

Vanguard GPS Sync Kit (P/N 1370185) Installation Instructions

This document includes instructions for Installation, Configuration, and Testing the Vanguard GPS Sync kit (P/N 1370185). The kit includes GPS antenna and mounting hardware for quick and reliable installation. The mounting bracket permits flexibility in antenna mounting locations (wall, horizontal uni-strut, or vertical pole/H-frame post) for best reception.

Kit Contents:

Part No.	Description	Quantity
F2424501	PCB SMARTBOARD W/ GPS SC 370X	1
F6903291	ANTENNA GPS W/GASKET	1
F6903293	ANTENNA CABLE VANGUARD GPS 50FT	1
F5903170	CONN CORD 1/2 NPT BLK PLASTIC	1
F5901351	LOCKNUT 1/2 ALUMINUM	1
F5902837	CLAMP RIBBON CABLE	2
F1905353	KIT ANTENNA MOUNTING BRACKET	1
F7904206	INSTRUCTIONS VANGUARD GPS SYNC INSTALL	1

Installation Instructions:

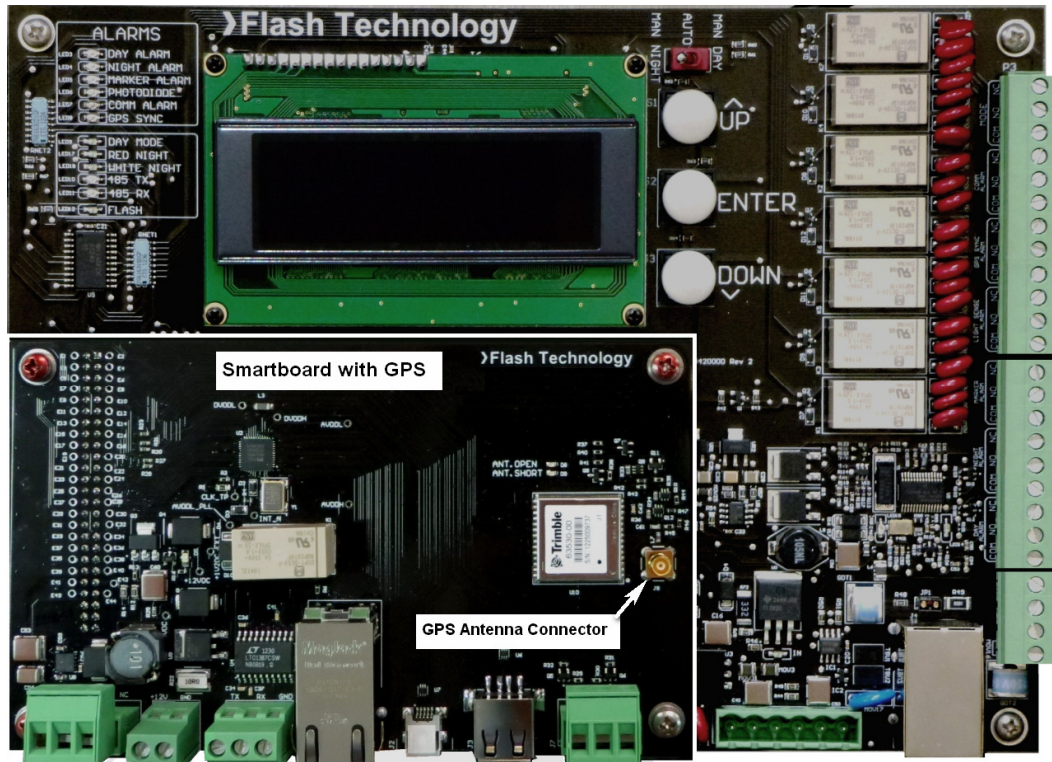
1. Open the Vanguard Controller Enclosure.
2. Disconnect AC Power to the Vanguard Controller and wait 5 minutes for Voltage to bleed off.
3. Install the Smartboard PCB onto the Vanguard Controller PCB using the screws preinstalled on the Controller PCB (see photo).
4. Install the Cord Connector and Locknut into an available ½” hole in the Enclosure bottom.
5. Route the antenna cable’s small connector through the Cord Connector (from the Enclosure outside) and to the Smartboard GPS Connector. Route the cable along either the Enclosure left or right side. Plug the cable connector into the Smartboard GPS Connector.
6. Attach the antenna cable to the side of the Enclosure using the two Ribbon Cable clamps.
7. Choose a location for mounting the GPS Antenna with an unobstructed view of the sky for best reception and synchronization. The included mounting bracket can simultaneously accommodate a Vanguard Photodiode, Cellular Antenna, and GPS Antenna (see photo). The Photodiode must point to the North and have an unobstructed view of the polar sky. Also, it must not view direct or reflected artificial light.
8. Mount the Antenna Mounting Bracket using one of the following methods:
 - a. Wall Mount: Use screws (not included) to mount to the outside wall of a shelter.
 - b. Horizontal Uni-strut Mount: Use spring-nuts (not included) to mount to Uni-strut.
 - c. Vertical Pole or H-frame post Mount: Use 3” U-bolt (included) to mount to pole or H-frame post. The bracket permits use of larger U-bolts, up to 5”.
9. Mount the GPS Antenna onto the mounting bracket using its large mounting nut.
10. Connect the Antenna cable connector to the GPS Antenna.
11. Secure the Antenna cable to the mounting structure using cable ties.
12. Coil up any unused antenna cable inside the Vanguard Enclosure.
13. Tighten the Cord Connector on bottom of Vanguard Controller Enclosure securely.

Configuration and Test Instructions:

1. Apply AC Power to the Vanguard Controller.
2. After display read STATUS: OK, configure the system for GPS operation.
 - a. On the Controller User Interface, use down arrow to scroll to SITE TOWER CONFIG
 - b. Select GPS SYNC and select ENABLED

3. To confirm good operation, follow these steps:
 - a. On the Controller User Interface, use down arrow to scroll to LOCAL DIAGNOSTICS
 - b. Select CTRL and select GPS
 - c. Verify that all of the following GPS Status indicators indicate correct operation:
 - GPS COMM: GOOD/FAULT
 - ANTENNA: GOOD/FAULT
 - SATS IN VIEW: 0,1,2...10 (3 or greater is good)
 - LAST SYNC: XXX (seconds since last sync) Normally less than 60 ; “NONE” indicates FAILED

Smartboard PCB location on Controller PCB. Note location of GPS Antenna Connector on Smartboard.



Antenna Mounting Bracket with Vanguard Photodiode, Cellular Antenna, and GPS Antenna installed.

