

**AI7525 Series Alarm Annunciator  
User Manual**

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## Introduction

The AI7525I Series Alarm Annunciator system is an unparallel, modular product, designed to give indication of an alarm condition, or equipment status, where a high degree of reliability and flexibility is required.

The annunciator is made up of cells, each cell being 75 x 50mm and comprising one large window, two medium (Vertically or horizontally) or four small. These alarm windows are driven from Two-channel Alarm Cards. The annunciator is constructed by assembling multiple "cells" together to provide a unit of the shape and size required. The finished cell array is housed within an attractive extruded aluminum surround which gives a modern flush mounting appearance and allows the annunciator to be mounted in a single cut-out.

The AI7525I Series Alarm Annunciator is fully programmable for a whole range of different sequences and functions as listed in the ISA Publication "Annunciator Sequences and Specifications S18.1 - 1979(R1985)". The programming is undertaken by dipswitches and jumpers on each card. All Alarm Cards are generally interchangeable within the annunciator, so stocking requirements are minimized. As the system is fully field-programmable, the operating specification of both alarm sequence and function can be changed during commissioning or at a later date after the equipment is installed.

Reliability of operation is increased over conventional annunciators by using state of the art technology on Alarm Cards. Each Card is fitted with a complete logic controller, which is capable of complete system control.

Accessibility for normal maintenance, legend/filter changes and programming is excellent, being provided without the use of special tools.

The standard unit is supplied fully equipped with a range of output relays as standard. This product will suit most applications.

Technical Specification



**INPUTS**

*Isolation and Polarity:*

- Each input is optically isolated up to 2000VAC
- All inputs are bipolar and can accept AC or DC voltages

*Alarm Contacts:*

- Field Selectable: Normally Open (NO) or Normally Closed (NC)
- Field Selectable: Wet (voltage supplied) or dry (voltage free) contacts
- Alarm Contact Voltages; 24, 48, 125, and 250V (DC or AC)

*Response Time:*

- Standard unit: 50ms milliseconds
- Made to order from 1ms to 2s

**OUTPUTS**

*Supported outputs:*

- Light Output
- Critical Audible Relay
- Non-critical Audible Relay
- Critical/Non-critical Buzzer
- Group Relay
- Common Relay
- Auxiliary (Repeat) Relay (can be set to follow Input or Output)
- Common Alarm Relay
- First\_Up Relay
- Relay Rating: 1A/30VDC

**DISPLAY**

*Configuration:*

- One single large window: (H11 type): 75x50mm (WxH)
- Two medium cells: (H21 type): 75x25mm (WxH) (H12 type): 37.5x50mm (WxH) (V21 type): 50x37.5mm (WxH)
- Four small cells: (H44 type): 37.5x25mm (WxH)

Each window is backlit by almost unlimited life time, 120° high bright LEDs, ideal for a maintenance free annunciator

*Number of LED(s) per Alarm Point:*

- H11: 4 LEDs
- H21, H12, V21: 2 LEDs
- H44: 1 LED

*Window Colours:*

- White
- Red
- Amber

**ALARM SEQUENCES**

System supports all *ISA-S18.1/1979 (R1985)* sequences including:

- Manual Reset (M)
- Automatic Reset (A)
- Automatic Reset First Out (F3A)
- Automatic Reset First Out (F1A)
- Manual Reset First Out (F2M-1)
- Ringback (R)
- No Lock In

These sequences are individually Field Selectable for each Alarm Controller

**PUSH BUTTONS**

“Acknowledge”, “Reset”, “Test” and “Mute” push buttons are supported by the system with two choices; Remote and/or Integral push buttons

**GENERAL**

*Supply Voltage:*

24VDC Nominal (20-30VDC)

*Supply Current Per Alarm Point:*

Quiescent: 4mA (at 24VDC)

LEDs: H11: 40mA (at 24VDC)

H21, H12, V21: 20mA (at 24VDC)

H44: 10mA (at 24VDC)

Relay: 10mA per relay (at 24VDC)

Additional 50mA current is required for Interface Module, Push button/Buzzer Module, Common Relay and Audible

*Environment:*

Operating temperature : -20 to 60°C  
Storage temperature -20 to 80°C  
Humidity 0-95% RH, non condensing

*Protection:*

Front Panel: IP41  
Enclosure: IP20

*Weight:*

Approximately 0.3 kg per H11 window

*Connection Terminals:*

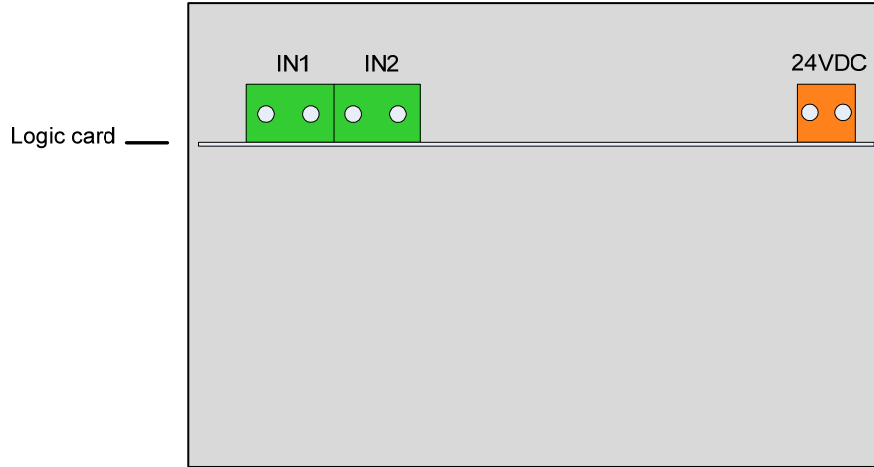
- Two-part removable screw type
- Maximum wire size: 2.5 mm<sup>2</sup>

*Mounting:*

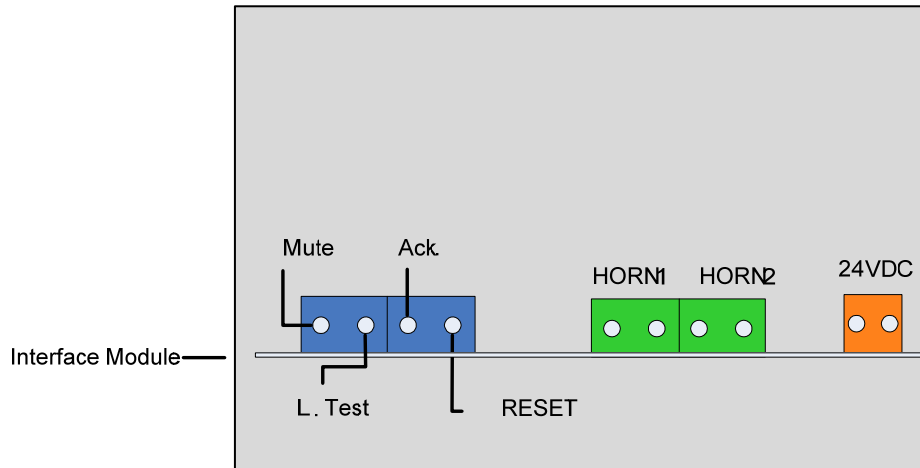
Panel Mounted

**SERIAL COMMUNICATION**

Multi-drop RS485 communication is available as an option. Each channel can be configured to accept alarm inputs from the standard alarm contacts or via the RS485 communication

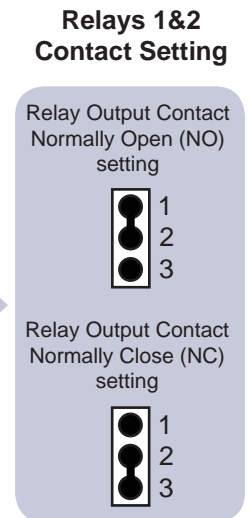
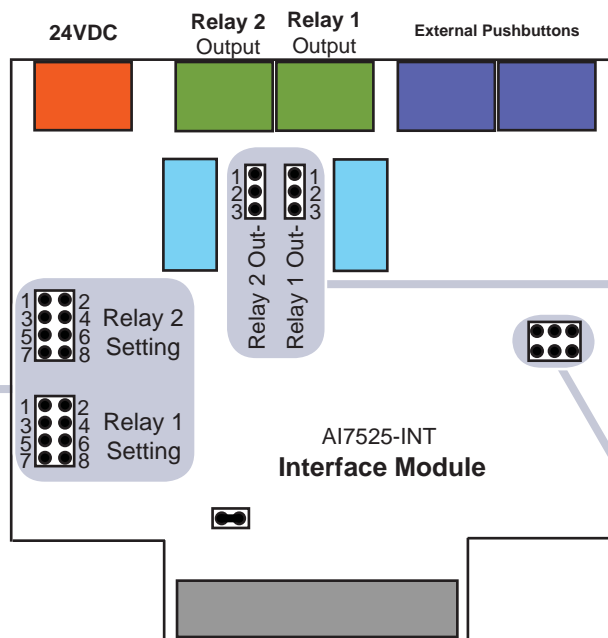
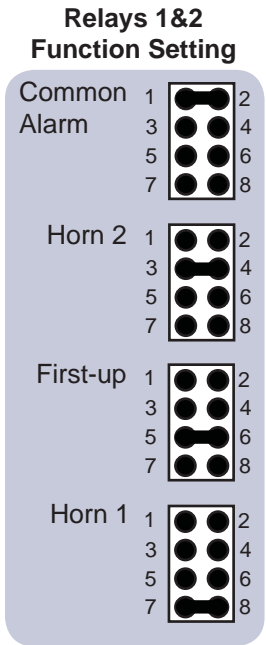
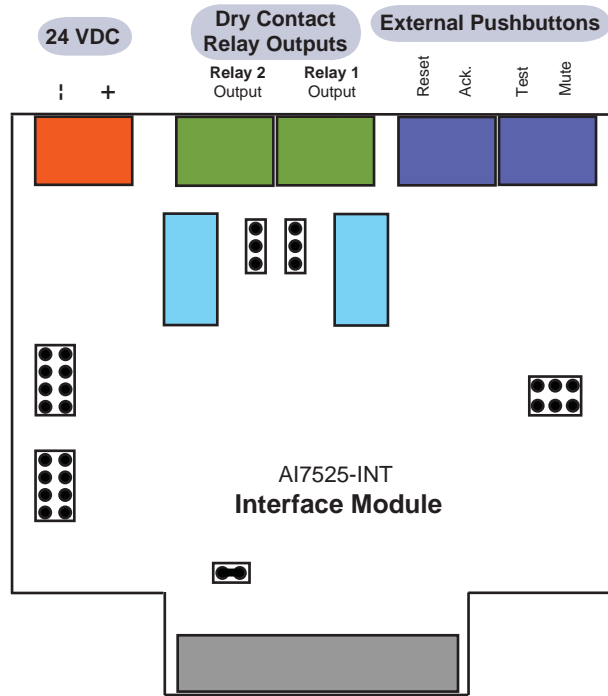


AI7525-LG Logic Card



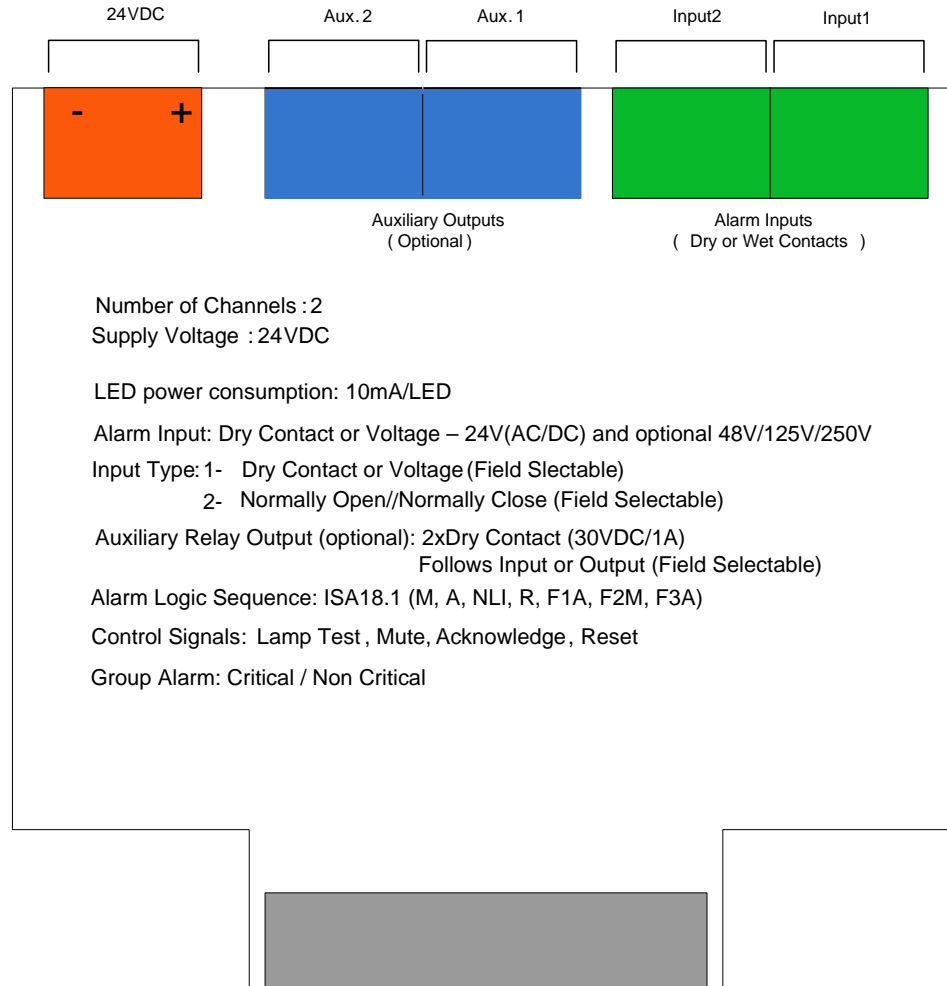
AI7525-INT Interface Module

Interface Module



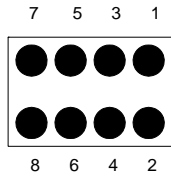
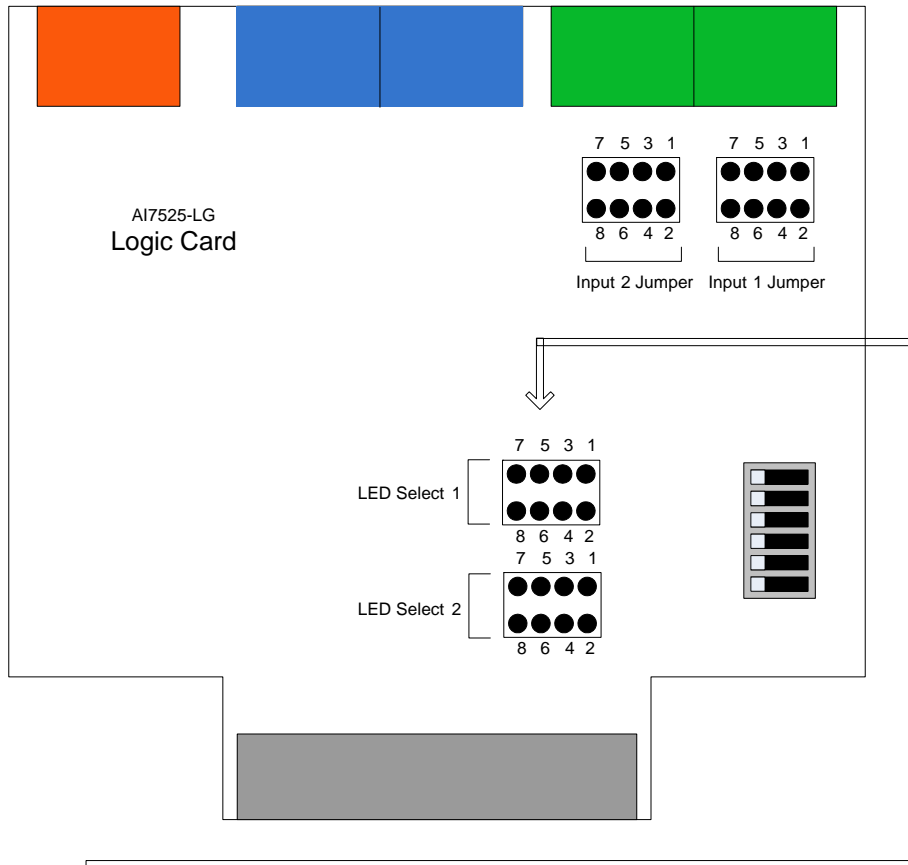
For factory use only

Logic Card



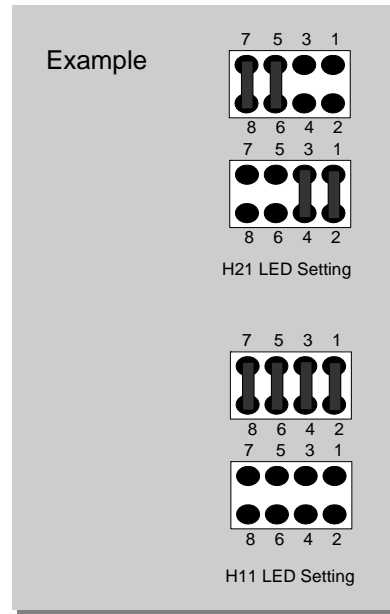
2 channel AI7525-LG  
Logic Card

Logic Card

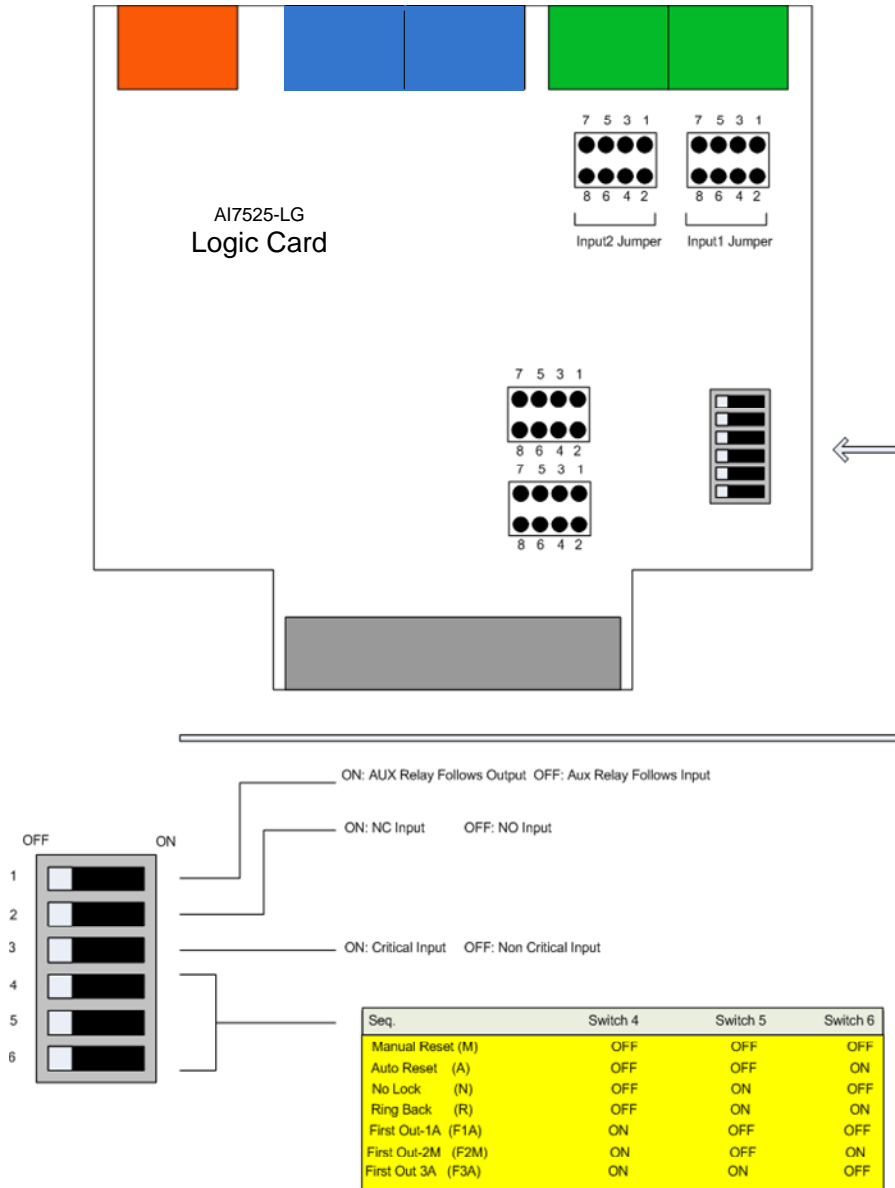


**Output Select Jumper Setting**

PIN	Close	Open
1,2	Output to LED1	No Output to LED 1
3,4	Output to LED2	No Output to LED 2
5,6	Output to LED3	No Output to LED 3
7,8	Output to LED4	No Output to LED 4



Logic Card

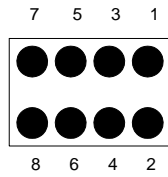
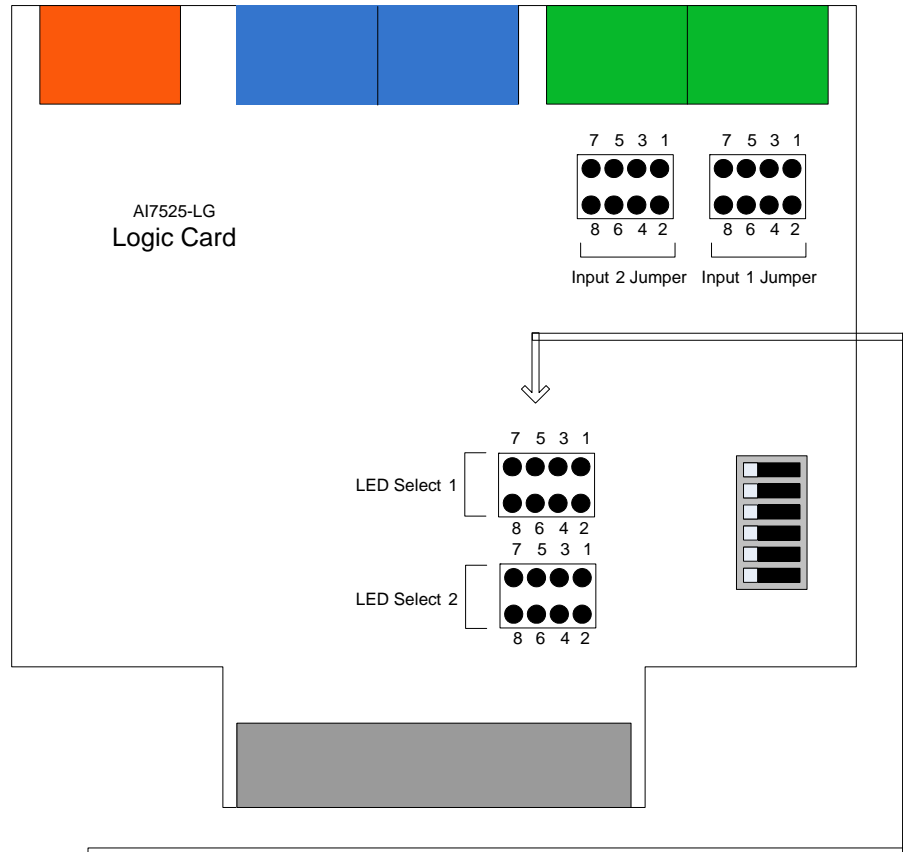


Visit the bellow links for Manual Reset & Auto Reset demonstration.

<http://www.youtube.com/watch?v=XgYib4a5PoE>

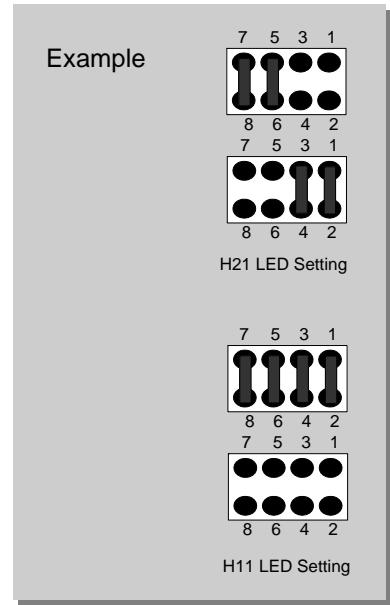
<http://www.youtube.com/watch?v=j7n6RerSviQ>

Logic Card



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Wiring Diagram

