

**Omniguard 4 WiFi Adapter User's Guide 1.3 (released 1/28/11)****How It Works**

The Omniguard 4 WiFi Adapter enables off-site personnel to receive e-mail updates of your Omniguard 4's job site status. The WiFi Adapter connects an Omniguard 4 to an existing WiFi network and can send one or more of the following alerts:

- WiFi Connection Established
- Connected (with date and time stamp)
- Lost Connection (with date and time stamp)
- Waiting for Pressure (with date and time stamp)
- Entered Normal Operation (with date and time stamp)
- Normal Operation Hi/Lo Pressure Readings per set rate time (with time and date stamp)
- Alarm Alert & Pressure Reading (with date and time stamp)
- Low Battery Warning (with date and time stamp)

The WiFi Adapter also has the ability to e-mail you a full Job Log, eliminating the need to manually download logs at the job site. The Job Logs are sent on a regularly scheduled time basis. These job logs are received via e-mail as an attachment.

**Contents**

- Omniguard 4 WiFi Adapter
- Antenna
- AC Adapter
- Serial Cable (to connect to Omniguard 4's with serial port)
- 9V battery
- User's Guide
- \*\*\* not included is the USB cable (to connect to Omniguard 4's with dual USB ports), it is supplied with all Omniguard 4's

**System Requirements**

- Omniguard 4 (any version, firmware 7.3 or later)
- Omniguard Communications software version 4.0 or later (free download see link in Configuring)
- Existing Wireless Network 802.11b or 802.11g Access Point (WiFi router)
  - supports security types WEP-64/128, WPA-TKIP, WPA2-AES
- SMTP Outgoing Mail Server
  - supports password authentication logins
  - supports up to 10 email addresses to send updates & alerts to

## Configuring

Your Omniguard 4 must have firmware version 7.3 or greater in order to communicate properly with the WiFi Adapter. The firmware updater can be found for free at [www.engsolinc.com/ogsoftup.html](http://www.engsolinc.com/ogsoftup.html).

1. Download the [Omniguard 4 Firmware Updater](#) to your PC.
2. Unzip the Updater by double clicking on the downloaded “og4up\_7\_3\_and\_6\_12\_and\_2\_0.zip” file.
3. Install the Updater by clicking the on the Install.exe file in the folder.
4. Launch the Updater. You will find the Updater program under Start menu at Start > Programs > Omniguard > Updater.
5. Then using the USB cable that was included with the Omniguard 4, connect it to your PC. Turn the Omniguard 4 on. Wait until the LCD on the Omniguard 4 shows “PC” on the screen, which confirms the PC is recognized.
6. Click the Update button in the Updater window on your PC. The time to update the firmware will depend on the speed of you computer.
7. Congratulations, now you have updated the firmware on your Omniguard 4.

Before using the WiFi Adapter on the job site it must be configured at your PC with the Omniguard Communications software version 4.0.0 or greater. *Be advised that if you are already using the Omniguard Communications software it may not be the most recent version and therefore will not support the WiFi Adapter. In this case you will need to download a new version of the Omniguard Communications software.*

1. Download the [Omniguard Communications software](#) to your PC.
2. Unzip the software by double clicking on the downloaded “OG\_4\_0\_0.ZIP” file.
3. Install the software by clicking on the setup.exe file in the folder.
4. Launch Omniguard Communications. You will find it under Start menu at Start > Programs > Omniguard 4 > Omniguard Communications.
5. Using the USB cable that was included with the Omniguard 4 connect the Omniguard 4 to your PC. Wait until the LCD on the Omniguard 4 shows “PC” on the screen, which confirms the PC is recognized.
6. Click on the WiFi Configuration tab. Follow the instructions in the program’s Help for creating and editing the WiFi Configuration.

You will need to know the Network Name and security setting for the WiFi Access Point (WiFi Router) to which the WiFi Adapter will be connected. See the documentation that came with your Access Point or your system administrator for more information.

The WiFi Adapter will also need access to an Outgoing Mail Server (SMTP) to send email. In most cases this will require Password Authentication with a User Name and Password.

## Setting Up

Begin by making sure you have a fresh 9V battery installed in the WiFi Adapter. This battery provides power to send an email if the AC power is lost.

Install the antenna by screwing it into the connector on the side of the WiFi Adapter.

Plug the power adapter provided into a wall outlet and connect the power plug to the WiFi Adapter. The “Omniguard 4” LED should turn Orange when power is first connected.

The WiFi Adapter is designed to be used with all versions of the Omniguard 4. To connect to an Omniguard 4 w/Dual USB Ports, use the USB cable that came with the Omniguard 4. Connect the end of the cable with the square connector to the WiFi Adapter and the other end to the white rectangular “USB” connector on your Omniguard 4. To connect to an original Omniguard 4, use the serial cable provided with the WiFi Adapter.

Make sure the WiFi Adapter is located in an area where it is protected from dust and water. It will fit in the storage space at the back of the Omniguard 4 case. Route the WiFi Adapter’s AC cord through the slot on the right side of the case. It is important to Close/lower the lid of the Omniguard 4 to protect both pieces of equipment.

## Operation

The two status LED’s on the top of the WiFi Adapter indicate its current status.

**Omniguard 4 LED** - will always be illuminated if the WiFi Adapter has power.

Green - The connection to your Omniguard 4 has been established.

Orange - The cable to the Omniguard is not connected or the Omniguard is turned off.

Flashing - If the LED is flashing, the battery voltage is low and the battery should be replaced soon.

*Note: It can take up to a minute for the connection to be established after the WiFi Adapter and Omniguard have been turned on and connected. It can also take up to a minute for the WiFi Adapter to recognize the connection has been lost.*

**WiFi LED** - indicates the status of the connection to the WiFi Access Point.

Green - The WiFi Adapter is connected to the internet and can send emails.

*Note: The WiFi Configuration, set using the Omniguard Communications software and your PC, determines when an attempt will be made to send an email. For this reason the LED may remain orange until a change in the Omniguard’s status causes an email to be sent. It is recommended that the configuration include sending email alerts when the WiFi connection is established so the “WiFi” LED will turn green as soon as a successful connection to the internet is made.*

*It can take up to a minute for the WiFi Adapter to connect to a WiFi Access Point when it is turned on or its WiFi Configuration is changed using the PC. During that time it will not respond changes in the Omniguard’s status and you will not be able to read or write the configuration.*

Orange - The WiFi Adapter is connected to the Access Point. This indicates that the WiFi Network settings section of the WiFi Configuration is set up correctly and is working.

**Sample Email Messages (subject portion)**

Wifi Connection Established or G406849 Wifi Connection Established  
G406849 Connected 13:32 11-17-09  
G406849 Lost Connection - Power Off  
G406849 Waiting For Pressure 09:10 11-25-09  
G406849 Entered Normal Op 15:50 11-25-09  
G406849 Normal Op Hi/Lo -0.027/-0.032 inWC 16:39 11-24-09  
G406849 \*\*ALARM +0.011 inWC 16:14 11-24-09  
G406849 Low Battery 12:23 11-24-09  
G406849 Log 17:30 11-24-09 includes current Job Log file as an attachment

**Troubleshooting Tips**

- If the “WiFi” LED is not illuminated after the WiFi Adapter has been on for 1 minute, the connection to the WiFi Access Point could not be established.
  - Verify that the access point is turned on and within range of the WiFi Adapter.
  - Confirm the WiFi Network settings in the WiFi Configuration programmed into the WiFi Adapter (using the Omniguard Communications software) are correct for the WiFi Access Point.
  - Try re-positioning the antenna and/or the WiFi Adapter.
- If the “WiFi” LED remains orange, the WiFi Adapter has not successfully sent an email. This could be because it has not tried to send an email since it was turned on or the configuration changed, or it could be due to a problem in the configuration.
  - Confirm that the Outgoing Email settings in the WiFi Configuration are correct.
- The WiFi Configuration determines which email alerts will be sent and to whom. If you do not receive an email when an event occurs and the WiFi Adapter’s status LED’s are both green, make sure the WiFi Configuration has email alerts for the event enabled and the email addresses are correct.

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