CASTEL

IDD-212G
User Manual
(Rev.2.0)

Any question, welcome to company website
http://www.sinocastel.com

Manufacturer :	ShenZhen CASTEL Wirless Telecommunications Co.,Ltd
Origin :	Shenzhen,China
Add :	5F,BLDG 5,Shenzhen Software Park,Gaoxin,C.,3rd Road, No.2, Nanshan District, Shenzhen,China 518057
Tel :	(86)755-86156349
Fax :	86)755-86169366
Publication date :	Sep 1st, 2012

Shenzhen CASTEL Wireless Telecommunications Co., Ltd

IDD-212G

Catalog

(Rev.2.0)

IDD-212G

User Manual

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1 >> Introduction

IDD-212G is an on-board intelligent diagnostic equipment based on OBD II/EOBD standard, it features real-time tracking, remote diagnosing and alarm reporting.

IDD-212G is a plug and play device to the OBD II port, it captures position info, vehicle diagnostic data, diagnostic trouble codes, and uploads them to the server, the server will analyze, store and display such info to users to have a general overview of their cars remotely.

■ Packing List

Parts name	Quantity	Note
IDD-212G OBD Dongle	1	●
User Manual	1	●
USB Configuration Cable	1	○
G-Mouse Receiver (HT-166U)	1	○
OBD extender	1	○

Note ● Standard configuration ○ 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

• It is used to connect to the 16 pin on-board Diagnostic Link Connector(DLC).

• The vehicle OBD system is able to communicate with an external device which has the same protocol via this connector.

1) G-Mouse/Data Interface

• This is a multifunction interface which is used for parameters configuration or connecting the G-Mouse module.

2) SIM Card slot

• It is used for inserting the SIM card.

2.2 Status Indicator

Power LED	Red	Solid on - Power on
GSM LED	Orange	•Slow blinking (on:0.3s, off:2.7s) - Registered network •Fast blinking (on:0.5s, off:0.5s) – No SIM card or Network search -ing •Solid off – GSM off
OBD LED	Green	•Blinking – Trying to communica -te with on-board system •Solid on – Successful OBD communication •Solid off – No OBD communica -tion

G-Mouse LED	Green	•Blinking - GPS signal is good •Solid on - Searching for GPS signal •Solid off – GPS off

2.3 Technical Parameters

Working voltage	9~16V DC
Positioning mode	GPS/A-GPS
Position accuracy	5m CEP
Velocity accuracy	≤0.1m/s
Data Transmission	GPRS/SMS
GSM band	850/900/1800/1900MHz
Average current	<150 mA@13.8V
Max current	<200mA@13.8V
Sleep current	<35mA@12.0V
Working temperature	-30℃～+70℃
Storage temperature	-40℃～+85℃
Relative humidity	5%～95% （no frost）
Dimension	63*50*28mm(L*W*H)
Weight	50g

3 >> Device Configuration

3.1 PCTool

Install the USB driver and PC Tool on your PC.

Connect the device to PC through USB configuration cable, open the OBD PC Tool after hearing one beep as shown below:

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.

Configure the required parameters, such as IP, port, APN, alarm etc, please click on “Set” when each time the setting is done.

Click on “Read" button, read the current value of each parameter from the device, as shown below:

Default network setting is as following:

Name	Parameter	Name	Parameter
Dialing mode	IP Mode	Domain	obd.livetelematics.com
IP	113.98.241.66	Port	9088
Country	china	Operator	China mobile
APN	cmnet	User, password	null

• Click on **Resume Default Setting/Set** if the device needs to be restored to factory setting.

• Click on **Clear OBD Data Buffer/Set** to clear the stored OBD data if required.

• Click on **Alarm Parameter/Set** to configure alarm parameters and click on **Alarm Parameter/Read** to check the configured value of the alarm parameters.

• Click on **Network Parameter/Set** to configure the IP, port and APN , click on **Network Parameter/Read** to check the configured network parameters value.

• Click on **Fixed Upload Parameter/Set** to configure the upload interval (10s,20s,30s,40s,50s,60s) or select whether to upload the GPS data or OBD data, click on **Fixed Upload Parameter/Read** to check the fixed upload interval and all supported PIDs of the car and the selected PIDs, if different PIDs needs to be monitored.

• Select **Half Power Save/Complete Power Save/ No Power Save** and click on “Set” to store this parameter, click on “Read” to check configured power saveing mode.

• **Engine Capacity and Fuel** Type have to be selected if more accurate fuel consumption value is required.

• Do not change the **Device ID** as this is a unique ID for each device.

• **User Mobile Phone** is used for receiving alarm message, select “Enable” or “Disable” and click on “Set” , click on “Read” to check configured cell phone Number.

Click on **UTC Time Parameter/Set** to synchronize the device time.

• **Secret key:** The default secret key of the device is the last 6 digits of the device ID, this is used for SMS configuration purpose, click on “Set” to change the secret key or “read” to check the configured secret key:

• **Select File Name** to import the firmware, select **Product Type** and then click on “upgrade” to upgrade the firmware, the device will beep and reboot after upgrading is successfully done.

• For more details, please check “Help” menu.

3.2 SMS Instructions

■ SMS command is mainly for remote maintenance including the network communication parameters. The message content is text format. The default secret key is the last 6 digits of the device ID. The key is only allowed to be changed through PC tool. Short message format is defined as follows:

3.2.1 Set IP parameters:

@SecretKey#set gprs#APN,User,Password,IP,Port@
For example：@123456#set gprs#
cmnet,,,113.98.241.66,9088@

3.2.2 Set IP parameters response:

@set gprs#ok@ : success
@set gprs#fail@: fail

3.2.3 Read IP parameters:

@SecretKey#get gprs#@
For example: @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@
For example: @123456#set domain#
cmnet,,,obd.livetelematics.com,9008@,,

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#@
For example: @123456#get domain#@

3.2.8 Read domain parameters response:

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

4 ›› Installation Instruction

4.1 SIM Card Installation

Remove the SIM card cover from the device and insert the SIM card into the cover(see 3.3.1), then insert the SIM card cover into the SIM card slot and press gently.

4.1.1 Remove the SIM card cover

4.1.2 Insert the SIM card into the cover

4.1.3 Insert the SIM cover into the SIM card slot in the device

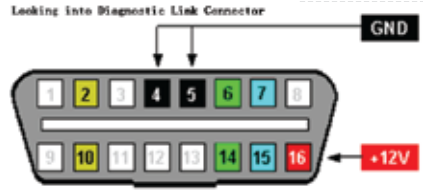
4.2 G-mouse Installation

Parking the car and make sure ignition is off, connect the G-mouse to the G-mouse interface, and then plug the device into the OBDII port, some cars may

need an OBD extender, the G-Mouse should be put at a place without metal shielding

4.3 Standard OBD interface

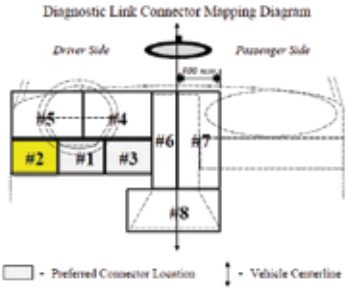
Cars with OBD system equipped should have a standard OBDII port available compliant with SAEJ1962, see below photos:



Pin	Description	Pin	Description
1	OEM Specific	9	OEM Specific
2	SAE J1850 Bus+	10	SAE J1850 Bus-
3	OEM Specific	11	OEM Specific
4	Chassis Ground	12	OEM Specific
5	Signal Ground	13	OEM Specific
6	ISO 15765-4 (CAN) High	14	ISO 15765-4 (CAN) Low
7	ISO 9141-2 K-Line	15	ISO 9141-2 L-Line
8	OEM Specific	16	Battery Power

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.



4.4 Device Installation

5 ›› Functions

5.1 OBD Protocols

The device supports all the OBD II standards below:

- ››› J1850-PWM
- ››› J1850-VPW
- ››› ISO 9141-2
- ››› ISO 14230-4 (KWP2000)
- ››› ISO15765-4(CAN)

5.2 GPS

The device has an optional GPS receiver for ositioning function.

5.3 Vehicle's Location

User can visit website: http://www.livetelematics.com to check vehicle's location.

5.4 Real-time Monitoring

The device communicates with the backend server via GPRS, to real time view the vehicle status.

5.5 Alarms Reporting

- Below events can trigger alarms reports and accompanied with “beep-beep-beep...”.
  - >>> High RPM
  - >>> High Speed
  - >>> Low Battery Voltage
  - >>> High Coolant Temperature
  - >>> Hard Acceleration
  - >>> Hard Deceleration
  - >>> Long idle time
  - >>> Towed
  - >>> Power on

5.6 Trip Mileage

At the end of the trip, device will report the server.

5.7 Trip Fuel Consumption

At the end of the trip, device will report the fuel consumption to sever.

5.8 Remote Configuration

The parameters of device can be modified through website:

http://www.livetelematics.com.

5.9 Diagnostic Functions

• The device is able to read vehicle pending DTCs and stored DTCs, freeze frame data and a variety of diagnostic data. The backend server analyzes and displays the DTCs for users on time to avoid high repairing cost.

• It is also able to clear vehicle DTCs and MIL according to customer’s requirements.

6 >> FAQ

Q: Why my phone is unable to receive the alarm message via SMS?

A: 1)Make sure the SIM card has SMS function.

2)Beforeinstall the SIM card, please check if the card still has a balance, and the SIM card should be installed properly according to the guide in this manual.

3) Check whether the settings are correct and the alarm switch is on in the PC tool or in the platform.

Q: Does the device can read the TPMS's DTC information? (TPMS, Tire Pressure Monitoring System)

A: No, this product is based on the OBD system, it only reads information of the engine system.

Q: Does the device can upload the voltage value?

A : No, but it will send an low voltage alarm if the voltage is lower than the preset value.

Q: why there is no driving record after a trip?

A: The device need synchronize it's time with the server or GPS first, it can only start trip recording after synchronization is done.

Q: Why the device utters a "beep " tone every 30 seconds after it is installed?

A : This tone shows that the car has not been equipped with OBD system, or this product is not suitable for the car.

Q : Why there is driving record , but no track data?

A: Please confirm that you have bought a G-Mouse receiver;

Please make sure you have connected the G-Mouse receiver and it has been correctly installed, GPS upload switch should be on via PC tool or server.

Q:, Why dashboard lights are on after plugging in this device ?

A:In this case, please remove the device and contact CASTEL.

Q: Why there are three beeps occurred sometime during the driving?

A: When the GPRS signal is not good, the device may reconnect the server and accompanied with three beeps.

If there are any more questions, please contact CASTEL's technical support team.

7 ›› Disclaimer

- This user manual only applies to IDD-212G device.
- This product only applies to the vehicles with OBD II/EOBD equipped.
- This product strictly follows the standard of ISO15031, it shall not cause any harm or affects on vehicles, if there is an exception, please remove the device immediately.
- G-Mouse receives and tracks satellite signal continually. 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.

8 ›› 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 problems.

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.

Warranty Card

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

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 (Signature)	User (Signature)
	Fault Description	Maintenance		

Note: This form must be carefully completed.

9 ›› Statement

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