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GPS TRACKER

GPS + GSM + SMS/ GPRS

M28

M28 Vehicle Management system is a web based application that features a rich product and versatile system, it utilizes both the latest GPS (Global Positioning System) and GSM technologies. Both of these technologies have already been used for over a decade and there are proven technologies.



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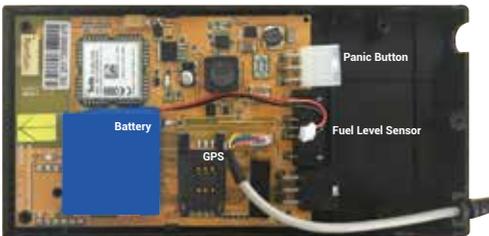
M28 Vehicle Management system is a web based application that features a rich product and versatile system, it utilizes both the latest GPS (Global Positioning System) and GSM technologies. Both of these technologies have already been used for over a decade and there are proven technologies.

Location information were gathered by the GPS and then transmitted back to a control center via GSM network using robust GPRS network. Aside from satellite connection, GSM network has the widest coverage for data transmitting. The roaming services provided by the GSM network allows tracking to be done virtually in any country around the globe.

M28 also include updated geographic and demographic data from google map, plus new feature including advanced GPS functionality. Customization of mapping and analysis base on geolocation info is possible by using the system and in turn provide customer with a significant benefit toward the identification of their new business opportunity.

Integration of fleet management into our system has been one of the primary features that we deploy in our system. It allow customer to have a Business Intelligent platform to manage and analyze their complete fleet. Fuel management has also been integrated into the system for customer who is interested with their fleet's diesel usage and it is proven to help our customer to analyze and reduce the usage significantly.

Combine with the powerful of today's technology in web based system, all the information is just 1 click away from your finger and be assure running in the forefront of the technology.



PRODUCT FEATURES/ SPECIFICATION

M28 PRODUCT FEATURES

GSM 900/ 1800 Dual Band
Easy Voice Instructing Function
Wide for Voltage Input Range: 9-36 Vdc/100mA
GPS Continuous Positioning, GPS Timing Interval
Check Location via SMS
ACC Ignition Detection
Tele-cut-off (Petrol) Electricity) Function
SDS Alarm
Backup Battery for Power Disconnect Alert

M28 PRODUCT SPECIFICATION

Dimensions 83mm x 167mm x 30mm
Weight 165g
Operating Temp -10 to +60 deg C
Power Supply 9-36VDC
Current Consumption 100mA at 24Vdc Average
200mA at 24Vdc Max
Connector Power and Output Control
Cellular Antenna (inside the casing)
GPS Antenna (external)
Indicator Power, GSM, System, Sub System

GSM SPECIFICATION

Brand TELIT WIRELESS SOLUTION
GSM Module Model GL868-DUAL
Frequency Power Dual-band EGSN 900/1800MHz
Transmitting Power Class 4 (2W) at GSM 900MHz
Class 1 (1W) at GCS 1800MHz

Temperature Range Normal Operation: -45DegC to +85DegC
SMS SMS
SIM Interface SIM Interface
Antenna Antenna

GPS RECEIVER SPECIFICATION

Chipset Ublox UBX-G6010
Frequency Code L1 Frequency Band
Protocol C/A Code
Channels NMEA 0183 V2.3
Sensitivity 50
Tracking: -160dBm
Reacquisition: -160dBm
Cold Start: -146dBm

Cold Start 29 seconds
Warm Start 29 seconds
Hot Start 1 seconds
Accuracy Horizontal Position:
Autonomous < 2.5m average
SBAS < 2.0m average
Velocity 0.1 m/s
Pulse signal: RMS 30ns

Maximum Altitude 18,000 meter
Maximum Velocity 515 m/s
Dynamics <4G
Update Rate 1-5Hz
Power supply 3-33Vdc
Backup Voltage 1.8 - 3.6Vdc
Max performance: Acquisition:
49mA, Tracking: 42mA
48mA, Tracking: 38mA
Power Save Mode: 16mA

Environmental Range Humidity Range 5% to 95% non-condensing
Operating Temperature -40DegC to 80DegC
Storage Temperature -40DegC to 80DegC

System LED

LED Status
Continuously in dark state
Continuously blinking

GSM LED (GSM status indicator)

LED Status
Quick flashing
Continuously in bright state
Continuously in dark state

GPS LED (Power/ working status)

LED Status
Continuously in Blinking
Continuously in Dark

Meaning
System Shutdown
System Running

Meaning
GSM initialization
GSM conversation /
Start GPRS
No GSM signal

Meaning
GPS Location Fixed
GPS Location Not Fixed



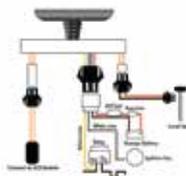
Step to Setup

1) First Step
Open the unit back cover by unscrew the unit at the back

2) Second Step
Connect to Battery Cable
Connect to Panic Button
Connect to Fuel Level Sensor
Connect to GPS

Notes of the replay wiring

The relay wiring of pump: oil connectors of both ends are a fine white line (9) and fine yellow line (8).
The fine white line (8) is connected to vehicle positive power (+12V).
The fine yellow line (8) is connected to the device relay control line.
Cut off the positive connection line of the pump, then connect in series to the relay N/C contact (thick green line 87a) and the other end to relay COM contact (thick green line 30).
NOTE: The standard relay is 12V and only suits the 12V car battery.
Please choose 24V relay if it is 24V car battery



METHOD OF INSTALLATION

1. Preparation before installation
2. Open the packing box to check whether the type of device is correct and whether the accessories are include, or else please contact your distributor.
3. Choose SIM Card : each device needs to insert a GSM SIM Card. Please refer to the distributor's suggestions to choose the SIM Card.
4. Installing SIM Card : The SIM Card slot is on the right side of device. Open the SIM Card silicon seal, then insert the SIM Card to the slot (do not insert the SIM Card backwards). When the SIM Card is ready you will hear a click. Or else please insert again and then replace the silicon seal.

* NOTE

Please use GSM network SIM Card; Power off before installing or removing the SIM Card; The SIM Card used should be enabled for GPS; If there is a power on password, or pin, please cancel it; Ensure the SIM Card can send and receive SMS.

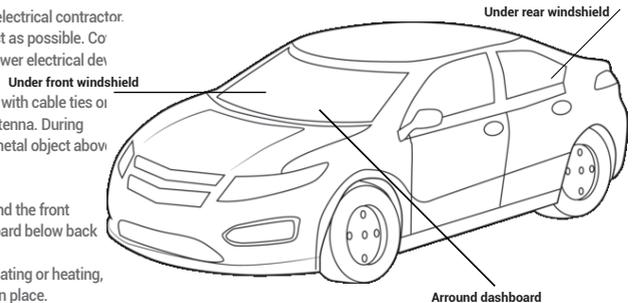
The device installation is covert. Please refer installation to an auto electrical contractor.

*NOTE: To prevent theft of the device, it should be installed as correct as possible. Co installation is suggested; Avoid placing the device close to higher power electrical device such as reversing radar, anti-theft device or other vehicle communication equipment; The device should be fixed into position with cable ties or double-side tape; The device has build-in GSM antenna and GPS antenna. During installation, please make sure the receiving side face is up, with no metal object above the device to interfere with GPS reception.

THE FOLLOWING PLACES ARE SUGGESTED FOR INSTALLATION:

a) in the decorated board below the front windshield; b) shelter around the front instrument panel (non-metallic material face); c) in the decorated board below back windshield;

NOTICE: if the windshield is pasted with metal thermal-protective coating or heating, affect the receiving signal. In this case, please change the installation place.



POWER/ACC/TELE-CUTOFF (PETROL/ELECTRICITY) CONTROL LINE (4PIN)

- a) The standard voltage is 9V-36VDC. Please use the power line which provided by the manufacturer. The red line is the positive. The black line is the negative. The negative should earth alone or link iron during installing. Do not connect it to other ground wire. b) ACC line (white) is connected to the ACC switch of the vehicle. Please make sure to connect the ACC line. The tracker will decide whether to enter ignition detection according to ACC status. If do not connect to ACC line, the device will enter ignition detection status. c) Tele-cutoff (petrol/electricity) control line (yellow) is connected to pin 86 of the Tele-cutoff (petrol/electricity) relay (equal to the yellow line of the replay socket).
- d) SOS line. Externally connect to SOS switch for SOS function.

OPERATION OF DEVICE

a) Power On: Once insert a valid SIM Card and connect all the wires, turn on the device, then Power LED will light. During signal searching process, GSM LED will flash. Once GSM LED keeps blinking every 3 seconds, the system has been attached to the GSM network successfully. b) Power Off: Just disconnected the power supply to the unit and remove the back up battery.

WEB BASED MONITORING

The GPRS web based tracking platform allows real time tracking with the latest Google Maps. There is also a playback feature that allows you to view where the vehicle has been for up to 180 days in the past making it ideal for fleet management.

Go to WWW.FLEET.AVLS.COM.MY and login with the username and password given.

TROUBLE SHOOTING

After installing it in the first time, if device cannot get connected with platform server, at this time it is "logged off" status in platform. a) Check whether the connection of power-line is correct; please do not connect it with the car control; b) Check whether SIM Card is installed correctly please refers to the installation manual; c) Check whether the power switch is toggled to "ON". d) whether ACC ignition cable is connected, please turn on the ACC with key after it is connected; e) Check the LEDs' status, Power LED is in solid bright; System LED is blinking, GSM LED is blinking once every 3 seconds; f) Check whether GPS is located, if not, please drive to the open areas for positioning.

IF IT IS "OFFLINE" STATUS IN PLATFORM: First of all, check the three LEDs' status. If is not convenient to check that, please check the SIM Card status. a) Call the SIM Card number of the device to check whether you can get through; b) Check whether the vehicle is in no GSM area, such as basement. c) Check the GSM/GPS disconnection area, whether it is all disconnected or few of them disconnected, to make sure whether it is the fault of operator's internet. d) Check whether your SIM Card is overdue; check the SIM Card support GPRS; e) Check the parameter setup, whether the device IMEI number, GPRS sending intervals correct.

If the device' GPS function is normal, but cannot locate for a long time, please check whether the installation setup of device is correct: a) Please make sure the GPS antenna face is up; b) Please make sure there is no electromagnetic wave-absorbent object (metal) above the device, especially the thermal-protective coating on the windshield, it may affect the GPS reception of the device.

If GPS cannot receive the signals normally (there is high building around to interfere with GPS reception), please drive to the open areas for positioning. Generally, it needs 1-2 minutes to receive the first coordinates.

If GSM cannot receive the signals normally, please check whether SIM Card is installed correctly or there is no GSM signal at the location you are, such as basement parking, please drive to a place covered by GSM signal reception.

When cellphone with special number receives tele-cutoff alarms SMS, please make sure whether it is illegal wire cutoff, or the FUSE on power line is blown. If the FUSE in it is blown, please contact your distributor to exchange with the same model FUSE, after the internal trouble is shoot, it can be power on to work again.

QUICK INSTALLATION

Preparation of SIM Card; Please prepare a SIM Card with GPRS function active, the monthly basic GPRS consume is 5MB-30MB, and the corresponding GPS interval time is 10-60 seconds. NOTE: only 2G SIM Card is compatible with this device; SIM Card need to open Caller ID & GPRS Service.

Installation of SIM Card: Please insert the SIM Card into slot following the instructions, notice the directions when installing.

Installing of device: Connect the device with the power line, the following place is recommended: (please refer to connection instruction on the back of device for installation)

a) inside of decoration board under the front windshield; b) the front instrument panel around (surface should not be made with metal material); c) inside of decoration board under the back windshield.

NOTE: To avoid putting with emission source, such as reverse sensor, burglar alarm and other communication terminals of vehicle use. It can be fixed by plastic strapping or powerful double-side tape. Built-in GSM/ GPS antenna design requires GPS receiving face up and without metal obstacles on. If the windshield is pasted with metal thermal-protective coating, it may affect the performance of the device. In this case, Please find another appropriate place to install. Inspection of LED indicator. a) normal status of dicator - Power LED ON, System LED Blinking, GSM LED Blink once every 3 seconds. Login of tracking platform; After finish the setting above, you can visit track website to check the location of the device, the website is WWW.FLEET.AVLS.COM.MY

