

T550 Handheld Reader

User Manual

Copyright

- Copyright ownership belongs to Shenzhen Zoko Industry Development Co.,Ltd
- The company's products have been approved and being approved by the People's Republic of patent protection.
- This user manual shall replace all other versions published before.
- Publish date: September 2014

T550 Handheld Reader Product introduction

T550 Handheld Reader, applies sensor and wireless RFID technology, with UHF module produced in America built inside, and is able to read ID cards, display data, store data and transmit data through wireless technology all at once. The product has PC plastic housing of high resistance, and is waterproof, dust-proof, anti-static and durable. The outstanding features of the handheld reader are user-friendly, of low power consumption and high precision, quick response and easily portable.

Contents

This user manual provides operation and service instruction of T550 handheld reader, and is composed of six chapters.

Chapter One: Safety warnings

This chapter gives precautions and safety warnings.

Chapter Two: Settings and operation instruction

This chapter illustrates settings of the product and how to operate.

Chapter Three: Maintenance

This chapter provides instructions on daily maintenance of the products.

Chapter Four: Trouble-Shooting

This chapter gives solutions for frequently seen troubles.

Chapter Five: Technical specification

This chapter introduces the technical spec and working standard of this product.

Chapter Six: Product service and technical support

This chapter shows access to service and technical supports.

Chapter One: Safety warnings

Symbol illustration

- ★ Severe danger may be caused to threat safety.
- * Precautions and reminder.
- ※ Notes and description.
- ! Warnings, it may affect or damage the instrument functions.

Safety warnings

- ★ **Do not change any components or parts of the device passed QA test.**
- ★ **Do not change battery or charge the device at dangerous place.**
- ★ **Never connect any accessories at dangerous place.**
- ★ **Never dismantle or open the device in a flammable or explosive environment.**
- ★ **The battery is specially produced for the device. Do not apply unauthorized batteries to the device or it may be dangerous!**
- ① **Never user batteries that are not listed in this user manual!**

Chapter Two Settings and operation instruction

Part 1 System composition

1. T550 Handheld Reader



Portable handheld device for user, able to read cards, store data and transmit data through wireless technology to management center.

- ① UHFRFID contactless card reading
- ② WIFI or BT wireless data transmission
- ③ Industrial product design, shatter-resistant, waterproof

2. RFID tag

Part 2 Operation instructions

1. Buttons

1).ENTER (confirm key)

2).READ (read tag)

3).BACK (return)

4).POWER (on / off)

5).DIRECTIONS (UP, DOWN, LEFT, RIGHT)

6).NUMBER PAD (1,2,3...0,*,#)

7).FUNCTION 1 (F1)



8).FUNCTION 2 (F2)

9). FUNCTION 3 (F3)

2、Menu

Boot into T550 main interface with default setting READ SINGLE TAG as picture 21. The display screen shows date, time, wireless connectivity and battery volume. If the tag to be read has been preset with read lock for user bank, then it requires ACCESS PASSWORD to read the tag. The tag content will be shown in red box marked with number 2.

- 1) Wireless connectivity. If the device is with Bluetooth (BT) wireless module, a white icon of BT indicates successful connection, while the icon with a read cross indicates a failure. If the device is with Wifi wireless module, a white icon of wifi signal indicates successful connection.
- 2) ACCESS PASSWORD. If the tag to be read has been set READ LOCK BANK, then it requires ACCESS PASSWORD to read the tag. Method is to use up and down keys to select this section. The chosen column will be in blue color with input box available. The current input method is shown on top middle column, like 123 marked in red in pic22.
- 3) Two items are shown in bottom part of screen as READ/WRITE MODE and SETTING. Press ENTER key to enter READ/WRITE MODE interface. Press BACK key to enter SETTING interface.

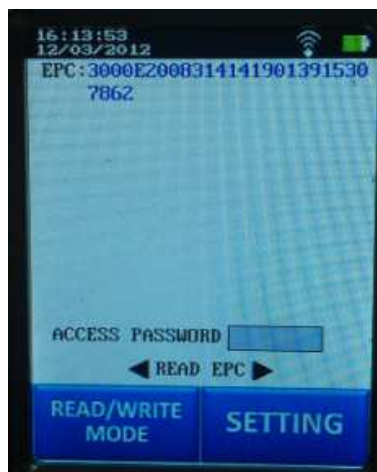


Pic21

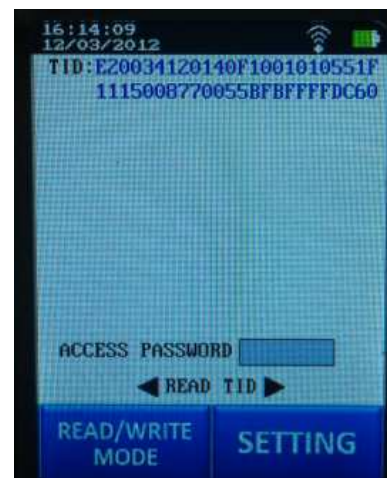


Pic22

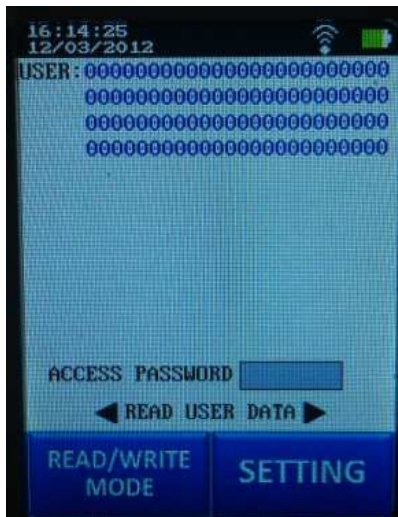
- 4) Press READ key to read tag. Reading success is shown in pic 23, pic24, pic25, pic26, pic27.



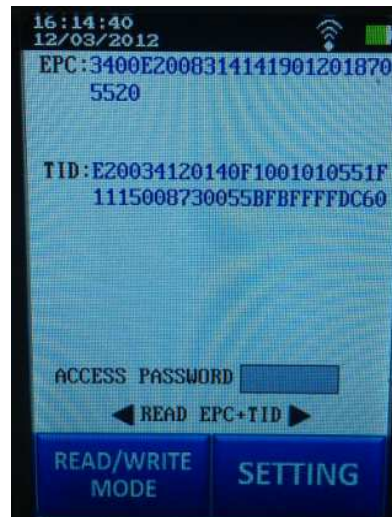
Pic23



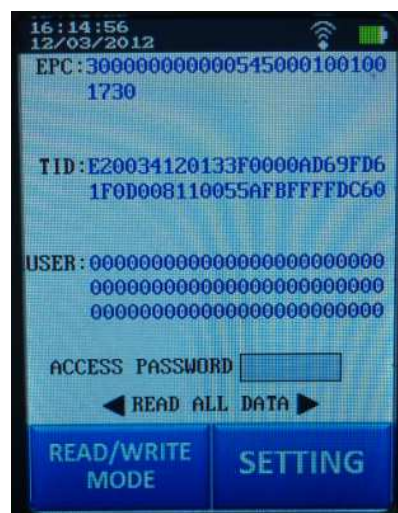
Pic 24



Pic 25



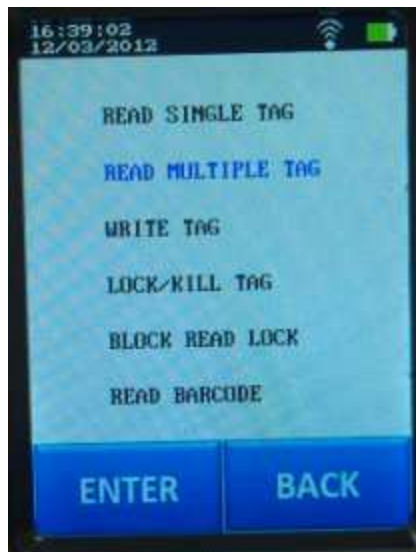
Pic 26



Pic 27

3. READ/WRITE MODE

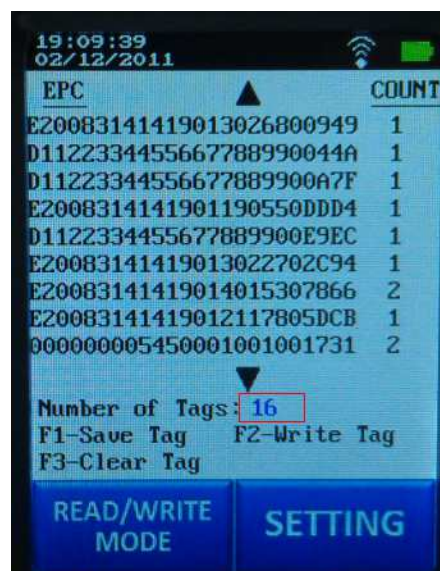
In this interface user can use UP and DOWN key to select operation items. Chosen items will be in blue as pic31. Press ENTER to enter the selected program interface.



Pic 31

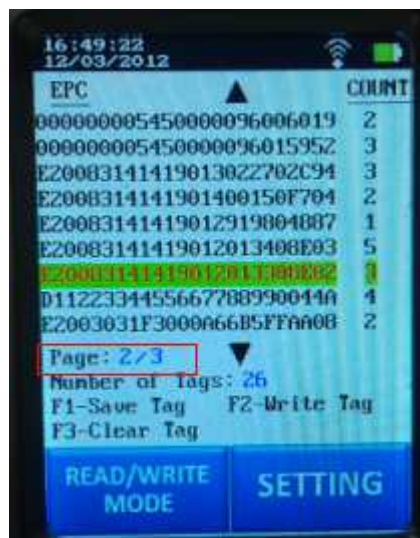
4. READ MULTIPLE TAG interface

1) In this interface user can read multiple tags. Tag info will be displayed on the screen with numbers up to 9 pieces latest records. Use UP or DOWN keys to check previous or next page to read records. The screen can display max 100 pieces records. Content display as pic41. The number 16 marked in red box in pic41 is the tag number that have been read. COUNT means the how many times the tag has been read.



Pic 41

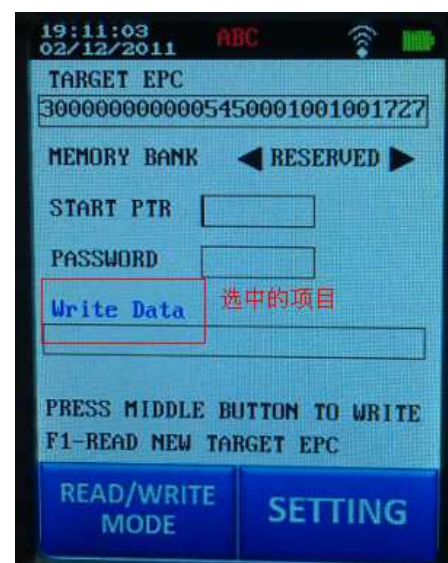
- 2) User UP and DOWN keys to check data as shown in pic42. The red content filled in green background indicates selected item for operation. Press F2 to switch to WRITE interface, the selected EPC code can be used as TARGET EPC in WRITE interface. Tag data can be record into SD storage medium by pressing F1 and transmitted to other device via wireless network. Press F3 to clear TAG record without saving or transmitting data.



Pic 42

5. WRITE TAG interface

- 1) This interface is to write TAG for three types of contents, namely RESERVED, EPC, USER. The interface is shown as pic51. UP and DOWN keys can be used to select items which will be in blue color once selected. Input content when cursor appears in the input box. MEMORY BANK is available with different options by pressing LEFT and RIGHT keys. TARGET EPC code can be achieved by means of manual typing input, import from MULTIPLE TAG interface, or pressing F1 to read tag.



Pic 51

- 3) MEMORY BANK column is for user to select bank zone for data to be written. Bank zone has an option of RESERVED (reserved zone with 0-1 word for KILL password, and 2-3 word for LOCK password). TID zone cannot be written as the data should be preset as default when TAG was made.
- 4) START PTR indicates the starting word of written data. For example, if user would like to write LOCK password, then the blank should be filled with "2".
- 5) PASSWORD indicates the password to be written. IF target content TAG has been set with LOCK WRITE, then it requires correct password to proceed with writing TAG.
- 6) Write Data indicates the content to be written for above selected item, which should be in alphanumeric characters (limited to letters A to F only). After all items have been filled in accordingly, remain in this interface and read the TAG by pressing READ key. Pic52 shows successful writing interface, and a failure would be shown as pic53.



Pic 52



Pic 53

6. LOCK/KILL TAG interface

This interface is to set LOCK/KILL TAG, with operation options UNLOCK, PERMAUNLOCK, LOCK, PERMALOCK and KILL five contents. UNLOCK is not to lock, or to unlock a locked one. PERMAUNLOCK is to unlock permanently. LOCK is to lock selected BANK (not applicable to TID BANK), and once locked, it requires password to write the BANK (in Write TAG interface to input PASSWORD). PERMALOCK is to lock permanently, and once it done, it won't support any type of writing input. KILL is to kill the tag, and once it done, the tag won't support any type of reading or writing.

1) TARGET EPC code can be achieved by means of manual typing input, import from MULTIPLE TAG interface, or pressing F1 to read tag.

2) MEMORY BANK has options of KillPWD, AccessPWD, EPC, TID, USER, amount which TID is not applicable for operation. KillPWD is to lock the content of RESERVED 0-1 word zone, and AccessPWD is to lock the content of RESERVED 2-3 word. EPC is to lock the whole PEC zone. TID cannot be operated. USER is to lock the whole USER zone. To operate with USER zone, e.g (UNLOCK, PERMAUNLOCK, LOCK and PERMALOCK), user should input PASSWORD in the Write TAG interface for RESERVED 2-3 word. If the operation is KILL, then user should input PASSWORD in the Write TAG interface for RESERVED 0-1 word.

3) KILL PW is the password to operate with KILL for the tag (for content written in RESERVED 0-1 word zone).

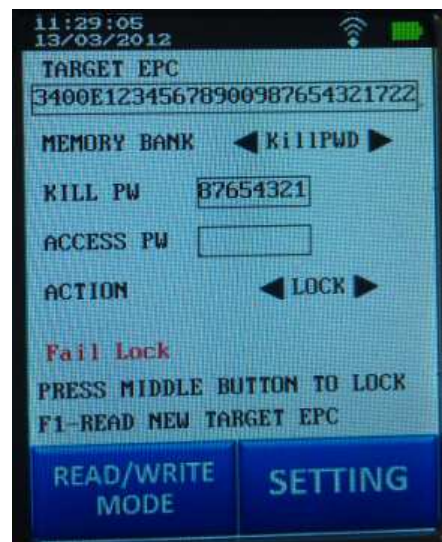
4) ACCESS PW is the password to operate with UNLOCK, PERMAUNLOCK, LOCK, and PERMALOCK (for the contents written in RESERVED 2-3 word zone).

5) ACTION is for user to select actions with options UNLOCK, PERMALOCK, LOCK, PERMALOCK, and KILL. Switch with LEFT and RIGHT keys.

6) After all items have been filled in accordingly, remain in this interface and hold the reader near the TAG and hold READ key to complete the operation. For example, to operate LOCK, Pic61 shows successful writing interface, and a failure would be shown as pic62.



Pic 61



Pic 62

7. BLOCK READ LOCK interface

This interface supports only for ALIEN H3 tag, and it is to operate read / write / lock function for USER 0-7 BANK of the TAG. UNLOCK is to unlock the data zone. LOCK is to lock the data zone. PERMAUNLOCK is to unlock permanently. PERMALOCK is to lock permanently.

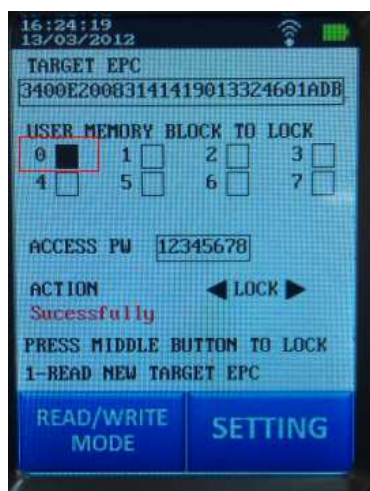
1) TARGET EPC code can be achieved by means of manual typing input, import from

MULTIPLE TAG interface, or pressing F1 to read tag.

2) USER MEMORY BLOCK TO LOCK is to select block zone (0-7). Selected zone will be shown with the box filled in black color. Pic71 shows the 0 zone is blocked.

3) ACCESS PW is the password for data stored in RESERVED 2-3 word zone.

4) ACTION is for user to select operation options UNLOCK, LOCK, PERMAUNLOCK, PERMALOCK etc. Functions described as above.



Pic 71



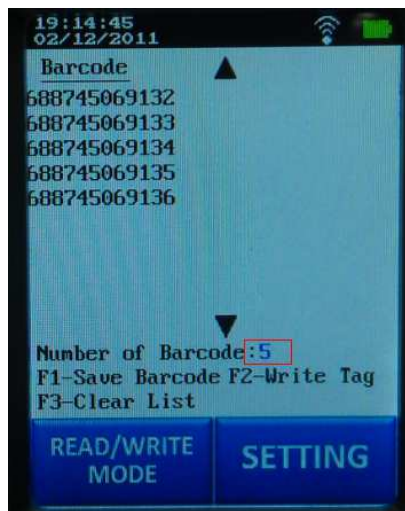
Pic 72

8. READ BARCODE interface

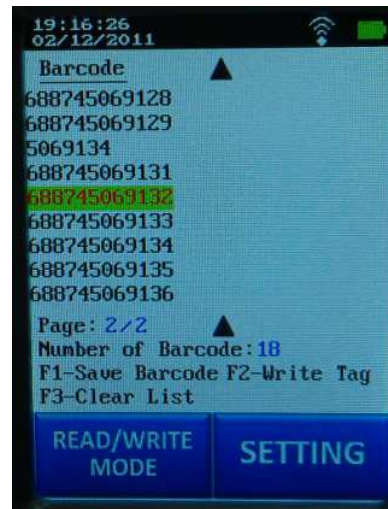
1) The interface is to read barcode, which is similar to READ MULTIPLE TAG interface. Barcode info will be displayed on the screen with numbers up to 9 pieces latest records. Use UP or DOWN keys to check previous or next page to read records. The screen can display max 100 pieces records.

2) If the barcode info records have exceed 9 pieces, user can press UP and

DOWN keys to turn pages up and down, shown as pic82. Selected barcode info will be shown in red filled with green background, then press F2 to switch to WRITE interface, then the barcode info can be the Write Data in the WRITE interface. Press F1 can record the barcode info and save in the SD card and transmit the data to other devices via wireless network. Press F3 to clear TAG record without saving or transmitting data.



Pic 81



Pic 82

Chapter Three: Maintenance

The handheld reader is of intelligent design and easy to use, requiring little special maintenance. However, for purposes of its longer lifespan, please follow below tips:

Instrument maintenance:

- Please use the instrument in specified temperature range ($-10^{\circ}\text{C} \sim 55^{\circ}\text{C}$) and relative humidity ($\leq 98\%$), or it may cause measurement deviation of the device and affect functions.
- The instrument applies automatic micro computer adjustment, and requires no screw. It is suggested that user should not open the instrument without authorized professionals, as it may affect the industrial protection level of the instrument.
- Please use charger specified by manufacturer, and charge according to instructions. Do not use non-specified charger as it may cut short the lifespan of battery and cause the battery and components cease to function.
- Do not throw or knock the instrument. Any salvage treatment to the instrument may easily cause damage of internal structure and degrade the working functions.
- Do not use strong chemical products, cleaners or strong detergents to clean instrument.
- Please keep the instrument clean and dry, and avoid rain shower. If the instrument is immersed by water, please turn it off, wipe out water and dry it out before use.

Do not store the instrument in a place of high temperature, as it may affect the components, damage battery or deform or melt the plastic housing.

Other advice:

- ① If the instrument or any part of it cannot work properly, please bring it to the nearest authorized maintenance stores specified by manufacturer, or turn it to factory for maintenance.
- ② When the instrument is sent for maintenance, the sensor tip should be gently wiped to clean dust but cannot clean with water.

Chapter Four: Trouble-shooting

Troubles and solutions

Troubles	Root cause	Solutions
No display	Out of power	Charge power
Unstable display	Panel problem	Replace panel
No beep sound	Beep buzzer problem	Replace
Does not read card	Reader line damage	Factory repair

Chapter Five: Technical specification

Standards of implementation

Q/JZK0210-2013

Technical requirement

5.1 General requirement: Power voltage: 3.7V rechargeable Li-battery

5.2 Cosmetic and mechanical structure

The outer housing of handheld reader should be without scratches, no color fading or permanent stains, no apparent deform or scratches.

5.3 Basic function

5.3.1 The handheld reader can read RFID card, record and restore data, and allow user to inquire data directly.

5.3.2 There are beep buzzer and green LED light to indicate successful reading of card.

4.3.3 The internal memory storage medium is 2GB.

5.3.4 The handheld reader has color panel display, bar code scanning function and wifi/BT wireless data transmission function.

5.3.5 The handheld reader can be connected with PC via USB cable and transmit data.

5.4 Card reading function performance

5.4.1 T550 reading distance: $\geq 1\text{M}$

5.5 Industrial protection level of housing

The IP level of the handheld reader is: IP54

Technical specification

① Working voltage: 3.7DCV

② Working electric current: <750mA

Chapter Six: Product service and technical support

Product service

Zoko guarantees the product produced and sold by it should have no material or crafts defects and grants one year of guarantee from the date of delivery from authorized dealers. For any quality defect, Zoko will repair or replace the product according to specifications of product maintenance list.

For maintenance or product maintenance list, please contact the nearest maintenance store authorized by Zoko.

Except guarantees that are listed in this summary or any other applicable provision of assurance policy, Zoko does not provide any other express or implied warranty. Including, but not limited to tradability of the product and special purpose, suitability for any implied warranties. In any case, Zoko shall bear no responsibility for indirect, special or consequential loss.

Many products of Zoko have pre-long guarantee periods and adjustment plans. Please log in our website or contact sales department.

T550 accessories:

- ★ Charger: 1pc;
- ★ Holster: 1pc;
- ★ USB cable (Shielded with one core): 1pc;
- ★ 《User manual》 : 1pc;

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

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.

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.