

# DL06 LCD Display

The optional D0-06LCD (<--->) is a cost effective LCD display panel that is easy to install. This device is available exclusively for the DL06 PLCs.

## 16 X 2 backlit display

The 16 character x 2 row display mounts directly on the face of the PLC. The LCD is backlit and is accessible using the seven function keys on the front of the display.

## Monitor or change data values

You can view V-memory registers, I/O status, PLC mode, or system errors without interrupting the PLC's control function. Display messages required for alarm or monitoring purposes can be preprogrammed or imported as ASCII data.

## Password protection

Two layers of password protection prevent unauthorized changes to clock and calendar setup and V-memory data values. Individuals with password authorization can change clock, calendar, V-memory values, force bits on or off, etc.

One simple ladder instruction is used to set up the display. The LCD configuration instruction is available in *DirectSOFT*, version 4.0 or later.

**Note:** The D2-HPP handheld programmer does not support DL06 LCD configuration.

The DL06 User Manual (D0-06USER-M) describes more fully the installation and operation of the D0-06LCD. Be sure to consult this manual before installing the DL06 LCD. The manual is available free on our Web site, or it can be purchased separately.

## Snap-in installation

The display installs easily into any model DL06 PLC.

**Note:** Remove power to the PLC before installing or removing the LCD display.

Remove the plastic cover (located between the input and output terminals) by sliding the cover to the left. In its place, slide in the LCD display until it snaps into place.

Display or change individual bits (up to 16 bits per screen) or 32-bit double word values from V-memory.

## Buzzer

The piezo electric buzzer can be configured to provide pushbutton feedback.

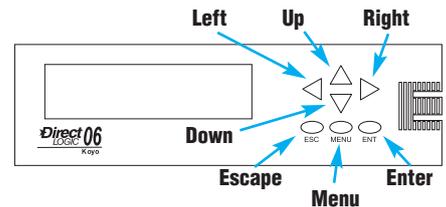
## Keypad navigation

Seven function keys on the face of the LCD display provide navigation through messages or menu items. Messages fall into two categories:

- Error messages
- User-defined preprogrammed messages

At power-up the default screen is displayed. The default screen can be user-defined.

Seven menu choices allow you to view or change all accessible data values (see next page).



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## Menu choices

Pressing the Menu key takes you to the last accessed menu (or the first menu selection, if you haven't previously accessed a menu). Each time you press the Menu key (or if you simply hold the menu key down) the display will step through all menu choices.

There are seven built-in menus. Use the Menu key to locate the menu you need, and press the Enter key to view or change values.

From the default screen or a message screen, press and hold the Menu key. The display will scroll through the following choices:

- M1 : PLC information
- M2 : System configuration
- M3 : Monitor
- M4 : Calendar R/W
- M5 : Password operation
- M6 : Error history read
- M7 : LCD test and set

Make a menu selection by pressing the Enter key. Change data values using the direction arrow keys.

## Ladder instruction

The LCD instruction in *DirectSOFT* gives the PLC programmer a convenient way to define screen messages. A literal string can be programmed using the LCD instruction. Embedding variables allows you to customize the messages for an application that involves changing values. The following example shows an embedded date and time on an alarm message:

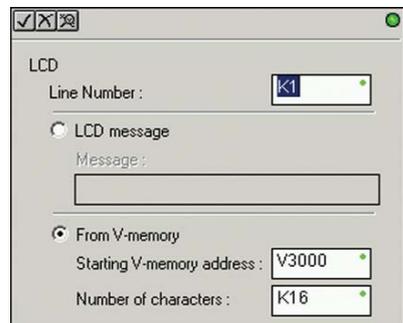


**Message with embedded date and time**

The top line (16 characters) is designated K1, and the second line is K2. The sample instructions on this page show how a message is developed. A permissive contact turns on the instruction block, which sends the message to the display.

Messages can also be retrieved from V-memory and sent to the display. Select K1 or K2 to indicate which line you want to write to and select "From V-memory" as the source of the string.

Up to 16 characters of ASCII text can be displayed per line. In the example, K16 indicates that 16 bytes (8 words) of ASCII text is retrieved for display.



**Message from PLC memory**

## Message programming examples



**Simple text message**



**Message with embedded data**

