BAYweb Relay Owner's Manual

Document # BW-BCU6DOC

BAYweb Relay Owner's Manual
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Patent pending technologies are used in the BAYweb Relay.

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Introduction

Thank you for purchasing the BAYweb Relay. The relay provides remote and scheduled control of any electrical device that can be controlled with a switch. Ideal applications include lighting, water shutoff valves, and water heaters.

The BAYweb Relay is simple to install and use, however, depending on what you are controlling, an electrician may be required to perform the installation.

About This Manual

This manual contains the information necessary for installing and operating the BAYweb Relay. However, since installations may vary, these instructions may not cover all details or variations in the equipment to be controlled or every question that may possibly arise during use.

If a question or situation develops which is not answered directly in this manual, contact BAYweb support for specific answers and advice.

You should become familiar with the contents of this manual before the BAYweb Relay is put into service. This is particularly important with regard to the safety precautions listed in the Safety Precautions section, and those included at relevant points in other sections of this manual.

Note that this manual is updated periodically. You can download the latest version at www.bayweb.com.

Safety Precautions

Bay Controls, LLC. expressly disclaims responsibility or liability for any injury or damage caused by failure to observe specified or other common safety precautions or failure to exercise ordinary caution, common sense, and due care required in installing and operating the relay even though not specified herein.

The alert message shown here appears throughout this manual to indicate those situations and times when special care is necessary to prevent equipment damage or personal injury.

CAUTION: This indicates that there *could* be the possibility of equipment damage or personal injury.

Limited Warranty

Subject to the limitations contained below, and except as otherwise expressly provided herein, Seller warrants to the Buyer that all tangible articles supplied by Seller or services provided by Seller will be free of defects in materials or workmanship under normal use and care until the expiration of the applicable warranty period. Goods are warranted for five (5) years from the date of purchase. If Buyer discovers any defects and notifies Seller thereof in writing during the applicable warranty period, Seller shall at its option promptly correct, repair, or replace F.O.B. point of manufacture that portion of the good found by Seller to be defective, or refund the purchase price of the defective portion of the goods/services. All replacements or repairs necessitated by inadequate maintenance, normal wear and usage, unsuitable power sources, unsuitable environmental conditions, accident, misuse, improper installation, modification, repair, storage or handling, or any other cause not the fault of Seller are not covered by this limited warranty, and shall be at Buyer's expense. Seller shall not be obligated to pay any costs or charges incurred by Buyer except as may be agreed upon in writing in advance by an authorized Seller representative. Goods repaired and parts replaced during the warranty period shall be in warranty for the remainder of the original warranty period or ninety (90) days, whichever is longer.

THERE ARE NO REPRESENTATIONS OR WARRANTIES OF ANY KIND, EXPRESS OR IMPLIED, AS TO MERCHANTABILITY, FITNESS FOR PARTICULAR PURPOSE, OR ANY OTHER MATTER WITH RESPECT TO ANY GOODS OR SERVICES.

Limitation on Liability

THE SOLE AND EXCLUSIVE REMEDY FOR BREACH OF WARRANTY HEREUNDER SHALL BE LIMITED TO REPAIR, CORRECTION, REPLACEMENT OR REFUND OF PURCHASE PRICE AS PROVIDED UNDER THE FOREGOING LIMITED WARRANTY. IN NO EVENT, REGARDLESS OF THE FORM OF THE CLAIM OR CAUSE OF ACTION (WHETHER BASED IN CONTRACT, INFRINGEMENT, NEGLIGENCE, STRICT LIABILITY, TORT OR OTHERWISE), SHALL SELLER'S LIABILITY TO BUYER AND/OR ITS CUSTOMERS EXCEED THE PRICE TO THE BUYER OF THE SPECIFIC GOODS SUPPLIED OR SERVICES PROVIDED BY SELLER GIVING RISE TO THE CLAIM OR CAUSE OF ACTION.

BUYER AGREES THAT IN NO EVENT SHALL SELLER'S LIABILITY TO BUYER AND/OR ITS CUSTOMERS INCLUDE "CONSEQUENTIAL DAMAGES". FOR THIS PURPOSE, "CONSEQUENTIAL DAMAGES" SHALL INCLUDE, BUT NOT BE LIMITED TO, LOSS OF ANTICIPATED PROFITS, LOSS OF USE, LOSS OF REVENUE AND LOSS OF CAPITAL.

Unauthorized Repair

In the event that the owner allows the BAYweb relay to be serviced or repaired by unauthorized personnel, the coverage of the original warranty policy will be automatically terminated.

Installation

Overview

The BAYweb Relay is a computer controlled switch. Installation is similar to wiring a switch to the device or appliance you wish to control.

If you are not experienced with electrical wiring, specifically with the voltage and current used by the device you wish to control, you should have a qualified electrician perform the installation.

CAUTION: Failure to have a qualified electrician perform the installation may increase the risk of equipment damage, serious personal injury, or death.

Compatibility

The BAYweb Relay can control most any electrical equipment or appliances that can be controlled with a switch. Depending on your device, you may need additional components such as a contactor or motor starter. Review the “Relay Ratings” section of the specifications in this manual, and ensure that your device does not exceed the maximum specified current and voltage for the contacts you will be using.

If your device requires more current and/or two or three phases of supply power, you will need to use an electrical contactor rated appropriately for your device. In that case the BAYweb relay is wired to the “coil” of the contactor to control it.

Mounting

The BAYweb Relay should be securely mounted using the four mounting holes on the module enclosure. For low voltage applications (24 VAC Class 2 circuits) the relay does not require a protective enclosure. For higher voltage applications, such as lighting or water heater control, the relay must be mounted in an enclosure rated for the application.

CAUTION: Failure to mount the BAYweb Relay in an properly rated enclosure may increase the risk of serious personal injury, or death.

Wiring

Use wire rated for the voltage and current of the device you will be connecting to. Wire the “COM “ terminal on the relay to the hot side/source of power, and either the N/O or N/C terminal to the device to be controlled.

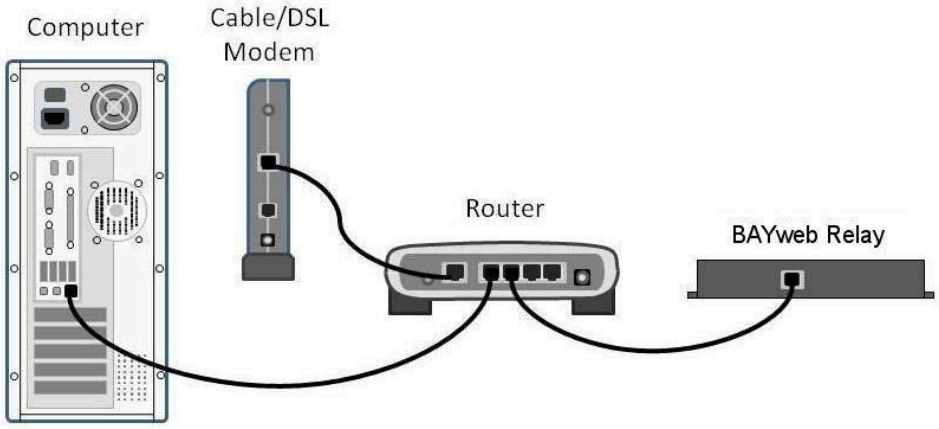
The **N**/**C** (**N**ormally **C**losed) terminal is connected to the COM terminal when the relay is OFF. The **N**/**O** (**N**ormally **O**pen) terminal is connected to the COM terminal when the relay is ON.

The relay will always be off when power is applied. Once it connects to the web portal it can be controlled remotely and also start controlling based on a schedule.

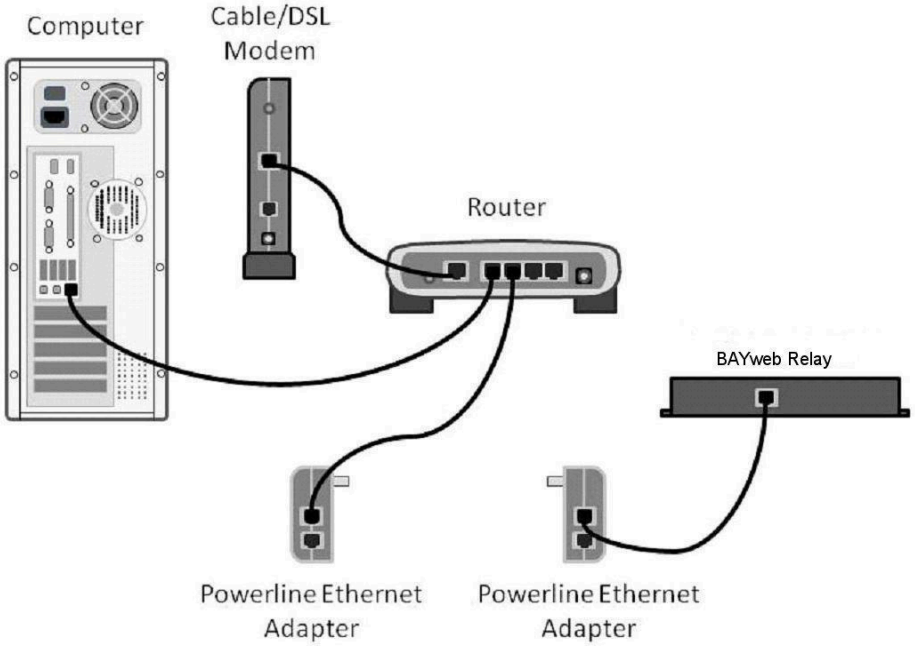
Connect to the Internet

Connecting the BAYweb Relay to the Internet is simply a matter of getting it plugged in. We recommend using either direct wiring or Powerline adapters if direct wiring is not convenient.

Plug one end of an Ethernet cable into the LAN port on the bottom of the BAYweb Relay and the other end into a port on a router or switch on your network as shown.



If direct wiring is not convenient, use Powerline Ethernet adapters. Plug one adapter into a power plug near the relay, and the other adapter near your router. Then just plug the Ethernet cables into the adapters and the ports as shown.



In less than a minute the “Uplink” LED should illuminate. If it does, your BAYweb Relay is on

line and ready for remote access.

Operation

Web Site

Use the BAYweb site to operate and configure the schedule of the relay. This site can be accessed anytime from anywhere via web browser and Internet enabled mobile phone.. The web site is accessed at www.bayweb.com.

Once you have created an account on the portal, use the “Add Devices” link to register the relay on your account.

Using Your Mobile Phone

Once you have setup your personalized web portal, you can also use most any mobile phone that has web access to remotely access your Relay and other web devices. To access the mobile web portal, enter the following address in your mobile phone browser: www.bayweb.com/mobile.

Reference

Connectors

Relay

The relay connector plugs into the top of the module as shown. It has three terminals which are used as follows:

N/**C** – **N**ormally **C**losed contact. This terminal is connected to the COM terminal when the relay is OFF. This terminal is disconnected when the relay is ON.

N/**O** – **N**ormally **O**pen contact. This terminal is connected to the COM terminal when the relay is ON. This terminal is disconnected when the relay is OFF.

COM – **Com**mon terminal. This terminal is used to supply power to either the N/C or N/O terminal depending on the state of the relay.

LAN

The LAN (**L**ocal **A**rea **N**etwork) connector is a standard Ethernet interface (IEEE 802.3 compatible with 10/100/1000 Base-T networks). This port operates at 10 Mbps (10Base-T). There are two LED activity indicators built into the the connector. The green LED will be illuminated whenever there is a physical link to your network (plugged in). The amber LED is illuminated when there is activity on the port.

Power

Use the supplied power adapter to power the BAYweb Relay. The power adapter plugs into a

standard 120 VAC outlet and supplies the Relay with 12 VDC at up to 0.5 amps.

Indicator LEDs

Power

The Power LED indicates that the BAYweb Relay is powered up and operating.

Uplink

The Uplink LED indicates that the BAYweb Relay is online with the web portal. Typically the LED will blink off briefly when sending a message to the web portal and back on when a reply is received.

LAN

The LAN LED indicates that the BAYweb Relay is communicating on your local area network. And, it has obtained a local IP address from your router.

Output

The Output LED is illuminated to indicate that the relay is in the ON state. The COM and N/O terminals are connected when the relay is ON. The COM and N/C terminals are connected when the relay is OFF.

Troubleshooting

We encourage you to communicate any problems you have encountered to us, even if you are able to solve them on your own. We would also like to have any suggestions or comments about the installation procedure.

Communicate with us via email. We use an automated tracking system to ensure that we respond to your messages in the quickest possible time, and provide the shortest path to problem resolution. Our support email address is support@bayweb.com.

When contacting us for support, please provide your name and your product serial number. We may also request your key code to validate that you own a given piece of equipment. The serial number and key code are located on the front cover of this manual and on the relay.

We suggest you check the support resources on www.bayweb.com which may provide you with a simple solution to the problem.

Obtaining Support

Customer support is available every day of the year, including holidays, via email to support@bayweb.com. Be sure to include your product serial number in your message, we cannot help you without it.

We typically respond to support emails within 24 hours, Monday through Friday, Eastern Time. Support requests received after midnight are handled the following morning.

Specifications

Part Number:	BW-BCU6
Relay Ratings (Maximum)	
Normally Open Contacts:	10 Amps at 125 VAC 3 Amps at 250 VAC 5 Amps at 30 VDC
Normally Closed Contacts:	3 Amps at 125 VAC 3 Amps at 30 VDC
Shipping Temperature Range:	-40° to 150° F
Operating Temperature Range:	0° to 120° F
Operating Relative Humidity:	5% to 90% (non-condensing)
Power Requirements:	12 VDC, 0.05 Amps maximum
Dimensions:	4” W x 4” H x 1.25” D
Weight:	4.5 oz