

# T110 Data Terminal User Manual.



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**Chapter 1: Important Notice**

# **Important Notice:**

**1-1 Regulations**

**1-2 RoHS DIRECTIVES**

**1-3 SAFETY PRECAUTION**

# 1. Important Notice:

## 1-1 REGULATIONS

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.

This device 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 radiated 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

## 1- 2 RoHS DIRECTIVE

The RoHS directive (European Parliament Directive 2002/95/EC) mandates that producers of electrical or electronic equipment sold into Europe must minimize or eliminate the following materials from their design, as they are considered health risks:



1. Lead
2. Mercury
3. Cadmium
4. Hexavalent Chromium
5. Polybrominated biphenyls (PBB)
6. Polybrominated diphenyl ethers (PBDE)

These Materials must be reduced to their appropriate level (as announced by the directive) by July 1, 2006.

Canmax Technology committed to the environment, which makes the necessary changes to our products in order to comply with the directive. This involves converting most of the non-compliant components (electronics, PC boards, etc.) of our products to the compliant equivalent. We also changed the assembly processes (solder, glue, etc) to fully compliant with the directive. These changes will not affect the form, size or function of our products and the important thing is the reliability and performance remains the same.

### 1- 3 SAFTY PRECAUTION

- Do not stare the scanning light source beam.
- Do not touch the device transparent window, reading performance might decrease if transparent window is dirty or scratch.
- Do not disassemble or modify the internal components from the data terminal.
- Do not expose the data terminal to any flammable source.
- Do not over charge the battery.

#### Lithium-Ion polymer Battery

- The Lithium-Ion polymer battery energy density is less than 400 Wh/L. Therefore, PSE certification does not required in this product.
- First time battery charge will take 4 hours for fully charge.
- Battery Life time:  
Memory Mode: Approx. 18000 scans (5 sec/per scan).
- Do not assemble / disassemble the battery without technical support.
- Do not use unspecified power adaptor to charge the battery.
- Any leakage of fluid or abnormal odor occurred, discontinued the operation of the data terminal, and returns to authorized dealer.
- Any leakage of fluid from the battery, avoid any contact with skins or eyes, if situation occurred, rinse with fresh water and consult the doctor immediately.

**Chapter 2: Introduction**

# **Introduction:**

**2-1 PRODUCT FEATURES**

**2-2 PRODUCT SPECIFICATION**

**2-3 PACKAGE INFORMATION**

**2-4 DEFAULT SYMBOLOGIES**

**2-5 FUNCTION KEYS AND LED INDICATOR**

**2-6 QUICK START GUIDE**

## 2. Introduction

### 2-1 PRODUCT FEATURES

- Ergonomic and lightweight
- Laser type, CCD type and RFID (support Mifare 13.56Mhz) available.
- With 128 x 128 Color Display Screen.
- 7 Keys for easy operation and user interface friendly.
- Build in memory for easy data transmission, and no extra software needed for data transmission.
- Memory can stored up to more than 100,000 barcode data with time stamp ( bas-on EAN-13 barcode symbology)
- IP54 standard for hospital, retail shop use.
- Easy kernel and graphic update.
- Development tool kit available for user to develop preferred application.



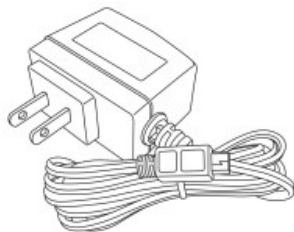
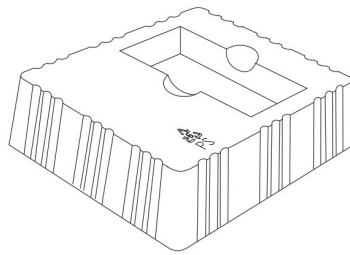
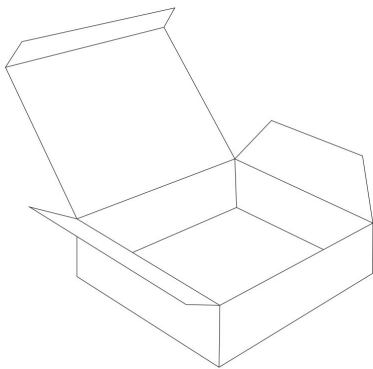
## 2-2 PRODUCT SPECIFICATION

<b>Model No.</b>		<b>T110 Data Terminal</b>
<b>Microprocessor</b>		32 bits CPU
<b>Main battery operation times</b>		15,000 scans in Bluetooth Mode ( 5 sec /per scan)
<b>Supported barcodes</b>		Code 39, INT 25, Industrial 2 of 5, Matrix 2 of 5, Codabar(NW7), Code 93, Code 128,EAN 128, JAN/EAN/ UPC and fully RSS code (GS1 Databar )
<b>Min. PCS value</b>		0.45
<b>Scan Engine</b>	<b>CCD Type</b>	630nm Red LED LAMP, Linear CCD Image Sensor <b>Scan rate</b> : 100 scan/sec <b>Scan distance</b> : 50mm~250mm
	<b>Laser Type</b>	Visible Laser Diode 650nm $\pm 10$ ( 25℃) <b>Scan rate</b> : 100 scan/sec <b>Scan distance</b> : 50mm~350mm
<b>Main battery</b>		Built in Rechargeable Li-polymer battery pack.,(3.7V, 420mAH) charging via USB port
<b>Keys</b>		7 keys, including Power, Scan, Function, Up, Down, Enter and Return keys.
<b>Beep indicator</b>		Buzzer can be disable or enable by configuration
<b>Temperature in operation</b>		-10 ~ +40 °C
<b>Environment Humidity</b>		10%-90%RH
<b>Certification</b>		FCC / CE / RoHS approved
<b>Operation system</b>		Windows XP/2000/Vista/Win 7
<b>Dimension</b>		(L x W x H) 89 x 40 x 17.5 mm
<b>Weight</b>		CCD : 75g / Laser : 85g
<b>Power consumption</b>		CCD : 90mA / Laser : 60mA

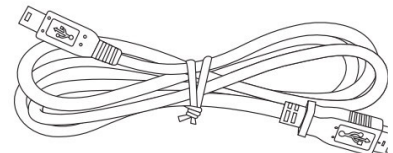
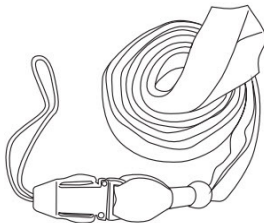
## 2-3 PACKAGE INFORMATION

**The package included: Data terminal, , power adaptor (optional), Lanyard, USB cable, Quick start guide, product CD.**

**Note: The product CD includes: Quick start guide, user manual, Bluetooth setting software, barcode scanner setting software.**



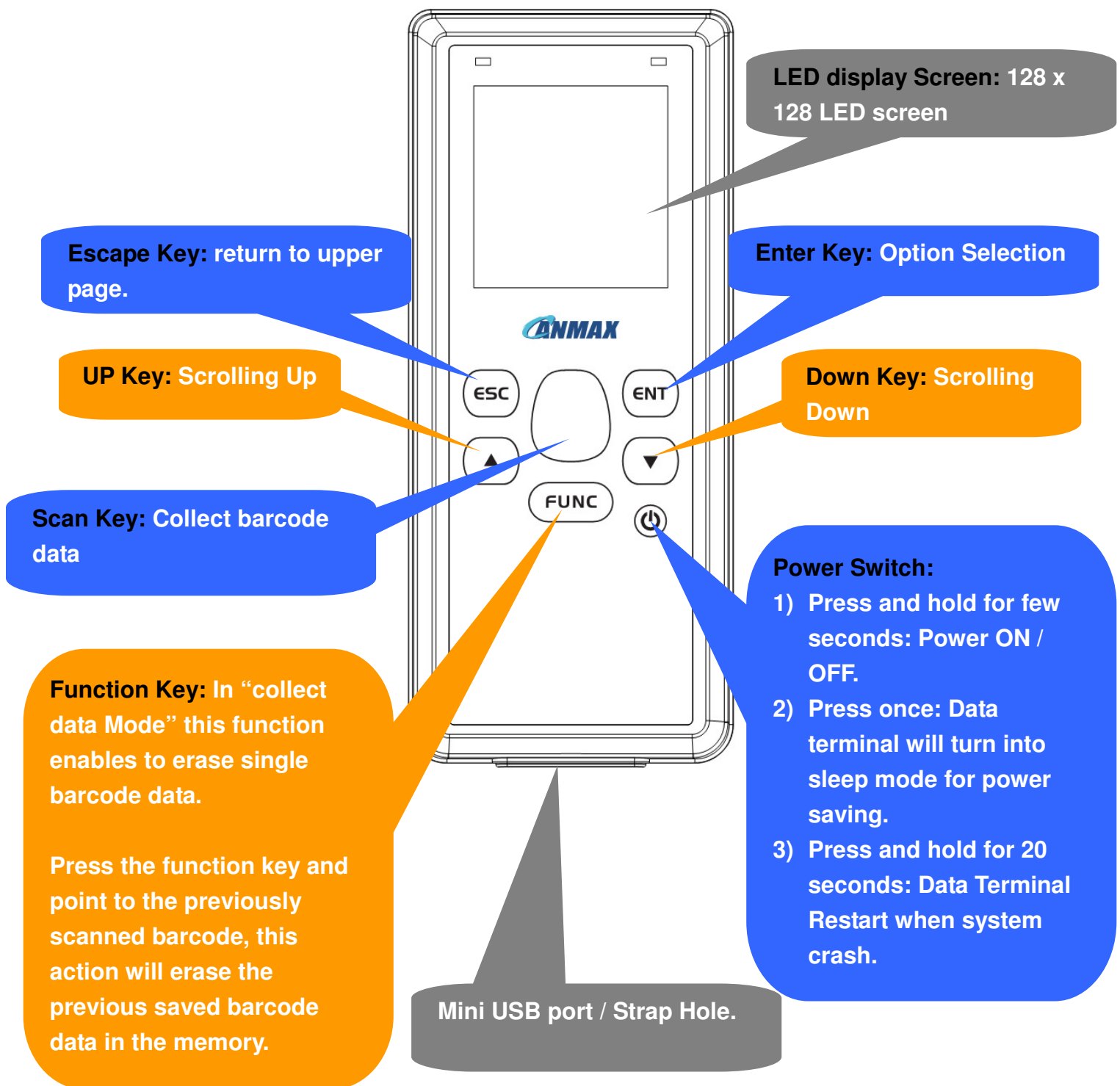
**(Optional)**



## 2-4 DEFAULT SYMBOLOGIES

Symbologies		Default setting
EAN/ UPC	UPC-A	<b>Enabled</b>
	UPC-E	<b>Enabled</b>
	EAN-8	<b>Enabled</b>
	EAN-13	<b>Enabled</b>
	EAN-13(ISBN)	Disabled
Code 39		<b>Enabled</b>
Interleaved 2/5		Disabled
Industrial 2/5		Disabled
Matrix 2/5		Disabled
Codabar/ NW7		<b>Enabled</b>
Code 128		<b>Enabled</b>
Code 93		Disabled
Code 11		Disabled
MSI/ Plessey		Disabled
UK/ Plessey		Disabled
Telepen		Disabled
GS1 Databar (RSS)	RSS14	Disabled
	RSS14 Limited	Disabled
	RSS 14 Stacked	Disabled
	RSS Expansion	Disabled
	RSS Expansion Stacked	Disabled

## 2-5 FUNCTION KEYS

**Important Notice:**

Please be aware, flat battery will cause for data lost. Please back up your data before total power lost.

### Chapter 3: Data Collector Operation

# Data Collector Operation

## 3-1 Data Collector Operation Mode

### 3-1-1 Collect Data

### 3-1-2 Mass Storage

3-1-2-1 How to access and back up the barcode data.

### 3-1-3 Cabled Reader

### 3-1-4 Setting

#### 3-1-4-1 Display mode

#### 3-1-4-2 Color Theme

#### 3-1-4-3 Beep Volume

#### 3-1-4-4 Key Tone

#### 3-1-4-5 Vibration

#### 3-1-4-6 Back Light

#### 3-1-4-7 Brightness

#### 3-1-4-8 Date/ Time

#### 3-1-4-9 Language

#### 3-1-4-10 Return to Default

### 3-1-5 Information

#### 3-1-5-1 Memory

#### 3-1-5-2 Battery

#### 3-1-5-3 Version

#### 3-1-5-4 Last connection time

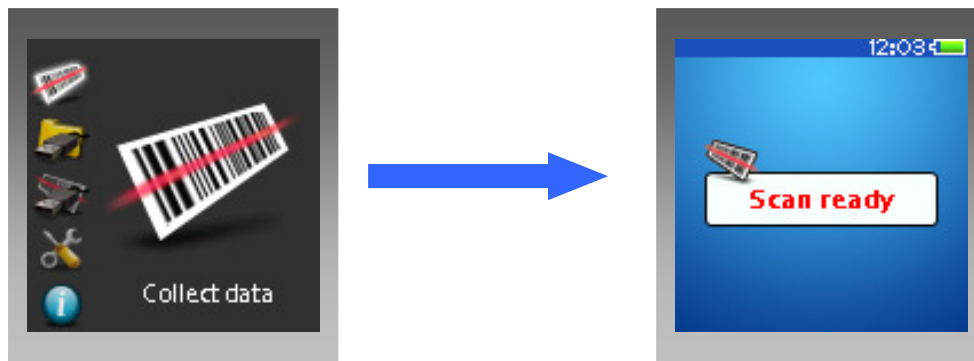
#### 3-1-5-5 Delete All Data

## 3-2 How to update Kernel file

# 3. Data Collector Operation

## 3-1 Data Collection Mode

### 3-1-1 Collect Data



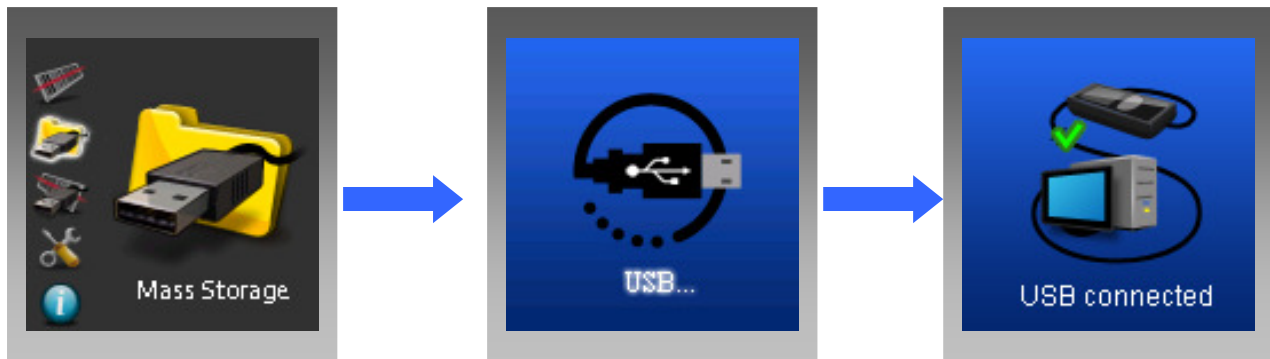
Select “Collect Data” option, the data collector will be able to collect the barcode data by pressing “Scan” key and save the data in the memory.



When collecting barcode data, user can also use function key to erase the mistaken scanned barcode data from the memory.

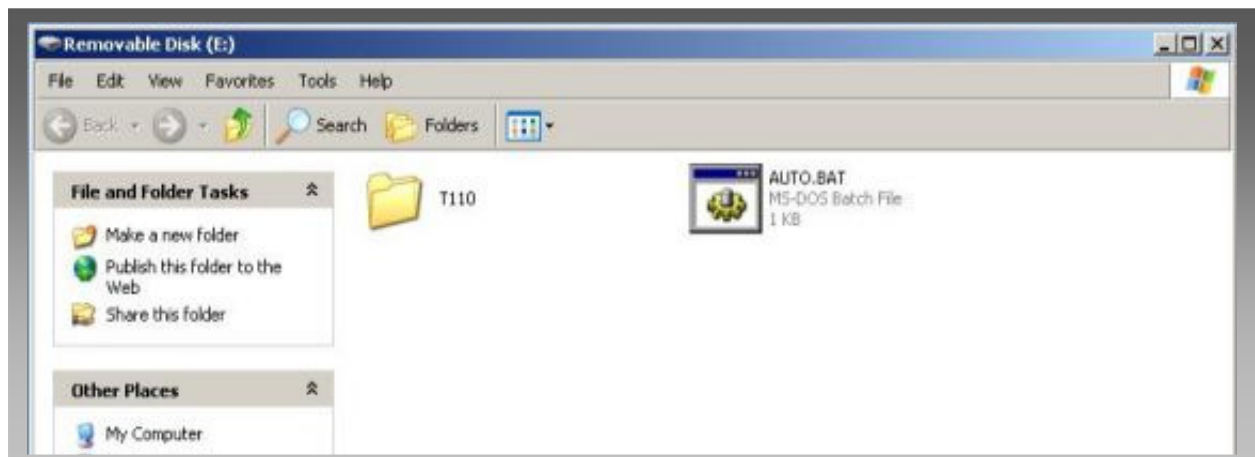
Press Function key and aim to the barcode label that had previously scanned, it will erase that single previous scanned data.

#### 3-1-2 Mass Storage



#### Select

1. **Mass Storage**
2. **Connect the USB cable between data terminal and PC.**
3. **When USB connection succeeded, the PC will display the external removable disk.**



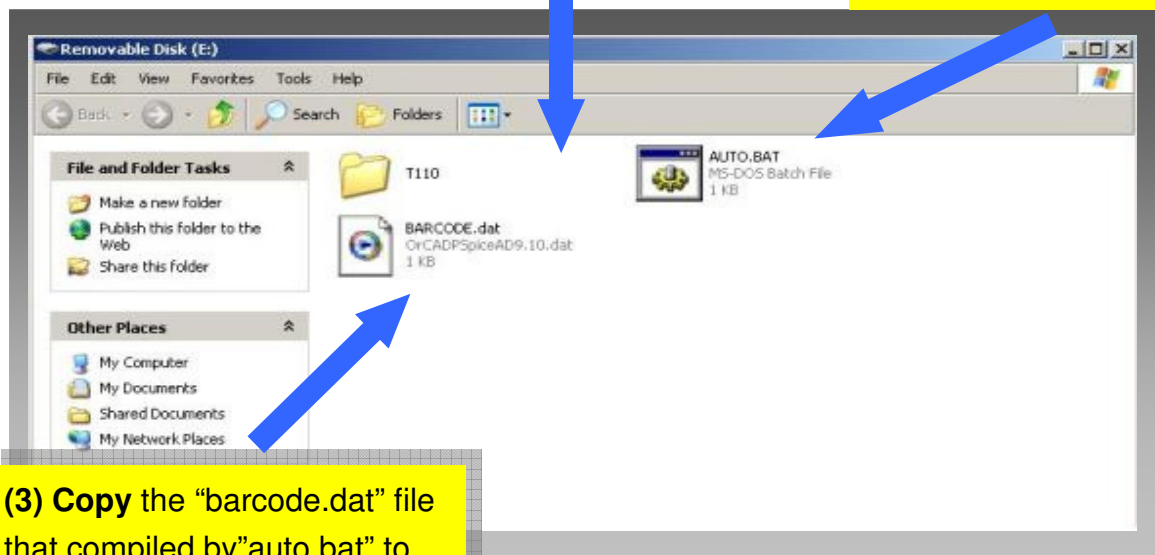
**After collecting the barcode data and access to mass storage option, the PC will display the external “removable disk”, which contains your saved barcode data.**

#### 3-1-2-1 How to access and back up the barcode data

##### (1) Access to

1. Mass Storage
2. Connect the USB cable between data terminal and PC.
3. when USB connection succeeded, the following dialogue box will be shown

(2) Click the "Auto.Bat" file, the system will automatically compile your temporary saved barcode data into a complete "barcode.dat" file.



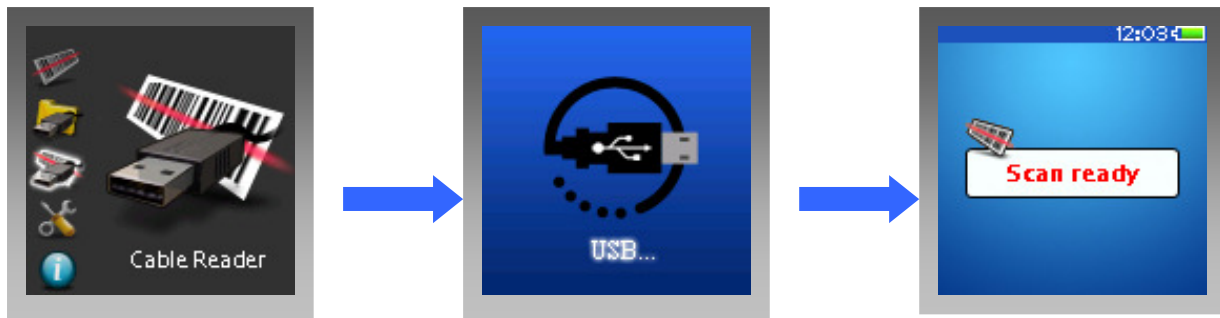
(3) Copy the "barcode.dat" file that compiled by "auto.bat" to PC, and open the file with any word processing software, for example, word, notepad, or Excel to view the saved

##### Procedure:

- 1) Access to Mass storage Option from data terminal and follow the instruction on the data terminal screen.
- 2) On the PC, click "auto.bat" to compile the temporary saved barcode data into a complete "barcode.dat" file.
- 3) Copy the "barcode.dat" file to your storage devices, and open the file with any word processing software, for example, word, notepad, excel to view the saved data.



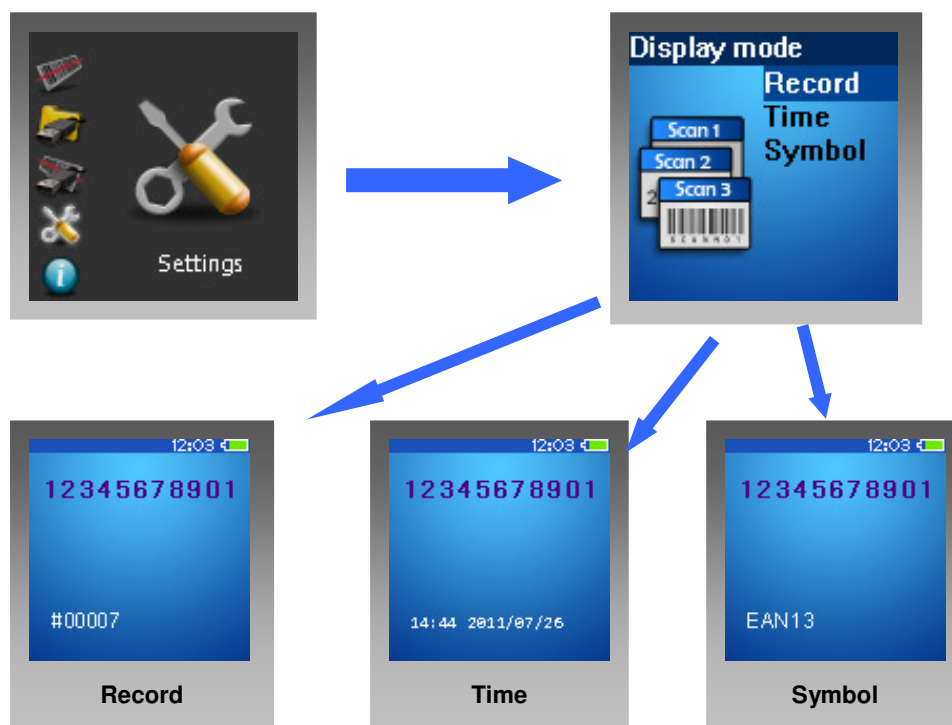
## 3-1-3 Cabled Reader



Select Cabled reader option, and plug in the USB cable, the data terminal can switch into a USB type barcode reader. Simply open any word processing software for example, Notepad, or Word to received the barcode data.

## 3-1-4 Setting

## 3-1-4-1 Display Mode



When collecting barcode data, there are three different types of displaying mode on the screen.

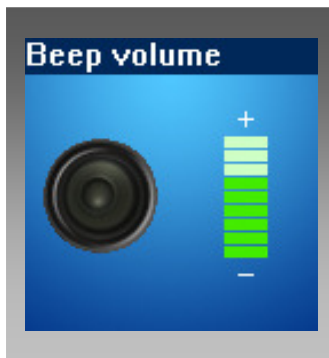
1. Total sum of current barcode data.
2. Date/ Time display.
3. Barcode symbology type display.

#### 3-1-4-2 Color Theme



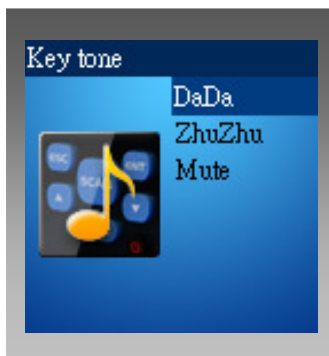
There are four different color themes that can be choosing.

#### 3-1-4-3 Beep Volume



Beep Volume is adjustable according to different environment. Use up or down scrolling key to adjust the volume.

#### 3-1-4-4 Key Tone



Three different key tones can be selected.

Key Tone:

DaDa

Zhu Zhu

Mute

#### 3-1-4-5 Vibration



This option enables to configure the vibration function,  
Please note that this function is only available when optional purchased vibrator installed.

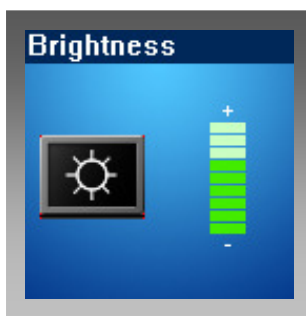
#### 3-1-4-6 Back Light



This option enables to configure the LED backlight timing.

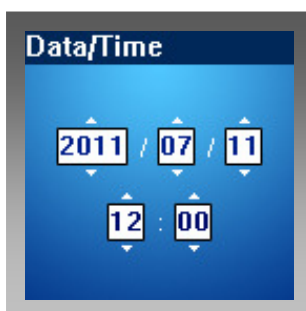
**Adjustable Timing:**  
10 sec, 30 sec, 1 min, 2 min, 3 min

#### 3-1-4-7 Brightness



This option enables to configure the brightness of the LED screen. Use up or down scrolling key to adjust the brightness level.

#### 3-1-4-8 Date / Time



This option enables to configure the date and time for the data collector.

#### 3-1-4-9 Language



There are four different kinds of language option for data collector display language.

Language:

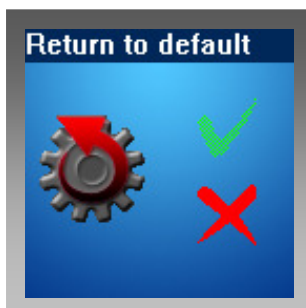
English

Chinese

Simplified Chinese

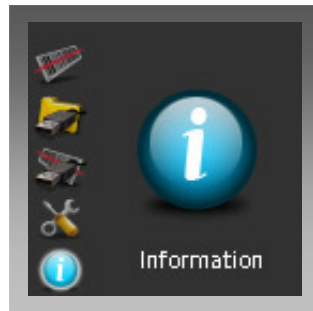
Japanese

#### 3-1-4-10 Return to default

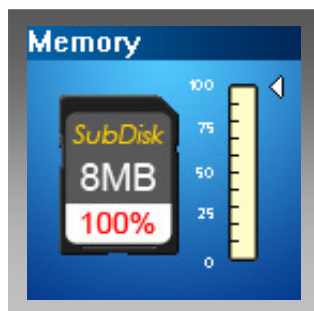


This option enables the data collector configuration settings reset to default setting.

### 3-1-5 Information

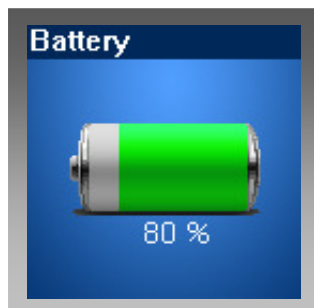


#### 3-1-5-1 Memory



This displays the current memory used by the user.

#### 3-1-5-2 Battery



This displays the current battery level.

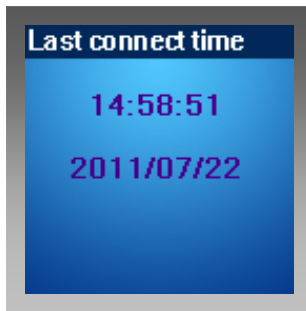
Please be aware, flat battery will cause for data lost in the memory. Please back up the barcode data before power total lost.

#### 3-1-5-3 Version



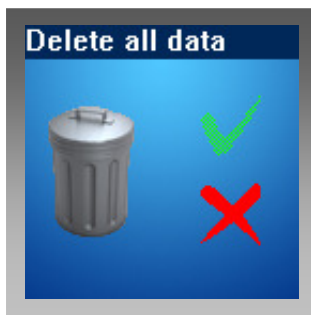
This displays the current firmware for the data collector.

### 3-1-5-4 Last Connect Time



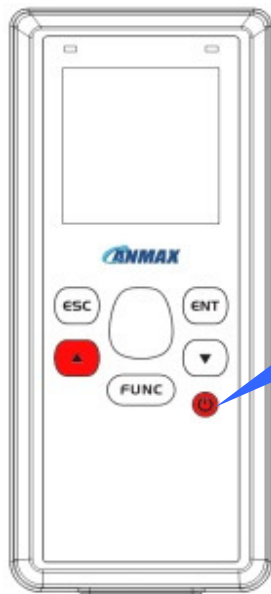
This displays the record of last USB cable connection time.

### 3-1-5-5 Delete All Data



This function enables to delete all barcode data saved in the memory.

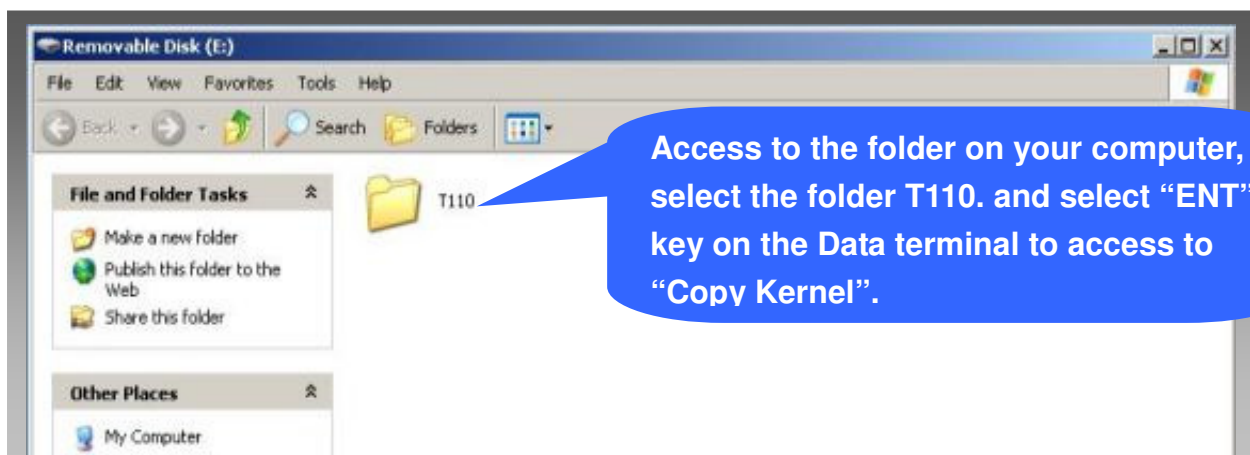
#### 3-2 How to Update Kernel File



Hold the "power" and "up" button together for few seconds until beep sound occur and the screen switch to ISP mode.

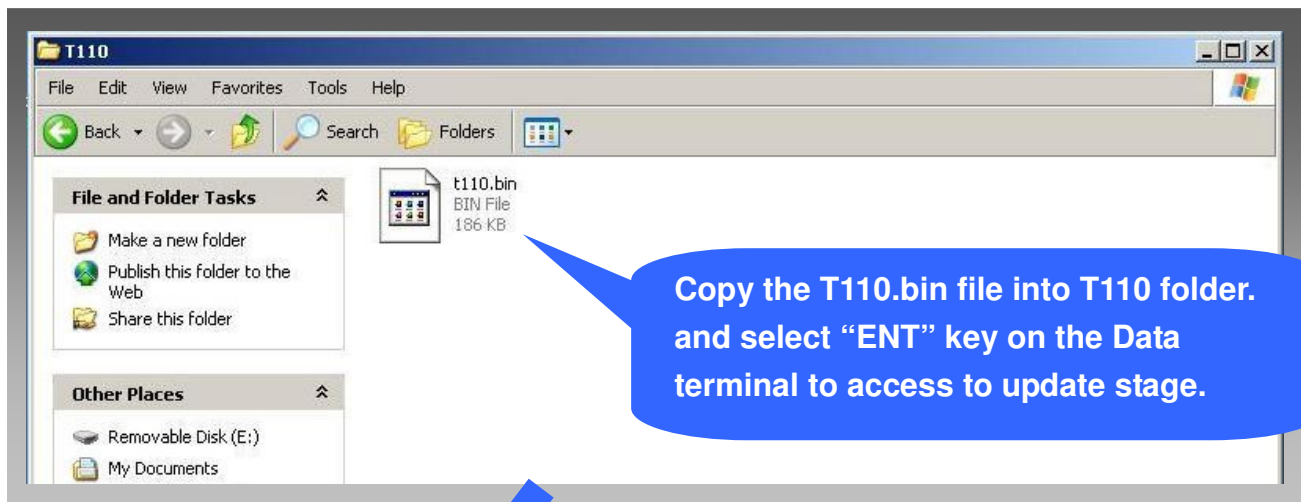
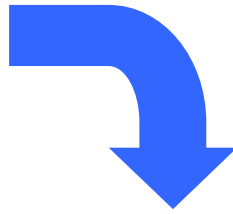


There are six steps to go through for the Kernel update process. Follow the instruction on the screen and press "ENT" Key to access to next step.



Access to the folder on your computer, select the folder T110. and select "ENT" key on the Data terminal to access to "Copy Kernel".

### 3. Data Collector Operation



**Note:** Aborting kernel file update during the process, press "**Power**" key to return to main page.