to see what is in the following or previous "CH".

This diagnostic tool may also be used when you have the option "CanBus". The "Channel CH" number is on the drawing.

Modules example "JRT-CAN-24IO":
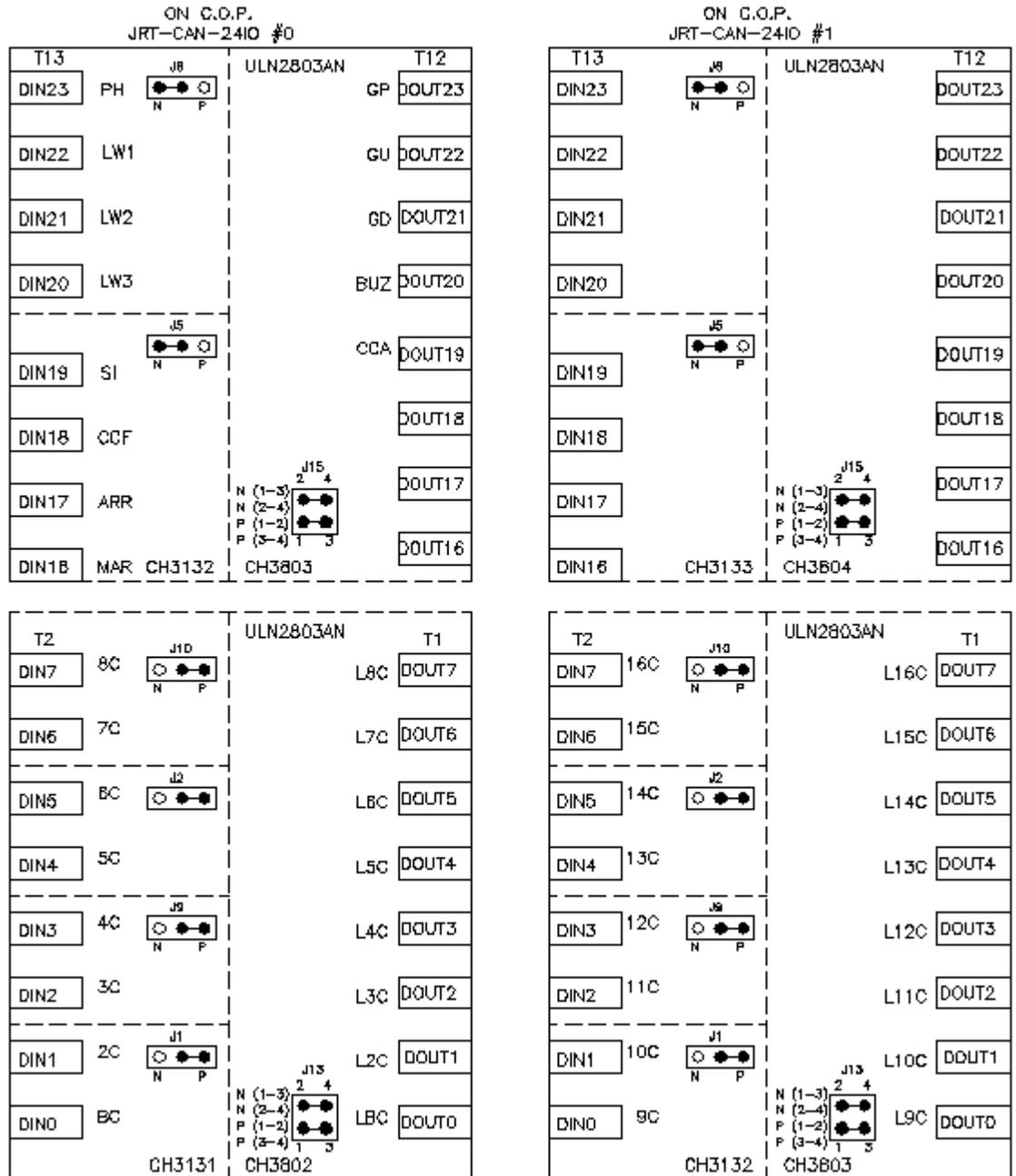
A module "JRT-CAN-24IO" has 24 inputs and 24 outputs. A "CH" has 16 "BIT".

Input:

CH 3131 bits 07-00 ➜ JRT-CAN-24IO #0 (07-00)

CH 3131 bits 15-08 ➜ JRT-CAN-24IO #0 (15-08)

CH 3132 bits 07-00 ➜ JRT-CAN-24IO #0 (23-16)

CH 3132 bits 15-08 ➜ JRT-CAN-24IO #1 (07-00)

CH 3133 bits 07-00 ➜ JRT-CAN-24IO #1 (15-08)

CH 3133 bits 15-08 ➜ JRT-CAN-24IO #1 (23-16)

Output:

CH 3802 bits 07-00 ➜ JRT-CAN-24IO #0 (07-00)

CH 3802 bits 15-08 ➜ JRT-CAN-24IO #0 (15-08)

CH 3803 bits 07-00 ➜ JRT-CAN-24IO #0 (23-16)

CH 3803 bits 15-08 ➜ JRT-CAN-24IO #1 (07-00)

CH 3804 bits 07-00 ➜ JRT-CAN-24IO #1 (15-08)

CH 3804 bits 15-08 ➜ JRT-CAN-24IO #1 (23-16)

6.4. REGISTERS ACCESS:

This menu allows to read and to write in one of the PLC's register.

Choosing a register type:

- Press **"UP/DOWN"** keys to select a register.

- Press the **"ENTER"** key to save.

  or

- Press the **"ESC"** key to go back to the previous menu.

Choice of registers:

- DM, CH, HR, LR and AR. (CQM1)

- DM, CH, HR and AR (CJ1M)

```
REGISTER TYPE

->DM
```

Selecting the register number:

- Press **"LEFT/RIGHT"** keys to place the cursor on the number to modify.

- Press **"UP/DOWN"** keys to modify the number.

- Press the **"ENTER"** key to save and go to the next menu.

- Press the **"ESC"** key to go back to the previous menu.

```
REGISTER NUMBER


->DM0000
```

Register value:

- The register value is shown under hexadecimal and binary formats.

- Press **"UP/DOWN"** keys for the following or previous register.

- Press the **"ENTER"** key to modify the register value.

- Press the **"ESC"** key to go back to the previous menu.

```
DM0000 = 0001
0000000000000001
15 ^    8    4    0
  ENTER = CHG
```

Modifying the register value:

- Press **"LEFT/RIGHT"** keys to place the cursor on the number to modify.

- Press **"UP/DOWN"** keys to modify the number.

- Press the **"ENTER"** key to save and go back to the previous menu.

- Press the **"ESC"** key to go back to the previous menu.

```
->DM0000


OLD      = 0001
NEW      = 1234
```

6.5. OPERATION MODE:

6.5.1. Construction mode:

This menu allows deactivating temporarily certain faults detection to facilitate the elevator start-up in construction mode. As soon as the elevator controller will be placed in automatic mode and that a call has been placed, the construction mode will be deactivated automatically and all the signals will be functioning. It is possible to activate or deactivate the mode with the "LCD".

<u>To activate the construction mode:</u>

- Press the **"UP"** key to activate the mode.

- Press the **"DOWN"** key to deactivate the mode.

- Press the **"ESC"** key to go back to the previous menu.

6.5.2. Pre-maintenance:

This menu allows activating the pre-maintenance mode. The elevator becomes out of group and no hall calls will be answered.

<u>To activate the pre-maintenance mode:</u>

- Press the **"UP"** key to activate the mode

- Press the **"DOWN"** key to deactivate the mode.

- Press the **"ESC"** key to go back to the previous menu.

6.5.3. Maintenance:

This menu allows to activate the maintenance mode.

<u>To activate the Maintenance mode:</u>

- Press the **"UP"** key to activate the mode

- Press the **"DOWN"** key to deactivate the mode.

- Press the **"ESC"** key to go back to the previous menu.

6.5.4.   Independent service:

This menu allows activating the independent service mode.

To activate the Independent service mode:

- Press the **"UP"** key to activate the mode

- Press the **"DOWN"** key to deactivate the mode.

- Press the **"ESC"** key to go back to the previous menu.

6.5.5.   Out of service:

This menu allows placing the elevator out of service manually. Inspection mode does not work either.

To place the elevator out of service:

- Press the **"UP"** key to activate the mode

- Press the **"DOWN"** key to deactivate the mode.

- Press the **"ESC"** key to go back to the previous menu.

6.6. ELEVATOR AND LCD SETTINGS:

6.6.1. Elevator options:

This section contains all elevator control parameters. The parameters are separated by sections. Some sections will be hidden according to the controller type and option.

To select an option:

- Press **"UP/DOWN"** keys to select a menu option.

- Press the **"ENTER"** key.

- Press the **"UP/DOWN"** keys to select the parameter to check.

- Press the **"LEFT/RIGHT"** keys to edit the parameter.

- Press the **"LEFT/RIGHT"** keys to change the digit to modify.

- Press the **"UP/DOWN"** keys to change the number.

- Press the **"ENTER"** key to save the new value and exit edition mode.

- Press the **"ESC"** key to exit without saving.

- Repeat for all parameters that you want to change.

6.6.1.1. Motor Protections:

OPTION	DESCRIPTION	UNIT	TYPE
DEACTIVATE THM THERMAL CONTACT	Deactivation of motor temperature protection "THM" input.	YES/NO	ALL
TOO LONG TRAVEL PROTECTION DELAY	Maximum time permitted to get to another floor. That time needs to be long enough to move from bottom to top floor plus a safety margin.	0.1s	ALL
INVERT LOW OIL SENSOR CONTACT	Reverse or not the polarity for the low oil sensor	YES/NO	HYDRAULIC
LOW OIL LEVEL DETECT. ON DELAY	On delay time before low oil detection. The low oil detection sequence will start after that delay.	0.1s	HYDRAULIC
DEACTIVATE LOW PRESSURE SW. LPS	Deactivation of the low pressure switch input (LPS).	YES/NO	HYDRAULIC

6.6.1.2. Start & Stop fine tuning:

OPTION	DESCRIPTION	UNIT	TYPE
BRAKE OPENING DELAY AT START	Approximated brake open delay at start. After that delay, a speed command is given.	0.1s	TRACTION
STOP DECEL DELAY FROM 7 TO 0 FPM	Approximated time to reduce the speed from 7 to 0 FPM at the final stop in levelling. The brake will be released after that delay. A too short delay will cause the motor to turn in the brake pads.	0.1s	TRACTION
DRIVE ENABLE OFF DELAY AT STOP	Delay before turning off the motor drive. That delay starts counting after stop decel delay. That delay must be long enough to cover the brake dropping time and add an extra 0.5s after brake applies.	0.1s	TRACTION

6.6.1.3. Brake timers & Protections:

OPTION	DESCRIPTION	UNIT	TYPE
BRAKE PEAK VOLTAGE DELAY	Delay before brake voltage reduction when the brake opens at start (HLD) relay.	0.1s	TRACTION
DEACTIVATE BRAKE SW. MONITORING	Deactivation of the brake switch monitoring contact "BRC".	YES/NO	TRACTION
INVERT BRAKE SWITCH CONTACT	Reverse or not the brake switch monitoring contact "BRC".	YES/NO	TRACTION

6.6.1.4. Motor control pumps, valves:

OPTION	DESCRIPTION	UNIT	TYPE
FAST VALVE IN CONTROLLER INSPECTION	The elevator will move with fast valves when the inside controller inspection switch is activated. If NO, only the slow speed valves will be used.	YES/NO	HYDRAULIC
FAST VALVE CAR TOP INSP & ACCES	The elevator will move with fast valves on top of car inspection or access operation. If NO, only the slow speed valves will be used.	YES/NO	HYDRAULIC
PUMP ACTIVATION ON DOOR CLOSING	Activate that option if the user wants to turn on the pump during door closure with a direction to another floor. That feature helps to reduce flight times. But it requires a good adjustment of the relief valve.	YES/NO	HYDRAULIC
PUMP START DELAY ON DOOR CLOSING	Delay after the door begins to close to start the pump motor.	0.1s	HYDRAULIC
DELAY FOR PUMP SMOOTH STOP	Delay that maintains motor rotation after the up valves turn off. That delay avoids a kick in the oil pipes.	0.1s	HYDRAULIC
NIGHT MODE ACTIVATION DELAY	Delay before the controller switch in night mode operation. Once the night mode turns on, when the levelling up sensor turns on to re-level the car, a counter delayed the car movement for one or 2 minutes. Note: as soon the car leaves the door zone or any trouble occurs, the night mode is cancelled.	Minute	HYDRAULIC
NIGHT MODE LEVELING DELAY	Night mode delay before LU levelling sensor move the car UP to the floor.	Minute	HYDRAULIC

6.6.1.5. Encoder/Bar code/Perforated tape:

OPTION	DESCRIPTION	UNIT	TYPE
DECEL DISTANCE SPD <= 225FPM	Number of holes counted to slow down the elevator. In general, this is the slow down distance for 1 floor run. If the car contract speed is 200 FPM and less, this is the only slow down distance used. On a 250 FPM job, most of the time; this is the 1 floor run slowdown distance.	¾ inch	HOLES COUNTER/ENCODER
DECEL DISTANCE SPD >= 250FPM	Number of holes counted to slow down the elevator. This is the slow down distance for 2 floor run and more.	¾ inch	HOLES COUNTER/ENCODER
BOT ACCES ZONE LIMIT (3/4 CNT)	Number of holes counted to determine the access came at bottom floor.	¾ inch	HOLES COUNTER/ENCODER
TOP ACCES ZONE LIMIT (3/4 CNT)	Number of holes counted to determine the access came at top floor.	¾ inch	HOLES COUNTER/ENCODER
DEACTIVATE BAR CODE P1, P2, P3.	Deactivate the bar code sensors. This is for temporary bar code failure. The elevator will run and LRH and LRB will correct the position at bottom and top floor. Once the problem is resolved, put NO to activate the bar code system.	YES/NO	HOLES COUNTER/ENCODER

OPTION	DESCRIPTION	UNIT	TYPE
FORCE NEW LEVEL MANUALLY 2-TOP	This option allows forcing a specific floor level to put the car out of step. This feature is useful to make a buffer test or to verify the speed limiting device system at final floors.	n/a	HOLES COUNTER/ENCODER

6.6.1.6. Door timers & options:

OPTION	DESCRIPTION	UNIT	TYPE
DOOR OPENED DEL.ON HALL CALL	Door opened time on a hall call. The timer begins to count when the door is fully opened.	0.1s	ALL
DOOR OPENED DEL.ON CAR CALL	Door opened time on a car call. The timer begins to count when the door is fully opened.	0.1s	ALL
DOOR OPENED DEL.ON PH RE-OPENING	Door opened time on photocell re-opening. The timer begins to count when the door is fully opened	0.1s	ALL
DELAY BEFORE DOOR NUDGING	Time before door nudging when the photocell reopens the door. The timer begins to count when the door is fully opened. The door will close in reduce speed. Normally 15s.	0.1s	ALL
DOOR PRE-OPENING IN LEVELING ZONE	Door pre-opening when the elevator slows down and the door zone sensor activates in levelling.	YES/NO	ALL
DELAY BEFORE DOOR PRE-OPENING	When the elevator slows down and the door zone sensor activates in levelling, this is the delay before the door begins to open. Adjust that delay long enough to see around 1.0 inch when door is 75% opened.	0.1s	ALL
MAIN FLOOR DOOR OPENED DELAY LW3	Activation of the longer door opened timer at main floor. This timer only at main floor and as the effect to load more the elevator cabin before the door closure. That feature is more often used in groups. Not in simplex car.	YES/NO	ALL
MAIN FLOOR DOOR OPENED DELAY LW3	That delay takes effect when the longer door opened timer at main floor is activated. The weight sensor (LW3) input is generally adjusted for 25% load. As soon as that input turns on, the door begins to close. The door close button is not operational during that timing.	0.1s	ALL
RESET HALL DOOR TIMER ON PH	That feature is most of the time used in hospital or building with people with reduced mobility. As soon the photocell is cut or released, the door opened timer on hall call is reset. That gives more time to place the car call when the person gets in the car with a wheel chair…	YES/NO	ALL

6.6.1.7. Parking level & timers:

OPTION	DESCRIPTION	UNIT	TYPE
PARKING RETURN DELAY	Delay before return to parking level. Do not enter a too small value because people that get in the car will not have enough time to place there car call. For simplex 60 sec. or more is good. For groups, 30 to 40s is good.	0.1s	ALL
ACT. EXCLUSIVE PARKING LEVEL	Exclusive parking activation. On any type of control, the adjuster can temporary or permanently program a specific parking level for an elevator (Group or simplex). That parking overrides the dispatcher parking.	YES/NO	ALL
EXCLUSIVE PRK. DOOR OPENED	On exclusive parking operation, door will be opened or not at the parking level.	0.1s	ALL
EXCLUSIVE PRK. FL. LEVEL 1-TOP	On exclusive parking operation, specify the floor level. The level can be: 1, 2, 3, 4, 5… Example: for a parking at 2Z (second door zone), write 2. If you write 0, the CPU will correct with 1. If you enter a value greater than top floor, the CPU will change for top floor.	n/a	ALL
PRIORITY 1 LEVEL (DUPLEX CAR A)	Duplex group without separate dispatch. First parking level. (Only in CAR A) If = 0, no parking level.	YES/NO	DUPLEX A
PRIORITY 2 LEVEL (DUPLEX CAR A)	Duplex group without separate dispatch. Second parking level. (Only in CAR A) If = 0, no parking level.	0.1s	DUPLEX A
GROUP, DOOR OPEN LEV. 3Z->0100 =4	Groups duplex or more, door opened level (binary). Bit ->15 "0000 0000 0000 0000" <- bit (bit 0 = BZ, bit 15 = 16Z). Must be programmed in all controllers. In hexa = 1, 2, 4, 8, 10, 20, 40, 80, 100, 200, 400, 800…	YES/NO	ALL GROUPS

6.6.1.8. Car calls options:

OPTION	DESCRIPTION	UNIT	TYPE
CAR CALLS ANTI-NUISANCE WITH PH	Activation of the protection of car call anti-nuisance in regards to photocell.	YES/NO	ALL
NO PASSENGER RUN COUNT WITHOUT PH	If the car call anti-nuisance is activated, the controller counts the number of call answered without the photocell beam cut. When that preset count is reached, all the car calls registered will be cleared.	n/a	ALL
TOP & BOTTOM CARCALL CANCELLED	When that feature is activated, each time the elevator stops at top or bottom floor, the car calls are cleared.	YES/NO	ALL
OPPOSITE DIRECT. CAR CALL LOCKING	When that feature is activated, the controller locks the car call in back of the actual direction. Example: if the car moves up and is at 4th floor. 1C, 2C, 3C are not allow. Same principle in the opposite direction.	YES/NO	ALL

6.6.1.9. Gong/Buzzer PI & voice:

OPTION	DESCRIPTION	UNIT	TYPE
FIRE RETURN BUZ.TURN OFF DELAY	Fire buzzer turn off delay. If the fire buzzer needs to be eared during all the main floor return, write 9999 in that register.	0.1s	ALL
CAR CALL ACCEPTANCE SIG.	Activation of the car call acceptance Buzzer pulse. (CCA)	YES/NO	ALL
CCA BUZZER SIG. PULSE DURATION	Car call acceptance pulse duration time.	0.1s	ALL
ACTIVATE PASSING GONG GP	Passing gong activated ? (GP)	YES/NO	ALL
ACTIVATE VOCAL ANNUNCIATOR	In car vocal announcer activated. If NO, the SPE output will not trig and no messages outputs will activate.	YES/NO	ALL
FL. NAME WHEN PASSING EACH FLOOR	If = YES, the voice tells the floor name at each floor during a multiple floor ride. If = NO, the voice tells the floor name only at arrival in levelling.	YES/NO	ALL
BINARY CODE INDICATOR ABCDE	If = NO, standard indicator (one light per floor). There is a timer that turns off the light after 30 min. to avoid burning the light cover If = YES, binary indicator A, B, C, D.	YES/NO	ALL
PI UNDEF. STOP PERIOD CODE 3-99	If value less than 3 = NO. There is no flashing code sent to the position indicator when undefined stop period happened. If the value is greater than equal to 3 = YES. That code number is sent to the position indicator when undefined stop period happened. When the car moves, the actual position will be sent to the position indicator. Undefined stop period is: Faults , SI, INSPEC. MAINT, Out of service.	n/a	ALL
PI DISPLAY CODE IND/FIRE/INSPECT	That feature when enabled, sends three different codes to the position indicator on those situations: Independent service, Fire, Inspection. When the car moves, the actual position will be sent to the position indicator.	YES/NO	ALL
PI INDEPENDENT SERVICE CODE3-99	Flashing code to send to the position indicator in independent service (3 to 99).	n/a	ALL
PI FIRE SERVICE CODE 3-99	Flashing code to send to the position indicator when general fire is activated (3 to 99).	n/a	ALL
PI INSPECTION SERVICE CODE3-99	Flashing code to send to the position indicator in inspection service (3 to 99).	n/a	ALL

6.6.1.10. Emergency recall (Fire):

OPTION	DESCRIPTION	UNIT	TYPE
DESIGNATED LEVEL RECALL FLOOR	Enter the designated floor recall level.	n/a	ALL
ALTERNATE LEVEL RECALL FLOOR	Enter the alternate floor recall level.	n/a	ALL
DESIGNATED LEVEL REAR DOOR ?	Specify if the designated level has to open the rear door. (YES = rear) (NO = front).	YES/NO	ALL
ALTERNATE LEVEL REAR DOOR ?	Specify if the alternate level has to open the rear door. (YES = rear) (NO = front).	YES/NO	ALL
FIRE SIGNALS INPUTS REVERSING	Reverse or not the fire signals: FS, ALT, FH, FMR. YES = input off, turns on fire sequence. NO = input activated, turns on fire sequence.	YES/NO	ALL
ALTERNATE SIGNAL INPUT ON DELAY	On delay filter for ALT fire signal (0 to 1.0s)	0.1s	ALL
HOISTWAY FIRE -> ALTERNATE LEVEL	Floor return selection for hoitsway fire FH: YES = return to alternate level. NO = return to designated level.	YES/NO	ALL
MACHINE ROOM FIRE -> ALT LEVEL	Floor return selection for machine room fire FMR: YES = return to alternate level. NO = return to designated level.	YES/NO	ALL
RESET PHASE 1 WITHOUT RFP SIG.	If the fire selector does not have a RESET fire position (RFP input), enter YES. The fire will be reset when door is opened without any fire signal activated at the designated level. Some States in USA need that feature.	YES/NO	ALL
PH2, DOOR CLOSE MOMENTARY PRESS.	In phase 2, the fireman does not need to hold the door close button to close the door. Momentary pressure. Some States in USA need that feature.	YES/NO	ALL
DEACTIVATE PFP SENSOR MAIN LEV.	Deactivation of the PFP sensor at designated level.	YES/NO	HYDRAULIC
DEACTIVATE PFA SENSOR ALT LEV.	Deactivation of the PFA sensor at alternate level.	YES/NO	HYDRAULIC

6.6.1.11. Emergency power:

OPTION	DESCRIPTION	UNIT	TYPE
INVERT GEN1 AND GEN2 CONTACTS	GEN1 and GEN2 signals input reversing.	YES/NO	ALL
NORMAL OPERATION ON GENERATOR	Normal operation on emergency power operation.	YES/NO	ALL
(DUPLEX) 1st CAR MAIN FL. RETURN	First car number to return to the main floor on emergency power. 1, 2, 3, 4… Those numbers correspond to the first car of a group + the others. The numbers can be reversed or mixed.	n/a	ALL
(DUPLEX) 2nd CAR MAIN FL. RETURN	Second car number to return to the main floor on emergency power. 1, 2, 3, 4… Those numbers correspond to the first car of a group + the others. The numbers can be reversed or mixed.	n/a	ALL
(DUPLEX) 1st CAR TO RUN ON GEN.	GEN Selector at AUTO position. First car number to return in automatic operation on emergency power. 1, 2, 3, 4… Those numbers correspond to the first car of a group + the others. The numbers can be reversed or mixed.	n/a	ALL
(DUPLEX) 2nd CAR TO RUN ON GEN.	GEN Selector at AUTO position. Second car number to return in automatic operation on emergency power when the first car become in trouble. 1, 2, 3, 4… Those numbers correspond to the first car of a group + the others. The numbers can be reversed or mixed.	n/a	ALL

6.6.1.12. Hydraulic cylinder reset sequence:

OPTION	DESCRIPTION	UNIT	TYPE
TELES. CYLINDERS RESET SEQUENCE	Activation of the cylinders reset sequence.	YES/NO	HYDRAULIC
DAY (0 = SUN, 7 = EVERY DAYS)	Reset sequence days selection. (0= Sunday, 1= Monday, 2= Tuesday, 3= Wednesday, 4= Thursday, 5= Friday, 6= Saturday, 7= Every days of the week)	0 to 7	HYDRAULIC
1st RESET (HH:MM)	First reset sequence time.	HH:MM	HYDRAULIC
2nd RESET (HH:MM)	Second reset sequence time. (Write 9999 to deactivate the second reset)	HH:MM	HYDRAULIC
START SEQ. DELAY WITHOUT SU/SD DIR.	Once the first or the second reset time period is reached, this is the delay without any direction the sequence will initiate the bottom floor return.	0.1s	HYDRAULIC
SEQ. CANCEL DEL. IF NOT STARTING	Protection delay to turn off the reset sequence if the elevator did not start moving to bottom floor.	Minutes	HYDRAULIC
SYNCHRO SEQUENCE OPERATION TIME	Duration of the lowering down of the car on the buffers. (Between 5 and 120 seconds)	0.1s	HYDRAULIC
SYNCHRO SEQ MAN. ACTIVATION (TEST)	Manual activation of the reset sequence for immediate testing.	OUI/NON	HYDRAULIC

6.6.1.13. Blue code/Free car sequence:

OPTION	DESCRIPTION	UNIT	TYPE
BLUE, DELAY TO REACH CALL LEVEL	Allowed time to reach the blue code floor level. When that time is reached, the elevator becomes out of group and the hospital priority call will be transferred to another elevator in service.	0.1s	ALL
BLUE, WAIT. DELAY AT CALL LEVEL	Once the elevator reaches the hospital priority level, the door stays opened for that time delay. After that delay the elevator returns in automatic if the in car key is not activated.	0.1s	ALL
FREE, BUZZER END DEL. AT CALL LEV	Once the elevator reaches the free car hall call registered, the buzzer will stop after that delay.	0.1s	ALL
FREE,CALL CANCEL DELAY AT LEVEL	Once the elevator reaches the free car hall call registered, the car calls are still cancelled for that time delay. After that delay, if a car call is entered, the door closes and the elevator will go to the call level.	0.1s	ALL
FREE, WAIT. DELAY AT CALL LEVEL	Once the elevator reaches the free car hall call level, the door stays opened for that time delay. After that delay the elevator returns in automatic if there is no car call entered. As soon as a car call is entered, the door closes and the elevator goes to that call.	0.1s	ALL
FREE, FINAL DEL. BEFORE AUTOMATIC.	Once the elevator reaches the car call level registered, the door will stay opened for that delay. The user has a longer door opened time delay to exit or to enter another car call before the car returns in automatic mode.	0.1s	ALL

6.6.1.14. Other Parameters:

OPTION	DESCRIPTION	UNIT	TYPE
NB STARTS BEFORE FAULTS RESET	This value represents the number of starts in automatic mode before the alarm buffer list will be reset. Channels HR80 to HR88 will be erased. That number should be kept not too high for the proper operation of the alarm history list (20 to 25 normally).	n/a	ALL
INVERT CAR STOP SWITCH INPUT SA	Reverse or not the car stop switch input.	YES/NO	ALL
INVERT LOAD WEIGHT INPUTS	Reverse or not the 3 load weight inputs Lw1, Lw2, Lw3. Some load weight system outputs are reversed.	YES/NO	ALL

6.6.2. Floor positions recording:

This menu is available only if the elevator controller has the option "Perforated tape" or "Governor Encoder". To have access to the menu, the elevator must be in inspection mode. Before activating this mode, the elevator must be at the lowest level so that the normal down limit (LNB) is activated and the sensor "LU" is engaged. Then the mode may be activated.

```
UP -> START
DW -> STOP
```

To activate the floor recording mode:

- Press the **"UP"** key to activate the mode.

- Press the **"DOWN"** key to deactivate the mode.

- Press the **"ESC"** key to go back to the previous menu.

If the option is not available, a "NOT AVAILABLE" message will be indicated.

6.6.3. POSI1000, Encoders calibration:

This menu is available only if the elevator controller has the "POSI1000" option. The "POSI1000" system requires a calibration between the positioning encoder and the "Backup" encoder.

Also, when the calibration mode is activated, the LCD screen will change to the monitoring screen to see the position counter and the speed. After, when a key is pressed the LCD will ask the user to enter the calibration distance.

6.6.3.1. To activate the calibration mode:

To activate the calibration mode:

- Press the **"UP"** key to activate the mode, and then, another screen will appear to confirm the command. Press the **"ENTER"** key to confirm and activate the mode.

- Press the **"DOWN"** key to deactivate the calibration mode.

- Press the **"ESC"** key to go back to the previous menu.

6.6.3.2. Distance performed:

To enter the calibration distance:

- Press **"LEFT/RIGHT"** keys to move the cursor on a specific digit.

- Press **"UP/DOWN"** keys to change the number.

- Press the **"ENTER"** key to save the value in the controller.

  or

- Press the **"ESC"** key to go back to the previous menu.

Refer to user's manual section 4 for more details.

6.6.4. Date - Time:

This menu allows to visualise and to modify the "LCD" internal clock.

```
DATE: ENTER = CHG
2009-07-17-01
TIME:
12:15:45PM
```

Modification:

- Press the **"ENTER"** key to enter the modification window.

- Press **"LEFT/RIGHT"** keys to place the cursor on the number to modify.

- Press **"UP/DOWN"** keys to modify the number.

- Press the **"ENTER"** key to save.

  or

- Press the **"ESC"** key to go back to the previous menu.

The "LCD" has a lithium battery that allows to maintain the correct date and time when the "LCD" is not supplied.

If the controller is part of a group that has a dispatcher or a monitoring screen with the "JRTMon" software, the "LCD" updates its time and date from the dispatcher or the "JRTMon" software.

Format:

- Date = YYYY-MM-DD-dd (Year-Month-Month Day-Week Day):

  ➤ YYYY = 2000 to ….

  ➤ MM = 1 - 12

  ➤ DD = 1 – 31

  ➤ dd = 0 – 6 (0 = Sunday)

- Time = HH-MM-SS (Hour-Minute-Second):

  ➤ H = 0 - 23

  ➤ M = 0 – 59

  ➤ S = 0 - 59

6.6.5. Language:

This menu allows choosing the operation language.

```
UP -> FRENCH
DW -> ENGLISH
```
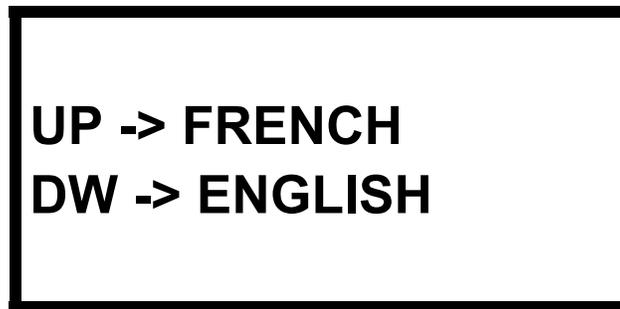
For French:

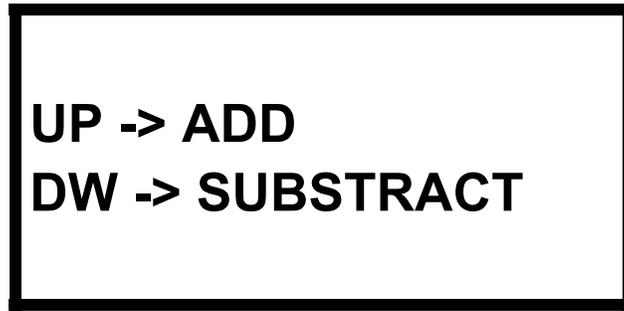- Press the **"UP"** key.

For English:

- Press the **"DOWN"** key.

  or

- Press the **"ESC"** key to go back to the previous menu.

6.6.6. Screen contrast:

This menu allows to adjust the "LCD" contrast.

```
UP -> ADD
DW -> SUBSTRACT
```

Contrast adjustment:

- Press **"UP/DOWN"** keys to modify the contrast.

- Press the **"ENTER"** key to save your choice.

  or

- Press the **"ESC"** key to go back to the previous menu.

6.6.7. Upload DM (PLC ➔ LCD):

The "LCD" offers the possibility to upload the elevator controller's important "DM". In case of a PLC failure, it is possible to have a backup copy of the important "DM". It is recommended to use this option when the final elevator adjustment has been done. Among the important "DM" are the door times, parking, floor position, communication parameters, etc.

To upload the "DM":

- Put the elevator controller in inspection mode and make sure that the elevator is stopped.

- Press the **"ENTER"** key to access the menu.

- The "LCD" will indicate to press the **"ENTER"** key to continue or **"ESC"** to cancel or to go back to the previous menu.

- If **"ENTER"** is pressed, the "LCD" indicates WAIT.

- When the upload is done, "LCD" indicates END.

6.6.8. Download DM (LCD ➔ PLC):

Once the uplaod has been done by the "Upload DM (PLC → LCD)" menu, this menu allows to transfer the important DM copy in the elevator controller.

To download the "DM":

- Put the elevator controller in inspection mode and make sure that the elevator is stopped.

- Press the **"ENTER"** key to access the menu.

- The "LCD" will indicate to press the **"ENTER"** key to continue or **"ESC"** to cancel or to go back to the previous menu.

- If the **"ENTER"** key is pressed, the "LCD" indicates WAIT.

- When the download is done, "LCD" indicates END.

To access this menu, the backup copy must have been completed successfully. If the menu is not available after the upload, contact Automatisation JRT.

The "LCD" indicates the following message when the controller does not meet the DMs upload and download conditions.

```
┌──────────────────────┐
│ ELEVATOR MOVING      │
│ OR NOT IN            │
│ INSPECTION MODE      │
└──────────────────────┘
```

6.6.9. Create CPU I/O table:

This menu allows adjusting the inputs and outputs modules table. With a CJ1M PLC, when a new module is added, we must recreate the table so the CPU can recognize the addition of the new module. For this, the elevator must be stopped and in inspection.

```
┌──────────────────────┐
│ PRESS ENTER TO       │
│ CREATE IO TABLE      │
│                      │
│                      │
└──────────────────────┘
```

<u>Creation of the input/output table:</u>

- Press the **"ENTER"** key to create the table or **"ESC"** key to go back to the previous menu.

6.7. OPERATION COUNTERS:

This menu allows visualizing certain statistics compiled in the elevator controller.

- Number of working hours:

```
OPERATION TIME:
   00001234 HRS


RESET = ENTER
```

- Number of departures going up:

```
UP DIRECTION:
   00001234


RESET = ENTER
```

- Number of departures going down:

```
DOWN DIRECTION:
   00001234


RESET = ENTER
```

- Number of front and rear door openings:

```
OPERATION DOOR:
00001234 FRONT
00001010 REAR
RESET = ENTER
```

Visualizing the statistics:

- Press **"UP/DOWN"** keys to visualize the different statistics.

- Press the **"ENTER"** key to reset the statistics or **"ESC"** key to go back to the previous menu.

6.8. PASSWORD:

This menu provides the possibility to lock or unlock the "LCD". Also, it is possible to change the current password with a new password. If the "LCD" is locked, you can see all the menus, but it will be displayed "LOCK" when a menu that changes something in the "PLC" is being accessed.

To enter a password:
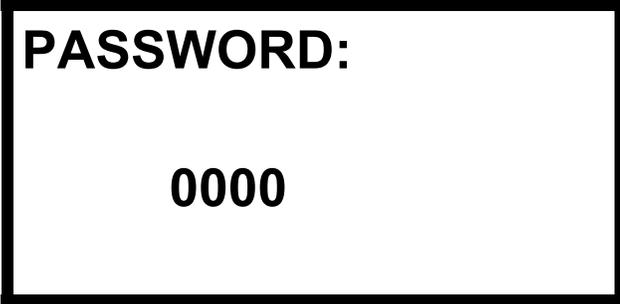
```
PASSWORD:

    0000
```

- Press **"LEFT/IGHT"** keys to place the cursor on the number to modify.

- Press **"UP/DOWN"** keys to modify the number.

- Press the **"ENTER"** key to save or **"ESC"** key to go back to the previous menu.

6.9. ABOUT:

This menu indicates the version of the "LCD". Press the **"ESC"** key to go back to the previous menu.

```
SUPERVISION LCD
COPYRIGHT JRT
VERSION 5.0 2010
1-877-871-6016
```

7. COMMUNICATION:

When the "LCD" writes successfully in the PLC, the following screen will appear:

```
TRANSMITTED DATA
```

However, if the cable linking the "LCD" to the PLC is defective, wrongly connected or if the communication parameters are incorrect, the following screens will appear:

```
COMM. ERROR
```

```
INITIALISATION.
0001
```

Verify if the cable between the "LCD" and the PLC is well connected and make sure the cable is not cut. Once this is corrected, turn the power off to reset. If the problem persists, communicate with Automatisation JRT.

7.1.   COMMUNICATION PARAMETERS:

The "LCD" has a communication parameters auto-detection. When the "LCD" communicates with the PLC, it saves in its memory the communication parameters (speed and machine number). If the cable has been disconnected or if there is a loss of communication, the "LCD" will try first to communicate with the saved parameters. If the communication is not restored with those parameters, the "LCD" will execute an auto-detection. It starts with trials of 19200 with 0 for machine number up to 15. If the communication is still not restored, the "LCD" will try at 57600 with 0 for machine number up to 15. The "LCD" will try as long as the communication is not restored.

This auto-detection allows connecting the "LCD" on different PLCs without needing to know their different communication parameters.

When the "LCD" is in auto-detection mode and it finds the communication parameters, the 2 following screens appear:
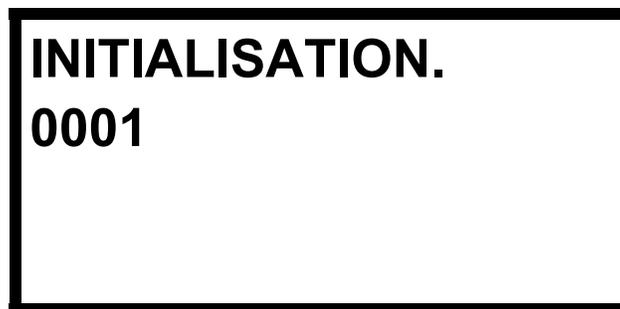
```
INITIALISATION.
0001
```

```
EEPROM 57600
```