

Contents

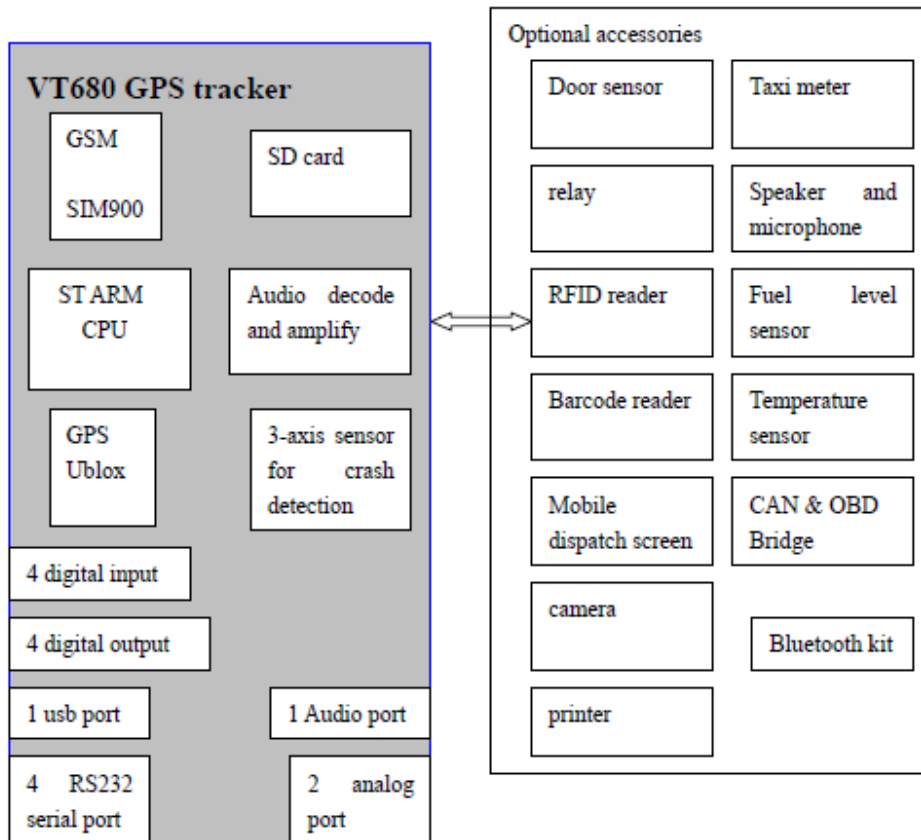
1. Introduction	5
2. EDW-680T Overview	5
3. Specification	12
4. Function.....	15
5. Get start.....	18
6. Trouble shoot.....	21
7. More SMS command.....	23

1.Introduction

EDW-680T which come in a compact design is a powerful real time fleet management and vehicle tracking system using high sensitivity GPS and wireless GSM/GPRS communication. This self-contained and autonomous tracking device including GSM module, GPS receiver, Li-ion battery and Multi analog input is able to be used as observing the location of vehicle ,detecting temperature ,detecting fuel costing, working camera to take picture ,working with RFID to identify driver ,work with SD card to store journey info, working with printer to stored info on paper, working with meter to counter pulse working with OBDII/CAN bus to get vehicle status remotely .










Figure 1. EDW-680T appearance

2. EDW-680T overview



VT680 : Function diagram

Advanced feature of EDW-680T

Can work with RFID reader and tag to identify driver	
Can work with camera to take picture	
Can work with SD card to store journey info	
Can work with printer to print info in SD card	
Can work with mobile data terminal to display text from server and map navigation	
Can work with hand free voice kits, can be used for phone call or voice broadcast	
Can work with CAN bus bridge/OBD bridge to read vehicle info ,including RPM, fuel info, axle weight etc.	
Bluetooth kit	
Barcode reader	

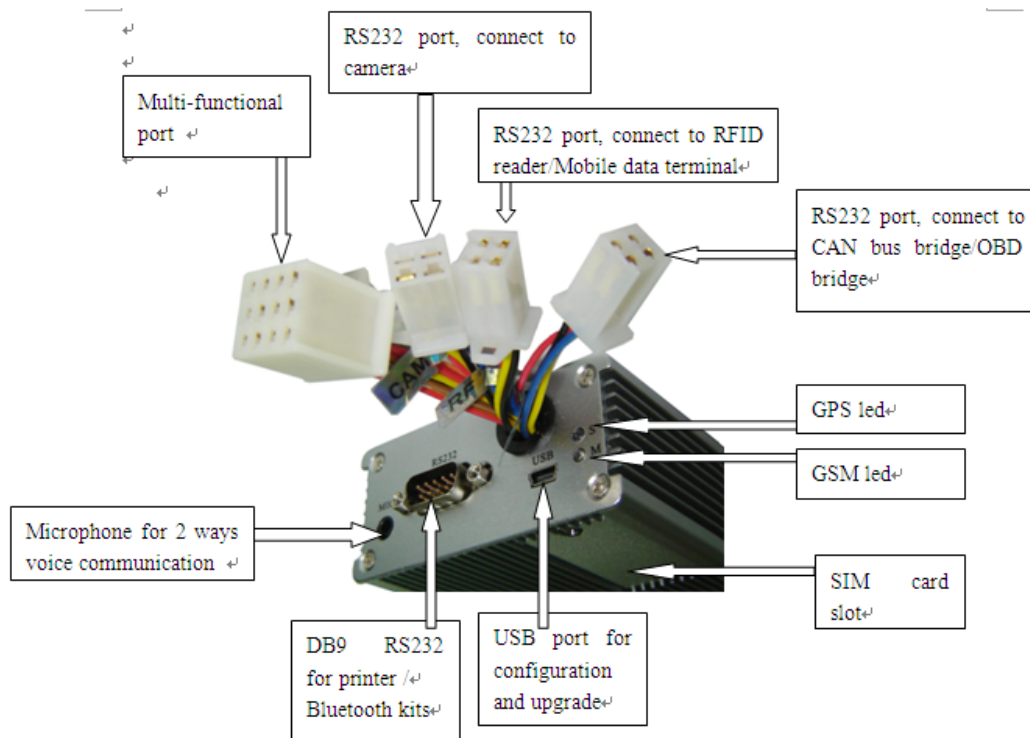
2.1 EDW-680T unit

EDW-680T is designed in a compact and simple rugged Aluminum enclosure. At front panel, there are 3 LED indicators shows the status of the unit. And various ports for vehicle interface, COM port, SIM card slot, SD card slot on both side of the device.

2.2 Front panel:

Following picture shows the front panel :

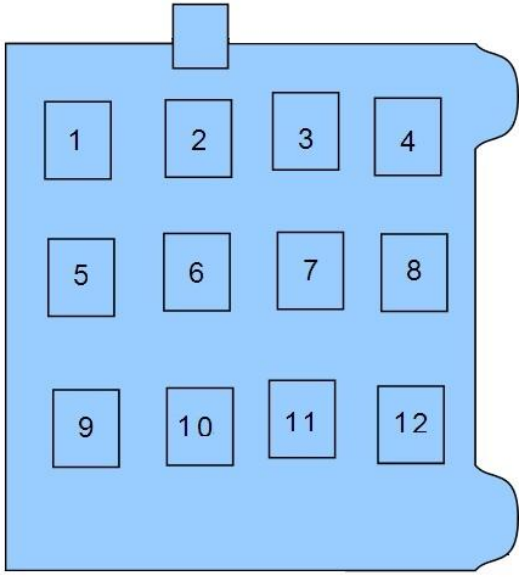
Figure 3 : Front panel



Name	Remarks
GPS led	GPS led,work with 3 status: In each 3s,lighting for 2.9s and dark for 0.1s: get

	good GPS signal In each 3s,lighting for 1.5s and dark for 1.5s: no GPS signal In each 3s,keep dark: device is in off status
GSM led	GSM led,work with following 3 status: In each 3s,lighting for 2.9s and dark for 0.1s: get good GSM signal In each 3s,lighting for 1.5s and dark for 1.5s: no GSM signal In each 3s,keep dark: device is in off status
SIM card slot	Open the slot to place SIM card
Multi functional port	Please refer following table for more info about this port

Multi functional port:

	Pin Number	Description
	1 (black&red cable)	Digital input 1*,in cable socket of EDW-680T,already connect to SOS input
	2 (Blue cable)	Digital input2 *
	3 (gray cable)	Digital input 3*
	4 (Purple cable)	Digital input 4**
	5 (Black cable)	GND
	6 (yellow cable)	Analog input 1
	7 (White cable)	Analog input 2
	8 (Red cable)	Power,8V~32V
	9 (Green cable)	Digital output1
	10(red&orange cable)	Digital output2
	11(brown cable)	Digital output3
12(Orange cable)	Digital output4	

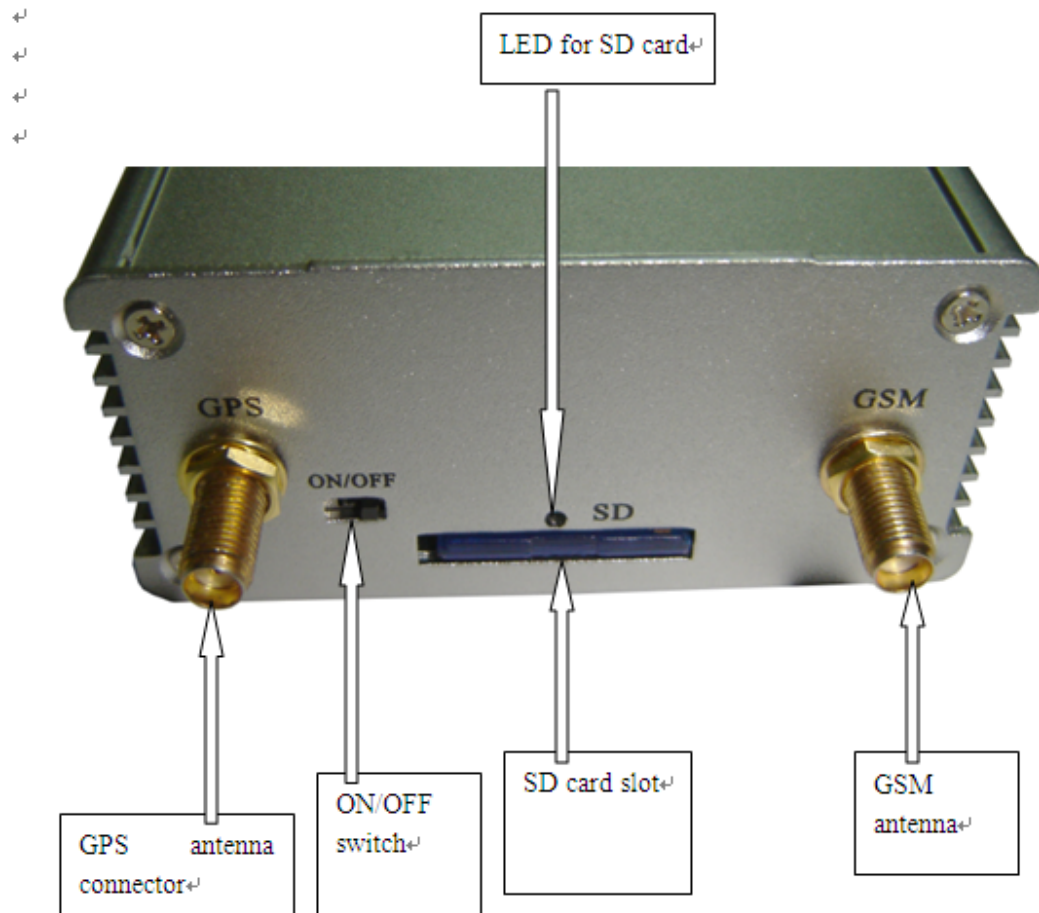
Remark:

*: Digital input 1,Digital input2,Digital input 3 is negative trigger

** : Digital input 4 is positive trigger, in which input4 is usually to connect with ignition or taxi meter for pulse counter

2.3 Back panel

Following is picture of back panel:



Name	Remarks
LED for SD card	SD card led,working with following 3 status Keep lighting:no read/write SD card Blinking :read/write SD card Dark: no SD card in SD card slot

2.8 Package contents

The basic package is including EDW-680T, GPS antenna, GSM/GPRS antenna, cables for multi function connector. The optional accessory including :relay, Mobile data terminal, CCD camera, RFID reader, temperature sensor, tank fuel level sensor, SD card, printer ,OBD bridge, CAN bridge, Bluetooth kit. For more details about optional accessory ,please refer to "Redview GPS AVL Accessory Guide"

3. Specification

3.1 Software Features

- Tracking via SMS or GPRS (TCP/UDP)
- Quad band GSM module
- GSM/GPS integrated
- Support CAN/OBD bridge Bus
- Support printer
- With 4 serial RS232 port
- 2 analog port
- 4 digital input and 4 digital output
- Input pulse count(taxi meter count)
- Can work with camera to take picture
- Can work with RFID to identify driver
- Can work with mobile data terminal for text display
- Can work with SD card to store journey info
- Can work with Bluetooth to transfer data wireless
- Build-in 3 axis sensor
- Build-in flash
- Build-in battery

3.2 Hardware Features

- GSM/GPRS core
 - Simcom: SIM340D: 850/900/1680/1900MHz
- GSM/GPRS services: Data, SMS/GPRS class B, class 10, TCP, UDP, IP
- Physical characteristics
 - Dimensions(L*W*H): 85mm*120mm*30mm
 - Weight: approx: 200g(including build-in battery)
- Temperature range
 - Operation: -20 Celsius degree to +80 Celsius degree
- Power sources
 - Input voltage: 10~32 Volt DC regulated/Max 2A
 - Rechargeable Li-ion battery 850mAh

Antenna

GSM/GPRS antenna

GPS antenna

Indication: 3 LED indicator for GSM/GPRS , GPS status,SD card status

3.3 Technical specification

GSM/GPRS specification

Frequency Bands	Simcom 340D: 850/900/1680/1900Mhz
GSM class	Small MS
Transmit power	Class 4(2w) at EGSM900 and GSM850 Class 1(1W) at DCS1680 and PCS 1900
GPRS connectivity	GPRS multi-slot class 10 GPRS mobile station class B
Data GPRS	Data up/downlink transfer: Max.85.6/42.8kbps Coding scheme: cs-1,cs-2,cs-3 and cs-4 Supports the protocols PAP and CHAP commonly used for PPP connections
Data CSD	CSD transmission rates:2.4,4.8,9.6,14.4 kbps
SMS	SMS,MT,MO,CB,Text and PDU mode Support transmission of SMS alternatively over CSD or GPRS User can choose preferred mode
TCP/IP stack	Internet services: TCP,UDP,HTTP,FTP,SMTP,POP3
FAX	Group 3:Class 1,Class 2
SIM	Supported SIM card: 3V

GPS module specification

General	Receive Frequency	1.57542Ghz +/-1.023Mhz
	GPS datum	WGS-84
SIRF star III chipset	Acquisition Rate	Conventional mode Cold/warm/hot start < 42/38/1 sec (95% typical)
	Accuracy	Position: 10 meters CEP without SA

		Velocity: 0.1meters/s,without SA Time: 1ms sync to GPS time
	Channel	24 channel GPS

4. Function

EDW-680T is able to be powered from 8V to 32V DC. The VIN,GND and ignition line of the vehicle port should be connected with the vehicle to use car management. The VIN line should be connected to +12V or +24V DC of vehicle parts using 2A fuse, for example the vehicle battery. And also ,the SIM card capable of GSM/GPRS should be inserted before connect with power. After completing the connection, the user should change the configuration for its network operator and user's environment.

EDW-680T receives GPS data via GPS antenna after fixing GPS signal. And then the device sends the location data to control center according to its configuration which is able to be set by control center or user's SIM.

4.1 Communication function

EDW-680T is able to be communicated by GSM and GPRS network using SMS and GPRS packet. The device can support both GSM and GPRS network, but the control center software is able to be distinguished by the application of SMS and IP packet.

Following communication mode is supported:

- SMS only mode:
When the control center does not have internet connection, it can be communicated with the device via SMS. To conduct it, the control center should connect with GSM modem.
- GPRS only mode:
When the control center have internet connection, the device is communicated with the control center via GPRS packet at time interval. The time interval can be preset by customer thru GPRS/SMS/UART configuration cable.

- SMS and GPRS mode
When the control center connect with GSM modem and internet ,the control center communicates with the device through both GPRS packet and SMS at time interval. The time interval can be preset by customer thru GPRS/SMS/UART config cable.

4.2 Alarm function

EDW-680T send alarm SMS/GPRS package to the predefined SMS number/IP address. The alarm package is able to be activated for following functions:

- Journey start/end alarm
- Over speed alarm
- Panic alarm
- Towing alarm
- Geo-fence alarm
- Over time driving alarm
- Alarm which can preset by customer, such as over temperature alarm
- Crash alarm

4.3 Data logging and forward function

EDW-680T can work with 2 ways to data logging and forward. By flash:

When enter GPRS blind area, the position info, data from external sensor can be stored in flash and forwarded when GPRS re-establish.

By SD card:

The journey info,the picture info, the status info from CAN bus,the driver's info can be stored in SD card and can be get by GPRS,by Com port. Following info can be stored in SD card:

- Driver's name
- Driver's company
- Driver's license code
- Vehicle's license plate number
- Vehicle ID info

Vehicle's position, speed, direction in each second
Vehicle's mileage
Time point when engine start
Time point when engine stop
Times which driver over speed driving
Times which driver over time working
Times which open the car door
Times which stop the car door
Picture taken from camera
Info from OBD bridge

For more about how EDW-680T store data in SD card, please refer: How EDW-680T work with SD card.

4.4 RFID card identification function

EDW-680T can work with RFID reader to detect the RFID tag. The tag info will be compared with card database info. Once the current RFID tag can match the tag info in database, it will control the relay to turn on the car .If the current RFID tag cannot match the tag info in database ,it will control the relay to turn off the car . For more about how EDW-680T work with RFID reader, please refer to document named" how EDW-680T work with RFID reader"

4.5 CCD camera picture taken function

The EDW-680T can work with CCD camera to get the picture info. The picture info will be send from tracker to server. And then the picture will be shown on server real time. For more about how EDW-680T work with RFID reader, please refer to document named" how EDW-680T work with CCD camera"

4.6 Vehicle control function

The multi analog/digital output of EDW-680T make the device can control the vehicle, such as shutdown engine, close window and close door. Please don't use that function when the vehicle is in high speed . Following picture shows how EDW-680T work with relay

4.12 Moving and Park working method

EDW-680T can detect the moving and parking method. The park mode means the vehicle is not move and the engine is off. The moving mode means the vehicle is moving or the engine is on.

When in park mode, it will send the GPRS package in default time interval of 5 minutes.

When in moving mode, EDW-680T will send the GPRS package in default time interval of 30 seconds.

The time interval of park and moving mode can be preset by user. For more info about how to set time interval, please refer the 5.3.4 part of this document.

4.13 Hand free voice communication

EDW-680T can work with external hand free voice communication to making call and receiving call. Once the buzz ring, the user can receive call by press SOS button. User can make call to preset telephone number by press SOS button.

4.14 Audio broadcast

With external audio decoder and amplify, EDW-680T can broadcast audio message to reminder driver/passenger. Customer can configure the trigger condition of audio message and the content of audio message. This is widely used in bus tracking for stop reminder and taxi tracking for passenger reminder. For more about this feature, please refer " how EDW-680T work with audio broadcast feature".

4.15 Printer

EDW-680T is a GPS tracker , can work with SD card and printer, to record ,sending and print dangerous driving behavior, including over speed driving, over time driving ,harshing braking, etc. This is widely used in police enforcement

assistance.

For more info ,please refer document named" how EDW-680T work with printer"

4.16 Read vehicle data from OBD bridge or CAN bridge

EDW-680T GPS tracker can connect with external OBD bridge Or CAN bridge to read vehicle info. The vehicle info include: vehicle speed, engine RPM, vehicle distance, fuel level, axle weight ,trailer weight.

For more about which vehicle brand CAN bridge can work with, please refer to " program and function lists for CAN bus bridge". For more about how EDW-680T GPS tracker work with CAN bus, please refer user manual named" how EDW-680T work with CAN bus.

4.17 Crash detection

With build-in 3-axis accelerator sensor, EDW-680T can detect and record vehicle's crash, fast stop and fast start in SD card .The stored info can be also send via GPRS .For more about this feature, please refer " how EDW-680T work with crash detection".

4.18 Bluetooth communication

With optional Bluetooth kits, EDW-680T can send info stored in SD card via Bluetooth. For more about this feature, please refer" how EDW-680T work with Bluetooth ".

4.19 Mobile data terminal interface

With mobile data terminal, 2 ways text communication between host server and driver is available. The host server can also inform destination to driver and provide navigation. The driver can also reply the host server via text communication and voice communication.

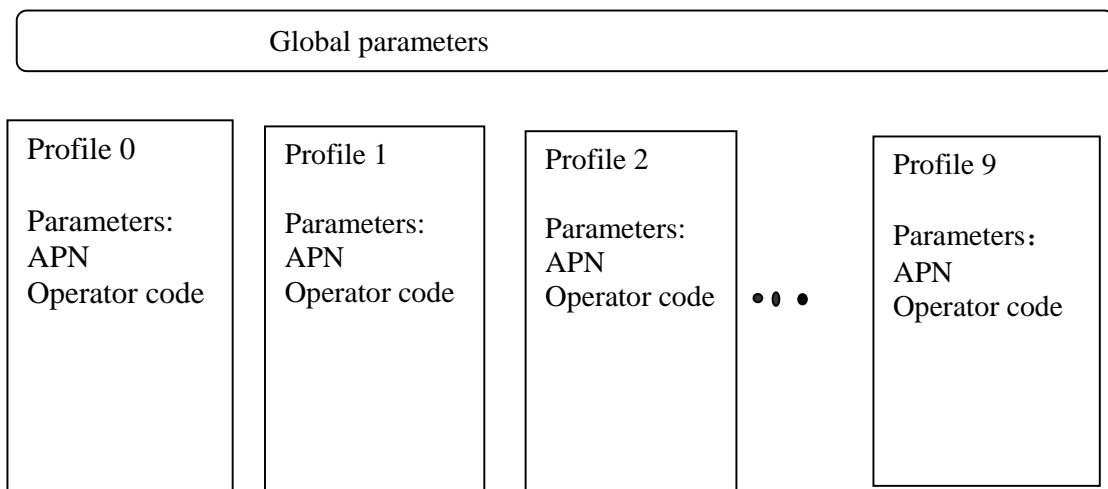
4.20 Anti GSM Jamming

When the EDW-680T detect GSM signal jammed, it will store the

all info in internal flash. At the same time, the internal buzz will be triggered and keep trigger until GSM signal recover. The internal buzzer can stop when receive SMS command of stop buzzer or GSM signal recover . For more about the stop buzzer SMS, please refer to Chapter 7: SMS command list.

4.21 Roaming

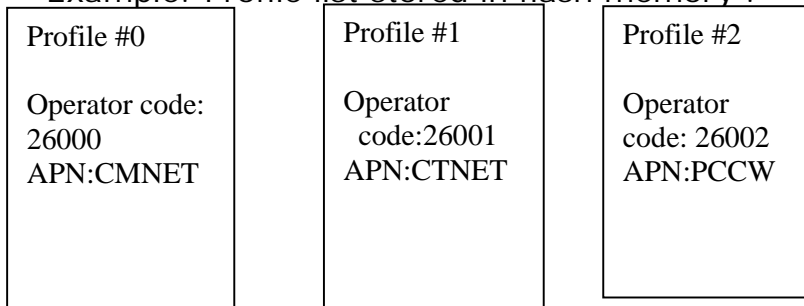
EDW-680T has 10 profiles saved in Flash memory of the module. Each profile has a list of parameters, which enables EDW-680T to operate in different modes, using different profiles. You are allowed to setup up to 10 different profiles. Global parameters contain settings that are common for all 10 profiles. This means that if you set EDW-680T to call to predefined number, you will be able to call it using any profile. Basic scheme of global parameters and profiles is shown below. Switching between profiles can be performed by profile switch depending on GSM operator code .



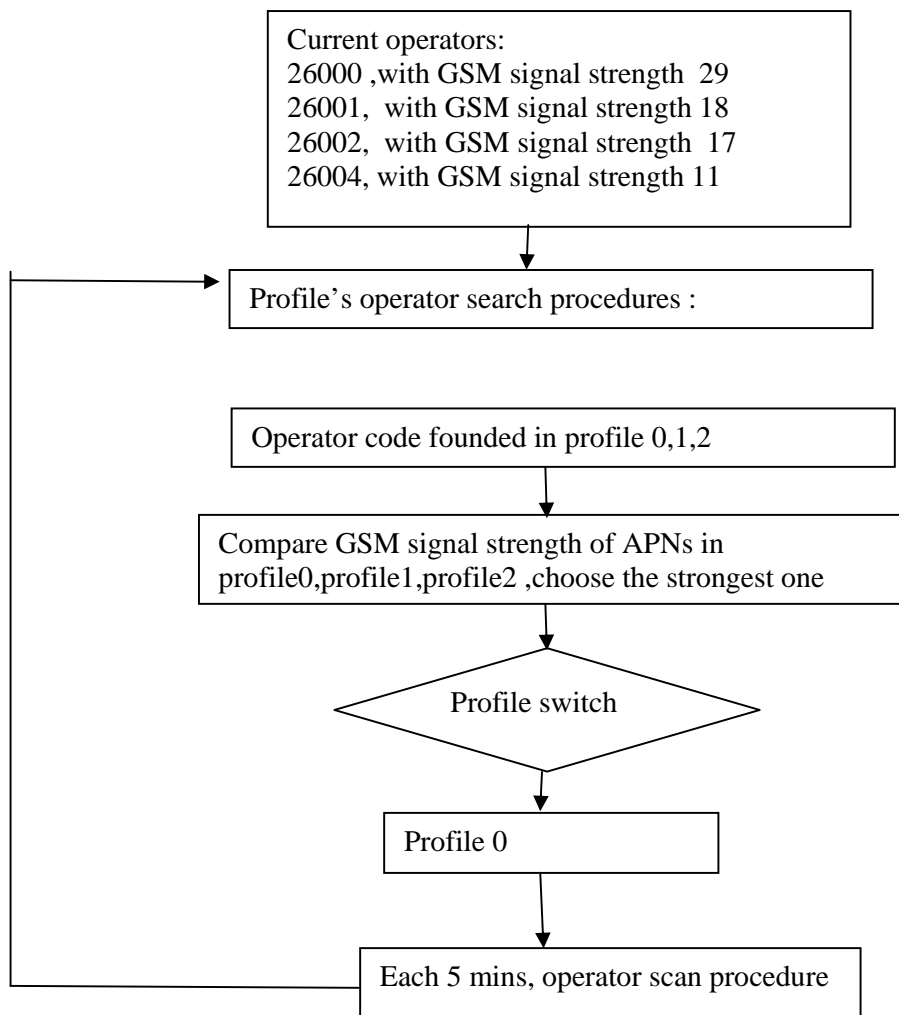
Profile Switch depending on GSM operator code and signal strength

Profile switching is mostly used in roaming applications ,to save communication cost . In the current operator lists, the module will choose the one which match the profile and with strongest GSM signal, as example below shows:

Example: Profile list stored in flash memory :



Example : Profile switching:



You may configure the profile list by SMS command. For more please refer part 7, SMS command list .

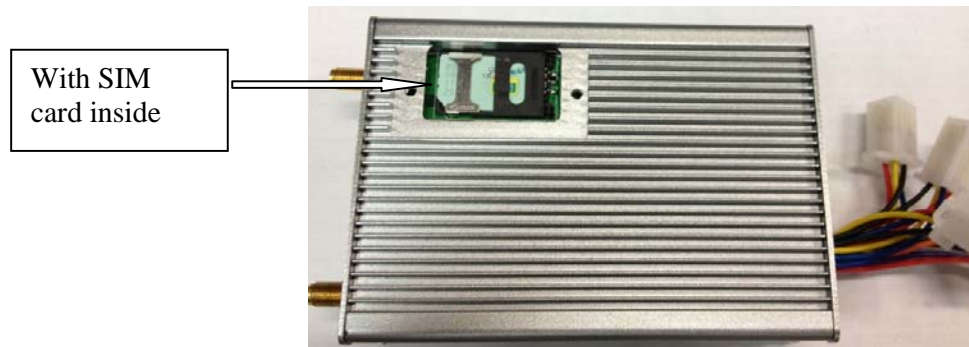
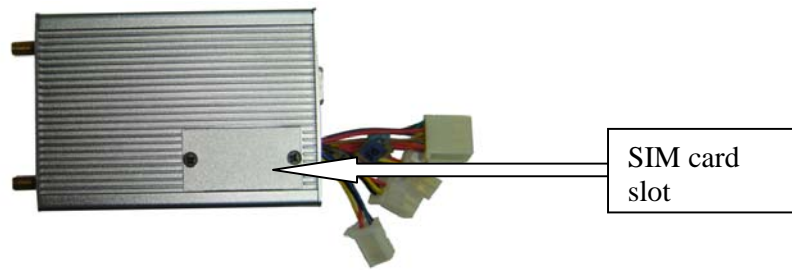
5. Get start

EDW-680T will only accept commands from a user with the correct password. Commands with wrong password are ignored. The default password is 000000.

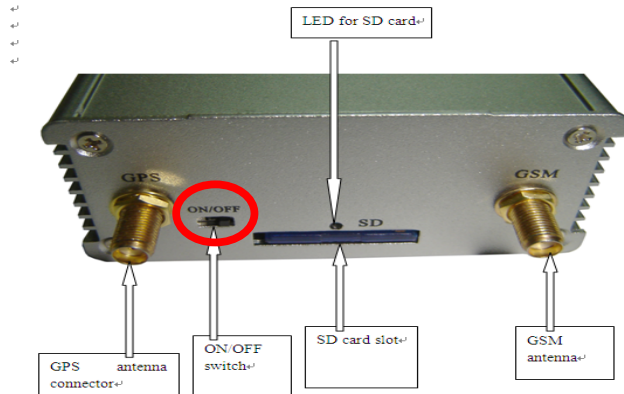
5.1 Device installation

5.1.1 Connect the external GSM antenna and GPS antenna

5.1.2 Open the SIM card slot and then insert SIM card



5.1.3 Turn on the device



5.1.4 Connect the device and the vehicle via the cables.

The Power and GND of the EDW-680T should be connected to the vehicle. If these signals are not connected to the vehicle, please use power supply or 12/24V battery.

5.2 Basic SMS Commands

5.2.1 Position Report

To know the location of your EDW-680T, send an SMS or make a telephone call directly to EDW-680T and it will report its location by SMS. Command: W<password>,<000>

Notes: The default password is 000000.

Example:

SMS sent: W000000,000

SMS received:

Latitude = 22 32 36.63N Longitude = 114 04 57.37E, Speed = 2.6854Km/h, 2008-12-24,01:50

To get EDW-680T's position by another easier way:

- (a) Call EDW-680T using your mobile phone.
- (b) After listening to the ring for 10 - 20 seconds, hang up the phone.
- (c) Then after 20 second, your mobile phone will receive a position SMS.

5.2.2 Set Interval for Automatic Timed Report

Description: Automatic timed reports will be sent to your mobile phone according to the time interval you set.

Command: W<password>,002,XXX

Notes: XXX is the interval in **minute**. If XXX=000 it will stop tracking

Example:

SMS sent: W000000,002,005

SMS received: Set Timer Ok/005

EDW-680T will then report its location by SMS every 5 minutes.

5.2.3 Stop Automatic Timed Report

Description: Automatic timed reports will stop once EDW-680T receives stop command.

Command: W<password>,002,000

Example:

SMS sent: W000000,002,000

SMS received: Set Timer Ok/000

EDW-680T will stop automatic timed report

For more detailed SMS commands please go to Chapter 7 - SMS Command List

5.3 GPRS Settings by SMS

Tracking via GPRS, you should set IP, Port and APN for EDW-680T. Ensure that your SIM card in EDW-680T supports GPRS connection prior to setting.

5.3.1 Set ID for EDW-680T

Command: W<password>,010,ID

Note: Tracker ID must not over 14 digits.

Example: W000000,010,123456789

EDW-680T will then reply with an SMS ('Set SIM Ok/123456789') to confirm this setting.

5.3.2 Set APN

Command: W<password>,011,APN,APN Name,APN Password

Note: If no APN name and password required, input APN only.

Example: W000000,011,CMNET

EDW-680T will reply with an SMS (like 'Set APN Ok/CMNET') to confirm this setting.

5.3.3 Set IP Address and Port

Command: W<password>,012,IP,PORT

Example: W000000,012,202.116.11.12,6800

EDW-680T will then reply an SMS ('Set IP Ok /202.116.11.12,6800') to confirm this setting.

5.3.4 Set Time Interval for Sending GPRS Packet

Command: W<password>,014,time interval(in unit of 10 seconds)
(MOVE Mode: vibration)

Example: W000000,014,00003

EDW-680T will send GPRS packet every 30 seconds in Move mode(vibration)

Command: W<password>,114,time interval(in unit of 10 seconds)
(PARK Mode: No vibration)

Example: W000000,114,00012

EDW-680T will send GPRS packet every 120 seconds in Park mode(no vibration)

W000000,014,00000 is "STOP GPRS".

For more information regarding of bulk configuration by USB cable please refer to < GPS Tracker Parameter Editor >.

5.4 How to use external sensor

5.4.1 Connect external sensor with EDW-680T

5.4.2 Control center send related command to tracker unit to set the parameter of using external sensor, such as time interval of taking photo of CCD camera.

5.4.3 Receiving GPRS package which include detection data.

For more info about how to use external sensor,
Please refer to "Redview GTP GPRS communication
Protocol for GPS Tracker"

6 Troubleshooting

Problem: Unit will not turn on	
Possible Cause:	Resolution:
Wiring was not connected properly	Check and make sure wiring connection is in order.
Battery needs charging	Recharge battery
Problem: Unit will not respond to SMS	
Possible Cause:	Resolution:
GSM antenna was not installed properly	Make EDW-680T connected to GSM network.
GSM Network is slow	Wait for SMS. Some GSM networks slow down during peak time or when they have equipment problems.
Unit is sleeping	Cancel sleeping mode
Wrong password in your SMS or wrong SMS format	Write correct password or SMS format
The SIM in EDW-680T has run out of credit	Replace or top up the SIM card
No SIM card	Insert working SIM card. Check in phone that the SIM can send SMS message.
SIM card has expired	Check in phone that the SIM can send SMS message. Replace SIM card if needed.
SIM has PIN code set	Remove PIN code by inserting SIM in you phone and deleting the code.
SIM is warped or damaged	Inspect SIM, clean the contacts. If re-inserting does not help try another to see if it will work.
Roaming not enabled	If you are in a different country

	your SIM account must have roaming enabled.
Problem: SMS received starts with 'Last...'	
Possible Cause:	Resolution:
Unit does not have clear view of the sky	Move the antenna of the unit to a location where the sky is visible.
EDW-680T is in an inner place	Wait for the target to come out
Battery is low	Recharge the unit and the GPS will start working.

7 SMS Command List

(Remarks: * * * * * is user's password, and the default password is 000000)

Network communication Configuration		
Description	Command ,parameter and return	Example
Set ID	W***** ,010,ID Parameter: ID : must not over 14 digitals Return: Set SIM OK/ID	W000000,010,123456789
Set APN	W***** ,011,APN,APNName,APN Password Parameter: APN: please contact SIM card supply for APN. The default APN is CMNET APN Name : if no APN name, just leave empty APN password: if no APN password,just leave empty The total length of APN,APN name and APN password is not over 54 characters Return: Set APN OK/APN ,APN name,APN password	W000000,011,CMNET
Set IP and port	W***** ,012,IP, Port Parameter: IP: xxx.xxx.xxx.xxx Port: [1,65534] Return: Set IP OK/IP,port	W000000,012,202.116.11.12,6800
Set Time Interval for Sending GPRS Packet in move Mode	W***** ,014,Time interval Parameter: Time interval: XXXXX should be in five digitals. XXXXX=00000, to close this function; XXXXX=00001~65535, time interval for sending GPRS packet and in unit of 10 seconds. Return: Set TM OK/Time interval	W000000,014,00003
Set Time Interval for Sending GPRS Packet in park mode	W***** ,114,Time interval Parameter: Time interval XXXXX should be in five digitals and in unit of 10 seconds. XXXXX=00000, to close this function; XXXXX=00001~65535, time interval for sending GPRS packet and in unit of 10 seconds.	W000000,114,00012
Enable ping	W***** ,200,Switch Parameter: Switch =0: disable ping command Switch=1:enable ping command(default)	W000000,200,1
Set DNS domain	W000000,012,DNS domain ,Port Parameter: DNS domain: max 16 characters Port: [1,65534]	W000000,012,xy.gicp.net,8000

System Configuration		
Description	Command ,parameter and return	Example
Change the time in all SMS feedback .	W*****,040,Prefer Time zone Parameter: Prefer Time zone: AXX , which is time differ to Greenwich Mean Time . A : + or – XX: 00~12 The default time zone in SMS is Greenwich Mean time .	W000000,040,-08
Reboot the device in 10 mins	W*****,991,RESET Return: The device will reset in 10 mins Note: The RESET should be in capital	
Restore all default parameter	W*****,991,199###	
Change password	W*****,001,New password Parameter :new password,which is 6 digital	W000000,001,123456

Position & status & version reporting		
Description	Command ,parameter and return	Example
Get current position	W*****,000	W000000,000
Set interval for automatic timed report by SMS	W*****,002,time interval Parameter: time interval of automatic report by SMS ,in unit of 1 min,from 001~999.When time interval is 000,will stop report position by SMS	W000000,002,001
Get position with google map's linkage	W*****,100	
Get IMEI	W*****,607	
Get firmware version	W*****,600,.	

Application Configuration		
Description	Command ,parameter and return	Example
Configure the 1 st phone number for SOS button phone call	W*****,003,switch,1,telephone number Parameter: switch=0: disable the phone call feature Switch=1:enable the phone call feature .when sos button is pressed,will call preset telephone Telephone number: max 16 digitals	W000000,003,1,1,008675526030340
Configure the 2 nd phone number for SOS phone call	W*****,103,telephone number Parameter: telephone number: max 16 digitals	W000000,103,008675526030442
Add country code, district code to received telephone number when SOS button is pressed	W*****,502,*country code and district code XXX# Parameter: country code and district code	W000000,502,*86#
Add country, district number when send feedback	W*****,524,*country code and district code# Parameter: county code and district code	W000000,524,*52#

Extend Settings	<p>W*****008,ABCDEF# Parameter: ABCDEF</p> <p>A=0, turn off the function of sending an SMS location report to the authorized phone number when it makes a call to EDW-680T.</p> <p>A=1, turn on the function of sending an SMS location report to the authorized phone number when it makes a call to EDW-680T.</p> <p>B=0, location data of NMEA 0183 GPRMC will be interpreted into normal text for easy reading. For example: <i>Longitude = 114 degree - 04 cent -57.74 second</i> <i>Latitude = 22 degree -32 cent -40.05 second</i></p> <p>B=1, location data complies with NMEA 0183 GPRMC protocol. For example: <i>\$GPRMC,072414.000,V,3114.3763,N,12131.3255,E,0.00,0.00,050805,*00</i></p> <p>C=0, turn off the function to automatically hang up an incoming call.</p> <p>C=1, turn on the function to automatically hang up an incoming call after 4 - 5 rings.</p> <p>D=0, Turn off the function of sending an SMS when EDW-680T is turned on.</p> <p>D=1, Turn on the function of sending an SMS to SOS number when EDW-680T is turned on.</p> <p>E=0, reserved</p> <p>E=1, EDW-680T shuts down automatically when the powervoltage lower than 3V.</p> <p>F=0, Turn off the alert when EDW-680T enters GPS blind area.</p> <p>F=1, Turn on the alert when EDW-680T enters GPS blind area. SMS is to be sent to SOS number</p> <p>G=0, LED light works normally</p> <p>G=1, LED light stops flashing when EDW-680T working. ### is the ending character (default value is: ABCDEF#=1000100)</p>	W000000,008,1000100
Output control	<p>W*****020,port No., switch Parameter: Port No. =1, Out put 1 =2, Output2 =3, Output3 =4, Output4 =5, Output5</p> <p>Switch =0, to close the output =1, to open the output</p>	W000000,020,1,1
Delete all info store in flash	W*****503	
Enable/disable motion sensor	<p>W*****722,switch Parameter: switch=0: enable(default) =1: disable</p>	W000000,722,1
Set degree of direct change tracking	<p>W*****036,Degree Parameter :degree ,from 30~270 degree</p>	W000000,036,090
Set the text in SOS alarm SMS	<p>W*****033,1,text Parameter :text: no more than 8 characters</p>	W000000,033,1,help me
Set current telephone number as the number to receive SOS alarm	W*****612	
Set The sensitivity of microphone	<p>W*****431,sensitivity Parameter: sensitivity=[1,4] =1 : mini sensible =4: max sensible</p>	W000000,431,1

Enable/disable voice wiretapping	W***** ,210, switch Parameter: switch=0: disable voice wiretapping =1:enable voice wiretapping	
Set threshold of entering sleep mode	W***** ,026,threshold Parameter: threshold: when the device keep in park mode for more than preset threshold mins, enter sleep mode. In sleep mode, the GPS module will be turn off to save power =[00,99] =00:disable sleep mode	W000000,026,20
set time interval of automatically picture taken and picture quality which stored in SD card	W***** ,760,quality picture,time interval Paramter: picture quality : =1 :maxim level picture quality, which is 640*480 =2 : middle level picture quality, which is 320*240 =3 : minimum level picture quality ,which is 160*120 Time interval: time interval of taking picture=[5,999],in units of minutes mini time interval of taking picture is 5 mins . =0: stop take picture automatically, default value	W000000,760,1,012
set time interval of sending picture and picture quality from tracker to server by GPRS	W***** ,762,picture quality,time interval Parameters: picture quality : =1 :maxim level picture quality, which is 640*480 =2 : middle level picture quality, which is 320*240 =3 : minimum level picture quality ,which is 160*120 time interval : interval of taking picture and send picture to server via GPRS,=[10,999]. in units of minutes mini time interval of taking picture is 5 mins . =0: stop take picture automatically, default value	W000000,762,3,010
set end time of journey info stored in SD card.after this SMS is send, the data in 10 mins before this time will be print on paper	W***** ,536,MMDD,HHMM parameters: MM :month DD: date HH: hour MM: mins	W000000,536,0618,1505
Enable pulse counter	W***** ,640,switch parameter: switch =1: Enable Speed sensor =0: Disable speed sensor	
Set parameter for speed sensor	W***** ,662, pulse number in 1 kilometer Parameter: pulse number in 1 kilometer=[0,99999]	W000000,662,00400
Enable OBD diagnostic	W***** ,050,switch Parameter: switch=0: disable OBD diagnostic =1:enable OBD diagnostic	W000000,050,1

Alerts Configuration		
Description	Command ,parameter and return	Example
Set threshold of low power alert	W***** ,004,threshold Parameter: threshold: when internal battery's voltage is lower than threshold, will send low power alert by both SMS and GPRS Threshold=0: disable this feature(default) =1: send alert when battery voltage lower than 3.3V =2: send alert when battery voltage lower than 3.4V	W000000,004,1

	<p>=3: send alert when battery voltage lower than 3.5V =4: send alert when battery voltage lower than 3.6V =5: send alert when battery voltage lower than 3.7V</p>	
Set threshold of overspeed alert	<p>W*****,005,threshold Parameter: threshold: when the vehicle speed higher than threshold,the device will send over speed alert by SMS and GPRS .The alert will be stored in SD card also. Threshold=00,disable this feature (default) =[01,20], the threshold is in unit of 10km/h</p>	<p>W000000,005,08 Explain: The threshold of over speed alert is 80km/h</p>
Set geo-fence alert	<p>W*****,006,radium of geo-fence alert Parameter: radium of fence, the point is current position Radium of geo-fence alert=00, disable =01, 30m =02, 50m =03, 100m =04, 200m =05, 300m =06, 500m =07, 1000m =08, 2000m</p>	
Set threshold for motion alarm	<p>W*****,041,threshold Parameter: threshold =0 :Close motion alarm =1 :in 30s,the vibration duration 0.1s =2: in the 30s,the vibration duration is 1s =3: in the 30s,the vibration duration is 10s</p> <p>When the threshold is set to 2 and keep vibrating for 2s in unit of 30s,the device will send motion alarm by SMS and GPRS</p>	
Enable buzz when GSM anti-jamming alarm	<p>W*****,042,switch Parameter: switch=1: enable buzz (default) =0: disable buzz</p> <p>In anti-jamming mode, when enable buzz command is set,the buzz will keep output until GSM signal recover or receive disable buzz command.</p>	

Roaming profile setting		
Description	Command,parameter and return	Example
Configure profile	<p>w*****,563,X,YYYY,CCCCCCCCC parameter: X: profile No. , from 0 to 9 YYYY: operator code,for more ,please refer: http://www.imei.info/operator-codes/ CCCCCC: APN string</p>	w000000,7,46000,cmnet
Erase all profiles	w*****,544	w000000,544