

# **STROBE / SOUNDER INTERFACE**

## **INSTALLATION & CONFIGURATION MANUAL**

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# Section 1 About this Manual

## 1.1. Notes, Cautions and Warnings

This manual contains notes, cautions and warnings to alert the reader as follows:



**NOTE:** Supplement information for a topic such as tips and references.



**CAUTION:** Information about procedures that could cause programming errors, runtime errors, or equipment damage.



**WARNING:** Indicates information about procedures that could cause irreversible equipment damage, irreversible loss of programming data or personal injury.

## 1.2. Related Documentation

Related documentation:

Title	Document Number
DA Series BOWS – Installation & Programming Manual	DOC-01-004

**Table 1-1 Related Documentation**

# Section 2 System Overview

## 2.1. Introduction

The Notifier Strobe/Sounder Interface Module provides a high current monitored output to strobes and sounders. This output is capable of reversing polarity for connection to dual level devices ie alert to evacuate operation.

## 2.2. Features

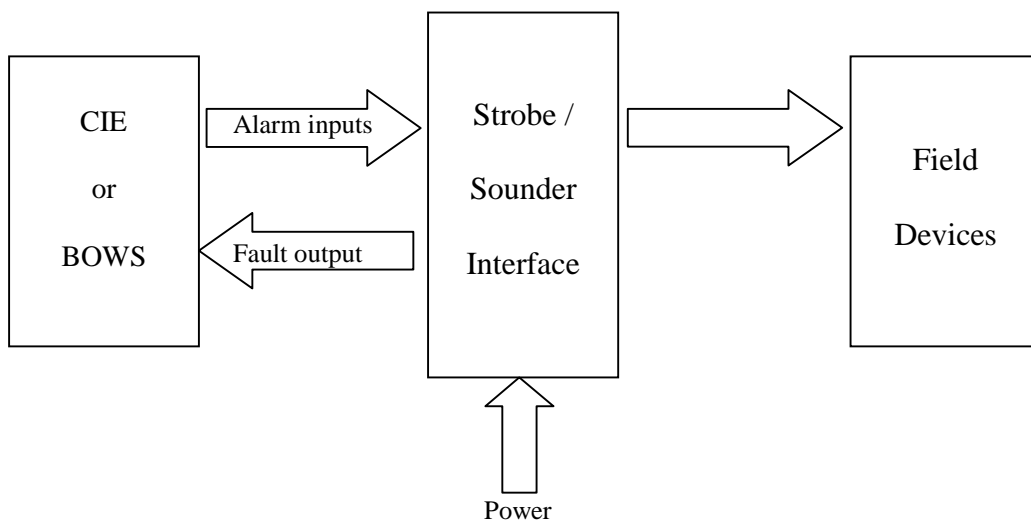
- 2 level operation for alert and evacuation signals
- Configurable for automatic (via timer) or manual (via inputs) level 1 to level 2 changeover
- Ability to change alarm levels on high or low signal input
- Compatibility with Notifier legacy and DA-series building occupant warning systems
- High power 5A output

## 2.3. Specifications

- Operating Voltage Range: 20.6VDC to 27.6VDC
- Current Consumption @ 24VDC nominal
  - ✓ Normal/Quiescent: 25mA
  - ✓ Alarm: 90mA (+ strobe & sounder load)
- For use indoors in a dry location
- Form-C Relay Outputs
  - ✓ System Fault – Normally Energised
  - ✓ Relay Contact Ratings: 1A @ 30VDC (resistive)
- Strobe / Sounder Output
  - ✓ Output Rating: 5A@ 24VDC nominal – with Fuse F1
  - ✓ End-of-Line-Resistor: 1.8K Ohm 1 Watt
- Inputs
  - ✓ Alert and Evac

## 2.4. System Diagram

A block diagram of a typical Strobe/Sounder interface module is provided is in Figure 2-1



**Figure 2-1 – Typical Strobe/Sounder Interface setup**

## 2.5. Available Kits

The following kits are available from Notifier:

Title	Notifier Part #
Notifier Strobe/Sounder Interface Module	ASY-01-002

**Table 2-1 Available Kits**

# Section 3 Installation



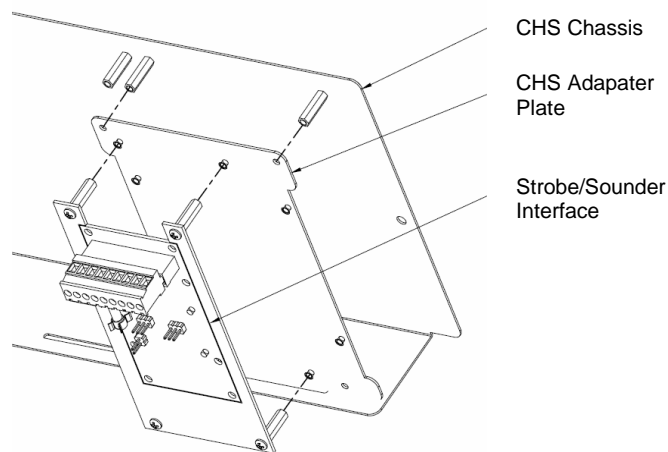
**WARNING:** Remove all power sources to equipment while connecting electrical components. Leave the external, main power breaker OFF until installation of the entire system is complete.

## 3.1. Module Mounting

### a. Single module

The strobe & sounder interface can be mounted by one of the following methods

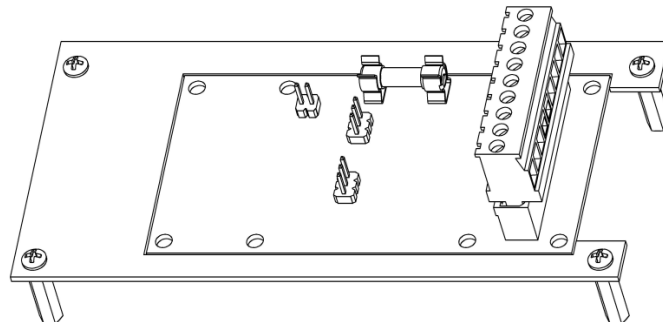
- in a standard chassis assembly using the supplied adapter plate
  - on a standard relay expansion slot (outer 4 holes)
1. Mount the module fitted to the adapter plate into a standard chassis expansion slot as shown in Figure 3-1



**Figure 3-1 – Module mounting onto a standard chassis expansion slot**

or

2. Remove the module from the adapter plate and mount PCB onto a standard relay expansion slot as shown in Figure 3-2



**Figure 3-2 – Module mounting onto a standard relay expansion slot**

**b. 'Double Stacking'**

The Sounder/Strobe interface can be 'double stacked' by mounting the top module to the lower module using the inner 4 mounting points as shown in Figure 3-3 using the supplied stand-offs and M3 flanged nuts. It is not required to break off outer edges of the PCB, however it may be preferable to allow access to the lower PCB mounting points.

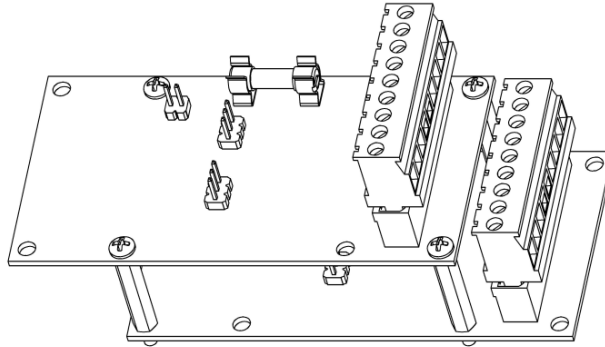


Figure 3-3 – “Double Stacked” using inner mounting holes

**3.2. Connection to DA series BOWS**

Connect the sounder and strobe interface module to DA-BOWS as shown in Figure 3-4 using a modified 6 way cable. The sounder/strobe interface should be setup for negative alert and evacuation trigger see section 5.2. See the DA-BOWS manual for more information on its operation.

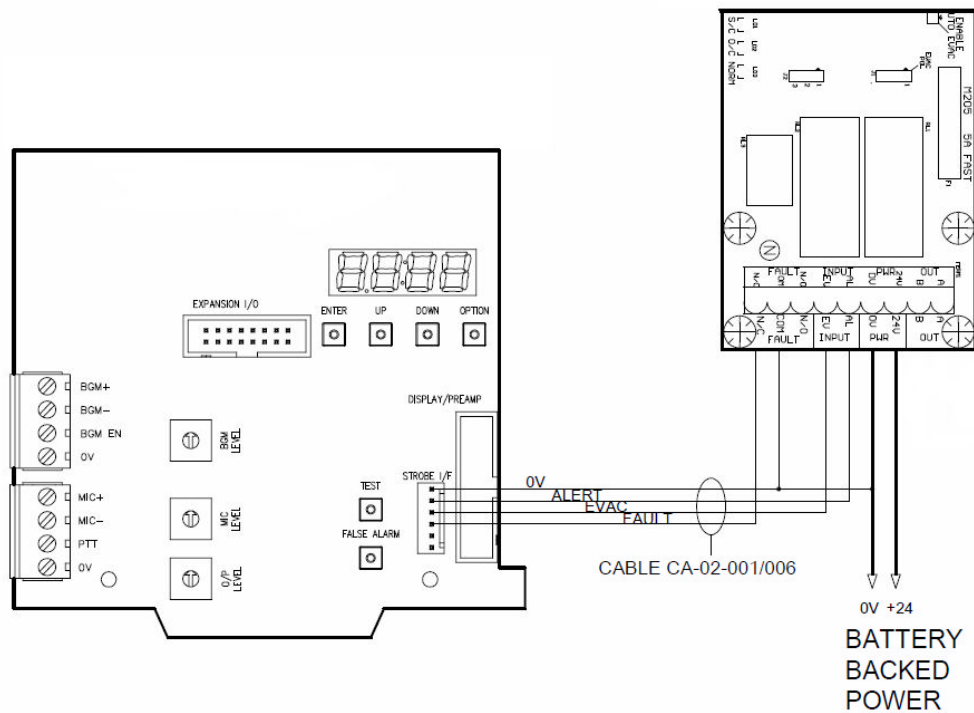


Figure 3-4 – DA BOWS connection



### 3.3. Connection to Notifier 10W, 25W, 50W or Legacy 120W BOWS

Connect the strobe card to BOWS as shown in below figure. The sounder/strobe interface should be setup for positive alert and evacuation trigger see section 5.2



**NOTE:** If the 'Alert' stage is not required then this connection may be omitted.

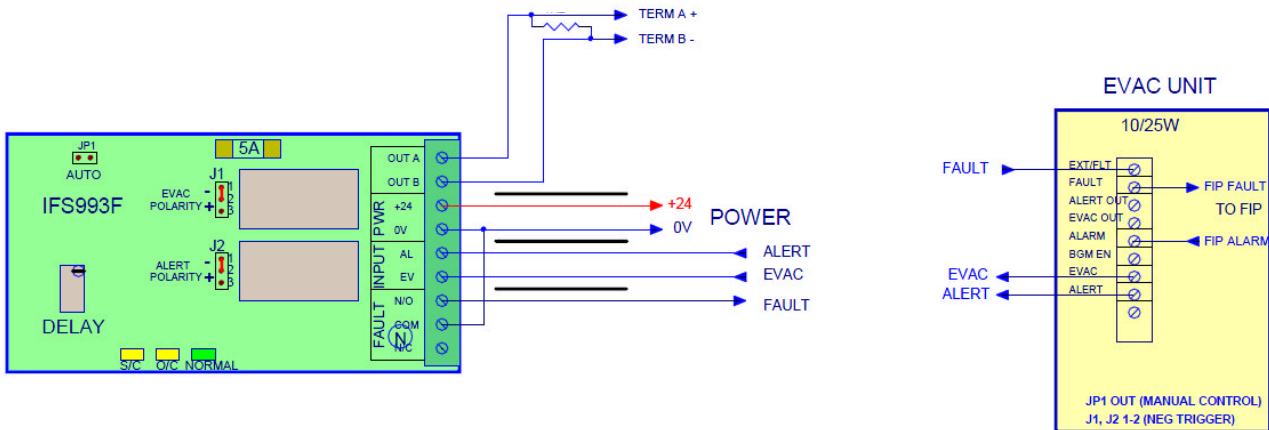


Figure 3-5 – Strobe/Sounder interface to 10W, 25W, 50W and Legacy 120W connection

### 3.4. Connection to a CIE

Connect the strobe card to FIP as shown in below figure. The sounder/strobe interface should be setup for positive alert and evacuation trigger see section 5.2



**NOTE:** If the 'Alert' stage is not required then this connection may be omitted.

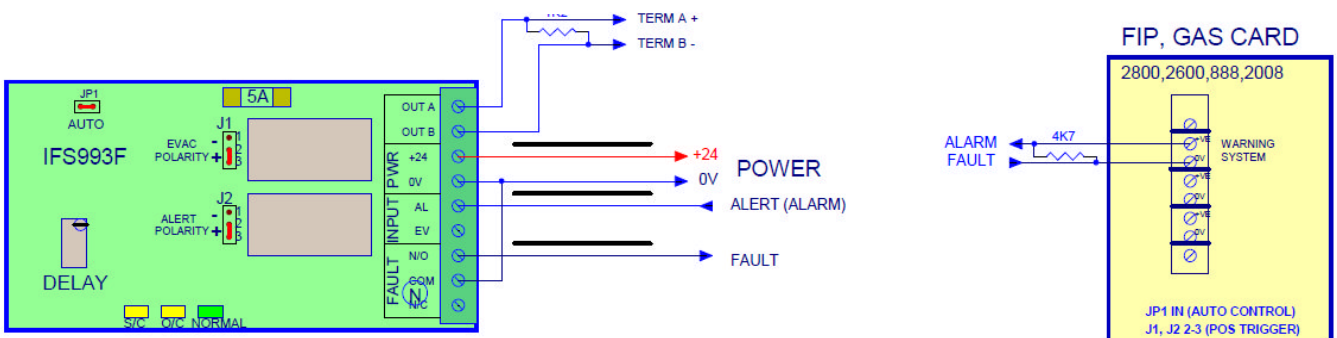


Figure 3-6 – Strobe/Sounder interface to CIE connection

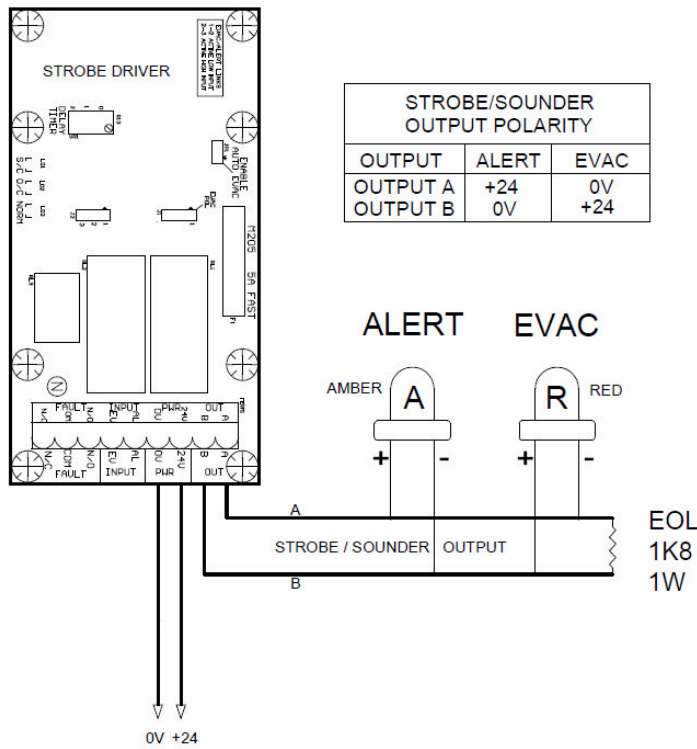
### 3.5. Connection to Sounder or Strobe devices

Connect the sounder or strobe devices to the output as shown in Figure 3-7. The sounder/strobe interface should be setup for positive alert and evacuation trigger see section 5.2.

The End-of Line device should be a 1K8, 1 Watt resistor.



**NOTE:** If the 'Alert' stage is not required then this connection may be omitted.



**Figure 3-7 – Sounder and/or strobe connection**

# Section 4 Operation

## 4.1. Display module indicators

The strobe and sounder interface module has five LED indicators on the PCB to indicate the condition of the output

### Normal (NORM)

This is a green indicator which illuminates if the output is not in fault, ie the 1k8 end-of-line resistor is present.

### Level 1

This red indicator illuminates when the system is Level 1 or higher alarm which occurs when;

- a) The Level 1 (*AL*) input is active.
- b) The Level 2 (*EV*) input is active

### Level 2

This red indicator illuminates when the system is Level 2 alarm which occurs when;

- a) The Level 1 (*AL*) input is active and Level 1 to Level 2 delay timer has expired.
- b) The Level 2 (*EV*) input is active

### Open Circuit (O/C)

This yellow indicator illuminates when open circuit wiring fault exists on the strobe/sounder output. It will also illuminate if the fuse 1 is blown.

### Short Circuit (S/C)

This yellow indicator illuminates when short circuit wiring fault exists on the strobe/sounder output.

## 4.2. Normal Operation

With no faults or inputs active on the module the *NORM* indicator will be illuminated with all other indicators off. The sounder/strobe module should measure approximately 0.8V

## 4.3. Fault Operation

A fault on the system will cause the following;

- Either the open circuit or short circuit fault indications illuminate to identify the cause of the fault(s).
- The normal (*NORM*) indicator will turn off
- The Fault relay output to de-activate.



**NOTE:** Fault monitoring is not active when the module outputs are in either level 1 or level 2 alarms.

## 4.4. Alarm Operation

### a. Manual Dual-stage operation

The activation of the Level 1/alert (*AL*) input event by a CIE or building occupant warning system will cause the following;

- *Level 1* indicator on the module will illuminate.
- The Strobe/Sounder output will activate in alert mode see Table 4-1 for polarity details

The activation of the Level 2/evac (*EV*) input event by a CIE or building occupant warning system will cause the following;

- *Level 1* and *Level 2* indicators on the module will illuminate.
- The Strobe/Sounder output will activate in evacuation mode see Table 4-1 for polarity details

### b. Automatic (timer enabled) Dual-stage operation

The activation of the Level 1/alert (*AL*) input event by a CIE or building occupant warning system will cause the following;

- *Level 1* indicator on the module will illuminate.
- The Strobe/Sounder output will activate in alert mode see Table 4-1 for polarity details

The delay timer expiring will cause the following;

- *Level 1* and *Level 2* indicators on the module will illuminate.
- The Strobe/Sounder output will activate in evacuation mode see Table 4-1 for polarity details

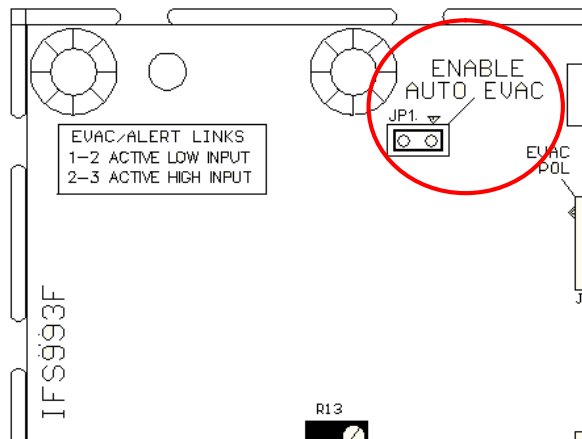
	Level 1 alarm (alert)	Level 2 alarm (evac)
Output A	+ 24V	0 V
Output B	0 V	+ 24V

**Table 4-1 Output polarity**

# Section 5 Configuration

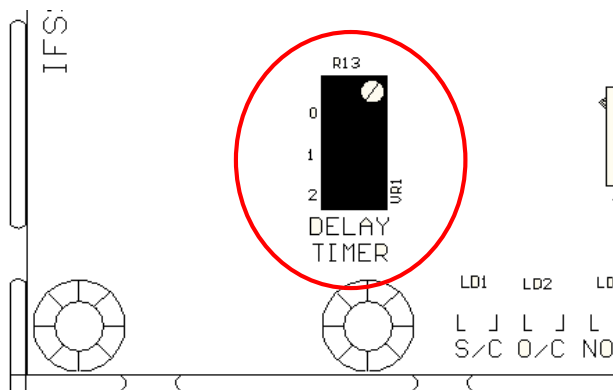
## 5.1. Enabling and setting Level 1 (alert) to Level 2 (evac) delay time

To enable the automatic stage changeover time, ensure link is fitted on JP 1 as shown in Figure 5-1



**Figure 5-1 – Auto/Manual DIP switch location**

The automatic stage changeover time can be adjusted by variable resistor R1 see Figure 5-2, turn adjustment clockwise to increase delay and counter-clockwise to decrease the delay.



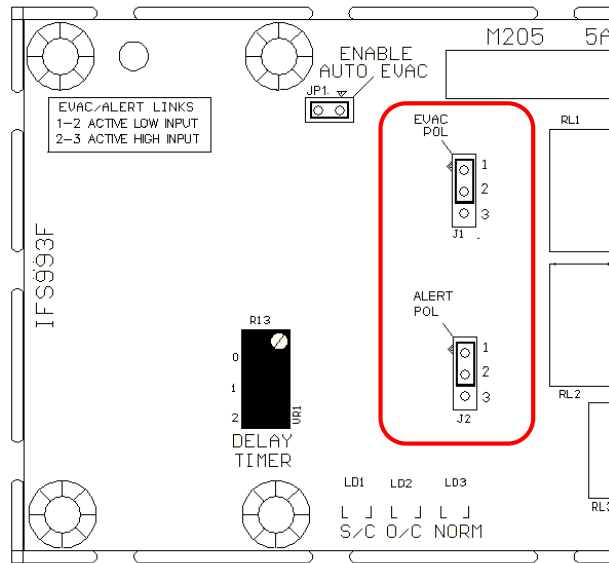
**Figure 5-2 – Delay time setting location**



**NOTE:** The alert to evacuation delay time is only enabled when the evacuation delay is configured.

## 5.2. Setting the polarity of the Stage 1 (alert) and Stage 2 (evac) inputs

The input polarity for the Evac input is set by J1 and the Alert input polarity is set using J2 as shown in Figure 5-3 and Table 5-1



**Figure 5-3 – Configuration of input polarity.**

	<b>Positive (24V) input</b>	<b>Negative (0V) input</b>
<b>J1 – Evac input polarity</b>	Fit link on pins 1 & 2	Fit link on pins 2 & 3
<b>J2 – Alert input polarity</b>	Fit link on pins 1 & 2	Fit link on pins 2 & 3

**Table 5-1 Input polarity**

# Notes



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