

WCDMA Tracker

Prime One User Manual

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Contents

1 Introduction.....	3
2 Product Overview.....	3
2.1 Appearance.....	3
2.2 Buttons/Micro USB Interface Description.....	3
2.3 LED Description.....	4
3 Getting Started.....	5
3.1 Parts List.....	5
3.2 Battery Charging.....	5
3.3 Prime One Data Cable.....	6
3.4 Power on/Power off.....	6
4 Trouble shooting and Safety info.....	7
4.1 Trouble shooting.....	7
4.2 Safety info.....	7

1 Introduction

Prime One is a powerful GPS locator which is designed for vehicle, pets and assets tracking. With superior receiving sensitivity, fast WCDMA frequencies 850/1900 and GSM frequencies 850/900/1800/1900. Its location can be real time or schedule tracked by backend server or specified terminals. Based on the embedded wireless tracking protocol, Prime One can communicate with the backend server through WCDMA or GSM/GPRS network, and transfer reports of emergency, Geo-fencing, device status and scheduled GPS position etc... Service provider is easy to setup their tracking platform based on the functional wireless tracking protocol.

2 Product Overview

2.1 Appearance



Figure 1-1

2.2 Buttons/Micro USB Interface Description

Button /Micro USB Interface Description	
KEY/interface	Description
Power Key	Power on Prime One Power off Prime One (If power key is enabled)

Function Key	Geo-Fence mode Long press the key to enable/disable Geo-Fence ID0 Geo-Fence in current position mode Long press the key to enable/disable Geo-Fence ID0. If enable Geo-Fence ID0, using the current position as the centre of Geo-Fence 0. SOS mode (default) Long press the key to active SOS alarm
Micro USB interface	Connect a 5V DC adapter can power on Prime One and charge the internal battery Connect a 3.7V Li-ion or Li-Polymer battery can power on Prime One Backend server developer or administrator can use the data cable to configure Prime One
Reset Key	Click the key will turn off internal VBAT when OS is abnormal, and then press Power Key to restart Prime One. Note: Reset key is invalid when external battery is used.

2.3 LED Description



Figure 1-2

There are four LED lights in Prime One device, the description as following.

Light	Event	State
GPS LED	GPS fixed	Fast flash
	GPS has been turned off	Dark
WCDMA LED	Power on and normal	Slow flash
	Power off	Dark
WIFI LED	WIFI on	Slow flash
	WIFI off	Dark
Power LED	Power on and normal	Dark

	Fully charged	Solid
	In charging	Slow flash

3 Getting Started

3.1 Parts List

Name	Picture	Remark
Prime One Locator		The WCDMA/GPS locator.
AC-DC Power Adapter		It is used to charge the internal battery of Prime One.
Prime One Data and charger Cable		It the USB data cable which can be used for firmware upgrading and configuration. It also includes the charger interface on the Prime One.

3.2 Battery Charging

The following items are suggestion for battery charge, please pay more attention.

- ◆ Please connect AC-DC power adapter with Prime One device.
- ◆ Insert the AC-DC power adapter into the power socket.
- ◆ During the charging process, the Power LED light will solid. When the battery is fully charged, the Power LED light will be Ever-light.
- ◆ You can also charge the battery using USB cable which connects Prime One device with the PC.

- ◆ Charging will last about 5 hours.

Note: *If the Prime One device is firstly used, please make sure the battery is fully charged, which will make the life of battery much longer.*

3.3 Prime One Data Cable

Prime One Data Cable is a cable with a Micro USB connector.

The USB data cable is used for data download, which will be used for firmware update or configuration and can be used for charging at the same time.



Figure 2-1

3.4 Power on/Power off



Figure 2-2

Power on:

- ◆ Press the Power key at least 3 seconds and release it to power on Prime One device.
Note that, the Power LED light will fast flash.

Power off:

- ◆ Press the power key about 3 seconds; Power LED light will fast flash and then turn off, which indicates that Prime One device has been powered off.

Note: the user can not power off Prime One if the power key is disabled by

protocol.

4 Trouble shooting and Safety info

4.1 Trouble shooting

Trouble	Possible Reason	Solution
Messages can't be reported to the backend server by Mobile network.	APN is wrong. Some APN can not visit the internet directly.	Ask the network operator for the right APN.
	The IP address or port of the backend server is wrong.	Make sure the IP address for the backend server is an identified address in the internet.
Unable to power off Prime One.	The function of power key was disabled by AT+GTFKS.	Enable the function of power key by AT+GTFKS.
Battery can not be charged	The battery has not been used for too long time and has been locked.	Using a external power source with 3.6V to 4.2V DC power supply to active the battery or apply for after sale help.
Prime One can't fix GPS successfully.	The GPS signal is weak.	Please move Prime One to a place with open sky.
		It is better to let the top surface face to the sky. (The same surface with indication LED)

4.2 Safety info

The following items are suggestion for safety use, please pay more attention.

- ◆ Please do not disassemble the device by yourself.
- ◆ Please do not put the device on the overheating or too humid place, avoid exposure to direct sunlight. Too high temperature will damage the device or even cause the battery explosion.
- ◆ Please do not use Prime One on the airplane or near medical equipment.

FCC Caution.

§ 15.19 Labelling requirements.

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

§ 15.21 Information to user.

Any Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

§ 15.105 Information to the user.

Note: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

Specific Absorption Rate (SAR) information:

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This **WCDMA tracker** meets the government's requirements for exposure to radio waves. The guidelines are based on standards that were developed by independent scientific organizations through periodic and thorough evaluation of scientific studies. The standards include a substantial safety margin designed to assure the safety of all persons regardless of age or health.

FCC RF Exposure Information and Statement The SAR limit of USA (FCC) is 1.6 W/kg averaged over one gram of tissue. Device types: Prime one (**FCC ID: ZKQ-ONE**) has also been tested against this SAR limit. The highest SAR value reported under this standard during product certification when properly worn on the **body is 1.11W/kg**. This device was tested for typical body-worn operations with the

back of the handset kept **0.5 cm** from the body. To maintain compliance with FCC RF exposure requirements, use accessories that maintain a **0.5 cm** separation distance between the user's body and the back of the handset. The use of belt clips, holsters and similar accessories should not contain metallic components in its assembly. The use of accessories that do not satisfy these requirements may not comply with FCC RF exposure requirements, and should be avoided.

Body-worn Operation

This device was tested for typical body-worn operations. To comply with RF exposure requirements, a minimum separation distance of **0.5 cm** must be maintained between the user's body and the handset, including the antenna. Third-party belt-clips, holsters, and similar accessories used by this device should not contain any metallic components. Body-worn accessories that do not meet these requirements may not comply with RF exposure requirements and should be avoided. Use only the supplied or an approved antenna.