AUTOMATIC TELESCOPIC CABIN DOOR INSTALLATION MANUAL

Contents

FR03.205 / Rev No:00 / Rev. Tarih

Warning and Suggestions

	For long service life and to ensure that your installation has a foultless, please read carefully and follow the introductions.

➢ Only the qualified staff should make the instalation.

➢ Distribution and any partial or whole reproduction of all the instructions, informations, details and drawnings which are mentioned in this manual requires permission from HKS HAS ASANSÖR A.Ş.

➢ Dimensions are given for referance. HKS HAS ASANSÖR A.Ş. keeps the right to make any changes without notice .

➢ The manufacturer HKS HAS ASANSÖR A.Ş. will not hold any responsibility for possible damages arising from improper use of the product.

➢ Keep this manual as long as you use the product.

➢ The warranty of these products valid for 2 years.

➢ Thank you for your attention and prefer our products.

1. Introduction

This guide is explaining how to assemble car door which was produced by Has Elevator. Also we prepared this manual step by step to simplify installation of car door for our valuable customer.

For easy installation please read this manual carefully before installation and follow instruction step by step. It includes important information and clues.

This guide was prepared for general car door model.Please contact the manufacturer for models with varying.

1.1. Shipping and Storage Suggestions

- These products were produced for exclusively use in Elevator Industry.

- The manufacturer HKS HAS ASANSÖR A. Ş. will not hold any responsibility for possible damages arising from improper use of the product.

- To ensure that only the qualified staff should make the installation.

- Make sure that the staff are trained on first aid.

- Improper use of the product and unauthorized changes may cause injury and damage to the product.

- Distributions and any partial or whole reproduction of all the instructions, information, detail and drawings which are mentioned in this manual requires permission from HKS HAS ASANSÖR A.Ş.

1.2. Usage Manuel and Maintenance Instructions

1.2.1. Usage Manual

1) Always check whether the cabin is on the floor before entering
2) When door starts to close, do not stop it by any means.
3) Maket he maintenance according to standards.
4) Only the qualified staff should make the instalation.
5) Keep this manual as long as you use the product.
6) Prevent the children younger than 12 years old to enter the elevator alone.
7) Obey the writen instructions of the instalation / maintenace company when stuck between floors.
8) To prevent possible damages when handling use forklifts.
9) Do not try to open the doors in different ways than instructed.
10) Be sure that the product is not damaged in transportation.
11) The manufacturer HKS HAS ASANSÖR A.Ş. will not hold any responsibility for possible damages arising from improper use of the product.

1.2.2. Maintenace Instructions

1) Always clean the chanels of the sill with grease and don't forget to dry it.
2) Do not step on any part of the mechanism.
3) To prolong the life of the hanger wheels, keep the top track clean.
4) Never apply grease to top tracks.
5) Periodicaly chek the wheels and tracks to prevent vibrations and wear.
6) Periodicaly chek the steel rope that gives move to panel if it has sings of wear.
7) Only the authorised companies qualified staff should intervene to mechanism.
8) Peridicaly check if the distance of the electric contact just before closing is 7mm and after closing is 14mm. (EN 81-20 5.3.9.1.2)

2. Parts List
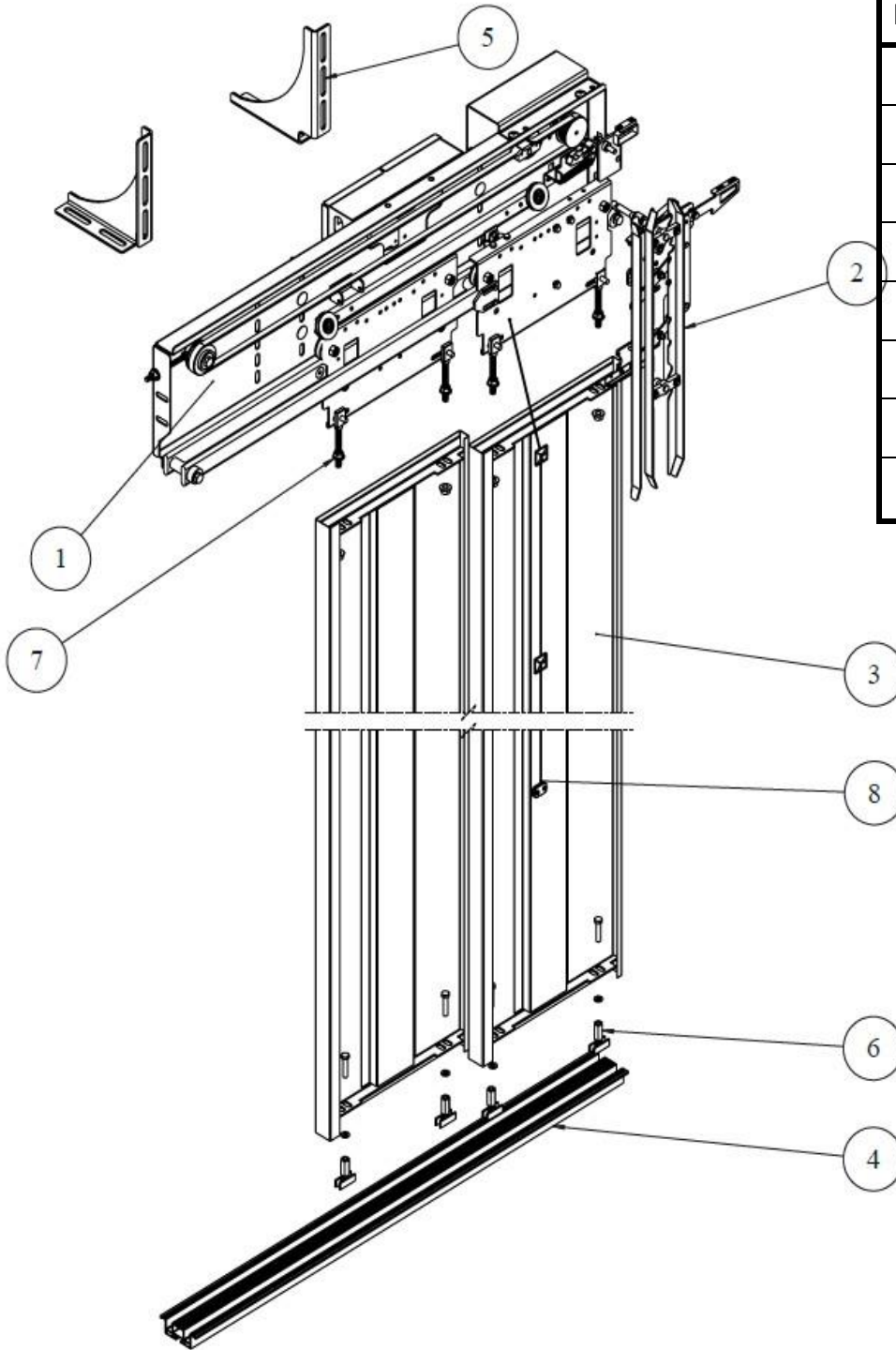
No	Part Description	QTY
1	*Door Mechanism*	1
2	*Skate*	1
3	*Door Panel*	2
4	*Lower Sill*	1
5	*Bracket*	2
6	*Guide Shoe*	4
7	*Hanger*	4
8	*Manuel Door Lock Opening Device*	1

Figure 1

This guide was prepared for our valuable customer to simplify installation of Has Elevator car doors. Assembly manual includes general concept of car door assembly. Please contact with manufacturer for models with varying.

www.hasasansor.com

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3. Installation

3.1. Assembly Of Skate to the Mechanism

For our valuable customer to simplify installation we already assemble skate with belt. You just need to assemble skate with mechanism by using M8 x 20 bolts and M8 nuts as it described in figure 2.
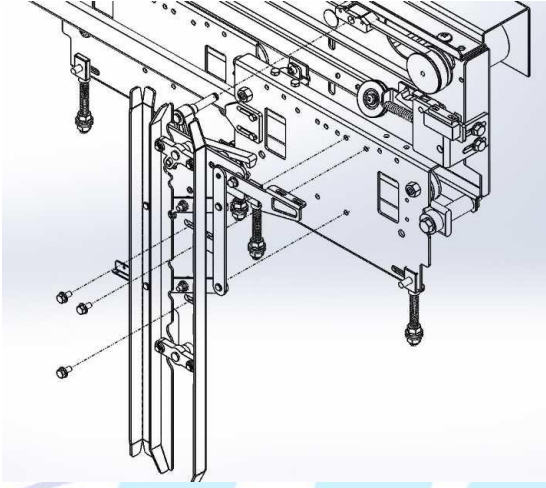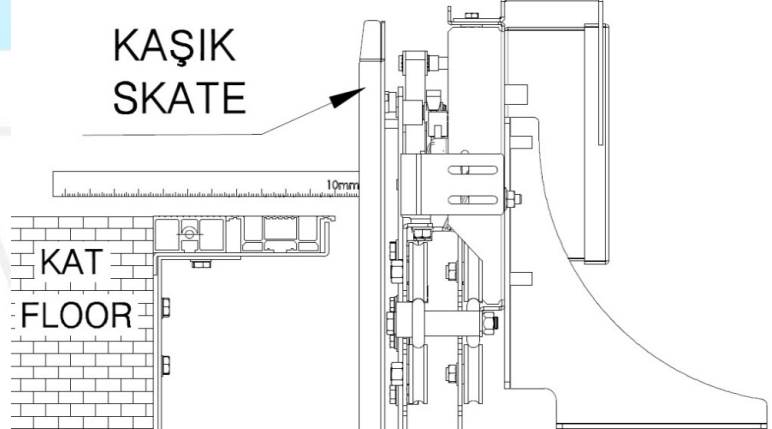

Figure 2

Figure 3

After installation ensure that skate is vertically. Besides as it described in figure 3 make sure the gap between skate and landing sill is 10 mm.

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3.2. Assembly Of Mechanism to the Car Ceiling

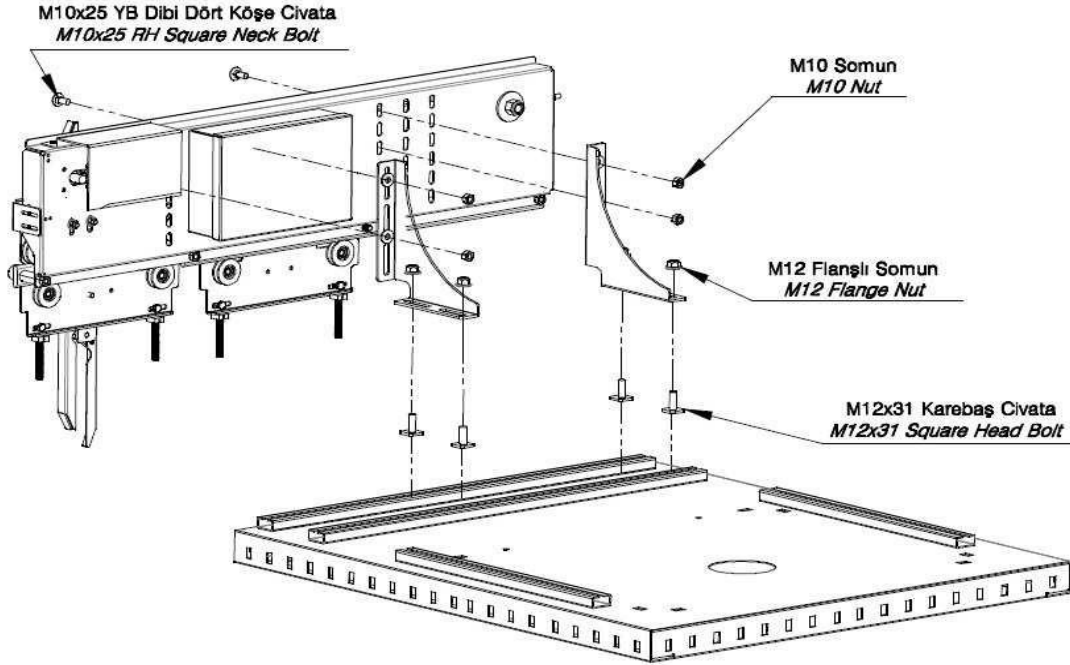As it described in figure 4 assemble mechanism to car ceiling with fasteners.

Figure 4

Assemble mechanism according to dimensions in figure 5 and 6. Before finishing installation check levelness and vertically of mechanism.
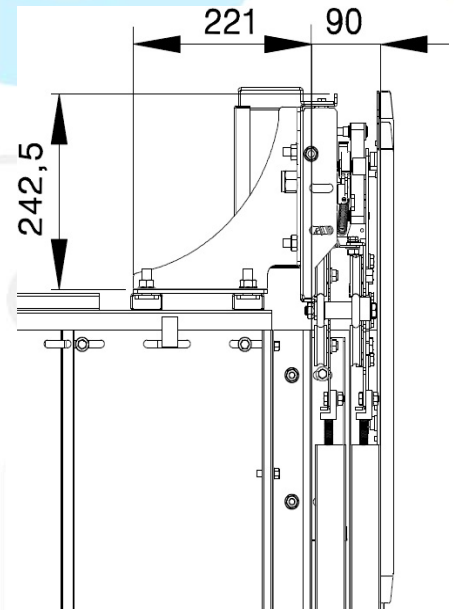
Figure 5
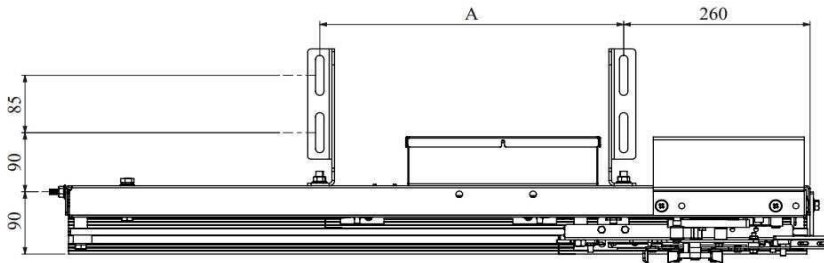
Kapı Gen. Door width	600	650	700	750	800	850	900	1000	1100	1200	1300	1400
A	465	510	555	600	645	690	815	935	1055	1215	1295	1429

Figure 6

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3.3. Assembly Of Panels to the Mechanism

Before installation of door panels connect hangers with plate. As it described in figure 7 assemble door panels with plate by using hangers, M8x20 bolts and M8 flange nuts. As it described in figure 8 distance between panels with sills and car entrance panels should be 5 mm.
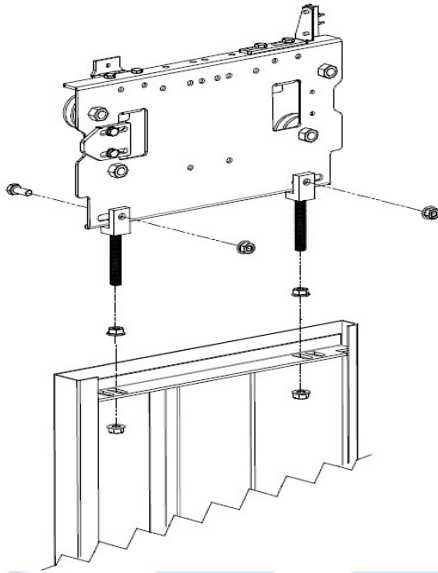

PANEL EŞİK BAĞLANTISI

PANEL - SILL CONNECTION

Figure 7

Figure 8

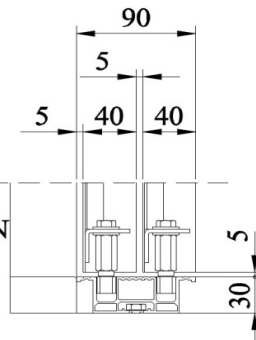## 3.4. Connection Between Panels and Lower Sill

For efficient and quiet operation door panel must be parallel with landing sill. Adjust door panel as required. Then insert guide shoe in sill and assemble panels with sill by using M8x15 flange nuts and M8 washers as it described in figure 9.
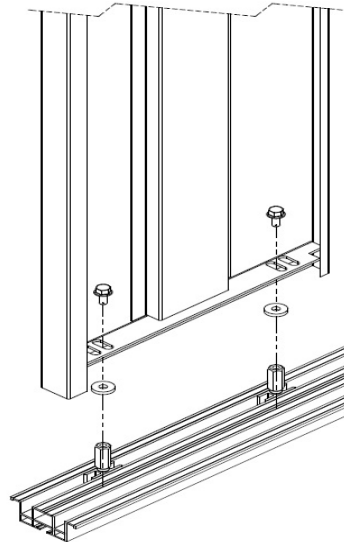
Figure 9

3.5. Assembly of Manuel Door Lock Opening Device
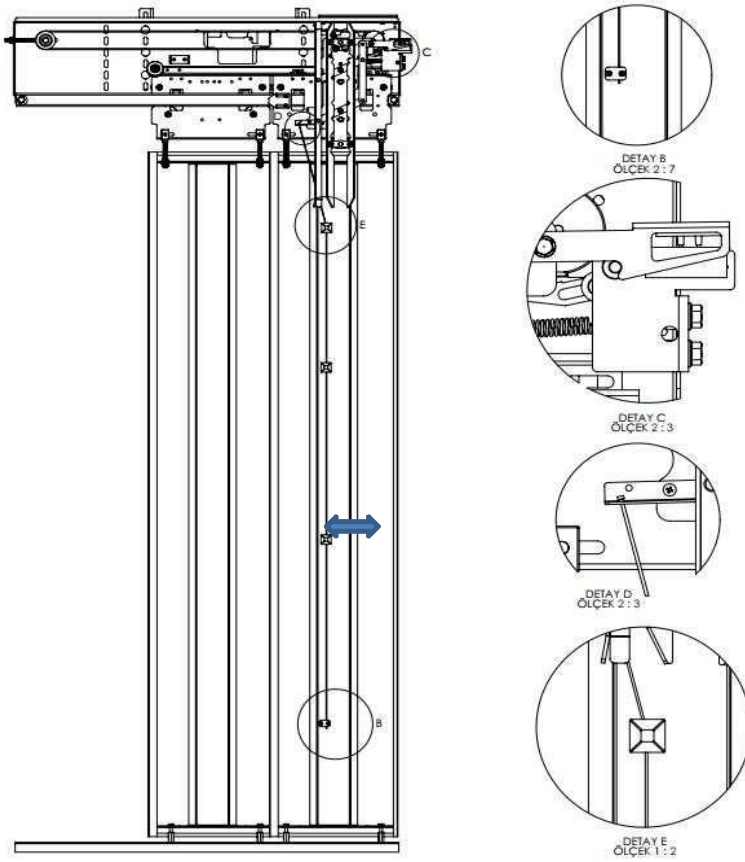
Assemble the lock opening device which are supplied in package as described in detail pictures. This device used for opening cabin door from outside manually.(EN 81- 20:2014 5.3.15.3)

DETAY B
ÖLÇEK 2 : 7

DETAY C
ÖLÇEK 2 : 3

DETAY D
ÖLÇEK 2 : 3

DETAY E
ÖLÇEK 1 : 2

Figure 10

3.6. Lock Detail

Electrical safety device will not be activated unless the locking elements engaged by at least 7mm.

(EN 81.20:2014 5.3.9.1.2)

8,5

DETAY B
ÖLÇEK 3 : 2

DETAY A
ÖLÇEK 8 : 10

Figure 11

3.7. Card Connection To Lift Control System

MLDOORPLUS AUTOMATIC DOOR CONTROL CARD

TERMINAL EXPLANATIONS

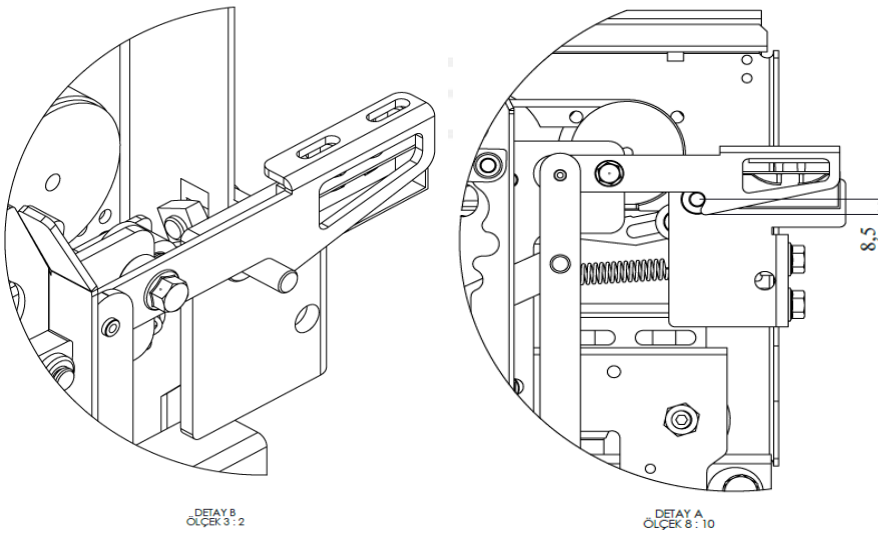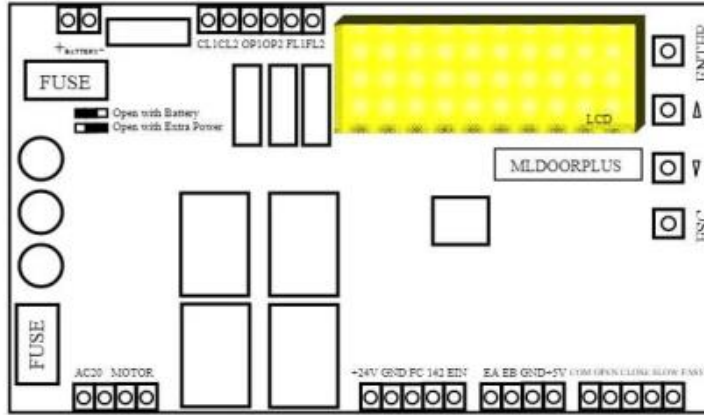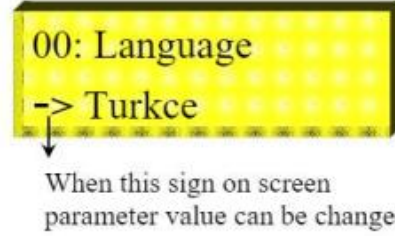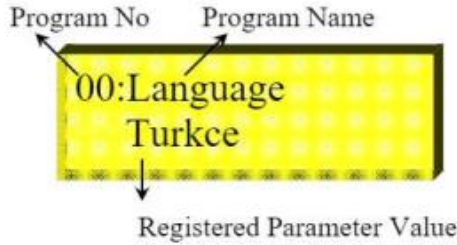|	
AC20	Transformator Input (Motor power+10W)
MOTOR	24 V DC Motor
+24V	24V internal supply for input signals (+) pin
GND	24V internal supply for input signals (-) pin
FC	Photocell signal input
142	Floor level signal input
EIN	Rezerved input
EA	Encoder A Channel
EB	Encoder B Channel
GND	Encoder supply (-)
+5V	Encoder supply (+)
COM	Common for speed signals
OPEN	Open signal input
CLOSE	Close signal input
SLOW	Slow close signal (Nudging) input
FAST	Fast signal input
AKU +	Battery (+) (2 qty. 12V/1.2 Ah dry battery)
AKU -	Battery (-)
CL1	Door closed relay common
CL2	Door closed relay NO contact
OP1	Door open relay common
OP2	Door open relay NO contact
FL1	Fault and photocell detect relay common
FL2	Fault and photocell detect relay NO contact

USAGE INFORMATION

- Door situation informations are shown upper line of LCD screen. Door speed is screened at left side of bottom line (V=XXcm/s) and position information at right side (P=XXXcm).
- When the first power ON, the door is moved in the direction of openning if there is not "CLOSE" input and it is moved in the direction of closing if there is "CLOSE" input with teaching speed. At this operation moment, because of missing door location, "---" is screened on LCD.
- Pressing ENTER on board, it is taken to "Inspection" mode. At this moment, the door is stable. It is provided to do the mechanical adjustments without cutting the power by operator. At this moment some functions are assigned to ENTER, UP, DOWN buttons. This functions are described below. To exit "Inspection" mode, must be pressed ESC button.
- Pressing ESC button on board, it is taken to "Manual Movement" mode. At this moment, it is moved in direction of door closing by pressing UP button, it is moved in direction of door opening by pressing DOWN button. To exit "Manual Movement" must be pressed ENTER button.

INSPECTION MODE KEY DEFINITIONS

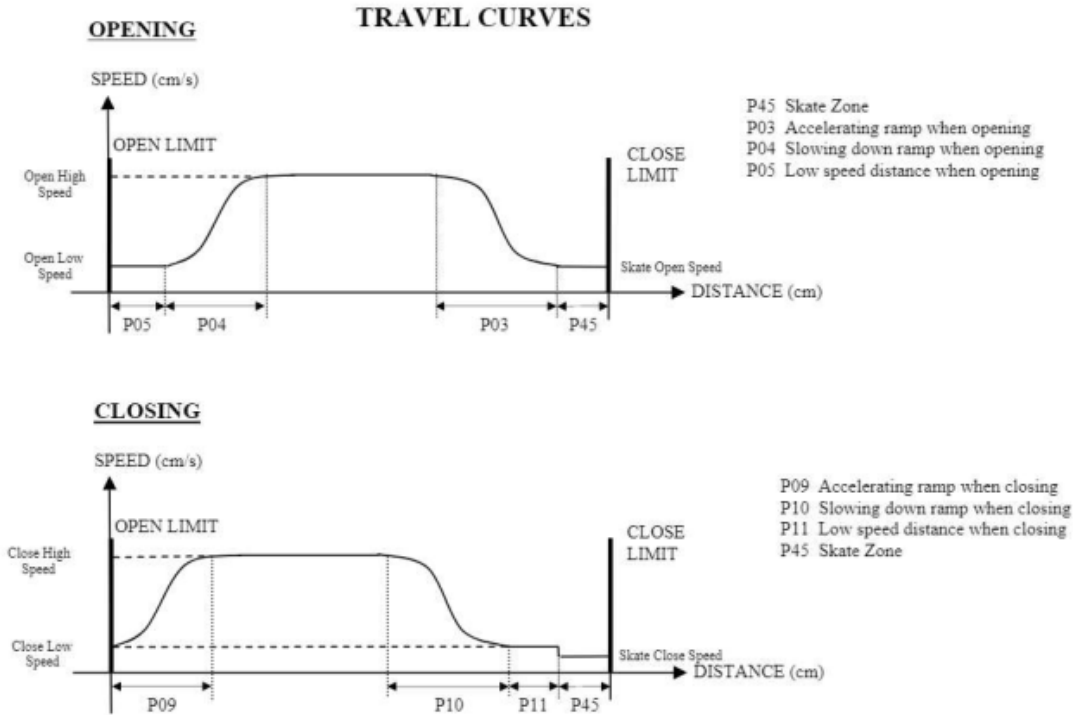|	
ENTER	= By pressing this button during 2 sec., it is started programming mode.
UP	= By pressing this button, Total Run number is screened on LCD during 5 sec.
DOWN	= By pressing this button, door lenght "Teaching" is started. Door is opened with teaching speed first. Then, it is closed with teaching speed. While teaching operation, detected encoder value is screened on upper right side of LCD.
ESC	= By pressing this button, it is exit from "Inspection".

PROGRAMMING (Ver:1.01)

- To programming of MLDOORPLUS card, by pressing ENTER button it is taken to Inspection mode first. At this mode, by pressing ENTER button again, it is started programming.

Program No   Program Name

00:Language
Turkce

Registered Parameter Value

00: Language
-> Turkce

When this sign on screen
parameter value can be changed

- You can choose any program by using UP and DOWN buttons.
- To exit programming mode, ESC button is pressed in main menu,

"Exit   ->ENTER"

"Return   ->ESC"

is screened on LCD. When pressed ENTER button, it is exit from programming mode, and by pressing ESC button, it is returned to first menu which is operated.

- When ENTER button in the main menu is pressed, the program on the screen starts.
- If the program has parameter, an arrow appears at the beginning of the second line of LCD screen. You can change the parameter value by using UP and DOWN buttons. To store the value, press the ENTER button and return the main menu. By pressing the ESC button the registered value is valid and you can return the main menu.
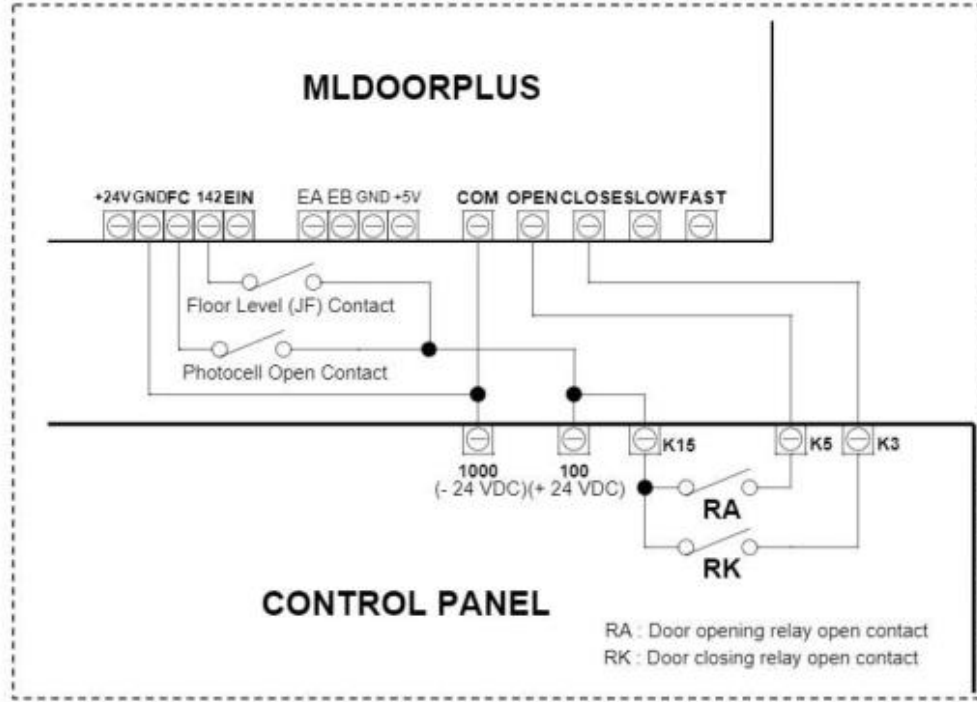
Program	Factory Settings	Parameters / Explanations
00:Language	Turkce	Turkce - English
01:OpenHighSpeed	35 cm/s	20-50 (High speed when opening)
02:Open LowSpeed	5 cm/s	2-19 (Low speed when openning)
03:Op.Accelerate	20 cm	5-90 (Accelerating ramp adjustment when openning)
04:Open Slowing	20 cm	5-90 (Slowing down ramp adjustment when openning)
05:OpenLowS.Zone	2 cm	1-99 (Low speed movement distance when openning)
06:Op.Pres.Level	25	10-45 (Pressure level adjustment when openning)
07:Cl.High Speed	25 cm/s	20-40 (High speed when closing)
08:CloseLowSpeed	5 cm/s	2-19 (Low speed when closing)
09:Cl.Accelerate	20 cm	5-90 (Accelerating ramp adjusment when closing)
10:Close Slowing	20 cm	5-90 (Slowing down ramp adjustment when closing)
11:Cl.Low S.Zone	2 cm	1-99 (Low speed movement distance when closing)
12:Cl.Pres.Level	25	10-45 (Pressure level adjustment when closing)

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13:Run InputType	Open - Close	Open - Close, Close (Working the door with "Open – Close" or only "Close")
14:Limit Relays	Open Contact	Open Contact,Close Contact (Chosing contact of Limit relays)
15:PressureRelay	Open Contact	Open Contact,Close Contact (Chosing fault relay contact which activated when detected pressure or photocell)
16:142 Function	Passive	Passive,Open At Floor,ClosedAtFloor (Chosing rescue mode with at floor signal action when selected "Open with Battery". When there is "Open with Battery" situation, these situations are applied by looking this parameter: Passive :Door is opened without looking 142 input Open At Floor :Door is not open if there is 142input, if there is not, it is opened Close At Floor :Door is not opened if there is not 142 input, if there is, it is opened)
17:Rescue Mode	Open&Battery	Open&Battery, Open&Ext.Pow. (Chosing rescue mode)
18:Demo Mode	Passive	Iptal,01s – 30s (If the value is passive, there is no demo.It is always provided the door working at waiting door open and close during the value of selected second without noticing door open-close signal)
19:SetUserPassw.		(Changing user password)
20:CanselU.Pass?		(Canceling the password with changing 0000)
Manufact.Setting		CAUTION! Door manufacturer can be reach these parameters.
99:Factory Set ?		(All parameter values are changed into factory settings)

TRAVEL CURVES

OPENING

P45 Skate Zone
P03 Accelerating ramp when opening
P04 Slowing down ramp when opening
P05 Low speed distance when opening

CLOSING

P09 Accelerating ramp when closing
P10 Slowing down ramp when closing
P11 Low speed distance when closing
P45 Skate Zone
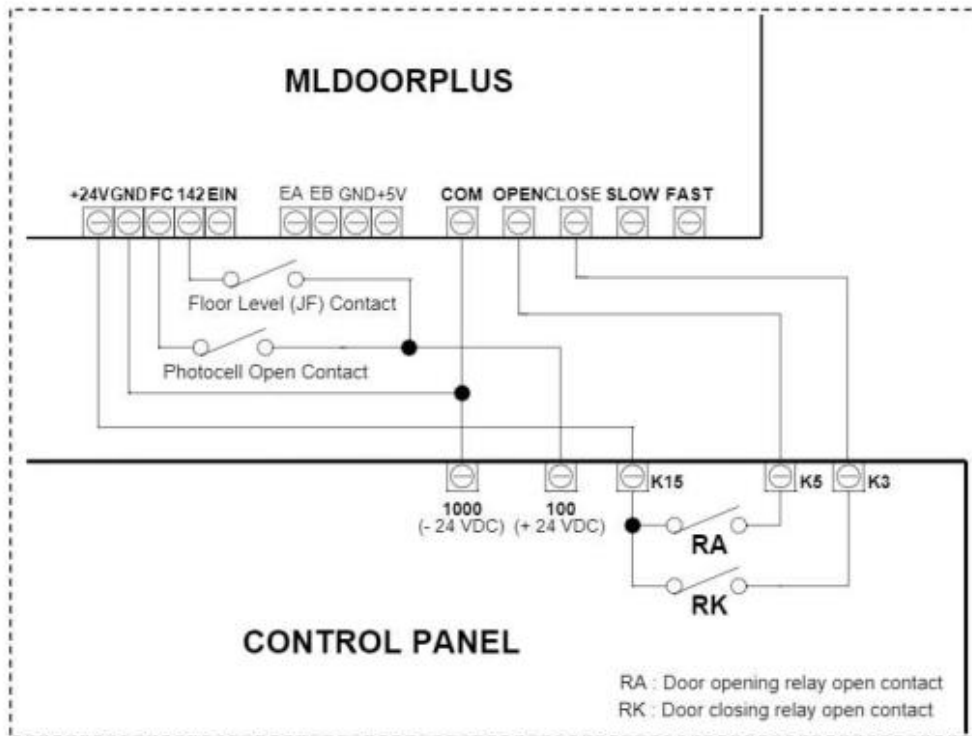
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MLDOORPLUS CARD CONNECTION TO LIFT CONTROL SYSTEM

1) Connection with using 24VDC that coming from Control Panel (Recommended)

2) Connection with using internal 24VDC

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FAULT DESCRIPTIONS

FAULT SCREEN DISPLAY	EXPLANATION	WHAT TO DO
Pressure Fault	Situation that motor current is over the pressure level which is defined in the parameters	If there is a block in front of the door mechanism panels, it must be removed.If fault is always exist although there is not a block,it must be checked there is motor jamming or not.
Enc.DirectionErr	Situation that encoder information is reverse with looking the motor return direction.	Relocate A and B channels on board. P.S.: This fault is checked during the learning. In the learning operation, first the door is opned. Then it is closed. With taking into consideration the situation, convert the motor direction by reserving the motor tips with A and B channels inputs.
CurrentSensorErr	Situation that the ofset information which is measured from the current sensor is faulty in first working of the card.	If ambient temperature is extreme high or extreme low, this may ause a fault like this. If ambient temperature is normal, contact the manufacturer firm and check out the card.
Need To Learn	Situation that giving open and close signal to the card without doing the learning operation.	Do the door learning operation.
Over Current	Situation that detecting over current by the card hardware.	Check the motor tips that they have short circuit or not.
Maximum Theoretic Velocity < 20 cm/s	Situation that maximum speed value that is measured from the motor RPM, regular RPM and wheel circumference is lower than 20cm/s.	Check motor RPM, regulator RPM and wheel circumference values in the manufacturer parameters.

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