KJE-SI

GSM/GPRS/GPS GL200 USER MANUAL

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1. INTRODUCTION

GL200 is a powerful GPS locator which is designed for vehicle, pets and assets tracking. With superior receiving sensitivity, fast TTFF and GSM frequencies 850/900/1800/1900. Its location can be real time or schedule tracked by backend server or specified terminals. Based on the embedded @Track protocol, GL200 can communicate with the backend server through GPRS/GSM network, and transfer reports of emergency, Geo-fencing, device status and scheduled GPS position etc... Service provider is easy to setup their tracking platform based on the functional @Track protocol.

2. APPEARANCE

2.1. BUTTONS/MINI USB INTERFACE DESCRIPTION

| BUTTONS/MINI USB INTERFACE DESCRIPTION	
Power Key	- Turn on GL200g - Turn off GL200 when without charging. (If power key is enabled)
Function Key	**- Geo-Fence mode** Long press the key to enable/disable Geo-Fence ID0 **- Geo-Fence in current position mode** Long press the key to enable/disable Geo-Fence ID0. If enable Geo-Fence ID0, using the current position as the centre of Geo-Fence 0. **- SOS mode (default)** Long press the key to active SOS alarm
Mini USB interface	- Connect a 5V DC adapter can power GL200 and charge the internal battery - Connect a 3.7V Li-ion or Li-Polymer battery can power GL200 - Backend server developer or administrator can use the Data_Cable_M to configure GL200

2.2. LEDs DESCRIPTION

There are three LED in GL200, the description as following.

| GSM LED	Searching network	Fast flash
	Network has been registered	Slow flash
	Power off	Dark
	SIM-PIN Locked	Solid
	Receives a valid protocol command	Turn on for 3 seconds
	<LED on> is 2	Dark
GPS LED	GPS has fixed	Solid
	GPS is in fixing	Fast flash
	GPS is on and GPS data wrong	Slowflash
	GPS is off	Dark
	If *<LED on>*	Dark
	on.	
	If *<LED on>* is 2	Dark
	Power on and normal	Dark
	Charger inserted and charging completed	Solid
	Charger inserted and charging	Fast flash
	Power key was pressed and prepare to power off	Fast flash
	Abnormal	Fast flash
	Power low alert	Slow flash
	Power off or turn off the power light by command	Dark
Power LED	<LED on> is 2	Dark

2.3. EXTERNAL POWER INTERFACE

2.3.1. EXTERNAL DC CHARGER INTERFACE

The Pin2 on Mini-USB connector are used for charging and named as VCHG pin, It can be connected to 5V DC power supply to power GL200 and charge the internal battery.
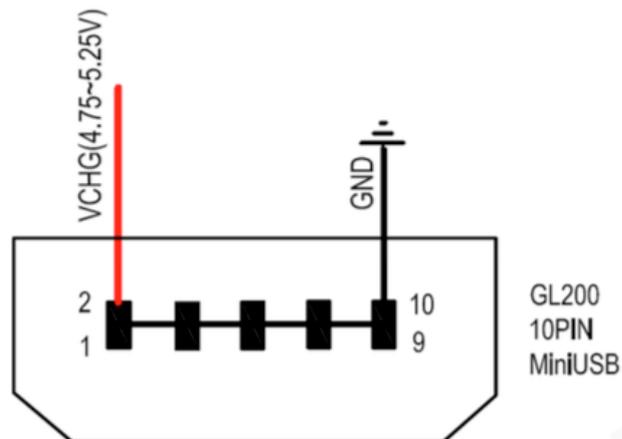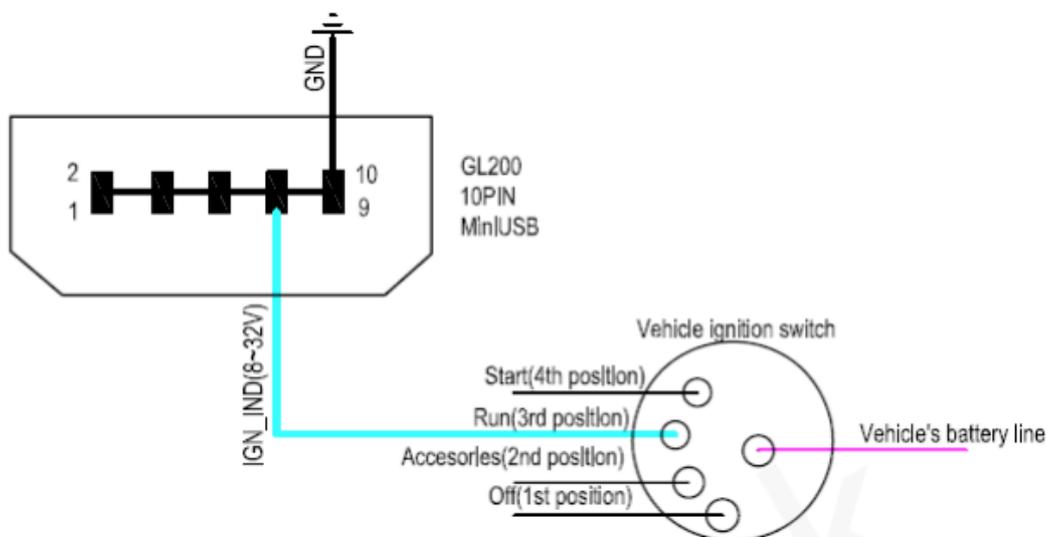
2.3.2. EXTERNAL BATTERY INTERFACE

The Pin 8 on Mini-USB connector is for external battery a d amed as EXTBAT pin, It can be connected to 3.7V Li-ion or Li-Polymer battery to power GL200.
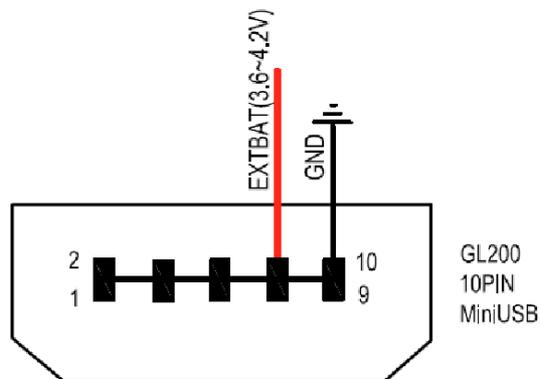
2.4. IGNITION DETECTION

The Pin 7 on Mini-USB connector is for ignition detection when GL200 is used in vehicle tracking application, It is named as IGN_IND pin.

Another easy way is to connect PIN7 to a power output the fuse box of the vehicle which is only enabled after the vehicle is ignition on. For example: the power output for radio FM.

2.5. EXTERNAL INPUT INTERFACE

The older hardware version of the GL200 whose IMEI code between 35946403600001X (ignore the last parity bit X) and35946403607338X do not support the inputfunction,before using the input, you should check if the GL200 is a newer hardware version.

The Pin 5 on Mini-USB connector is a negativ trigger input in a newer hardware version. It is named as NSW pin.
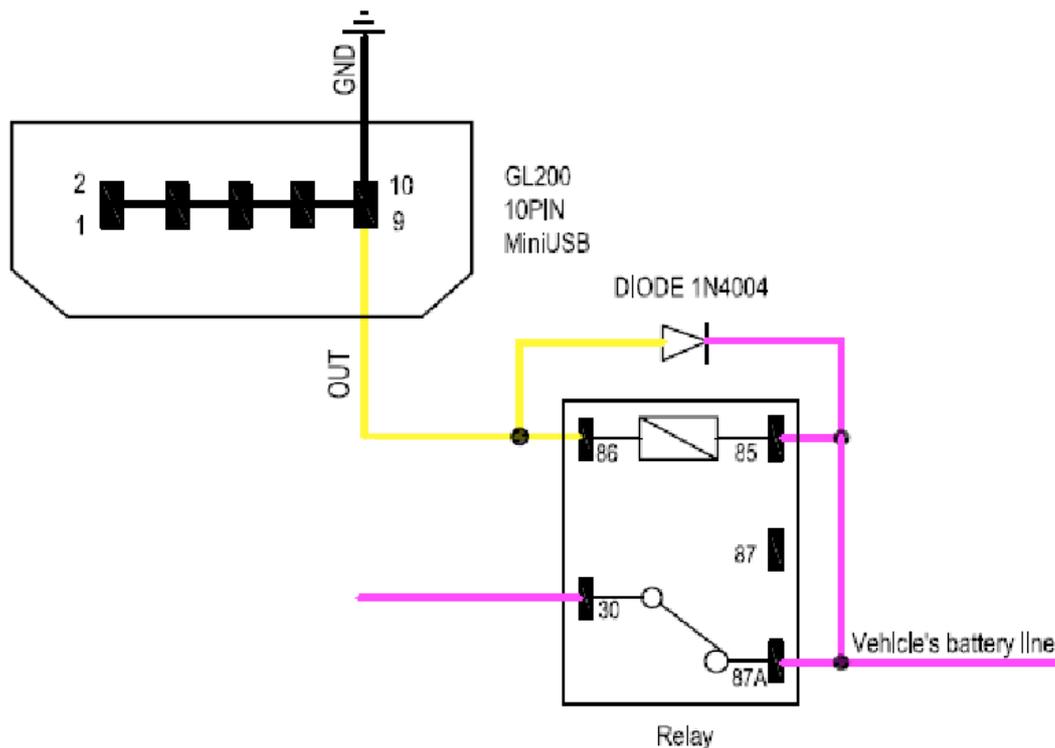
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For negativ trigger input the electrical conditions are:

LOGICAL STATE	ELECTRICAL STATE
Active	0V to 0.8V
Inactive	1.7V to 32V or Open

An input example is shown as following figures:
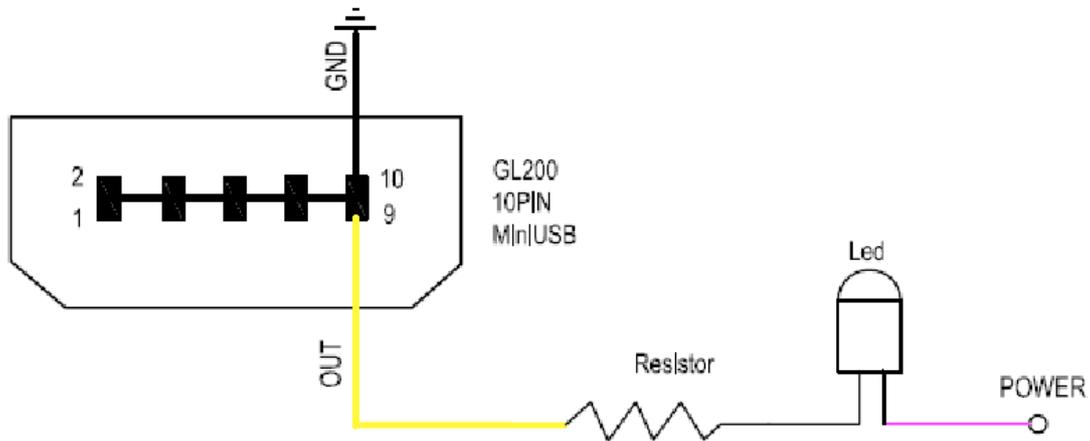
EXAMPLE of OUT pin drive a LED

EXAMPLE of OUT pin drive a relay

If the digital output is used to drive a relay, a catch diode is showed across the relay coil, this is necessary to prevent damage to the digital output when the relay is turned off. Many modern relays come with this diode pre-installed internal to the relay itself. If the relay has this diode, insure the proper relay polarity connected is used. If this diode is not internal, it should be added externally. A common diode such as a 1N4004 will work in most circumstances.

2.6. EXTERNAL GPS ANTENNA SPECIFICATION

There is a MMCX RF connector on GL200 and it is for external GPS antenna. The specification of the external GPS antenna is listed in following table.

GPS antenna:	Frequency: 1575.42MHz
Bandwidth:	>5MHz
Beamwidth:	>120 deg
Supply voltage:	3.3V
Polarization:	RHCP or Linear
Gain:	Passive: 0dBi minimum Active: 15dB
Impedance:	50Ω
VSWR:	< 2
Noise figure:	<3
Connector	MMCX

3. BATTERY CHARGING

- Please connect AC-DC power adapter with GL200.
- Insert the AC-DC power adapter into the power socket.
- During charging, the PWR LED is flashing fast. When the battery is full charged, the PWR LED will be Ever-light.
- You can also charge the battery by USB cable which connects GL200 with the PC. Charging time is about 5 hours.

Note: Before the first time using GL200, please full charge the battery.

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