



RCM-4 Relay Control Module

Reference Guide



Federal Communications Commission Notice

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the device.

This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation.

If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and the receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:

1. This device may not cause harmful interference.
2. This device must accept any interference received including interference that may cause undesired operation.



DECLARATION OF CONFORMITY (DOC)

The Declaration of Conformity for this product can be found on the RTI website at: www.rticontrol.com/declaration-of-conformity

Safety Suggestions

Read and Follow Instructions. Read all safety and operating instructions before operating the unit.

Retain Instructions. Keep the safety and operating instructions for future reference.

Heed Warnings. Adhere to all warnings on the unit and in the operating instructions.

Heat. Keep the unit away from heat sources such as radiators, heat registers, stoves, etc., including amplifiers that produce heat.

Power Sources. Use only power sources of the type described in the operating instructions, or as marked on the unit.

Water and Moisture. Do not use the unit near water—for example, near a sink, in a wet basement, near a swimming pool, near an open window, etc.

Object and Liquid Entry. Do not allow objects to fall or liquids to be spilled into the enclosure through openings.

Servicing. Do not attempt any service beyond that described in the operating instructions. Refer all other service needs to qualified service personnel.

Damage Requiring Service. The unit should be serviced by qualified service personnel when:

- Objects have fallen or liquid has been spilled into the unit.
- The unit has been exposed to rain.
- The unit does not appear to operate normally or exhibits a marked change in performance.
- The unit has been dropped or the enclosure has been damaged.

Limited Warranty

RTI warrants its products for a period of three (3) years (one year for included battery packs); or for a period of time compliant with local laws when applicable from the date of purchase from RTI or an authorized RTI distributor.

This warranty may be enforced by the original purchaser and subsequent owners during the warranty period, so long as the original dated sales receipt or other proof of warranty coverage is presented when warranty service is required.

Except as specified below, this warranty covers all defects in material and workmanship in this product. The following are not covered by the warranty:

Damage resulting from:

1. Accident, misuse, abuse, or neglect.
2. Failure to follow instructions contained in this Guide.
3. Repair or attempted repair by anyone other than Remote Technologies Incorporated.
4. Failure to perform recommended periodic maintenance.
5. Causes other than product defects, including lack of skill, competence or experience of user.
6. Shipment of this product (claims must be made to the carrier).
7. Being altered or which the serial number has been defaced, modified or removed.

Contacting RTI

For news about the latest updates, new product information, and new accessories, please visit our web site at: www.rticontrol.com

For general information, contact RTI at:
Remote Technologies Incorporated
5775 12th Ave. E Suite 180
Shakopee, MN 55379
Tel. (952) 253-3100
info@rticontrol.com

Service & Support

If you are encountering any problems or have a question about your RTI product, please contact RTI Technical Support for assistance (see the Contacting RTI section of this guide for contact details). RTI provides technical support by telephone or e-mail. For the highest quality service, please have the following information ready, or provide it in your e-mail.

- Your Name
- Company Name
- Telephone Number
- E-mail Address
- Product model and serial number (if applicable)

If you are having a problem with hardware, please note the equipment in your system, a description of the problem, and any troubleshooting you have already tried.

Please do not return products to RTI without a return authorization.

The RCM-4 is equipped with four individually addressable relays, while built-in Ethernet enables control from an RTI XP series control processor via the Ethernet network (LAN). An IR input also allows the RCM-4 to be triggered from many different sources, including RTI in-wall controllers, control processors or third party infrared repeater systems. Commands trigger open and close functions as well as adjustable hold times for momentary relay operation. The RCM-4 can be powered from the included power supply or PoE.

Key Features

The RCM-4 provides superior quality and reliability as well as these specific features:

- Four individually addressable relays.
- Relays capable of switching up to 28VDC@5A.
- Relays can be used in a normally open or normally closed configuration.
- Relays can be controlled with both IR and over an Ethernet network (LAN).
- Powered using power supply or PoE (Power over Ethernet).

Product Contents

Contents within the box include the following items:

- One (1) RCM-4 Relay Control Module
- One (1) 12VDC/1A power supply
- One (1) USB cable: USB-A to Micro-B
- One (1) Quick reference guide
- One (1) Card with Ethernet MAC address and serial number

Installation & Operation

MOUNTING

The RCM-4 should be located on a secure, flat surface or mounted horizontally or vertically using the mounting slots on either end of the RCM-4 or four mounting holes at the corners of the enclosure.

POWERING THE RCM-4

- 1) AC Adapter: Connect the included power supply (12VDC/1Amp) to the power jack on the RCM-4.
or
- 2) Ethernet Port (Power over Ethernet): Connect a Cat-5/6 cable to a PoE compatible router/switch or a PoE injector.

NOTE: The RCM-4 CANNOT be powered directly from an RTI control processor or connecting block.

USB PORT - UPDATING FIRMWARE/SETTING IP ADDRESS

The RCM-4 firmware is updated via the integrated USB port using a USB-A to Micro-B cable (included). Check the dealer section of the RTI website to see if there is a new firmware for the RCM-4.

NOTE: Setting a static IP address is unnecessary and not recommended. However, you can change IP address settings in *Integration Designer* and download this information into the RCM-4 via the USB port.

ETHERNET - NETWORK CONNECTION

The RCM-4 Ethernet port provides communication with a 10/100 Base-T Ethernet network (LAN) for control via an RTI XP series control processor. The port is compatible with Cat-5/6 cable with an RJ-45 termination (568B). The NET LINK light located on the top of the RCM-4 will be lit red when connected to the LAN and flashes when there is network activity.

- 1) Connect to the Ethernet network - Connect a Cat-5/6 cable to the Ethernet network (LAN) and the RCM-4 will receive an IP address from the network router via DHCP.
- 2) Find the MAC address of the RCM-4 - Located on the unit and on the MAC address card in the box.
- 3) In *Integration Designer*, click on the XP processor and add the RCM-4 as an expansion device.
- 4) Enter the MAC address of the RCM-4 into the configuration fields. This will allow the RTI system to locate the RCM-4 on the network.

NOTE: Setting a static IP address is unnecessary and not recommended. However, you can change IP address settings in *Integration Designer* and download this information into the RCM-4 via the USB port.

IR INPUT

The 3.5mm IR IN jack allows the RCM-4 to be controlled from many different sources, including RTI in-wall controllers, control processors or third-party infrared repeater systems. Infrared commands trigger open and close functions as well as adjustable hold times for momentary relay operation. The infrared code database is available in the *Integration Designer*® programming software and the RTI website in the dealer section. (rticontrol.com)

PROGRAMMING THE RCM-4

No direct programming of the RCM-4 is required unless the IP address configuration is adjusted (see NOTE above).

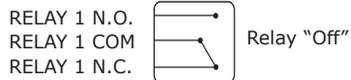
LED STATUS

- **Power LED** - The Power LED will illuminate when power is supplied to the RCM-4.
- **Net Link LED** - The Net Link LED will illuminate if the RCM-4 is connected to an ethernet network.
- **IR In LED** - The IR In LED will illuminate if the RCM-4 receives an IR command.
- **Relay LED** - The Relay LED will illuminate red if a relay "On" command is received (contact made between the Relay N.O. and Relay Com terminals). For a momentary "On" command, the LED will be illuminated red for the duration of the hold time.

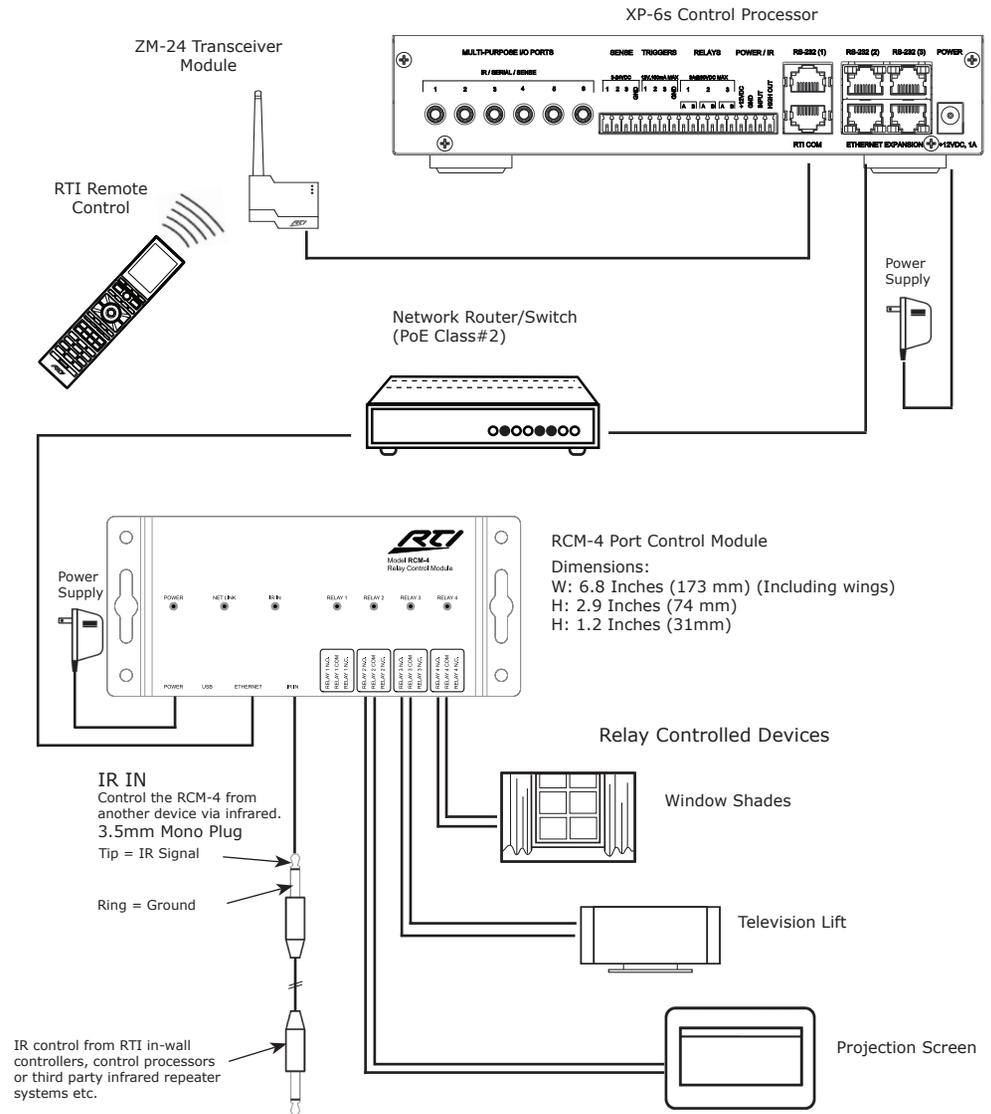
NOTE: The Relay LED's will cycle on/off in sequence, when an Ethernet connection is made, but no XP processor is found on the Ethernet network.

INTERNAL RELAY STATUS

Sending an "On" command will illuminate the Relay LED red and contact is made between the Relay N.O. and Relay Com terminals. Sending an "Off" command will turn off the Relay LED and contact is made between the Relay N.C. and Relay Com terminals.



Connection Options



WIRING RELAYS

The relays of the RCM-4 are Single Pole-Double Throw. This allows each relay to be wired for Normally Open, Normally Closed, or Toggle configurations. The relays are capable of switching up to 28VDC @ 5A.



Normally Open Wiring



Normally Closed Wiring