Alarm Interface Panel

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ALARM INTERFACE PANEL

Section 1. INTRODUCTION

Section 2. INSTALLATION

Section 5. ADDENDUM

1.1 General

All 24 Alarm Interface Units are shipped tested, complete with input and output connectors, power supply, and are ready for installation and service. Other than making connections to the alarm source devices and a power source, or making connections to another remote alarm indicator, no other connections or adjustments are required.

1.2 Receipt Inspection

The 24 Alarm Interface unit was tested and inspected prior to shipment. Upon receipt, the equipment should be inspected for any shipping damage. If any damage is found, the shipping company should be notified immediately. *Be sure to retain all packing materials for inspection.* Next, contact PESA customer service to discuss any further corrective action which might be necessary. The PESA telephone number is located in the front of this manual.

1.3 Unpacking and Preparation

The 24 Alarm Interface panel was shipped with 25 3-pin input / output connectors, and a power pack. Prior to discarding any packing materials, carefully inspect *all* packing to insure that all parts and accessories have been removed.

1.4 Location and Mounting

The PESA System 5 Alarm Interface Panel is a 1 rack unit high accessory which is used to visually and audibly alert operators of an alarm condition. The alarm panel is provided with its own power supply, and provides connections for connecting up to 24 independent alarm circuits. Additionally, at the inception of an alarm condition an audible beeper is sounded. The beeper can be reset to its "off" condition by depressing a small front panel push-button. The alarm indicators and beeper can all be tested from a small front panel push-button.

The alarm input may be set from either a set of dry switch contacts, such as a normally open relay or normally open switch. An open collector may be also used. The alarm panel provides a "pull-up" to +5V DC, for operation of an open collector type of alarm circuit, such as that used in most types of PESA power supplies.

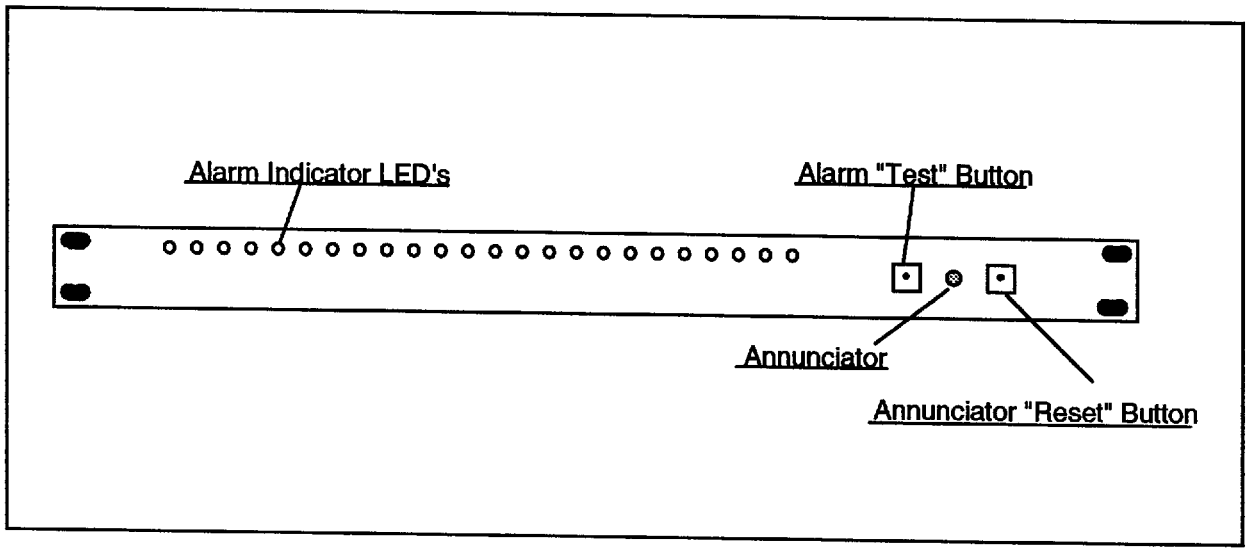


Figure 1-1 Alarm Panel

The Alarm panel may be mounted at any location that permits easy operator access to the indicator LED's and pushbuttons, and where the alarm beeper can be easily heard. Since these factors vary considerably from one location to another, the final operating position is dependent on your specific circumstances. PESA suggests a location which is regularly attended by an operator or supervisor.

The Alarm Panel inputs are typically "DC" circuits, and input circuits provide low voltage, low current DC at logic levels. Cables run between equipment and the alarm panel inputs may be in low cost audio cable, such as Belden 8451 single pair shielded audio wire.

PESA provides 25 3-pin connectors for making the input connections, and the output connection if used.

Each Alarm panel provides a total of 24 alarm circuit inputs. Each input channel pin 1 is provided with a pull-up to +5V to provide operating voltage for Open Collector type alarm circuits, such as those in the PESA PS270 and PS140 type power supplies. Other alarm actuators which utilize switch contacts or relay contacts can also be used. When the remote unit provides a contact closure, or a logic low condition to the alarm panel, the Alarm LED associated with that input will illuminate, and the audible Interface will beep.

A designator strip provided with each alarm panel can be used to label the alarm panel's front, in order to identify the origin of the alarm.

1.5 Specifications

Input Characteristics

Number of Inputs	24 Independent
Input Voltage	Integral +5V DC pull-up for Open Collector alarm circuits; Alarm is active low; compatible with dry switch or relay contacts
Connector Type	3-Pin Polarized
Wire Size	12 AWG (Maximum) 20-24 AWG Recommended

Output Characteristics

Number of Outputs	1 Independent
Output Type	Open Collector, Active low when any of up to 24 Input Alarm LED's are "ON"
Maximum O. C. Voltage	30V DC
Maximum O. C. Current	130 mA
Connector Type	3-Pin Polarized
Wire Size	12 AWG (Maximum) 20-24 AWG Recommended

Alarm Indicators

Visual	Red LED per input channel; LED illuminates continuously during all alarm events. LED does not extinguish until the alarm condition is eliminated.
Audible	Integral Beeper Common to all channels; beeps at each new alarm occurrence
Electrical	One open collector output; Collector is active low when any alarm LED is "on"

Power

Input Voltage	±5V DC
Current	750 mA

Mechanical

Dimensions	1.75" (44.45mm) H 19.00" (482.6 mm) W 2.00" (50.8mm) D

Controls

Front Panel "Reset"	Momentary push-button silences the Audible alarm
Front Panel "Test"	Momentary push-button Illuminates all LED's and sounds the beeper

2.1 Installation

The PESA System 5 Alarm panel may be mounted in any EIA standard 19" wide equipment rack. It requires 1 Rack Unit (1.75") vertical rack space. All power and input/output connections are located on the rear panel.

2.2 Power (Rear Panel Connector)

Operating power for the 24 Alarm Interface panel is provided by an external, plug-in-the-wall type power pack. An integral coaxial DC power connector is provided with the power pack. Remove the power supply from the box it was shipped in and check to insure that no damage has occurred in shipping. Verify that the power supply is rated for the proper AC voltage (i.e. 115 VAC or 230 VAC) before connection to the AC voltage. The power connector can now be plugged into the "Power In" position on the alarm interface panel. The power pack will immediately power the unit upon connections to AC voltage.

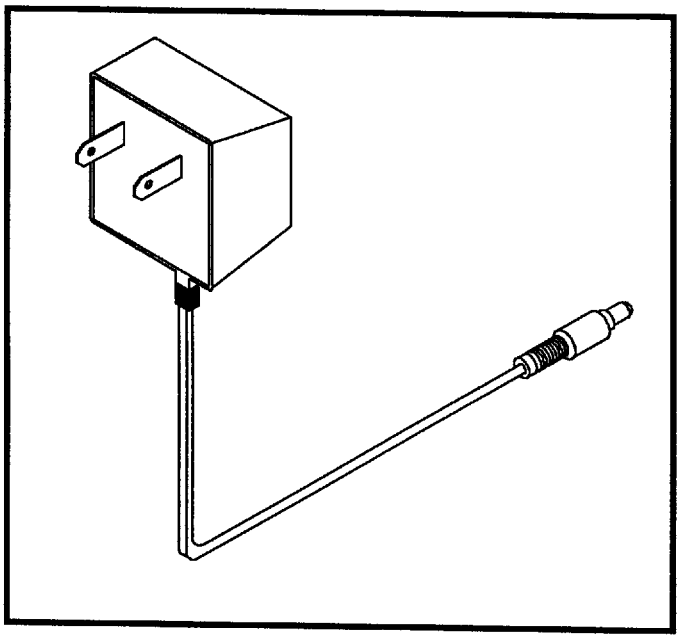


Figure 2.1 Typical Panel Power Supply

2.3 Alarm Inputs (Rear Panel Connectors J1-J24)

There are a total of 24 alarm inputs located on the rear panel. Each alarm input consists of a 3-pin polarized connector. Each input, in general, provides an operating voltage (approximately +5V DC) to operate a remote Open Collector alarm circuit. To connect remote alarm circuits to the 24 Alarm Interface panel, run appropriate wire between the Alarm panel and the remote device.

The 3-pin connectors provide a screw-terminal connection for all alarm circuits. Install the alarm wiring in accordance with the following information:

ALARM INPUT(S)	
Pin 1	Alarm Input - (Closure to pin 3 causes alarm LED to illuminate, and beeper to sound)
Pin 2	N.C.
Pin 3	Alarm "ground"

Figure 2.2 Alarm Input Connection

All cables between the alarm panel inputs and the remote devices should be run in a location compatible with logic-level signals. Alarm circuit input cables should *not* be run in the same channel or conduit as those of high power circuits (such as AC wiring, etc.).

The following tables illustrate interconnection of the alarm panel inputs and various PESA power supply alarm circuits.

PS-140 (V) PS-140(A)		Alarm Panel	
Pin 1	Open Collector----------	Pin 1	Alarm Input
Pin 2	N.C.	Pin 2	N.C.
Pin 3	Ground----------	Pin 3	Alarm Input Ground

Figure 2.3 PS-140 Alarm Connections

PS-270 (V) PS-270(A)		Alarm Panel	
Pin 3	Open Collector----------	Pin 1	Alarm Input
Pin 2	N.C.	Pin 2	N.C.
Pin 1	Ground----------	Pin 3	Alarm Input Ground

Figure 2.4 PS-270 Alarm Connections

6600E CPU J-9		Alarm Panel	
Pin 2	Relay Contact----------	Pin 1	Alarm Input
		Pin 2	N.C.
Pin 1	Relay Contact----------	Pin 3	Alarm Input Ground

Figure 2.5 6600E CPU J-9 Connections

RC5000 CPU Alarm Connector		Alarm Panel	
Pin 1	Relay Contact----------	Pin 1	Alarm Input
Pin 3	N.C.	Pin 2	N.C.
Pin 2	Relay Contact----------	Pin 3	Alarm Input Ground

Figure 2.6 RC5000 CPU Connections

2.4 Alarm Output (Rear Panel)

A rear panel connector is provided to enable the user to interconnect the 24 Alarm Interface to other Alarm panels or to some other sort of device. The alarm output connector is the same 3-pin type connector as is used for the alarm inputs. The output signal is an Open Collector which is active "low" when any of the front panel LED's are illuminated.

A typical application of the alarm output would be to cascade 2 or more of the 24 Alarm Interface Panels, one into the others. The following diagram illustrates a possible cascaded application of the alarm panels.

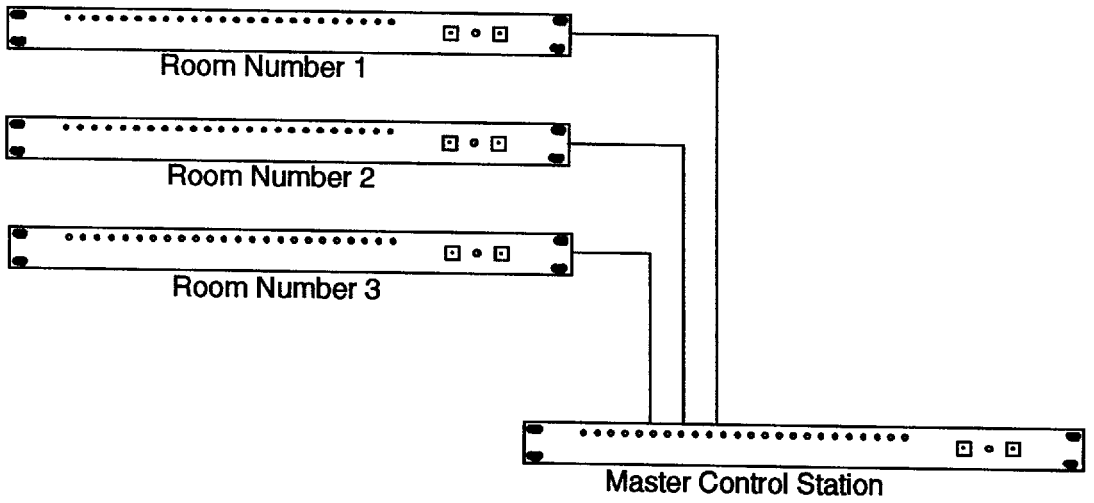


Figure 2.7 Cascaded Alarm Panels

In this example, three alarm panels' outputs are routed to three inputs of a fourth alarm panel. The fourth panel in this instance is used to monitor any alarm conditions which may occur in any of the other three panels. A practical application of this example might be where a Master Control Station is used to monitor alarm condition in several locations at once.

2.5 Test Switch (Front Panel)

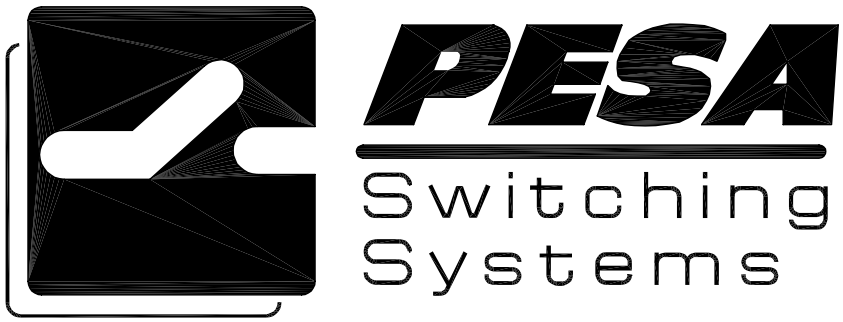
A front panel situated push-button switch has been provided to test the operation of the 24 Alarm Interface panel. To verify the unit is on and operating, press the "Test" push-button. Correct operation of the alarm panel is indicated by illumination of the LED's, and sounding of the annunciator beeper.

5.1 Deviation Records

No. 1 January 26, 1994: S/N 16169342002, 16169342001, have deviation parts for RP1, RP11, RP21. Use 81900200627 (8 ea.) to form SIP Package Equivalent, 680 Ohm X 8, 1/4W, 5%.

Revision History

Rev.	Date	Description	By
A	10-28-93	Initial release.	Unknown
B	01-27-94	Unknown	Unknown
C	03-01-01	Deleted Printing Specification per ECO CE00113.	GLT
D	03-15-01	Deleted bills of material, drawings, and schematics per ECO CE00130.	GLT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