

OP-1212 Pushbutton Panel

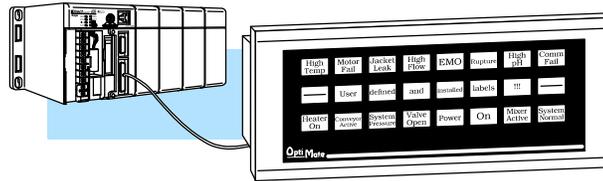
In This Manual. . . .

- Getting Started
 - Preparing the Labels
 - Installing the Panel
 - Applying Ladder Logic
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Getting Started

The Purpose of this Manual

This manual shows you how to install, operate and maintain the OP-1212 Lamp Pushbutton Panel. It includes wiring diagrams and power requirements, as well as the information you need for selecting the proper connecting cables.



Configuration Software

All OptiMate panels are configured using the OptiMate OP-WINEDIT configuration software. OP-WINEDIT software is compatible with computers running Windows 95/98/2000/NT/XP. OP-WINEDIT is ordered as a separate item from the OptiMate panel from AutomationDirect.

The software is loaded onto your personal computer and simple follow the setup instructions in the supplied user manual and the built-in HELP screens. The software allows setup of your complete application, including the type of PLC being used.

Note that OP-WINEDIT is also used to configure the OP-9001, Communications Master panel. The software can be used with Allen-Bradley PLCs.



Supplemental Manuals

There are several other manuals you will find helpful or necessary:

- Respective PLC User Manual for the PLC(s) you are using with the OptiMate panel.
- OP-9001-M Communications Master User Manual provides details of how to use the OP-9001 for connecting multiple OP-Panels to a single CPU.
- **DirectSOFT™** User Manual-Shows you how to use the **DirectSOFT** Windows software to write your ladder logic for **DirectLOGIC™** PLCs.

Technical Assistance

If you are not successful with implementing the information in this manual, you may call Automation**Direct** technical support at (800) 633-0405, Monday through Friday from 9:00 A.M. to 6:00 P.M. Eastern Standard Time. The technical support team will work with you to answer your application questions. If you have a comment or question about our products, services, or manuals which we provide, please fill out and return the suggestions card included with this manual.

How the OP-1212 Works

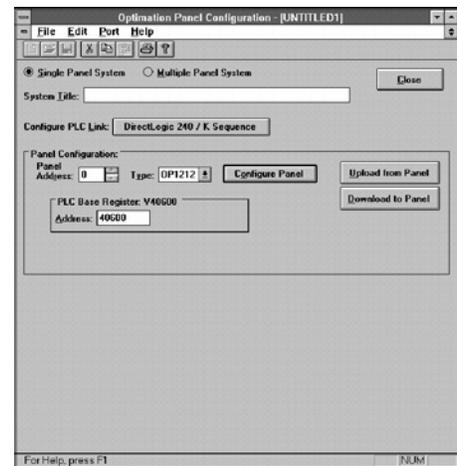
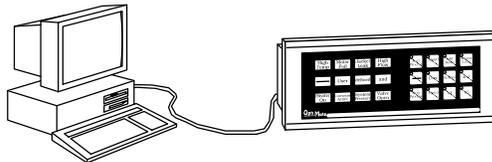
The purpose of the panel is to provide you with both pushbuttons (12) and lamps (12) so that you can have status and control functions that will work with your PLC. An additional benefit of this panel is found in the LEDs that are in the upper left hand corner of each pushbutton. These LEDs can operate as indicators to reflect the status of the individual pushbutton, or they can operate independent of the pushbutton status. The LEDs can turn ON or OFF and even flash for added attention.

To link the pushbuttons, LEDs, and lamps to your PLC, the OP-1212 uses a technique called “memory mapping”. This technique ties the pushbuttons, LEDs, and lamps to specific reserved areas of memory in the PLC. You can use any available memory as long as it is consecutive.

The base register address is entered during configuration using the OPWinEdit software. Each of the functions for the pushbuttons, LEDs, and lamps are controlled by the status of their assigned bits within the memory words that you have reserved. You interface these words of memory through your ladder logic.

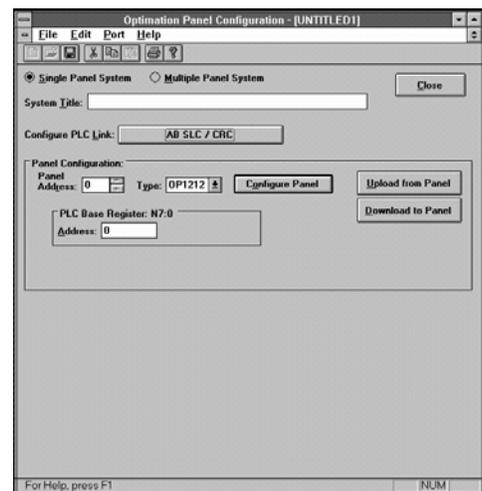
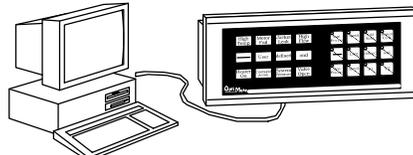
AutomationDirect

Prior to connecting the OP-1212 to your PLC, load the OP-WINEDIT configuration software onto your personal computer, and begin to define how you want to use the functions that have been designed into the panel. Among other decisions, you are prompted to fill in a base register address. In the example we have shown here, we have used V40600 as the start of the mapped memory addresses.



Allen-Bradley

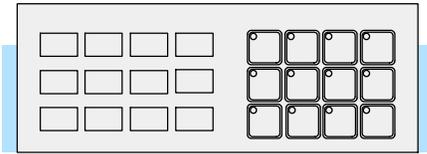
The same OP-WINEDIT configuration software used for the AutomationDirect product is also used for the Allen-Bradley product. As you move through the screens, one of the key items you complete is the base register address for storing data relative to the pushbuttons. In the example, we have used N7:0 as the start of the mapped memory addresses. This means the PLC file number is 7 and the base address is 0.



Using the Pushbutton Panel...5 Easy Steps

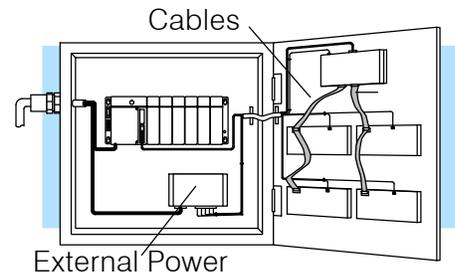
Step 1: Prepare Your Labels (Pages 5-6)

First, you need to prepare the labels for each of the pushbuttons and lamps. The labels insert into plastic sleeves behind the main cover. To access the sleeve, you merely snap loose the front bezel.



Step 2: Install the Panel (Pages 7-14)

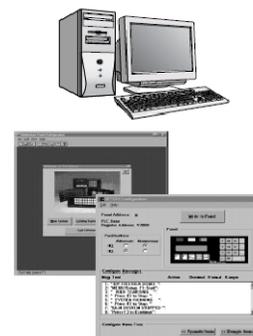
Preparing for installation, you will want to check the individual specifications. These include dimensions, power requirements, cabling requirements, and NEMA ratings. We include information you will need for mounting; i.e. cutout dimensions, cabling requirements, components needed, etc.



Step 3: Use OP-WINEDIT Software

You will need the OP-WINEDIT configuration software in order to configure the panel and PLC. OP-WINEDIT is ordered as a separate item from the OptiMate panel from Automation**Direct**.

The software is used for both **Direct**LOGIC and Allen-Bradley PLCs.



Step 4: Configure the Panel to Work with your PLC (Pages 15)

After setting a DIP switch on the rear of the panel and attaching the programming cable, you are ready to configure your panel. The simple and easy-to-follow screens make configuration a painless process.



Step 5: Write the Ladder Logic (Pages 19-31)

The amount of ladder logic programming knowledge you need is very basic. In most cases, you are already familiar with the elements of logic that are required. We'll give you examples in the final section of this manual, and you will see right away just how easy it is.

