Honeywell FRM-1 Relay Control Module

Honeywell FRM-1 Relay Control Module Instruction Manual

Contents

Honeywell

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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 (119 mm H x 108 mm W x 36 mm D) (Mounts to a 4″ square by 21/8″ 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.

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

RELAY CONTACT RATINGS

BEFORE INSTALLING

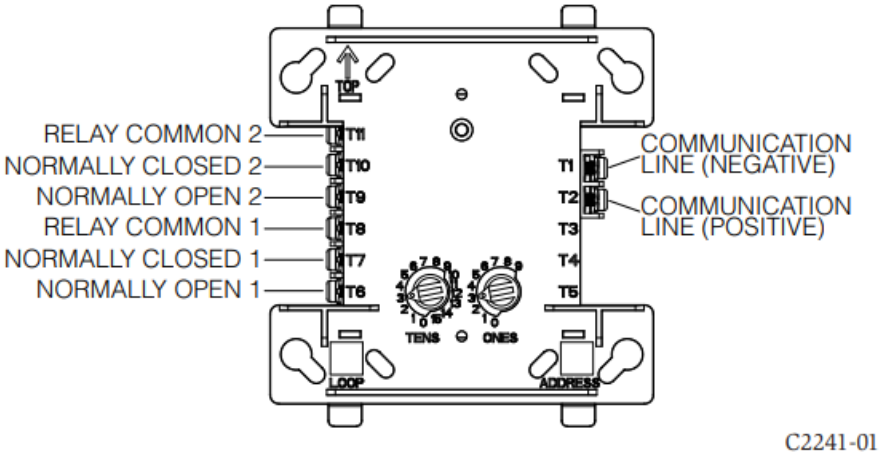
This information is included as a quick reference installation guide. Refer to the appropriate Notifier control panel installation manual for detailed system information. If the modules will be installed in an existing operational system, inform the operator and local authority that the system will be 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 FRM-1 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 per 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 CMX-2 module that has been configured for Form-C operation.

FIGURE 1. CONTROLS, INDICATORS, AND TERMINAL DEFINITIONS



Note: For legacy terminal designations, see Figure 4.

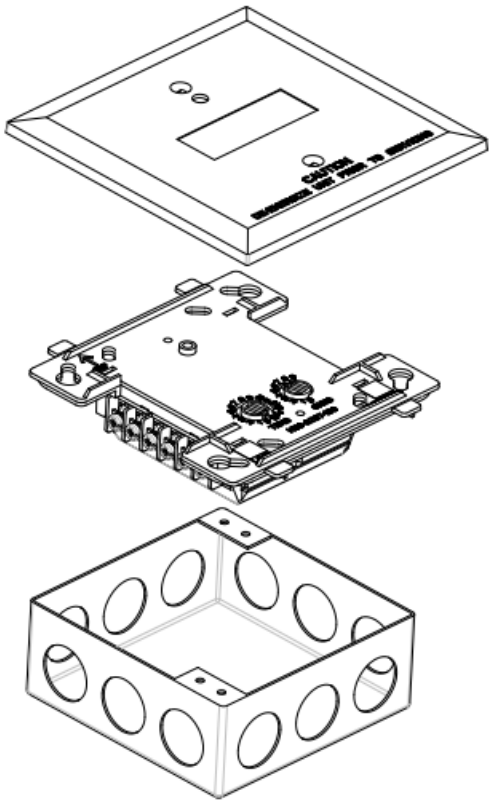
COMPATIBILITY REQUIREMENTS

To ensure proper operation, this module shall be connected to a compatible Notifier system control panel (list available from Notifier).

MOUNTING

The FRM-1 mounts directly to 4-inch square electrical boxes. (See Figure 2). The box must have a minimum depth of 21/8 inches (54 mm). Surface-mounted electrical boxes (SMB500-WH) are available from Notifier. The module can also mount to the DNR(W) duct housing.

FIGURE 2. MODULE MOUNTING



WIRING

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

1. Install module wiring under 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). See Figure 2.

The wire should be stripped to the appropriate length (recommended strip length is 1/4″ to 3/8″) (6 mm to 10 mm). The 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.
- **NOTE:** Dispose of 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.

RELAY MODULE WIRING DIAGRAM

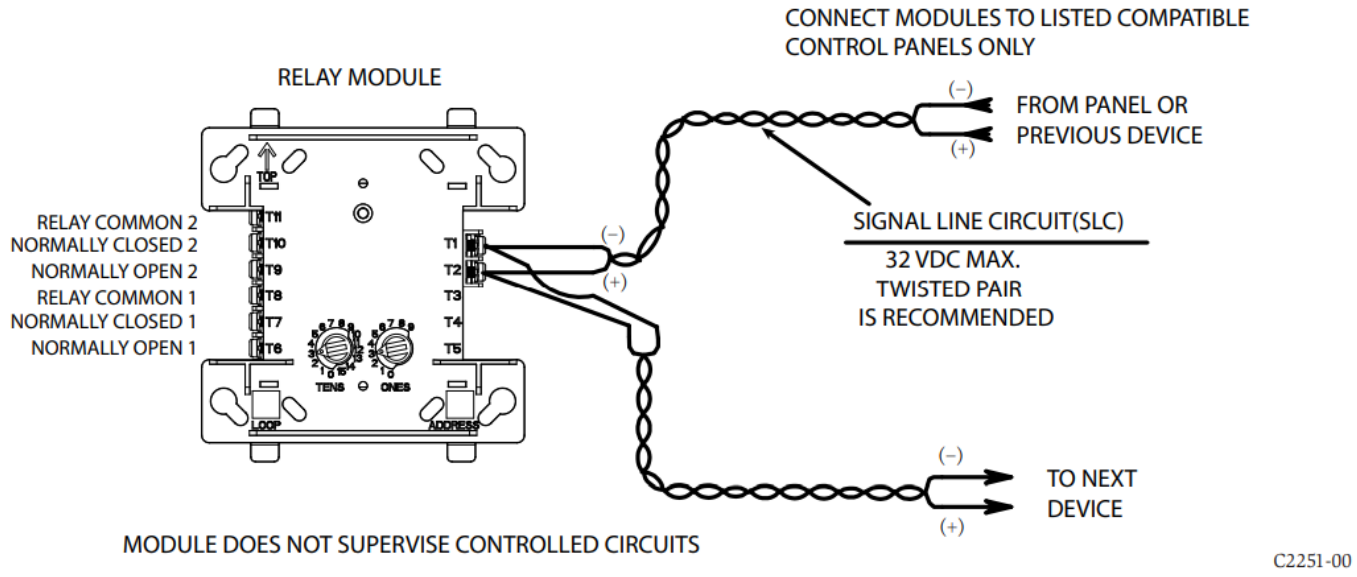
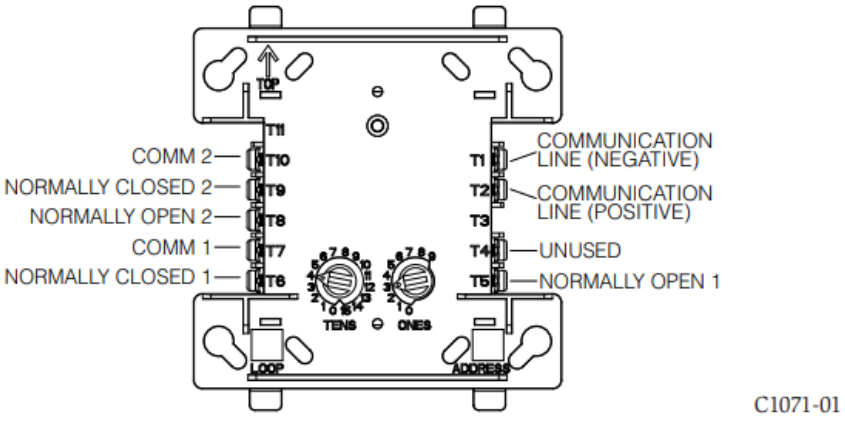


FIGURE 4. RETROFIT TERMINAL DESIGNATIONS FOR LEGACY FRM-1



NOTE: Refer to pages 3 and 4 of this instruction manual for complete information regarding the legacy FRM-1 configuration.

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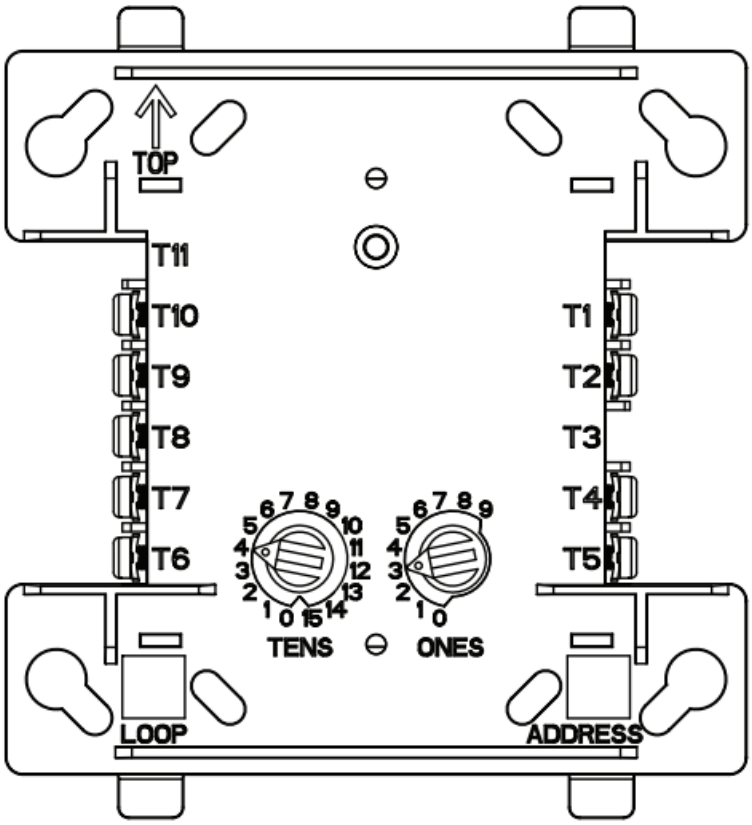
COMPATIBILITY REQUIREMENTS

To ensure proper operation, this module shall be connected to a compatible Notifier system control panel (list available from Notifier).

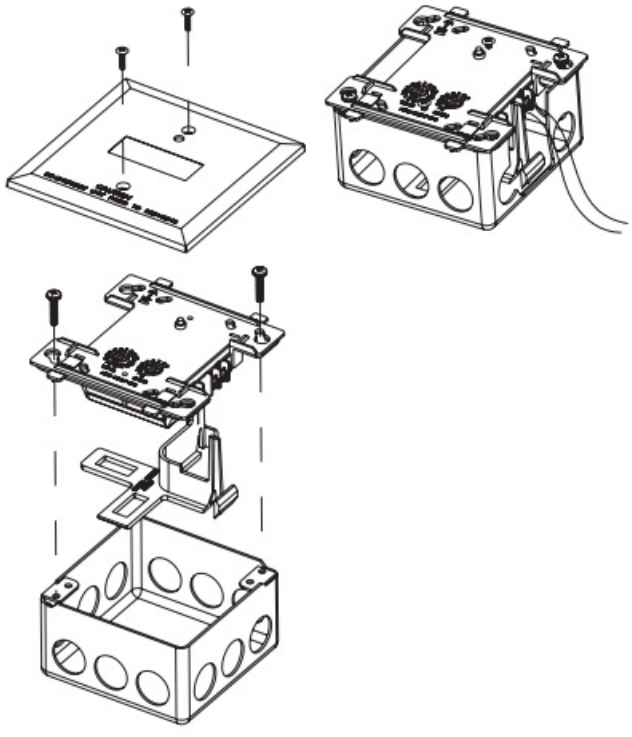
FIGURE 1. CONTROLS AND INDICATORS:



MOUNTING

The FRM-1 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 from Notifier. The module can also mount to the DNR(W) duct housing.

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 following the job drawings and appropriate wiring diagrams.
2. Set the address on the module per job drawings.
3. Secure the module to the electrical box (supplied by the installer), see Figure 2A.

The wire should be stripped to the appropriate length (recommended strip length is 1/4″ to 3/8″). The 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.

WIRING

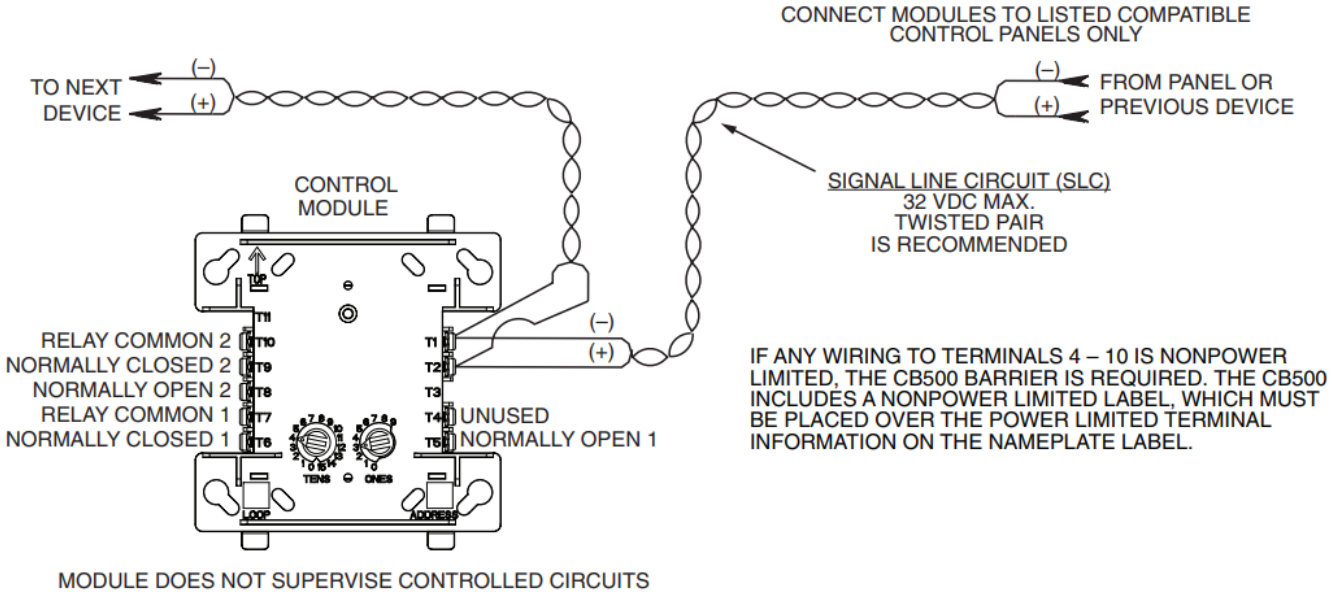
NOTE: All wiring must conform to applicable local codes, ordinances, and regulations. When using control modules in nonpower-limited applications, the CB500 Module Barrier must be used to meet UL requirements for the separation of power-limited and nonpower-limited terminals and wiring. The barrier must 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 per the job drawings and appropriate wiring diagrams.
2. Set the address on the module per job drawings.
3. Secure the module to the electrical box (supplied by the installer), see Figure 2A.

The wire should be stripped to the appropriate length (the recommended strip length is 1/4″ to 3/8″). The 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.

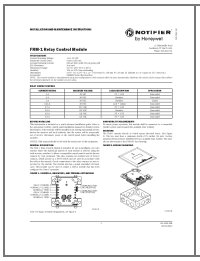
WARNING
All relay switch contacts are shipped in the standby state (open) state, but may have transferred to the activated (closed) state during shipping. To ensure that the switch contacts are in their correct state, modules must be made to communicate with the panel before connecting circuits controlled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

FIGURE 3. RELAY MODULE WIRING DIAGRAM



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

Documents / Resources

	Honeywell FRM-1 Relay Control Module [pdf] Instruction Manual FRM-1 Relay Control Module, FRM-1, Relay Control Module, Control Module

References

- User Manual