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Fire-LITe CRF-300 Relay Control Module

Fire-LITe CRF-300 Relay Control Module Instruction Manual

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Fire·LITe Alarms

Fire-LITe CRF-300 Relay Control Module

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Product Usage Instructions

Before Installing

This information is a quick reference guide. Refer to the control panel installation manual for detailed system information.If installing in an existing system, inform the operator. Disconnect power before installing.

Compatibility Requirements

Modules should be connected to compatible system control panels only for proper operation.

Mounting

The CRF-300 mounts directly to 4-inch square electrical boxes. Ensure the box has a minimum depth of 2-1/8 inches. Surface mounted electrical boxes are available.

Installation Steps:

1. Install module wiring according to job drawings and wiring diagrams.
2. Set the module address per job drawings.
3. Secure the module to the electrical box as shown.

Relay Contact Ratings

Detailed information on current ratings, maximum voltage, load description, and application for relay contacts.

Warning

All relay switch contacts are shipped in standby (open) state. Check state before connecting circuits controlled by the module.

Relay Module Wiring Diagram

Connect modules to listed compatible control panels only. Follow the wiring diagram provided for proper connection.

Frequently Asked Questions (FAQ)

- Q: What should I do if the relay switch contacts are not in the correct state?

  A: Modules must be made to communicate with the panel before connecting circuits controlled by the module to ensure correct state.
- Q: Can the CRF-300 be mounted on any electrical box?

  A: The CRF-300 mounts directly to 4-inch square electrical boxes with a minimum depth of 2-1/8 inches. Surface-mounted electrical boxes are also available for mounting.

SPECIFICATIONS

- Normal Operating Voltage: 15 to 32 VDC
- Maximum Current Draw: 6.5mA (LED on)
- Average Operating Current: 230 µA direct poll; 255 µA group poll
- EOL Resistance: Not used
- Temperature Range: 32°F to 120°F (0°C to 49°C)
- Humidity: 10% to 93% Non-condensing
- Dimensions: 41/2″ H × 4″ W × 11/4″ D (Mounts to a 4″ square by 21/8″ deep box.)
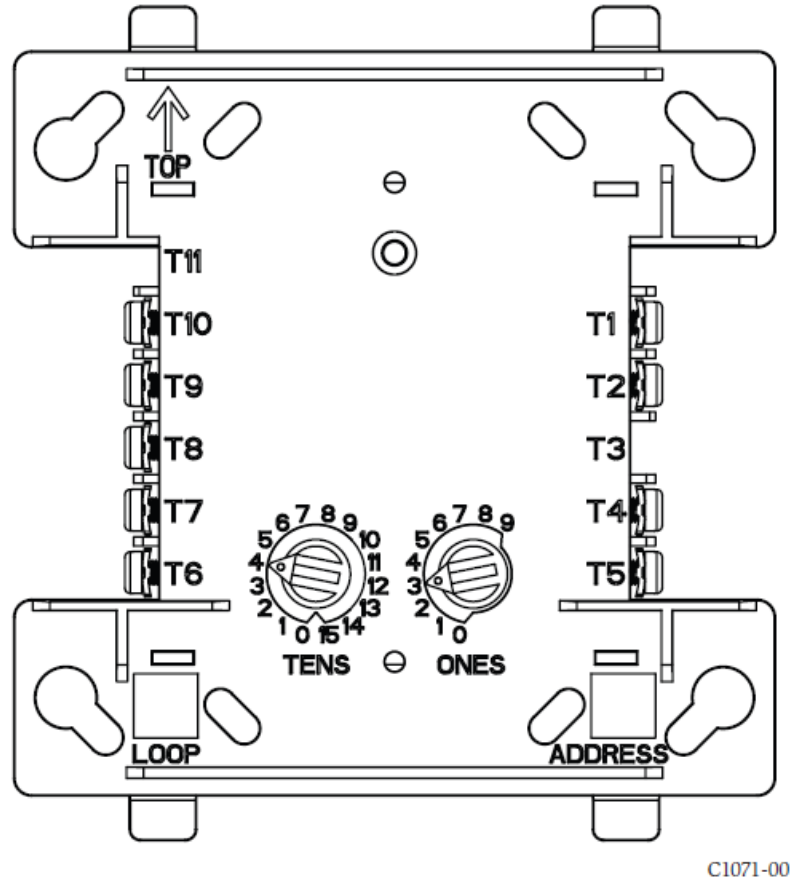- Accessories: SMB500 Electrical Box; CB500 Barrier

BEFORE INSTALLING

This information is included as a quick reference installation guide. Refer to the control panel installation manual for detailed system information. If the modules will be installed in an existing operational system, inform the operator and local authority that the system will be temporarily out of service. Disconnect power to the control panel before installing the modules.
NOTICE: This manual should be left with the owner/user of this equipment.

GENERAL DESCRIPTION

- The CRF-300 Relay Control Module is intended for use in addressable, two-wire systems, where the individual address of each module is selected using the built-in rotary switches. It allows a compatible control panel to switch discrete contacts by code command.
- The relay contains two isolated sets of Form-C contacts, which operate as a DPDT switch and are rated by the table in the manual. Circuit connections to the relay contacts are not supervised by the module. The module also has a panel-controlled LED indicator. This module can be used to replace a C304 module that has been configured for Form-C operation.
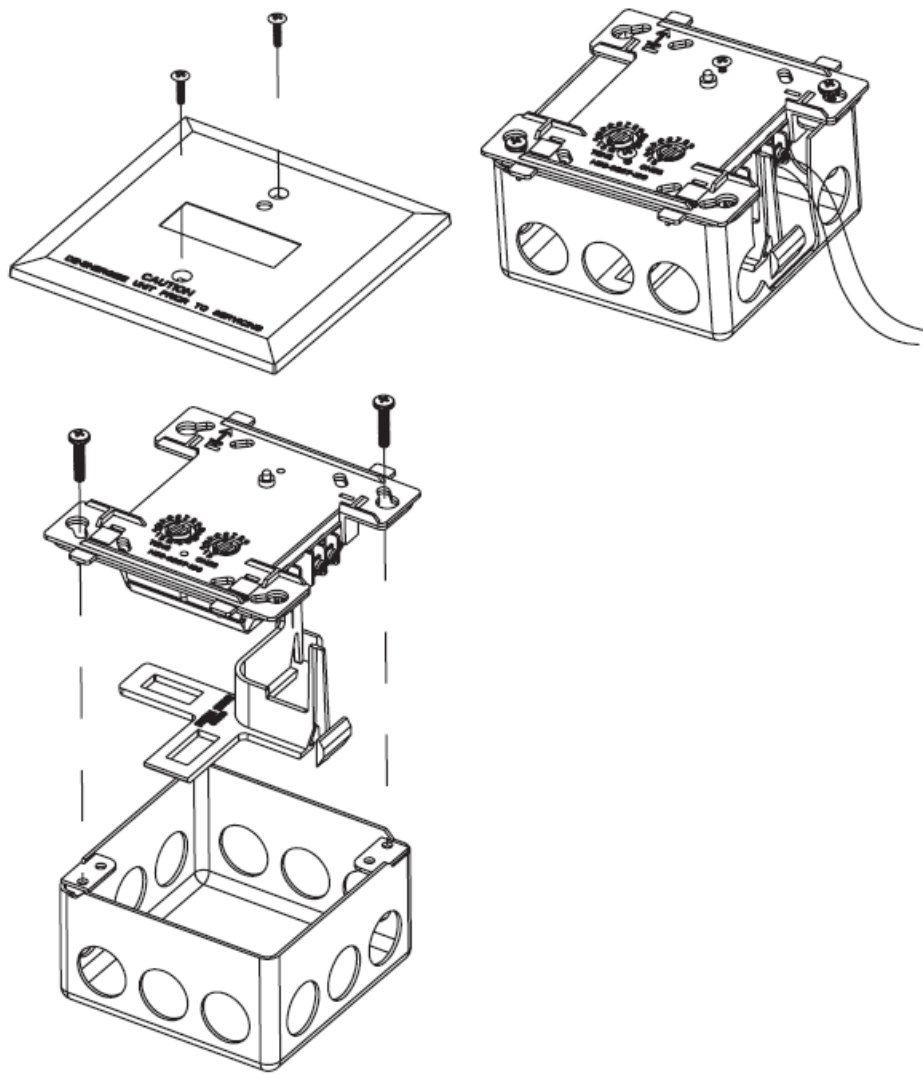
COMPATIBILITY REQUIREMENTS

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To ensure proper operation, these modules shall be connected to listed compatible system control panels only.

FIGURE 1. CONTROLS AND INDICATORS

MOUNTING

The CRF-300 mounts directly to 4-inch square electrical boxes (see Figure 2A). The box must have a minimum depth of 21/8 inches. Surface-mounted electrical boxes (SMB500) are available.

FIGURE 2A. MODULE MOUNTING FIGURE 2B: WITH BARRIER:

WIRING

NOTE: All wiring must conform to applicable local codes, ordinances, and regulations. When using control modules in nonpower-limited applications, the CB500 Module Barrier must be used to meet UL requirements for the separation of power-limited and nonpower-limited terminals and wiring. The barrier must be inserted into a 4″×4″×21/8″ junction box, and the control module must be placed into the barrier and attached to the junction box (Figure 2A).

The power-limited wiring must be placed into the isolated quadrant of the module barrier (Figure 2B).

1. Install module wiring by the job drawings and appropriate wiring diagrams.

2. Set the address on the module per job drawings.

3. Secure module to the electrical box (supplied by installer), as shown in Figure 2A.
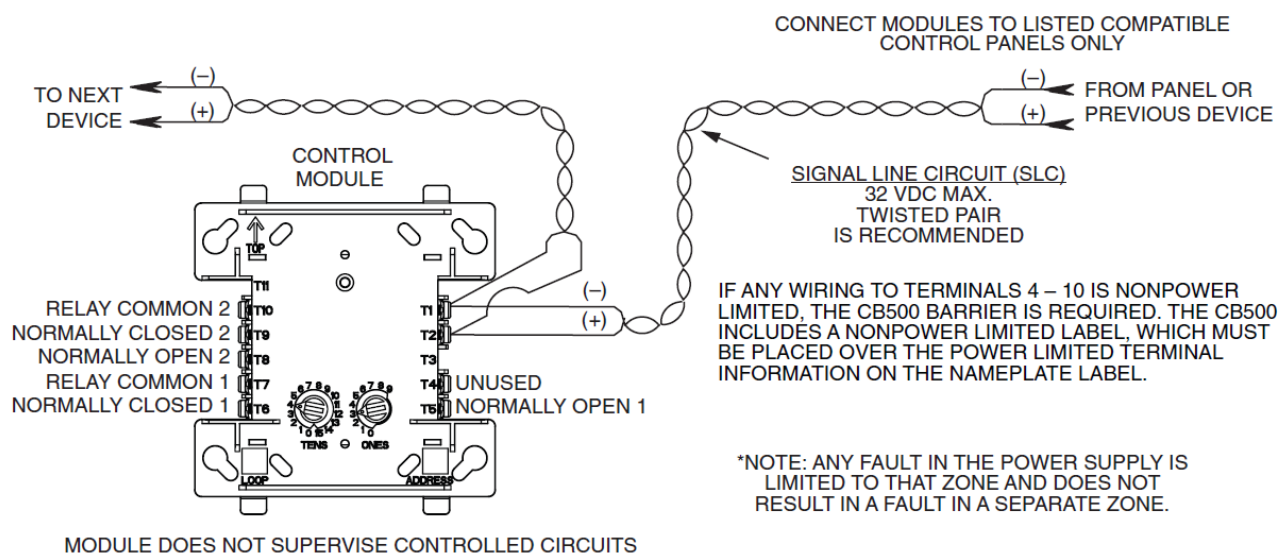
RELAY CONTACT RATINGS

CURRENT RATING	MAXIMUM VOLTAGE	LOAD DESCRIPTION	APPLICATION
3 A	30 VDC	Resistive	Non-coded
2 A	30 VDC	Resistive	Coded
.9 A	110 VDC	Resistive	Non-coded
.9 A	125 VDC	Resistive	Non-coded
.5 A	30 VDC	Inductive (L/R=5ms)	Coded
1 A	30 VDC	Inductive (L/R=2ms)	Coded
.3 A	125 VAC	Inductive (PF=.35)	Non-coded
1.5 A	25 VAC	Inductive (PF = .35)	Non-coded
.7 A	70.7 VAC	Inductive (PF=.35)	Non-coded
2 A	25 VAC	Inductive (PF=.35)	Non-coded

WARNING

All relay switch contacts are shipped in the standby state (open) state, but may have transferred to the activated (closed) state during shipping. To ensure that the switch contacts are in their correct state, modules must be made to communicate with the panel before connecting circuits controlled by the module

RELAY MODULE WIRING DIAGRAM

CONNECT MODULES TO LISTED COMPATIBLE CONTROL PANELS ONLY

TO NEXT DEVICE (−) (+)

CONTROL MODULE

RELAY COMMON 2
NORMALLY CLOSED 2
NORMALLY OPEN 2
RELAY COMMON 1
NORMALLY CLOSED 1

(−)
(+)

UNUSED
NORMALLY OPEN 1

(−) FROM PANEL OR
(+) PREVIOUS DEVICE

SIGNAL LINE CIRCUIT (SLC)
32 VDC MAX.
TWISTED PAIR
IS RECOMMENDED

IF ANY WIRING TO TERMINALS 4 – 10 IS NONPOWER LIMITED, THE CB500 BARRIER IS REQUIRED. THE CB500 INCLUDES A NONPOWER LIMITED LABEL, WHICH MUST BE PLACED OVER THE POWER LIMITED TERMINAL INFORMATION ON THE NAMEPLATE LABEL.

*NOTE: ANY FAULT IN THE POWER SUPPLY IS LIMITED TO THAT ZONE AND DOES NOT RESULT IN A FAULT IN A SEPARATE ZONE.

MODULE DOES NOT SUPERVISE CONTROLLED CIRCUITS

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Documents / Resources

Fire-LITe CRF-300 Relay Control Module [pdf] Instruction Manual
CRF-300 Relay Control Module, CRF-300, Relay Control Module, Control Module, Module

References

- **User Manual**