ZK105L User Manual

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Author	Bruce.Chen
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International Telematics Solutions Innovator

www. *queclink* .com

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1 Introduction

This document describes how the ZK105 enters transparent mode to debug module instructions.

The ZK105LSeries are a series of water resistant GPS tracker designed for Scooter. Their built-in GPS receiver has superior sensitivity and fast time to first fix (TTFF). Their LTEallows the ZK105L Series' location to be monitoredin real time or periodically tracked bya backend server or other specified terminals. Their built-in 3-axis accelerometer allows motion detection and extends battery life through sophisticated power management algorithms.It built-in high brightness color indicator and audio broadcastfunction. It built-in high brightness color indicator and audio broadcastfunction.System integration is straightforward as complete documentation isprovided for the full featured @Track protocol. The @Track protocol supports a wide variety of reports including emergency, low battery and scheduled GPS position.

2. Product Overview
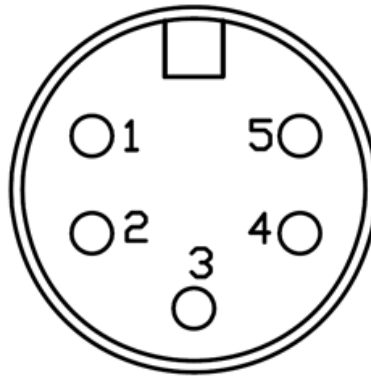## 2.1. Appearance

3 Hardware

3.1.1 parts list:

Name	Picture
Debug Cable	

Table 1.Parts List

3.1.2 Interface Definition

The power cable input 36V, red wire for positive, black wire for negative

5 PIN CONNECTOR INTERFACE

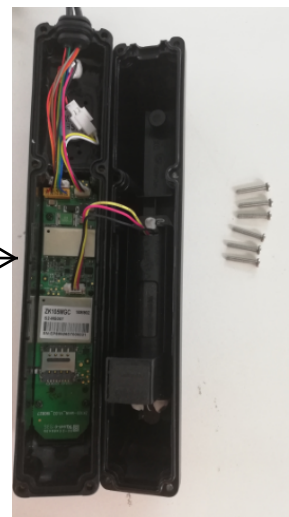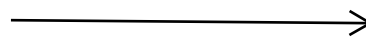| PIN No.	Pin Name	Description
1	GND	Power GND (Black)
2	USART RX	Receive data (Yellow)
3	USART TX	Transmit data (Green)
4	GPIO1	Control signal output (Blue)
5	DC IN: 36V	Power+ Input (Red)

4 Getting Start

4.1 Install SIM Card
- Turn off the ZK105L ;
- Open ZK105L and insert SMI card as follows

1Go screw down.   Turn on the machine

Find card slot

Insert SMI card

Close the machine

WCDMA/LTE use:

1 ZK105L can communicate with the backend server through LTE 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 Device Status LED

ZK105L LED Definition			
No.	**White LED**	**Red LED**	**Description**
1	Off	Off	In INACTIVE mode
2	Alternating Flashing		In TEST mode
3	Breathing	Off	In NORMAL mode: normal
4	Off	Flashing	In NORMAL mode: ECU fault
4	Off	On	In NORMAL mode: IoT fault

3 **BLE**

3.1 BLE working modeexplanation

ZK105 isinstalled in the SharedScooter and supplied by the main battery of Scooter. With the external power(main battery of Scooter) supplying , the BLE of ZK105 works. Otherwise with the backup battery of ZK105 supplying, BLE stops working.

3.2 BLE instructions

Heartbeat packet uploaded from ZK105 to Server includes 20 bytes dynamic password (BLE Command Password).After successfully connected with the BLE of ZK105,It is able to send command <AT +BKSCT=BLE Command Password,0$> to unlock Scooter or <AT+BKSCT=BLE Command Password,1$>to lock Scooter by BLE channel.

FCC Certification

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

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.

FCC Radiation Exposure Statement:

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment .This equipment should be installed and operated with minimum distance 20cm between the radiator& your body.

IMPORTANT NOTE:

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.