



GMC GUARDIAN MOBILITY CORPORATION

Guardian Sentinel™ and Guardian Sentinel GPS™

Installation Guide & User's Manual

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NOTICE

This equipment complies with the FCC RF Exposure Limits.
A minimum of 20 centimeters (8 inches) separation between the device and the user and all other persons should be maintained.

Version 1

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About this guide

Welcome to Guardian Sentinel and Guardian Sentinel GPS, and thank you for purchasing this device. This guide is designed to help the user assemble, configure and use the unit for all of their tracking and monitoring applications.

The target audience of this manual includes Guardian Sentinel and Guardian Sentinel GPS installers, and end users who would like to learn about the operation of these devices. This document includes information on:

- The components of the Guardian Sentinel and Guardian Sentinel GPS device and its accessories
- Connecting the Guardian Sentinel and Guardian Sentinel GPS to external sensors and monitoring devices.
- Configuring the Guardian Sentinel and Guardian Sentinel GPS to transmit information on a pre-determined schedule and after alerts from external sensors.
- Viewing transmission data from the Guardian Sentinel and Guardian Sentinel GPS through the Guardian Mobility BackOffice.

For any questions outside the scope of this document, please contact your GMC Guardian Mobility representative at (613) 225-8885, extension 332.

I C O N K E Y	
	Important Information
	Optional Configurations
	Software Configuration
	Reference Information

Icons commonly used in this manual are shown in the key on the left.

Introduction to the Guardian Sentinel

The Guardian Sentinel and Guardian Sentinel GPS are part of a next generation satellite communication and connectivity platform. They are designed for monitoring applications including remote fixed and mobile assets. The technology is built around a simplex transmitter delivering low speed data packets via the low-earth orbit (LEO) Globalstar satellite network. The location-enabled Guardian Sentinel GPS utilizes next generation, low power global positioning system (GPS) receiver module delivering better than 6 meter accuracy 95% of the time. The receiver is also one of the most sensitive in its class allowing the acquisition of position information even in traditionally difficult reception environments.

The Guardian Sentinel and Guardian Sentinel GPS transmits data at pre-scheduled times or based on alerts from external sensors. The data is sent through the Globalstar satellite network to the Guardian Mobility back office. From here, transmissions are accessed via Guardian Mobility's network operation centre or delivered to the customer location in a standard pre-determined format.

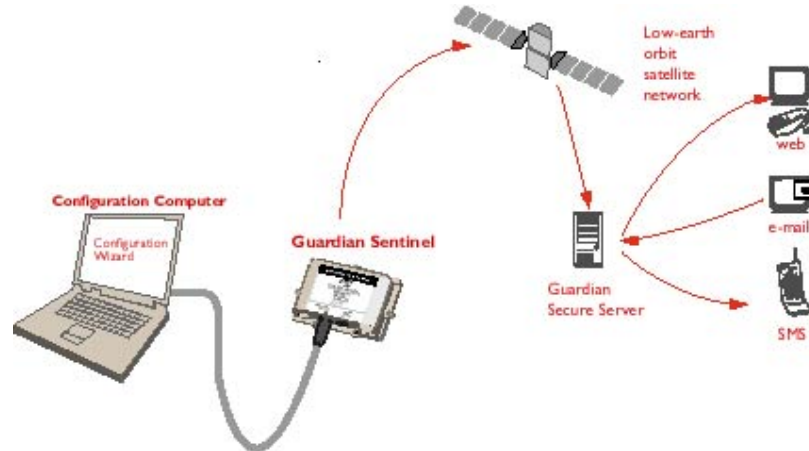


Figure 1: Guardian Sentinel system

The Guardian Sentinel and Guardian Sentinel GPS, consists of a satellite transmitter, a GPS receiver and additional electronics to integrate data from external sensors. The components are housed in a custom-designed environmentally sealed enclosure. IP67 and NEMA4x rated connectors are the interface between the external sensors and the hardware of the Guardian Sentinel. Custom cables to interface between the Guardian Sentinel/Guardian Sentinel GPS and external sensors are available.

The Guardian Sentinel Configuration Wizard is a Windows 98/2000/XP based software used to set-up the transmission schedule and alert triggers of one or more units. The software is included in evaluation kits or can be ordered separately.

The Guardian Secure Server/BackOffice receives incoming transmissions from the Globalstar satellite network and stores the data. Authorized users can log in to the server

to view messages or have them forwarded to their facilities via SMTP (email), SMS or HTTP.

Setup Overview

Setting up, installing, configuring and testing the Guardian Sentinel consists of the following:

- Understanding the different parts of the Guardian Sentinel
- Installing the Guardian Sentinel Configuration Wizard on an installation computer
- Creating a Guardian Sentinel configuration file
- Connecting the installation computer and power to the Guardian Sentinel
- Downloading the configuration file to the Guardian Sentinel
- Ensuring that the Guardian Sentinel is operating correctly

This manual will guide you through these operations.

Parts Descriptions

The Guardian Sentinel and Guardian Sentinel GPS are available in two models: Guardian Sentinel minibase and Guardian Sentinel full enclosure. The dimensions of the units are as follows:

	Minibase	Full Enclosure
Length	113 mm	176 mm
Width	168 mm	179 mm
Height	38 mm	48 mm



Guardian Sentinel Minibase



Guardian Sentinel Full Enclosure

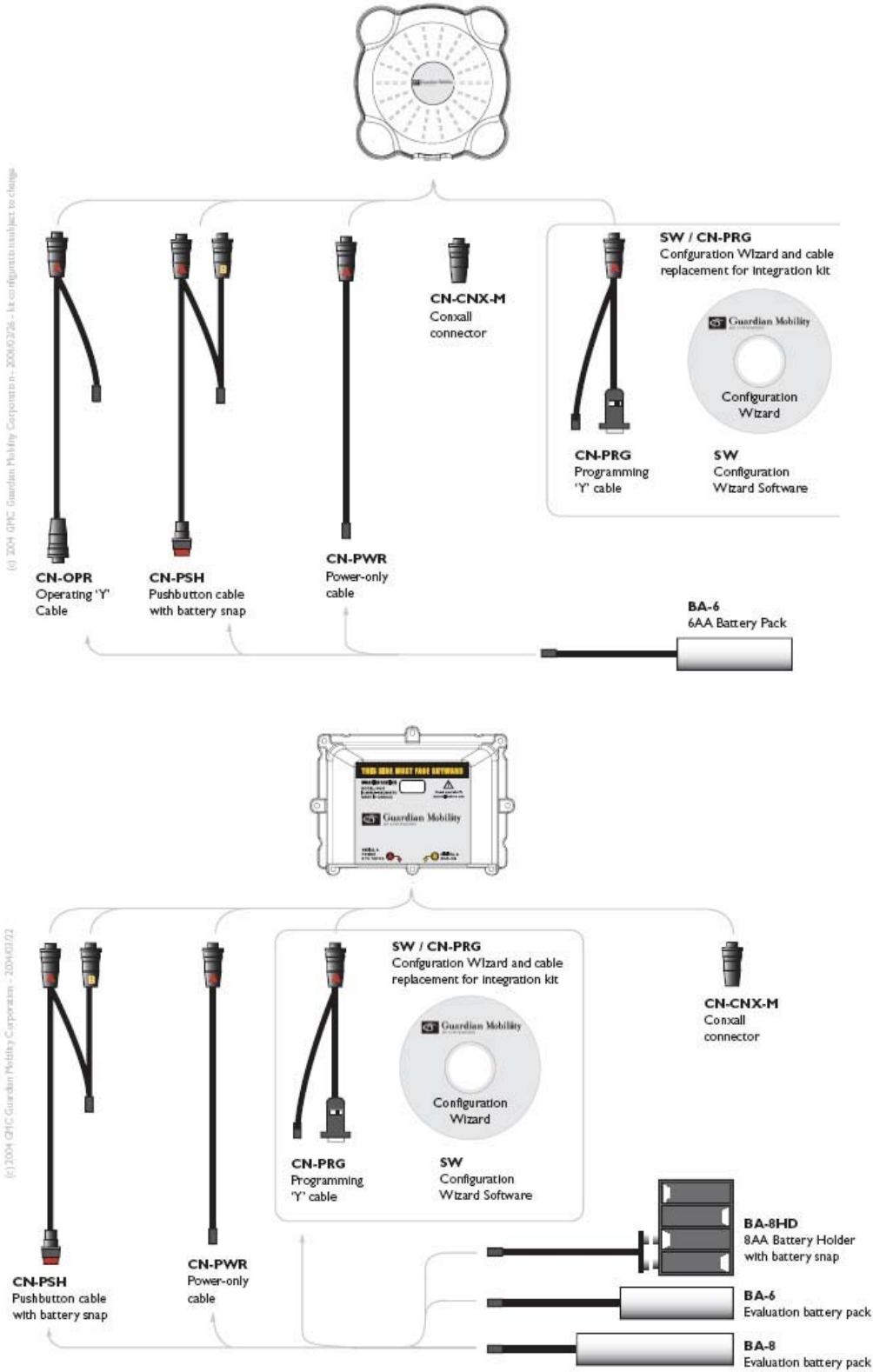
Figure 2: Guardian Sentinel or Guardian Sentinel GPS hardware

The minibase is intended to be used in small space applications or where external power is available. The full enclosure model is intended for portable applications and where AA batteries are in use. Both models operate in the exact same manner.



A specific list of parts is included with each Guardian Sentinel package. This section describes each part in more detail. Depending on your order, your Guardian Sentinel kit will have all, or a subset of the parts listed.

Parts List and Description



CN-OPR - Operating cable: The operating cable is an extension cable for connector A which allows users to plug in RS-232 sensors without disassembling the top of the full enclosure unit. This cable cannot be used for configuring the units.

CN-PSH – Pushbutton cable: This cable utilizes a digital input port to trigger a transmission at the user’s convenience. It can be used with either the full enclosure or mini-base model.

CN-PWR – Power-only cable: The power-only cable is a cable that can be used to power either the mini-base or full enclosure model of the Guardian Sentinel.

CN-PRG – Programming ‘Y’ cable: This cable connects the Guardian Sentinel to the configuration computer. When in “Program” mode, it uploads/downloads configuration information from the Guardian Sentinel to the Guardian Sentinel Configuration Wizard. When in ‘Run’ mode, it can be used to connect RS232 interfaces to the Guardian Sentinel.

CN-CNX-M – Conxall connector: This is an IP65/NEMA4x rated connector that can be used by the customer to create their own cables.

BA-8HD – 8AA Battery holder with battery snaps: This battery holder is used to house AA batteries for tests and configuration activities.

BA-6 – 6AA Evaluation battery pack: This long-life battery pack is exclusively designed to fit into the battery compartment of the Guardian Sentinel full enclosure model.

BA-8 – 8AA Evaluation battery pack: This long-life battery pack is used to power the Guardian Sentinel mini-base for evaluation purposes.

SW – Configuration Wizard Software: This software is used to upload/download configuration information from the Guardian Sentinel to the user’s computer.

Setting up the Guardian Sentinel

Overview

This section will include information on how to:

- Install the Guardian Sentinel Configuration Wizard Software on a configuration computer
- Connect the configuration computer to the Guardian Sentinel with the programming cable
- Program the Guardian Sentinel
- Connect optional external sensors to the Guardian Sentinel

What You Will Need

- Guardian Sentinel (Model SN01) or Guardian Sentinel GPS (Model SG01, SG01-FE)
- Power source (batteries or external power)
- Programming cable (Part number CN-PRG)
- Computer with RS-232 (DB9 Serial) interface
- Custom cables for connecting external sensors (if applicable)
- Copy of the Guardian Sentinel Configuration Wizard

Power Requirements

The Guardian Sentinel and Guardian Sentinel GPS can be powered either by batteries or external power sources. The power requirements are 9 - 15 VDC with the capability of providing 350 mA of continuous current. Examples of supported battery configurations are as follows:

- Option 1: 6 or 8 – AA cells, lithium disulphide
- Option 2: 6 or 8 – C cells, alkaline
- Option 3: Custom configurations



Battery life will be determined by battery chemistries and the number and length of transmissions. Batteries can be purchased from companies such as Tadiran Batteries (1-800-537-1368) and Cantec Systems (613-725-3704).

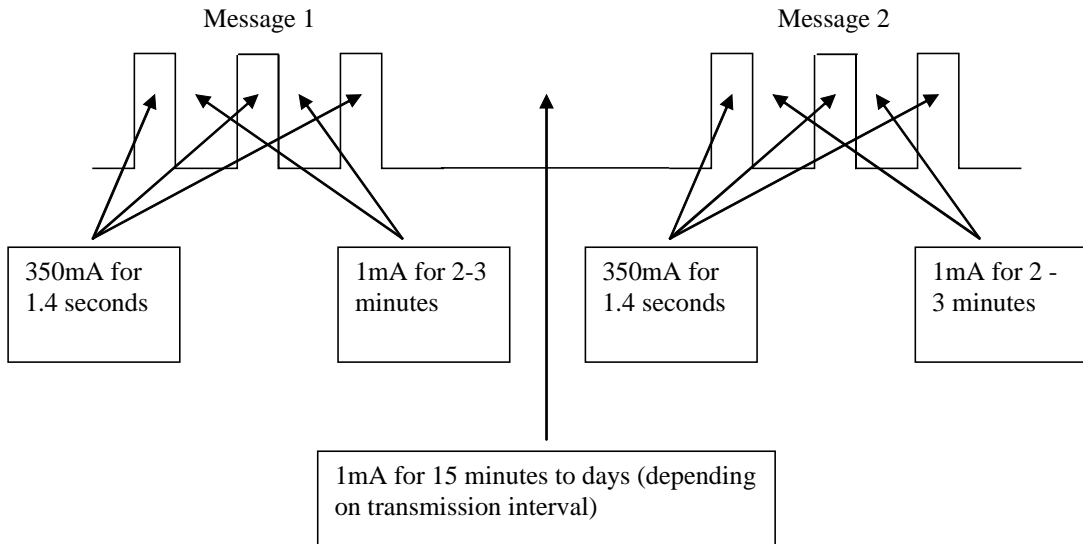
The Sentinel is also configured with a built-in battery warning system that warns the user when the battery level is reaching low levels.



Batteries must be removed prior to connecting any external power sources.

Power Consumption Profile

The following is the power consumption profile of the Guardian Sentinel based on three tries per message transmission with wait time of 120 – 180 seconds between tries.



Connector Diagram

The Guardian Sentinel and Guardian Sentinel GPS have two connectors that are used to power and program the unit. They are also used to connect external sensors.



Up to one (1) RS-232 (serial), two (2) digital and two (2) analog sensors can be connected to the existing Guardian Sentinel and Guardian Sentinel GPS.

The following diagrams illustrate the pin-out of the connectors on the Guardian Sentinel and Guardian Sentinel GPS:

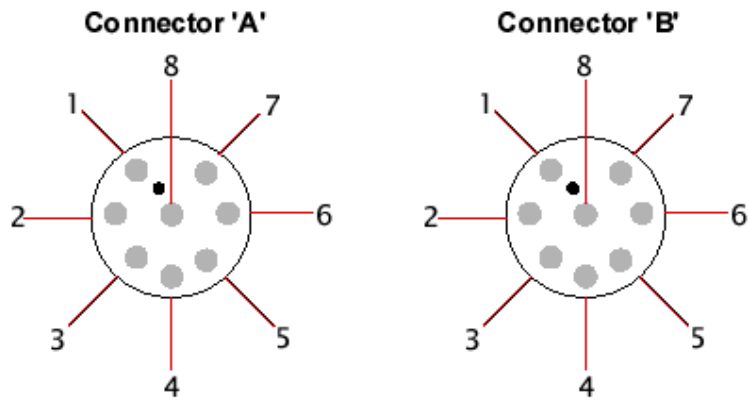


Figure 3: Guardian Sentinel connector pin-outs

Table 1: Guardian Sentinel connector pin descriptions

Pin	Connector 'A' Pin Description
1	Power
2	Ground
3	Do not connect
4	CTS (clear to send)
5	RTS (ready to send)
6	Receive
7	Transmit
8	RS-232 ground

Pin	Connector 'B' Pin Description
1	Digital input 1
2	Digital input 1 return
3	Digital input 2
4	Digital input 2 return
5	Analog input 1
6	Analog input 1 return
7	Analog input 2
8	Analog input 2 return

LED Behaviour Description

Guardian Sentinels with clear enclosures have three LEDs (light emitting diodes) which indicate what the unit is doing. The three LEDs represent the following:

1. CONFIG – Configuration LED
2. STU – Satellite Transmitter LED
3. GPS – Global Positioning System LED



When the unit is first powered all three LEDs light up for an instant. After, the *STU* LED lights up for a couple of seconds while the *STU* initializes. If the unit is configured with a GPS chip, the *GPS* LED blinks as the unit begins acquiring GPS position. After it gets a valid GPS position, or the GPS timer times out, the unit begins transmitting. During this time, the *STU* LED blinks once every 5 seconds until it is done. The transmission period varies between 4 to 6 minutes when the unit has been programmed to transmit the message three times.

When the unit is ready to receive configuration information, the configuration button remains on. After downloading the configuration, both the *CONFIG* and *STU* LED remain on.

Using the Guardian Sentinel Configuration Wizard

The Guardian Sentinel and Guardian Sentinel GPS must be configured prior to use. This is done by using the Guardian Sentinel Configuration Wizard. The Wizard is a Windows based application that allows the user to select which external sensors are connected to the Guardian Sentinel, how they should be configured and how often the Guardian Sentinel should wakeup and send a status transmission.

This section describes how to install the Guardian Sentinel Configuration Wizard, and how to connect to the Guardian Sentinel to download the configuration

Guardian Sentinel Configuration Wizard Hardware and Software Requirements

The following are the hardware and software requirements to install and run the Guardian Sentinel Configuration Wizard.

- IBM PC desktop or laptop
- Pentium II, 300 MHz with RS232(DB9) serial port
- 64MB RAM
- 100MB of hard disk space
- Operating systems: Windows 95/98/2000/XP

Installing the Guardian Sentinel Configuration Wizard

1. Uninstall any previous versions of the Sentinel Configuration Wizard.
2. *If installing the Guardian Sentinel Configuration Wizard from a CD-ROM:* Insert the Guardian Sentinel Configuration Wizard CD-ROM in the CD-ROM drive of the installation computer.

If installing the Guardian Sentinel Configuration Wizard from a file downloaded from the Guardian Mobility Website: select the file from the downloaded location.

3. Unzip the file & extract to a temporary directory.



If Winzip is not installed in your system.
Download and install a copy from
<http://www.winzip.com>

4. Run the setup application by double clicking the file 'setup.exe'
This will install the Sentinel Configuration Wizard to:
C:\Program Files\Guardian Mobility Corp\Sentinel Configuration Wizard
5. Follow the instructions in the setup application

A default configuration file will also be installed in the same location as the Sentinel Configuration Wizard.

Operation Flow of the Guardian Sentinel Configuration Wizard Software

The operation flow of the Guardian Sentinel Configuration Wizard is shown in Figure 4. Based on the selections made on the Usage screen, other screens will appear for RS-232 parameters, digital input parameters and analog parameters. Wake up scheduling screens follow regardless of usage choices. The penultimate screen shows a summary of the created configuration before the configuration file can be saved.

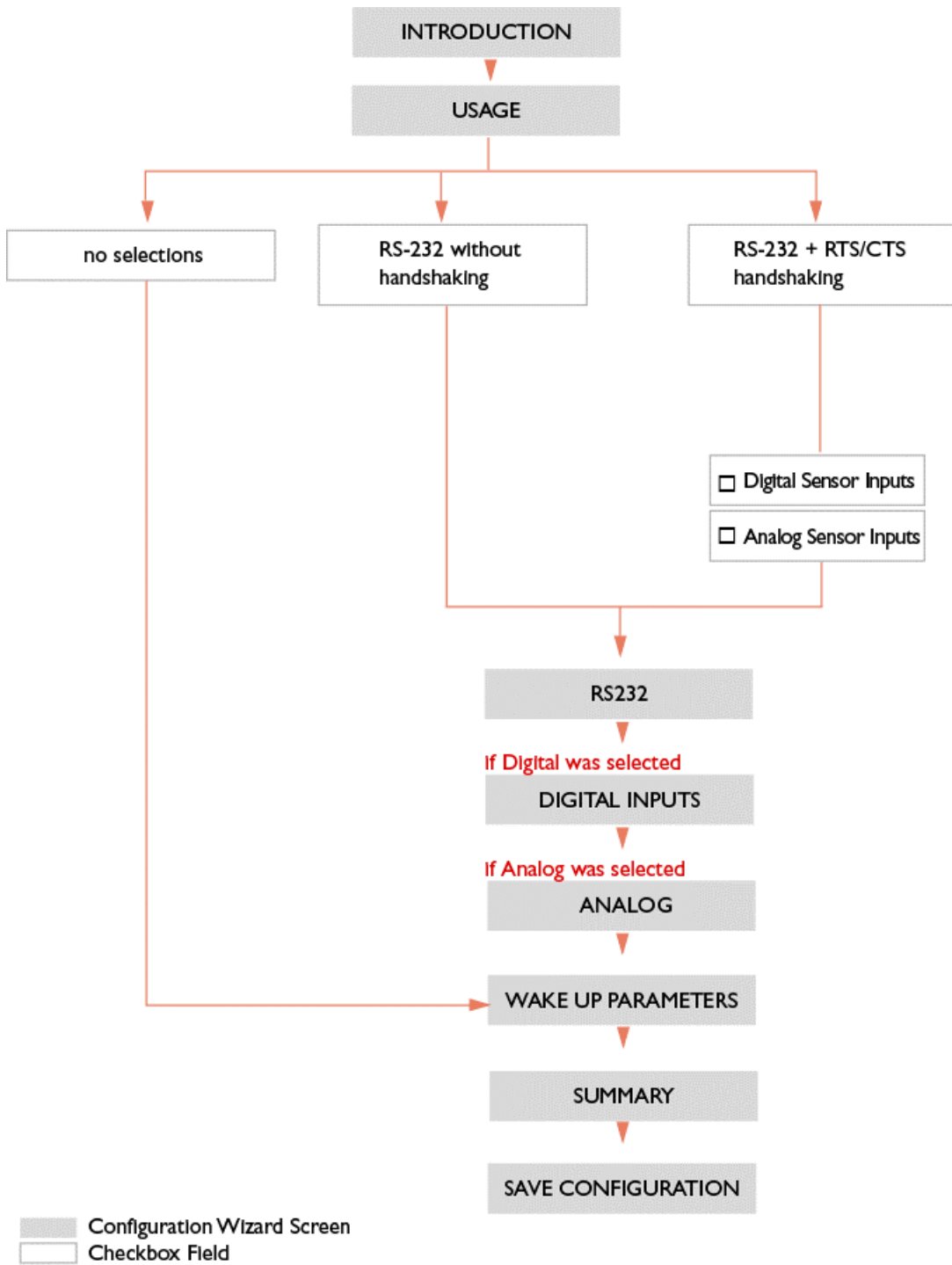


Figure 4: Guardian Sentinel Configuration Wizard simplified operation flow

The Guardian Sentinel Configuration Wizard Step by Step
 After launching the Wizard application, the following window will appear:



Figure 5: The Introduction screen

Please read the text on the Introduction screen and press the 'Next' button. Note that the Guardian Sentinel Configuration Wizard has a Menu bar at the top, a roadmap pane on the left-hand side of each screen showing where the user is in the configuration process, a section of help text and a set of configuration parameters.

The roadmap pane highlights the title according the following criteria to help you navigate through the wizard:

- Titles corresponding to the current wizard screen shown are **light blue**
- Titles corresponding to wizard screens that will not be shown due to options selected are **grey**
- Titles corresponding to wizard screens that will be shown after the current screen are **blue-green**

■ The Usage Screen

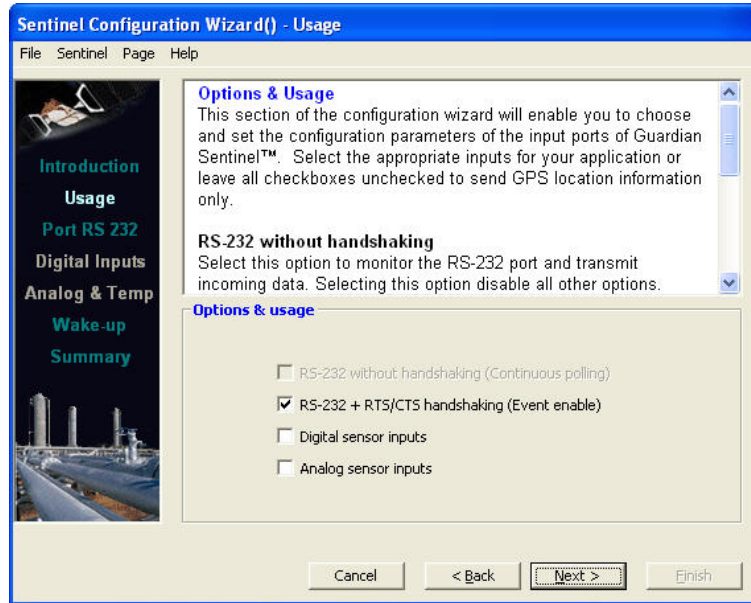


Figure 6: The Usage screen

This screen allows you to select the general options for the usage of the Guardian Sentinel. Please refer to Figure 4, the simplified operational flow, to understand the behaviour of the application based on the choices in this screen.

Select the appropriate inputs for your application or leave all checkboxes unchecked to send GPS location information only.

RS-232 without handshaking: Select this option to monitor the RS-232 port and transmit incoming data. Selecting this option disables all other options.

RS-232 with RTS/CTS handshaking: Select this option to communicate with other devices through the RS-232 port with RTS/CTS signaling.

Digital sensor inputs: Select this option to monitor digital inputs.

Analog sensors inputs: Select this option to monitor analog inputs

To determine which input is appropriate for an external sensor, please refer to the following sections and installation manual supplied with the external third-party sensor.

After checking the applicable boxes, press Next.

■ Configuring an RS-232 sensor

If 'RS-232' was selected as an option in the usage screen, then the screen shown in Figure 7 is the next one that is presented in the Guardian Sentinel Configuration Wizard.



Figure 7: RS232 configuration screen

The drop boxes on this screen contain the following options:

- Baud rate Enter a baud rate between 1200 and 19200.
- Data bits Select from 5, 7 or 8 data bits.
- Parity Select None, Odd, or Even parity control.
- Stop bits Select 1 or 2 stop bits.
- Data Type Select ASCII or BINARY data type

The RS-232 serial port on the Guardian Sentinel that may be connected to external devices has the following are the port specifications:

Data rate:	1200, 2400, 4800, 9600, 19200	Stop bits:	1, 2
Number of data bits:	5,7,8	Voltage levels:	+/- 12V
Parity:	None, Odd, Even	Number of wires:	4

Consult the installation manual of the third party RS-232 sensor for more information about the serial product.

■ Configuring a Digital Sensor

If 'Digital Sensor' was selected as an option in the usage screen then the screen shown in Figure 7 is the next one that is presented in the Guardian Sentinel Configuration Wizard.

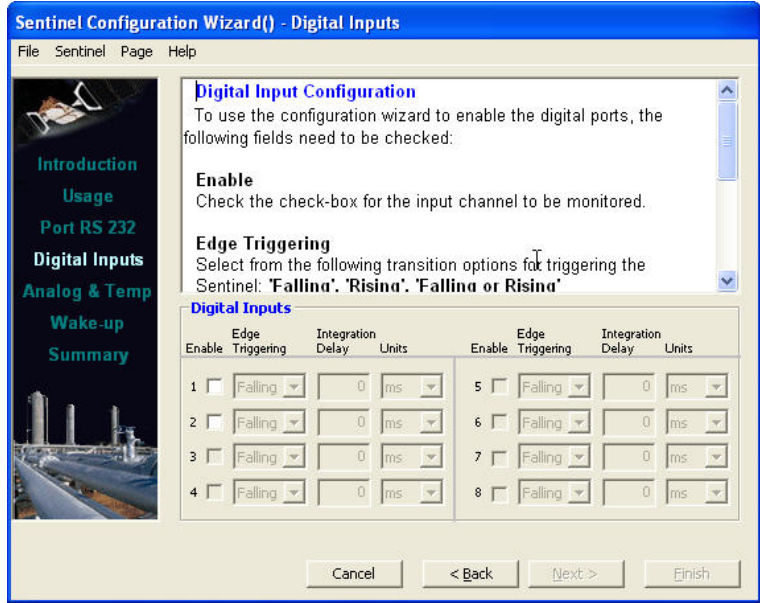
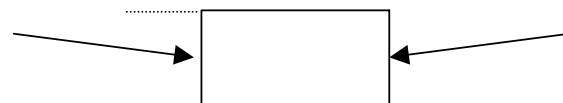


Figure 8: Digital sensor configuration

The Guardian Sentinel can support up to two (2) digital inputs. To enable the digital ports, the following fields need to be checked:

- Enable Check the check-box for the input channel to be monitored.
- Edge Triggering Select from the following transition options for triggering the Guardian Sentinel: 'Falling', 'Rising', 'Falling or Rising'
- Integration Delay Specify how long (in ms, seconds or minutes) the signal must be stable after a transition for considering it a valid signal. This feature can be used for signal integration or for de-bouncing. For digital dry contact switches, an integration delay of 100 ms is in most cases sufficient.

Additional Information about the Digital Sensor: The Guardian Sentinel can be custom configured to have up to two (2) digital inputs that can be connected to external devices. The only acceptable states are a high or a low state. The ports are connected to opto-couplers are two-wire, current sensing inputs. The unit is able to respond to changes in input state. The minimum voltage required to detect a change in state is 5 Volts and the maximum voltage is 10 Volts.



■ Configuring an Analog Sensor

If 'Analog Sensor' was selected as an option in the usage screen then the screen shown in Figure 8 is the next one that is presented in the Configuration Wizard.

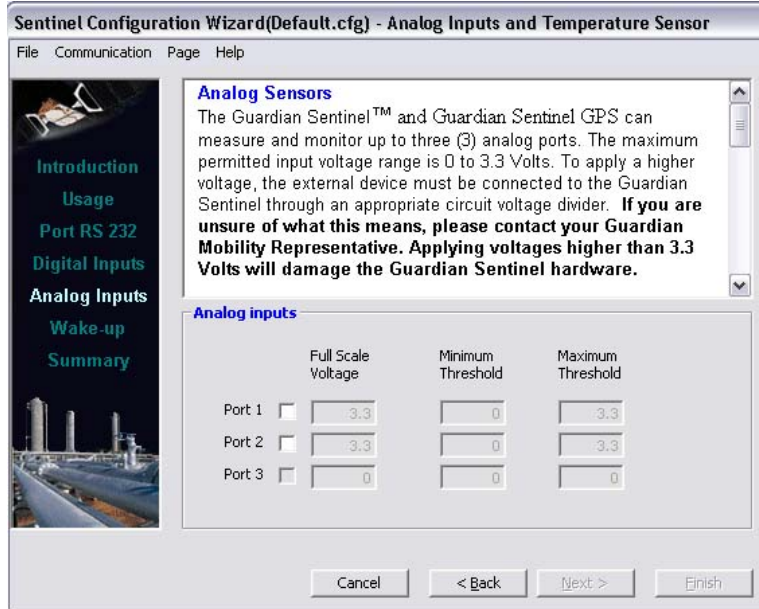


Figure 9: Analog sensor screen

The Guardian Sentinel and Guardian Sentinel GPS can measure and monitor up to two (2) analog ports. The maximum permitted input voltage range is 0 to 3.3 Volts. To apply a higher voltage, the external device must be connected to the Guardian Sentinel through an appropriate circuit voltage divider.



For further assistance with the analog port, please contact your Guardian Mobility Representative. Applying voltages higher than 3.3 Volts will damage the Guardian Sentinel hardware.

Port 'n'

Select the analog input port connected to your analog sensor by checking the appropriate checkbox.

Full Scale Voltage

Full Scale Voltage refers to the output voltage range of the 3rd party sensor that will be connected. *If it is higher than 3.3 Volts, ensure that you are using an appropriate voltage divider.*

Minimum Threshold

Enter a value in the textbox that determines the lower limit threshold of the analog input signal. If a circuit divider is in use, the inputted value should be the voltage before the dividing circuit. The Guardian Sentinel transmits when the voltage value is less than the minimum threshold value. To determine whether the sensor has crossed the

minimum threshold, the Guardian Sentinel checks the analog port once every 4 seconds and takes an 8 sample running average. If the average is below the minimum threshold value, the unit transmits a notification. The Guardian Sentinel will not transmit when the analog voltage goes back above the minimum threshold value.

To deactivate the transmission at a minimum threshold, enter 0 in the box.

Maximum Threshold

Enter a value in the textbox that determines the upper limit threshold of the analog input signal. If a circuit divider is in use, the inputted value should be the voltage before the dividing circuit. The Guardian Sentinel transmits when the voltage value is greater than the maximum threshold value. To determine whether the sensor has crossed the maximum threshold, the Guardian Sentinel checks the analog port once every 4 seconds and takes an 8 sample running average. If the average is above the maximum threshold value, the unit transmits a notification. The Guardian Sentinel will not transmit when the analog voltage goes back below the maximum threshold value.

To deactivate the transmission at a maximum threshold, enter the full-scale voltage value in the box.

Analog sensor example

The Guardian Sentinel Configuration Wizard requires the input of the full scale voltage delivered by the divider, as well as the upper and lower limits to be monitored.

For example: to monitor an analog water level-meter capable of delivering a maximum of 10 Volts and to report when the voltage goes below 3 Volts or above 7 Volts do the following:

- Connect the analog water level-meter sensor to a 3.03 divider, in order to apply a maximum of 3.3 Volts to the Guardian Sentinel.
- In the Guardian Sentinel Configuration Wizard, set the Full Scale Voltage to 10 Volts.
- In the Minimum (MIN) Threshold field enter 3 Volts
- In the Maximum (MAX) Threshold field enter 7 Volts.

During the operation of the unit, the Guardian Sentinel will acquire the input voltage, compare with the minimum/maximum thresholds and send an alert message when values are outside this range. The value indicated in the alert message will be in the range of 0 to 10 volts.

☐ Configuring the Scheduler

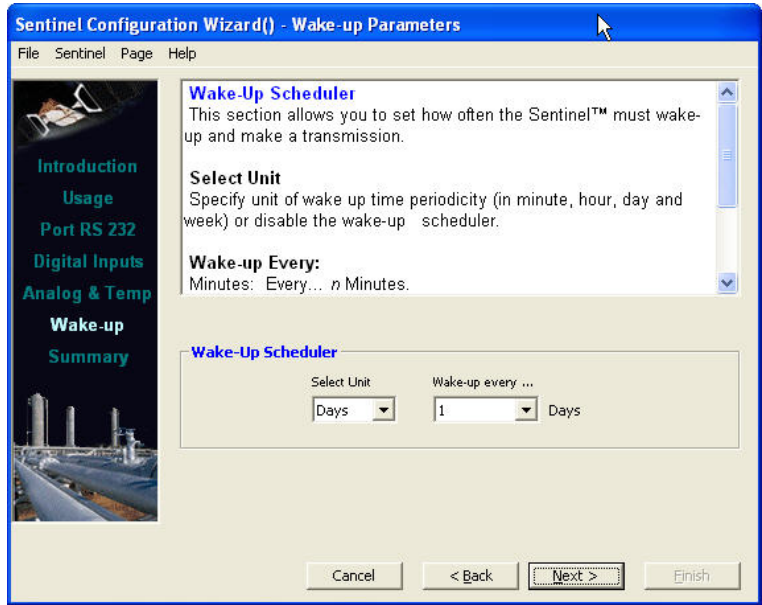


Figure 10: Scheduler information

This section allows you to set how often the Guardian Sentinel and Guardian Sentinel GPS must wake-up and make a transmission.

Frequency: You can disable the scheduler or determine the wake-up time periodicity (in minutes, hours, days and weeks)

Every: Allows you to set the frequency of wake-up and transmissions:

- Minutes: Every 15, 30, 45, 60 Minutes.
- Hours: Every 1, 2, 3.....23 Hours.
- Days: Every 1, 2, 3.....6 Days.
- Weeks: Every 1, 2, 3.....8 Weeks.

If the Guardian Sentinel is transmitting when the scheduler timer expires, the unit waits until the first transmission is completed and then initiates the scheduler transmission.

Click the Next button to continue.

Summary Information / Saving the Configuration

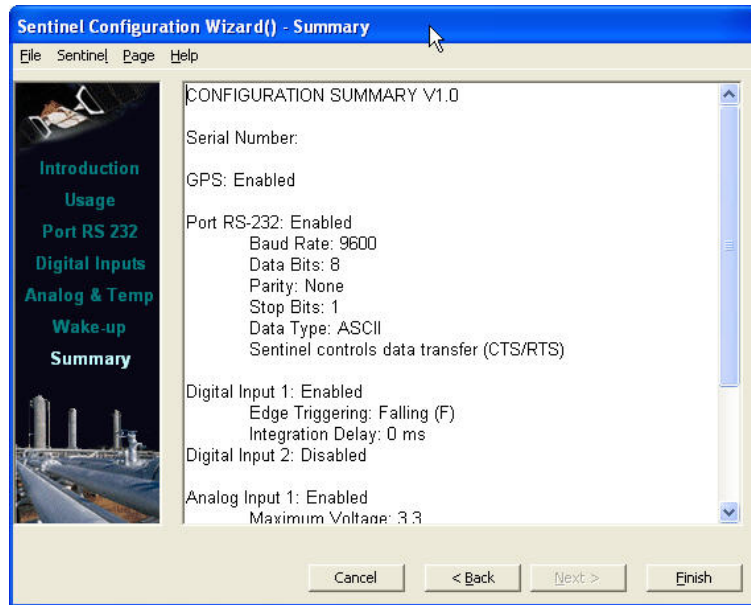


Figure 11– Summary screen

This screen presents a summary of the configuration made. Pressing 'Finish' completes the setup of the configuration and will bring up a Save dialog box that allows the user to save the configuration file to disk. After saving the configuration, the program will prompt the user whether they would like to download the information to the Guardian Sentinel.

■ Downloading the Configuration

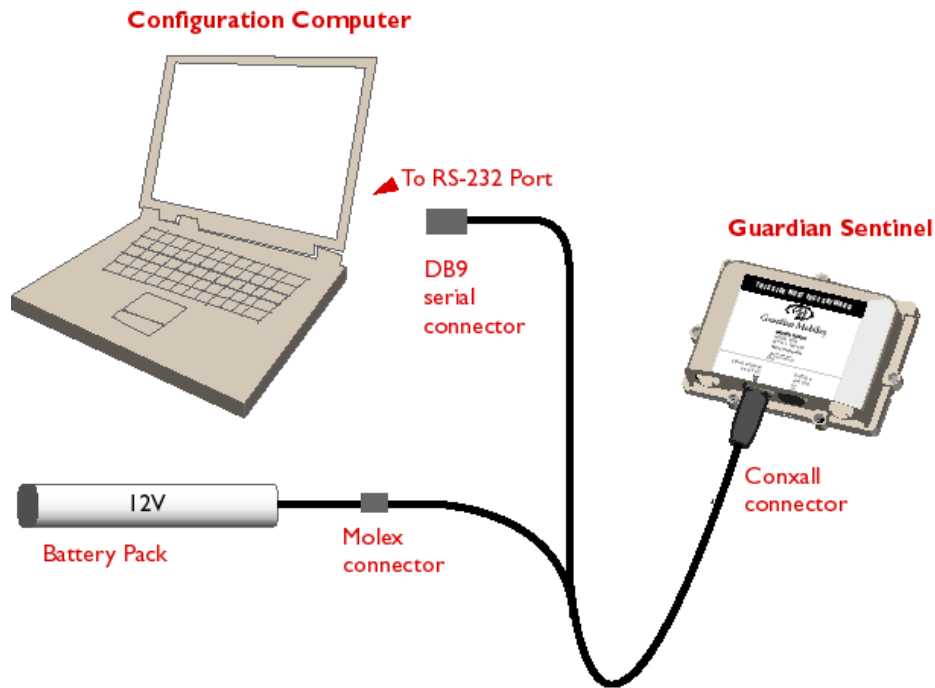


Figure 12: Configuration Download Setup

- Setup the configuration as shown in Figure 11:
 1. Connect the DB9 connector of the Programming 'Y' cable to the computer
 2. Connect the Conxall connector of the Programming 'Y' cable to the Guardian Sentinel
 3. Connect the battery to the Guardian Sentinel
 4. Set the switch on the Programming 'Y' cable to **Program mode**
- Run the Configuration Wizard and save a configuration
- When prompted whether you want to download the record to the Guardian Sentinel, click Yes.
- Set the COM port (the serial port)
- Download the record to the Guardian Sentinel.
- Set the switch on the programming 'Y' cable to **Run**
- Connect any sensors if appropriate

The Guardian Sentinel configuration and download should now be complete.

Connecting Sensors to the Guardian Sentinel

External sensors can be connected to the Guardian Sentinel and Guardian Sentinel GPS either by creating your own cable or using pre-defined units available through Guardian Mobility.



Custom cables are also available through cable assembly specialists such as GS Networks ((613) 225-5044).

Turning on the Guardian Sentinel

To start the Guardian Sentinel

- Power the Guardian Sentinel
- Configure the unit using the Programming Y cable
- Connect external sensors (if applicable). Disconnect power prior to connecting the cables
- Place the Guardian Sentinel outside where it has a full view of the sky. Connect the power.



Before the first transmission, the Guardian Sentinel GPS must be left on for a period of 15 minutes in order to allow the unit to orient itself and update its GPS almanac.

Viewing Transmissions

The Guardian Mobility BackOffice Server

Transmissions made by the Guardian Sentinel and Guardian Sentinel GPS units can be viewed by logging into the BackOffice Server using an internet browser like Netscape or Microsoft Internet Explorer. The address (URL) of the server is as follows:

<http://www.guardianmobility.com/sentinel>

The user name and password can be acquired from your GMC Guardian Mobility representative at (613) 225-8885.

Main Menu

Upon successful log-in, the user is directed to the **Main** menu. This page allows the user to view messages, modify existing account information, list all units owned by the user id, and route transmissions to specific email addresses (SMTP) or HTTP connections.

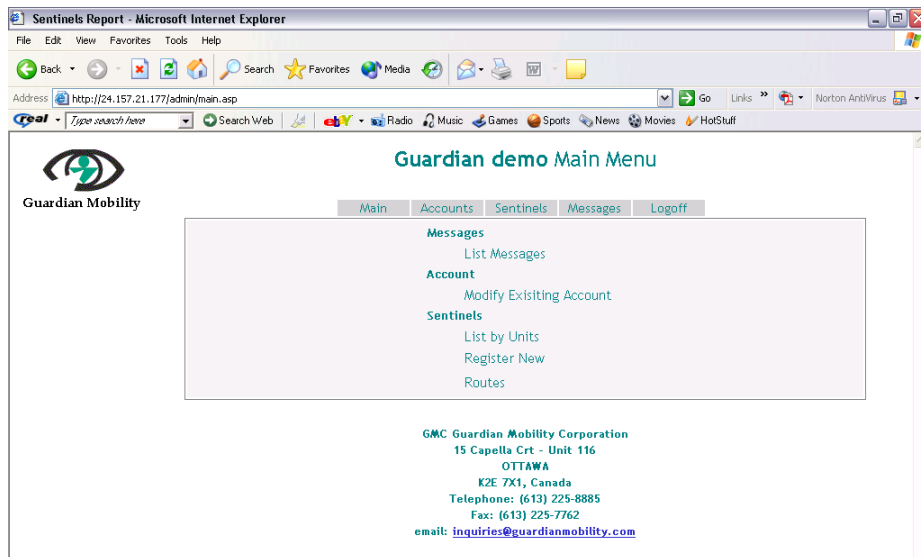


Figure 13: Main Menu

Modifying Password and Account Information

To modify the login password, select **Modify Existing Account** from the **Main** menu. Enter the new password in the **Password** field. **Confirm** the password by re-entering it in the **Confirm Password** field.

Other account information including name and address can also be modified from this page.

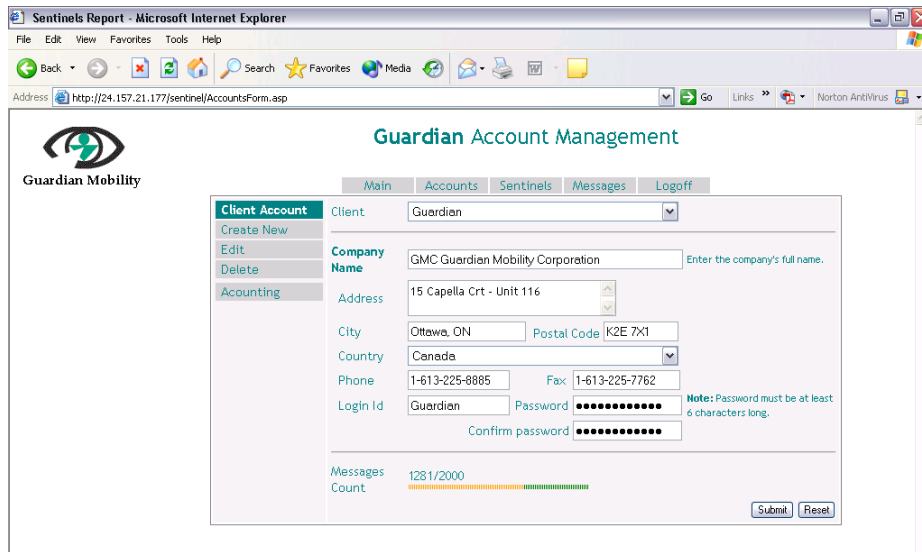


Figure 14: Account Management

Listing Messages (Transmissions)

To view a list of transmissions that was made by the Guardian Sentinel and Guardian Sentinel GPS units, select **List Messages** from the **Main** menu. Only messages made by the units owned by the user id will be listed.

The messages can be listed by current week, current month or current year. The choice can be made by selecting the appropriate button on the left hand side of the screen.

To view messages made by units with specific id numbers, select the id number from the **Esn** scroll down bar on the left hand side.

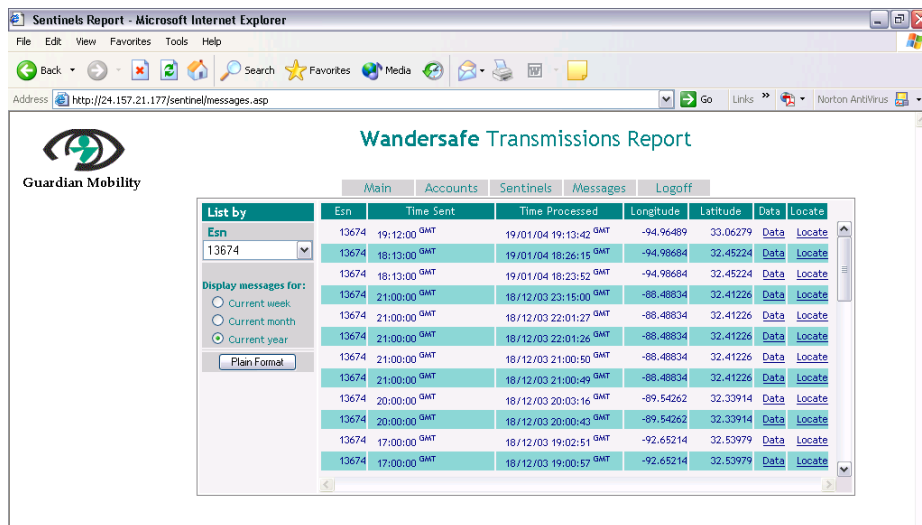


Figure 15: Transmissions Report

Listing Guardian Sentinel and Guardian Sentinel GPS Units

To list all the Guardian Sentinel and Guardian Sentinel GPS units owned by the user id , select **List By Units** from the **Main** menu. This will list all the units in numerical order.

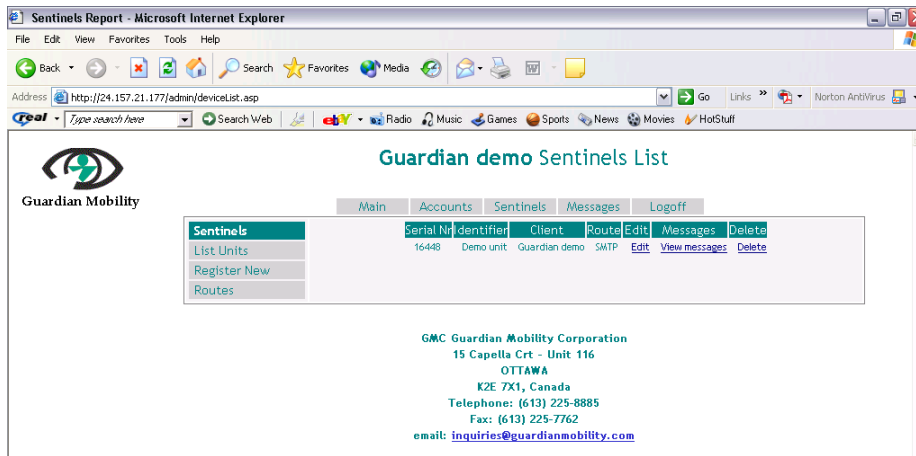


Figure 16: Sentinels List

From this page, information about the unit can be viewed and changed by selecting the **Edit** link. To view the messages sent by the unit, select View Messages. To delete or remove the unit, select the **Delete** button.



Deleting a unit will decommission the Guardian Sentinel or Guardian Sentinel GPS unit. Transmissions made by decommissioned units will not be sent to the Guardian Mobility BackOffice. Re-commissioning a unit will result in an Activation Charge.

Creating New and Changing Existing Routes

Routes allow the user to forward transmissions from the Guardian BackOffice Server to the user’s email account or HTTP connection. Creation and modification of routes can be done by selecting **Routes** on the **Main** menu.

To modify an existing route, select the route from the **Select a route** scroll bar. Make the appropriate changes to the email. Variable fields such as longitude, latitude, date and serial number can be selected from the **Dictionary** scroll bar. Once completed, **Submit** the changes.

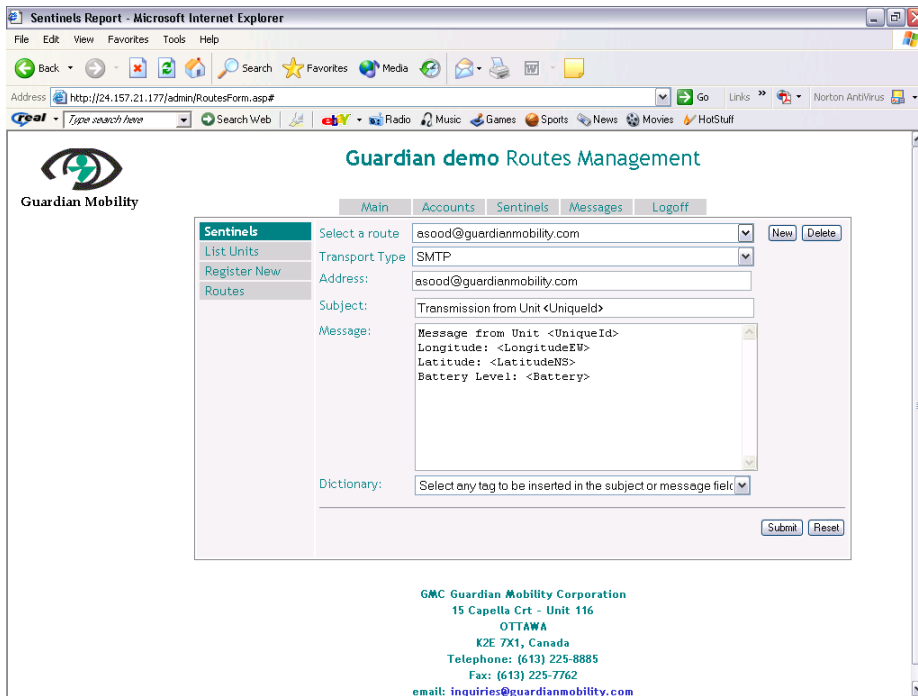


Figure 17: Route Management

To create a new route, press the **New** button. This will allow the user to make a new HTTP or SMTP (email) route.

To create a new HTTP connection, select HTTP as the **Transport Type** and enter the internet address where XML messages are to be sent.

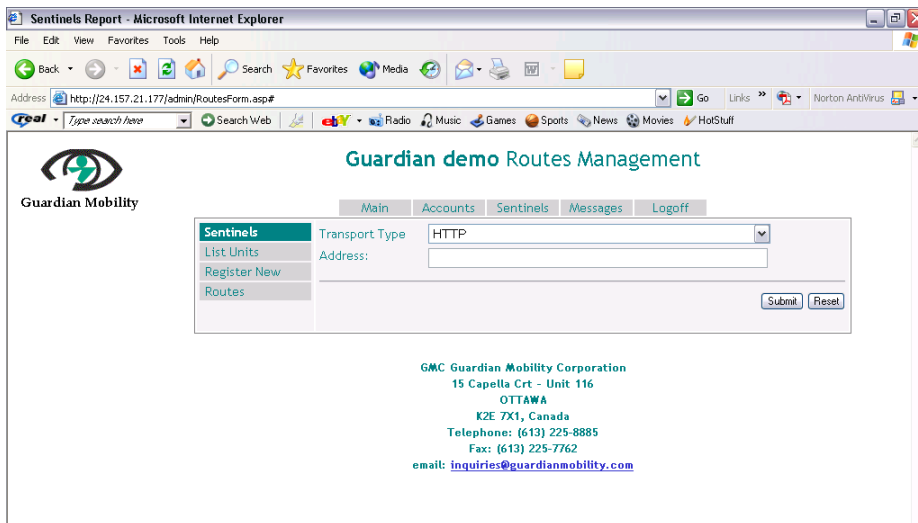


Figure 18: Creating New Routes

A sample XML message that would be automatically sent from the Guardian Mobility BackOffice to the customer site is as follows:

```
<?xml version="1.0" encoding="UTF-8" ?>
<gmMessage gmUID="{268D8CB5-5951-45CF-9407-077DC5E0B208}">
<transport type="HTTP" address="http://www.guardianmobility.com/backoffice/receive" template=""/>
<gateway timeStamp="07/01/2004 16:23:41" receivedAt="07/01/2004 16:24:17"/>
<elt deviceType="Prototype" esn="14714" identifier="Proto 13">
<isGPS>N</isGPS>
    <messageTime>07/01/2004 16:23:53</messageTime>
    <payload decoder="Prototype.xml">
    <serialized encoding="hex" length="9">0xCB31A14BA89B82E480</serialized>
    <deserialized>
        <GPS GPSTime="16:23:00" GPSSatellites="4" GPSValid="Y">
        <GPSPosFormat LatitudeNS="53.19747 North" LongitudeEW="105.74138 West"/>
        <GPSPosNS Latitude="53.19747" Longitude="-105.74138"/>
        </GPS>
        <ADSensors V1="0" V2="0" V3="0" Max1="0" Max2="0" Max3="0"/>
        <Actuators Previous="0" Current="0"/>
        <UserData length="0"></UserData>
        <Battery>Good</Battery>
    </deserialized>
    </payload>
</elt>
<gm>
<messageStatus>Pending</messageStatus>
    <notes>
    <Note Severity="0">Info</Note>
    </notes>
</gm>
</gmMessage>
```

To create a new SMTP (email) route, select SMTP as the **Transport Type**. Enter the email address(es) where the transmissions are to be sent. If using more than one email address, separate the addresses with semi-colons. Insert a subject and message body as described in the route change section.

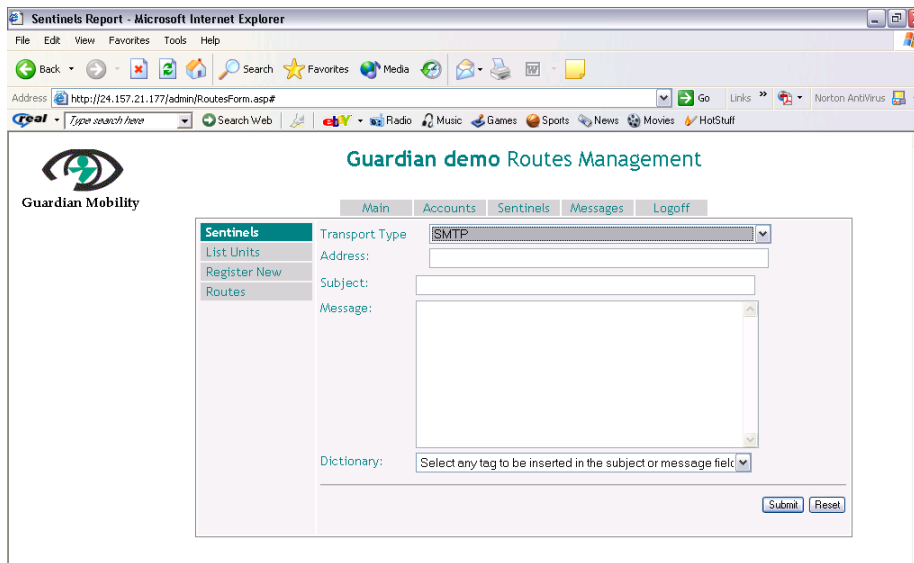


Figure 19: Creating New SMTP Route

