

# GV-GPS Receiver

## Installation Guide

The GV-GPS Receiver can work with GV-Video Server and GV-Compact DVR to perform GPS vehicle tracking.

### Packing List

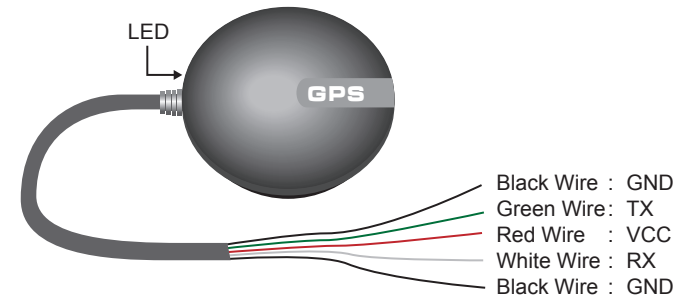
- GV-GPS Receiver x 1
- Suction Cup x 1
- Installation Guide x 1

### Model

The GV-GPS Receiver has two types of models. Each model can only work with appropriate Hardware and Firmware version as described below.

Model	Interface	Baud Rate	H/W Version	Firmware Version
GV-GPS UART	UART	9600	GV-Video Server Version 2.0 or later	Version 1.43 or later
GV-GPS 232	RS-232	9600	GV-Compact DVR Version 1.2 or later	Version 1.52 or later

### Overview

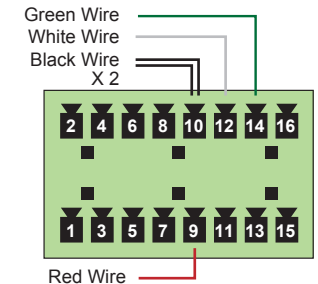


LED Off	Receiver switched off
LED On	Signal searching
LED Flashing	GPS position fixed

### Connecting to GV-Video Server

Connect the appropriate wire(s) of GV-GPS UART to the assigned pin on GV-Video Server Terminal Block as described below.

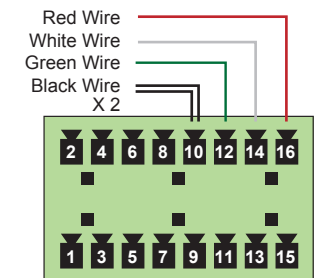
GV-GPS UART	GV-Video Server Terminal Block
1 x Red Wire	Pin 9 (DC 5V Out)
2 x Black Wire	Pin 10 (Ground)
1 x White Wire	Pin 12 (GPS RX)
1 x Green Wire	Pin 14 (GPS TX)



### Connecting to GV-Compact DVR

Connect the appropriate wire(s) of GV-GPS 232 to the assigned pin on GV-Compact DVR Terminal Block as described below.

GV-GPS 232	GV-Compact DVR Terminal Block
2 x Black Wire	Pin 10 (Ground)
1 x Green Wire	Pin 12 (RS-232 TX)
1 x White Wire	Pin 14 (RS-232 RX)
1 x Red Wire	Pin 16 (DC 5V Out)



## Activating the GPS Function

To activate the GPS function, go to the configuration interface of GV-Video Server or GV-Compact DVR, and select **Enable GPS**.

For details on GPS tracking, see *GPS Tracking* in GV-Video Server or GV-Compact DVR User's Manual.

### GV-Video Server Configuration Interface

**GeoVision**

- Video and Motion
- Digital I/O and PTZ
  - I/O Control
  - PTZ Settings
  - GPS/Wiegand**
- Events and Alerts
- Monitoring
- Recording Schedule
- Remote ViewLog
- Network
- Management
- Logout

**GPS/Wiegand**

In this section you can configure the video server integration with GPS or Wiegand-based card reader.

**GPS and Wiegand Settings**

Enable

Enable GPS  
Set GPS Update Period  seconds(1~30)

Enable Wiegand

Transfer Card Number to Center V2, VSM and DVR

Send video to Center V2 and DVR when the Wiegand device is triggered

Camera 1  Camera 2

### GV-Compact DVR Configuration Interface

**GeoVision**

- Video and Motion
- Digital I/O and PTZ
  - I/O Control
  - PTZ Settings
  - GPS**
  - Spot Monitor
- Events and Alerts
- Monitoring
- Recording Schedule

**GPS**

In this section you can configure the GPS.

**Device Settings**

Enable GPS  
Set GPS Update Period  seconds(1~30)

## Specifications

<b>Chipset</b>	
Chipset	SiRF Start III
<b>Electrical Characteristics</b>	
Frequency	L1, 1575.42 MHz
C/A Code	1.023 MHz chip rate
Channels	20 channel all-in-view tracking
Sensitivity	-159 dBm
<b>Accuracy</b>	
Position Horizontal	10m 2D RMS (SA off)
Velocity	0.1m/sec 95% (SA off)
Time	1 micro-second synchronized to GPS time
WAAS enabled	5m 2D RMS
<b>Datum</b>	
Datum	WGS-84
<b>Acquisition Rate</b>	
Hot Start	1 sec. average (with ephemeris and almanac valid)
Warm Start	38 sec. average (with almanac but not ephemeris)
Cold Start	42 sec. average (neither almanac nor ephemeris)
Reacquisition	0.1 sec. average (interruption recovery time)
<b>Protocol</b>	
GPS Protocol	Default: NMEA 0183 (Secondary: SiRF binary)
GPS Output Data	SiRF binary >> position, velocity, altitude, status and control ; NMEA 0183 protocol supports command: GGA, GSA, GSV, RMC, VTG, GLL (VTG and GLL are optional)
GPS Transfer Rate	Default : 9600,n,8,1 for NMEA
<b>Dynamic Condition</b>	
Acceleration Limit	Less than 4g
Altitude Limit	18,000 meters (60,000 feet) max.
Velocity Limit	515 meters/sec. (1,000 knots) max.
Jerk Limit	20 m/sec x 3
<b>Temperature</b>	
Operating	-40~ 85°C / -40°F ~ 185°F
Storage	-40~ 85°C / -40°F ~ 185°F
Humidity	Up to 95% non-condensing
<b>Power</b>	
Voltage	4.5V ~ 6.5V
Current	80mA typical (Continuous mode)
<b>Physical Characteristics</b>	
Dimensions (D x H)	53 x 19.2 mm / 2.09 x 0.76 in
Cable Length	2.7m / 8.86ft