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

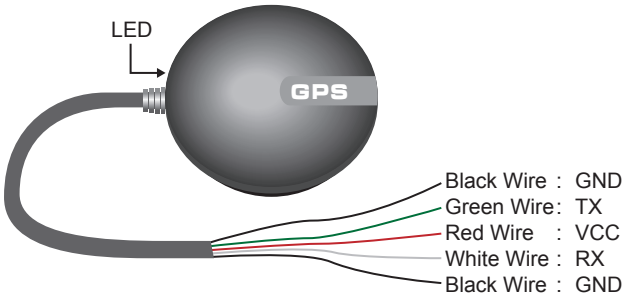
- GV-GPS Receiver x 1
- Suction Cup x 1
- Installation Guide x 1

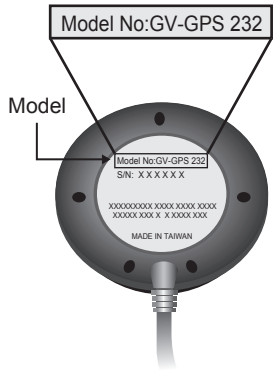
Model

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	GV-Video Server Version 1.43 or later
GV-GPS 232	RS-232	9600	GV-Compact DVR Version 1.2 or later	GV-Compact DVR Version 1.52 or later

Overview



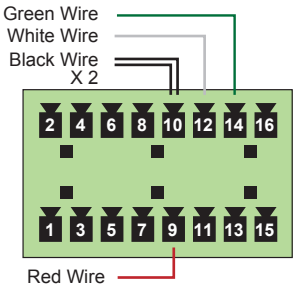


LED Off	Receiver switched off
LED On	Signal searching
LED Flashing	GPS position fixed

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.

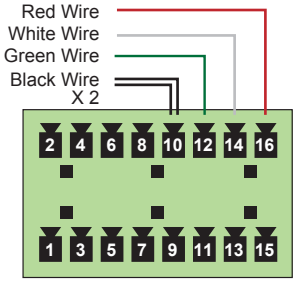
GV-GPS UART	GV-Video Server Terminal Block
1 x Red Wire	Pin 9 (DC 5V Out)
2 x Black Wire	Pin 10 (Ground)
1 x White Wire	Pin 12 (GPS RX)
1 x Green Wire	Pin 14 (GPS TX)



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)

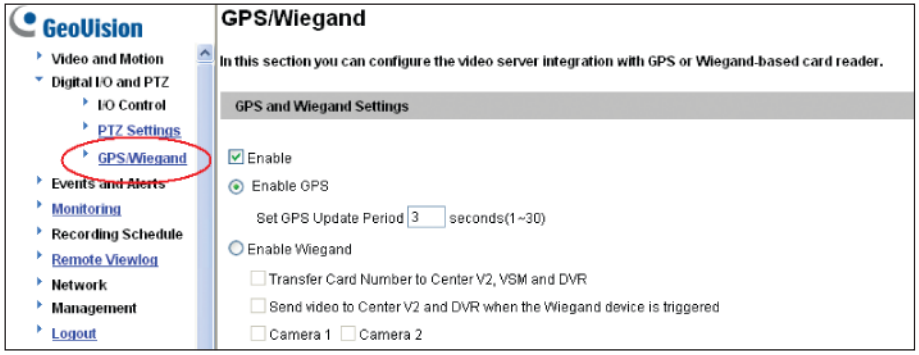


Activating the GPS Function

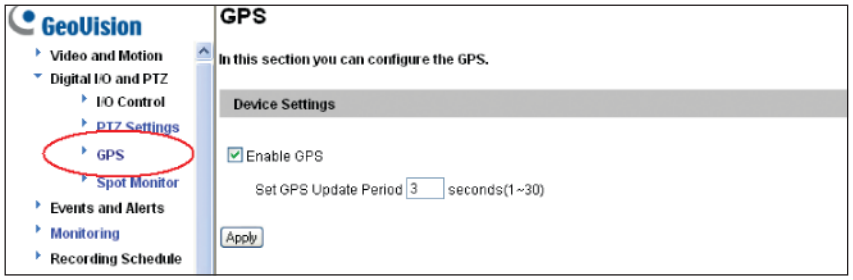
To activate the GPS function, go to the configuration interface of GV-Video Server or GV-Compact DVR, and select **Enable GPS**.

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

GV-Video Server Configuration Interface



GV-Compact DVR Configuration Interface



Specifications

Chipset		
	Chipset	SiRF Start III
Electrical Characteristics		
	Frequency	L1, 1575.42 MHz
	C/A Code	1.023 MHz chip rate
	Channels	20 channel all-in-view tracking
	Sensitivity	-159 dBm
Accuracy		
	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
Datum		
	Datum	WGS-84
Acquisition Rate		
	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)
Protocol		
	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
Dynamic Condition		
	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**3
Temperature		
	Operating	-40~ 85°C / -40°F ~ 185°F
	Storage	-40~ 85°C / -40°F ~ 185°F
	Humidity	Up to 95% non-condensing
Power		
	Voltage	4.5V ~ 6.5V
	Current	80mA typical (Continuous mode)
Physical Characteristics		
	Dimensions (D x H)	53 x 19.2 mm / 2.09 x 0.76 in
	Cable Length	2.7m / 8.86ft