



THE POWER OF **CONNECTED**

# FA-300/FA-324 Alarm Bar

## User's Guide



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P/N F05-4032-000



# **FA-300/FA-324 Alarm Bar User's Guide**

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### Read Before Operating

This manual must be carefully read by all individuals who have or will have the responsibility of using, maintaining, or servicing this product. The product will perform as designed only if it is used, maintained, and serviced in accordance with the manufacturer's instructions. The user should understand how to set the correct parameters and interpret the obtained results.

### CAUTION!

To reduce the risk of electric shock, turn the power off before opening this instrument or performing service. Never operate the instrument when the instrument is open. Use and service this product only in an area known to be non-hazardous.

### Proper Product Disposal At End Of Life



EU Directive 2012/19/EU: Waste Electrical and Electronic Equipment (WEEE)

This symbol indicates that the product must not be disposed of as general industrial or domestic waste. This product should be disposed of through suitable WEEE disposal facilities. For more information about disposal of this product, contact your local authority, distributor, or the manufacturer.

### **WARNINGS**

Use only in non-hazardous locations.

For safety reasons, this equipment must be operated and serviced by qualified personnel only. Read and understand instruction manual completely before operating or servicing.

### **AVERTISSEMENT**

Utiliser uniquement en zone non-dangereuse.

Pour des raisons de sécurité, cet équipement doit être utilisé, entretenu et réparé uniquement par un personnel qualifié. Étudier le manuel d'instructions en entier avant d'utiliser, d'entretenir ou de réparer l'équipement.

# 1 Standard Contents

- FA-300/FA-324 Alarm Bar
- Integral 10-meter (33-foot) connection cable
- User's Guide

## 2 General Information

The FA-300 Alarm Bar works with the RAE Systems FMC2000 controller (12 Volt) and other compatible devices. The FA-324 Alarm Bar works with the Honeywell TouchPoint Plus Wireless Controller (24 Volt). Both models provide bright visible and loud audible notification when a controller is in alarm.

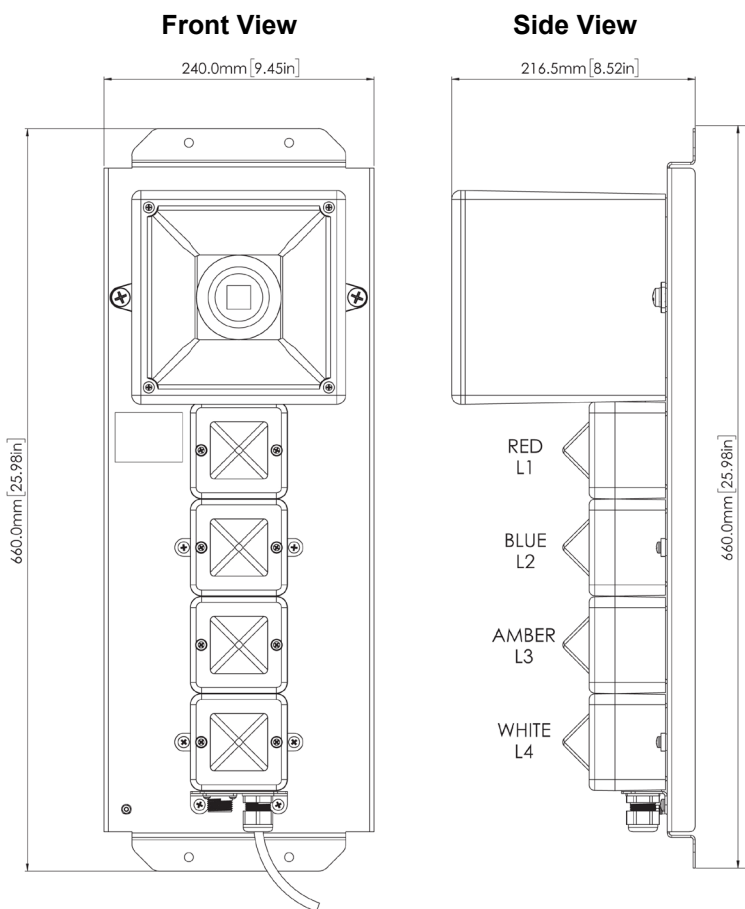
### 2.1 Key Features

- Loud siren: 117dB @ 3 m (10')
- Four bright strobe lights with impact-resistant polycarbonate lenses (red, white, blue, amber)
- Second port for interconnection with second controller
- Low maintenance

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### 3 Physical Description

The FA-300/FA-324 Alarm Bar comes pre-assembled and requires only connection via its integrated cord to a controller with relays. It has mounting flanges at the top and bottom with four holes that accept screws for attaching the FA-300/FA-324 Alarm Bar to a wall or other flat surface. It receives all power from the controller that it is attached to, simplifying installation and maintenance.



### 4 Installation

#### 4.1 Mounting the FA-300/FA-324 Alarm Bar

The FA-300/FA-324 Alarm Bar is designed to be wall-mounted and has four holes for anchoring the FA-300/FA-324 Alarm Bar, using screws or bolts.

Before mounting the FA-300/FA-324 Alarm Bar, make sure that its cord can reach the controller that it will be electrically connected to.

Make sure that there is approximately 12" (30 cm) of clearance on all sides of the FA-300/FA-324 Alarm Bar so that the siren's sound is not attenuated and to ensure clear view of the four visible alarm lights.

Follow these steps:

1. Locate the FA-300/FA-324 Alarm Bar on a wall or other flat surface and mark the four holes' locations.
2. Remove the FA-300/FA-324 Alarm Bar.
3. Drill the four holes.
4. Hold the FA-300/FA-324 Alarm Bar firmly against the wall and insert and tighten the screws.

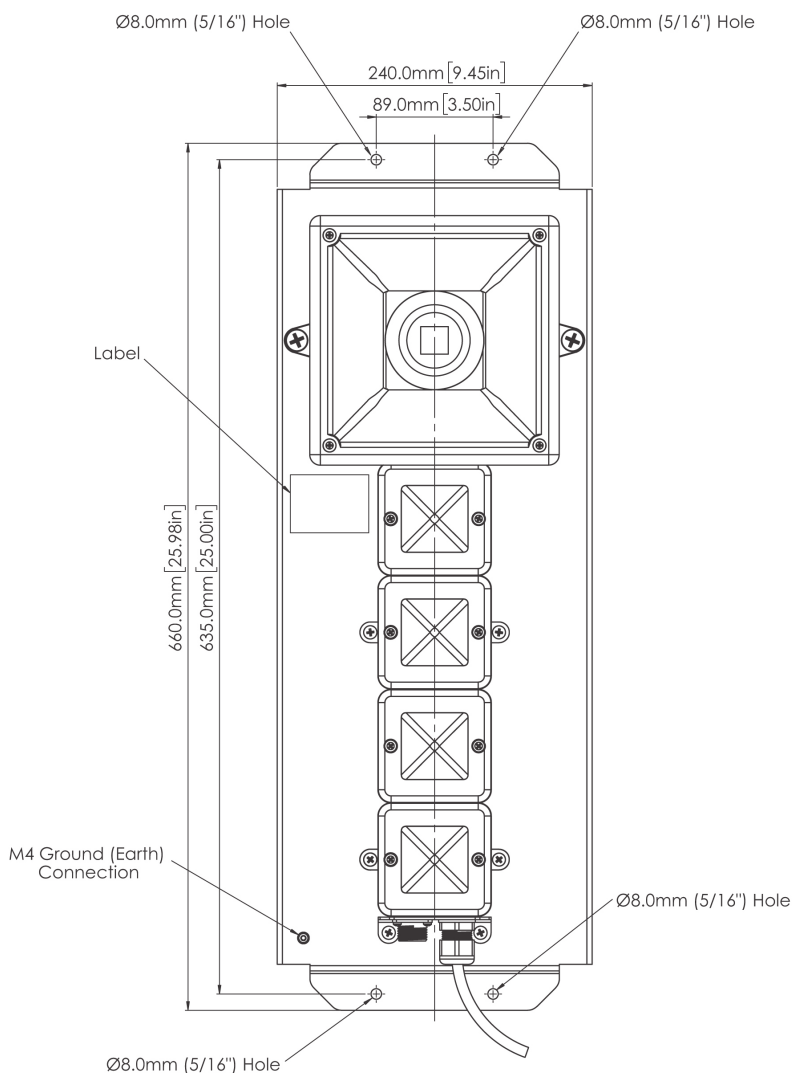
The FA-300/FA-324 Alarm Bar is now ready to be connected to the controller.



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## 4.2 Drilling Chart

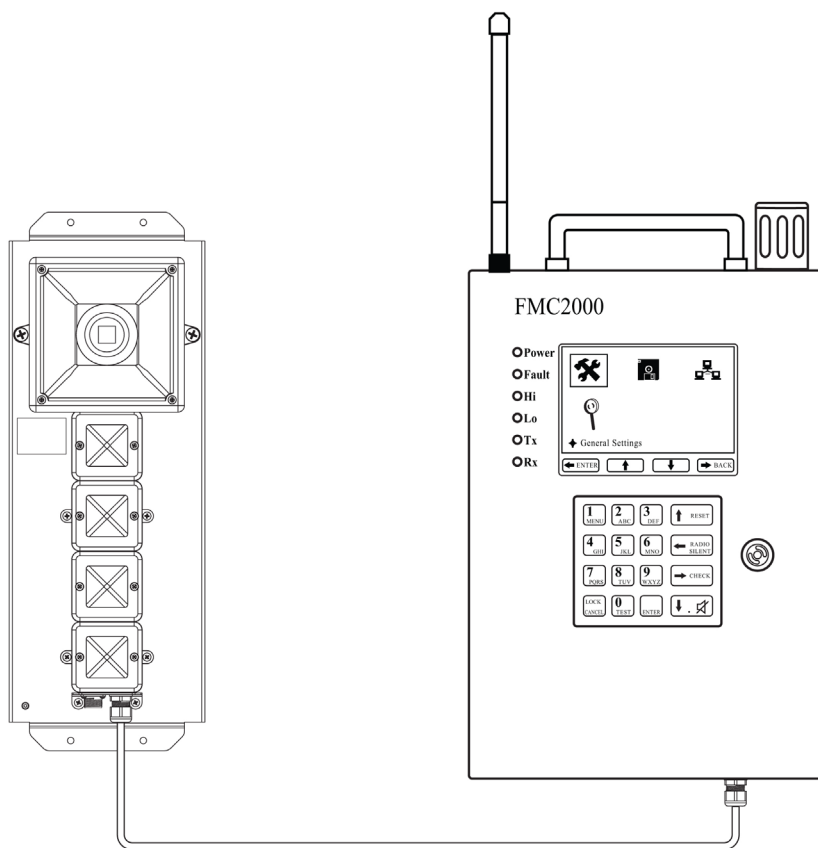
When mounting the FA-300 on a wall, make sure to use heavy-duty steel screws spaced as indicated below.



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### 4.3 Electrical/Control Connections

The FA-300/FA-324 Alarm Bar has a 33' (10 m) cable with a screw-type multi-pin connector. It is designed to mate with the connector on a RAE Systems FMC2000 or TouchPoint Plus Wireless Controller and some similar controllers that use the same connector type and relay configuration.



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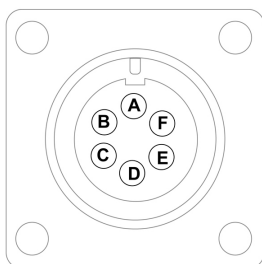
### 4.4 Connecting to An FMC2000 Controller

The FMC2000 has a female 6-pin connector on the bottom that is designed for connection with a RAE Systems FA-300 Alarm Bar.

**Note:** The internal wires from the FMC2000 connector are pre-wired to the NO (Normally Open) connection points on the five relay wiring blocks. Refer to the FMC2000 User's Guide for details of wiring for other configurations, including NC (normally closed) and other alarm orders.

**Note:** Pin F connects to Ground. Pins B, C, D, and E transmit 12V @ 2A power when an alarm occurs.

#### Connector Pin Layout



**FMC2000 Connector Pinout**

**Pin A:** No connection

**Pin B:** Power switch for red light

**Pin C:** Power switch for blue light

**Pin D:** Power switch for amber light

**Pin E:** Power switch for white light

**Pin F:** Ground

**Note:** If a second **Alarmbar** is not connected to the auxiliary port on the FA-300/FA-324 Alarm Bar, keep the dust cap on the connector to protect the pins.

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### 4.5 Connecting to A TouchPoint Plus Wireless Controller

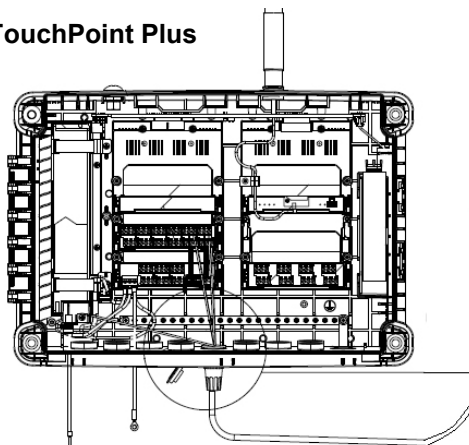
Two cables are used for connecting a TouchPoint Plus Wireless Controller and an Alarm Bar.

#### Important!

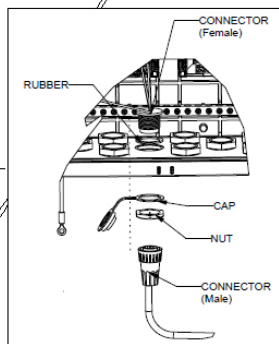
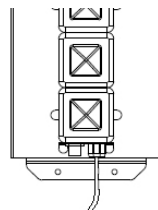
Before making any connections, first make sure that Touchpoint Wireless is powered off.

1. Connect the FA-324 Connector Cable 1 shown on page 11 by following the steps detailed in the drawings.
2. Connect the FA-324 Connector Cable 2 shown on page 14 by following the steps detailed in the drawings.
3. To anchor the FA-324 Connector Cable 2's end (female type) to the Touchpoint Plus enclosure, first remove a plug from one cable entry.
4. Fix the FA-324 Connector Cable 2 to the enclosure.
5. Connect FA324 Cable's end (male type) to the enclosure and fasten its nut

**TouchPoint Plus**



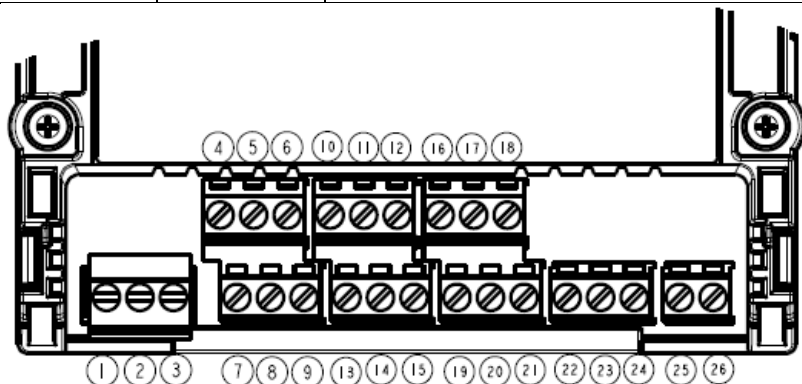
**Alarm Bar**



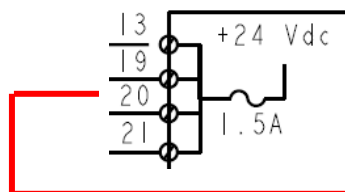
# FA-300/FA-324 Alarm Bar User's Guide

## Main Module, Cable 1

Terminal	Label	Channel
13	+24VDC	External Alarm Power
19	+24VDC	External Alarm Power
20	+24VDC	External Alarm Power
21	+24VDC	External Alarm Power



**FA-300 Connector Cable 1**



**Connect 13, 19, 20, or 21 to the Relay Output Module in Alarm Bar**

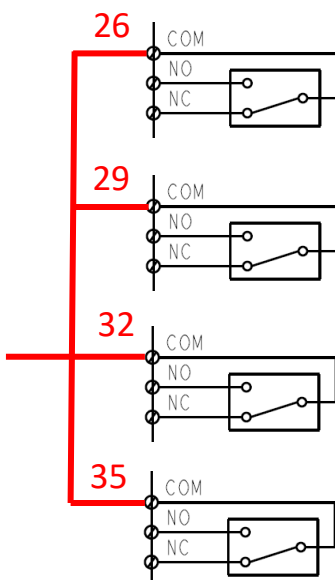
***To Relay Output Module In Alarm Bar***

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## Relay Output Module, Cable 1

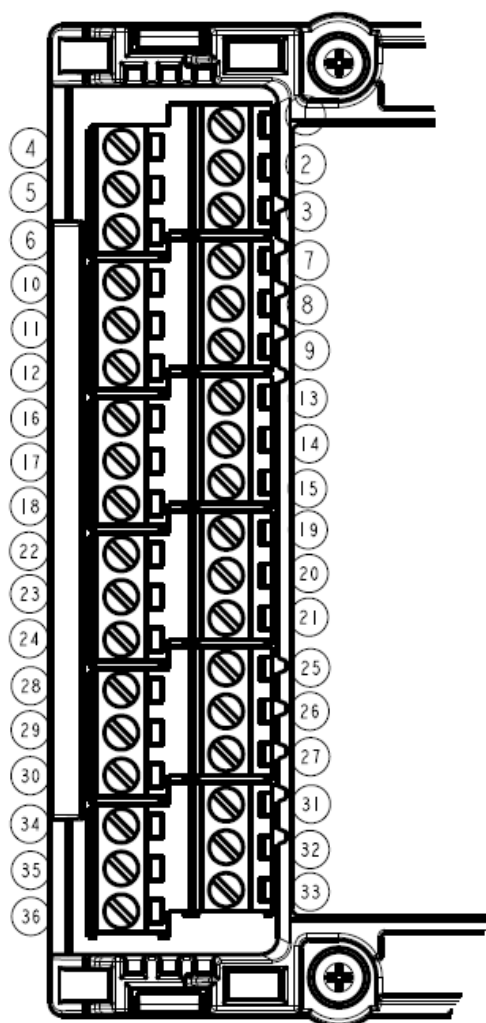
Terminal	Label	Channel
25	NC	Relay 9
26	COM	
27	NO	
28	NC	Relay 10
29	COM	
30	NO	
31	NC	Relay 11
32	COM	
33	NO	
34	NC	Relay 12
35	COM	
36	NO	

Connect from  
TouchPoint  
Plus  
to 26, 29, 32  
and 35  
(Refer to  
diagram on  
next page.)



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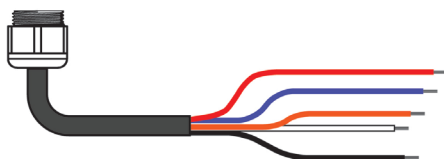
Relay Output  
Module



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### Main Module, Cable 2

Pin	20AWG Wire Color
1	NC
2	Red
3	Blue
4	Orange
5	White
6	Black



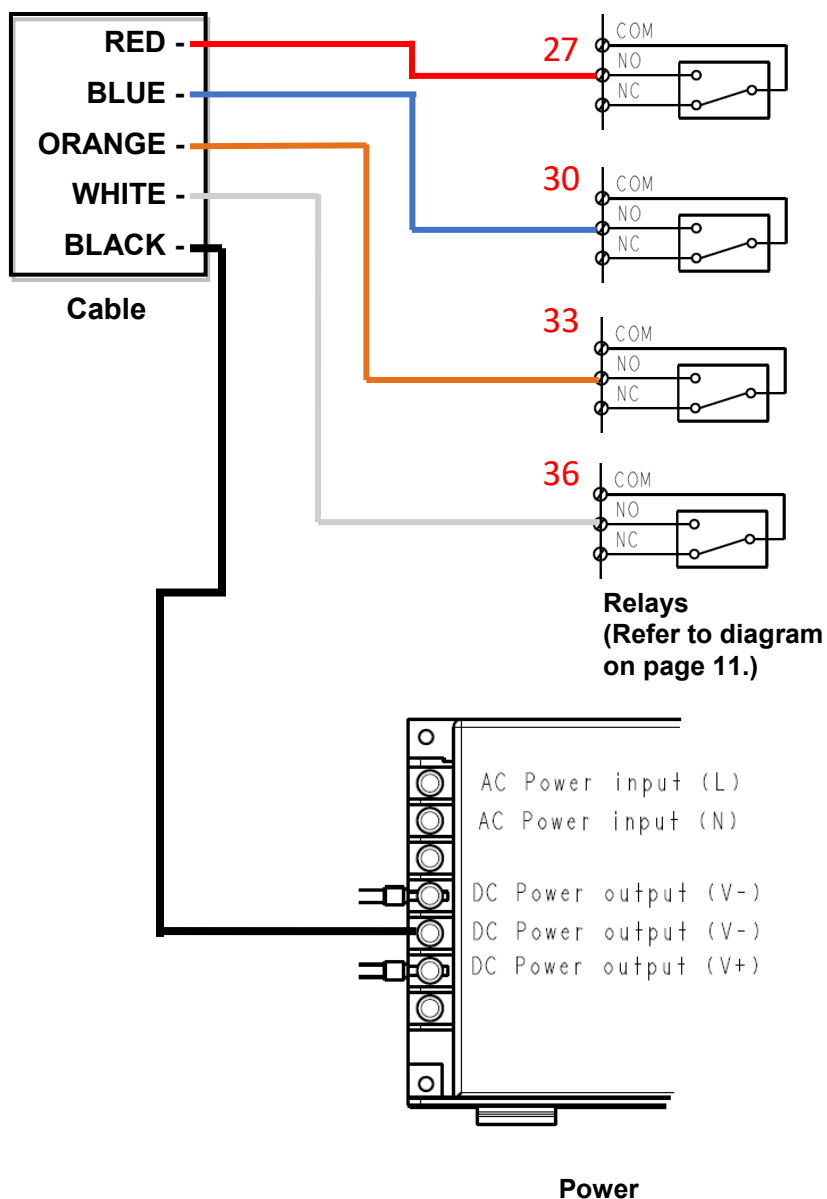
FA-300 Connector Cable 2

### Relay Output Module, Cable 2

Terminal	Label	Channel
25	NC	Relay 9
26	COM	
27	NO	
28	NC	Relay 10
29	COM	
30	NO	
31	NC	Relay 11
32	COM	
33	NO	
34	NC	Relay 12
35	COM	
36	NO	



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### **5 Maintenance**

No periodic maintenance is required for the FA-300/FA-324 Alarm Bar. Check occasionally that the cable is securely fastened and shows no sign of damage. Also check that the polycarbonate lenses are tightly fastened to the bases of the strobe lights and have no cracks. If they are damaged, they should be replaced.

## 6 Specifications

<b>Size</b>	9.45" x 26.98" x 8.52" (66 cm x 24 cm x 31.65 cm), including siren horn
<b>Weight</b>	16.35 lbs (7.42 kg), including cable
<b>Enclosure material</b>	Stainless steel light bases with polycarbonate lens covers; ABS siren horn
<b>Audible alarm</b>	117dB @ 3 m (10')
<b>Visual alarms</b>	Four super-bright xenon strobe lights with polycarbonate lens covers (red, white, blue, amber)
<b>Flash rate</b>	1 flash per second
<b>Primary Input</b>	Permanently affixed cable with 6-pin male connector
<b>Secondary Input</b>	6-pin male connector
<b>Cable Length</b>	33' (10 m)
<b>Power Supply</b>	FA-300 Powered by 12-volt 2A outputs from controller FA-324 Powered by 24-volt 2A outputs from controller
<b>Operating Temperature</b>	-13° F to +131° F (-25° C to +55° C)

## **FA-300/FA-324 Alarm Bar User's Guide**

### **Special Servicing Note**

If the instrument needs to be serviced, contact either:

The Honeywell distributor from whom the instrument was purchased; they will return the instrument on your behalf.

or

The Honeywell RAE Systems Technical Service Department. Before returning the instrument for service or repair, obtain a Returned Material Authorization (RMA) number for proper tracking of your equipment. This number needs to be on all documentation and posted on the outside of the box in which the instrument is returned for service or upgrade. Packages without RMA Numbers will be refused at the factory.

## 7 Troubleshooting

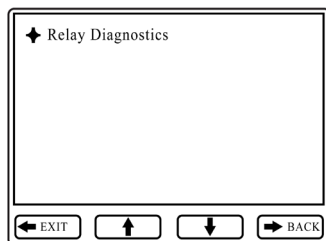
Problem	Possible Reasons & Solutions
Siren inoperative	<p><b>Reasons:</b> Wiring problem. Alarm level set too low at controller.</p> <p><b>Solutions:</b> Make sure cable is connected to controller. Make sure cable is not damaged. Check siren horn for obstruction. Test relay in controller.</p>
Strobe light inoperative	<p><b>Reasons:</b> Wiring problem. Alarm level set too low at controller. Strobe light is damaged.</p> <p><b>Solutions:</b> Make sure cable is connected to controller. Make sure cable is not damaged. Check siren horn for obstruction. Test relay in controller. Call Technical Support at +1 408-752-0723 or toll-free at +1 888-723-4800</p>
Wrong strobe light during alarm	<p><b>Reasons:</b> Relay wiring problem.</p> <p><b>Reasons:</b> Check that correct relay is wired to appropriate strobe light.</p>

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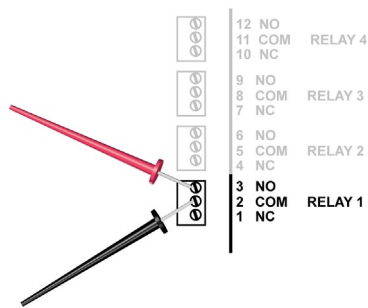
### 7.1 Checking FMC2000 Relay Continuity

Each relay in an FMC2000 controller has a common terminal and a normally open (NO) and normally closed (NC) terminal. If you think the wiring to the FA-300/FA-324 Alarm Bar is correct and that the FA-300/FA-324 Alarm Bar is in working order, but that an alarm signal is not being passed to it, check the relays in the FMC2000 controller. Use a continuity tester or voltmeter (set to measure resistance) to check the relay's activity.

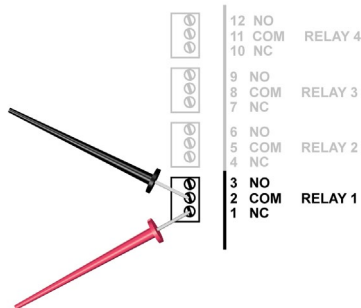
1. Enter the Relay Diagnostic menu. Press Enter, followed by the password (the default is 123456).



2. Touch the probes of a continuity tester or voltmeter to the NO and COM terminals on the relay's relay block inside the FMC2000.



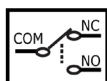
**Testing continuity of Normally Open portion of relay.**



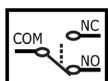
**Testing continuity of Normally Closed portion of relay.**

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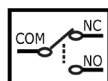
3. In the Relay Diagnostic menu, toggle the relay by pressing the keypad's corresponding key (1, 2, 3, 4, 5).



Relay1



Relay1



Relay1

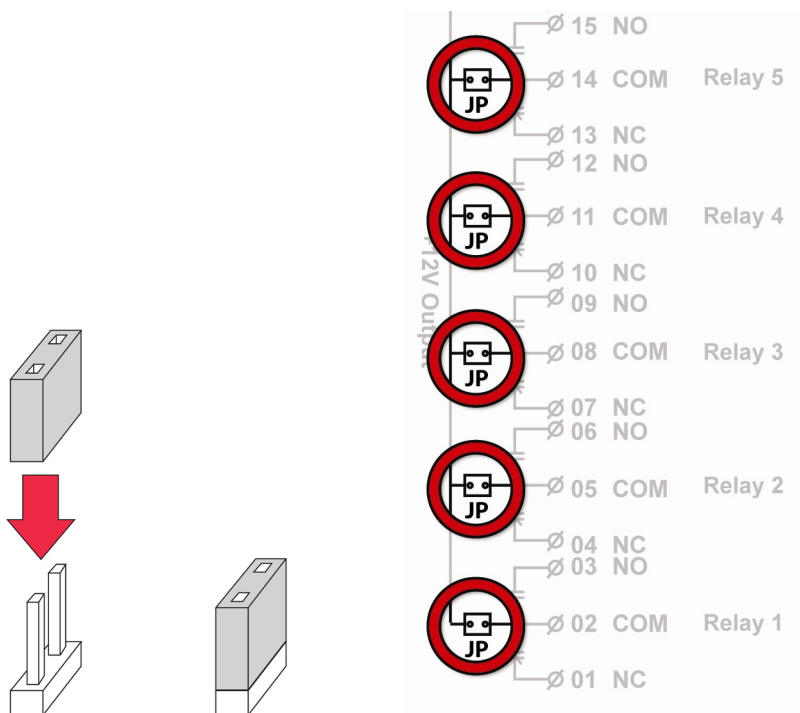


4. Touch the probes to the NC and COM terminals on the relay block.
5. Again, toggle the relay by pressing the corresponding key on the keypad.

Each time you press the key, the continuity tester or voltmeter should show that the relay has changed from open to closed (or vice versa). If this change does not occur, then the relay may be damaged and require replacement. Contact Honeywell RAE Systems Customer Support.

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**Note:** Make sure the jumpers (marked JP for each of the five relays) are in place on the printed circuit board that includes the five alarm relay connection blocks in the FMC2000. If any of the jumpers is missing, the relay is in “dry contact” configuration, and no voltage reaches the relay connection blocks.







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## **For more information**

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