



ARCODE

Integrated Elevator Controller for Traction Lifts



Easy Installation Guide

Publisher

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Step-1: Mechanical installation

Mount the ARCODE control cabinet, brake resistor the battery pack and UPS if required to their places.

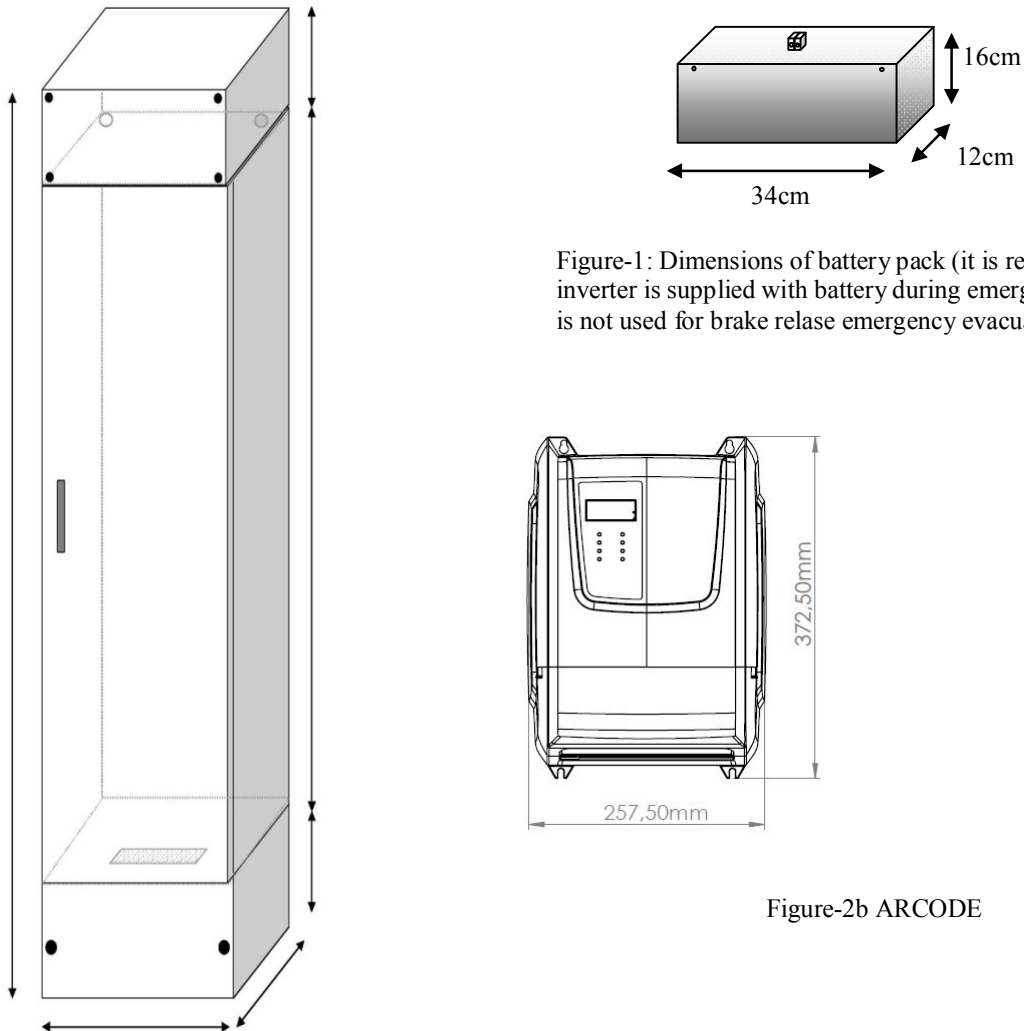


Figure-1: Dimensions of battery pack (it is required only when the inverter is supplied with battery during emergency evacuation) (it is not used for brake release emergency evacuation)

Figure-2b ARCODE

Figure-2a: ARCODE control panel(Control panel dimensions and type can change depending on installation type).

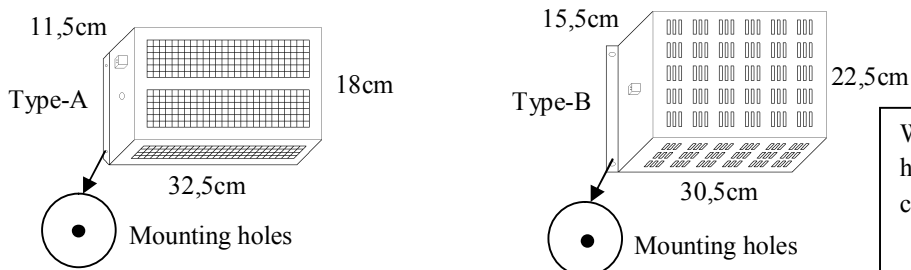
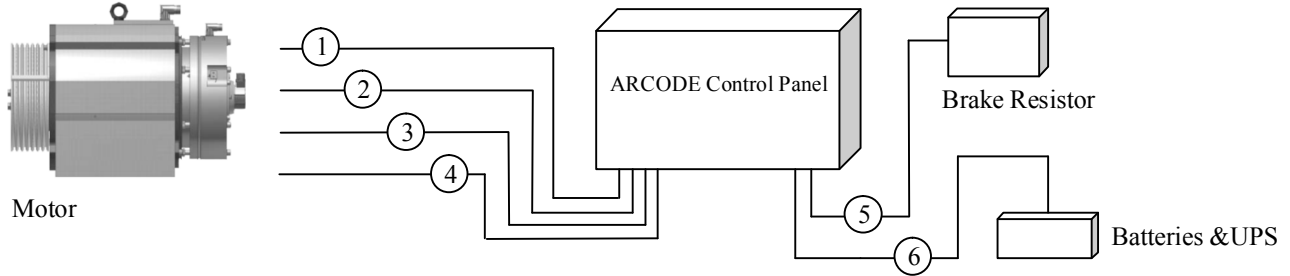


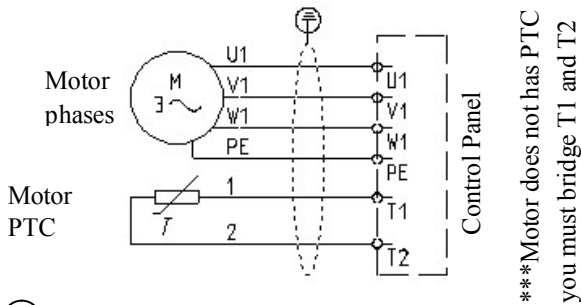
Figure-3: Type-A and Type-B dimensions of brake resistors

Step-2: Motor connections

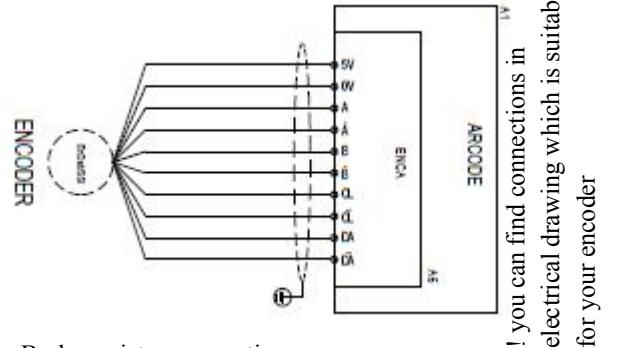
Make the connections of motor phases & motor PTC, brakes & brake release contacts, motor fan, encoder, brake resistor and battery pack with UPS (if required)..



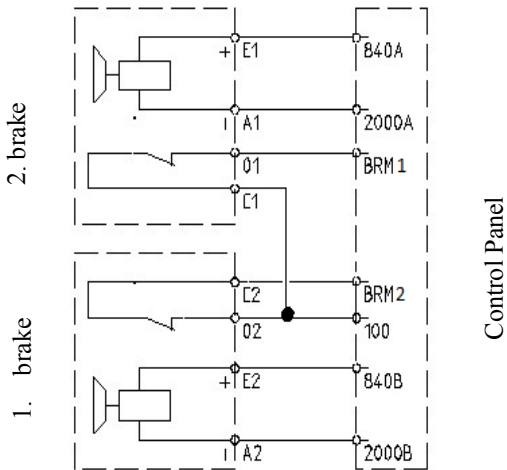
① : Motor phases & motor PTC connections



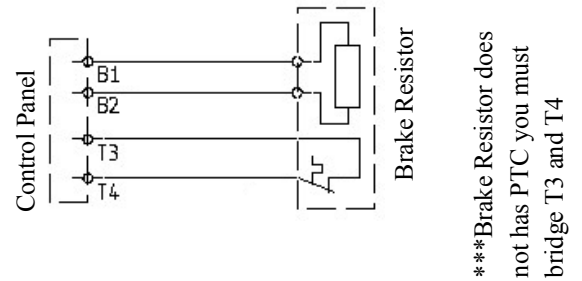
④ : Encoder Connections



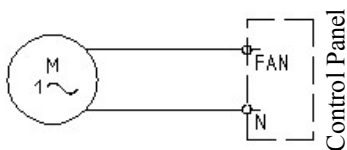
② : Brake & Brake checkback microswitches connections



⑤ : Brake resistor connections



③ : Motor fan connections



⑥ : Batteries connections (If required)

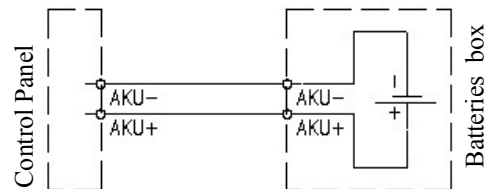


Figure-4: Motor, brake, fan, encoder, brake resistor and batteries connections

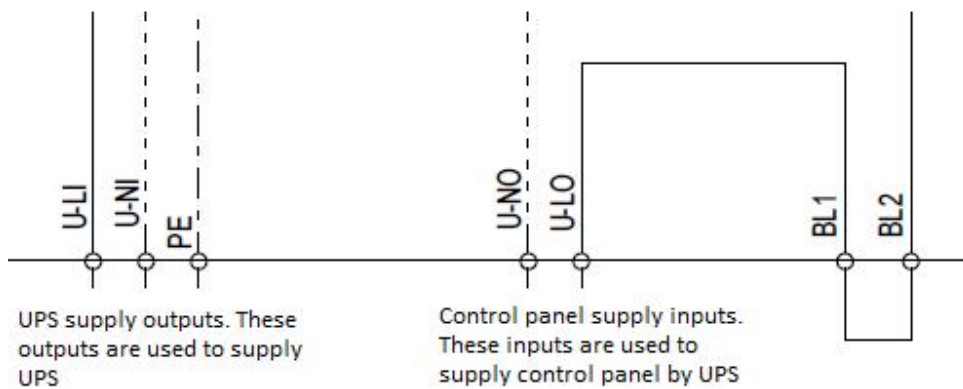


Figure-5 UPS connections

***If there is SERVOSAN brand UPS inside the control panel these connections are not used.

***If you do not have UPS you must bridge connectors U-LI with U-LO and U-NI and U-NO using with suitable cables. Other wise you can not run control panel.

Step-3: Preparations for Auto-tune

Auto-tune process must be performed by the ARCODE before initial set-up of an elevator. In this way ARCODE learns characteristic of motor. During the Auto-tune the elevator must be operated manually, therefore the recall command has to be provided. For recall operation make the following connections

- Connect the mains power of the control panel (L1, L2, L3, N, PE)
- Bridge the safety circuit by the terminals in control panel showed below.

Control Panel Terminals

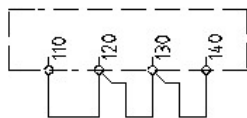


Figure-6: bridging of safety chain

- Bridge the signals of top and bottom limit switches (817 and 818) to terminal 100 on KBK-10&11 connection boards shown below..

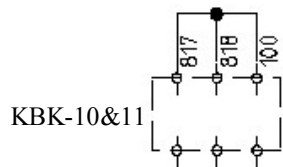


Figure-7a: bridging of top and bottom limit switches

- Bridge the car top inspection signal (869) to terminal 100 on KBK-10&11 connection board shown below.

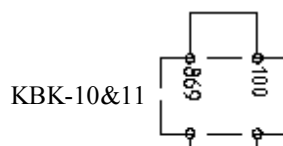


Figure-7b: bridging of car top inspection signal

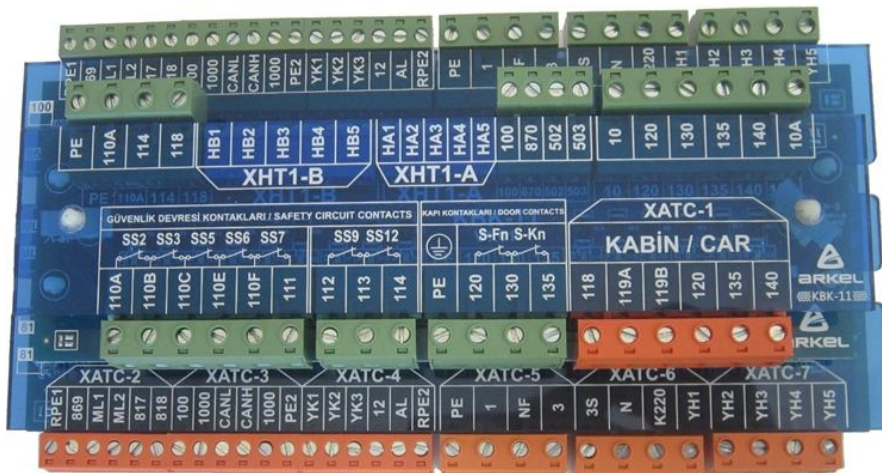


Figure-8a: KBK10&11 connection board

- KBK10&11 connection board is used for all required connections for shaft. That board includes supply and inputs of all safety chain, CANBus input/output, and car connections. If you prefer pre-wired connections all connectors connections are sign with labels on flex cables.



Figure-8b: AREM handset



Figure-8c: KXCBA CANBus terminal

- AREM hand terminal can be connected to CANBus line which is located shaft, LOP, COP or control panel. It is not possible make any change in parameter without AREM.
- AREM will run automatically when it is connected CANBus line. It can connect to KXCBA board or any CANBus access point. For first installaion ARCODE software must be updated by AREM. (See Appendix-1 software update)

- Activate the manual operation mode by turning the recall switch on the recall hand terminal to “REV” position. In this case the motor can be moved by recall buttons from the control panel.



Recall activation switch

Figure-8d: Recall hand terminal

- Turn on **SMP** main braker after opened all cicuit braker(fuses)
- Figure 9a appears on AREM screen when it is connected to CANBus line.

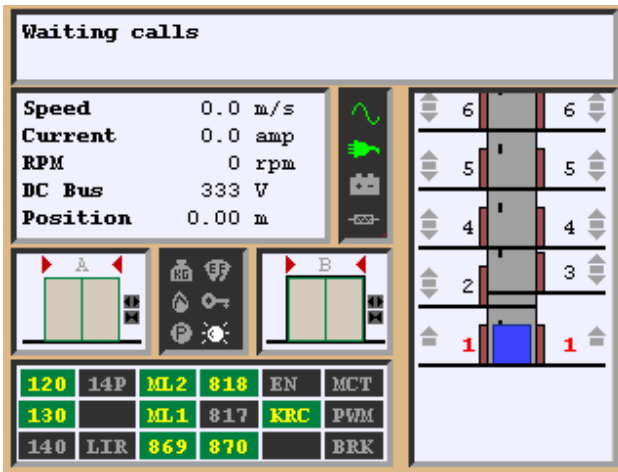


Figure-9a Main screen of AREM



Figure-9b: Access levels

- To enter menu, press “**Tools**” button on AREM
- When pressed first time to “**Tools**” button you will see figure 9b. AREM has 3 different user access level. As “**Installer**”, “**Maintainer**” and “**Guest**” which has system access level. And “**Installer**” has uppermost access level in system. For first installation it’s access code is “**000000**” for all access level. To enter menu press Enter button.

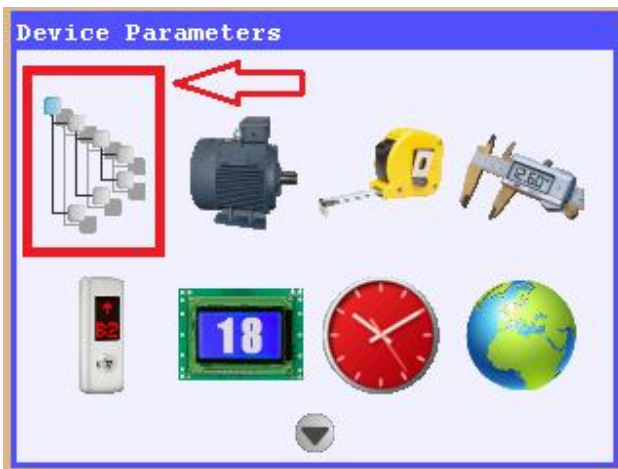


Figure-9c: “Device Parameters” settings

- When entered menu to select “**Device Parameters**” use direction arrows and press Enter button to enter “**Device Parameters**”.

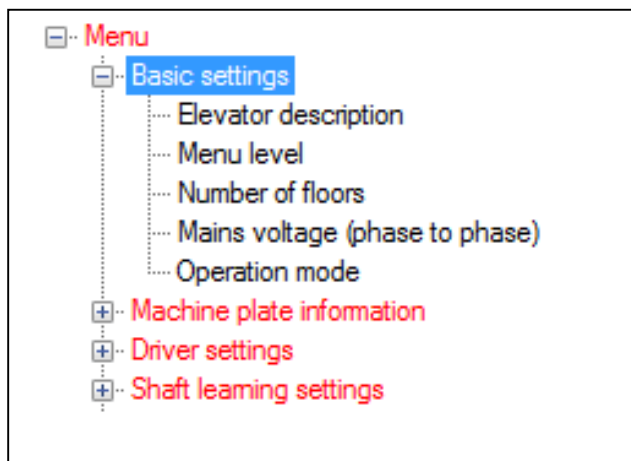


Figure-10a: screen of “working settings”

- Select “Menu level” as “Advanced” Which is located under the “Basic settings”
- Check parameters, “Number of floors”, “Mains voltage” respectively.
- “Operation mode” parameters should be selected “Only inspection-mode”.
- “Machine plate information” should be set according to motor plate.

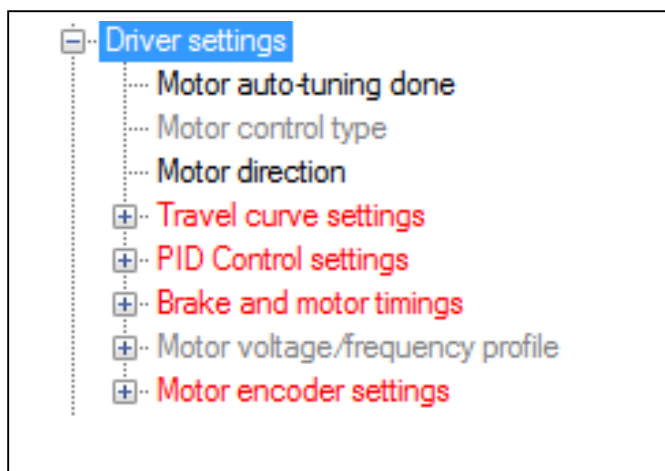


Figure-10b: “Travel Curve Settings”

- “Maximum travel speed” and “inspection mode-speed” which is located “Travel curve settings” should be set according to motor speed.
- The nominal speed which is written on motor plate has to be used for parameter “Maximum travel speed”.

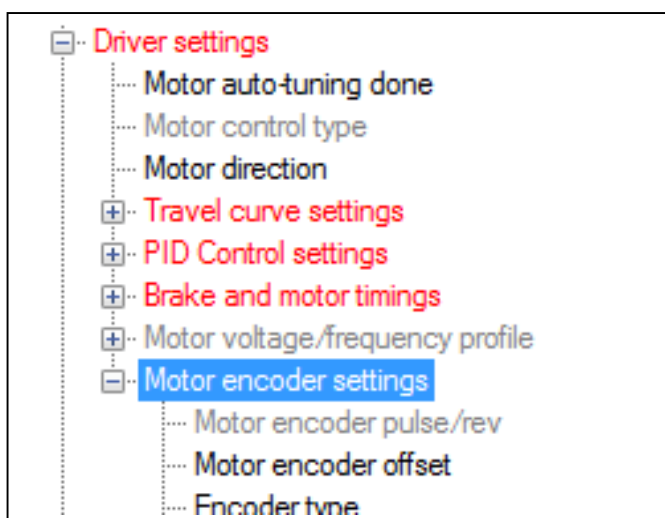


Figure-10c: “Motor encoder settings”

- Parameter “Encoder type” which is located under “Motor encoder Settings” should be selected according to motor encoder type.

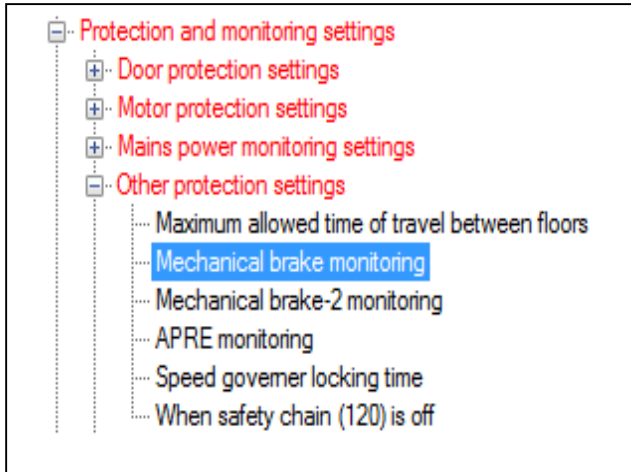


Figure-10d: “Mechanical brake monitoring”

- If motor doesn't has brake(s) microswitches or it has but isn't connected, “**Mechanical brake monitoring**” and “**Mechanical brake-2 monitoring**” should be selected “**Off**” which is located “**Protection and monitoring settings**” under parameter “**Other Protection Settings**”.

Step-4: Auto-tune

- Press ESC button to back main menu after completion of steps explained upper. When pressed ESC button you will see a warning “**Changes will be saved Confirm?**”. Select “**Yes**” to back main menu.



Figure-11a Auto-tune screen

- ARCODE can do auto-tune both with ropes and without ropes. To run it the cursor should be aligned icon of “**Auto-tune**” and press Enter button.

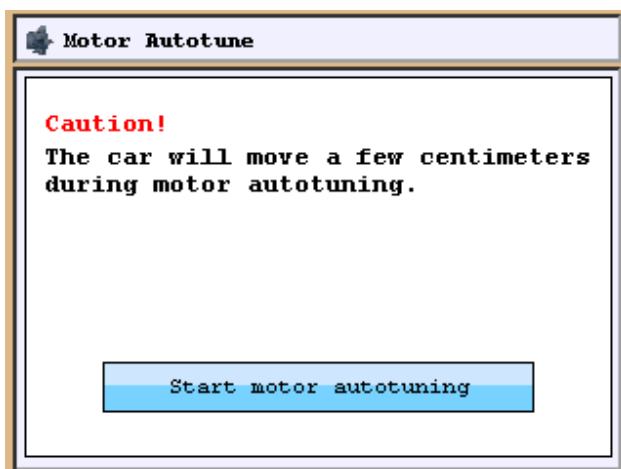


Figure-11b Auto-tune starting screen

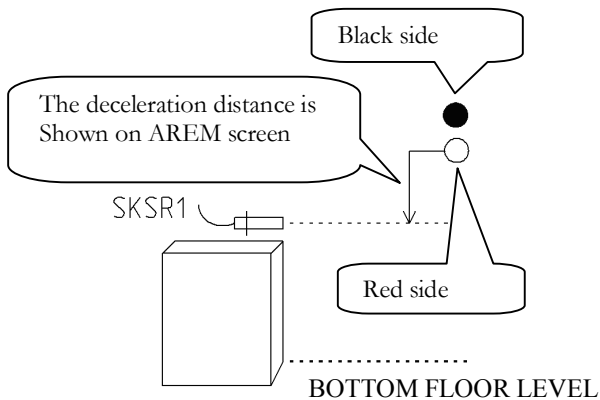
- When pressed Enter button Figure-11b appears on the screen. When pressed Enter button again you will see “**Turn the recall switch to INSPECTION position**”
- Turn the recall switch Which is located in control panel to inspection position. Press up or down button until see “**Auto-tune was completed**” If you release button before auto-tune isn't completed you must run again.
- After auto-tune is completed press up or down button to drive motor.
- When you press up or down button if the motor turns opposite direction, you must change “**motor direction**” by parameter “**driver settings**”.

To fix motor direction if “motor direction” had been selected “clockwise” you must select “Anti-clock wise”. If “motor direction” had been selected “Anti-clockwise” you must select “clock wise”.

- If the motor turns correctly in inspection mode you can pass other steps below.
- Remove the bridging made for safety circuit terminals 110-140 (see Figure-6).
- Remove the bridging made for correction switches 817 and 818. (See Figure-7a)

Steps-5: Preparations for Normal Operation

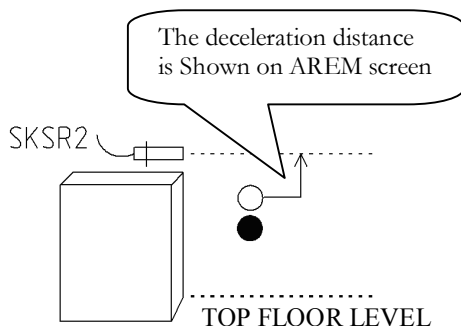
- Make all the other mechanical installations of elevator system and make the inspection box wiring, pit box wiring and safety circuit wirings.
- Make the installation of round magnets for SKSR1 bottom limit switch (bottom correction sensor). The cables of SKSR1 magnetic switch must be connected 100 and 817 terminals in IBC board. Round magnets of bottom limit switch must be put as shown Figure-12. The needed distance for magnets is shown on AREM screen When parameter “Shaft Learning” is selected .



- Move the car to the bottom floor. Car must be exactly at the floor level
- Install the round magnet with red color side above the SKSR1 magnetic switch as deceleration distance. It means it must be switched on when down deceleration signal for bottom floor is activated.
- Install the round magnet with black color side a little above the red color magnet. It means it must be switched off when the car is out of the bottom limit zone. The distance between magnetic switch and magnets must be 1-2 cm..

Figure-12: Installation of magnets for SKSR1 bottom

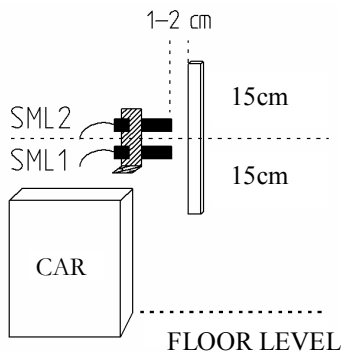
- Make the installation of round magnets for SKSR2 bottom limit switch (top correction sensor). The cables of SKSR2 magnetic switch must be connected 100 and 818 terminals in IBC board. Round magnets of top limit switch must be put as shown Figure-13.



- Move the car to the top floor. Car must be exactly at the floor level
- Install the round magnet with red color side below the SKSR2 magnetic switch as deceleration distance. It means it must be switched on when up deceleration signal for top floor is activated.
- Install the round magnet with black color side a little below the red color magnet. It means it must be switched off when the car is out of the top limit zone. The distance betweenmagnetic switch and magnets must be 1-2 cm.

Figure-13: Installation of magnets for SKSR2 top

- Make the installation of bar magnets for SML1&SML2 door zone switches. The cables of magnetic switches must be connected ML1-M0-1000 and ML2-M0-1000 terminals on IBC board respectively.



- Move the car to the end of floors Kabini en alt kata getiriniz
- Car threshold must be exactly at the floor level.
- Install the bar magnet opposite to the zone magnetic switches. The middle of the ribbon magnet must be on a level with the middle of the magnetic switches.
- The distance between magnetic switches and magnet must be **1-2 cm**.
- **30 cm bar magnets must be fixed with screw or glue**
- Repeat this installing operation at all floors.

Figure-14: Installation of magnets for SML1-SML2 door zone sensors

- If motor has brake mikroswitch(es) connect it to BRM and BRM2 inputs.(see figure 4-2). And select “on” “**Mechanical brake monitoring**” and “**Mechanical brake-2 monitoring**”.
- Also “**Operation mode**” must be selected “**Normal Operation**” which is located under “**Basic settings**”.

Step-6: Shaft learning & test driving

- ARCODE integrated elevator system needs to do a special shaft-learning run before going in to normal operation. This must be done only once. Before performing a shaft-learning run, please check your magnets and magnetic switches that are needed for encoder positioning system and then follow the steps described below:



Figure-15a Shaft learning screen

- Select icon of “**Shaft learning**” in the menu and press Enter button. You can run shaft learning procedure pressing by” **F2**” button.
- To run shaft learning procedure lift must not be in inspection or recall mode and safety circuit must be closed. If elevator is waiting in inspection mode when shaft learning is started a warning message appears on the screen.
- Position of car isn’t important during shaft learning. It will move downward with half speed of high speed. It starts to learn all floors after it reaches at bottom floor and shaft learning is completed after it reaches top floor.
- If you need to interrupt the shaft-learning drive for any reason, press the “Emergency Stop” button or take the lift into manual operation mode by turning the recall switch.

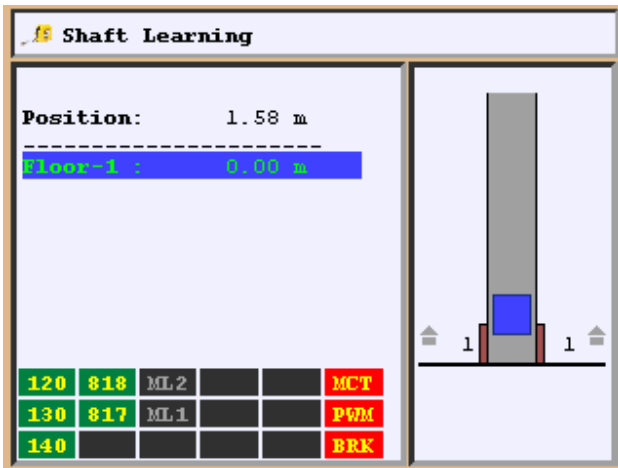


Figure-15b Shaft learning stages

- The shaft learning procedure depending on the length of the shaft, this may take a while. You can follow stage of shaft learning on AREM screen.
- When the shaft learning run is completed, a message “Shaft learned” will be displayed. Back to main menu and save which is learned distance.

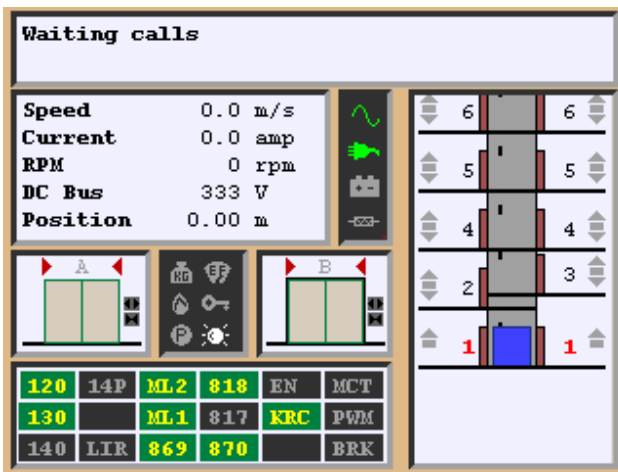


Figure-16 Floor resetting

- Elevator will move bottom floor after completed shaft learning to reset floor numbers. The car will appear on screen as shown figure-16 when car reaches at bottom floor. The car goes bottom floor to reset floor number every time when ARCODE energized first time.
- The elevator must be checked by given call whether it reaches destination floors or not. To give a call by AREM there are two methods. Press up or down button after press “F2” button. If you press one time to direction button the car moves 1 floor up or down. Given call is determined number of pressing direction buttons.



Figure-17 give a call by “COP and LOP calls”

- Second method is press “info” button when AREM shows main screen (figure-16).
- Select icon of “COP and LOP calls” and press Enter button.
- Use direction arrows to give a call. Press Enter button. The car will move to given floor.

Step-7: Landig and car calls settings

Car Calls:

- CPC(Car Panel Controller) board is used to give car calls. This board is connected to IBC(Inspection Box Controller) board by serial communication. if dipswitch settings were done which is shown Appendix-1, You wouldn't do any additional settings.

Landing Calls:

- ARCODE can accept landing calls both serial connetion(CANBus) and paralel connection. If landing calls are wanted to use as paralel the SP-16 has to be used.(see Apendix-1 for more information) (Serial connection must be used for car calls of ARCODE)
- If CANBus is wanted to use for landing calls, position of landing calls' buttons would be defined.



Figure-18a LOP learning

- Firstly AREM hand terminal should be connected to CANBus connector on the CPC board to define place of landing buttons.
- Give a call to bottom floor from COP.
- Press “Tools” button and select icon of “Loop Learning” and press Enter button.

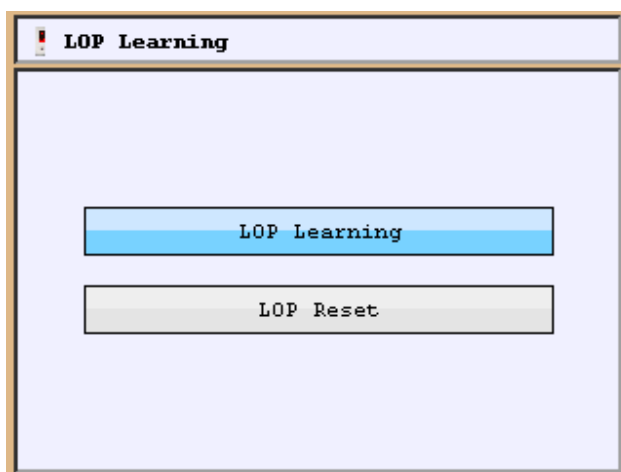




Figure-18b selection of LOP learning

- “LOP learning” must be selected to start to learn landing button position.
- “LOP position reset” is used to reset which was learnt LOP positions.
- When selected “LOP learning” the figure-18c appears on the screen of AREM. If there aren't any learned position you will see figure  right side of floor numbers. In that situation if your LOP has a display you will see “??” on LOP screen. If position learning was done previously you will see figure  right side of floor numbers.

In that situation you will see “A” “+” and defined floor number on LOP screen respectively.

LOP Learning			
Floor- 8:	Door-A	✓	Door-B ✗
Floor- 7:	Door-A	✓	Door-B ✗
Floor- 6:	Door-A	✓	Door-B ✓
Floor- 5:	Door-A	✓	Door-B ✗
Floor- 4:	Door-A	✓	Door-B ✗
Floor- 3:			Door-B ✗
Floor- 2:	Door-A	✓	
Floor- 1:	Door-A	✓	Door-B ✗

Figure-18c LOP position learning screen

- “A” shows defined floor. For B door this sign will be “B”. “+” means the display is used for landing call button. If “-” sign appears on screen of LOP, this means the display is used only display.

LOP learning:

- If the car is at bottom floor and LOP display shows “??” or wrong landing floor, you must hold down call button of LOP until appears correct floor number on LOP screen. For first floor door A you must see “A” “+” and “1” respectively. If your system has B door you should slide scroll box to right side and hold down call button of LOP until appears

“B” “+” and “1” respectively. The while figure ✗ will change as figure ✓. Give a call from COP to second floor after completed defination of first floor. All LOPs must be defined for all floor according to explanation above.

- If LOP doesn't has a screen, you should hold down call button of LOP until figure ✗ will change as figure ✓ on AREM screen. The while led of LOP will flash for a second when landing position is learned.
- If the LOPs are used only for display you don't have to do these settings. The display will show floor number when elevator starts to normal working.

Step-8: Other Settings

Picture Memory Settings of LCD

The software must be updated like explained Appendix-1 when first time a LCD is connected CANBus line. The software update should be done after all LCDs are connected CANBus line. The Picture memory is empty when first time a LCD is connected CANBus line.



Figure-19a LCD Update Screen

- The AREM must be connected which is located same LCD CANBus line. If you want to update LCD of COP the AREM must be connected to COP. If LCDs of landings are wanted to update this time the AREM must be connected shaft CANBus line. Other wise ARCODE can not find correct LCDs.
- To update Picture memory of LCD, select “LCD update screen” and press Enter button.

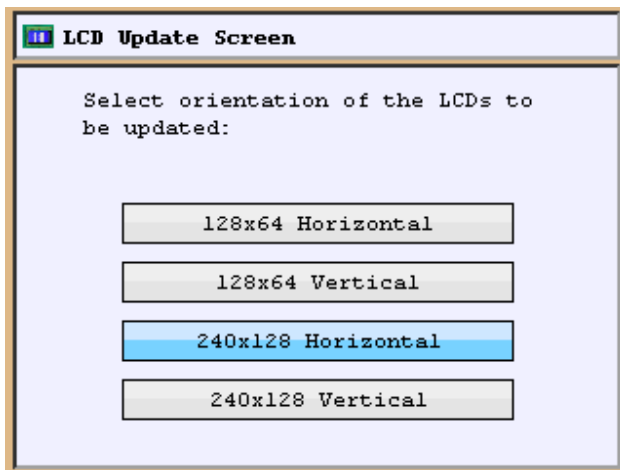


Figure-19b LCD type selection

- Updated LCD type is selected and pressed Enter button.
- To select message right/left arrows are used. To select Picture for message up/down arrows are used.
- All changes are done is saved in memory of LCD.

Deceleration Distance

Arcode does not need any additional settings to determine deceleration distance because of its direct approach feature.

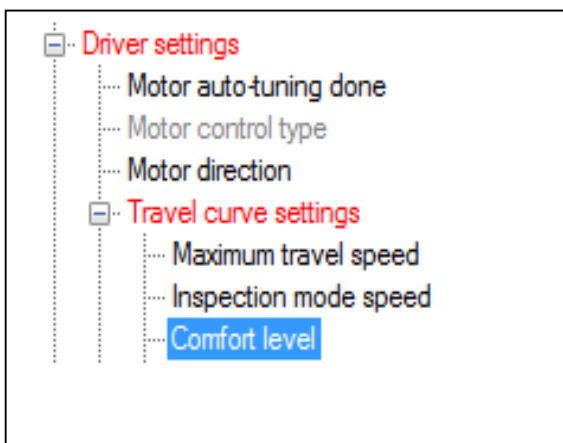


Figure-20 Comfort level

- To make comfort settings, “**Travel curve settings**” must be selected which is located under “**Driver Settings**”. Choose “**comfort setting**” parameter and press Enter button.
- Default settings of “**comfort settings**” as **comfort:3/Performance:3** is set. For that situation both comfort and performance is set as nominal.
- If you want the elevator stops quickly you should decrease comfort value. The performance will increase when comfort is decreased.
- If you want more comfort you should increase comfort parameter. This time, performance will decrease.

SOFTWARE UPDATE

When AREM is first connected to the CANBus line, if AREM's SD card doesn't have the software found in ARCODE, AREM will inform that an update is needed. Start the update pressing the button F1. The system will be restarted when the update is complete. All ARCODE peripherals are updatable. For this reason, with each peripheral added to the elevator, the software needs to be updated.



Figure-1a software update

- Choose “software update” icon and press “Enter”.

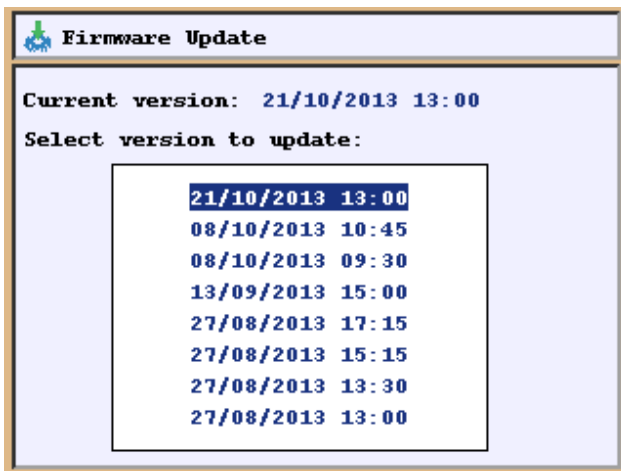


Figure-1b chosen version of updated

- The latest update is the one having the nearest date. Start software update by pressing “Enter”.
- While carrying out setup, if there are peripherals not connected to the CANBus line, you will have to update the software again. Otherwise, peripherals you connected later won't start.

*****Peripherals:** They are all units that run on CANBus line. Each unit has a unique address. During update, other peripherals are searched and updated after ARCODE is updated.

CAR PANEL CONTROLLER (CPC): It is the button for car call. It is used to make a call for the car.

INSPECTION BOX CONTROLLER (IBC): It is revision box's card.

ENCODER ABSOLUTE (ENCA): It is the card for encoder link for gearless machines.

ENCODER INCREMENTAL (ENCI): It is the card for encoder link for geared machines.

BC-BUT: It is the landing call button without indicator.

BCD-2X: landing call button with two parts and a dotmatrix indicator.

BCD-3X: landing call button with three parts and a dotmatrix indicator.

BCD-LCDA: 128x64 resolution LCD. The indicator can be used both inside the car and landing or door indicator.

DIP SWITCH SETTINGS OF CPC BOARD

ARCODE, that can work with two-door support up to a total of 64 stops, collects car calls with the help of a CPC card. Each CPC card can serve up to 24 stops. If there are more than 24 floors or on condition that it has two doors, two CPC cards must be used. For an elevator with 64 stops and two doors, a sum of 6 CPC cards must be used. The dipswitch which is located on CPC board is used to determine working type and door settings.

Dipswitch-1	Dipswitch-1	Dipswitch-3	Dipswitch-4		
0	0	1	0	CPC-1A	Up to 24 floors
0	1	1	0	CPC-2A	Up to 48 floors
1	0	1	0	CPC-3A	Up to 64 floors
0	0	0	1	CPC-1B	Up to 24 floors for 2nd door
0	1	0	1	CPC-2B	Up to 48 floors for 2nd door
1	0	0	1	CPC-3B	Up to 64 floors for 2nd door
0	0	1	1	CPC-1AB	Up to 24 floors
0	1	1	1	CPC-2AB	Up to 48 floors
1	0	1	1	CPC-3AB	Up to 64 floors

Figure-2 dipswitch settings of CPC board

For example: If you have a one-door system up to 24 floors, dip switch settings must be done “0010”. “ON” on the dip switch means 1.

***Other switches after the switch 4 are free for future applications.

SP-16 SETTINGS

SP-16 card is used when buttons are not serial communication (CANBus). It can serve up to 16 floors at most. In one way collective external calls can be collected up to 16 floors with a SP-16. In case of two way collective, calls can be collected up to 9 floors with a SP-16. For double buttons 16 floors two SP-16 must be used. Dip switch settings must be done according to the following table.

CALL TYPE / DOOR / DIRECTION CHOICE	DS1	DS2	DS3	I1 I2 I3.....I7 I8 I9 I10.....I14 I15 I16
One-Way Collective (2-16 Stop) / Door A / Down	0	0	0	301 202 203.....214 215 216
One-Way Collective (2-16 Stop) / Door B / Down	0	0	1	301 202 203.....214 215 216
Two-Way Collective (2-9 Stop) / Door A / Up & Down	0	1	0	301 302 303.....307 308 202 203.....207 208 209
Two-Way Collective (2-9 Stop) / Door B / Up & Down	0	1	1	301 302 303.....307 308 202 203.....207 208 209
Two-Way Collective (10-16 Stop) / Door A / Up	1	0	0	301 302 303.....314 315 -
Two-Way Collective (10-16 Stop) / Door B / Up	1	0	1	301 302 303.....314 315 -
Two-Way Collective (10-16 Stop) / Door A / Down	1	1	0	- 202 203.....214 215 216
Two-Way Collective (10-16 Stop) / Door B / Down	1	1	1	- 202 203.....214 215 216

Figure-3 SP-16 dipswitch settings

Switch number 4 is used for indicator outputs. If switch number 4 is 1, it gives inverted gray output. If it is 0, it gives output as gray. The switch number 5 is free for future features. The dip switch number six must be “0”. If it is “1”, it will work in test mode. “ON” on the bottom switch means “1”.

MEANING OF 7-SEGMENT MESSAGES ON ARCODE

INIT:	Elevator goes bottom floor for reset(Initialising)
UpEn:	Enca board is being updated (Updating Enca)
O-in:	Only inspection
notu:	Needed autotuning(No Tuning)
noSh:	Needed Shaft learning (No Shaft Learning)
120-:	No 120 signal
Fire:	Fire mode
RcLL:	Recall mode
inSP:	Inspection mode
tune:	Autotune is being done
SHFL:	Shaft learning is being done
ErXX:	There is an error that XX code. (If it is flashing this means elevator is blocked)
rtrX:	Elevator go out an error and it will retry X seconds later (x:1-5)
L. X:	Elevator is waiting at X. floor door zone
L X:	Elevator is waiting at X.floor but the car isn't at door zone.
1.58:	Elevator is going with speed of 1.58 m/s
-0.35:	Elevator is going downward with speed of 0.35m/s
door:	There is a call but the door is open
EUAC:	Rescue mode

ERROR CODES AND POSSIBLE REASONS

04 Encoder connection fault: When this error is received, encoder links must be controlled. Encoder link can be wrong or there may be a problem with encoder feed.

07 Current was over driver limit: This error is received when current value given to reach the motor to the intended speed is above current value entered in motor parameters. The car shoes may be too tight or the motor brake may not open fully. For geared machine slip parameters might be entered wrong

10 Picking of main contactors could not be sensed: This error occurs in case of not becoming 140P even though safety circuit is 120-13-140. If this error is received, there may be a breakdown in door bridging card. Besides, door locks time is set 0=0 and if the safety circuit doesn't work, this error is received again. To prevent this, door locks time must be entered at least =0,3 seconds. If there is no door bridging card, 140-140P inputs must be bridged on ARCODE.

11 Dropping of main contactors could not be sensed: When door bridging card is available and though this is selected from within the menu and the bridge between 140-140P is not excluded, this error is met.

12 Brake checkback (BRC) was OFF when expected to be ON: When the motor mechanical brake is off, 100 signal must be transmitted to BRC input from brake micro switches. If this signal doesn't exist, this error is received. Control brake switches. The signal 100 may not be transmitted to switches' contacts.

13 Brake checkback (BRC) was ON when expected to be OFF: When the motor mechanical brake is on, signal 100 must be cut before brake comes from micro switches to BRC input. If signal 100 isn't taken, this error occurs. Control brake switches. The motor brake may not be on.

14 DC-bus voltage is too high: gives this error when the line voltage is too high. Check line voltage from L1,L2,L3 inputs. Line voltage mustn't be over 420V. Besides, control brake resistance's connections.

15 DC-bus voltage is too low: This error is received if system voltage is below working values. Check line voltage from L1,L2,L3 inputs. Line voltage mustn't be below 340V.

18 Car overspeeded: this error is faced with if the speed information from the encoder is above the calculated speed. Encoder connections must be controlled. Motor parameters must be controlled. The elevator's load balance must be set correctly. Load balance must be controlled by putting half-load into the car. Speed PID gains that are in PID control settings may be insufficient. Gains must be raised.

19 Could not reach required speed: Though sufficient power is transmitted to the motor and it doesn't reach the desired speed, this error is met. motor parameters must be controlled. Encoder connections must be controlled. Load balance must be controlled by putting half-load into the car. Speed PID gains that are in PID control settings may be insufficient. Gains must be raised. Motor unloaded current that is under motor plate information must be set %20 in geared machines.

21 At least one phase missing: L1,L2,L3 and N inputs must be controlled.

22 3-Phase sequence is wrong: Phase L3 or L1 must be replaced with Phase L2.

23 24V supply voltage too low: Measure ARCODE 24 inputs. This error is taken if the value measured is below 20 VDC. Control 24V power distribution unit (transformer) output. It must be 19 VAC in transformer output. If voltage is below 19 VAC, either the transformer is out of order or there is a line that used over current in 24VDC outputs to decrease voltage.

27 Maximum time of travel exceeded: If the elevator can't pass door area (ML1&ML2) magnets in the travel time set, this error is received. Maximum travel time (seyir süresi) must be adjusted according to engine speed.

29 ML1-ML2 short circuited: This error is faced with if M1, M2 signal stops or starts at the same time. Links of ML1, ML2 magnetic switches are controlled.

30 ML1-ML2 sequence wrong or could not be read: Magnetic switches must be put ML1 is down and ML2 is up. When the elevator goes down, first ML1 then ML2 must enter the magnet. Cables of Magnetic must be controlled.

31 Door(s) could not close: this error is received when the command "close the door" comes and the safety circuit (120-130-140) doesn't work in door's closing time. Door closing time may not be enough. Raise this time. Check the cables of door close relay in the revision box. There may be a problem with door contacts. Check the plug lock contacts. If door limit switches aren't connected or they don't exist, select "not connected" from door limit switches parameter.

32 Door(s) could not open: this error is received when the command "open the door" comes and the safety circuit (120-130-140) doesn't cut in door's opening time. Door opening time may not be enough. Raise this time. Check the connections of door close relay in the revision box. If door limit switches aren't connected or they don't exist, select "not connected" from door limit switches parameter.

35 Safety-chain(120) interrupted during travel: check circuit 120. During movement check parts that contacts can change place with movement such as loose chain contacts and regulator contacts.

37 140 interrupted during travel: The inner door will be cutting contact when the movement starts. Check the inner door contact.

38 Encoder position was too different from magnet reading: the door area magnet must have slid. Or the chains may have slid too much.

41 817 signal was not OFF when it should: The magnets 817 may have slid. Or the chains may have slid too much.

53 Encoder direction is wrong: Change the encoder direction from the menu. Auto-tune must be done again when the encoder direction is changed for gearless machine.

54 OGD Error: A shaky start occurs when the anti roll back value is entered too high. This error may be faced with in this case. Decrease gains of anti roll back.

55 Contactor dropped: the signal 100 that normally passes through open contacts of KPA, KPB and KFR contactors comes to ARCODE's KRC input. There must be signal 100 in KRC input when all the contactors are activated. This error is faced with if any contactor falls or the signal 100 cuts during movement.

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