2. Getting Started

The SmartOne Device

Batteries

The SmartOne is powered by, and comes with, four installed Nickel Metal Hydride(NiMH) batteries. The battery compartment is not accessible for the user and, in fact, the batteries are not replaceable. Since the unit is designed for the solar panels to recharge the batteries, the user never needs to worry about replacing the batteries. The SmartOne will provide 8+ years of maintenance-free operation.

Turning On and Off

The SmartOne ships with a magnetic switch that will shut down the unit if installed. To turn the SmartOne unit on, remove the magnet and it will begin monitoring the asset.

NOTE: If the asset is going to be stored indoors for extended periods of time, the SmartOne should be shut down by installing the magnet to avoid draining the batteries.

Commisioning

Before installing the SmartOne unit, record the serial number and identify the asset to which it will be mounted. Since the serial number is etched on the mounting surface of the SmartOne unit, it is not visible after installation.

Installation

The SmartOne unit must be mounted on the asset with a clear view of the sun and sky. The device requires a flat surface area of 17.78 cm x 8.26 cm (7" x 3.25"). The ideal configuration is facing up on a flat horizontal surface.
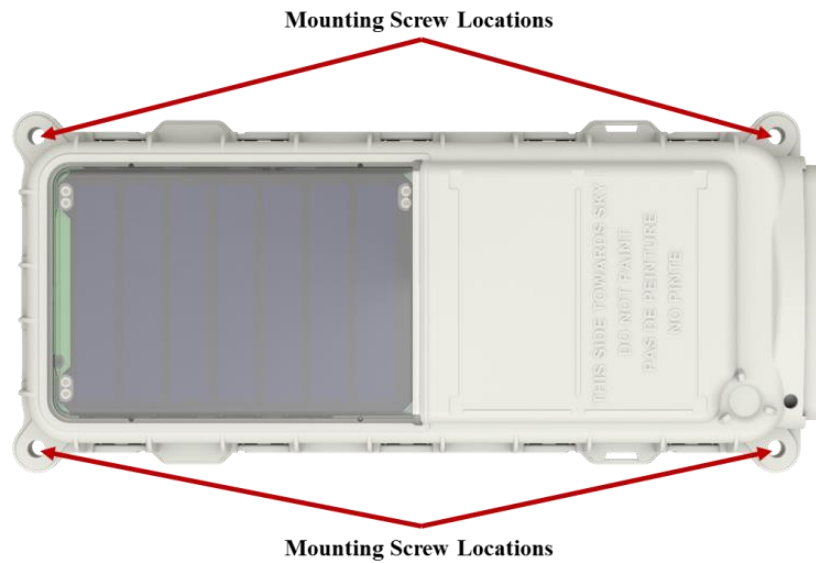
The SmartOne unit can also be mounted on a flat vertical surface but this may reduce the communication reliability, decrease the maximum sustainable messaging rate, and may reduce the GPS location accuracy.

Mounting methods

The SmartOne can be mounted using different methods depending on the mounting surface or user preference.

Direct bolt or screw installation

It is strongly recommended to bolt the SmartOne unit to the asset using the provided mounting holes. Four #6 machine screws (Pan head recommended) of the appropriate length are required. The unit can also be mounted using self-tapping screws adapted to the mounting substrate.

NOTES:
- Do not use chamfered (flat head) screws as this may damage the housing.
- Do not over-tighten the mounting screws: DO NOT exceed 1.2 N.m (10 in.lb) torque
- It is recommended to use 316 grade stainless steel fasteners for longevity.

Adhesive pad installation

If drilling holes into the asset is not practical, the SmartOne may be installed using the adhesive gasket. To ensure proper strength for mounting, the following recommendations must be followed; failure to follow proper procedure could lead to the SmartOne becoming detached from the asset in the field.

The ambient temperature must be above 10 °C and the asset must be protected from rain before and during installation.

The mounting surface must be smooth and in good condition and be thoroughly cleaned using the following procedure: use water and soap first to remove any dirt and residues from the mounting surface and let dry. Wipe the mounting area and the bottom surface of the SmartOne with a solvent impregnated clean cloth (such as Isopropyl Alcohol) and let air dry.

Peel one side of the adhesive gasket and install it to the bottom of the unit, ensuring the outer edges are aligned properly.

Peel the other side of the adhesive gasket and place the SmartOne onto the asset. Apply at 80lb (350N) of force to the unit for a minimum of three seconds to achieve full bonding strength.

Optional Metal Bracket installation

The optional metal mounting bracket is used to firmly secure the device to the asset. It has four screws that attach the SmartOne Solar device to the asset. This allows the SmartOne Solar to be mounted such that the antennas have direct view of the sky with mounting flexibility. The SmartOne Solar attaches to the metal mounting bracket using four Phillips-head screws.

Programming Overview

The SmartOne comes ready to use with a factory configuration loaded in the device. The factory configuration is: Standard Messaging without Motion and Interval Messaging of 12 hours. These configuration settings may be changed using the SmartOne Configuration Software, the USB Configuration Cable and a (Windows)PC or via its Bluetooth interface provided the correct Bluetooth dongle has been installed on the PC.

Inputs

The SmartOne has two inputs that can be accessed by using the SmartOne External Input Cable. The , SmartOne External Input Cable is sold as an accessory to the device.

Installation of Configuration Software

The SmartOne Configuration Software can be downloaded from the Globalstar website at http://var.globalstar.com. You must first login to your VAR account using your username and password. The Configuration Software is located in the Software Downloads section and is supported by Windows 7, Windows Vista, Windows XP Service Pack 2, Windows 2000 and Windows 98.

Installation of Windows USB Driver

In order to properly connect to the SmartOne unit using the USB Configuration Cable, the required USB device driver must be installed on the PC running the Windows Operating System. In particular, the device driver for using the USB Configuration Cable is supplied by Prolific (`PL2303_Prolific_DriverInstaller_v1.18.0B.zip`) and may be downloaded at the following link:
http://www.prolific.com.tw/US/ShowProduct.aspx?p_id=225&pcid=41.

Download the ZIP file, unpack it, then run the DriverInstaller executable. It should seamlessly install the correct USB device driver for use with the SmartOne USB Configuration Cable.

Connecting Devices

The SmartOne connects to a PC using a USB Configuration Cable. Since the Windows Operating System needs to install the driver for the SmartOne USB Configuration Cable, first connect the cable to the PC, then to the SmartOne unit. The USB Configuration Cable plugs into the SmartOne when the connector cover is removed. The SmartOne Configuration Software may be used without being connected to devices to prepare configurations, but must be connected to a device using the USB Configuration Cable to program it. Once the Program button has been depressed the USB Configuration Cable should not be disconnected, if already connected, from the device and/or the computer.

BLUETOOTH INTERFACE INSTRUCTIONS