

# Tank Guardian

*The Latest Innovation in Technology*

## Installation Guide



**TANK GUARDIAN™**  
GUARDIAN WIRELESS  
2817 Basswood Rd., Manitowoc, WI 54220 - (800) 330-7413

- ✓ Low Battery Voltage
- ✓ Tank Level Reporting
- ✓ Integrated Solar Panel
- ✓ Alarm Call in Seconds
- ✓ Internet History & Control

**ESN#:**

[info@guardianwireless.com](mailto:info@guardianwireless.com) - [www.guardianwireless.com](http://www.guardianwireless.com)



**Guardian Systems**

Your Wireless Security System Leader

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## **Introduction**

Congratulations on your Guardian Wireless purchase! This manual will help you install and use your new Tank Guardian. If, for any reason, the instructions in this manual are not clear, please feel free to call us at 1-800-330-7413 for assistance.

## **Installation**

### **Checking the Box Contents**

Make sure that the following items are found in your box:

- A control box
- A solar panel
- A gauge cable with hall-effect sensor OR a customized cable solution specific to the gauge you ordered for.

If you do not find any one of the above items, double check the packaging, as some of these are small and easily missed. If, after having double checked the packaging, you still do not find the above items, please contact us.

### **Mounting the Control Box**

#### *Locating the Control Box*

Consider the following when locating your control box:

- **Signal Strength:** The Tank Guardian uses GSM cellular technology to communicate alarms and other information to our servers. Use a GSM technology cellular phone to locate a good signal. If you do not have a GSM technology phone or do not know if your phone is GSM, contact your cellular provider to find out. Using a non-GSM technology phone to locate a good signal will work, but only in an area where many cellular companies provide service. The more companies in your area, the more likely it is that one of them uses GSM technology phones.
- **Power Source:** The control box come with an internal battery and a solar panel mounted to the lid. In order for the solar panel to work correctly, it must be oriented facing South. A compass may be required to orient the unit.

- **Mounting:** Although the control box has significant weight, it could still be blown off a tank if it is not held in place somehow. If you have a relatively flat surface, double sided foam tape is an excellent mounting method. Consider carefully how you will mount the unit, so that it does not fall off and get damaged.

### Mounting the Control Box

Follow these steps to mount your control box:

- The battery was disconnected prior to shipping to keep it from being drained. To connect it, open the box using a Phillips head screwdriver and reconnect the positive terminal to the red wire coming from the circuit board. Replace the cover and tighten it down with the screwdriver. You may receive a false alarm at this point, but this is normal.
- Connect the solar panel power connector to the box. This connector is polarized and is only two prongs, so it will only fit into one of the two receptacles on the box. It should fit snugly. Make sure you twist the lock ring tight to keep the connector from falling out. The connector is water proofed, but will corrode if the pins are left exposed to weather and will degrade in performance.
- Mount the unit no more than four feet from where the gauge is located. As mounting methods will vary with installation site, the method of attachment is left up to the user. The only thing to keep in mind is that the solar panel needs to face south in order for it to receive maximum charging voltage.
- Angle the solar panel so that it can receive the most sunlight. The further north you are, the more vertical the solar panel should be. For instance, in Wisconsin an angle of about 65 degrees is best, while further south in Florida, an angle of 45 degrees is best.
- Connect the gauge:
  - For propane and bulk tanks equipped with special Rochester brand remote ready gauges, the standard hall-effect sensor is just what you need. Simply clip it to the remote ready gauge, connect the other end to the box, making sure to twist the lock ring tight, and you are finished with installation.
  - For tanks equipped with sonic sensors, or other kinds of sensors with an analogue voltage output, you may have been provided with just a connector. In this case, you will need a soldering iron, solder, wire strippers, and a heat gun to assemble the

connector. A special sheet of instructions should have been included for this step. If you are missing the extra instructions, please download them from our website, [www.guardianwireless.com](http://www.guardianwireless.com) or contact us at 1-800-330-7413 to request a copy.

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# System Operation

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## Operating the System Locally

The Tank Guardian is designed to be an “always on” system. This means that if you need to store it for more than 3 days, you should open up the box and unplug the battery. It would also be wise to disconnect the solar panel at this time, to prevent any false alarms while the unit is in storage.

When bringing the unit out of storage, it may be wise to charge the battery up to make sure it is working correctly. The battery is rated at 6 volts and should not be charged with a 12 volt charger. This will destroy the battery.

While the unit is in use, it should not need any maintenance. The solar panel has been sized to keep the battery charged and the battery has been sized to keep the unit operational for at least 3 days without any sunshine. Please consult the trouble shooting guide at the end of this manual if there are any problems with your unit.

## Operating the System Remotely

The Tank Guardian can be operated through our website by pointing your browser to:

*<https://www.guardianwireless.com/members/logon.asp>*

### Logging In

#### **Members Log On**

Username  Password

**Figure 8**

After going to the above address, you will be presented with a logon screen. There, you may enter the username and password that you received in the letter that was included with your system. After you enter your information and click the “Log On” button, you will be redirected to your system’s events page.

## The Events/History Page

### Recent Events / History

Welcome.

You have the following messages. To view archived history please select a month and year:

Time Stamp (CST)	Alarm	Alarm Details	Map Details
7/19/2006 8:00:31 PM	Status	Disarmed,Relay 1 Off,Relay 2 Off,Battery Voltage: 15.44 v, Bilge Pump Cycle: 0, Duration: 0 Min.	
7/18/2006 8:00:30 PM	Status	Disarmed,Relay 1 Off,Relay 2 Off,Battery Voltage: 15.28 v, Bilge Pump Cycle: 0, Duration: 0 Min.	

Total Rows: 2

**Figure 9**

The events page is capable of showing all of the messages your unit has ever sent. The default is to show you the alarms and system messages for the current month and year, however, you can change this by selecting a different month and/or year and clicking the nearby Go button, as highlighted in yellow in Figure 9.

## The Control Page

This page is not used with the Tank Guardian. This is because the unit would have to be on all the time in order to receive any random forward messages. However, this would consume the battery power too quickly, so the unit shuts off its radio in between transmissions to save power.

## The Preferences Page

**Preferences / Account**

Welcome,

You currently have 19 messages left.

Owner's Information	
First Name	<input type="text" value="Demo"/>
Last Name	<input type="text" value="Unit"/>
Address1	<input type="text" value="500 S. 16th Street"/>
Address2	<input type="text"/>
City	<input type="text" value="Manitowoc"/>
State	<input type="text" value="WI"/>
Postal Code	<input type="text" value="54220"/>
<input type="button" value="Update"/> <input type="button" value="Cancel"/>	

Emails	
Email 1	<input type="text" value="gwsales@guardianwire"/>
Email 2	<input type="text" value="sales@guardianwireles"/>
<input type="button" value="Update"/> <input type="button" value="Cancel"/>	

Phone Numbers	
Call Order Phone Number	
Phone1	<input type="text" value="9202426320"/>
Phone2	<input type="text"/>
Phone3	<input type="text"/>
<input type="button" value="Update"/> <input type="button" value="Cancel"/>	

**Figure 12**

The preferences page, shown in Figure 12, is where you will find displayed your name, address, and telephone numbers. You may not edit your username; however, you may edit all of the other information on the page including your password. To edit your something, simply click in one of the boxes shown in Figure 12. When entering phone numbers, enter them without a starting 1 or any punctuation, and with the area code.

For example, the phone number (123) 555-0123 would be entered 1235550123. You may enter any four phone numbers, however, you may not enter 911 or any law enforcement agency phone number, as doing so is not permitted by law.

# Troubleshooting Guide

- **The control box does not seem to be transmitting anything:** If you have just turned the unit on, and you did not receive any false alarms, the unit is probably still working just fine. It will take about 3 days from the time you turn on your unit until the first status message is received. If your unit has been on for more than three days and you have not received any status messages yet, then open the box with a screw driver and use a volt meter to check the battery voltage. If the voltage is below 5.1 volts, the battery will need to be charged. If the battery does not take a charge, it is defective and needs to be replaced. Call 1-800-330-7413 to report the problem and arrange shipping for a replacement.
- **The battery keeps running out of power:** Check the solar panel and make sure it is clean. A dirty panel will not collect as much power as a clean one. If the panel is clean, check its orientation. It needs to face South and be tilted enough to receive the full effect of the sunlight, especially in winter. If the solar panel is tilted and aimed correctly, then make sure there is no damage to the solar panel cords and that the connector has no water damage and that the lock ring is fully twisted onto the box. If everything is fine with the solar panel, then the battery may need to be replaced. Call 1-800-330-7413 to report the problem and to get a replacement battery.
- **The tank level is not being reported correctly:** If you did not specify the type of sensor that you were using when you ordered your unit, then the unit has not been programmed correctly to match your sensor. Send the unit back to be reprogrammed. To guarantee that the unit will read accurately, include an example of the sensor along with the unit when you return it. If you cannot provide an example sensor, then provide the model number and manufacturer so that we can download a datasheet on the sensor and simulate its output to get as close of a calibration as possible. Charges for servicing your unit may apply if you send your unit back beyond the one year warrantee or any extended warrantee that you purchased along with the unit.
- **My question is not answered in this troubleshooting guide:** Please call 1-800-330-7413 and we will do our best to help you out. We are open from 8:00 AM to 4:30 PM CST.

## FCC NOTE

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*This device complies with FCC Rules Part 15.*

*Operation is subject to the following conditions:*

*This device may not cause harmful interference*

*This device must accept any interference that may be received, including interference that may cause undesired operation.*

*Changes or modifications not expressly approved by Guardian Wireless, Inc. can void the user's authority to operate the equipment.*

## Warranty Information

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**LIMITED WARRANTY.** Guardian Wireless warrants to the original retail purchaser, that if a Product is found to be defective in material or workmanship, within one year from the date of purchase, Guardian Wireless shall, at its sole and absolute discretion, repair or replace it with a new or reconditioned Product of the same or more recent model in exchange for the defective Product. This limited warranty applies only if proof of purchase presented at the time claim is made.

This limited warranty does not cover and is void with respect to: (i) physical damage to the surface of the Product, including cracks or scratches; (ii) cosmetic damage; (iii) any Product which has been improperly installed, repaired or modified; (iv) any Product which has been subject to misuse (including any Product used in conjunction with hardware electrically or mechanically incompatible), abuse, physical damage, abnormal operation, incorrect line voltage, improper handling, neglect, lightning, electrical surges, exposure to excessive moisture or dampness or extreme changes in climate or temperature; (v) any Product damage due to accident, fire, flood, and/or other acts of God, improper commercial use or damage that occurs in shipping; (vi) any Product on which factory-installed Product access numbers or serial numbers have been removed, altered or rendered illegible; (vii) consumables (such as batteries). Transportation to and from the authorized service center is the customer's responsibility.

**EXTENDED LIMITED WARRANTY.** If you have purchased our Extended Limited Warranty, we will extend the Limited Warranty explained above for the term on a year to year basis. The Extended Limited Warranty will be available in One, Two or Three year increments. Extended warranty is available upon purchase of the unit or within the last thirty days of the initial warranty term. You must notify us by telephone, e-mail or written notice at least 30 days before the end of the then-current yearly term to sign up for the extended warranty.

**WARRANTY EXCLUSIONS.** The limited warranty and, if purchased, the extended limited warranty do not apply if we determine upon inspection that any of the following conditions caused the need for service: A. Damage resulting from accidents, Acts of God, alterations or misuse; B. You fail to properly follow the operating or installation instructions; C. Trouble in a telephone line or due to interruption of power; D. Repairs needing batteries; E. Ordinary maintenance or wear and tear; F. Alterations to your premises; or G. Alterations to the system made at your request, or made necessary by a change to your premises, damage to your premises or the alarm system, or for any other cause beyond our control.





**Guardian Wireless, Inc.**  
2817 Basswood Drive  
Manitowoc, WI 54220

(800) 330-7413  
(920) 769-0066

<http://www.guardianwireless.com/>  
[info@guardianwireless.com](mailto:info@guardianwireless.com)

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