

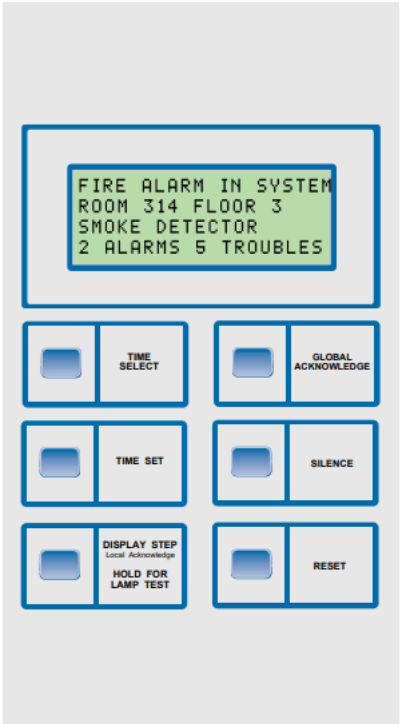


# NOTIFIER PK-LCD-80 Programmable Fire Alarm Control Panels Owner's Manual

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## PK-LCD-80 Programmable Fire Alarm Control Panels Owner's Manual



for NOTIFIER Programmable Fire Alarm Control Panels

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## PK-LCD-80 Programmable Fire Alarm Control Panels

### Limitations of Fire Alarm Systems

While installing a fire alarm system may make lower insurance rates possible, it is not a substitute for fire insurance!

#### An automatic fire alarm system

- typically made up of smoke detectors, heat detectors, manual pull stations, audible warning devices, and a fire alarm control with remote notification capability can provide early warning of a developing fire. Such a system, however, does not assure protection against property damage or loss of life resulting from a fire.

The Manufacturer recommends that smoke and/or heat detectors be located throughout a protected premise following the recommendations of the current edition of the National Fire Protection Association Standard 72 (NFPA 72), manufacturer's recommendations, State and local codes, and the recommendations contained in the Guide for Proper Use of System Smoke Detectors, which is made available at no charge to all installing dealers. A study by the Federal Emergency Management Agency (an agency of the United States government) indicated that smoke detectors may not go off in as many as 35% of all fires. While fire alarm systems are designed to provide early warning against fire, they do not guarantee warning or protection against fire. A fire alarm system may not provide timely or adequate warning, or simply may not function, for a variety of reasons: Smoke detectors may not sense fire where smoke cannot reach the detectors such as in chimneys, in or behind walls, on roofs, or on the other side of closed doors. Smoke detectors also may not sense a fire on another level or floor of a building. A second floor detector, for example, may not sense a first floor or basement fire. Particles of combustion or "smoke" from a developing fire may not reach the sensing chambers of smoke detectors because:

- Barriers such as closed or partially closed doors, walls, or chimneys may inhibit particle or smoke flow.
- Smoke particles may become "cold", stratify, and not reach the ceiling or upper walls where detectors are located.
- Smoke particles may be blown away from detectors by air outlets.
- Smoke detectors may be drawn into air returns before reaching the detector.

The amount of "smoke" present may be insufficient to alarm smoke detectors. Smoke detectors are designed to alarm at various levels of smoke density. If such density levels are not created by a developing fire at the location of detectors, the detectors will not go into alarm.

Smoke detectors, even when working properly, have sensing limitations. Detectors that have photoelectronic sensing chambers tend to detect smoldering fires better than flaming fires, which have little visible smoke. Detectors that have ionizing-type sensing chambers tend to detect fast flaming fires better than smoldering fires. Because fires develop in different ways and are often unpredictable in their growth, neither type of detector is necessarily best and a given type of detector may not provide adequate warning of a fire.

Smoke detectors cannot be expected to provide adequate warning of fires caused by arson, children playing with matches (especially in bedrooms), smoking in bed, and violent explosions (caused by escaping gas, improper storage of flammable materials, etc.).

Heat detectors do not sense particles of combustion and alarm only when heat on their sensors increases at a

predetermined rate or reaches a predetermined level.

Rate-of-Rise heat detectors may be subject to reduced sensitivity over time. For this reason, the rate-of-rise feature of each detector should be tested at least once per year by a qualified fire protection specialist. Heat detectors are designed to protect property, not life.

**IMPORTANT!** Smoke detectors must be installed in the same room as the control panel and in rooms used by the system for the connection of alarm transmission wiring, communications, signaling, and/or power. If detectors are not so located, a developing fire may damage the alarm system, crippling its ability to report a fire.

Audible warning devices such as bells may not alert people if these devices are located on the other side of closed or partly open doors or are located on another floor of a building.

Any warning device may fail to alert people with a disability or those who have recently consumed drugs, alcohol or medication. Please note that:

- Strobes can, under certain circumstances, cause seizures in people with conditions such as epilepsy.
- Studies have shown that certain people, even when they hear a fire alarm signal, do not respond or comprehend the meaning of the signal. It is the property owner's responsibility to conduct fire drills and other training exercise to make people aware of fire alarm signals and instruct them on the proper reaction to alarm signals.
- In rare instances, the sounding of a warning device can cause temporary or permanent hearing loss.

A fire alarm system will not operate without any electrical power. If AC power fails, the system will operate from standby batteries only for a specified time and only if the batteries have been properly maintained and replaced regularly.

Equipment used in the system may not be technically compatible with the control. It is essential to use only equipment listed for service with your control panel.

Telephone lines needed to transmit alarm signals from a premise to a central monitoring station may be out of service or temporarily disabled. For added protection against telephone line failure, backup radio transmission systems are recommended.

The most common cause of fire alarm malfunction is inadequate maintenance. To keep the entire fire alarm system in excellent working order, ongoing maintenance is required per the manufacturer's recommendations, and UL and NFPA standards.

At a minimum the requirements of Chapter 7 of NFPA 72 shall be followed. Environments with large amounts of dust, dirt or high air velocity require more frequent maintenance. A maintenance agreement should be arranged through the local manufacturer's representative. Maintenance should be scheduled monthly or as required by National and/or local fire codes and should be performed by authorized professional fire alarm installers only.

Adequate written records of all inspections should be kept.

### **FCC Warning**

**WARNING:** This equipment generates, uses, and can radiate radio frequency energy and if not installed and used in accordance with the instruction manual, may cause interference to radio communications. It has been tested and found to comply with the limits for class A computing device pursuant to Subpart B of Part 15 of FCC Rules, which is designed to provide reasonable protection against such interference when operated in a commercial environment.

Operation of this equipment in a residential area is likely to cause interference, in which case the user will be required to correct the interference at his own expense.

### **Canadian Requirements**

This digital apparatus does not exceed the Class A limits for radiation noise emissions from digital apparatus set out in the Radio Interference Regulations of the Canadian Department of Communications.

## **Installation Precautions**

Adherence to the following will aid in problem-free installation with long-term reliability:

**WARNING** – Several different sources of power can be connected to the fire alarm control panel. Disconnect all sources of power before servicing. Control unit and associated equipment may be damaged by removing and/or inserting cards, modules, or interconnecting cables while the unit is energized. Do not attempt to install, service, or operate this unit until this manual is read and understood.

**CAUTION** – System Reacceptance Test after Software Changes To ensure proper system operation, this product

must be tested in accordance with NFPA 72-1996 Chapter after any programming operation or change in site-specific software.

Reacceptance testing is required after any change, addition or deletion of system components, or after any modification, repair or adjustment to system hardware or wiring.

All components, circuits, system operations, or software functions known to be affected by a change must be 100% tested. In addition, to ensure that other operations are not inadvertently affected, at least 10% of initiating devices that are not directly affected by the change, up to a maximum of 50 devices, must also be tested and proper system operation verified.

This system meets NFPA requirements for operation at 0-49° C/32-120°F and at a relative humidity of 85% RH (non-condensing) at 30° C/86° F. However, the useful life of the system's standby batteries and the electronic components may be adversely affected by extreme temperature ranges and humidity.

Therefore, it is recommended that this system and all peripherals be installed in an environment with a nominal room temperature of 15-27° C/60-80°F. Verify that wire sizes are adequate for all initiating and indicating device loops. Most devices cannot tolerate more than a 10% I.R. drop from the specified device voltage.

Like all solid state electronic devices, this system may operate erratically or can be damaged when subjected to lightning induced transients. Although no system is completely

immune from lightning transients and interferences, proper grounding will reduce susceptibility. Overhead or outside aerial wiring is not recommended, due to an increased susceptibility to nearby lightning strikes. Consult with the Technical Services Department if any problems are anticipated or encountered.

Disconnect AC power and batteries prior to removing or inserting circuit boards. Failure to do so can damage circuits.

Remove all electronic assemblies prior to any drilling, filing, reaming, or punching of the enclosure. When possible, make all cable entries from the sides or rear. Before making modifications, verify that they will not interfere with battery, transformer, and printed circuit board location.

Do not tighten screw terminals more than 9 in-lbs. Over tightening may damage threads, resulting in reduced terminal contact pressure and difficulty with screw terminal removal.

Though designed to last many years, system components can fail at any time. This system contains static-sensitive components. Always ground yourself with a proper wrist strap before handling any circuits so that static charges are removed from the body.

Use static suppressive packaging to protect electronic assembliesre moved from the unit.

Follow the instructions in the installation, operating, and programming manuals. These instructions must be followed to avoid damage to the control panel and associated equipment. FACP operation and reliability depend upon proper installation by authorized personnel.

## **Installation and Startup**

### **Introduction**

This manual describes the use of the LCD-80 Programming Utility. Using this utility, the LCD-80 can be programmed directly from most IBM PC/XT/AT or compatible computers, including lap-tops and portables, equipped with a serial port. LCD-80 rogram files also can be created and stored on the PC, then downloaded to the panel. Note: This program will function only with an LCD-80 having software P/N 73323 or P/N 73448 or higher.

Before attempting to program an LCD-80 with the programming utility, the user should have a knowledge of basic computer use and MS-DOS command structure. After creating or modifying an LCD-80 program, the system must be thoroughly tested with the software installed and operational. For more information refer to the LCD-80 Manual (Document 15037).

### **Inventory**

The LCD-80 Off Line Programming Utility contains the following:

- Two low density floppy disks, one 5.25" (p/n 75279), one 3.5" (p/n 75280).
- Cable, 9-pin female to LCD-80 RS-232 connection (p/n 75267).
- Adapter, 9-pin male to 25-pin female (p/n 46029).

### **Program Installation**

You can run the LCD-80 programming application directly either from a floppy disk or from a hard disk drive. To install on a hard drive, create a directory called LCD-80 on

the drive. Copy the files from the floppy drive to this directory.

### Getting Started

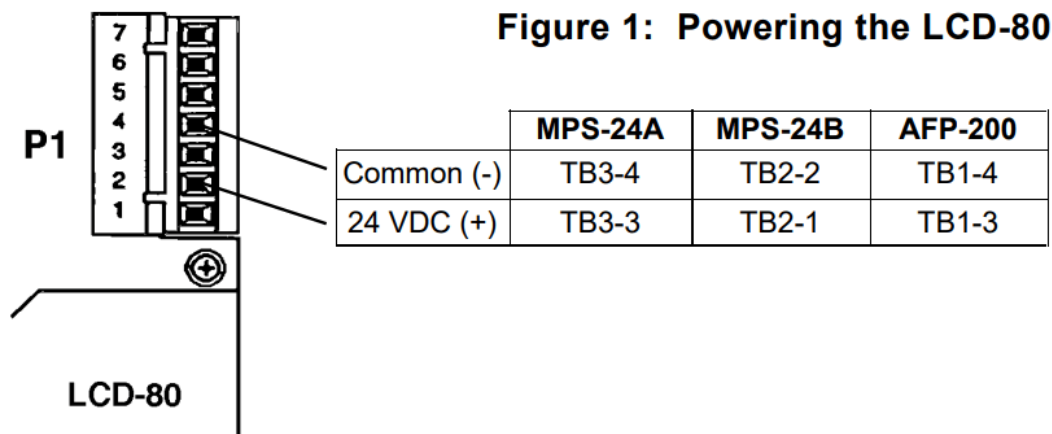
The LCD-80 Programming Utility can be used in two ways:

On-Line Connect a PC to the LCD-80 and transfer program files between the two devices.

Off-Line Even when a PC is not connected to the LCD-80, the PC can still be used to create or modify program files. The files can be stored on magnetic disk for later transfer to the LCD-80.

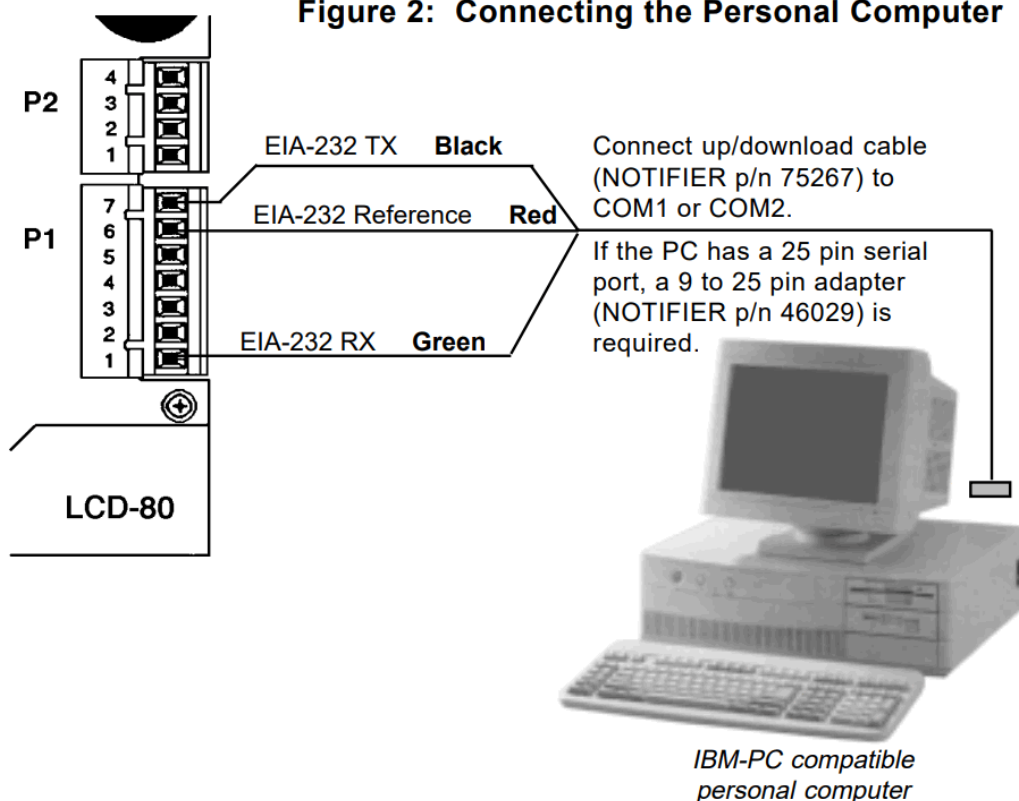
### Connecting an IBM-PC (or compatible) Computer to an LCD-80

- Connect the LCD-80 to a 24 VDC Power Source as shown in Figure 1.
- Apply power and verify that a Ground Fault is not present. If a Ground Fault is present, it must be removed before the PC is connected. Connecting a PC to a system with a Ground Fault may result in damage to the PC, LCD-80 and the Fire Alarm System.
- Remove power and connect the LCD-80 to the PC, as shown in Figure 2.
- Configure the LCD-80 for ACS Mode.
- Verify that the LCD-80 has Software P/N 73323, P/N 73448 or higher.
- Install the PK-1 Program Key on Connector P6 of LCD-80.
- Apply power to the LCD-80 and the PC.
- Transfer information between the PC and the LCD-80.
- Remove power to the LCD-80 and the PC.
- Disconnect the PC and remove the PK-1 Program Key.
- Install the LCD-80.
- Test the Fire Alarm System.



**Note:** Maximum LCD-80 current draw is 100 mA.

**Figure 2: Connecting the Personal Computer**



**Note:** The LCD-80 does not have to be physically connected to the PC while you are editing the labels. The PC and the LCD-80 only need to be connected during the transfer of files between the PC and the LCD-80.

LCD-80	Wire Color	EIA Name	9 PIN Connector	25 PIN Connector
1	Green	Tx D	3	2
6	Red	Signal Ground	5	7
7	Black	Rx D	2	3
No Connection	—	DTR	4 (Note 1)	20
No Connection	—	DSR	6 (Note 1)	6

**Note:** Pin 4 (DTR) is connected to pin 6 (DSR) in the 9 pin connector housing.

#### **Starting the Program**

Use DOS to Start-up the LCD-80 utility program named "LCD80.EXE," by typing LCD80 and then pressing the Return key. The following menu should appear:



Figure 3: Menu for Selection of Com Port

Type the number of the COM port you wish to use. After selecting a COM port, the following “Main Menu” will appear on your computer screen.



Figure 4: Main Menu

NOTIFIER  
LIQUID CRYSTAL DISPLAY LCD-88

A/ Serial Port: COM1

B/ Available services:

3) DISPLAY SAMPLE FILE

1- AIM Messages  
2- 28 char Msg  
3- 48 char Msg  
4- APP200

To ABORT Press ESC

NOTIFIER  
LIQUID CRYSTAL DISPLAY LCD-88

A/ Serial Port: COM1

B/ Available services:

3) DISPLAY SAMPLE FILE

P-POINT LABEL  
S-SYSTEM LABEL

To ABORT Press ESC

POINT LABEL

1-	ZONE 001	(A1P01)
2-	ZONE 002	(A1P02)
3-	ZONE 003	(A1P03)
4-	ZONE 004	(A1P04)
5-	ZONE 005	(A1P05)
6-	ZONE 006	(A1P06)
7-	ZONE 007	(A1P07)
8-	ZONE 008	(A1P08)
9-	ZONE 009	(A1P09)
10-	ZONE 010	(A1P10)
11-	ZONE 011	(A1P11)
12-	ZONE 012	(A1P12)
13-	ZONE 013	(A1P13)
14-	ZONE 014	(A1P14)
15-	ZONE 015	(A1P15)
16-	ZONE 016	(A1P16)
17-	ZONE 017	(A1P17)
18-	ZONE 018	(A1P18)
19-	ZONE 019	(A1P19)
20-	ZONE 020	(A1P20)
21-	ZONE 021	(A1P21)

DONE Press ESC



POINT LABEL		
1-	ZONE 001	<SR1P01>
2-	ZONE 003	<SR1P02>
3-	ZONE 005	<SR1P03>
4-	ZONE 007	<SR1P04>
5-	ZONE 009	<SR1P05>
6-	ZONE 011	<SR1P06>
7-	ZONE 013	<SR1P07>
8-	ZONE 015	<SR1P08>
9-	ZONE 017	<SR1P09>
10-	ZONE 019	<SR1P10>
11-	ZONE 021	<SR1P11>

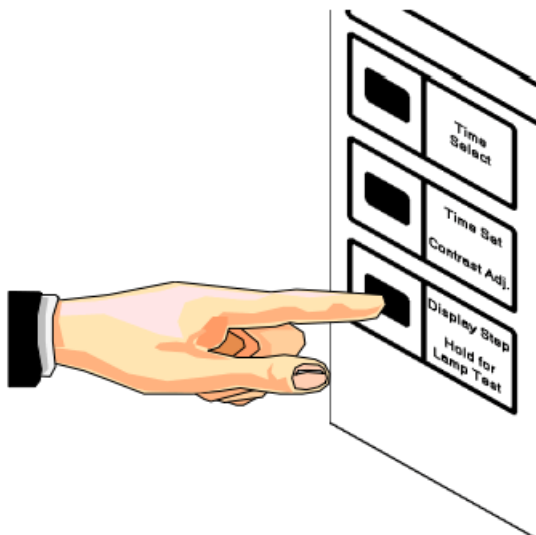
DONE Press ESC

SYSTEM LABEL	
1-	FIRE ALARM SYSTEM
2-	REMOTE ANNUNCIATOR
3-	ALL SYSTEMS NORMAL
3-	COMMUNICATIONS FAIL
4-	FIRE ALARM IN SYSTEM
5-	TRouble IN SYSTEM
6-	RETURN TO NORMAL
7-	ACKNOWLEDGE
8-	SIGNAL SILENCE
9-	SYSTEM RESET

DONE Press ESC

P - POINT LABEL  
S - SYSTEM LABEL  
E - EXIT

P - PRINT  
S - SAVE  
D - DOWNLOAD  
M - MAIN MENU





## Documents / Resources

	<p><a href="#">NOTIFIER PK-LCD-80 Programmable Fire Alarm Control Panels</a> [pdf] Owner's Manual PK-LCD-80 Programmable Fire Alarm Control Panels, PK-LCD-80, Programmable Fire Alarm Control Panels, Fire Alarm Control Panels, Alarm Control Panels</p>
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## References

- [Fire Alarm Resources | Download fire alarm documents](#)