Qmini M series industrial GIS data collector instructions

Handbook revision situation

Revision date	Revision number	Introduction
March 2012	**1**	Qmini M series industrial GIS data collector instructions version 1.0

Catalogue

Preface

Manual use

Welcome to use Qmini M series industrial GIS data collector instructions。 This manual applies to Qmini M1 / Qmini M3 / Qmini MR/Qmini MT/Qmini MP series, this manual introduces how to install, set up and use industry-specific GIS data collector.

Manual introduction

Qmini M series industrial GIS data collector is a new GPS/GIS data collector, even if you use other types of industrial GIS data collector, please also carefully reading before use this specification.

Experience demanded

In order to you can better use Qmini M series industrial GIS data collector, HI-TARGET suggest you have a certain measure knowledge, and carefully read the instruction. If you have any questions, please refer to the official website of the HI-TARGET: < http://www.hi-target.com/ >.

Safety technical note

Note: pay attention to tip the content general is operation special place, need to bring your special attention, please read

Warning:the warning content is general very important tip, if not in warning operate within the tip, you will cause the damage of the instrument, the loss of the data, and the collapse of the system, even endanger the security of person.

Responsibility absolution

Before you use the product,you should read the introduction carefully. Guangzhou HI-TARGET surveying and mapping instruments Co., LTD. We will not take the responsibility if you not operate within the product instruction。

Guangzhou HI-TARGETsurveying and mapping instruments Co., LTD. Is committed to continuously improve product function and performance, improve the service quality, and keep the right to change the content of the instruction without notice in advance.

We have to print described in the content and the consistency of the hardware and software to do an inspection, but don't rule out the possibility of bias, the picture in the instruction for use for reference only, if you have a product with discrepancies, please use the product kind prevail.

Technology and service

HI-TARGET have set up the"technology and service"section, if you have problems you settle them through the "service guide" telephone contact regional technology center, headquarters division or through the "experts on the judgment seat," "technology BBS" message, we will answer your questions in time.

Related information

You can find the instructions through the following methods:

1,、 purchased products from the HI-TARGET will with a CD, open the CD and you can find the instruction;

2、land the official website of the HI_TARGET, through "downloaded zone"-" product specifications "and" GIS product "and you can it.

Your suggestion

If you have any Suggestions and opinions about the introduction, please visit the official website of the HI-TARGET, and leave massage in "technical service" and "advice and complaint" edition , your feedback on the quality of the information we will be greatly improved.

Chapter 1

Products overview

This chapter introduces

■ Product introduction

■ Product introduction

■ *Use and the matters needing attention*

Product introduction

Qmini M series industrial GIS data collector products are equipped with complete navigation and positioning function and GIS data acquisition function, with the operating mode of physical buttons and touch screen, support input in both Chinese and English. The three industrial standard design, and can be dropped from 1.5 meters high to the cementfloor without angthing, dustproof and waterproof standard can adapt to complex work environment in the field. At the same time, the configuration of the large capacity of lithium battery can meet the requirements of all day work.

Qmini M series industrial GIS data collector with integrated design, and it is equipped with functions such as collection of GPS, embedded Windows Mobile 6.5 system, digital camera, microphone, bluetooth communication, mass storage, USB port, SD card expansion ,ect.

Product features

◊Industrial integration design, with a variety of functions

◊ Can be used as the industrial three proof standard GPS navigation

◊ The built-in digital camera, which can realize image information site acquisition, automatic GPS coordinates and realize image information matching labeling

◊ The built-in microphone, it can realize voice information site collected
◊with the function of speech play
◊ The built-in bluetooth, to realize the wireless data transmission

Use and the matters needing attention

Although Qmini series industrial GIS data collector use the corrosion resistance and impact resistance materials, but the instrument still need our careful use and maintenance, and keep it in dry environment as far as possible. In order to improve the stability of the data collector industrial GIS and use cycle, please avoid industrial GIS data collector exposed to extreme environment , such as: damp, high temperature, low temperature, corrosive gas or liquid, etc.

△ Warning: industrial GIS data terminal in use and preservation must be stipulated in the temperature range. Detailed requirements, please refer to chapter 4: technical parameters.

To ensure continuous observation of the satellite tracking and satellite signal quality, the stations should be set as far as possible over the open place, barriers are not permission in more than 15 degree place; To reduce the interference of electromagnetic wave to GNSS satellite signal ,within 200 m strong electromagnetic interference is not permitted, such as TV tower, microwave station, high voltage transmission line; To avoid or reduce the happening of the multipath effect, stations should be far away from to the electromagnetic wave signal reflection strong terrain, features, such as high building, sliced waters, etc.

FCC ID: O39ZHDQmini

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.

Chapter 2

The introduction of Qmini M series industrial GIS data collector

The introduction of this chepter:

■the front of Qmini series industrial GIS data collector

■the back of of Qmini series industrial GIS data collector

■interface

■the appearance of touching pen

■battery

■data line

■ Condole belt

This chapter introduces Qmini series industrial GIS data collector appearance, interface, battery, touch pen and data, etc.

The front of Qmini M series industrial data collector

The front of Qmini series industrial GIS data collector，Including the touch screen, keyboard, a microphone，protection set ,ect.

Chart2-1◊ Touch screen, 3.7 inch vertical screen can be directly click operation, support input in both Chinese and English.

◊ Protective set: prevent grind, prevent fell, shock, effective instrument to avoid scratching.

◊ Keyboard: direction control, the confirmation button, exit button, switch machine etc. Function.

◊ The microphone: built-in microphone can be used for the acquisition of voice messages. (the microphone is at the bottom of the waterproof plug interface on the left)

The back of Qmini M series industrial data collector

Qmini series industrial GIS data collector on the back of, including the camera, battery, the condole belt hole, horn, etc.

camera
(with flashfunction)

horn

the condole
belt hole

◊ Camera: built-in digital camera for video information site collected

◊ Battery: the built-in 3.7 V, 3100 mAh lithium batteries

◊ Condole belt hole: connect the strap can prevent slide.

◊ Horn: instrument real-time operating and state speech broadcast

$\triangle$ Note: when the horn is in water, it may appear silent or husky, dry it and it will

be back to normal. The loudspeaker and the instrument is completely waterproof, horn with water will not affect instrument performance, but please timely drying processes.

Interface

Qmini M series industrial GIS data collector interface position was identified, its main function is charging and data transmission, installation SD card, etc.

Picture2-3

◇Charging interface: connect the charger for lithium battery charge.

◇USB port: the connection computer, used for data transmission.

◇MicroSD card, can support 32 GB at most.

▲Note:when the charging interface and USB interface are not in use, please cover stopper, in order to achieve the purpose of waterproof, dustproof.

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Touching pen

Qmini M series industrial GIS data collector with standard touching pen, located in Qmini M series industrial GIS data collector condole belt hang line.

Picture2-4

Battery

This illustration shows the standard 3100 mAh lithium battery appearance figure.

Picture2-5

▲notice:In order to protect the environment, when the lithium battery failure, do not throw them away, please return to HI-TARGET or professional battery recycling units processing.

Data line
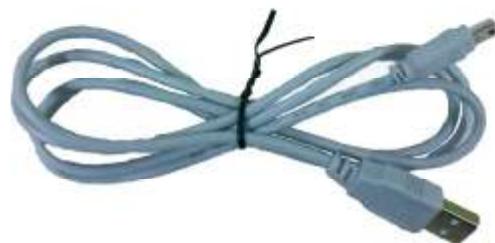
Picture2-6

◇Industrial GIS data collector interface: used in connection Qmini series industrial GIS data collector.

◇USB interface: to connect computer USB port , used for data download.

▲Warning: when the cable is not in use,it should be packed in where the place is not easy to squeeze to prevent damage to the plug.

Condole belt

Because Qmini series industrial GIS data collector are small, in order to prevent the process of industrial GIS data collector slide, it equipped with antiskid condole belt,please entangle condole belt when you work .

Picture2-7

Chapter 3

Basic operation

The introduction of this section:

■.keyboard

■ Touching pen

■.MicroSD card

■.Power supply system

■.Switch machine operation

■.data obtain

■.Application functions

The HI-tARGET Qmini GIS data collector series industrial setting and operation can be most completed by touching pen , the common operation can be completed by the keyboard . Now we will introduce the look and function of the keyboard simply.

Keyboard

Qmini M series industrial GIS data collector keyboard. The keyboard keys contains: the confirmation button , exit key, F1 function keys, switch machine key and the direction key.

Picture3-1

Exit button: on state by short, means to cancel or exit the the current window operation.

Confirm key: ok button.

Function keys: function shortcut key. By the software function definition, please refer to the relevant software instructions.

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Switch mechanical and electrical source key/backlight control key: more than 3 seconds long press turns on/off the phone. On state, hold the button 1 second, switch a backlight switch.

Navigation keys: move the cursor, to change the content change options

▲**notice:when** temporarily do not need to use Qmini series industrial GIS data collector in work, please close a backlight to save electricity, to extend industrial GIS data collector work time.

MicroSD card

Installation, remove MicroSD card

Picture3-4   picture3-5

As the upper left picture shows ,open the SD card buckled along the OPEN direction,then lock SD card along the LOCK direction,to complete the installation of the SD card.

Remove the SD card, open the card buckle along the direction of OPEN , remove the SD card,lock the card slot along the LOCK direction .

▲Note: the MicroSD cards (also named TF card) are small volume external flash memory storage expansion CARDS, usually used in mobile phone, PDA, users should distinguish it between the common one. The volume of ordinary SD card are larger than the MicroSD card, not suitable for Qmini M series industrial GIS data collector use. Qmini M series industrial GIS data collector can support 32 GB MicroSD card at most for present.

Power supply system

◇ The battery installation and removal

Install the battery, the battery with a metal connector on one end contacts Qmini M series data collector battery tank copper , pressed the battery in according to the left lower red arrows figure direction.
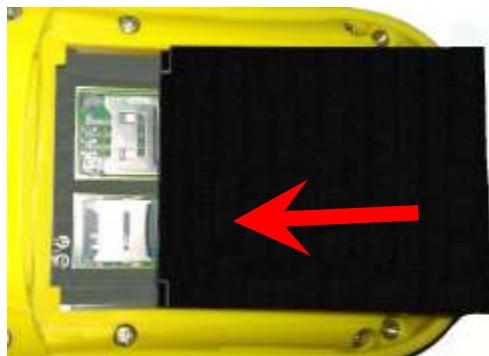
Picture3-6   picture3-7

Take out the battery, pull out the battery according to the upper right sign of the red direction arrow

◇ Qmini M series industrial GIS data collector battery, charger model

Table 3-1 Qmini M series industrial GIS data collector battery, charger model

name	model
3100 mAh lithium batteries	**BL-3100A**
Lithium battery charger	**CL-3100A**

◇charge

Charge should be used when the instrument with standard special charger or seat charger in certain temperature range charging, and charging time should achieve a certain requirements. The concrete use method and requirements: charge should be used when the industrial GIS data collector with standard filling lines, in 10 ℃ ~ 40 ℃ temperature range charge. Used for the first time in general, there is still a battery power, should first will use up the inside of the electricity charge again, the first three times must charge 12 hours, after that charging 4 hours. If the battery are not often in use, it must be charged once a month.

ΔWarning: 1The battery and charger manufacturer configuration are only permitted, do not put it into the fire or metal electrodes with short circuit.

2 If you find the battery has fever, deformation, discharge, smell or other abnormal phenomenon when the battery is in use 、incharge or in storage, please replace new battery.

3, if the use time of the battery significantly shortened, please stop using the battery, the battery is aging, please replace new battery.

Switch machine operation

Data obtain

1 install **Microsoft ActiveSync**

In the incidental CD (tool software \ \ \ ActiveSync connection program), double click MSASYNC45. Exe file,please follow the instructions to complete installation. After the installation, find Microsoft ActiveSync operation inr the "start menu" "program" .Set up "allows the USB connection" In the menu "connection Settings", , as shown in figure 4-21 as shown.
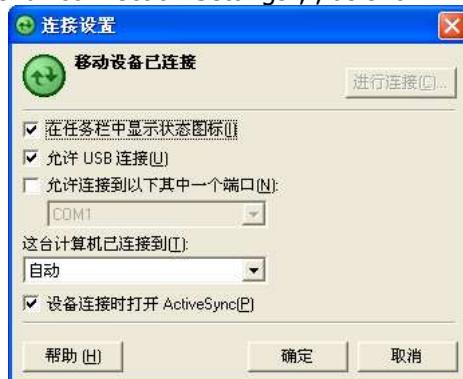

Figure3-11

2 the hardware connection

Opened first Qmini M series industrial GIS data collector, enter the Windows system,it is no need to open applications. Connect the USB port which with a small data line with the industrial GIS data collector, connect the other end USB plug with your PC. As shown in figure 4-22 shows.

Figure3-12

If you have connected them but the computer can't identify, please take the following method to solve:

a:close the USB charging in the pow setting model

press ![Esc] to the homepage,select"setting"→"power"→"USB charging",close the control switch of the USB charging.(figure3-15)

Figure3-15

B:To install the driver

Selects "computer" in the computer, choice "management" with the right button, open the "device manager"-" network Adapter ", right-click uninstall "Microsoft Windows Mobile Remote Adapter". If you are a Windows 7 system, please don't check "delete this device driver software" in the "confirmation equipment uninstall" .

Figure3-16

Figure3-17

Connect the Qmini M series industrial GIS data collector with pc again, if there is a "Windows Mobile member center" registered tip ,please choose "not registered".

3 software connection

When the cable is connected ,the Microsoft ActiveSync in the computer will tips you "whether to need to establish cooperation relationship," choose "cancel", Then Microsoft ActiveSync popup a hint, click "ok"。 Then it has been connected successfully. If it is the first connections, the computer will tips you to install the driver,just installed Windows compute driver according to guide,the driver is in "driver \ industrial GIS data collector drive \" of the Incidental CD.

4 download data
Click on the " browse button" of the the Microsoft ActiveSync,open the resources browser of Qmini series industrial GIS data collector ,as figure 4-23 shows,you can enter the NandFlash index and copy data to the computer.

Application functions

Qmini M series industrial GIS data collector is equipde with PPP technology (the technology used in Qmini MP model), built-in GPS navigation and positioning, digital camera, microphone, and other functions, but it must be installed with the corresponding software. Qmini M series industrial GIS data collector is equipped with Hi-Q software,as to how to use Hi-Q software to operate of the application functions above, please refer to my company's "Hi-Q software operation instruction" content.

Chapter 4

Technology parameters

The introduction of this section

Technology parameters

Technology parameters

This chapter will introduces you related parameters of Qmini M series industrial GIS data collector, the product function will vary according to the different models. When you refer to this chapter, please refer to corresponding technical parameters according to the equipment you purchase.

Model	Qmini M1	Qmini M3	Qmini MR	Qmini MT	Qmini MP
System configuration					
Operating system: Windows 6.5	√	√	√	√	√
806MHz high-speed CPU	√	√	√	√	√
Memory: 256MB RAM	√	√	√	√	√
Flash memory:8GB	√	√	√	√	√
Screen: 3.7 inches color touch screen, 640 x 480 resolution	√	√	√	√	√
GPS characteristics					
high-touch GPS technology	√	√	√	√	√

Application function					
5 million PXL camera with LED light supplement	√	√	√	√	√
Integrated microphone and speakers	√	√	√	√	√
Data communication					
Bluetooth	√	√	√	√	√
Mini USB Port	√	√	√	√	√
Micro SD Card, 32G Max.	√	√	√	√	√
power supply performance					
standard configuration 3.7V, 3100mAh lithium battery, working continuously over 12 hours	√	√	√	√	√
physical performance					
10 keys, with 4 direction keys and side shortcut key	√	√	√	√	√
Size: 14cm×8cm×3.5cm	√	√	√	√	√
Weight: 36g (contain lithium battery)	√	√	√	√	√
Work Tep.: -30℃~+70℃, Storage Tep.: -40℃~+80℃	√	√	√	√	√
Waterproof and Dustproof	√	√	√	√	√
shockproof	√	√	√	√	√