BAYweb
alert

Owner's Manual

[S/N LABEL HERE]

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Introduction

Thank you for purchasing the BAYweb Remote. You now have one of the most advanced remote web control and alerting systems available today.

This system is easily installed by home owners or an electrician. This model of BAYweb Remote (BW-BCU5) supports up 6 relay outputs and up to 8 wireless and up to 3 hard wired inputs with up to a total of eight zones.

About This Manual

This manual contains the information necessary for installing and operating the BAYweb Remote system. However, since installations may vary, these instructions may not cover all details or variations in the equipment supplied 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 Remote is put into service. This is particularly important with regard to the safety precautions listed in the Introduction 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.

⚠ **CAUTION:** Read, be sure to clearly understand, and then carefully follow all of the directions and procedures included in this manual. Failure to adhere to the guidelines and specific instructions provided could cause equipment damage and serious personal injury or death.

Safety Precautions

Low voltage control signals do not normally represent an electric shock hazard unless used in an environment for which the equipment was not designed for, such as a wet location.

The BAYweb Remote is independently powered from a line cord connected to a standard 120 VAC electrical outlet. This line voltage does represent an electrical shock hazard if improperly used. Do not cut or modify the line cord in any way. Do not use a damaged line cord. Do not remove the cover of the control module. Do not expose the control module to water. Do not plug in the control module when wet.

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 device 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.

CAUTION: If this equipment is used in a manner not specified by Bay Controls, LLC., there may be a risk of equipment damage, serious personal injury, or death.

Labels

The following safety labels alerts the installer or operator to possible hazards and serves to remind the user of specific safety precautions. Before installing and/or operating this device, be certain to review the pertinent safety labels.

CAUTION: Read owner's manual before installing or operating. Do not remove the cover. No user serviceable parts inside.

CAUTION: High – Voltage Disconnect power before servicing.

Line Power 120 VAC, 0.25 A

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 Remote module to be serviced or repaired by unauthorized personnel, the coverage of the original warranty policy will be automatically terminated.

BAYweb Remote

The BAYweb Remote device can provide remote or timed control and as self monitored security system.

It provides remote control of up to 6 points and may be controlled from either a web browser or a web enabled mobile phone.

It provides alert notification of up to 8 different zones via email and/or text enabled mobile phone.

Each alert zone will send notification messages to a list of one or more recipients.

Alert Sensing

The BAYweb Remote device utilizes 3 wired inputs and an unlimited number of X10 wireless sensors.

There are 8 different zones which are configured to trigger an alert by sensing a signal on one or more of the wired inputs, or from an X10 wireless channel.

The wired inputs can use sensors that use either normally open, or normally closed contacts. When wired in series, up to 16 sensors can be used on a single input channel. The wired inputs are typically used for smoke alarms or other sensors that also require power to operate. These inputs are also ideal to use when retrofitting an existing alarm system.

The wireless X10 inputs support an unlimited number of sensors programmed with the X10 house/unit ID for a given zone. Wireless X10 occupancy sensors are economical and effective for sensing intrusions.

The alert server in our data center will alert you if the Internet connection used by the device goes offline for more than 10 minutes. This warns you that you will not receive other alerts until the Internet connection is restored.

Alert Handling

Upon sensing an alert condition, the alert device will immediately send a message to our data center, which in turn will send the alert message to the list of recipients configured for that zone.

Nominal response time for dispatching the notification message from our data center is 3 seconds. Delivery time of the message is dependent on your Internet or mobile provider.

Once an alert has been sent, it will not be sent again until a configurable time period has elapsed for that zone. An alert is also provided if the Internet connection goes down, and when it is restored.

The alert system can be armed or disarmed using the web and/or mobile portals.

Scheduled Control

Timed control is run on a weekly schedule. The schedule consists of 48 periods per day, seven days per week. The system can be configured for one of four activities for each time period. The output control action occurs on transitions from one activity to another.

Remote Control

The control outputs may be remotely overridden at any time via the Internet. When an output is manually overridden it will resume scheduled operation for the next scheduled activity change.

Input Control of Outputs

In addition to remote and scheduled control, the BAYweb Remote can control the outputs based upon input transitions. An output may be turned ON or OFF in response to an input signal. Please see the BAYweb Remote applet and help for more information on configuration.

Hold Function

The system may be placed in hold to disable the schedule. Manual control changes made while the system is in hold will remain in effect as long as the system is on the hold mode.

Installation

Overview

Installing the BAYweb Remote system is a relatively simple process and typically takes from 10 to 30 minutes to complete. You will need screwdrivers, a wire stripper/cutter, and a drill for installing the wall anchors to complete the installation. A volt/ohm meter can be helpful for troubleshooting but not required.

The control module may be mounted in a convenient location that allows easy access to Ethernet, AC power and hard wired sensor wiring.

You will need an Internet connection for the Control Module.

If it is not convenient to plug into your network there, consider using an optional power-line Ethernet adapter.

! **CAUTION:** Be sure to review all of the installation steps before starting your installation.

1   *Install Control Module*

A) Mount the Control Module using the following criteria:

- ○ Select a location with easy access to hard wired sensor cables.

- ○ Select a location within 6 feet of a power outlet, ideally on the same circuit as the furnace/AC.

- ○ Select a location where you can connect to the Internet. If wiring is not convenient, we suggest using a power line Ethernet adapter that will allow you to make this connection using your existing power wiring.

B) Mount the BAYweb Remote module with the provided wall anchors and screws.

2 *Install Sensors*

There is a wide variety of additional sensors and devices that can be integrated into the alerting system. Refer to the device instructions for detail on installing those devices.

Wireless Sensors

BAYweb Remote can use wireless (X10 wireless protocol) motion sensors. Bay sells a low cost wireless occupancy sensor that is ready to use with the BAYweb Remote. Just put in a couple of batteries and mount it in a location that typically sees activity when you are home. You can use as many sensors as needed enabling BAYweb Remote to monitor multiple locations in your home for occupancy.

The sensors from Bay have a 10+ foot sensing range and will sense people as they pass in front of the sensor. We have found that locating them at about chest height or higher works well.

Hard Wired Sensors

The BAYweb Remote hard wired inputs may only be connected sensors that provide dry contacts, this means no power is supplied by the sensor. The contacts must be rated for at least 12 VDC and 10 mA (0.01 Amps).

⚠ **CAUTION:** Do not connect the Alert input to any external voltage source. Dry contacts only. Failure to do so may cause equipment damage.

The two wires from the contacts of the sensor should be connected to the desired input. Polarity does not matter.

Please refer to the instructions supplied with the sensor for mounting and wiring options.
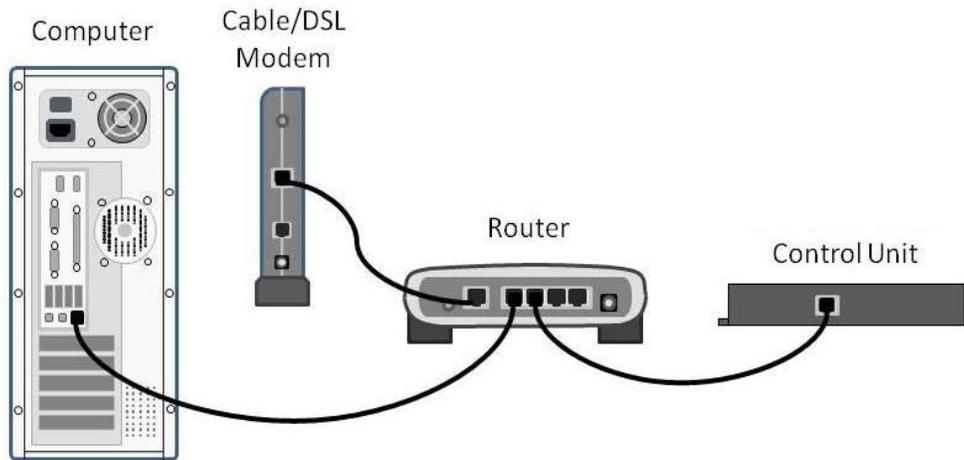
Outputs

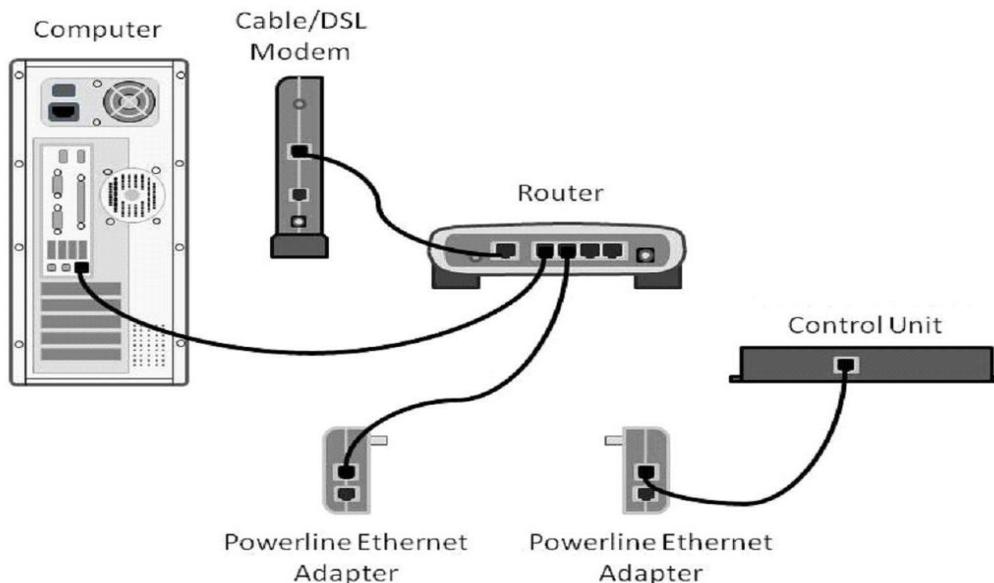The BAYweb Remote outputs are rated for at least 12-24 VAC or VDC (3 Amps total).

3 | *Connect to the Internet*

Now that you have the BAYweb Remote installed and configured, it is time to connect it to the Internet.

A) Connect the Remote Module to the Internet. Plug one end of an Ethernet cable into the LAN port on the bottom of the Control Module and the other end into a port on a router or switch on your home network.

B) If direct wiring is not convenient, use Power line Ethernet adapters. Plug one adapter into a power plug near the control module, and the other adapter near your home router. Then just plug the Ethernet cables into the adapters and the ports.

C) The BAYweb Remote does not require any configuration or programming of your networking equipment. You do not need to change security settings. Just plug it in and you are all set to go.

D) Plug the BAYweb Remote module into the power outlet.

E) Verify that the "Power" light illuminates.

F) In less than a minute the "Uplink" light should illuminate on the module. If it does, your BAYweb Remote is on line and ready to go. If you do not see "Uplink" light up within a couple of minutes, refer to the Troubleshooting section of this manual.

4 | *Configuration*

General Settings

Once you have installed your equipment login to the web portal to configure them. Use the BAYweb Portal to access and configure your module. This portal can be accessed anytime from anywhere via web browser and Internet enabled mobile phone. Unlimited use of the portal is included at no charge.

To setup your personalized portal go to the web site (www.bayweb.com), register a new account, login and add a device (your BAYweb Remote module). You will need the serial number and key code that are on the front of this manual.

Control Settings

The six outputs are configured in the Control Settings. For each output, select a name of up to 16 characters. Then select the control type.   If the control is a timed type, them you must select the duration of the control action in seconds.

Digital – Output is either ON or OFF. The state of the output will be maintained for the scheduled activity.

Timed – On activity change or remote activation, the output will be turned on for a configurable interval and will then return to the OFF state.

Dual – Dual output control uses two outputs for control. When the control state is ON, the first output is energized and the second output is off. When the control state is OFF, the first output is off and the second output is energized.

Dual Timed – On activity change or remote activation one of the outputs will be energized for a configurable interval. If the control state is ON, the first output will be pulsed on for the configured period. If the control state is OFF, the second output will be pulsed on for the configured period.

Alert – The alert type is only available on the first output. It will turn the first output ON when an alert is sent. The output will remain ON until remotely turned off.

Alert Timed – The timed alert type is only available on the first output. It will turn the first output ON when an alert is sent. The output will remain ON for the configured period or may be remotely turned off.

Input Settings

Up to eight inputs may be defined. Each input may be assigned an x10 input and any or all of the hard wired inputs.

Hard Wired Channel Configuration

Off – This channel is not used for the input.

N.O. – This is a normally opened input. The input will be triggered on a transition from open to closed.

N.C. – This is a normally closed input. The input will be triggered on a transition from closed to open.

Alerting Settings

To enable alerting select the "Settings" page from the Remote Applet menu and go to the Alerting Settings section. Configure the maximum alert frequency. This limits how often alerts will be sent if there are repeated signals. You can adjust this value later if needed to suit your lifestyle.

The zone names (same as defined in Input Settings) may be configured up to 16 characters. For each zone, select which activities the alerting is to be active and enter the e-mail address where the alert messages are to be sent.

5	*Testing*

A) Make sure that the BAYweb Remote is connected to the Internet and powered on.

> ⚠️ **!** **CAUTION:** To reduce the risk of electric shock, this product has a grounding type plug that has a third (grounding) pin. This plug will only fit into a grounding type power outlet. If the plug does not fit into the outlet, contact a qualified electrician to install the proper outlet. Do not change the plug in any way.

B) Verify that the "Power" light is illuminated on the control module.

C) Verify that the Uplink light is on. This indicates that the module is communicating with the BAYweb servers.

D) Force each zone into the alarm state one at a time and verify that the zone indicates the Alarm on the Alerting Applet. Please allow time for the status to be sent to the BAYweb center and time for your browser to refresh. This could take up to 30 seconds.

E) Remotely toggle each output one at a time and verify that the output responds as expected. Please allow time for the status to be sent to the BAYweb center and time for your browser to refresh. This could take up to 30 seconds.

Operation

Web Portal

Use the BAYweb Portal to access and configure your module. This portal can be accessed anytime from anywhere via web browser and Internet enabled mobile phone. Unlimited use of the portal is included at no charge.

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 device and other web devices. To access the mobile web portal, enter the following address in your mobile phone browser: www.bayweb.com/mobile.

Reference

Control Module

Alert Inputs

These inputs can be used to connect to a variety of wired sensors, such as a sump pump monitor or alarm door contacts.

To use this feature, wire terminal 1 to one side of a set of dry contacts, and terminal 2 to the other side. The Settings page on the Web Portal is used to configure normally open or normally closed contacts.

⚠️ **CAUTION:** Do not connect the Alert input to any external voltage source. Dry contacts only. Failure to do so may cause equipment damage.

LAN Port

The LAN port 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 2 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.

Line Power

The line cord is used to power the BAYweb Remote. This is a standard 3 blade grounded plug. Ideally this should be powered from the same circuit as your furnace/AC.

CAUTION: To reduce the risk of electric shock, this product has a grounding type plug that has a third (grounding) pin. This plug will only fit into a grounding type power outlet. If the plug does not fit into the outlet, contact a qualified electrician to install the proper outlet. Do not change the plug in any way.

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.

The preferred method of communicating with us is via email. We use an automated tracking system to insure 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. We also have an on line support page that you can use to send a message to our support staff. If you need to speak to a support Representative, refer to the Obtaining Support section of this manual for contact information.

When contacting us for support, please provide your name, web portal user ID (if you have one), and your serial number. We may also request your key code to validate that you have a given piece of equipment. The serial number and key code are located on the front cover of this manual and on the Control Module.

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

Solutions to Problems

Problem	Solution
No Control Module power indication.	➢ Check for power at outlet. ➢ Unplug alert input connector, if power light comes on there is a short or improper connection on one or both of these connections. ➢ Contact support for replacement Control Module.
DHCP light is not ON: Your Internet router is not supplying a local address to use on your network (DHCP is inoperative).	➢ Try resetting or power cycling your Internet router.
The schedule is not changing at the correct time.	➢ Review the Settings page on the Remote applet and make sure the timezone is set correctly.
Wireless occupancy sensor not working.	➢ Verify the X10 ID settings – see the settings page on the Remote applet. ➢ Verify the X10 ID settings of the sensor, refer to the instructions provided with the sensor. ➢ Check that the ➢ Wireless light on the Control Module turns ON when the sensor is activated. ➢ Try adjusting/moving the antenna wire.
Wired alert input not working.	➢ Verify the wired input settings – see the Settings page on the Remote applet.
Control module not connecting to Internet, Uplink light does not come on.	➢ Verify that the green LED on the LAN connector (on the side of the Control Module) is illuminated. ➢ Verify that the amber LED on the LAN connector is blinking. ➢ Plug a laptop or PC into the connection you are using for the BAYweb Remote and verify that you can browse the Internet.

Obtaining Support

Customer support is handled **on line** 24 hours per day, 7 days a week. Before requesting support, please review the Frequently Asked Questions and other resources available at www.bayweb.com. When contacting us for support, please provide your name, web portal user ID (if you have one), and module serial number, located on the front cover of this manual and on the Control Module.

Support email: support@bayweb.com

Bay Controls, LLC
6528 Weatherfield Ct
Maumee, OH 43537
419-891-4390 (Monday - Friday 8:00 AM – 5:00 PM EST)

Specifications

Part Number:	BW-BCU5
Applications:	Residential, commercial
Schedule:	7 day, up to 48 periods per day
Clock:	Synchronized with NIST atomic clock (± 1 sec)
Memory:	All settings and data maintained in non-volatile memory indefinitely
Alert Inputs:	Unlimited X10 wireless and (3) wired dry contact inputs
Control Outputs	5 Form A & 1 Form C Relays, 12-30 VAC/VDC @ 3.2A
Shipping Temperature Range:	-40° to 150° F
Operating Temperature Range:	0° to 120°
Operating Relative Humidity:	5% to 90% (non-condensing)
Power Method:	Independently powered, line cord
Power Requirements:	120 VAC, 60 Hz, 0.25 Amp maximum
Control Electrical Rating:	Class 2, 20 – 30 VAC 3.2 Amp maximum
Dimensions:	Control Module: 6.85" W x 4.85" H x 1.3" D
Weight:	Control Module: 8 oz