

# CDMA VEHICLE TRACKER

Users Manual

NOV, 2011 ACT200-D, V0.2



AnyTime AnyPlace Any Wireless Data Solutions™

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This document can be subjected to revision without further notice.

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#### RF Exposure Warning:

The radiated output power of this device is below the FCC radio frequency exposure limits. Nevertheless, the device should be used in such a manner that the potential for human contact during normal operation is minimized. In order to avoid the possibility of exceeding the FCC radio frequency exposure limit, human proximity to the antenna should not be less than 20 mm.

#### Information to user (FCC Part 15.21):

No changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

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## 1 Introduction

### 1.1 PURPOSE

This manual discusses the purpose and usage of the Vehicle GPS Locator (ACT200-D).

### 1.2 TECHNICAL DETAIL

Please refer to  $\underline{\text{Technical Manual.pdf}}$  for a more detailed description of the ACT200-D.

### 1.3 REVISION HISTORY

The revision history for this manual is shown in Table 1.1.

Table 1.1: Revision History

Version	Date	Description
v 0.1	OCT 2011	Initial Release - ACT200-D
V 0.2	NOV 2011	RF Exposure Warning changed.

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# 2 PHYSICAL CONTENTS



Figure 2.1: Package Contents

The box should contain:

- One ACT200-D Vehicle GPS Tracker
- One User Guide

If any of items on Figure 2.1 are missing, please contact AnyDATA or distributor/reseller where device was purchased.

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## 3 DESCRIPTION: VEHICLE GPS LOCATOR (ACT200-D)

#### 3.1 THE LATEST IN GPS TECHNOLOGY

Utilizing both assisted and standalone GPS, ACT200-D is able to determine your location via a combination of cell triangulation and the greatest number of GPS satellites available. ACT200-D charges via the included USB wall charger. ACT200-D is equipped with a battery life of 3-7 days with normal usage.

#### 3.2 ALERTS & MESSAGES

ACT200-D has no button for user-set alert functions; the LBS (Location based server) can only know the device location and alrets including the vehicle information.

#### 3.3 TRACKING REPORTS

The ACT200-D can be configured to report its location on a sw scenario based chronological interval. The interval is remotely configurable and can be set via appropriate web and mobile software platforms. In addition to interval tracking, the ACT200-D is capable of servicing single location requests on demand via one-time-fix requests made through the web/mobile platforms.

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Figure 3.1: External Interface

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### 4 HANDING THE VEHICLE GPS LOCATOR

#### 4.1 SET-UP

- 1. Most of vehicle has an OBD-II (On Board Diagnostics) connector, which is located within 2 feet of the steering wheel.
- 2. The installation is very easy, just put the ACT200-D to the OBD-II connector in user vehicle.
- 3. The ACT200-D will power on automatically from vehicle battery and start initiation for CDMA network access.





Figure 4.1: Installation of ACT200-D in vehicle

#### 4.2 Power supply from vehicle (Typical 13.8V)

- 1. After insertion of ACT200-D to OBD-II connector, the device has automatically power-on with the car battery, typically  $12\sim14V$ .
- 2. If the engine has off, then the device decide to power off the OBD interface circuit, and run the CDMA module with GPS for the unauthorized movement function.
- 3. If the engine has on, then the device work on the OBD interface circuit, which is charge of gathering the vehicle information such as fuel gauge, speed, engine RMP, and so on to report it to LBS server via the CDMA network.

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## 5 POWERING ON/OFF THE VEHICLE GPS LOCATOR

### 5.1 POWERING ON/OFF

#### To Power ON:

- 1. Insert the device to OBD-II connector.
- 2. Then, the device has automatically powered on.
- 3. There is no visual way to confirm whether device has power-on or not.
- 4. But, user can make sure the location from web-server, or application.

#### To Power OFF:

- 1. If the device is needed for totally power-off, then just remove it from the OBD-II connector.
- 2. In case of the car has engine off with ACT200-D, and passed several days, the device has automatically power-off to protect the battery drain fully.
- 3. The device will stay power-off until the car ignition for driving.
- 4. If the device detects the battery level over 13.8V, then start the powering on.

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# **6 VEHICLE GPS LOCATOR SPECIFICATIONS**

### 6.1 FORM FACTOR

- Dimensions: 75 x 45 mm, 26mm in Height
- Weight 48.4g

#### 6.2 HARDWARE SPECIFICATIONS

- Full TIA/EIA/IS-98D Compliance Assisted & Standalone GPS
- Operating Voltage 12 ~ 14V, internally 3.9V for CDMA module.
- Max Output Power 0.3W
- Current Consumption Idle mode (50mA @ 13V)
- Sleep mode (2mA @ 13V)
- Sensitivity Less than -104dBm
- Receive Frequency  $869.04 \sim 893.97 \text{MHz}$  for BCO,  $1931.25 \sim 1988.75 \text{MHz}$  for BC1.
- Transmit Frequency 824.04 ~848.97MHz for BCO, 1851.25 ~ 1908.75MHz

#### 6.3 SOFTWARE SPECIFICATIONS

- CDMA2000: CDMA2000 protocol between IS-707-A.5: Packet Data Service for Mobile and Base Station
- IS-95A/B: CDMA protocol between TIA/EIA-637: Short Message Service for Mobile and Base Station
- IS-801 & TIA-801-A: Position determination Built-in TCP/IP service standard for Dual-Mode spread spectrum systems

#### 6.4 MECHANICAL

- Dimensions 75x45mm, 21mm (peak 26mm) in Height
- Weight 48.4g or 1.71oz

## 6.5 EXTERNAL INTERFACE

• OBD-II

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#### 6.6 ENVIRONMENTAL

- Operating Temperature  $-4 \sim 122F (-20 \sim +50C)$
- Storage Temperature  $-22 \sim 140F (-30 \sim +60C)$
- Humidity (Operating) 0% ~ 95% non-condensing, 95F (35C)

## 7 LIMITATIONS OF LIABILITY

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