IDD-213T User Manual

(Rev. 1.0)



China Aerospace Telecommunications Limited



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1. Introduction

IDD-213T is a plug and play GPS tracking device equipped with standard OBD II interface. It features real-time tracking and various alarm reporting.

Packing List

Parts name	Quantity	Note
IDD-213T Device	1	•
User Manual	1	•
USB Configuration Cable	1	0
External GPS Antenna	1	0
OBD II extension cable	1	0

Note: \bullet Standard configuration $~\circ$ Optional configuration

(Optional accessories will not be included if there is no indication in the order)



2. Specifications

2.1 External Interface

Product appearance as follows:



Standard OBD Connector

Connect to the 16 pin on-board Diagnostic Link Connector (DLC).

USB interface

Connect to PC through USB configuration cable.

GPS Antenna Interface

Connect an external GPS antenna to strength GPS signal (optional accessories).

SIM Card slot

Use for insert SIM card.



2.2 Status Indicator

Indicator	Color	Status
		Solid on - Power on
Power LED	Power LED Red	Fast blinking - Charging or no internal battery
		Slow blinking - Working with internal battery
		Solid off - In sleep
		Slow blinking (on:64ms, off:2s) - Registered network
		Fast blinking (on:64ms, off:800ms) - No SIM card or
GSMLED	Orange	Network searching
		Solid off - GSM off
		Solid on - GSM abnormal
		Blinking - GPS signal is good
GPS LED	Green	Solid on - Searching for GPS signal
		Solid off - GPS off



2.3 Technical Parameters

Mechanical	Dimension	63mm (L) x 50mm (W) x 28mm (H)	
	Weight	50g	
		OBD interface	
Interface		USB interface	
		GPS antenna interface	
Storage		2MB FLASH, can store up to 24000 GPS data	
Data Transmis	sion	GPRS/SMS	
Positioning Mo	ode	GPS/A-GPS	
	Working Voltage	9-36VDC	
		Average Currency: <150mA@13.8VDC	
Power	Working Currency	Max. Currency: <200mA@13.8VDC	
		Sleep Currency: <10mA@12VDC	
	Internal Battery	3.7V/100mA Lithium battery	
3-axis Accelerometer		+/-2g、+/-4g、+/-8g、+/-16g	
		Channels: 50	
		Sensitivity: -160dBm	
GPS		Accuracy: 5m CEP	
		Cold start: <32s	
		Hot start: <1s	
		Frequency: Quad-band 850/900/1800/1900MHz	
		Protocol: TCP/IP	
GSM		Sensitivity: -107dBm@850/900MHz	
		-106dBm@1800/1900MHz	
		Output Power: Class 4 (2W)@850/900MHz	
		Class 1 (1W)@1800/1900MHz	
LED Indicator		Power/GPS/GSM	
Antenna	GSM Antenna	Built-in	
	GPS Antenna	Built-in	
	Working Temperature	-30℃ ~+70℃	
Environment	Storage Temperature	-40°C ~ +85°C	
	Humidity	5%~95% (no frog)	



3. Device Configuration

3.1 PC Tool

Install the USB driver and PC Tool on your PC.

Connect the device to PC through USB configuration cable, open the OBD PC Tool, click on "Help->Product type" and select "IDD-213T".

File Help	
i no i noip	
🕑 Open Com Port COM1 🔻 Baudrate 115200 👻 💻 Select All 🥑 Clea	ır ¦;
Alarms Fixed Upload Network Others Upgrade/Log	
Select All	
Speeding Enable 120 km/h	
LowVoltage Enable 10.5 V	
Power-on Enable	
Towing Enable	
FatigueDriving Enable 240 minutes	
Power-off Enable	
Send:0 Read	

Select the correct serial port and baud rate (default is 115200), and then click on "Open" button in the tool bar to open the selected serial port.



Click on "Alarm", select required items and click on "Read" to get parameter values, e.g. sound indication, enable/disable status and threshold. Modify those values and click on "Set" to save new configuration into the device.

New OBD Smart PCTool		_ X
File Help		
Open Com Port COM1	▼ Baudrate 115200 ▼	📃 Select All 🥑 Clear 🍟
Alarms Fixed Upload Netwo	ork Others Upgrade/Log	
Select All		
Speeding	Enable	120 km/h
LowVoltage	Enable	10.5 V
Power-on	Enable	
Towing	Enable	
FatigueDriving	Enable	240 minutes
Power-off	Enable	
🕝 Set 🙆 Read		
Ready	Send 0	Receive:0



Click on "Fixed Upload", select required items and click on "Read" to get parameter values, e.g. enable/disable status and threshold. Modify those values and click on "Set" to save new configuration into the device.

New OBD Smart PCTool		_ x
File Help		
Open Com Port COM1 • Bau	drate 1152	00 🔹 📃 Select All 🥑 Clear 🍟
Alarms Fixed Upload Network Oth	ers Upgra	de/Log
Select All		
GPS	🔽 Enable	
GPS Capture Interval	120	s (2s~600s)
GPS Capture Number	1	(1~30)
G-sensor	Enable	9
🔲 G-sensor Capture Interval	1000	ms (200ms~6000ms)
🔲 G-Sensor Capture Number	100	(50~100)
Base Station Location	Enable	9
🞯 Set 🎑 Read		
Ready	Send:0	Receive:0



Click on "Network", select required items and click on "Read" to get parameter values, modify those values and click on "Set" to save new configuration into the device.

Open Com Port COM	1 Baudrate 11	5200 💌 💻 Selec	t All 🕑 Clear 📮
Alarms Fixed Upload Nel	twork Others Upg	rade/Log	
Select All SMS Maintenaince	Key		
SMS Center Numb	per		
📝 Dial Mode	IP Mode	•	
Domain	obd.livetele	matics.com	
IP	113.98.241	.66	
V Port	11088		
APN	cmnet		
User			
Password			
A-GPS IP			
A-GPS Port	0		
🔲 Moblie Phone Sett	ing		
Alarm SMS	Enable		
Phone 1	Function	Standby	•
Phone 2	Function	Standby	-
Phone 3	Function	Standby	•
Phone 4	Function	Standby	•
Phone 5	Function	Standby	-
🕝 Set 🞑 Read			
Ready	Send:0	Rece	ive:0

Default network setting:

Items	Values	ltems	Values
Dial Mode	Domain Mode	Domain	obd.livetelematics.com
IP	113.98.241.66	Port	11088
APN	cmnet	User, Password	None



Click on "Others", select required items and click on "Read" to get parameter values, modify those values and click on "Set" to save new configuration into the device.

New OBD Smart PCTool		- ×)
File Help		
Open Com Port COM1 -	Baudrate 115200 🔻 💻 Sel	ect All 🥑 Clear 🙄
Alarms Fixed Upload Network	Others Upgrade/Log	
Select All		_
Power-Save Mode	Full Power-Save	
🔽 Total Mileage	20000	m
Device ID	000001].
UTC time	2013-02-05 06:57:53	Synch UTC
🗐 Terminal Language	Chinese	
Device FW Version		
Device HW Version		J
Reset to default value	Reset	
🞯 Set 🙆 Read		
Ready	Send:0 Re	ceive:0



Click on "Upgrade/Log", click on "

" button to select bin file, click on

"Upgrade" button to upgrade the firmware to new version. After finish upgrading there is a popup window prompt and the device reboots.

🐼 New OBD Smart PCTool	_ X
<u>F</u> ile <u>H</u> elp	
Close Com Port COM5 + Baudrate 115200 + 🥑 C	lear <u> </u> Exit
Alarms Fixed Upload Network Others Upgrade/Log	
Upgrade FW D:\216资料\IDD_216G01_S V1.0.9.2(升级 Upgrade Process	 Upgrade
HEX	Send
Receive Log · Hex C Ascii	
15c002fe50d0a40402600043030303030303030310000000 000000000000000000000000000000000000	00000000 0030303 0009fd60 0000000 0303100 a404026 0200000 0043030 0001630 0000000
Send Log 2801 d1faf774ff2c44a5e0a9e000008c0300109cc10720d4ce 000010840100107c1700107c090010340c00102588a41c1 1121f1480cf03bfb2a462146ee480cf0bffaed485438807f08b 2c447ee0a41c2688e84836380021c0f84710a0f84b1080f84 6e4a147300cf0e1f8a41cfaf738ff6ae02588a41c322d0cdc33 18300cf011fb2a462146d94818300cf094fafaf726ff2c4457e0 1c142d0cdc1521d3484b300cf0fefa2a462146d0484b300cf0 13ff2c4444e02588a41c142d0cdc1521c94860300cf0ebfa2a c64860300cf06efafaf700ff2c4431e02588a41c102d0adc112	e072000 02d0edc 09faf74dff 4d10324 321dc48 02588a4 081fafaf7 a462146 21c0484
🕼 Set 🤷 Read	
Read Successfully6;Error0 Send:56413 Receive:	3979



3.2 SMS Instructions

SMS command is mainly for remote maintenance. The message content is text format. Default secret key is the last 6 digits of the device ID. The key can only be changed through PC Tool. SMS format is defined as follows:

3.2.1 Set IP parameters:

SecretKey#set gprs#APN,User,Password,IP,Port e.g.: *123456#set gprs#cmnet,,,113.98.241.66,11088*

3.2.2 Set IP parameters response:

set gprs#ok: success *set gprs#fail*: fail

3.2.3 Read IP parameters:

SecretKey#get gprs# e.g.: *123456#get gprs#*

3.2.4 Read IP parameters response:

get gprs#APN,User,Password,IP,Port

3.2.5 Set the domain parameters:

SecretKey#set domain #APN,User,Password,IP,Port e.g.: *123456#set domain# cmnet,,,obd.livetelematics.com,11088*

3.2.6 Set the domain parameters response:

set domain#ok: success *set domain#fail*: fail

3.2.7 Read domain parameters:

SecretKey#get domain# e.g.: *123456#get domain#*

3.2.8 Read domain parameters response:

get domain#APN,User,Password,domain,Port



3.2.9 Get current location:

- *SecretKey#position#*
- e.g.: *123456#position#*

3.2.10 Get current location response:

- *position#http://maps.google.com/?q=latitude,longitude *
- e.g.: *position#http://maps.google.com/?q=22.536934,114.021425 *



4. Installation Instruction

4.1 SIM Card Installation

Remove the SIM card cover, insert the SIM card into the device and press gently, then insert the SIM card cover back.

4.1.1 Remove the SIM card cover



4.1.2 Insert the SIM card into the device



4.1.3 Insert the SIM cover





4.2 OBD Port

In general, the OBD port is located in the driver or passenger cabin, from the edge of dashboard on driver side to the border of 300mm. It is easy to touch by sitting in the driver's seat, the preferred location is within the area from steering post to the vehicle centerline.







4.3 Device Installation



Park the car and make sure engine is off, connect the external GPS antenna (optional) to the device. Fix the antenna on the dashboard horizontally, make sure no mental shielding above them. Plug the device into OBD port and start engine.



5. Functions

5.1 Location inquiry

Upon receives location inquiry command from server or via SMS, device reports GPS information immediately.

5.2 Regular GPS info reporting

Device reports GPS information according to configured interval time. The interval time is defined by sample time (120s default) and uploading packets number (1 packet default).

5.3 Regular G-Sensor info reporting

Device reports G-Sensor information according to configured interval time. The interval time is defined by sample time (1s default) and uploading packets number (100 packets default).

5.4 Cell ID reporting

Device reports Cell ID every 30 seconds when it loses GPS signal.

5.5 Power Failure Alarm

Device reports power failure alarm when external power fails.

5.6 Power low alarm

Device reports power low alarm when external power is below configured threshold (10.5V default).

5.7 Speeding alarm

Device reports speeding alarm when the vehicle speed exceeds configured threshold (120km/h default).

5.8 Towing alarm

Device reports towing alarm when the vehicle is being towed.

5.9 Fatigue driving alarm

Device reports fatigue driving alarm when the driving time exceeds configured threshold (480 min default).



5.10 Data storage/Supplementary report in dead zones

When there is no GSM signal or GSM signal is poor, GPS information are stored, and reported after signal recovery.

5.11 Mileage statistics

Device reports mileage in each reported message.

5.12 GPRS/SMS dual mode communication

Device supports GPRS/SMS dual mode communication, alarm information can be reported via SMS.

5.13 Intelligent power saving mode

Device wakes up from sleep on detecting motion or power off event and goes into sleep on detecting static state last for 3 minutes.

5.14 SMS Alert

If user mobile phone numbers are configured, device sends text message to each user number via SMS when alarms triggered.

5.15 Google map link

The latitude and longitude information in position inquiry messages can be directly linked to Google map.

5.16 Trip Mileage

At the end of the trip, device reports driving mileage to the server.

5.17 Remote Configuration

Users can configure device or update firmware through website: <u>http://www.livetelematics.com</u>.

5.18 SMS Configuration

Users can configure device via SMS commands.

5.19 PC Tool Configuration

Users can configure device or update firmware through PC Tool.



6. Disclaimer

This user manual only applies to IDD-213T device.

The poisoning function may be affected in electromagnetic shielding area or bunker place.

The device has a built-in wireless communication module. It should be used as far as possible away from fuel depots, chemical plants and other areas could cause an explosion. Most sensitive to external RF sites (such as gas stations, hospitals and school, etc.) may be equipped with radio frequency jamming equipment, some functions may be affected in the interference area.

As the device transmits data via GPRS, please use the SIM card which supports GPRS data service and make sure that the account balances is sufficient. Do not use any SIM card which is restricted by region.

To make sure the products works well, please use the original accessories.

This manual is based on the "as-is" situation. CASTEL will not guarantee the accuracy, reliability and content of the handbook. Also Castel reserves the right to amend or withdrawn this manual without any prior notification.



7. Warranty

If product got quality problem within the warranty period, please bring the product together with a valid warranty card and purchase invoice to the dealer for checking. Please do not disassemble this product, this may result in damage, CASTEL will not be responsible for those problem.

1 year of warranty since purchase time and life-long maintenance. For Failure or damage due to incorrect operation or not following the instruction, CASTEL will provide paid maintenance within warranty period.

User name:	
Contact number:	
Address:	
Post code:	
Purchasing date:	
Serial number:	
Remark:	

Please keep this card carefully in order to better serve you.

Distributor (Company Chop):



Maintenance Records

Product Model:

Date	Faults and maintenance of records		Maintenance	User
	Fault Description	Maintenance	(Signature)	(Signature)

Note: This form must be carefully completed.



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