



EZ-MAX Plus Installation & Quick Start Guide

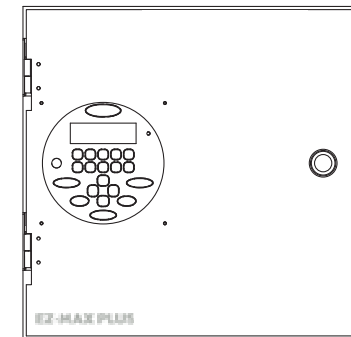
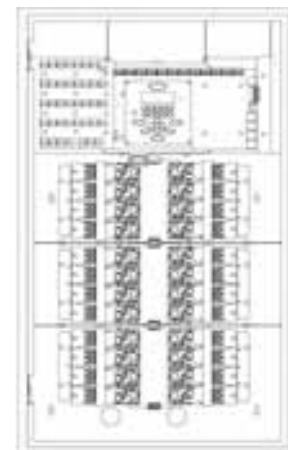
EZ-MAX PLUS™ RELAY PANEL ACCESSORY:
Modem/Wi-Fi card

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Specifications and Price Subject to Change at any time without notice



WEB VERSION

WEB VERSION

Introduction

Thank you for choosing the Leviton® EZ-MAX Plus™ line of products for your relay needs. The modem and Wi-Fi card along with PC User Application allow the end user to easily adjust the schedule of the EZ-MAX Plus™ cabinet from a remote location via telephone line or internet.

This manual covers the installation, configuration, and usage of both the Leviton® MultiTech modem (RAC00-MOD) and Leviton® Wi-Fi card (RAC00-802) to allow for remote schedule updates.

NOTES

WEB VERSION

NOTES

INSTALLATION OF MODEM OR WI-FI ACCESSORY CARD

The installation of the Modem and Wi-Fi card are the same. These steps can be skipped if your cabinet came pre-installed with these devices.

- Step 1:** Turn off power to the relay cabinet at the main circuit breaker/fuse.
 - Step 2:** Observe Electrostatic Discharge (ESD) precautions when removing card from ESD packaging. Either wear an ESD grounded strap or assure you have grounded yourself prior to installation into cabinet.
 - Step 3:** Install the Modem or Wi-Fi Card into socket JP41 (Ethernet/Modem slot).
- a. Note:** It is very important to align the pins making sure PIN 1 on card aligns with PIN 1 on the EZ-MAX Plus board. Pin 1 is upper left for 8-relay cabinets and upper right for 24-relay cabinets as shown in figures 1A and 1B.

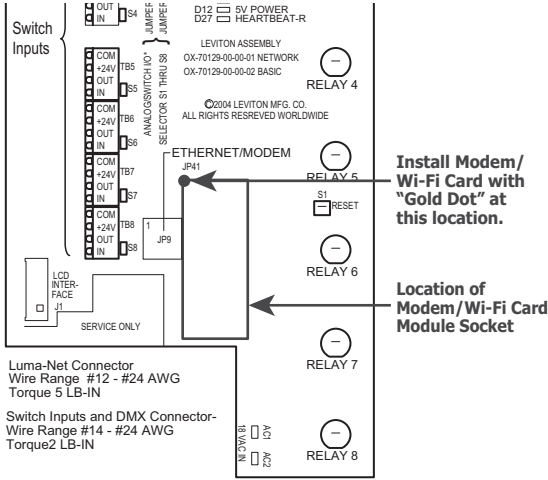


Figure 1A.
Install locations for 8-relay cabinets

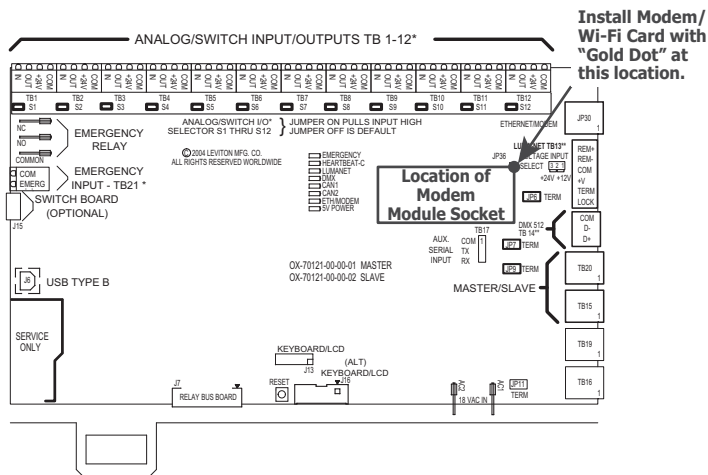


Figure 1B.
Install locations for 24-relay cabinets

Step 4: Modem Card Install Only: Route phone line into cabinet and insert into the RJ Connector (J9)

Step 5: Apply power to the system

Step 6: Install latest software/firmware from Leviton website www.leviton.com to support the new accessory. Refer to the EZ-MAX Advanced programming guide for details on updating the firmware via USB port.

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FOR CANADA ONLY

For warranty information and/or product returns, residents of Canada should contact Leviton in writing at **Leviton Manufacturing of Canada Ltd to the attention of the Quality Assurance Department, 165 Hymus Blvd, Pointe-Claire (Quebec), Canada H9R 1E9** or by telephone at **1 800 405-5320**.

LIMITED WARRANTY

Leviton Manufacturing Co Inc. warrants the products represented in this manual to be free of material and workmanship defects for a period of two years after system acceptance or 26 months after shipment from Leviton, whichever comes first. The EZ-MAX Plus relay cards are covered for a period of ten (10) years. Lighting fixtures manufactured by Leviton are covered for a period of one year. This Warranty is limited to repair or replacement of defective equipment returned Freight Pre-Paid to Leviton Manufacturing at 20497 SW Teton Ave., Tualatin, Oregon 97062, USA. User shall call 1-800-959-6004 and request a return authorization number to mark on the outside of the returning carton, to assure that the returned material will be properly received at Leviton. All equipment shipped back to Leviton must be carefully and properly packed to avoid shipping damage. Replacements or repaired equipment will be returned to sender freight prepaid, F.O.B. factory. Leviton is not responsible for removing or replacing equipment on the job site, and will not honor charges for such work. Leviton will not be responsible for any loss of use time or subsequent damages should any of the equipment fail during the warranty period, but agrees only to repair or replace defective equipment returned to its plant in Tualatin, Oregon. This Warranty is void on any product that has been improperly installed, overloaded, short circuited, abused, or altered in any manner. Neither the seller nor Leviton shall be liable for any injury, loss or damage, direct or consequential arising out of the use of or inability to use the equipment. This Warranty does not cover lamps, ballasts, and other equipment which is supplied or warranted directly to the user by their manufacturer. Leviton makes no warranty as to the Fitness for Purpose or other implied Warranties.

Wi-Fi Card Contains FCC ID: AZY-HF-LPB200

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

- (i.) This device may not cause harmful interference
- (ii.) This device must accept any interference received, including interference that may cause undesired operation.

Any changes or modifications not expressly approved by Leviton could void the user's authority to operate this equipment.

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. 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 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.

INDUSTRY CANADA COMPLIANCE STATEMENT

EZ-MAX Plus System

This Class A digital apparatus complies with Canadian ICES-003.

Wi-Fi Card Contains IC: 12243A-HFLPB200

This device complies with Industry Canada license-exempt RSS standard(s). Operation is subject to the following two conditions: (1) this device may not cause interference, and (2) this device must accept any interference, including interference that may cause undesired operation of the device.

IMPORTANT! Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate this equipment.

This Class B digital apparatus complies with Canadian ICES-003.

SYSTEM CONFIGURATION FOR MODEM OR WI-FI ACCESSORY CARD

Once the Modem or Wi-Fi card is installed the system software needs to be configured so it knows the card was installed in order to activate communication to the outside world. This is done manually through the front LCD panel.

LCD Menu

Press the MENU button

Select: MAIN MENU SELECT - SYSTEM SETTINGS - NETWORK SETUP - MODE: NONE/MODEM/WI-FI

Select for the MODE:

- **None** – Disables the interface whether a card is installed or not
- **Modem** – Modem Card is installed (Default: 1st ring answer, 1 second delay for password prompt, and 30 second hang-up delay)
- **Wi-Fi** – Wi-Fi Card is installed

There are no other configurations necessary to activate the accessory card.

Modem Configuration

At this point in time the modem configuration is complete. The system will default the baud rate to 9,600 and answer on the first ring. The hang-up delay option disconnects the Telco line after 30 seconds of no activity.

Wi-Fi Configuration

Once the Wi-Fi card is installed and the cabinet power is restored the user will have the ability to connect and configure the Wi-Fi card for accessibility. This process requires a router that has access to a network which will be accessible remotely for configuration of the EZ-MAX cabinet.

The Wi-Fi card has two LEDs:

- **GREEN:** Will light up when one card is connected to a router and link is established.
- **RED:** Will light up when card is installed correctly and receiving power.

The Wi-Fi card has two buttons on it:

- **RST:** Standard Reset button. Press to reset the Wi-Fi card
- **DEF:** Factory Reset. Press and hold the button for 5 or more seconds to reset the device to factory default. If the GREEN LED was lit prior to factory reset it will turn off once the device has been factory reset as the connection to the router will have been cleared.

Step 1: Confirm the RED "Power" LED light is visible on the RAC00-802 Wi-Fi card. This means the device is plugged in properly and receiving power.

Step 2: Use a Wi-Fi enabled device (such as a phone or laptop with Wi-Fi card: ) to access the Wi-Fi card. Look for and connect to: **LEV-LPB200.**

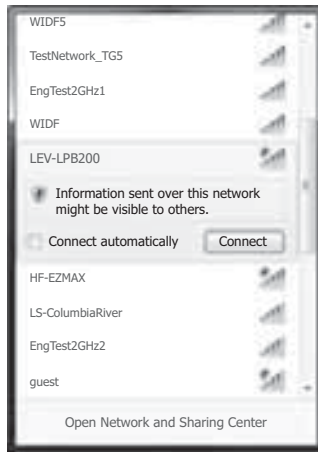


Figure 2.
Visible WI-FI Networks

SPECIFICATIONS

Modem Card Protocol	V.92/56k, V.34/33.6k (Baud Rate set to V.32, 9,600 baud for improved reliability)
Wi-Fi Card Protocol	IEEE 802.11b/g/n Wireless Standards
Operational Temperature	-5° to +50°C
Power Supply	+5 VDC
Power Consumption (Typical)	Modem Card: 125 mA (.62 W @ 5 VDC) Wi-Fi Card: 150mA (.75W @ 5VDC)
Antenna	Wi-Fi Card: Integrated PCB Trace Antenna
EMC	Modem Card: FCC Part 15 (Class B), Canada (Class B), EN55022 (Class B), EN55024 Wi-Fi Card: FCC ID: AZY-HF-LPB200, IC: 12243A-HFLPB200
RoHS Compliant	Yes

FCC COMPLIANCE STATEMENT

EZ-Max Plus System

This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

- **NO GREEN LED:** The GREEN LED signals the Wi-Fi card is connected to a network (router). If the GREEN LED on the Wi-Fi card and Cabinet (ETH/MODEM) are not lit then there is no connection established. User will need to return to configuration screen to re-setup the connection.
- **FIND THE STATIC IP ADDRESS:** The STATIC IP will never show in the Wi-Fi System mode. It is important to write this and any assigned IP address down so it is not forgotten.
- **WI-FI RANGE:** Wi-Fi card will need to be within 50 ft of the router it is talking to. During STA Setting and selecting a network to connect to make sure the RSSI strength is strong. Higher is better for this device.
- **STATION CONFLICT:** If multiple stations are in an area the SSID should be changed by the user in order to help determine what station is being addressed.

PC Application

- All the times need to be defined in the application program. The program does not do a read, modify, write so any original settings and times will be wiped and cannot be read by the application.
- User may need to change the computers User Account Control Settings (UAC) in order to edit configuration file.

Step 3: Open a browser window/tab (Internet Explorer, Firefox, etc.)

Step 4: Go to IP Address: 10.10.100.254

Step 5: A User Password will be requested:
User ID: **leviton**, Password: **leviton**

Step 6: The configuration screen will be loaded into the browser

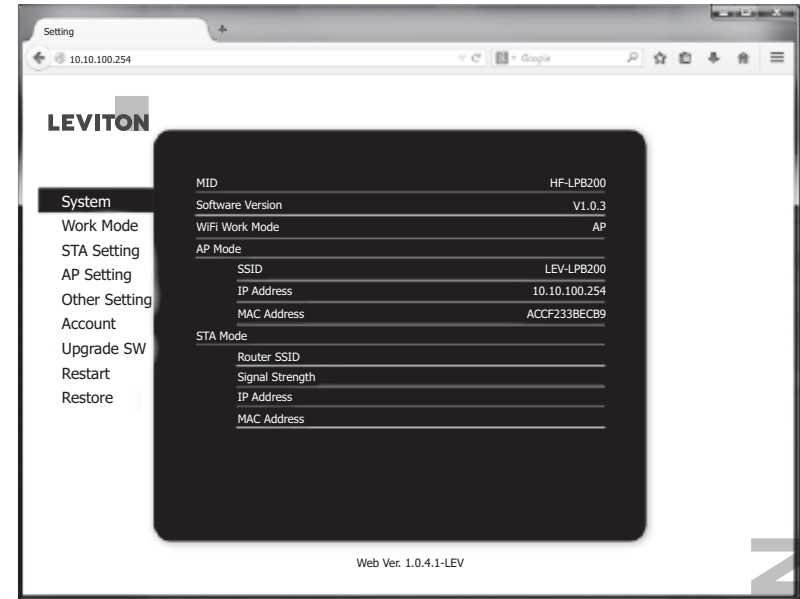


Figure 3.
WI-FI System Page

Step 7: Note the module from the factory defaults to the AP (Access Point) mode. In order to access the EZ-MAX Plus™ cabinet it is necessary to configure the device to STA (Station) mode and connect it to a router.

Step 8: Go to the Work Mode tab. Select "STA mode" and then click Save button.

Note: Use the browser back button to leave the screen and cancel any changes. Changes on a screen are only stored when the save button is pressed before leaving the screen.

Step 9: Go to the "STA Setting" tab.

Step 10: Press Scan on the "Network Name (SSID)" line to scan for networks.

Note: Click "Scan" again to refresh the list if the network list screen does not properly display a list of networks.

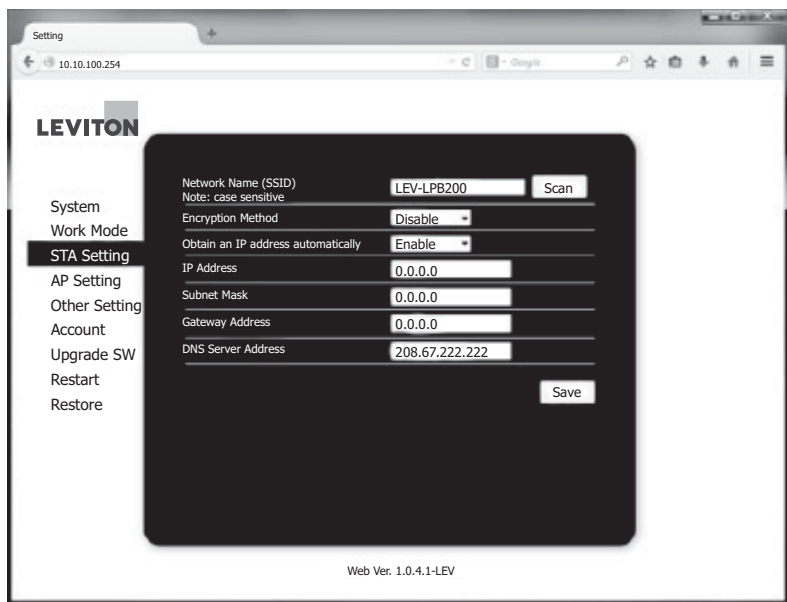


Figure 4.
WI-FI STA Settings

Step 11: Select the network SSID provided from the scan you need to contact to for remote access. This will likely be determined by your Network Administrator. Press the "OK" button. The SSID can be any name based on available SSIDs on a wireless network.

Step 12: After pressing OK, if the SSID requires a password, click OK on "The password is empty!" pop-up and enter the network password for the selected SSID network to join.

Step 13: There are two ways to setup the system at this time. Once again, this will be determined by your Network Administrator which method is selected.

- a. Obtain an IP address automatically (currently Enabled)
- b. Disable the ability to obtain an IP address automatically and assign a STATIC IP Address on the line below.

TROUBLESHOOTING

- **TO AVOID FIRE SHOCK OR DEATH; TURN OFF POWER** at circuit breaker or fuse and test that power is off before installation of Modem or Wi-Fi accessory card. Devices are NOT hot swappable.

Modem

- **BAUD RATE:** The modem card used is the Multi-Tech MT5692MI-V-92 SocketModem®. It can work up to 56k baud however we restrict it to 9,600 baud to improve reliability especially when using VOIP phone lines. If trying to run faster than 9,600 the device will likely encounter connection and data corruption issues.
- **BAUD RATE:** The system connection speed works best at 9600 baud. It may be necessary to force modem to work at 9,600 baud. Baud rate can be forced in terminal/application program using AT commands (e.g. AT+MS=V32 or +MS=V.32 or AT+MS=9,1,9600,9600). The AT commands will vary depending on manufacturer.
- **CONNECTION DIFFICULTIES:** If modem used still does not work there may be a compatibility issue. A MultiTech MultiMobile USB Modem (Model # MT9234MU-CDC-XR) can be purchased from Digikey or similar supplier which has been confirmed compatible with the EZ-MAX Plus™ modem card. Installation drivers can be found on the MultiTech website (www.multitech.com/).

Wi-Fi

- **NO RED LED:** The RED LED indicates the Wi-Fi card has power. If the RED LED is not lit on the card either the cabinet doesn't have power or the Wi-Fi card has not been plugged in correctly. Wi-Fi card may need to be removed and resealed into the socket.

Sunrise and Sunset (SR & SS)

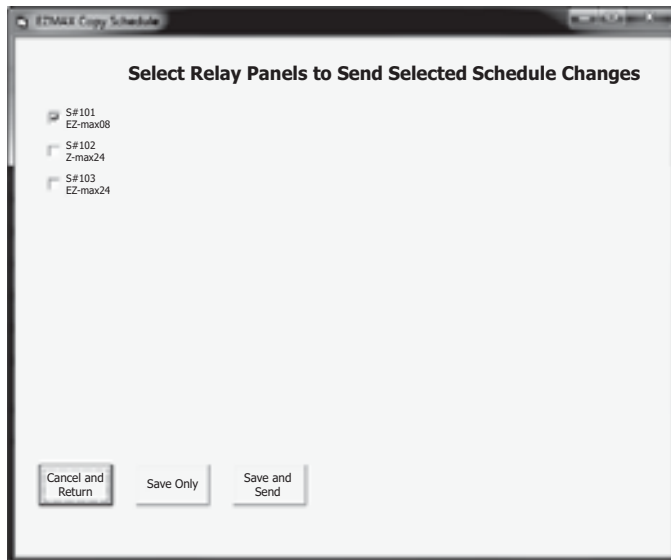
- **SR is Sunrise:** if this box is checked the event will activate at Sunrise
- **SS is Sunset:** if this box is checked the event will activate at Sunset

Checking either SS or SR boxes will zero out the corresponding time value, and becomes an offset value from sunrise or sunset.

The Cancel Changes button will only cancel the values that are highlighted in yellow.

Any changes being made here can be sent directly to the individual cabinet by clicking on the Save and Send button.

Copying schedule from one store to another: Once you have changed the required values on the first store, and you want to copy those changes to other stores, you can click "Copy Highlight Data to Panels". This will only copy what is in green.



At this point you have the option of choosing one or more stores to copy to as well as if you want to only save the changes or save and send to the cabinets directly.

Note: The preferred method is to use a static IP address since there is a risk of the Dynamic IP address changing which would result in the system not working.

Step 14: Select Save at the bottom of the screen when completed.

Step 15: Verify connection to ezMax Plus by accessing the location network and connecting to panel via Internet Browser. Enter the cabinet IP address on the Address Bar of the browser. Observe the initiation and functionality of the interface page. This indicates valid IP and network settings.

Step 16: If the decision is made to Obtain an IP address automatically (Enable) then it is best to change the Work Mode (Item 8) to AP+STA and do a Save and Restart.

- Reconnect to the Wi-Fi SSID: LEV-LPB200
- Refresh your browser (10.10.100.254) and login as necessary.
- Click on the System tab
- Identify your "IP address" at the bottom of the screen so you know how to access the EZ-MAX Plus™ cabinet. **Write this number (e.g. 192.168.1.xxx) on the inside label of the EZ-MAX Plus cabinet so it isn't lost or forgotten.**

Note: This number can change if the network system or the cabinet is powered down for an extended period of time, unless the network settings are set correctly: see network admin for details.

Step 17: Go back to Work Mode, Change the device to "STA mode" then Save and Restart.

Step 18: If the decision is to assign a STATIC IP address then write this number on the inside label of the EZ-MAX Plus cabinet so it isn't lost or forgotten.

Step 19: Make sure Work Mode is set to STA mode then Save and Restart.

Step 20: From here on out access to the cabinet will be via this Static or Dynamic IP address. This access will be accomplished through the router which the Wi-Fi card is directly connected to.

Step 21: If testing is desired Run a terminal program like Tera-term. Select file -> new connection and enter the IP address.

- Hit okay and press enter key
- Tera-term will prompt for the password at this time. This is how you know you have reached the EZ-MAX Plus™ Cabinet.

Step 22: The GREEN LED should go on at this point, once a STATION mode connection is made to the router the GREEN LED on the card and cabinet (ETH/MODEM) will both light.

Once the Wi-Fi connection has been established the application program can now be setup properly in order to configure the system.

EZMAX Scheduler main view

	OPEN	SR	CLOSED	SS	SITE ON	SR	SITE OFF	SS	
Monday	07:00		07:00		16:00		23:00		Copy to Weekdays
Tuesday	07:00		17:00		16:00		23:00		
Wednesday	09:00		17:00		16:00		23:00		
Thursday	08:00		17:00		16:00		23:00		
Friday	08:00		17:00		16:00		23:00		
Saturday	08:00		17:00		16:00		23:00		Copy to Weekends
Sunday	08:00		17:00		16:00		23:00		
Special 1	08:00		17:00		16:00		23:00		Date 1/1/2001
Special 2	08:00		17:00		16:00		23:00		Date 1/1/2001

Buttons: Cancel Changes, Save Only, Copy Highlight Data to Panels, Save and Send

Color Indicators:

Red - If the boxes change to red there is an error indicating the off time is earlier than the on time.

Yellow - The yellow highlight indicates this has been edited but not saved.

Green - The green highlight indicates the box has been saved but not yet sent to the cabinet.

If the box is not highlighted at all then it either has not been touched or has already been saved and sent to the cabinet.

Editing the Configuration file

[General]	
NumberStores=3	This will change the number of tabs seen on the program. It should match the total quantity of stores.
ComPort=4	Settings for modem only. These values shall not change unless your modem specifies differently. If this is utilized, you will need the phone number of each cabinet.
ATE1	
AT+MS=V32	
[Store1]	
Name=S#101 EZ-max08	This is the name of the store. It can be any sequence and length. This will adjust the tab width in the program.
Phone=102	Cabinet phone number. Only used with the modem connection.
IP=192.168.1.131	Cabinet IP address in Wi-Fi system. This will need to be recorded when the system is installed. A static value is recommended.
IPPort=8899	IP port number shall match system setting. All instructions indicate using "8899".
Event1Name=OPEN	Event names: changes the text in the program for the corresponding columns
Event2Name=CLOSED	
Event3Name=SITE ON	
Event4Name=SITE OFF	

Copy and paste "store1" and rename "store2" to edit the next store. Make sure IP addresses are set correctly for the identified store.

REMOTE ACCESS APPLICATION DETAILS

In order for the remote access program to operate properly the EZ-MAX Plus™ cabinet must be setup by creating 36 events. This is a simple matter of creating the 36 events in Visual Programmer and saving as a template which can be loaded on site, remotely or preloaded. Then it is easy to modify the relay numbers in Visual Programmer during commissioning.

Any EZ-Max cabinet that will be utilizing the EZMAX Scheduler must have 36 event list programmed into the cabinet. This is to be done at a per cabinet basis on site once and may change relay values depending on the site requirements. This list coordinates days of the week as well as the store open and close times and site on and off with the values that the scheduler can adjust.

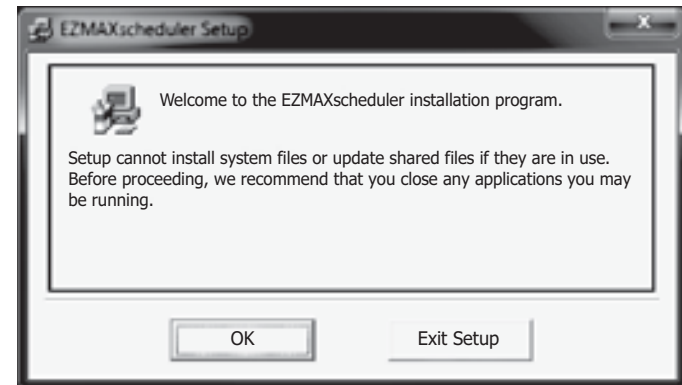
Store open is suggested the time the business hours are open for customer access, close is when the store closes. Site on and off are the times that the outside parking lights are controlled.

EZMAX Scheduler

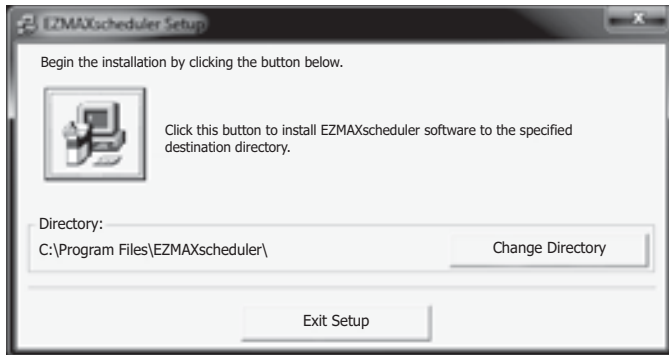
Installation:

On Windows XP through 10, the differences between OS systems are minimal. These setup instructions will follow Windows 7 OS.

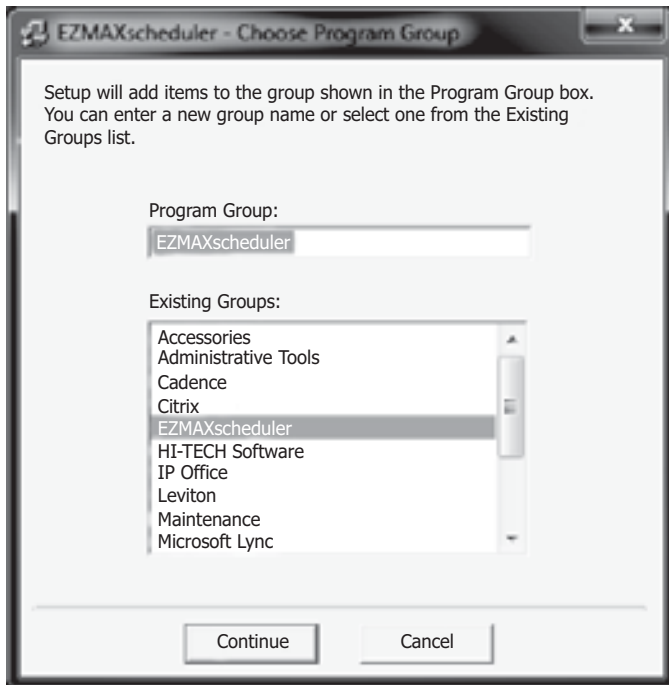
- Open EZ-MAX Scheduler Install folder
- Open Setup.exe



- Click OK

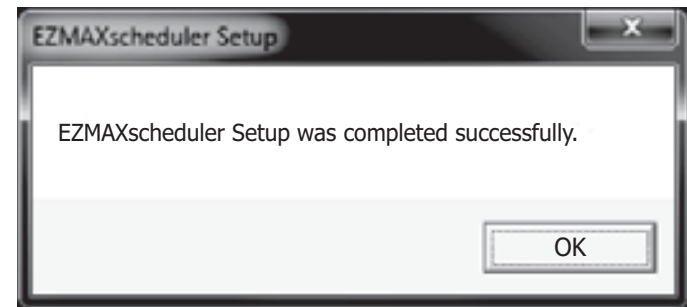


- Click on install button (picture of computer)
- Choose program group



- Click continue

- Completed successfully will popup



- Click OK

Note: it is recommended to have User Account Control Settings UAC set to never notify. To set this go to start button and enter UAC in the search bar. The UAC setting page will start, change the slider to the bottom (never notify), hit OK. Then reboot the machine. This setting will save the configuration file (needed to edit for all system locations) in the program file for EZMAX Scheduler.

If you do not have the capability to or want to change this setting you will need to do a search for EZMAX on the drive to find the "EZMAXSchedulerConfig.ini" file, this may be located in ...\\users\\[login name]\\appdata\\local\\EZMAXscheduler