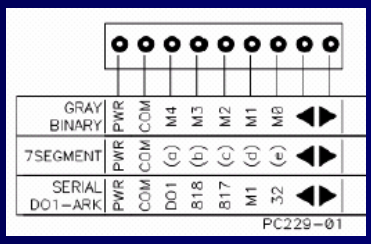
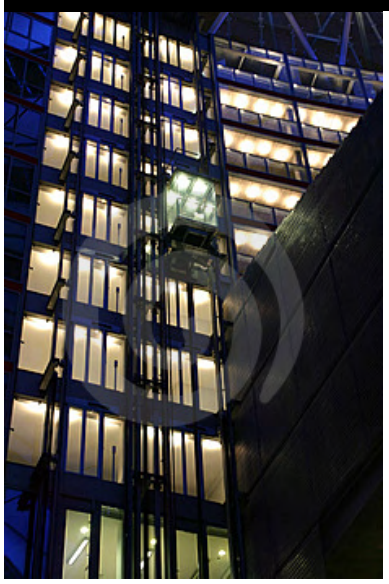
PK200
LCD
PROGRAMMING
MANUAL





All Your Needs For Elevators

db alben

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1 Introduction

PK200 is a programming kit that consists of hardware and software to program LCD modules, dot matrix displays and gongs. The package contains PK200 programmer, AC adapter, connecting cables and the installation CD.

The kit is connected to PC by RS232 port. Appropriate RS232 to USB converters should be used if there is no RS232 port on the PC.

Each product group is programmed by different software:

PLD PP for LCD modules
PKD PP for dot matrix displays
PG2 PP for gongs

In this manual, programming for LCD modules is described.

2 Connections and Installation

2.1 Installing the software

1. Insert the installation CD
2. If the installation does not start automatically locate the “PLDPP145.exe” file and run it
3. Follow the instructions on the screen

2.2 Connecting the kit to the PC

1. Connect the communication cable to RS232 port. If there is no RS232 port on the PC use a RS232 to USB converter
2. Connect the programming cable to the base unit
3. Connect the input cables to their terminals
4. Select Settings -> Communication or press F11 to display the communication port selection window. Select the port that you connected the communication cable. If your computer supports fast RS232 check the ‘Fast RS232’ box

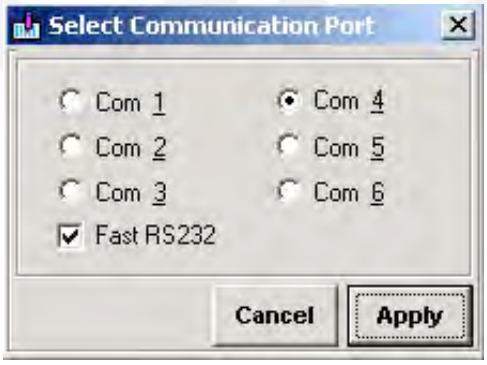

Figure 2.1 Communication port selection window

3 User Interface

3.1 Main Interface Window

When you first run the PLD PP software, after the splash screen a dialog window that allows you to select the LCD type and frame preference appears.

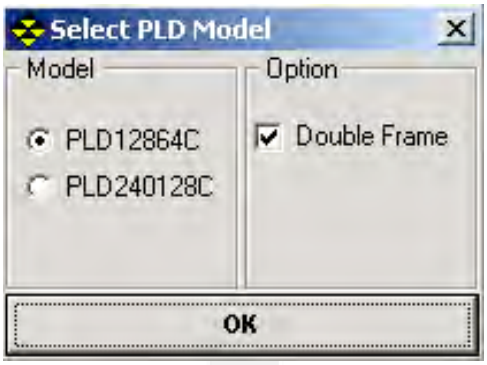

Figure 3.1 LCD type selection window

The main interface is divided into four sections:

1. Inputs: This section helps to know where you are in the memory. The vertical scroll bar on the left is used to navigate among the frames. The number or the name of the active frame is shown on the label above the scroll bar. The check boxes show the inputs corresponding to the selected input type

2. Display: You can see, edit and erase the contents of the frames in this section. Basic editing tools on the left can be used frames can be copied and pasted

3. Adjustments: This section accommodates the 'System Settings' command button. When pressed the system settings window appears (*see System Settings section*)

4. Communication: The command buttons in this section allows you to write into or read from the LCD memory

   a. *Read All Memory:* Press to download the frames and systems settings from the LCD memory to PK200
   b. *Read Frame:* Press to download only the active frame from the LCD memory
   c. *Read Properties:* Press to download only the system settings of the LCD to PK200
   d. *Write All Memory:* Press to upload the frames and system settings in PK200 to LCD memory
   e. *Write Frame:* Press to upload only the active frame to LCD memory
   f. *Write Properties:* Press to upload only the system settings to LCD memory

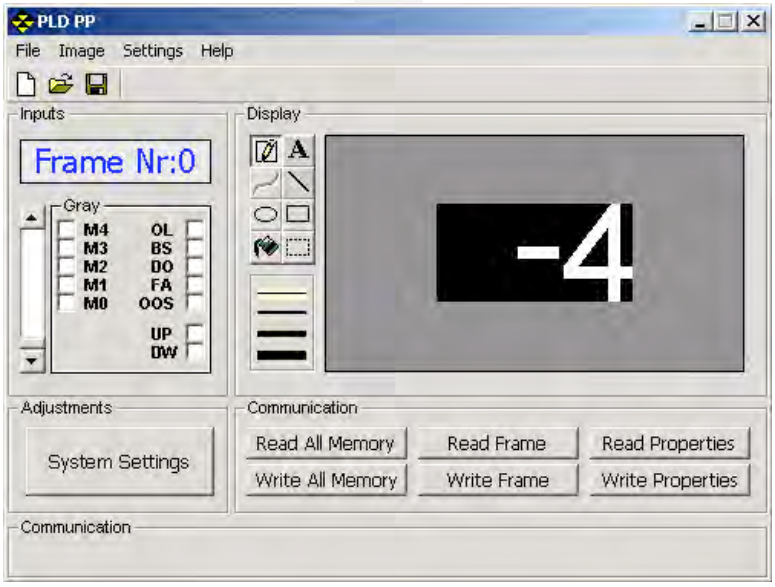

Figure 3.2 Main interface window

3.2 System Settings Window

The system preferences are set in this section. It is divided into 3 subsections:

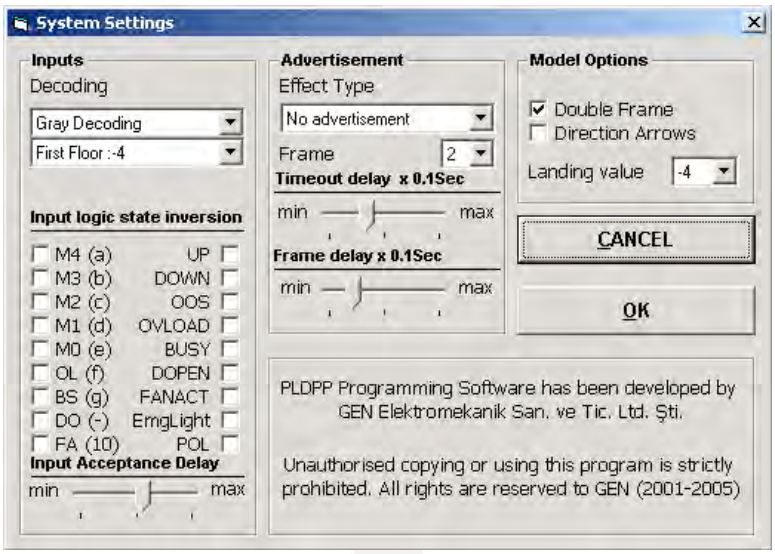

Figure 3.3 System settings window

1. Inputs: Decoding, starting floor, input logic state inversion and input acceptance delay properties are set by using the controls in this subsection.

    a. *Decoding:* Decoding is selected from the drop down box at the top of the section. The available options are:

        i. Binary decoding
        ii. Gray decoding
        iii. 7 segment decoding
        iv. MEA 3 wire (a special decoding specific to MEA controllers)
        v. GEN 2 wire (a system in which only two wires are enough for connection)
        vi. ARKEL counter (a system that counts the floors by limit switch signals and up/down direction arrow signal)

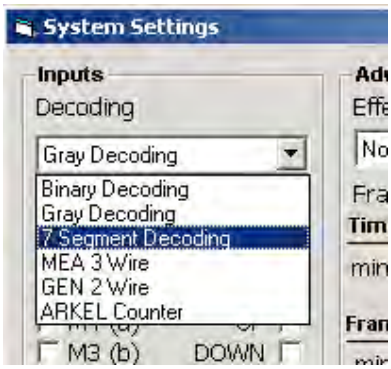

Figure 3.4 Decoding selection

b. *Starting Floor:* Lets you to choose the starting floor and shifts the frames accordingly

c. *Input Logic State Inversion:* This control inverses the logic states of inputs. E.g. the input that works when +24 is supplied to the direction arrows is activated when ISLI byte is checked and +24V is cut. Thus some of the inputs can be activated by GND.

d. *Input Acceptance Delay:* This control sets the response time of the LCD to input. Depending on the system there may be intermediate inputs between consecutive floors (e.g. 0000 between 0001 and 0010). Setting this control to too low may cause the frame of intermediate input to be displayed whereas setting to too high may lead to skipping of floors. A position around the middle is recommended.

2. Advertisement: You can use your LCD to display advertisement frames when there is no change in inputs for a certain period of time.

a. *Effect Type:* In order to activate the advertisement mode, select “Wait until no change of inputs” from the drop down box

b. *Frame:* Set how many frames you want to show by the drop down box. There is also a hidden control, which appears when the 'Frame' text is clicked (see Fig. 1.5). This control sets the starting frame of advertisements. By default it is frame 41 (Demo Frame 1)

c. *Time Out Delay:* Sets the time to wait to show the advertisement frames

d. *Frame Delay:* Sets the time to wait to display the next advertisement frame

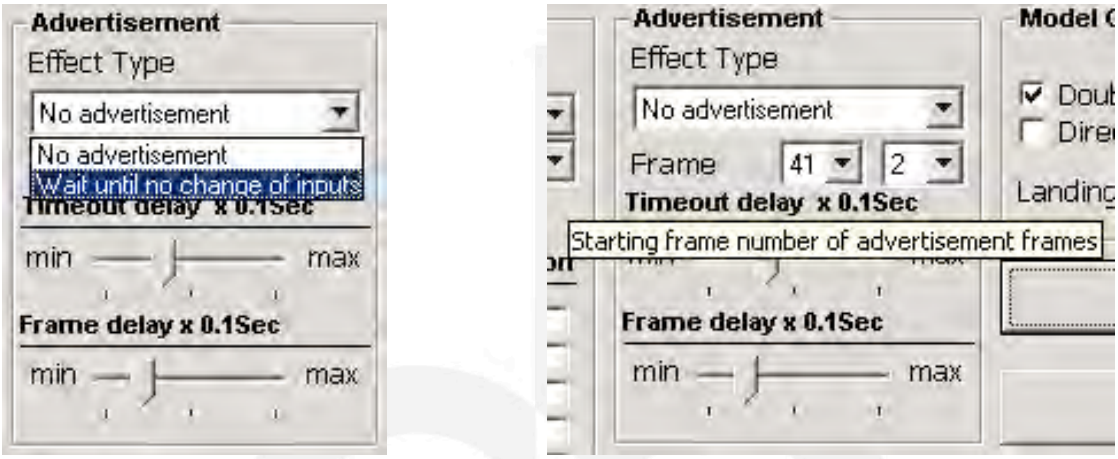

Figure 3.5 Advertisement section

3. Model Options: The following model options are set in this section:

a. *Double Frame:* Checking this box divides the LCD memory into two sections in which there are 'conjugate frames'. These conjugate frames are displayed by the same floor input and an additional warning input ('busy', 'out of service', 'overload', 'fan active' and 'direction arrows'). The ease of using this feature is that it enables not to program the LCD for combined inputs of floors and warnings. E.g. when there is only floor input the LCD displays the corresponding frame; when there is a warning input in addition to floor input the LCD displays the conjugate frame

b. *Direction Arrows:* When checked the direction arrows can be seen only at the floor specified in the landing value option. At other floors direction arrows cannot be seen even though the input is supplied.

c. Landing Value: This option is used for systems in which direction arrows feature is not used. The LCD should be installed at floor that is specified by this control.

4 Programming LCD Modules

4.1 Uploading to LCD

The following is a step-by-step procedure to program the LCD modules:

1. Select the LCD model, check the double frame box if you want double frame option and press OK. If the program is already running, click Settings -> PLD Model or press F9 to display the LCD Type Selection Window

2. In the 'Adjustments' section click 'System Settings' command button or press F11 to switch to System Settings Window. To set the system parameters:

    a. Choose the decoding type and the first floor from the two drop down boxes in the 'Inputs' subsection

    b. Adjust the input acceptance delay control

    c. If you will use the advertisement feature select "Wait until no change in inputs" from the drop down box in the 'Advertisement' subsection

        i. Select the number of frames to be displayed as advertisement from the drop down box below the effect type drop down box. If you want the advertisement frames to start from a frame other than the default, click on the 'Frame' text to display the drop down box and select the starting frame of advertisement

        ii. Adjust the 'Time Out Delay' and 'Frame Delay' controls

    d. You can also set the 'Double Frame' option from the 'Model Options' subsection. See section 3 for details.

e. Click OK to return to Main Interface Window

3. Use the vertical scroll bar in the 'Inputs' section to change the active frame. When the program is run a default program is loaded. To change the frames do one of the following:

   a. Use the editing tools in the 'Display' section: Basic shapes and text can be added to the frame by the tools in the display section along with the commands of Image menu

   b. Paste graphics or text from other programs: More advanced editing programs can be used to edit and/or design frames. Any graphic or text can be pasted. It is recommended that the resolution of the frame to be pasted be adjusted so that it fits that of LCD

4. When all frames are edited or designed do one of the following:

   a. Press *Write All Memory* to upload all frames and system settings to LCD
   b. Press *Write Frame* to upload only the active frame to LCD
   c. Press *Write Properties* to upload only the system settings to LCD

Note: You are not asked to save the changes to the programs upon exiting. Make sure that you save your work manually.

4.2 Downloading from LCD

You can download frames and/or system settings from LCD and upload them to another. To do so:

1. Connect the LCD to the programmer
2. Press one of the following:

    a. *Read All Memory* to download all frames and systems settings
    b. *Read Frame* to download only the active frame
    c. *Read Properties* to download only the system settings

After downloading the program, it can be saved or uploaded to any other LCD.