

Installation Manual: LED-16F LED Annunciator Flush Mount

NOTICE TO THE INSTALLER

This manual provides an overview and the installation instructions for the LED-16F module.

All terminals are power limited and should be wired in accordance with the requirements of NFPA 70 (NEC) and NFPA 72 (National Fire Alarm Code). Failure to follow the wiring diagrams in the following pages will cause the system to not operate as intended. For further information, refer to the control panel installation instructions.

The module shall only be installed with listed control panels. Refer to the control panel installation manual for proper system operation.

1. Description

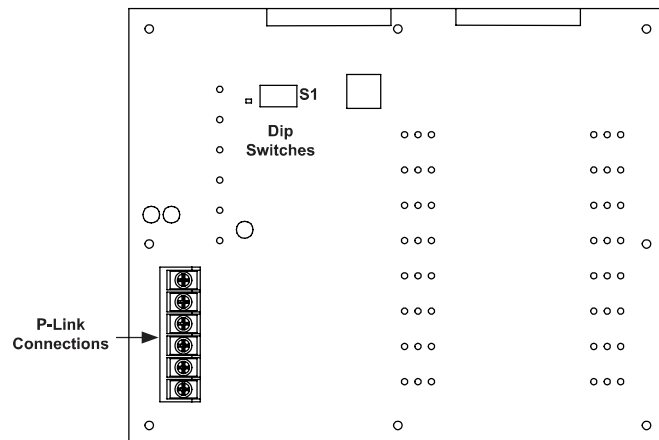
The LED-16F is a LED remote annunciator. LED-16F communicates using a RS-485 connection to the main panel providing zone specific indication of Alarm Supervisory, and Trouble conditions. The module mounts on either a 4" square or double gang box.

The LED-16F features 2 slide-in labels allowing each of the 16 zones to be customized for any application. It can be mounted on a single gang electrical box or a four-square electrical box. The annunciator utilizes a sheet metal enclosure secured with a Potter lock.

2. Setting the Address

The LED-16F address is set by **dip switch S1**, which is located on the back of the LED-16F. The address must be set in the range of one to thirty-one (1–31) to be recognized by the panel.

Figure 1. Example of Setting Address on the LED-16F (panel view)



Each P-Link device has a **five (5) position dip switch** which is used to program the device address ranging from one (1) to thirty-one (31). The table below may be used to set dip switches when addressing any P-Link module:

Figure 2. Dip Switch Settings Table (Addresses 1–31)

	1	2	4	8	16		1	2	4	8	16
1	Gray	White	White	White	White	17	Gray	White	White	White	Gray
2	White	Gray	White	White	White	18	White	Gray	White	White	Gray
3	Gray	Gray	White	White	White	19	Gray	Gray	White	White	Gray
4	White	White	Gray	White	White	20	White	White	Gray	White	Gray
5	Gray	White	Gray	White	White	21	Gray	White	Gray	White	Gray
6	White	Gray	Gray	White	White	22	White	Gray	Gray	White	Gray
7	Gray	Gray	Gray	White	White	23	Gray	Gray	White	White	Gray
8	White	White	White	Gray	White	24	White	White	Gray	White	Gray
9	Gray	White	White	White	White	25	Gray	White	Gray	White	Gray
10	White	Gray	White	White	White	26	White	Gray	White	White	Gray
11	Gray	Gray	White	Gray	White	27	Gray	Gray	White	White	Gray
12	White	White	Gray	Gray	White	28	White	White	Gray	White	Gray
13	Gray	White	Gray	Gray	White	29	Gray	White	Gray	White	Gray
14	White	Gray	Gray	Gray	White	30	White	Gray	Gray	White	Gray
15	Gray	Gray	Gray	Gray	White	31	Gray	Gray	Gray	Gray	Gray
16	White	White	White	White	Gray						

Note: Each **"gray" box** indicates that the dip switch is **"On,"** and each **"white" box** indicates **"Off."**

The examples shown below illustrate a P-Link's dip switch settings: the 1st example shows a P-Link module *not addressed* where all dip switch settings are in the *default "Off" position*, the 2nd illustrates an *addressed P-Link module* via the dip switch settings.

Figure 3. Examples of P-Link Module Showing Default Dip Switch Setting (Unaddressed) & Addressed



Before connecting a device to the RS-485, take the following precautions to prevent potential damage to the RS-485 connection or P-Link or device.

- Power to the LED-16F is removed.
- Field wiring on module is correctly installed.
- Field wiring has no open or short circuits.

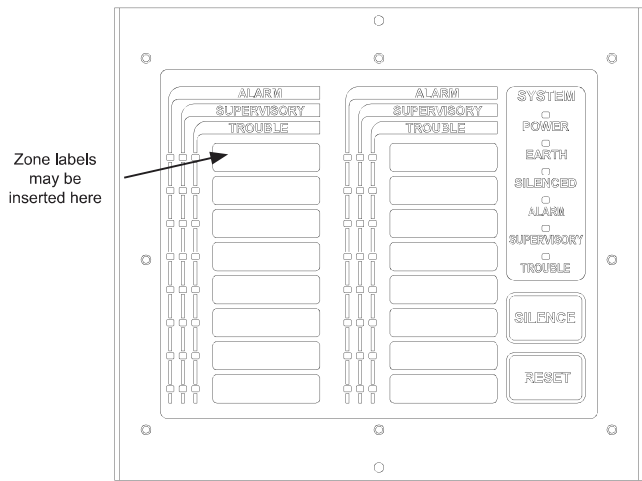
3. Technical Specifications

Alarm Current (24 VDC)	25 mA
Standby Current (24 VDC)	25 mA
Operating Temperature Range	32° to 120° F (0° to 49° C)
Operating Humidity Range	10%-93% (non-condensing)
Maximum Wire Length	6500 ft
Maximum no. of PAD100-LEDs	31
Flush Mount Size (WxHxD)	11 3/8" x 9 1/4" x 7/8"
Surface Mount Size (WxHxD)	11 3/8" x 9 1/4" x 3 1/8"
LED PWR Maximum Standby Current (16 VDC-33 VDC)	15 mA
LED PWR Maximum Alarm Current (16 VDC-33 VDC)	210 mA

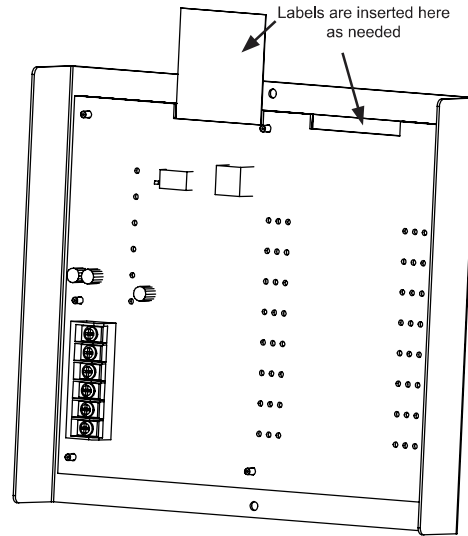
4. Installation

The LED-16F is connected to the fire alarm control panel using a four wire RS-485 connection. The connection is power limited and supervised. Up to 31 LED-16F LED annunciators can be connected. Refer to the illustrations below for a front panel and board view.

Figure 4. LED-16F Module Showing Front Panel & Board



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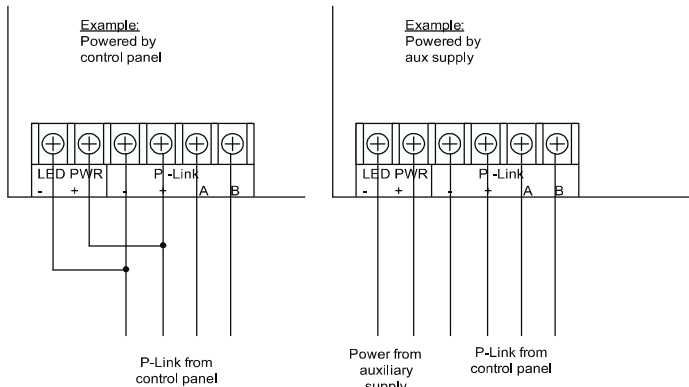


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5. Wiring Diagram

The following wiring diagrams illustrate how to wire a LED-16F to Control Panel or Auxiliary Power.

Figure 5. Wiring LED-16F to Control Panel or Auxiliary Power Example



Notes:

- LED PWR can be provided by any fire listed source. LED power must be 16 VDC-33 VDC and must be power limited.
- RS-485 supports the Class A, and Class B.
- RS-485 connection is power limited and supervised.
- All wiring is between #12 (max.) and #22 (min.).
- Wire Preparation – Strip all wires 1/4 inch from their edges as shown here:
 - Stripping too much insulation may cause a ground fault.
 - Stripping too little may cause a poor connection and subsequently an open circuit.



These instructions do not purport to cover all the details or variations in the equipment described, nor provide for every possible contingency to be met in connection with installation, operation and maintenance.

Specifications subject to change without prior notification.

For Technical Assistance contact Potter Electric Signal Company at 866-956-1211.

Actual performance is based on proper application of the product by a qualified professional.

Should further information be desired or should particular problems arise, which are not covered sufficiently for the purchaser's purpose, the matter should be referred to a distributor in your region.