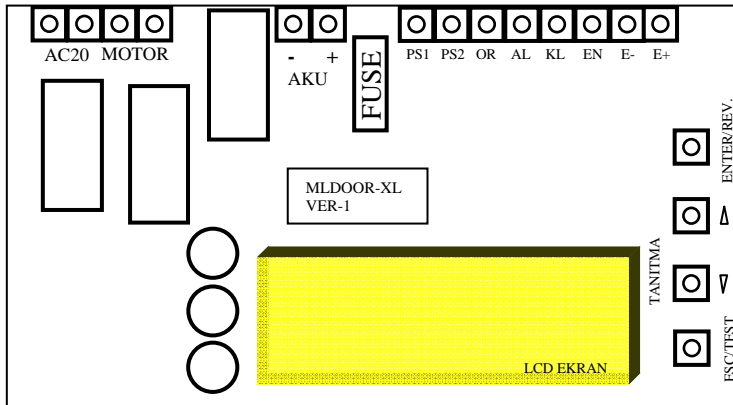


# MLDOOR-XL CAR DOOR CONTROL CARD



AC20	Transformer Input, 60W 0-20 V
MOTOR	24 V DC Motor
E+	Encoder (+)
EA	Encoder A Channel
EB	Encoder B Channel
E-	Encoder (-)
CL	Close Limit
OL	Open Limit
COM	Limit Common
CS1-CS2	48-190 V DC Cam Voltage (Supplied by 220V AC)

## USAGE MANUAL

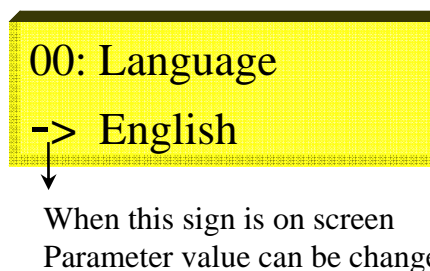
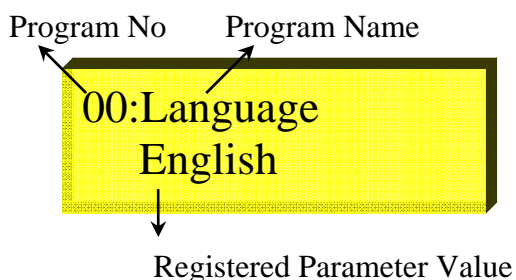
- When the first power on, if the door doesn't detect any limit switch, the door is closed first. It is waited 3 sec. and opened again with the teaching speed that is saved in P18. This is for the lifts with rescue system.
- Upper line of LCD screen shows the position informations. Left side of the bottom line shows the speed that is applied to the door ( $V_m=XX$ ), and right side shows the door position information (Pulse Number,  $P=XXXX$ ).
- By pressing ENTER/INS. on the board, door is taken to the inspection mode. On this position, no power is applied to the motor. So, operator can do the mechanical adjustments without cutting the power off. And also encoder information coming from the motor can be shown.
- By pressing ESC/TEST on the board, the door can be tested as like CS1-CS2 door close signals are exist.

## INSPECTION MODE KEYPAD DEFINITIONS

- ENTER/INS. = By pressing this button for 2 seconds, door is taken to the inspection mode.
- UP = When pressed this button, Total Run Number is screened on LCD during 5 seconds.
- DOWN(TEACH) = By pressing this button, the TEACH operation of the door is started. The door is closed with teaching speed first. Then opened with teaching speed and encoder value that is counted is saved.
- ESC/TEST = When pressed this button, INSPECTION mode is ended. Then the door is opened back with teaching speed itself and started to wait the close signal.

## PROGRAMMING (Ver:1.01)

- To enter MLDOOR-XL card program, first the card is taken to the inspection mode by pressing ENTER/INS. button. On this position, by pressing ENTER/INS. again, programming mode starts .



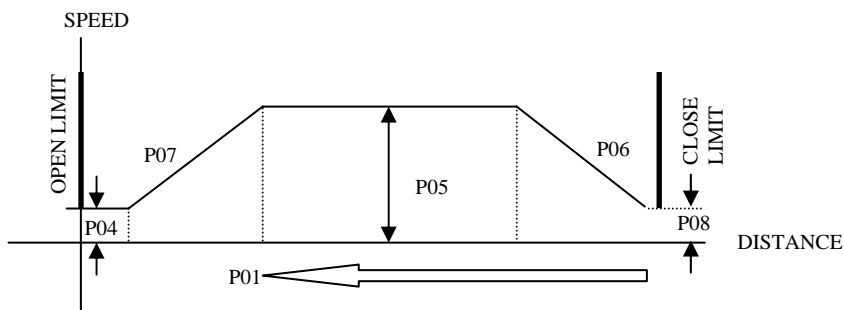
- Required programs can be chosen with UP and DOWN buttons.
- To exit the program, it is pressed ESC/TEST button and “Exit Program” is screened on LCD. By pressing ENTER/INS. button, it is exit the program mode. If it is pressed ESC/TEST, it is turned back to the last processing menu again.
- By pressing ENTER/INS. button in the main menu, the program on the screen is started.
- If the program has a parameter, an arrow sign is screened on the bottom side of the LCD. Parameter value can be changed with UP and DOWN buttons. By pressing ENTER/INS. button, that value is saved and turned back to the main menu. If it is pressed ESC/TEST button, the saved value is protected and turned back to the menu.

Program	Factory Set	Parameters / Explanations
00:Language	English	Turkce - English
01:Open SlowZone	70	00-99 (Entering point to slowing zone when opening. If the value is 00 the door starts to slowing back, if the value is 99 the door starts to slowing front)
02:Op.Press Time	30	20-99 (Pressure detect time=Value x 0.01 s)
03:OpenTryNumber	05	03-10 (Trying number when getting jammed at opening)
04:Open LowSpeed	15	05-40 (Low speed when opening)
05:OpenHighSpeed	50	30-70 (High speed when opening)
06:Op.Accelerate	05	01-10 (Adjustment of accelerate ramp when opening)
07:Open Slowing	05	01-10 (Adjustment of slowing ramp when opening)
08:Op.StartSpeed	15	05-25 (Start speed when opening)
09:OpenHoldPower	05	01-15 (Hold power at opened)
10:CloseSlowZone	70	00-99 (Entering point to slowing zone when closing. If the value is 00 the door starts to slowing back, if the value is 99 the door starts to slowing front)
11:Cl.Press Time	30	20-99 (Pressure detect time=Value x 0.01 s)
12:CloseLowSpeed	15	15-40 (Low speed when closing)
13:Cl. HighSpeed	50	30-70 (High speed when closing)

14:Cl.Accelerate	05	01-10 <i>(Adjustment of accelerate ramp when closing)</i>
15:Close Slowing	05	01-10 <i>(Adjustment of sloing ramp when closing)</i>
16:Cl.StartSpeed	15	05-25 <i>(Start speed when closing)</i>
17:Cl.Hold Power	05	01-30 <i>(Hold power at closed)</i>
18:TeachingSpeed	20	20-40 <i>(Teaching speed)</i>
19:Demo Mode	Passive	Passive, 01s – 30s <i>(If the value is Passive there is no demo working. It proves the door working with waiting at opening and closing during the selected second time without detecting door cam signal)</i>
20:Lim.Cont.Type	Close Contact	Close Contact-Open Contact <i>(Limit contact type chosen)</i>
21:Press Level	01	01-10 <i>(Pressure level chosen)</i>
99:Factory Set ?		<i>(All parameter values are changed into factory settings)</i>

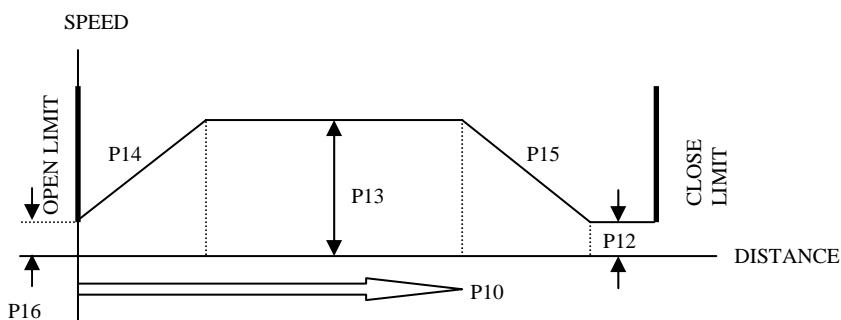
## TRAVEL CURVED LINES

### OPENING



P08 Start speed when opening  
P06 Accelerate ramp when opening  
P05 High speed when opening  
P07 Slowing ramp when opening  
P04 Low speed when opening

### CLOSING



P16 Start speed when closing  
P14 Accelerate ramp when closing  
P13 High speed when closing  
P15 Slowing ramp when closing  
P12 Low speed when closing