# **GPS Vehicle Tracker**



# USER MANUAL (Model: MT100)

Please read carefully before operation

# Contents

1.	Product overview	3
2.	Applications	3
3.	Product Function and Specifications	4
	3.1 Product function	4
	3.2 Specifications	5
4.	MT100 and Accessories	6
5.	Installation	6
	5.1 Installation SIM card	6
	5.2 Charging	7
	5.3 LED Indications	7
	5.4 Install I/O cable	8
	5.5 Power/GND	8
	5.6 Digital Input (Negative Triggering)	9
	5.7 Digital Input (Positive triggering)	9
6.	Basic SMS commands:	.10
	6.1 Position report	.10
	6.2 Set function of receiving actual address name via SMS	.11
	6.3 Get location in Google map URL format	.11
	6.4 To cut off Engine, immobilize the vehicle	.12
	6.5 Set over speed alarm	.12
	6.6 Harsh acceleration/braking alert	.12
	6.7 Oil leaking/Refuel Alarm	.13
	6.8 Enable Impact Alarm Function:	.13
7.	Set SMS for GPRS tracking	.14
	7.1 Set ID by SMS	.14
	7.2 Set APN by SMS	.14
	7.3 Set IP Address and Port by SMS	.14
	7.4 Enable GPRS Function	.14
	7.5 Set Time Interval for Sending GPRS Packet	.15
8.	Troubleshooting	.16
App	pendix 1 Configure by computer	.17
App	pendix 2 Command List	.21
App	pendix 3 Configure and use of RFID function	.25

# 1. Product overview

MT100 is a kind of mini GPS vehicle tracking product can be used for tracking and security of motorcycle and automobile etc. Mini size, built-in antenna and waterproof designed, easy to be installed and concealed, with power voltage range from 6V~24V, therefore can satisfy tracking and security demands for all kinds of vehicles.

# 2. Applications

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

# 3. Product Function and Specifications

### **3.1 Product function**

- > OTA function (support over the air)
- ➢ Harsh acceleration alert/Braking alert
- Engine idle alert/low power alert/power failure alert
- ➢ Oil leaking/Refuel alarm
- ➢ ARM9 high speed microcontroller
- Support active/passive RFID for anti-theft alert and driver identification
- Fuel management
- ▶ 4M flash can save the maximum 26000 points data
- $\blacktriangleright$  6V~24V power supply
- Track by SMS/GPRS (TCP/UDP)
- Track by time interval
- Track by distance interval
- Anti-robbery with SOS button, call for help
- ➢ Geo-fence alarm
- Over speed alarm
- Built-in motion sensor for power saving
- Google map URL for location via SMS, which shows you location on map via mobile phone
- Get the physical address name via SMS
- Remote engine cut
- Mileage report
- ▶ I/O: 3 Output, 2 Input, 1 Analog input and 1 RS232 port
- Mini size, simple installation, low cost tracker for motorcycles, 12V and 24V vehicles
- Monitor the voice (optional)

# **3.2 Specifications**

Items	Specifications
Dimension	80*58*22mm
Weight	92g
Charging voltage	+9V~+24V
SIM Card type	3V
Power consumption	Active mode(peak)<1.0 A
	Active mode(avg.)<300 Ma
	Idle mode <50 mA
Operating temperature	-20~+75 ℃
Humidity	Up to 75% non-condensing
External SIM card	Connected via SIM card connector
External Antenna	Connected via 50 $\Omega$ coax connector
Button	1 SOS and 1 power on/off
Microphone	Optional
Transmit power	Class 4(2W) for E-GSM 900 and 850
	Class 1(1W) for DCS 1800
	Class 1(1W) for PCS 1900
Sensitivity	-104dBm minimum for E-GSM 900 AND 850
	-102dBm minimum for DCS 1800
	-102dBm minimum for PCS 1900
GPS chip	Latest GPS SIRF-Star III chipset
GPRS	Multi-slot Class 8(4Rx, 1Tx., 5slot Max.)
	Support all 4 coding
	schemes(CS-1,CS-2,CS-3 and CS-4)
	Maximum download speed is 85.6kbps
	Maximum upload speed is 21.4kbps
Speech Codec	Triple rate Codec
	Half rate—ETS 06.20
	Full rate—ETS 06.10 Enhance full rate—ETS 06.50/06.06/06.08
I/O	3 Output, 2 Input, 1 Analog input and 1 RS232
	port

# 4. MT100 and Accessories



MT100 Main Unit



8P wire harness



Relay





Active RFID Kits



Fuel Sensor

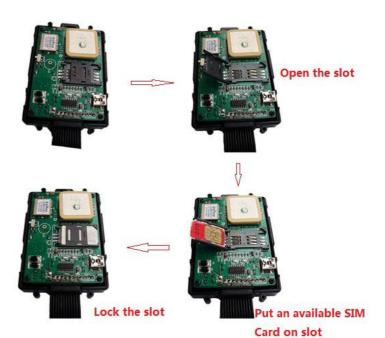


Passive RFID Kits

# 5. Installation

## 5.1 Installation SIM card

Check that the SIM card has not run out of credit (test the SIM card in a phone to make sure it can send and receive SMS); Before installing the SIM card, turn off the power for MT100. Then install the SIM card as following:



# 5.2 Charging

Connect the device with external power like car battery, and turn on its power switch, then it will do charging automatically

# **5.3 LED Indications**

Push the power switch to turn on/off MT100



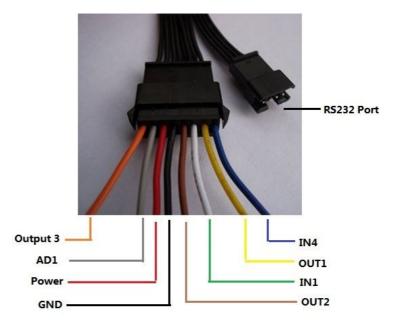
GPS LED (Red)				
Flashing (every 0.1 second)	Initializing or back-up battery power is low			
Flashing (0.1 second on and 2.9 seconds off)	MT01 has a GPS fix			
Flashing (1 second on and 2 seconds off)	MT01 has no GPS fix			
GSM LED (Green)				
Flashing ( every 0.1 second)	Initializing			
Flashing (0.1 second on and 2.9 seconds off)	MT01 is connected to the GSM network			
Flashing (1 second on and 2 seconds off)	MT01 is not connected to the GSM network			

### 5.4 Install I/O cable

The I/O cable includes power,

Negative/positive Input and

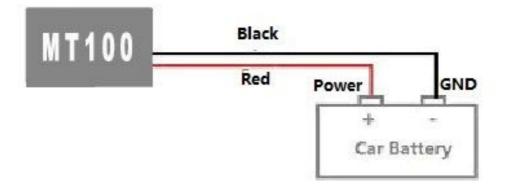
Output



PIN Number	Description			
Output 3	E.g. connected with siren			
AD 1	10 Bits Resolution Analog Inputs. 0~6V DC Detection. It can be used to connect with fuel sensor etc.			
Power	DC In (power source). Input voltage: 9V~36V. 12V suggested.			
GND	Ground.			
Output2	NC			
Input1	Digital Input 1 (negative triggering), e.g. It can be connected with SOS panic button.			
Output1	Output1. It can be used to connect with relay for engine immobilization.			
Input4	Digital Input 4 (positive triggering), e.g. detecting the ACC.			
RS232 Port	It can be used to connect with RFID and Temperature Sensor etc.			

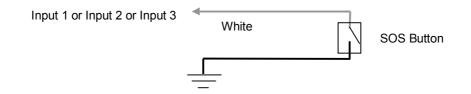
### 5.5 Power/GND

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



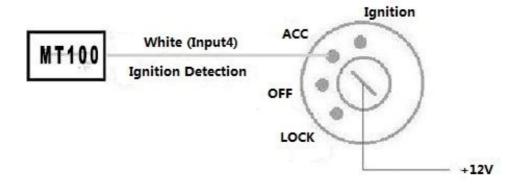
# 5.6 Digital Input (Negative Triggering)

E.g. Detecting SOS button



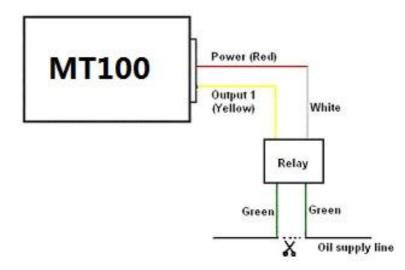
# 5.7 Digital Input (Positive triggering)

E.g. detecting engine on/off status



## 5.8 Output

PIN IN and OUT 1 application example:



# 6. Basic SMS commands:

#### 6.1 Position report

Description: To know the position of your MT100,

send an SMS or make a telephone call directly to

MT100 and you will receive an SMS with its

location and other information.



#### Command: W<password>, 000

Note: The default password is **000000** (the following the same)

Item	Description
ID: 1234567890	The tracker's ID number
ACC=OFF	The engine is turned off
Latitude=23 08 57.58N, longitude=113 18	Latitude and longitude information, "N" in
59.31E	latitude means North ,"E" in latitude means
	East,
Speed=0.00Km/h	Speed information
Odometer=0.013km/h	Odometer information
2012-09-26,11:32	Date and time

You can copy this coordinate get from the SMS into http//:maps.google.com and see its location as below:



Another easier way to get MT100's position:

Use your mobile phone to call the SIM number in the MT100, after hearing several times ring, then hung up, MT100 will send a SMS with location information back to your mobile phone.

### 6.2 Set function of receiving actual address name via SMS

Description: To know specific address of your MT100, send an SMS and you will receive an SMS with its location physical address name.

(This command needs our GPRS tracking platform GPRS-01 support)

Command: W<password>,111

Example:

SMS send: W000000, 111

SMS receive: Xinfu 1st Rd, Maonan, Maoming, Guangdong, China

#### 6.3 Get location in Google map URL format

Description: You will get a Google map URL after sending the command, click the URL then the location can be shown directly on Google Maps on your mobile phone.

### Command: W<password>,100

Example:

SMS send: W000000,100

SMS Received: as following picture 1

Note: then by click the URL, you can get the location in Google map from your mobilephone,

see bellowing picture 2





#### 6.4 To cut off Engine, immobilize the vehicle

#### Command: W<password>,020,P,F

Description: P=1, means output1, P=2 means output2 ... P=5, means output5

F=0, to disable this output function; F=1, to enable this output function

Example:

SMS send: W000000,020,1,1

If the output1 is connect to oil-cut relay, this command is to enable the engine-cut function, the engine oil pump line will be cut-off to immobilize the vehicle.

While send W000000,020,1,0 is to restore the engine oil pump line and the vehicle can be started again.

#### 6.5 Set over speed alarm

#### Command :W<password>,005,XX

Description: XX(the speed preset value) XX=00, disable XX=[01<XX<20](unit:10Km) Example:

SMS send:W000000,005,10

SMS receive: SET OK! SPEED LIMIT:100Km/h

Meaning: If your speed is over 100Km/h, an alarm SMS will send to your phone to warn you.

#### 6.6 Harsh acceleration/braking alert

#### SMS command: W<password>,047,X

Description: X means value of velocity change, 1 to 2 digitals. Default value is 0 for disable acceleration/braking alert function.

(1) Acceleration Alert: When the speed is over 20km/h, if the speed increase over X km/h in 5 seconds, the tracker will trigger acceleration alert, send the alarm data to tracking platform, its alarm code is 0x73.

Example:

SMS send: W000000,047,5

Meaning: When the speed is over 20km/h, if the speed increase over 5 km/h in 5 seconds, the tracker will trigger acceleration alert, send the alarm data to tracking platform.

(2) Braking Alert: When the speed is over 20km/h, if the speed decrease over (X+10) km/h in 5 seconds, the tracker will let out braking alert, send the alarm data to tracking platform, the protocol number is 0x72.

Example:

#### SMS send: W000000,047,10

Meaning: When the speed is over 20km/h, if the speed decrease over 20 km/h in 5 seconds, the tracker will let out braking alert, send the alarm data to tracking platform.

#### 6.7 Oil leaking/Refuel Alarm

#### SMS command: W000000,094,X

Description:  $X = 000 \sim 199$  (unit: second), means for fuel capacity change exceed preset value in the time interval X, it will send out oil leaking or fueling alarm, send alarm data to tracking platform, the leaking protocol number is 0x74, the fueling protocol number is 0x76. And if X is less than or equal to 5 seconds, then the function will be disabled. System default value is 10 seconds.

#### 6.8 Enable Impact Alarm Function:

#### SMS command: W<password>,028.1

Meaning: If the vehicle impact, an alarm SMS will send to your phone to warn you

Disable Impact alarm function:

SMS command: w<password>,028,0

When sending out impact alarm, alarm data will be sent to platform, alarm code is 0x14System's default setting is disable function of impact alarm

# 7. Set SMS for GPRS tracking

### 7.1 Set ID by SMS

Command: W<password>,010,ID

Description: every tracker has a unique ID. Tracker ID must be less than 14 digitals Example:

SMS send:W000000,010,20120823

Meaning: this tracker's ID is 20120823

### 7.2 Set APN by SMS

Command: W<password>,011,APN name,APN username, APN password Description: W<password>,011, APN name, APN username, APN password if no username and password required, just put in APN name only.

### 7.3 Set IP Address and Port by SMS

### Command :W<password>,012,IP,Port

Description: Our online tracking website's IP address is 210.209.68.180 Port is 9500 Example:

SMS send: W000000,012,210,209,68,180,9500

We support domain name instead of IP address:

Example: W000000,012,www.global-track.net,9500

# 7.4 Enable GPRS Function

### Command: W<password>,013,X

Description: X=0, close GPRS (Default)

X=1, enable TCP

X=2, enable UDP

# 7.5 Set Time Interval for Sending GPRS Packet

#### Command :W<password>,014,XXXXX

Description: XXXXX should be in five digitals and in unit of 10 seconds.

XXXXX =00000, to disable this function

XXXXX =00001~65535, time interval for sending GPRS packet and in

unit of 10 seconds

# 8. Troubleshooting

Problem: Unit will not turn on	
Possible Cause	Resolution
Wiring was not connected properly	Check and make sure wiring connection is
	order
Battery needs charging	Recharge battery
Problem: Unit will not respond to S	MS
Possible Cause	Resolution
GSM antenna was not installed	Make MT100 connected to GSM
properly	Network.
GSM Network is slow	Wait for SMS. Some GSM networks slow
	down during peak times or when they
	have equipment problems.
Wrong password in your SMS	Insert the correct password
The SIM in MT100 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 messages.
SIM card has expired	Check in phone that the SIM can send
	SMS messages. 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
č	account must have roaming enabled
Battery is low	Recharge the unit and the GSM will start
	working.
Problem: SMS from MT100 states "	last"
Possible Cause	Resolution
Unit does not have clear view of the	Move the antenna of the unit to a
sky	location where the sky is visible.
MT100 is in an inner place	Wait for the target to come out

# Appendix 1 Configure by computer

This part shows the basics of how to use the **TOPSHINE Parameter Editor. Note: Don't** connect MT100 to external battery when configuring.

#### How to Edit the Parameters of MT100

Step 1 Buy one specific USB cable for configuration from Our Company



# Step 2 Install USB driver program for the configuration USB cable

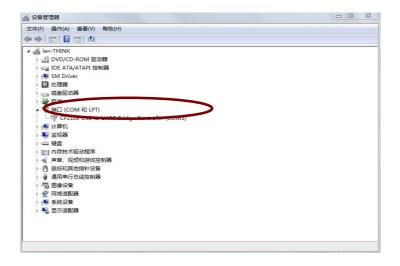
 Run "CP210x\_Prolific\_DriverInstaller" to install the driver for the USB data cable. Note: CP210x\_Prolific\_DriverInstaller is in the folder 'USB-232 Driver' in the CD. Connect the USB Data Cable between MT100 and PC.



2. Connect the configuration cable with PC, open device management of your computer.

You can find "Prolific USB-to-Serial Comm. Port", as following picture shows.

The USB port is virtual comm. Port (com3) in this example,



#### Step 3 Open the GPS Tracker Parameter Editor

- 1. Connect MT100 with PC by the configuration cable
- 2. Confirm MT100 is in the Power Off states
- 3. Double click GPS Tracker Parameter Editor.exe and Select the COM Port, following

picture shows:

DM3	Start		Read	Write	T Auto	1	Tracker Disconner
GPRS I⊽ GPRS TO	•	Tracker ID	012010506	APN CM	NET		
APN Account				APN Passy	word		
IP 96.46.9.75		Interv	val 3600 sec	2		Apply	
MS Tracking							
SMS Tracking No				Interval 0	min		Apply
Password	000000	_	Apply	Over Speed	0	km/h	Apply
Prefix(area code)	<b></b>		Apply	Time Zone	0	min	Apply
Wiretapping			Apply	Distance	300	m	Apply
Power Saving	0	min	Apply	Course	35		Apply
uthorized Phone N	lo.					PIN	ŀ
SMS		Call	ļ	SO	S Button/IN1	Г	1
SMS		Call		B	utton B/IN2		Read
SMS		Call		В	utton C/IN3		Write
iMS Initials		011 8	· · · · · · · · · · · · · · · · · · ·				
SOS Button / IN1	SOS A	arm!					Apply
Button B / IN2	Cry For	Help!					Apply
Button C / IN3	Call Th	e Police!					Apply
xtended Settings							
Call For SMS	i a	Cut Off Pov	ier				Apply

#### 4. Click Start button to open the com port.

5. Turn on MT100and it will connect with the Editor automatic, As soon as they connect successful, all the buttons are availability and the status bar will clue on' Tracker Connect!', then you can Read or Write the MT100's Parameters

COM3 -	Close		Read	Write	Auto	1	Fracker Connect
	P 🔽 Tr	acker ID 2	012010506	APN C	MNET		
APN Account	APN Pas	APN Password					
IP 96.46.9.75	P	ort 9500	Interv	ral 3600 s	ec		Apply
SMS Tracking							
SMS Tracking No	.			Interval 0	min		Apply
Password	000000	_ [	Apply	Over Spee	a  0	km/h	Apply
Prefix(area code)			Apply	Time Zone	0	min	Apply
Wiretapping			Apply	Distance	300	_m [	Apply
Power Saving	0	min	Apply	Course	35	1	Apply
Authorized Phone N	lo.					PIN	
SMS		Call		S	OS Button/IN	]   [	
SMS		Call	u []		Button B/IN2		Read
SMS		Call	[		Button C/IN3	ĩ I Г	Write
SMS Initials							
SOS Button / IN1	SOS Alam	n!				- (	Apply
Button B / IN2	Cry For He	lpl				- (	Apply
Button C / IN3	Call The F	olicel				- [	Apply
Extended Settings							
Call For SMS	Г	Cut Off Por	wer			[	Apply

Instruction of parameter setting:

GPRS TCP	<ul> <li>Tracker ID 201</li> </ul>	2010506 APN CMNET	
APN Account		APN Password	
P 96.46.9.75	Port 9500	Interval 3600 sec	Apply

Item	Description
GPRS	Tick to enable GPRS function, select TCP or UDP
	mode
Tracker ID	Should be unique, in number, maximum 14 bytes
APN, APN Account, APN	Put your local APN, APN username and password if
Password	necessary
IP, Port	Put online tracking server IP and port, our default is IP:
	www.global-track.net port: 9500
Interval	To put time interval to upload a data

#### TOPSHINE TRACKING TECHNOLOGY

SMS Tracking No	.			Interval  0	min		Apply
Password	000000	- [	Apply	Over Speed	0	km/h	Apply
Prefix(area code)	<b></b>		Apply	] Time Zone	0	min	Apply
Wiretapping			Apply	Distance	300	m	Apply
Power Saving	0	min	Apply	Course	35	- 6	Apply

Item	Description
SMS tracking No. Interval	To put a mobile phone number for automatic tracking
	by SMS at certain time interval in minutes
Password	To set SMS command password, the default is
	000000,
Over Speed	To set speed limit for over speed alarm
Prefix(area code)	To set country code
Time Zone	To set time zone, GMT*60 (minutes), if in west half
	western hemisphere, "-" is necessary to put ahead
Wiretapping	To set wiretapping mobile phone number
Distance	To set track and upload data by certain distance in
	meters
Power Saving	To set time enter into standby mode when shaking
	not detected to save power and gprs data traffic
Course	To set upload data via angle shifting by certain angles

uthorized Phone No.			PIN
SMS	Call	SOS Button/IN1	
sms	Call	Button B/IN2	Read
SMS	Call	Button C/IN3	Write

Item			Description		
SMS	Call	SOS	To set Mobile phone No. for SMS or Calling when SOS		
Button	/IN1		button/Input 1 is triggered		
SMS	Call	Button	To set Mobile phone No. for SMS or Calling when Button		
B/IN2			B/Input 2 is triggered		
SMS	Call	Button	To set Mobile phone No. for SMS or Calling when Button C/Input		
C/IN3			3 is triggered		

SMS Initials		
SOS Button / IN1	IS Alarm!	Apply
Button B / IN2	v For Helpl	Apply
Button C / IN3	II The Police!	Apply
SOS Button/IN1 To customize the reply SMS te		OS Button/Input 1 triggered
Button B/IN2 To customize the reply SMS text when Button B		Button B/Input 2 triggered
Button C/IN3 To customize the reply SMS text when Button C/Input 3 trig		Button C/Input 3 triggered

Extended Settings	Cut Off Power	Apply
Call for SMS Tick it to reply SMS when calling in		Tick it to reply SMS when calling in
Cut off Power	Cut off Power Tick it to send alert when the external pow	
		be cut off

# Appendix 2 Command List

Presetting by SMS for GPRS	tracking	
Set ID for MT100 by SMS	W******,010,ID	Tracker ID must be less than 14
		digits
Set APN by SMS	W******,011,APN,APN	APN Name, APN Password If no
	Name, APN Password	password required, just insert
		APN
		name only;
		APN defaulted as 'CMNET';
		APN name + password not over
		39
		characters.
Set IP Address and Port by	W******,012,IP, Port	IP: xxx.xxx.xxx.xxx
SMS		Port: [1,65536]
Enable GPRS Function	W******,013,X	X=0, close GPRS (default);
		X=1, enable TCP
		X=2, enable UDP
Set Time Interval for	W******,014,XXXXX	XXXXX should be in five digitals
Sending GPRS Packet		and in
		unit of 10 seconds.
		XXXXX=00000,to disable this
		function;
		XXXXX=00001~65535, time
		interval for sending GPRS
		packet and in unit of 10 seconds.
Output Control	W******,020,P,F	P =1, Out1
		=2, Out2
		=3, Out3
		=4, Out4
		=5, Out5
		F =0, to disable the output
		=1, to enable the output
Output Control (Safe	W******,120,ABCDE	ABCDE represents Out1, Out2,
mode)		Out3,

This function is achievable		Out4 Out5 respectively
		Out4, Out5 respectively.
when the speed is below		If A or B or C or D or E,
10km/h and GPS is		=0, to disable the output
available.		=1, to enable the output
		=2, to remain previous status
Set power saving mode	W******,026,XX	XX=00, to disable this function
when MT100 is still		XX=01~99, to set this function. It
(In power saving mode,		is in
GPS stops working. GSM		unit of minute.
enters standby mode and		Example:
stop sending out message		If XX=10, MT100 will enter
until it is activated by an		power
SMS or an incoming call)		saving mode in 10 minutes after
		it is
		immobile.
Set phone number for	W******,030,T	T is the telephone number for
wiretapping		wiretapping and max. 16 digits
Set time zone difference	W******,032,T	T=0, to disable this function
		T=[1, 65535] to set time
		difference in
		minutes to GMT.
		Default value is GMT
		+, not necessary for those ahead
		of
		GMT. For example, either +120
		or 120
		is acceptable.
		-, required for those behind GMT.
		For
		example, -120.
Set character for SOS	W******,033,P,Char	Char P is the button number.
alert message		P=1, 2, or 3.
		Char is the character in SOS
		message
		and max 32 characters
Set tracking by driving	W******,036,Degree	Measured by Degree(s),
angle change function		Degree=0,disable this function;
		X=1-359 , means set angle
		degree interval in this function.
Set tracking by distance	W******,045,X	Measured by Meter(s),
function		X=0, disable this function ;
		X=1—65535 , means the
		distance interval in this function.
Set clear/reset odometer	W******,046	To clear and reset odometer

function		information to zero.
Set function of receiving	W******,111	This function needs support of
location physical address		the GPRS01 or SMS01 tracking
name via SMS		platform, address SMS will be
		received in text format.
Get version and serial	W******,600	To get version and serial number
number		of
		current firmware
Get IMEI No.	W******,601	To get device IMEI No.
Reboot GPS and GSM	W******,900###	### is the ending character.
Module		
Initialization	W******,990,099###	### is the ending character.
To turn all the parameters /		
settings (except for the		
password) to factory default.		
Password Initialization	W888888,999,666	This command will reset the
		current password to factory
		default password 000000

Description	Command	Remarks	
Get current	W******,000	Get current location of MT100	
location			
Get location in	W******,100	http://maps.google.com/map	
Google map URL		s?f=q&hl=en&q=22.542563	
format via SMS		,114.077971&ie=UTF8&z=	
		16&iwloc=addr&om=1	
Change user's	W******,001,####	****** is old password	
password	##	####### is new password	
Set interval for	W******,002,XXX	XXX is the interval in minute. If	
automatic timed		XXX=000 it will stop tracking	
reports			
Set preset phone	W******,003,F,P,T	F=0, to disable this function;	
number		F=1, only sending SMS;	
for SOS button		F=2, only calling preset phone number;	
		F=3, both SMS and calling (default)	
		P is the button number and should be 1,or 2, or	
		3.	
		If SOS button is linked to IN1, then P=1.	
		T: Preset phone number	
		(T must be less than 16 digits)	
Set over speed	W******,005,XX	XX (the speed preset value)	
alarm		=00 , disable	
When MT100		=[01 <xx<20] (unit:="" 10km)<="" td=""></xx<20]>	

speeds higher			
than the preset			
value, it will			
send one over			
speed alarm			
SMS to the SOS			
preset			
number.			
Set Geo-fence	W******,006,XX	XX (set distance from current central point	
alarm		place)	
(foursquare)		=00, disable	
When the MT100		=01, 30m	
moves out		=02, 50m	
of preset scope, it		=03, 100m	
will send		=04, 200m	
one Geo-fence		=05, 300m	
SMS to the		=06, 500m	
SOS preset		=07, 1000m	
number.		=08, 2000m	
Extend Settings	W******,008,ABC	A=0, disable position report function	
	DEFGHIJ###	when a call is made to MT100	
		A=1, enable position report function to	
		get position SMS by Calling MT100	
		I=0, disable power failure alert	
		I=1, enable power failure alert	
		The functions of BCDEFGHJ are	
		remained for furthur use.	
		### is the ending character.	
Set Geo-fence	W******,017,data	data is the coordinates which include:	
alarm	W******,117,data	Lower-left X, Lower-left Y,Upper-right	
		X,Upper-right Y	
017 command is		Forexample,	
for alarm when		11404.0000,E,2232.0010,N,11505.1234,E,2333.	
tracker moves out		5678,N	
the preset scope;		Note:1. Lower-left X,Y (longitude and latitude)	
117 command is		should be smaller than Upper-right X,Y;	
for alarm when		2. All longitudes and latitudes should be in ASCII	
tracker moves in.		format as follows:-	
When the tracker		Longitude: DDDMM.MMMM,E/W. 4 places of	
moves in or out, it		decimal. '0' is needed to be stuffed if no value	
will send an SMS		available.	
alarm to the		Latitude: DDMM.MMMM,N/S. 4 places of	
authorized phone		decimal. '0' is needed to be stuffed if no value	
number for SOS.		available;	
number für 303.			

	3. Send W******,017 or W******,117 without data
	to disable this function.

# Appendix 3 Configure and use of RFID function

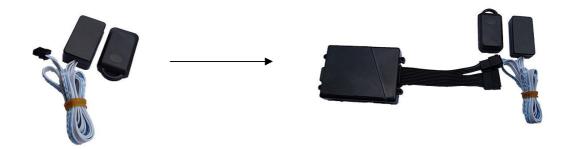


RFID Reader



**RFID** Tag

1. Install RFID as following:



- 2. How to use
- 2.1 SMS Commands
- **2.1.1** Enable the RFID:
- (1) Enable the RFID function: W000000,062,1
- (2) Disable the RFID function: W000000,062,0
- (3) The system default is RFID function enabled.

(4) When send the disarming SMS command "000000DSM", it will automatic disable the RFID function, and if send the enable SMS command the RFID function will be restored.

2.1.2 To configure authorized RFID tag by SMS commands

W<password>,060,num1 W<password>,160,num2 W<password>,260,num3 W<password>,360,num4 W<password>,460,num5 Note: The default password is 000000

Num1, num2, num3, num4, num5 means 5 digital FRID number.

For example: if configure NO.00412 as the authorized RFID tag, then send SMS: W000000,060,00412

Tracker will reply SMS "STUDY ID OK: 1:00412; 2:00000; 3:00000; 4:00000; 5:00000", means the 1st RFID tag number is 00412, the 2nd , 3rd, 4th, 5th RFID tag not set. If the RFID tag is detected at this time, tracker will send SMS "NOW ID : 00412 ".

Note: RFID reader detecting test RFID tag distance is within 5 meters, the RFID tag must be detected before RFID can be used.

2.1.3 The ARMING SMS command: "password>ARM "

The disarming SMS command "<password>DSM ",

When send the disarming SMS command "000000DSM", it will automatic disable the RFID function, and if send the enable SMS command the RFID function will be restored.

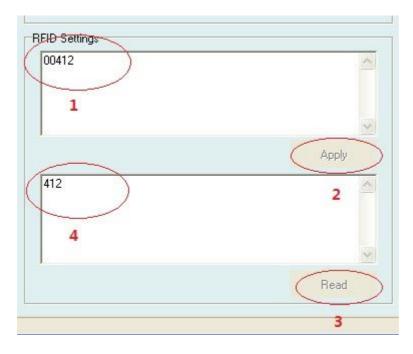
#### Another way to configure authorized RFID tag by Parameter.

Step 1: Open GPS Tracker Editor (2010) V2.65 (following picture)(Following Appendix 1 to configure the tracker)

GPS Tracker Par	ameter Editor ( 20	010) V2.65		-		
сом1 🖵 [	Start	Read	Write	T Auto	Tracker Disconnect	
GPRS	▼ Tracker ID		APN CMNE	т		Extended Settings
APN Account			APN Password	4		photo enable
IP	Port	Interva	al 0 sec		Apply	□ IN1 alarm □ IN2 alarm □ IN3 alarm □ IN4 alarm □ IN5 alarm □ over speed alarm
SMS Tracking SMS Tracking No.			Interval 0	min	Apply	☐ movement alarm ☐ geo-fence alarm ☐ cut power alarm
Password	000000	Apply	Over Speed	km/	h Apply	voice enable
Prefix(area code)		Apply	Time Zone	min	Apply	
Wiretapping		Apply	Distance	m	Apply	Apply
Power Saving	min	Apply	Course		Apply	RFID Settings
Authorized Phone N	0.					
SMS		Call			SOS Button/IN1	
SMS		Call			Button B/IN2	
SMS		Call			Button C/IN3	Арріу
SMS Initials						
SOS Button / IN1	SOS Alarm!			-	Apply	
Button B / IN2	Cry For Help!				Apply	
Button C / IN3	Call The Police!				Apply	Read

Turn on MT100 and it will connect with the Editor automatic, As soon as they connect successful, all the buttons are availability and the status bar will clue on' Tracker Connect!', then you can Read or Write the MT100's Parameters

**Step 2:** Finding RFID Settings (as following picture). Following the digital sort to do: 1. write the RFID tag's number, (example: 00412) 2. click Apply, then display "com operate success", click the OK; 3. Click the Read. 4. Then it will display "412" it prove already configure authorized RFID tag succeed. If you want to configure multiple RFID tags, just like the example "00412,00234,00322,\*\*\*\*"; after write success, it will display" 412,234,322,\*\*\*"



**2.1.4** Judge if need to cut off oil/fuel supply when the ignition alert occurs to stop engine start.

Enable function of cutting off oil-way when illegally ignite under ARM status

SMS command: W<password>,061,1

Disable function of cutting off oil-way when illegally ignite under ARM status

SMS command: W<password>,061,0

The system default setting is disable function of cutting off oil-way when illegally igniting under ARM status.

Description	Command	Reply SMS
Configure authorized RFID tag	W <password>,060,num1</password>	STUDY ID OK: 1:num1; 2:num2;
	W <password>,160,num2</password>	3:num3; 4:num4; 5:num5;
	W <password>,260,num3</password>	The next SMS: NOW ID
	W <password>,360,num4</password>	
	W <password>,460,num5</password>	
Enable the RFID detection	W <password>,062,1</password>	ENABLE OK !
Disable the RFID detection	W <password>,062,0</password>	DISABLE OK !
Arm	<password>ARM</password>	Vehicle is armed!
Disarm	<password>DSM</password>	
Enable function of cutting off	W <password>,061,1</password>	System default setting is disable
oil-way when illegally ignite		function of cutting off oil-way
under ARM status		when illegally ignite under ARM
Disable function of cutting off	W <password>,061,0</password>	status.
oil-way when illegally ignite		
under ARM status		

#### 3. Command List

#### 4. Functions

4.1 To ignite in armed status, it will check the RFID tag. If an authorized tag can be detected, it will not alert. If an authorized tag can not be detected, it will send alert SMS "Engine Is On!" to three authorized alert mobile phone numbers, and at the same time, the Output 3 will control siren to sound, and call the three mobile phones at one minute interval, and decide to cut off the oil/fuel supply according to its oil cut enable/disable status.

4.2 If vehicle door is opened in armed status, it will check the RFID tag. If an authorized tag can be detected, it will not alert; if an authorized tag can not be detected, it will send alert SMS "Door Is Open !" to three authorized alert mobile phone numbers, and the Output 3 will control the siren to sound, and call the three mobile phone numbers at one minute interval.

4.3 If the vehicle is moved/towed in armed status, it will detect the RFID tag, if no authorized tag be detected, it will send alert SMS "Movement alarm!" to the 1<sup>st</sup> alert mobile phone number.

4.4 In disarmed status, if no authorized RFID tag Is detected for successive 30 seconds, then the system will automatically arm the vehicle, and it will call the 1<sup>st</sup> alert mobile phone

number, after several rings and hang off automatically, indicating the vehicle be armed.

4.5 If alert be triggered, the siren will sound for 10 seconds and shut or immediately shut when disarm action is detected.

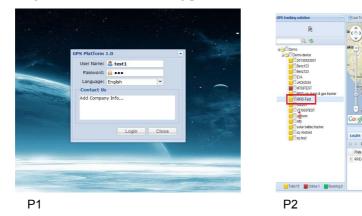
4.6 If illegal ignition be detected and oil/fuel supply cut off enabled, then the oil/fuel supply will be cut off, and it will be immediately restored as soon as disarm action be detected.

4.7 If the oil/fuel supply is cut off by SMS or GPRS platform, it can not be restored by disarm action.

#### 5. RFID on the platform applications

5.1 Into our GPS Tracking Platform: http://www.global-track.net, as following picture

P1, login interface, as following picture P2



5.2 Select your device, such as instructed 1; it will display your car's the current information, Driver (ID) means the driver and his/her RFID tag number such as instructed 2;

5.3 If you want to edit the driver information, please click "manage", such as instructed 3, then interface will into as following picture P3;

§ Core			Delete @Alarm			Q			
💭 Vehicle Manage		Employeeid	License	Birthday	Expiry Date	Driver ID	Driver Name 🔺		
		test2				0011259375	0011259375		
🚨 User Manage	2					harrydriver	Harry		
		Alt001	BW678909	1962-06-24	2017-04-12	Altures 00297	Jay Tony		
🚨 Driver Manage	4	Topshine				00297	Tony		
🎤 🛛 POI Manage									
4				A					
-	_								
	_								
	_								
2 Daily	•	4 Page 1	<u>11 - N &amp;</u>						
) Daky Geo-Fence/Route	*	4 Page 1	<u>]</u> /11 = 21 - @						

5.4 Click Driver Manage, such as instructed 4; it will open such as instructed A;

You can click New, such as instructed 5, open as following picture P4; to add tag ID and the driver's information etc.

elete 📸 Alarm Driver Name:					
License	Birthday	Ex	Driver ID*:		
BW678909	1962-06-24	20	Employeeid*:		
			Driver Name*:		
			Birthday:		
			Please choose the driver's photo file : 选择文件 未选择文件		
			Mobile:		
			Address:		
			License:		