

RG Tracker

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Purpose

This document will provide instructions on how to setup, install, and activate the SmartOne SolarTM device.

Who should use

These instructions should be used by the customer's install team. The installation of the SmartOne SolarTM device is relatively simple and requires few tools and little time.

Background

The SmartOne SolarTM unit is shipped in the "OFF" position. The SmartOne SolarTM unit must be placed in the "ON" position for it to be activated on the RG Tracker system. Replacing the magnetic cap will keep the device from messaging.

Supplies needed

The materials and supplies needed for the setup and preparations are as follows:

Tools

- 1. Flat head screwdriver (optional)
- 2. Heat source such a heat gun or hair dryer
- 3. Cleaning solvent
- 4. Exterior silicon caulking (optional)

Parts

- 1. SmartOne SolarTM Device
- 2. 3M VHB backing tape (already affixed to device)
- 3. SmartOne SolarTM Steel Bracket (optional)
- 4. 4 Screws (customers supplied, use if desired)



PART A: SMARTONE SOLARTM INSTALLATION STEPS (using VHB tape and mounting screws OR alternative)

This section is for the actual physical setup of the SmartOne SolarTM unit.

STEPS	DESCRIPTION	ILLUSTRATION
	1.Locate a place on the asset to attach/mount the SmartOne Solar TM device where the device will have a line of sight to the satellite network. The solar panel should always face outward. If sidemounted, a southern exposure orientation is optimal.	
1	a. If side-mounted in the vertical position, the device should be placed with the solar panel facing downward. This orients the transmitting mechanism to the sky.	THIS SIDE TOWARDS SIRV BIO NOT PAINT PAS DE PEINTURE NO PIDITE
	b. If side-mounted in the horizontal position, the solar panel can be oriented either left or right.	
	c. If top-mounted, the unit only needs to face the sky in the upright position where the solar panel and sight lines are not obstructed	
2	Surface: Clean the receiving surface area using alcohol or other solvent. Proceed to drying the surface area. For proper tape adhesion, heat the receiving surface area till it is warm to the touch. Surface area must be heated especially if ambient temperature is cold. Warm the tape side of the device without damaging the protective backing paper. Do not damage or puncture the tape. Do not damage the device.	
3	Remove the protective backing from the tape and then carefully press the device into place ensuring good adhesion between the device and the asset surface. Hold in place for 5 minutes. Once set into place and cured do NOT attempt removal. (See Removal Steps below if removal is necessary.)	



Alternative: If mounting to an asset where the surface area can accept screws and drill holes will not compromise the asset's surface integrity, it will be of benefit to fasten the device using screws:

- **a.** Find and mark screw locations using the device as a template
- **b.** Drill 4 holes into the surface to accept the correct size screws
- **c.** Follow Steps to installation steps 2 through 3
 - **d.** Secure the device to the asset using 4 screws
 - e. For extra protection from wind shear and added adhesion, apply a bead of silicone around the contour base of the device.
 - **f.** Wipe any excess silicone off the sides of the unit
 - g. Clean up your work area. Job is complete



Removal Steps

While there are several methods of removing the VHB tape using solvents, Goo Gone, WD-40, alcohol, hand sanitizer etc., and a scraper or putty knife, these methods may not be practical in the field nor may they be fully effective or expedient. We recommend using a textured metal wire to "saw" the tape from the back of the device. Cutting the bondline is most effective. A textured metal wire used in a sawing motion will remove the tape. Fishing line may also be used. If attempting to remove a device secured in place with screws, remove the screws first before attempting to remove the tape. Do not damage the unit when using any removal method. Avoid prying the unit off as this could result in damage to the unit. Damaging the unit will void its warranty.

Demonstration Video (not available yet)

Please go to our website to see the installation video. While this video shows installation of an older device type, it is helpful in demonstration the process. The installation video can be found at your web-portal access.



PART B: ACTIVATION

1. Overview

The SmartOne SolarTM device requires activation following installation. Activation, deactivation and re-activation of the unit are simple and fast. Before use, fully charge the device by leaving it in sunlight or under incandescent light for 15-30 minutes.

2. Activation

A black rubberized tag that holds a magnet is delivered with the SmartOne SolarTM device. The magnet acts as an OFF/ON switch. The tag conforms to the shape of the device and is located on the front of the device below the solar cells. When this tag is attached to the device, the device remains in the OFF position and is NOT activated. When the tag is removed, the device is activated and is ready to message.



Device is "OFF"



Device is "ON"

3. Messaging

Remove the magnet tag when in full view of the sky in order for the device to acquire a GPS fix. The unit is now activated and ready for use. Once activated, the device will send location messages, when assigned to asset in the RG Tracker Web Portal, to the satellite network until such time as the magnet tag is replaced.

4. Charging

The device receives a full charge within 15-30 minutes of exposure to daylight or incandescent light. Even on cloudy or overcast days, the unit will continuously charge. The device remains active for 60 days if there is no exposure to light. However, the device should be exposed to daylight regularly so it retains a full charge. You cannot overcharge the device.

5. De-activation

To turn the device OFF, replace the magnet tag to its original position on the front of the device. This will prevent messages from being generated by the unit.



6. Re-activation

To re-activate the device or to perform a reset/re-activation, put the magnet tag in place for 5 minutes. The unit's internal capacitor will discharge and reset the messaging cycle. Then in full view of the sky, remove the magnet tag and the device will start to acquire a GPS fix and once again be ready to generate messages to the satellite network.



PART C: DEVICE CARE and WARRANTY

- 1. The unit is maintenance free.
- 2. When the unit is installed on top of an asset, care taken in relation to snow scraping and mud removal will benefit the operating efficiency of the device. The unit is designed to operate under all weather conditions and in extreme temperature ranges.
- 3. Be sure to remove any large debris and avoid large obstructions which may limit the device's ability to connect to the satellite network.
- 4. Devices are warranted against defects for the contract term. Contract terms begin on the unit's original shipping date. Units which are lost or physically damaged are not covered under this warranty.

