



ARL-200S

LIFT CONTROLLER



USER MANUAL

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CONTENTS

1. ENTERING THE PROGRAM MENU	4
1.1 MANUAL MOVEMENT MODE	4
1.2 GIVING CALLS BY KEYPAD	4
1.3 PROGRAM PARAMETERS	4
2. LIST OF PARAMETERS	5
2.1 COMMAND TYPE	5
2.2 NUBER OF FLOORS	5
2.3 CAR CONNECTION	5
2.4 AUTOMATIC DOOR	5
2.5 AUTOMATIC DOOR AT FLOOR	5
2.6 CAR LAMP DELAY	6
2.7 WAIT AT FLOOR	6
2.8 PARKING FLOOR	6
2.9 PARKING DELAY	6
2.10 R. CAM DELAY	6
2.11 MAX HIGH SPEED	6
2.12 MAX LOW SPEED	6
2.13 POSITION RESET	6
2.14 CONTACTOR DELAY	6
2.15 RESERVE	6
2.16 CARE TIME	6
2.17 END OF CARE TIME	7
2.18 PASSWORD	7
2.19 DIGITAL SETUP	7
2.20 LIMITS AT INSP.	7
2.21 SELECTOR TYPE	7
2.22 GROUP FUNCTION	7
2.23 DOOR OPEN ERROR	7
2.24 EXIT MENU	7
3. ARL-200S ERROR CODE	8
4. DIMENSIONS OF ARL-200 CONTROLLER	9

1. ENTERING THE PROGRAM MENU

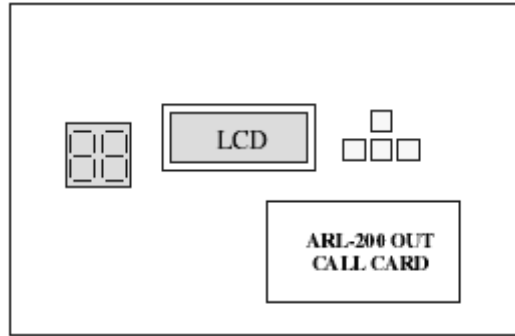


Figure 1 : ARL-200S Control Card

Press the LEFT button for 3 seconds. If no password has been entered before (0000 : factory default), the first parameter “COMMAND TYPE” is displayed on LCD . If a password has been assigned before, you must enter the four digit password by pressing the UP and DOWN buttons. Then press the RIGHT button. The first parameter is displayed. If the password is entered incorrect an error message “WRONG PASSWORD” will appear on the LCD. If the password is entered incorrect for three times, the system gets blocked off. Six digits PUK CODE must be entered.

1.1 MANUAL MOVEMENT MODE

Press the RIGHT button for 3 seconds. “MANUAL MOVEMENT” message is displayed. You can move the lift up and down by pressing UP and DOWN buttons. Press the LEFT button to leave the MM Mode.

1.2 GIVING CALLS BY KEYPAD

It is possible to give any call by using keypad. Press UP button to set a call to top floor and press DOWN button to set a call to bottom floor on main screen.

1.3 PROGRAM PARAMETERS

You can pass through the parameters by pressing LEFT and RIGHT buttons and change the parameter by pressing UP and DOWN buttons. When you change a parameter by pressing UP and DOWN buttons, the new value for that parameter is recorded in the temporary memory. It is not necessary to press any key to record any changed parameter. All parameters are recorded to the memory after leaving the program menu. If card’s power cut out and turned on again before leaving the program menu, the parameters keep the older values.

2. LIST OF PARAMETERS

2.1 COMMAND TYPE

You can choose the command type.

- **Universal command** (Only one call is accepted)
- **Parallel command** (Car calls and floor calls connect to the same terminal)
- **Down Collective** (Car will stop for only down direction calls)
- **Up Collective** (Car will stop for only up direction calls)
- **Collective-Selective** (There are call buttons for each direction)

2.2 NUMBER OF FLOORS

You can adjust the number of floors from 2 to 16.

2.3 CAR CONNECTION

- SERIAL

FX_MB has an ability to communicate with a control card (FX_SERI) on the car via two cables (S1A&S1B), when used some of the controls (Car calls ,7 Segment Display, Full Load , Over Load . etc) are not connected from the car to the control panel..

-PARALLEL

All signals from the car to the panel are connected separately.

There is no need to use special cable or shielded cable for serial communication.

But it will be better if the first or last two of the flexible cable are used for S1A, S1B and high voltages should be at the other side (far from S1A, S1B) of the flexible cable. If a communication error occurs, red error led on the FX_SERI control card will blink.

2.4 AUTOMATIC DOOR

If an automatic door is used, you can choose type of it.

- Not Automatic : There is no automatic door.
- Semi automatic : There is only an automatic car door.
- Full Automatic : Car and floor doors are automatic.

2.5 AUTOMATIC DOOR AT FLOOR

Automatic door position when lift waits for calls.

- Waits closed
- Waits opened

WARNING!!! Waits open is not allowed according the harmonized standard EN 81-1/2. So this parameter must be set to "Waits closed" to fully fit EN81-1/2. The lifts at the countries which has own standard other than EN81-2/2 or at the lifts that modernized and taken measures against risk of doors waiting open can be set as "waits opened".

2.6 CAR LAMP DELAY

You can adjust the car lamp delay in seconds.

2.7 WAIT AT FLOOR

When going between calls the lift waits for passangers to get in and get out for a time which is adjusted with this parameter (It is in seconds).

☞ If the serial communication board is used on inspection box and the OPEN/CLOSE button signals are connected to serial communication board, increase this parameter and adjust the time delay trimpot to zero on automatic door board. If car installation is parallel and door is full automatic, set this parameter to 2 s and adjust the time delay trimpot to zero on automatic door board.

2.8 PARKING FLOOR

It is possible to send the lift to a specific floor after finishing its job.

2.9 PARKING DELAY

The lift waits for a time before going to the parking floor after finishing its job.

2.10 R. CAM DELAY

After energising the R. Cam it waits for the door lock. If it is not locked for the time that is adjusted by this parameter, control panel gives error and goes out of service (It is in seconds).

☞ Set this parameter to 35 s for semi-automatic doors and 95 s for full automatic doors.

2.11 MAX HIGH SPEED

Maximum time to reach a new floor at high speed.(In seconds).

2.12 MAX LOW SPEED

Maximum time to reach the floor level after passing to low speed (In seconds).

2.13 POSITION RESET

Although the control panel remembers the last position at any mains power failure, sometimes (for instant an emergency rescue system with batteries may be exist) when mains power is live the user may wish to reset the position.

2.14 CONTACTOR DELAY

The time to keep the RP contactor switch on after the movement ends can be adjusted by this parameter.

☞ Disable this parameter for single speed and two speed lift systems.

2.15 RESERVE

ARL-200S does not use this parameter at this time.

2.16 CARE TIME

This parameter decreases everyday. When it is 0 the END OF CARE TIME parameter will be prossessed.

2.17 END OF CARE TIME

When the CARE TIME parameter reaches 0 following occurs.

- CONTINUE OPARETE: Lift continue to do its job.
- STOP : Lift stops and waits for check up.
- SIGNAL OFF : 31 , 32 , 12 , 02 , KL signals will be shutting.

2.18 PASSWORD

Password to enter program parameters.

2.19 DIGITAL SETUP

Press Up buton at this parameter to enter digital setups. Then you can change the blinking parameter by pressing up or down butons. Use left / right for selecting floor number and it's digital setup. The digital setup can be entered for each floor separately.

2.20 LIMITS AT INSP.

At Manuel Movement Mode this parameter adjusts if car stops immediately after reaching Up & Down forced slow travel limits or continue untill to the floor levels.

- Direct Stop
- Go Floor level

☞ Set this parameter to "GO FLOOR LEVEL" for systems with AKUS-SD evacuation unit.

2.21 SELECTOR TYPE

This parameter determines the counter system for floor detection

- NORMAL M1 COUNT : For single speed and two speed systems
- SPECIAL JF COUNT : For VVVF systems

2.22 GROUP FUNCTION

You can chose if the panel works as a SIMPLEX or DUBLEX panel.

2.23 DOOR OPEN ERROR

At the end of this time if the door is still open, the card gives an error. If there is another lift (Dublex systems), the other one goes to calls.

☞ Set this parameter to 240 s for full automatic doors.

2.24 EXIT MENU

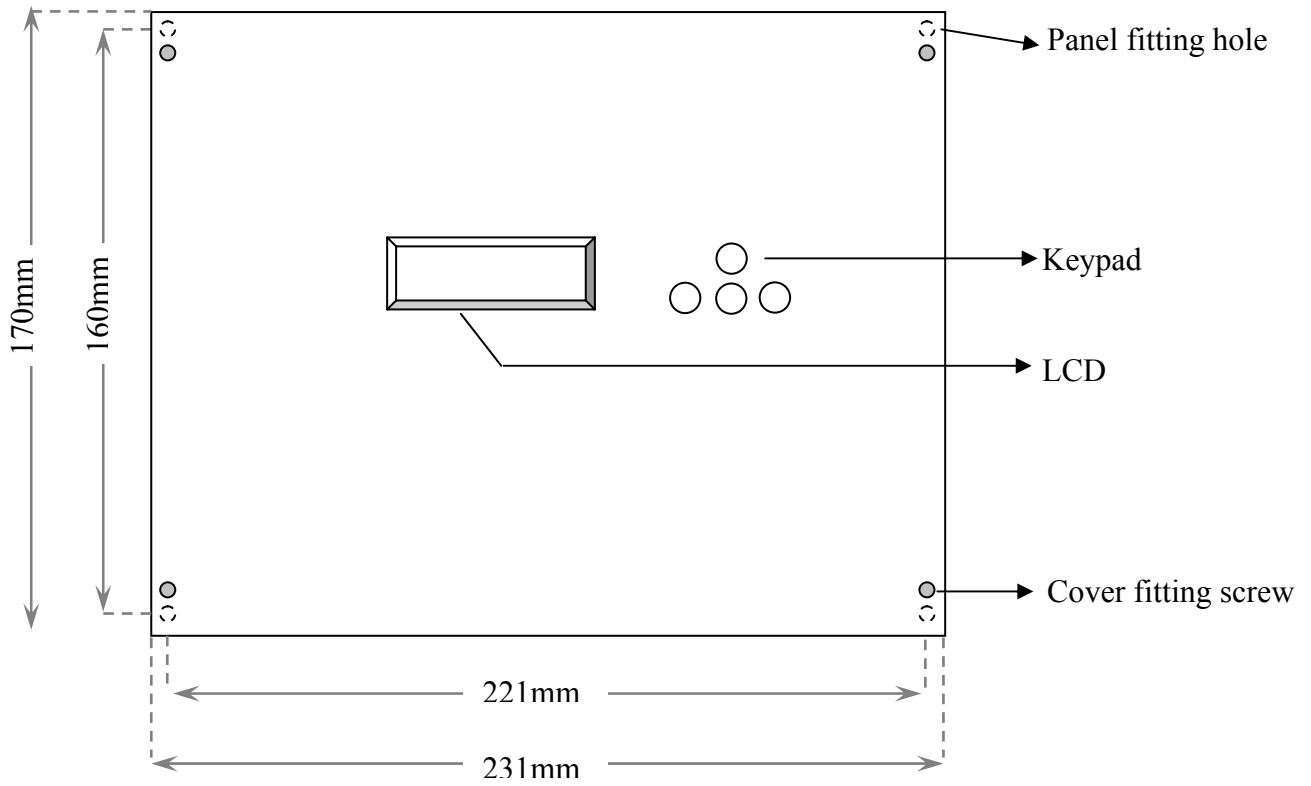
When "EXIT MENU" appears on lcd you can press this button to exit from menu. Don't forget your password. It will be asked to enter into the menu next time.

3. ARL-200S ERROR CODE

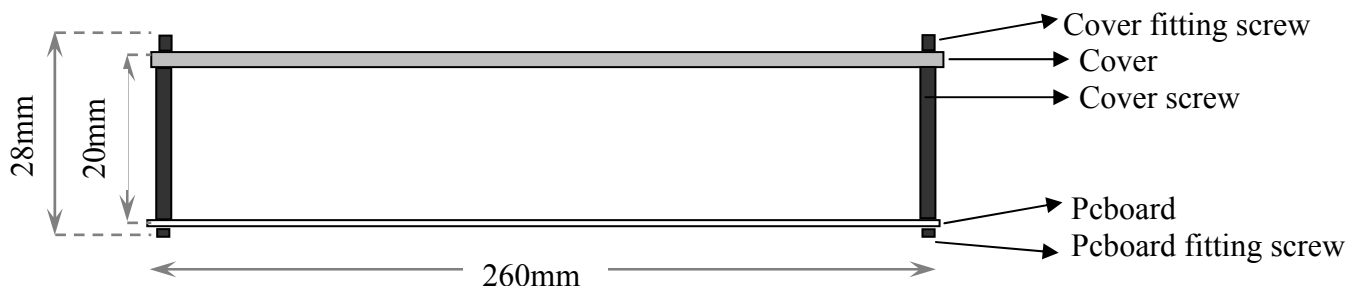
CODE	ERROR
H1	DOOR CAN NOT LOCKED ERROR
H2	CAN NOT REACH NEW FLOOR
H3	DOOR IS OPEN FOR A LONG TIME
H4	MAX LOW SPEED TIME OVERFLOW
H5	BOTH LIMITS ARE OPEN
H6	UP LIMIT OPEN WHILE GO DOWN
H7	DOWN LIMIT OPEN WHILE GO UP
H8	MOTOR PTC IS OPEN
H9	LIFT CARE TIME OVERFLOW
H10	CONTACTOR CHECKBACK ERROR
H11	-
H12	-
H13	-
H14	100 VOLTAGE UNDER LIMIT
H15	HIGH VOLTAGE.SHUTDOWN POWER

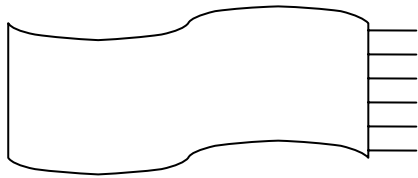
4. DIMENSIONS OF ARL-200 CONTROLLER

Front View



Sideway View





ATTENTION!
 Take care while connecting
 your flexible cable

There are small points to take care while connecting your flexible cable. Arrange your cable order according to their electrical signal level. Although the cables have enough insulation, long parallel cables have transformer effect. The signals can joint between each neighbors. If there is two or more flexible cables it is better to separate low an high voltage signals.

Here is an example of faulty connection.

Cable No:	Signal	Signal level
1	100 (24 Source)	24Vdc
2	A (Digital segment)	24Vdc
3	B (Digital segment)	24Vdc
...
10	817 (UP limit Switch)	48Vdc
11	818 (Down limit switch)	48Vdc
12	810 (Magnetic Cam Power-)	180Vdc
13	2001 (Magnetic Cam Power+)	180Vdc
14	804 (Over load)	24Vdc
15	401 (Car Call 1)	24Vdc
16	402 (Car Call 2)	24Vdc
...
20	406 (Car Call 6)	24Vdc
21	2 (Car Lamp)	220Vac
22	1 (Car Power source)	220Vac

In this example ever car lamp on/off operation makes high voltage peaks on line and it can leak to 406 (car call signal). In long term this cause a fault on 406 output transistor. Also there is risk because of Magnetic cam power lines. 818 and 804 signal may have faulty operation in long term.

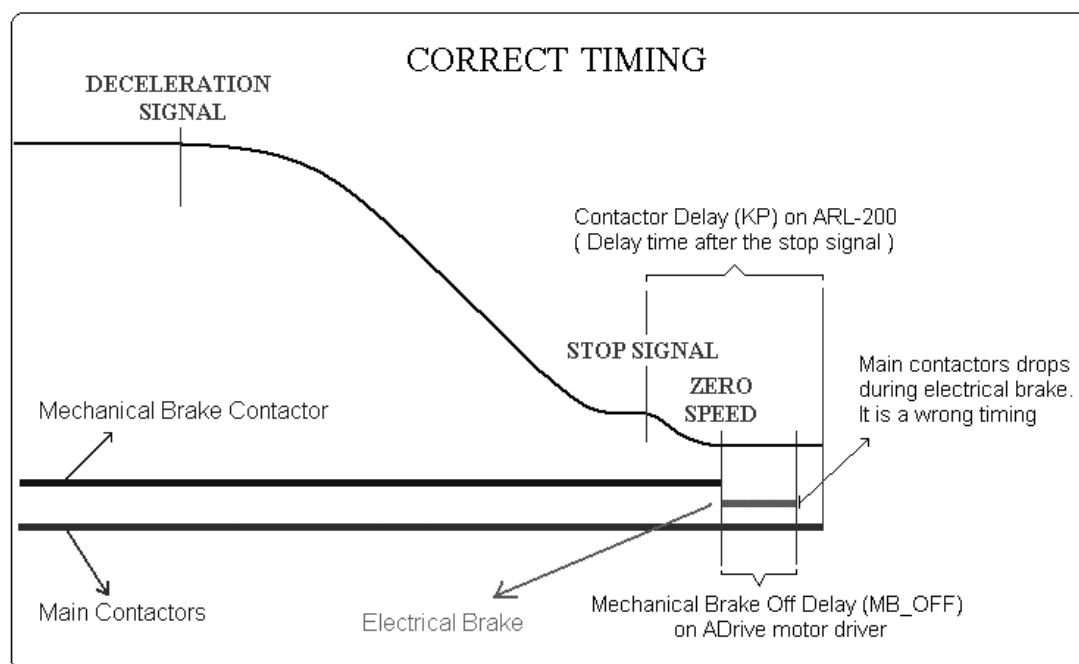
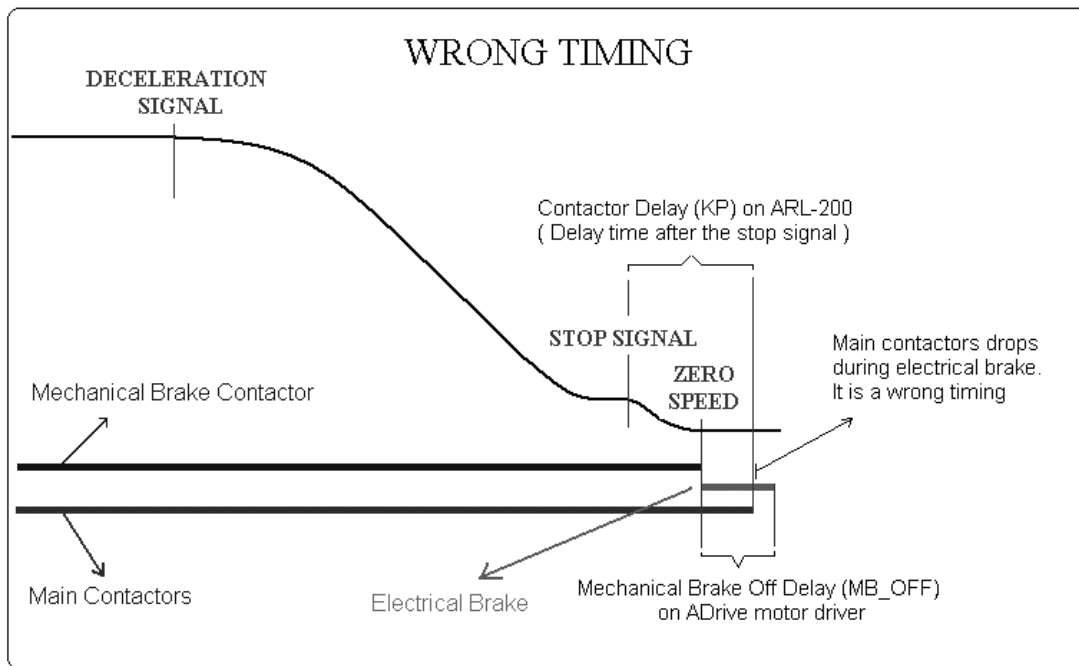
Here is an example of correct connection order.

- | | |
|--|--|
| 100 , A , B , C , D , E , F , G , 804 , 805 , 401 , 402 , 403 .. ,
1000
101, 817, 818, 869, 500, 501, 120....
PE , N
810 , 2001 , 1 , 2 | → All 24V signals ,
→ Small signal 0V ,
→ All 48V signals ,
→ Ground , Line Neutral ,
→ All high voltage signals |
|--|--|

Timing Warnings For ARL-200 Controller with ADrive

⚠ The **main** contactors (KPA and KPB) must drop **after** the **mechanical brake** contactor (KFR) drops when lift stops at floor level. If these contactors drop at the same time, it means contactors drop unwillingly while motor is still running. Increase the parameter value of CACTACTOR DELAY on ARL-200 parameter menu. It is sufficient that the **main** contactors drop 0.5 second after the **mechanical brake** contactor drops. It is possible to increase this delay time but opening door is delayed too.

⚠ ARL-200 controller must receive the information about ADrive fault and can stop the operation. Otherwise, in the case of a faulire ARL-200 controller thinks that the motor is still running and after a delay time blocks the lift with the fault "CAN NOT REACH NEW FLOOR". The contact of ADrive error relay (RHO-RHA) must be connected properly according to electrical diagrams. 120, 130 and 140 indicators on controller must be turned of when the RHO-RHA teminals is unplugged.



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