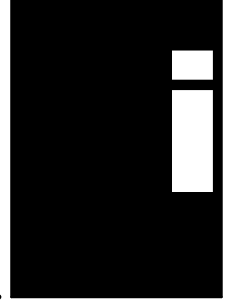


Table of Contents



Getting Started

| | |
|----------------------------------|---|
| The Purpose of this Manual | 2 |
| Configuration Software | 2 |
| Additional Manuals | 2 |
| Technical Assistance | 2 |

| | |
|------------------------------------|----------|
| How the OP-1224 Works | 3 |
|------------------------------------|----------|

| | |
|--|----------|
| Using the Pushbutton Panel...5 Easy Steps | 5 |
|--|----------|

| | |
|---|---|
| Step 1: Preparing the Pushbutton Labels (Pages 6-7) | 5 |
| Step 2: Installing the Panel (Pages 8-14) | 5 |
| Step 3: Use OP-WINEDIT Software | 5 |
| Step 4: Configure the Panel to Work with your CPU (Pages 15-16) | 5 |
| Step 5: Write the Ladder Logic (Pages 17-41) | 5 |

Preparing the Pushbutton Labels

| | |
|------------------------------------|---|
| Applying Text to Each Label | 6 |
| Template for Creating Labels | 7 |

Installing the Panel

| | |
|------------------------------------|----------|
| Panel Specifications: | 8 |
|------------------------------------|----------|

| | |
|------------------------------------|---|
| Physical Specifications | 8 |
| Environmental Specifications | 8 |
| Operating Specifications | 8 |
| Dimensions for Mounting | 9 |

| | |
|---|-----------|
| Power and Cabling Requirements | 10 |
|---|-----------|

| | |
|--|----|
| What Are Your Application Needs? | 10 |
| Programming Cable | 11 |
| PLC to Panel Cable | 11 |

| | |
|--|-----------|
| Choosing the Proper Connecting Cables | 12 |
|--|-----------|

| | |
|--|-----------|
| Connecting a Power Supply | 14 |
|--|-----------|

| | |
|--------------------------------|----|
| Power Supply Connections | 14 |
|--------------------------------|----|

| | |
|---|-----------|
| Configure the Panel to Work with the CPU | 15 |
|---|-----------|

| | |
|---|----|
| Assigning an Address to the OP-1224 | 15 |
| How to Set the Address | 15 |
| The Termination Resistor | 15 |

| | |
|---|-----------|
| Using the OP-9001 to Connect Multiple Panels | 16 |
|---|-----------|

Applying Ladder Logic

| | |
|-------------------------------|-----------|
| General Concepts | 17 |
|-------------------------------|-----------|

| | |
|----------------------|----|
| Memory Mapping | 17 |
|----------------------|----|

| | |
|--|-----------|
| Addressing Conventions | 18 |
| Three Different Ways to Use the Panel | 19 |
| Method 1: Bit-of-Word DL05/DL06/DL250/ DL350/450 and Allen-Bradley | 19 |
| Method 2: Internal Relays (All Options Used) | 19 |
| Method 3: Remapping (Selected Options) | 19 |
| Using the OP-1224 with <i>Direct</i>LOGIC PLCs | 20 |
| Using Pushbutton Status with Ladder Logic | 20 |
| Controlling LEDs Separately with <i>Direct</i> LOGIC PLCs | 21 |
| Add Flashing with the DL05/DL06/DL250/DL350/DL450 | 22 |
| Force Function Registers | 23 |
| Forcing Pushbuttons ON/OFF with <i>Direct</i> LOGIC PLCs | 24 |
| <i>Direct</i>LOGIC PLCs (Using All Functions) | 25 |
| Using Pushbutton Status Via Ladder Logic | 25 |
| Controlling LEDs Separately | 26 |
| Adding Flashing | 27 |
| Force Function Registers | 28 |
| Forcing Pushbuttons ON or OFF | 29 |
| Using Selected Functions with <i>Direct</i>LOGIC PLCs | 30 |
| Using the Remapping Process | 30 |
| Using Pushbutton Status via Ladder Logic | 31 |
| Controlling LEDs Separately | 32 |
| Adding Flashing | 33 |
| Force Function Registers | 34 |
| Forcing Pushbuttons ON or OFF | 35 |
| Using the OP-1224 with an Allen-Bradley PLC | 37 |
| Using the Pushbutton Status | 37 |
| Controlling LEDs Separately | 38 |
| Adding Flashing | 39 |
| Force Function Registers | 40 |
| Forcing Pushbuttons ON or OFF | 41 |
| | |
| EU Information | |
| Technical Support | 42 |
| SELV Circuits | 42 |
| Environmental Specifications | 42 |
| Preventative Maintenance and Cleaning | 42 |
| External Fuse Protection for Input Power | 42 |

Index