# MEITRACK® MVT380



# USER GUIDE

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## 1. Copyright and Disclaimer

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## 2. Applications

- ❍ Vehicle Real Time Tracking
- ❍ Car Security/Anti-Hijack
- ❍ Fleet Management

## 3. Features

- ❍ SiRF III GPS and Quad Band GSM 850/900/1800/1900Mhz
- ❍ AGPS ( with GSM Base Station ID)
- ❍ Track by SMS/GPRS (TCP/UDP) (MEITRACK Protocol)
- ❍ Track on Demand
- ❍ Track by Time Interval
- ❍ Track by Distance Interval
- ❍ Track on Mobile Phone
- ❍ Listen-in (Voice Monitoring) or Two-way Audio (Optional)
- ❍ Internal 4Mb Memory for Logging
- ❍ Inbuilt Motion Sensor
- ❍ 850mAh Internal Backup Battery
- ❍ SOS Alarm
- ❍ Geo-fence Alarm
- ❍ GPS Blind Area Alarm
- ❍ Low Battery Alarm
- ❍ Speeding Alarm
- ❍ Impact Alarm
- ❍ Tow Alarm
- ❍ GPS Antenna Cut Alarm
- ❍ External Power Cut Alarm
- ❍ Mileage Report
- ❍ Engine Cut (Engine immobilization)
- ❍ Inbuilt Super Magnet (optional)

❍ 5 Digital Inputs, 5 Outputs.

❍ 2 Analog Input Detection

## 4. Hardware Installation

### 4.1 MVT380 and its Accessories

❍ MVT380 Main Unit with Battery

❍ GPS Antenna

❍ GSM Antenna

❍ I/O Cable

❍ SOS Button

❍ USB Data Cable

❍ CD



### 4.2 Install SIM Card

Check that the SIM has not run out of credit (test the SIM in a phone to make sure it can send and receive SMS);

Check that the SIM Lock code is turned off;

If you require the function of sending an SMS location report to the authorized phone number when it makes a call to the MVT380, please make sure the SIM installed supports displaying caller ID.

Before installing the SIM card, turn off the power for MVT380.

Unscrew and remove the front cover.



Insert the SIM card by sliding it into the card holder with the chip module facing to the connectors on PCB.
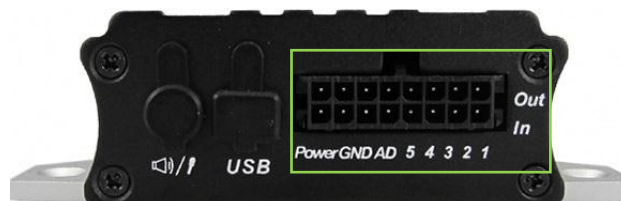


Put back the front cover and screw it up.



### 4.3 Install I/O Cable

The I/O cable is a 16-pin cable including power, analog inputs, positive and negative inputs, and outputs ports.



| PIN | Color | Description |
|---|---|---|
| **Power** | Red | DC In (power source). Input voltage: 9V~36V. 12V suggested. |

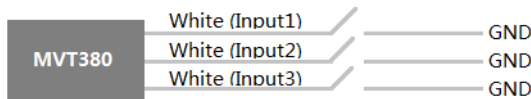| GND | Black | Ground |
|---|---|---|
| In | White | Digital Inputs. Input1, Input2 and Input3 are negative triggering; Input4 and Input5 are positive triggering. |
| Out | Yellow | Outputs. Low voltage (0V) when effective and open drain when ineffective. Output open drain sink voltage (ineffective): 45V max. Output low voltage sink current (effective): 500mA max. |
| AD | Blue | 10 Bits Resolution Analog Inputs. 0~6V DC Detection |

**Installation/Connection Examples:**
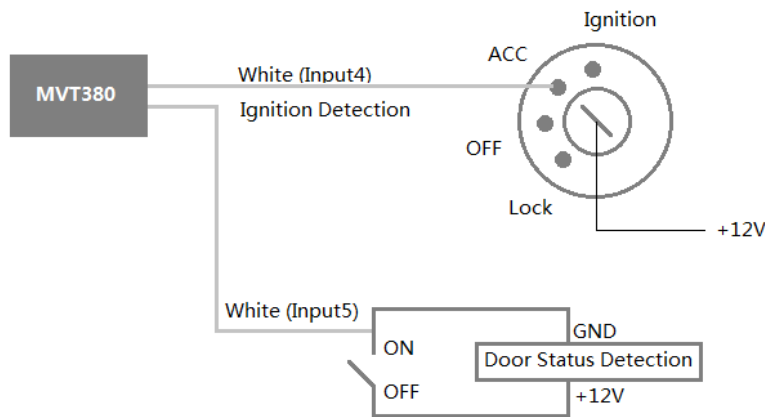
1) Power/GND

Connect GND (-Black) and Power (+Red) wires to the battery of vehicle.
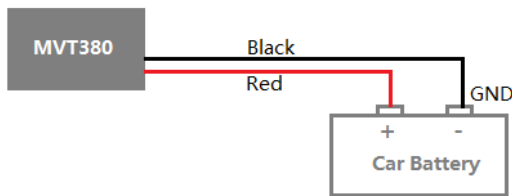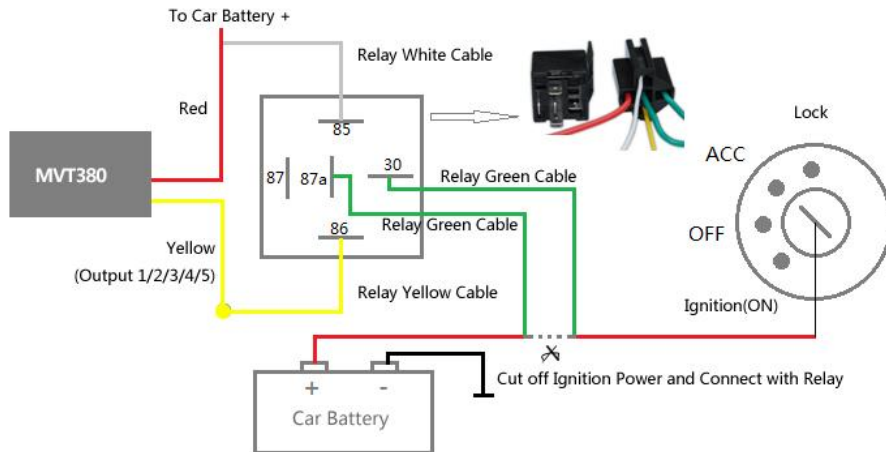


2) Digital Input (Negative Triggering)
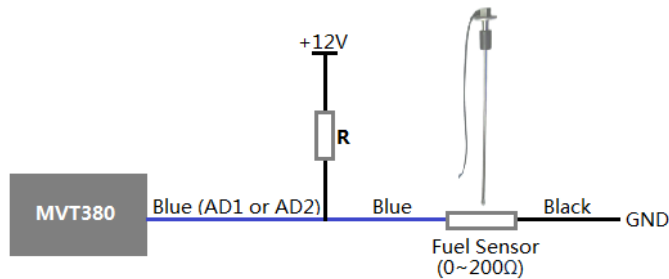


3) Digital Input (Positive Triggering)



4) Output

5) Analog Input



Note:

Fuel level sensors supplied by us are resistance-type sensors with output resistance: 0-200Ω (ohm).

For the circuit shown on above figure, if VCC is 12V, R should be 200Ω (ohm) and if VCC is 24V then R should be 600Ω (ohm) to make the input range to AD1 or AD2 is 0-6V.

Below formula is for calculating the fuel percentage left for this fuel level sensor:

$$ \text{Percentage Left} = \frac{\text{AD value}}{1024 * 2 - \text{AD value}} * 100\% $$

The value must be converted into decimal, for example, 0x0267 is 615 in decimal.

**4.4 Install GPS/GSM Antennas**
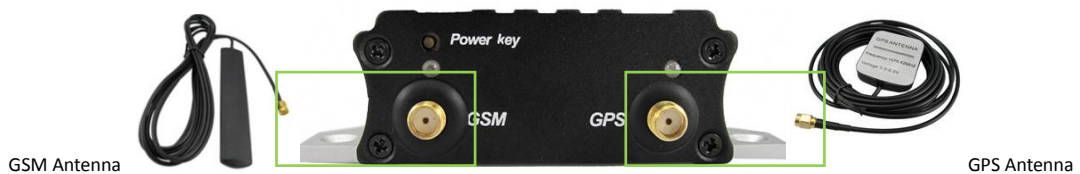


Connect the GSM antenna to the SMA connector which is 'GSM' text labeled. The GSM antenna is non-directional, so you can hide it in any place of vehicle.

Connect GPS antenna to the GPS connector which is 'GPS' labeled. The optimum location for the GPS antenna is on the roof of the vehicle. The covert and GPS antenna are directional, make sure they are facing up and laying as flat as possible. Secure them in place with glue or zip ties.
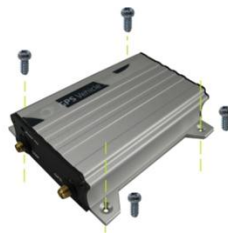
Note: Do not shield or cover the GPS antenna with any objects containing metal.

### 4.5 Install Microphone and Speaker (Optional)
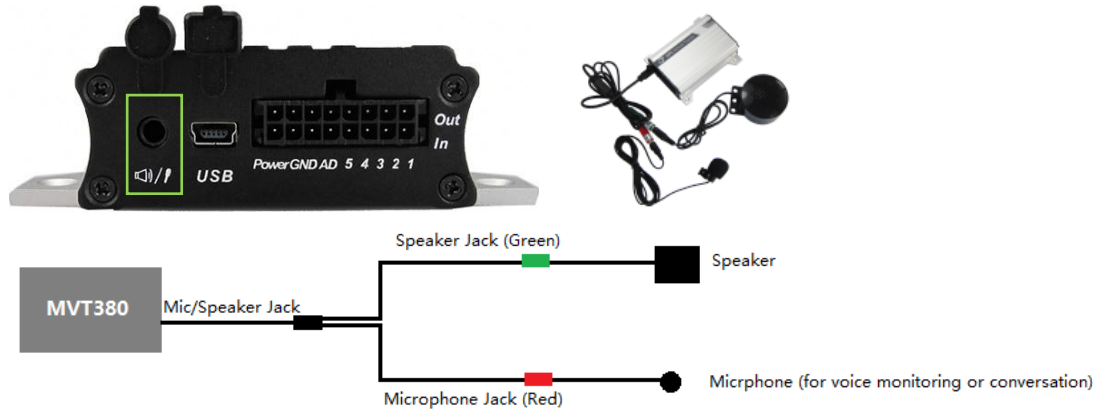


## 5. Mount the MVT380 unit

If mounting required, there are 4 screw holes on the MVT380, 2 along either side that act as fixing points to the vehicle.



## 6. LED Indications



Press and hold the Power Key for 3~5 seconds to turn on/off MVT380.

| GPS LED (Blue) | |
|---|---|
| On | One button is pressed or input is active. |
| Flashing ( every 0.1 second) | Initializing |
| Flashing (0.1 second on and 2.9 seconds off) | MVT380 has a GPS fix |
| Flashing (1 second on and 2 seconds off) | MVT380 has no GPS fix |
| **GSM LED (Green)** | |
| On | One call is coming in / one call is being made |
| Flashing ( every 0.1 second) | Initializing |
| Flashing (0.1 second on and 2.9 seconds off) | MVT380 is connected to the GSM network |
| Flashing (1 second on and 2 seconds off) | MVT380 is not connected to the GSM network |

## 7. Unit Configuration

Connect the USB Data Cable between MVT380 and PC and use MEITRACK Parameter Editor to configure the MVT380.



**Please refer to MEITRACK Parameter Editor User Guide for more information regarding configuration and functions.**

**Please refer to MEITRACK SMS/GPRS Protocol for more information regarding SMS and GPRS commands.**