FIRE·LITE ALARMS by Honeywell



# CRF-300 Relay Control Module

One FireLite Place
Northford, CT 06472
Phone: 203.484.7161

## 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: | 4.675" H x 4.275" W x 1.4" D (119 mm H x 108 mm W x 36 mm D) (Mounts to a 4" square by 2⅛" deep box.) |
| Accessories: | SMB500 Series Electrical Box |

*NOTE: The control module is manufactured using two configurations. Both variants offer the same functionality. Reference the section of the manual that reflects the terminal alignment on the module you are using.*

## RELAY CONTACT RATINGS

| CURRENT RATING | MAXIMUM VOLTAGE | LOAD DESCRIPTION | APPLICATION |
|---|---|---|---|
| 2 A | 25 VAC | PF = 0.35 | Non-coded |
| 3 A | 30 VDC | Resistive | Non-coded |
| 2 A | 30 VDC | Resistive | Coded |
| 0.46 A | 30 VDC | (L/R = 20ms) | Non-coded |
| 0.7 A | 70.7 VAC | PF = 0.35 | Non-coded |
| 0.9 A | 125 VDC | Resistive | Non-coded |
| 0.5 A | 125 VAC | PF = 0.75 | Non-coded |
| 0.3 A | 125 VAC | PF = 0.35 | Non-coded |

## 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.

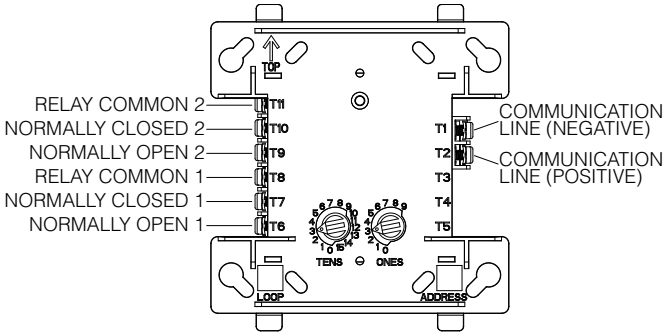
## GENERAL DESCRIPTION

The CRF-300 Relay Control Module is intended for use in intelligent, 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 in accordance with 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 an C304 module that has been configured for Form-C operation.

## COMPATIBILITY REQUIREMENTS

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

## FIGURE 1. CONTROLS, INDICATORS, AND TERMINAL DEFINITIONS

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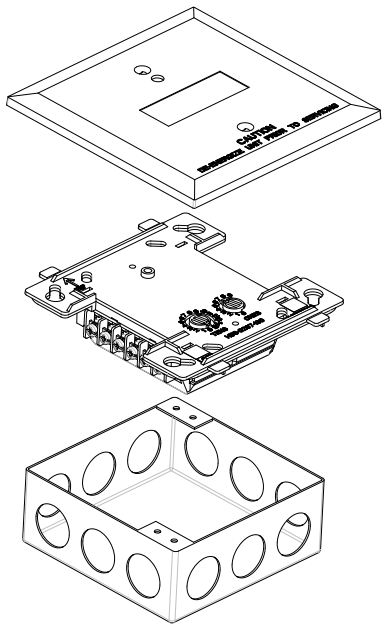
Note: For legacy terminal designations, see Figure 4.

## MOUNTING

The CRF-300 mounts directly to 4-inch square electrical boxes. (See Figure 2). The box must have a minimum depth of 2⅛ inches (54 mm). Surface mounted electrical boxes (SMB500-WH) are available. The module can also mount to the D355PL/D365PL or DNR(W) duct housing.

## FIGURE 2. MODULE MOUNTING



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## WIRING

NOTE: All wiring must conform to applicable local codes, ordinances, and regulations.

1. Install module wiring in accordance with the job drawings and appropriate wiring diagrams.
2. Set the address on the module per job drawings.
3. Secure module to electrical box (supplied by installer). See Figure 2.

Wire should be stripped to the appropriate length (recommended strip length is $^1/_4$" to $^3/_8$") (6 mm to 10 mm). Exposed conductor should be secured under the clamping plate and should not protrude beyond the terminal block area.

**⚠CAUTION**

Caution: Do not loop wire under terminals. Break wire run to provide supervision of connections.

NOTE: Dispose electronic waste following national and/or local regulations.

**⚠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.

**FIGURE 3. RELAY MODULE WIRING DIAGRAM**

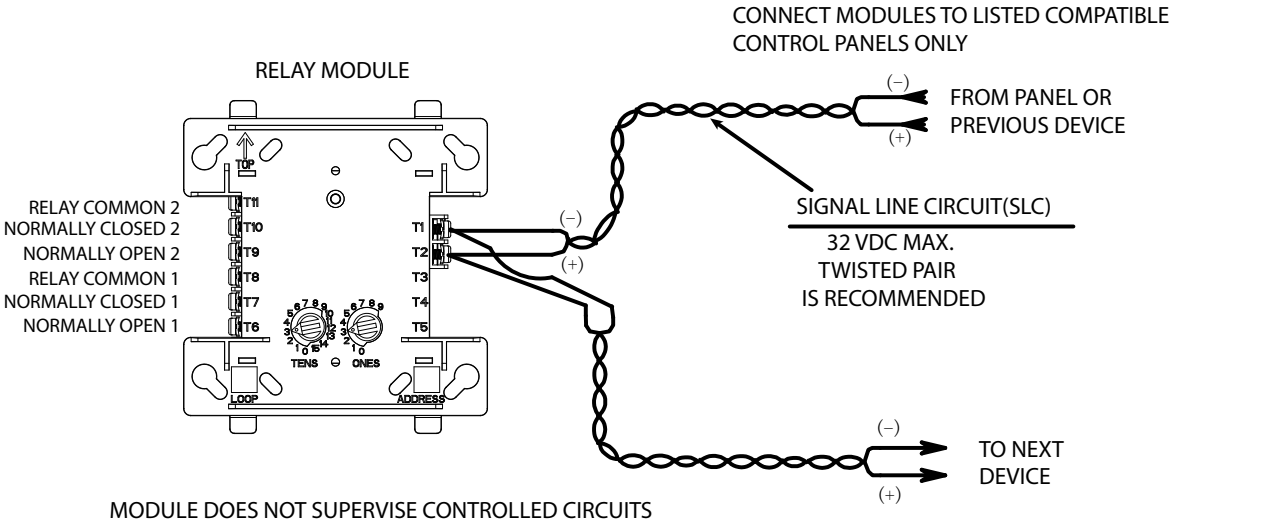


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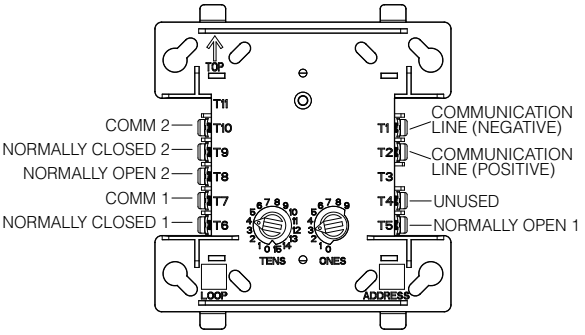
**FIGURE 4. RETROFIT TERMINAL DESIGNATIONS FOR LEGACY CRF-300**

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*NOTE: Refer to pages 3 and 4 of this instruction manual for complete information regarding the legacy CRF-300 configuration.*

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# CRF-300 Relay Control Module *(Legacy CRF-300)*

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## 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: | 4.675" H x 4.275" W x 1.4" D (Mounts to a 4" square by 2$^{1}/_{8}$" deep box.) |
| Accessories: | SMB500 Electrical Box; CB500 Barrier |

*NOTE: The control module is manufactured using two configurations. Both variants offer the same functionality. Reference the section of the manual that reflects the terminal alignment on the module you are using.*

## RELAY CONTACT RATINGS:

| CURRENT RATING | MAXIMUM VOLTAGE | LOAD DESCRIPTION | APPLICATION |
|---|---|---|---|
| 2 A | 25 VAC | PF = 0.35 | Non-coded |
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## BEFORE INSTALLING

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NOTICE: This manual should be left with the owner/user of this equipment.

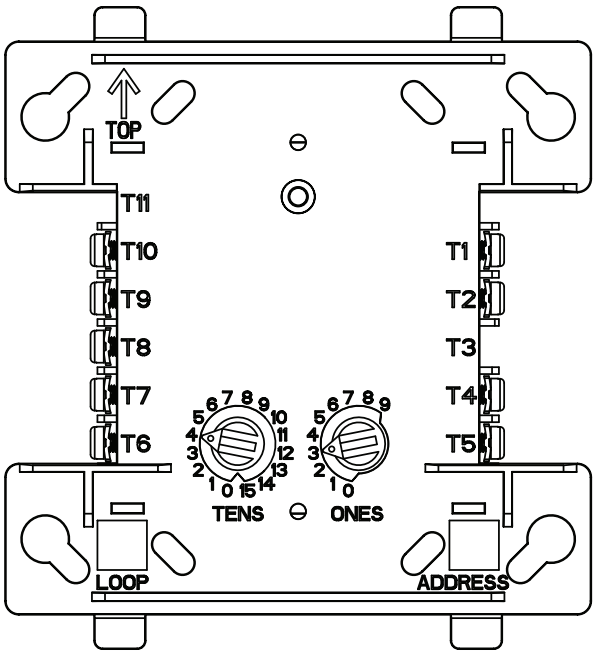
## GENERAL DESCRIPTION

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 in accordance with 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 an C304 module that has been configured for Form-C operation.

## COMPATIBILITY REQUIREMENTS

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

## FIGURE 1. CONTROLS AND INDICATORS:

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## MOUNTING

The CRF-300 mounts directly to 4-inch square electrical boxes (see Figure 2A). The box must have a minimum depth of 2$^{1}/_{8}$ inches. Surface mounted electrical boxes (SMB500) are available. The module can also mount to the D355PL or DNR(W) duct housing.

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

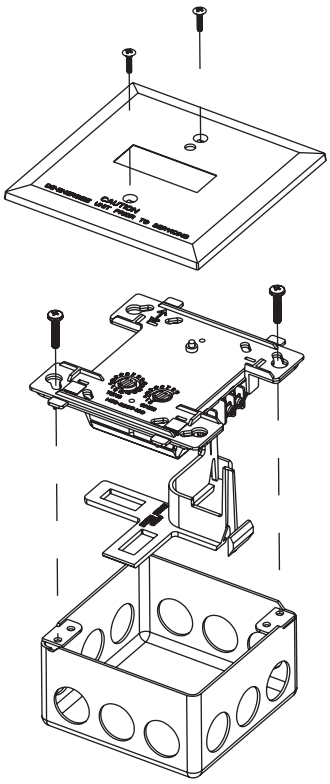
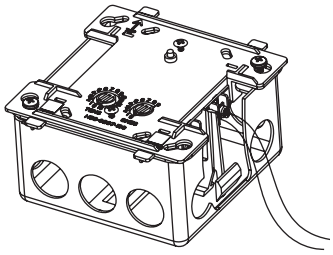


**FIGURE 2B:**



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## 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" × 2 1/8" 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).

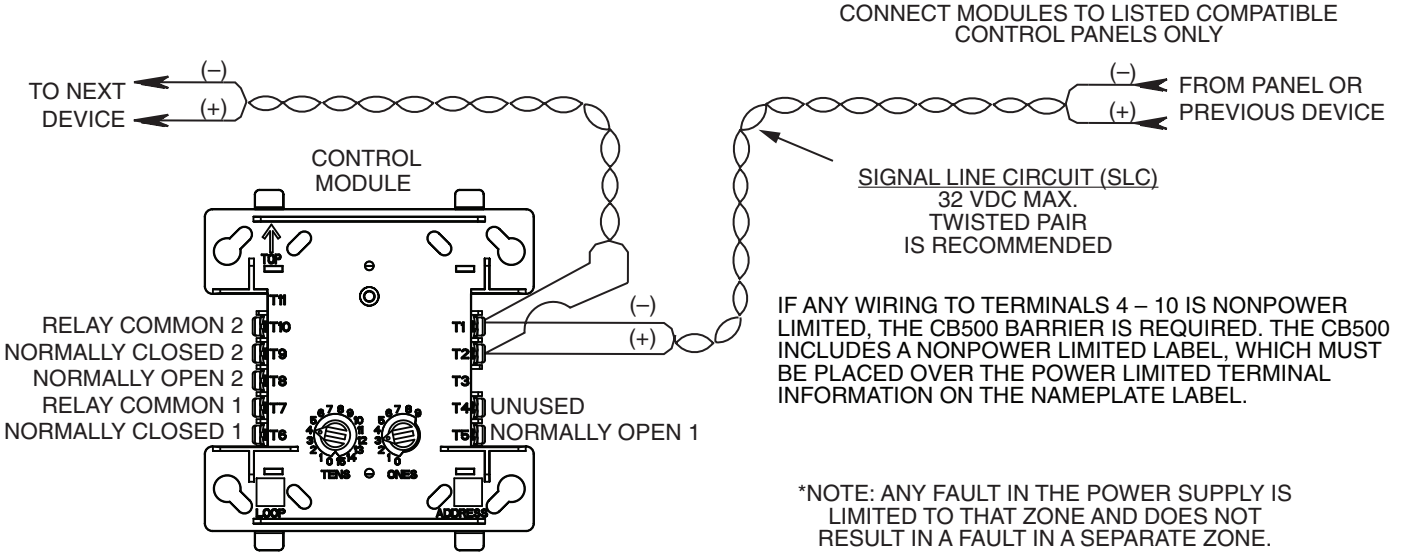
1. Install module wiring in accordance with the job drawings and appropriate wiring diagrams.
2. Set the address on the module per job drawings.
3. Secure module to electrical box (supplied by installer), as shown in Figure 2A.

Wire should be stripped to the appropriate length (recommended strip length is 1/4" to 3/8"). Exposed conductor should be secured under the clamping plate and should not protrude beyond the terminal block area. Caution: Do not loop wire under terminals. Break wire run to provide supervision of connections.

**⚠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.

**FIGURE 3. RELAY MODULE WIRING DIAGRAM:**

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