Wireless Modem User's Guide

How It Works
 Connecting a wireless modem to the Omniguard allows it to send and receive text messages just like a regular wireless phone. The Omniguard can be configured to send alarm notices and daily status reports to up to two wireless phones. In addition it can respond to request for information from wireless phones and via email. If the Omniguard is programmed using a PC, it is also possible to send alarm and/or daily status reports to additional wireless phones and email addresses.

The Wireless Modem
 Wireless communication requires a specially configured MultiTech MultiModem GPRS wireless modem. In order to use the modem you will need to acquire a SIM card from a wireless provider. The SIM card contains the phone number and connection information for providers that use GSM technology. The two major wireless carriers using GSM are AT&T and T-Mobile.
 You have two options for setting up an account. You can establish a conventional wireless contract where you are billed for monthly service. You may be able to set up this type of account without even getting a phone, only a SIM card. If you must get a phone, the SIM card can easily be removed and installed in the modem. Choose a wireless plan that is best for the number of text messages you plan to send and receive from the Omniguard. You will not need any regular calling minutes since the modem will not make conventional phone calls.
 Your second option is to use a prepaid wireless plan. Both AT&T and T-Mobile offer plans with no contracts that allow text messaging. This is a good option if the number of messages will not be too high. For example you can send 1000 messages with T-Mobile's prepaid plan if you purchase a $100 refill card and you have up to one year to use the credit. You must monitor your account balance using online tools to make sure you do not run out during a job. Keep in mind that if you've set up the Omniguard to send text messages each time there is an alarm, you could send up to unown messages per day.

Connecting
 Follow the instructions in the Quick Start Guide included with the modem to insert the card in the modem, attach the antenna, connect the power supply and plug it into a power outlet.
 If you Omniguard does not have a serial port, connect the modem serial cable to the Omniguard USB Port Adapter serial port and plug the adapter into the appropriate port on your Omniguard. For Omniguards with a serial port you can connect the modem serial cable directly to the Omniguard. Your Omniguard must be running V6.14 or later firmware to utilize a wireless modem.
 With the Omniguard turned on and displaying the pressure, you should see the wireless modem ready icon to the right of the pressure within a few minutes.

Authorizing

If you did not purchase your modem directly from Engineering Solutions it will need to be authorized for use by the Omniguard. When your modem is connected and the Omniguard is turned on, you will be informed that the modem is "Not Authorized" along with a serial number. Contact Engineering Solutions, provide us with the serial number shown on the screen and we will give the passcode to authorize the modem. To enter the passcode into the Omniguard use the up and down arrow keys to change a digit and the right and left arrow keys to move between the digits. When all the digits have been entered press SAVE to authorize the modem. You will get the message "Modem ready". The modem will now work with any compatible Omniguard.

Configuring

Two wireless phone numbers can be programmed directly into the Omniguard. A text message will be sent to each phone number when the Omniguard enters normal operation and when an alarm condition occurs. The minimum time between alarm text messages is limited to the Message Rate to prevent frequent messages if the unit is going in and out of the alarm state.

Normal Operation Message
```
JOB:
 1234 Jacksonville Ave N
NORMAL OP 12:59:16
Reply with 0 for menu.
Omniguard 4
# G400000
```

Alarm Message
```
>> ALARM <<
JOB:
 1234 Jacksonville Ave N
ALARM 1: +0.010" WC
 12:59:07 +0.011" WC
Reply with 0 for menu.
Omniguard 4
# G400000
```

Phone numbers programmed directly into the Omniguard will also receive a daily summary indicating how long the unit was in normal operation, the number of alarms and the total time the unit was in the alarm state. The summary report will be sent at 5:30pm each day unless a Notify List has been selected (see below).

Daily Summary Message
```
DAILY SUMMARY
JOB:
 1234 Jacksonville Ave N
IN NORMAL OP:
 6hr 46min
ALARMS:
```

```
     12
     IN ALARM:
      59min 12sec
     Reply with 0 for menu.
     Omniguard 4
     # G400000
```

In order to support more wireless phone numbers along with email addresses, the Omniguard can store up to four Notify Lists. These lists allow different phone numbers and/or email addresses for alarm and normal operation notification and reports. They also allow the report time to be changed. Notify Lists can only be created and programmed into the Omniguard using the Omniguard Communications PC software available at www.engsolinc.com. See the help that comes with the software for more information on setting up Notify Lists.

To configure and test the wireless modem –
1. Connect the modem to the Omniguard as described above.
2. Highlight WIRELESS MODEM using up and down keys and press SELECT to view or change the settings.
3. If desired, press up and down keys to change Cell # 1, the first of two wireless phone numbers that can be programmed on the Omniguard. Once the first digit of the number has been changed, use right and left keys to move to the other digits. To delete the phone number, set the first digit to a blank.
4. Press right and left keys to move to Cell # 2. Again use up and down keys to change the first digit of the phone number. Once the first digit of the number has been changed, use right and left keys to move to the other digits.
5. Press right and left keys to move to Notify. If you have programmed one or more Notify Lists into the Omniguard using the Omniguard Communications PC software, you can select on of them using "up/down".
6. Press right and left keys to move to Test Modem. When "Test" is selected, pressing the SELECT key will cause a message to be sent to the Cell # 1 and Cell # 2 phone numbers as well as any numbers or email addresses in the chosen Notify List.
7. Press SAVE to save the settings and return to the Main Menu.

Pressing the EXIT key will return you to the Main Menu without saving the updated settings.

Requesting Information
It is also possible to request information from an Omniguard connected to a wireless modem. A text message or email is sent to the Omniguard which will reply with a report based on the content of the message. The reports include a daily summary, overall job summary, current status and settings. To get a complete list of reports the Omniguard can provide send a text message or email with a "0" (zero) in the body of the message.
Text messages must sent to the Omniguard must be in the "short message" format and are sent to the phone number of the wireless modem. Email message must be in plain text format and should be sent to the email address provided by the wireless service provider.

For T-Mobile that address would be "nnnnnnnnnn@tmomail.net" and for AT&T it would be "nnnnnnnnnn@mmode.com" where "nnnnnnnnnn" is the phone number of the wireless modem.

   Note that when requesting information using email the reply from the Omniguard may be truncated due to the length of the email address and limitations in the size of text messages.

Sample replies…

<u>Menu- "0" or unknown message</u>
```
Reply with 1, 2, 3 or 4 to get report:
1-Current Status
2-Daily Summary
3-Entire Job
4-Settings
Omniguard 4
# G400000
```

<u>Status- "1"</u>
```
JOB:
 1234 Jacksonville Ave N
STATUS:
 Waiting Pressure
PRESSURE:
   0.000" WC
Omniguard 4
# G400000
```

<u>Daily Summary- "2"</u>
```
DAILY SUMMARY
JOB:
 1234 Jacksonville Ave N
IN NORMAL OP:
 6hr 46min
ALARMS:
 12
IN ALARM:
 59min 12sec
Reply with 0 for menu.
Omniguard 4
# G400000
```

<u>Job Summary-"3"</u>
```
JOB SUMMARY
JOB:
 1234 Jacksonville Ave N
START:
 02-01-09 8:00
IN NORMAL OP:
```

```
     23hr 46min
ALARMS:
 12
IN ALARM:
 59min 12sec
Omniguard 4
# G400000
```

Settings-"4"
```
SETTINGS
MEM EST DAYS LEFT:
 100
DATE & TIME:
 01-01 12:00
ALARM 1:
 -0.025" WC
ALARM 2:
 -0.050" WC
PRINTER: Off
Omniguard 4
# G400000
```

Tips

- It is very helpful to make use of the Job capabilities of the Omniguard including the use of Job Names. When start work at a new job site, press the START JOB key on the Omniguard and enter a meaningful name for the job, such as the address. This will make the reports easier to identify since they all use the Job Name. The Job Summary will also accurately reflect work done.
- By entering an email address into the list of Report Targets in a notify list, you can have a daily summary of the job sent to you automatically.