



# RLE Technologies

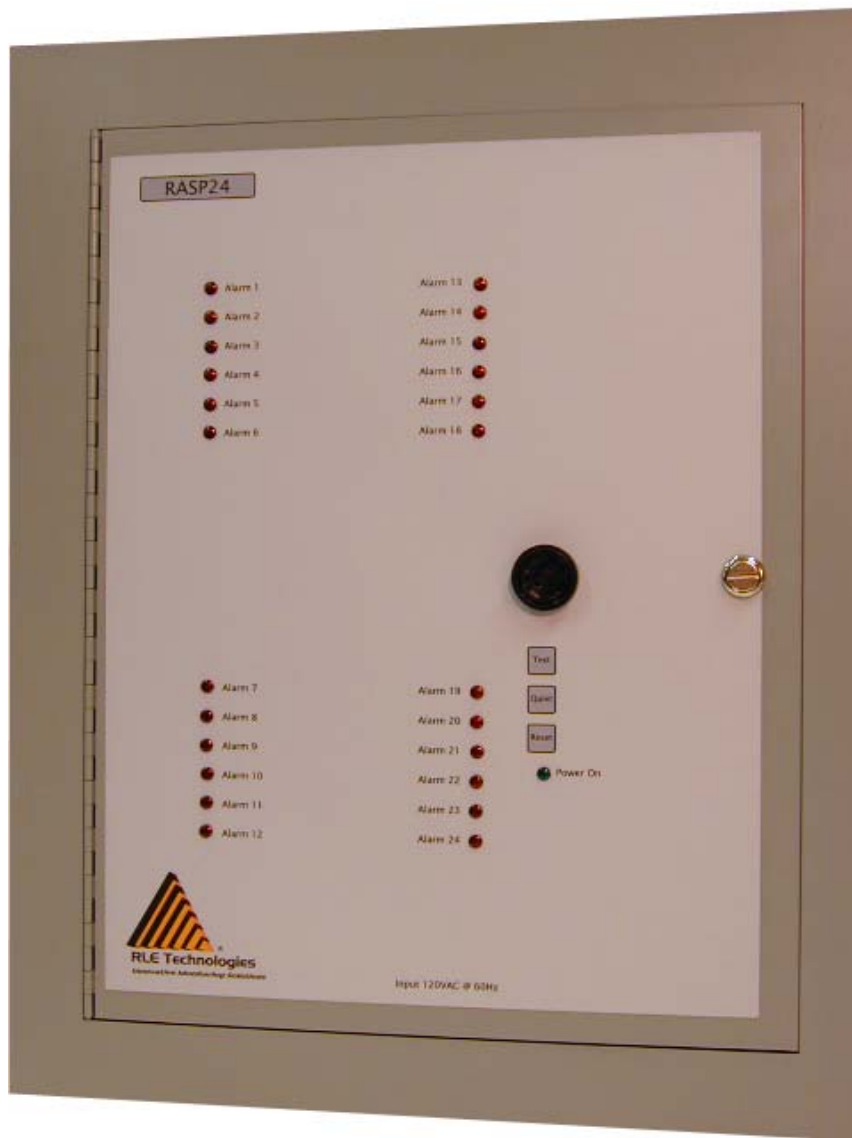
RASP24

## User Guide





# RASP24





## ***TABLE OF CONTENTS***

Chapter 1: Product Description .....	1
1-1 Product Description.....	1
Chapter 2: Installation .....	2
2-1 Mounting.....	2
2-2 Electrical Connections .....	2
2-3 SW1 Switch Positions.....	2
2-3.1 Bottom Board Switch Positions .....	3
Chapter 3: General Operation.....	4
3-1 Operation.....	4
3-2 Test, Reset & Quiet Switches.....	4
Chapter 4: Testing .....	5
4-1 Testing Methods.....	5
Appendix A: Technical Specifications .....	6

## ***TABLE OF FIGURES AND TABLES***

Figure 1-1: Front Panel Indicators .....	1
Figure 2-1: RASP24 Switch Positions .....	3

# CHAPTER 1: PRODUCT DESCRIPTION

## 1-1 PRODUCT DESCRIPTION

The RASP24 monitors up to 24 normally open contacts. Switches allow users to assign zones 1, 2, 3, 7, 8, 9, 16 17, 18, 22, 23, and 24 as normally closed contacts.

The RASP24 contains a summary alarm relay that activates when an alarm is detected. If any of the monitored contacts change state, the appropriate red LED illuminates and the audible alarm sounds. Once one alarm has been silenced, additional alarms reactivate the audible alarm.

Several functions of the RASP24 can be field modified to accommodate the desired effect.

The alarm state can be latched - the alarm LED goes into slow flash after it is silenced and the alarm becomes inactive. A non-latched alarm becomes inactive and the LED turns off after the alarm has been silenced.

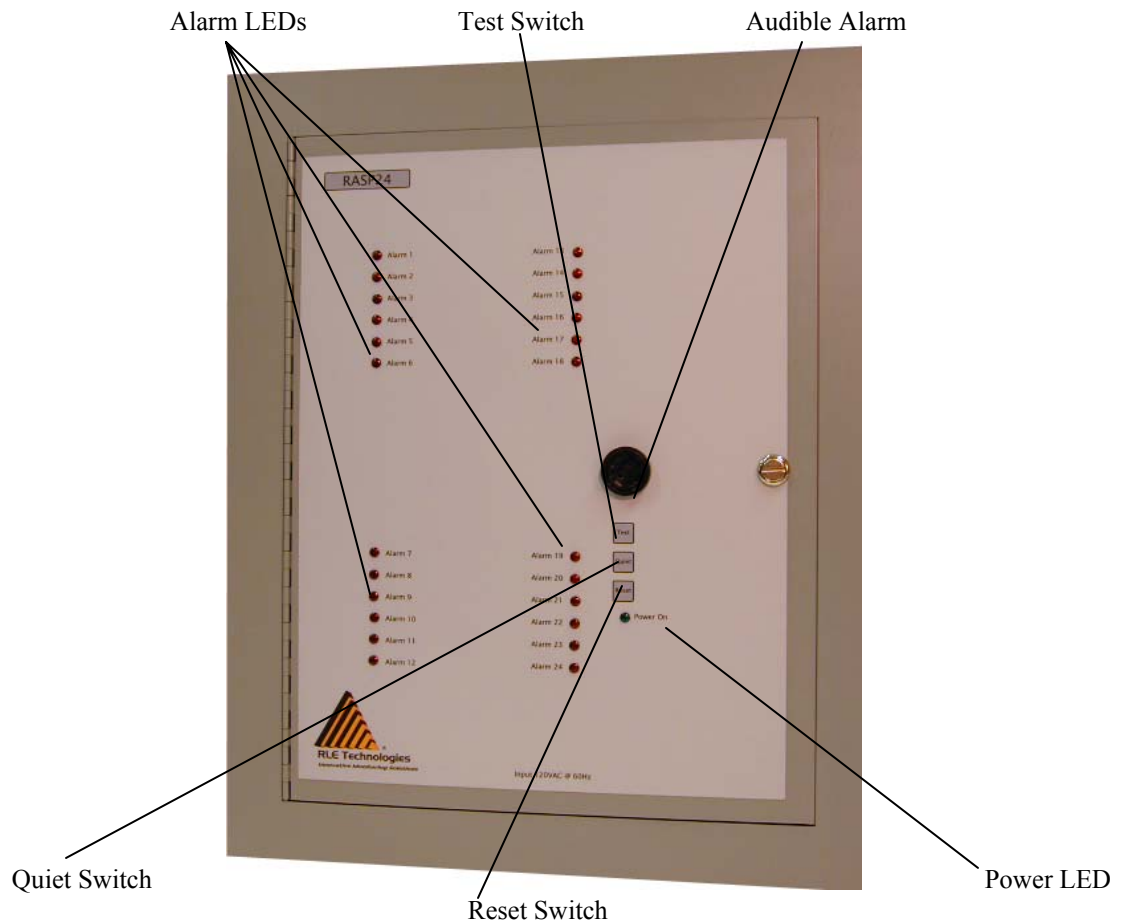


Figure 1-1: Front Panel Indicators

## ***CHAPTER 2: INSTALLATION***

### **2-1 MOUNTING**

- Mount the RASP24 on the wall using the unit's mounting holes.
- Make any necessary conduit knock outs.
- Pull wires for the power and the interconnects.
- After the wires are connected, replace all quick connect terminal blocks.
- Replace the unit's front cover when all tests are concluded.

### **2-2 ELECTRICAL CONNECTIONS**

1. Connect the 120VAC to the terminal block input on the back wall of the enclosure.
  - Left 120VAC Line
  - Center Ground
  - Right 120VAC Neutral



#### **NOTE**

***Remove the quick disconnect terminal blocks from the printed circuit board and make the wire connections. Install TB3 last.***

2. Connect the dry contacts to the designated terminal blocks on the back wall of the enclosure. The blocks are numbered Alarm1 through Alarm 24.
3. Connect the summary alarm relay wires to the designated terminal block on the back wall of the enclosure.
  - Left Summary Alarm N/C
  - Center Summary Alarm N/O
  - Right Summary Alarm Common

### **2-3 SW1 SWITCH POSITIONS**

SW1 is configured by the manufacturer with preset options. These settings can be adjusted in the field. The RASP24 has four boards on the inside of its door. Each board has an SW1. SW1 on the top board controls alarms 1 through 6. SW1 on the bottom board controls alarms 7 through 12.

Inputs can be configured to stay activated (latched) or only to be active when a leak or fault is present (unlatched). A latched alarm requires a manual reset of the system once a leak or cable problem is no longer present. An unlatched alarm resets itself once the alarm condition is no longer present.

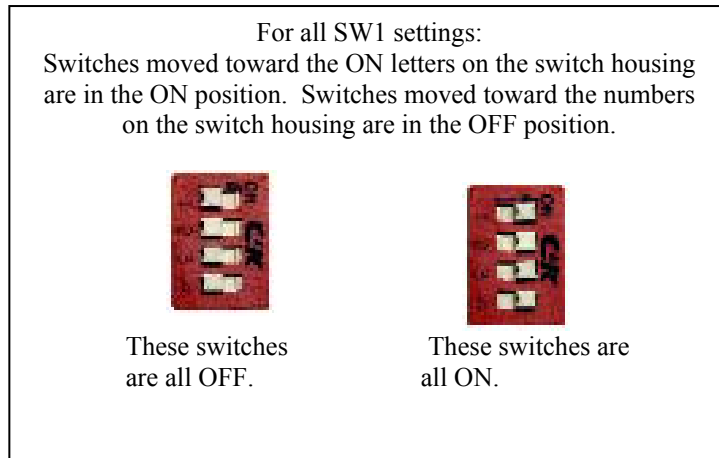
Inputs 4, 5, 6, 10, 11, 12, 16, 17, 18, 22, 23, and 24 are manufactured to accept only normally open inputs. Inputs 1, 2, 3, 7, 8, 9, 13, 14, 15, 19, 20, and 21 can be configured to accept either normally open or normally closed inputs.

The Summary Alarm Relay can be configured as non-supervised only. Settings for the relay are controlled by SW1, Pos4 on the Both Boards must be On!

Any changes to these settings affects the product as shown on the right.

### 2-3.1 Bottom Board Switch Positions

- SW1 Position 1: ON = All inputs are unlatched.
- SW1 Position 2: ON = Inputs 4, 5, 6 or 10, 11, 12 normally closed (NC).
- SW1 Position 3 xxx: This position has no functionality with it.
- SW1 Position 4: ON = All boards!
- Non-supervised Relay: Picks an alarm position.



**Figure 2-1: RASP24 Switch Positions**

## ***CHAPTER 3: GENERAL OPERATION***

### **3-1 OPERATION**

The RASP24 reports the closure of any dry contact from any device connected to the alarm input terminal block. When a contact closure is detected, the audible alarm sounds intermittently and the appropriate alarm LED flashes rapidly. The audible alarm is silenced by pressing the Quiet button. Any alarm LEDs that are flashing will then be steadily illuminated.

In latching mode (SW1, Pos1 OFF), when the alarm clears and after the silence switch has been depressed, the Alarm LED stays on and slowly flashes. This state indicates a cleared but not reset alarm.

In non-latching mode (SW1, Pos1 ON), when the alarm clears and after the silence switch has been depressed, the Alarm LED immediately turns off.

### **3-2 TEST, RESET & QUIET SWITCHES**

#### **Test Switch**

Illuminates all status LEDs, sounds the audible alarm, activates the relay. If held down, it will hold the relay down.

#### **Reset Switch**

Clears all alarms.

#### **Quiet Switch**

Silences the audible alarm. All alarms remain in their alarm states, but the audible alarm no longer sounds.

## ***CHAPTER 4: TESTING***

### **4-1 TESTING METHODS**

The RASP24 can be tested through three different methods:

1. Depress the test switch.
2. Short the dry contact input terminal blocks one pair at a time. If the last three channels are programmed for normally closed contacts, remove one pair of wires to simulate the opening of the contact to produce an alarm.
3. Activate the dry contacts in the units being monitored.

If the audible alarm does not sound and the LEDs do not illuminate, check the power connections and be sure the Power On LED is illuminated. If power is supplied and the alarm LEDs still do not illuminate, contact RLE Technologies for service.

## ***APPENDIX A: TECHNICAL SPECIFICATIONS***

<b>Power</b>	24VAC/VDC ( $\pm 10\%$ ) @ 500mA max.
<b>Inputs</b>	
<b>Digital</b>	12 NO and 12 NO or NC Dry Contacts Configurable with Jumpers in 3 Zone Segments (<50mA)
<b>Outputs</b>	
<b>Relay</b>	1 Dry Contact, Form C, 1A @ 24VDC, 0.5A resistive @ 120VAC
<b>Alarm Notification</b>	
<b>Audible Alarm</b>	70DBA @ 2' (0.6m)
<b>Front Panel Interface</b>	
<b>LED Indicators</b>	1 green Power (on/off) & 24 red Alarm
<b>Push Buttons</b>	1 Reset, 1 Quiet & 1 Test
<b>Operating Environment</b>	
<b>Temperature</b>	32° to 122°F (0° to 50°C)
<b>Humidity</b>	5% to 95% RH, non-condensing
<b>Altitude</b>	10,000' (3,048m) max.
<b>Storage Environment</b>	-4° to 158°F (-20° to 70°C)
<b>Dimensions</b>	
<b>Flush Mount</b>	18.5"W x 22.5"H x 4.13"D (470mmW x 572mmH x 105mmD)
<b>Surface Mount</b>	16.5"W x 20.5"H x 4.125"D (419mmW x 521mmH x 105mmD)
<b>Weight</b>	16lbs (7.3kg)





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