KOAMTAC

KDC User Manual

Rev 2.85T.A3 (KDC20/30/410/411/415/420/421/425/430)

3.x7.A3 (KDC100/200/250/300/350/350WA/450)

A01.05.08 (KDC500)

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COPYRIGHT, LICENSE, and WARNING PAGE

TO PREVENT FIRE OR SHOCK HAZARD, DO NOT EXPOSE THIS UNIT TO ANY TYPE OF MOISTURE. DO NOT LOOK DIRECTLY INTO LASER OR POINT THE LASER INTO ANOTHER PERSON'S EYES. EXPOSURE TO THE BEAM MAY CAUSE EYE DAMAGE.

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

Patents:
Certain KDC Products may be covered by the following issued US patents numbers 7769917, 7954710, 8126399, 8295368, 8346979, 8347366, 8371506, 8483614, 8832323; Korea patents numbers 10-1383407, 10-1354252 and may be patent pending elsewhere, UK publications GB2492615, GB2514746; Korea publication 1020120128598.

Regulatory Compliance

US

FCC ID: VH9KDC20, VH9KDC30, VH9KDC100, VH9KDC200, VH9KDC250, VH9KDC270, VH9KDC300, VH9KDC350, VH9KDC350WA, VH9KDC400, VH9KDC450, VH9KDC470, VH9KDC500A

This equipment has been tested and found to comply with the limits of 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 may radiate radio frequency energy. It may cause harmful interference to radio communications if not installed and used in accordance with the instructions. 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 may be determined by turning the equipment off and on, the user is encouraged to try to correct the interference with one or more of the following measures:

1. Reorient / Relocate the receiving antenna.
2. Increase the separation between the equipment and receiver.
3. Connect the equipment into an outlet on a different circuit than the receiver.
4. Consult with the dealer or an experienced radio/TV technician for help.

WARNING:

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.

Europe

CE 2200

Japan

003WWA080049, 003WWA090274, 208-120048, 208WW110041,
208-130029, 208-140011, 208-140049
Article 2-1-19, 2.4GHz Wide Band low power data communication system

Japan

2014026493, 2014027753

Korea

MSIP-CMM-A13-KDC20, MSIP-CMM-A13-KDC30, AI3-KDC100, AI3-KDC200,
MSIP-CMM-A13-KDC250, MSIP-CMM-A13-KDC350, MSIP-CMM-A13-KDC350, MSIP-CMM-A13-KDC400, MSIP-CMM-A13-KDC450

Laser Compliance

KDC20/100/200/250/270L/350L/410/411/415/470L

Complies with US 21 CFR 1040.10 and 1040.11 except for deviations pursuant to laser notice no. 50, dated June 24, 2007 and IEC 60825-1 (Ed. 2.0)
Complies with IEC60825-1:1993 + A1:1997 + A2:2001

Battery Warning

- This device contains a rechargeable NiMH. Never throw the battery into a fire, as that could cause the battery to explode.
- Never short-circuit the battery by bringing the terminals in contact with another metal object. This could cause personal injury, a fire, and/or damage to the battery.
- Never dispose of used batteries with other ordinary solid wastes. Batteries contain toxic substances.
- Dispose of used batteries in accordance with the prevailing community regulations that apply to the disposal of batteries. Cover the metal terminals with insulating tape (this is to prevent accidental short-circuiting).
- Never expose the battery to any liquid.
- Always keep the battery out of reach of infants or small children.
- Never shock the battery by dropping it or throwing it.
- Dispose of a spent or damaged battery promptly.

WARNING: RISK OF EXPLOSION IF BATTERY IS REPLACED BY AN INCORRECT TYPE. DISPOSE OF USED BATTERIES ACCORDING TO THE INSTRUCTIONS.

Product Disposal

This device should not be placed in municipal waste. Please check local regulations for disposal of electronic products.

Bluetooth®

Core Specification: 2.1+EDR

Apple®

Made for iPhone, Made for iPod, Made for iPad

Samsung®

Compatible with Galaxy Series

Warranty Policy

KOAMTAC ONE YEAR LIMITED WARRANTY

KOAMTAC products are warranted to be free from defects in materials or workmanship for one (1) year from the date of purchase from an authorized dealer of KOAMTAC products. Within this period, we will, at our sole discretion, repair or replace any components that fail in normal use. Such repairs or replacement will be made at no charge to you for parts and/or labor, provided that you shall be responsible for any transportation charges. Replacement products may be new or refurbished at our discretion.

This warranty does not apply to: (i) cosmetic damage, such as scratches, nicks, stains and dents; (ii) consumable parts, such as batteries, unless product damage has occurred due to a defect in materials or workmanship; (iii) damage caused by accident, abuse, misuse, water (in excess of specifications), flood, fire, or other acts of nature or external causes; (iv) damage caused by service performed by anyone who is not an authorized service provider of KOAMTAC; or (v) damage to a product that has been modified or altered without the prior written permission of KOAMTAC.

Repairs have a ninety (90) day warranty. If the unit sent in is still under its original warranty, then the new warranty will be the longer of ninety (90) days or the balance of the original one year warranty.

THE WARRANTIES AND REMEDIES CONTAINED HEREIN ARE EXCLUSIVE AND IN LIEU OF ALL OTHER WARRANTIES EXPRESS, IMPLIED, OR STATUTORY, INCLUDING ANY LIABILITY ARISING UNDER ANY WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE, STATUTORY OR OTHERWISE. Subject to applicable law, in no event shall our liability exceed the purchase price of the Hardware.

RETURN

For warranty returns, you must pack your KOAMTAC product in its original packaging and include all accessories and documentation. We reserve the right to charge for any damage to the KOAMTAC product, and missing part fees may apply.

Please contact Customer Service prior to returning any product to receive a return authorization form and RMA number. You will be responsible for, and pre-pay, all return shipping charges and shall assume all risk of loss or damage to product while in transit to us. We recommend that you use

a traceable method of shipping for your protection. We will pay for shipping to return any product to you.

Email us at rma@koamtac.com to obtain an RMA number. Once you have obtained the RMA number, please send us your purchased KOAMTAC product with the RMA number clearly marked on the outside of the package and on the shipping slip if you choose to use traceable carriers such as UPS or FEDEX. Shipping fees for returns are your responsibility. Return shipping instructions and return address will be included in your RMA document provided by KOAMTAC.

1. Introduction

Congratulations on purchasing a revolutionary KOAMTAC KDC.

KOAMTAC's KDC works with a wide variety of portable applications. Use it independently or as a PC, PDA, or smartphone/tablet accessory. (*KDC350WA: KDC350WA follows KDC350 unless mentioned explicitly)

FEATURES	KDC20	KDC30	KDC100	KDC200	KDC250	KDC270	KDC300	KDC350	*KDC350WA	KDC400	KDC450	KDC470	KDC500
USB CONNECTIONS	1	1	2	1	1	1	1	1	1	2	2	1	1
RECHARGEABLE BATTERY	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
SCAN ENGINE	Laser/ CCD	Imager	Laser	Laser	Laser	Laser/ CCD/ Imager	Imager	Laser/ CCD/ Imager	CCD/ Imager	Laser/ Imager	Imager	Laser/ CCD/ Imager	CCD/ Imager
AUTOMATIC DATA UPLOAD	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
MAXIMUM STORED BARCODE (EAN13)	7,680	7,680	409,600	409,600	409,600	409,600	409,600	409,600	409,600	4,096	409,600	409,600	153,600
KTSync® SOFTWARE	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
SDK	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
SUPPORTS WINDOWS XP, 7, 8 & 10	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
ANDROID, BLACKBERRY, IOS, WINDOWS PHONE 8.1 & 10	YES	YES	NO	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
BLUETOOTH	YES	YES	NO	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
GPS	NO	NO	NO	NO	YES	NO	NO	YES	NO	NO	NO	NO	NO
NFC	NO	NO	NO	NO	NO	NO	NO	YES	NO	YES	NO	NO	YES
RFID(HF)	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	YES	YES	NO
UHF	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	YES	YES	NO
MSR	NO	NO	NO	NO	NO	NO	NO	NO	NO	YES	NO	NO	YES
ICCR (IC CARD READER)	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	YES
USB DISK	NO	NO	YES	YES	YES	YES	YES	YES	YES	NO	NO	NO	NO
USB HID	YES	YES	YES	YES	YES	YES	YES	YES	YES	NO	NO	NO	NO
WIFI	NO	NO	NO	NO	NO	NO	NO	YES	NO	NO	NO	NO	NO
CDMA	NO	NO	NO	NO	NO	NO	NO	NO	YES	NO	NO	NO	NO

Table 1 - Features of KDC

1.1 KDC Package Contents

The standard KDC package contains:

1. One KDC
2. USB Cable
   - KDC20/30 (N/A)
   - KDC100/200/250/300/350 (8pin Ultra-mini USB Cable)
   - KDC270/400/450/470/500 (5pin Micro USB Cable)
3. One Lanyard (KDC20/30/100/200/250/300/270/350) or One Hand Strap (KDC400/450/470/500)
4. One KDC Protective Rubber Boot (KDC100/200/250/300).

The following KDC accessories are available to purchase at koamtac.com or by contacting a local reseller.

- Protective Rubber Boots for KDC20/30/350.
- SmartSled® cases for KDC200/250/300/400/450/470.
- Charging Cradles for KDC20/30/100/200/250/300/270/350/411/421/430/450/470/500
- Finger Trigger Gloves for KDC200/250/300/270/350
- Finger Trigger Glove Adaptor for KDC200/250/300/270/350
- KDC350/470/500 Hardpack Battery Charging Adaptor
- KDC500 SmartSled® Adaptor
- KDC Batteries

Note KDC400/450/470 SmartSled® cases and KDC500 SmartSled Adaptors are sold separately. *Depending on the distributor, package contents may vary*.

KDC20/30
Package Contents

KDC100/200/250/300
Package Contents

KDC270/KDC350
Package Contents

KDC400/450 /470
Package Contents

KDC500
Package Contents

KDC350WA
Package Contents

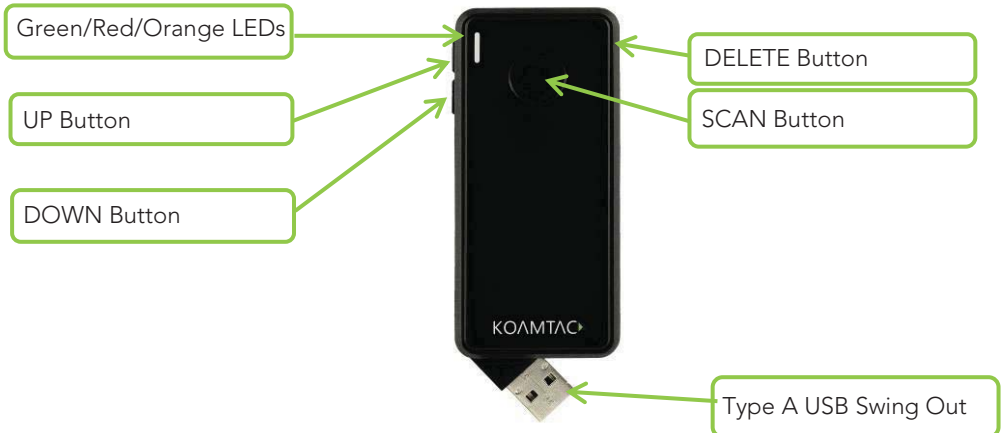
1.2 KDC Characteristics

Before using the KDC, the user should become familiar with its physical characteristics. Refer to Figure 2, 3, 4, and 5 below. These figures indicate the placement of the SCAN, UP, DOWN and DELETE buttons, OLED display, LED, and ports on the KDC.

Although KDC models consist of similar buttons and LEDs, each model has different characteristics for its own purpose of use. The KDC20/30/100 includes a swing-out USB connector and the KDC350/500 has a keypad.

KDC20/30 Barcode Reader and Data Collector

KDC20



KDC30

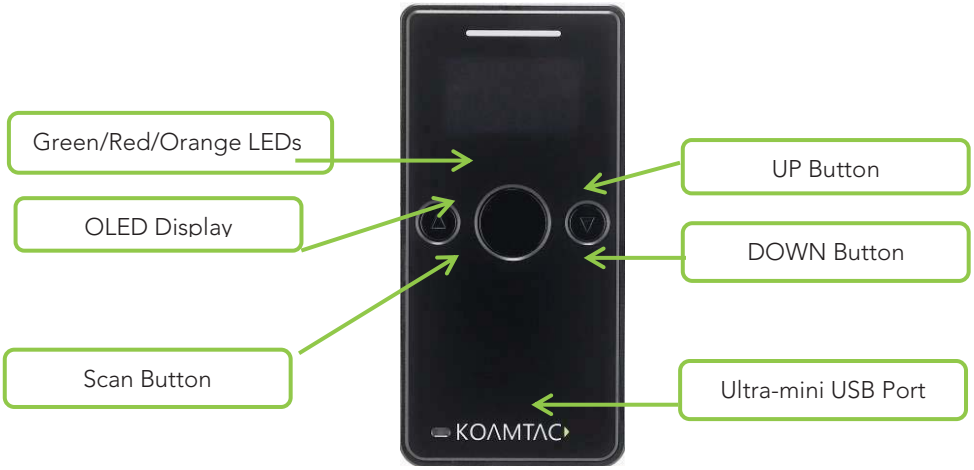
KDC100 Barcode Reader and Data Collector

KDC100

KDC200/250/300/270/350 Barcode Reader and Data Collector

KDC200

KDC250/300

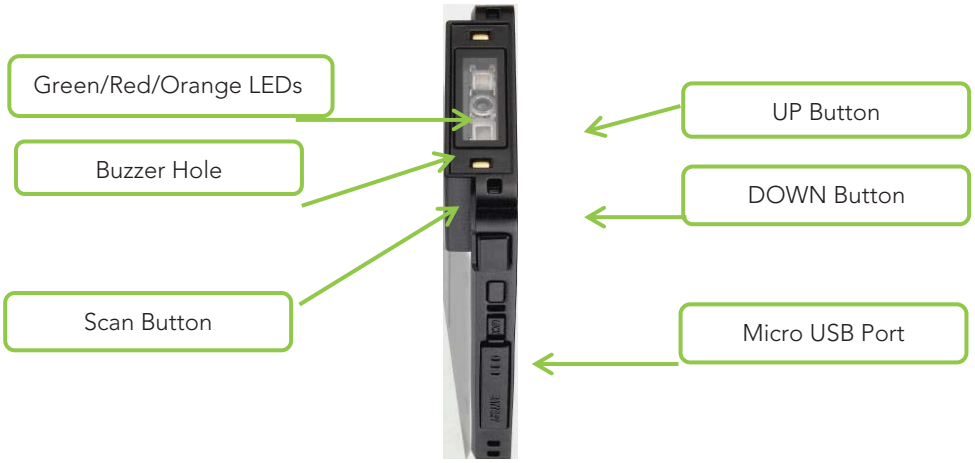


KDC2700

KDC350

KDC400/450/470 Barcode Reader and Data Collector

KDC400/450



KDC470

KDC500 Mobile POS

KDC500

1.3 Keypad Functionality for KDC350

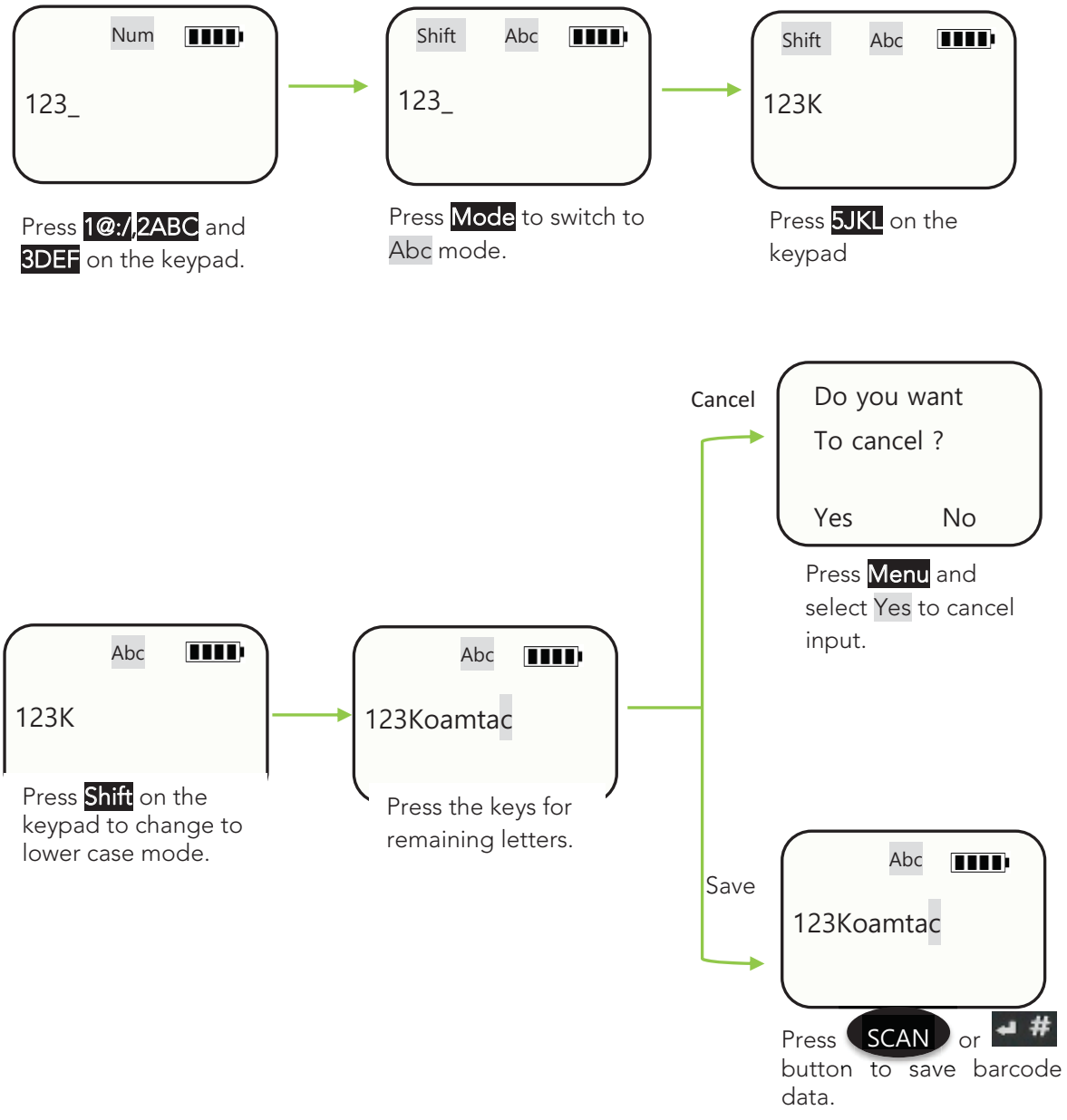
<table>
<tr><td>Menu</td><td>Enables the user to enter or exit the KDC Menu. While in menu mode, press once to exit.</td></tr>
<tr><td>Shift</td><td>Enables the user to change character input mode from capital letters to small letters, and vice versa.</td></tr>
<tr><td>Mode</td><td>Enables the user to switch between ABC and number input mode.</td></tr>
<tr><td>(UP button)</td><td>While in the KDC menu, press this button to go up on the selection bar. While on the main screen, press this button and the KDC will try to connect to a BT host device.</td></tr>
<tr><td>(DOWN button)</td><td>While in the KDC menu, press this button to go down on the selection bar. While on the main screen, press this button to toggle the iOS soft keyboard (if the KDC is connected in HID-iOS mode).</td></tr>
<tr><td>1 2ABC 3DEF
(Number button)</td><td>Input numbers or characters</td></tr>
<tr><td>(Enter button)</td><td>Press to finish data input (if “Enter Key” option is disabled).
Press to finish data input and move cursor to next line (if “Enter Key” option is enabled).</td></tr>
<tr><td>(Delete button)</td><td>Press to delete the last character or number input</td></tr>
<tr><td>Scan +
(Power On/Off button)</td><td>Press both Scan button and Down button for more than 5 seconds at the same time to turn KDC350 power on and off.</td></tr>
<tr><td>Fn
(Function button)</td><td>This button may be used in conjunction with a number key to control the KDC settings shown below.
<table>
<tr><td>FN + 1</td><td>Keypad light On/Off</td></tr>
<tr><td>FN + 2</td><td>GPS Power On/Off (KDC350G series only)</td></tr>
<tr><td>FN + 3</td><td>NFC Power On/Off (KDC350N series only)</td></tr>
<tr><td>FN + 4</td><td>Enter Bluetooth Pairing Mode</td></tr>
<tr><td>FN + 5</td><td>Bluetooth Power On/Off</td></tr>
<tr><td>FN + 6</td><td>Change Bluetooth profile</td></tr>
<tr><td>FN + 0</td><td>Factory Default</td></tr>
</table></td></tr>
</table>

1.4 Keypad Functionality for KDC500

 (Menu/Down button)	While in the KDC500 menu, press this button to scroll down the selection bar. While on the main screen, press this button for 5 seconds then the KDC500 will enter the KDC500 menu mode.
 (FN/Up button)	While in the KDC500 menu, press this button to scroll up the selection bar. While on the main screen, press this button for 5 seconds then the KDC500 will enter the KDC500 BT Service menu. While the KDC500 waits for Alpha-Numeric key entry, this button allows the user to switch between ABC and number input mode.
 (Number button)	Input numbers or characters
 (Enter button)	Press to finish data input.
 (Delete button)	Press to delete the last character or number input.
 (Cancel button)	Press to cancel data input.

1.5 Input data by using a keypad (KDC350)

- When the KDC350 shows a blank main screen, you may start pressing numbers or characters of the barcode data that needs to be input.
- See an example below: How to save the barcode data “123Koamtac”.



1.6 Turn on the power of KDC20/30/350/400/500

KDC20/30/270/350/400/470/500 have power on/off switch. Please turn on the power first before using the device.

KDC20/30

Press SCAN and DOWN buttons simultaneously for 5 seconds. The user will hear a beep sound when it is turned on.

KDC270

Press SCAN and DOWN buttons simultaneously for 5 seconds. The user will hear a beep sound when it is turned on.

KDC470

Press SCAN and DOWN buttons simultaneously for 5 seconds. The user will hear a beep sound when it is turned on.

KDC400

Slide POWER button to the right.

KDC500

Press Left and Right SCAN buttons simultaneously for 5 seconds. The user will see a KOAMTAC logo in the display and hear a beep sound when it is turned on.

Figure 1 - How to turn on the power in KDC20/30/350/400/500

2. Installation

2.1 Bluetooth Pairing

The KDC may read and store barcode data independently, but it may also be used in conjunction with a PC, PDA, or smart device.

In order to read barcode data with your KDC wirelessly, the user must first pair the KDC and smart device via Bluetooth. If previously paired and no changes have been made in the smart device's Bluetooth settings, the smart device will always recognize the KDC that has previously been paired. However, if changes have been made, the user may need to go through the pairing process again. The user may also refer to **Chapter 4. Bluetooth** for more information about Bluetooth pairing.

Preparing for Pairing

Select a Bluetooth profile. There are two ways to set up a Bluetooth profile. The user may establish a Bluetooth profile manually (on the scanner) or by scanning a programming barcode as shown below.

KDC 20/100/200/250/270L/350L/410/411/415/470L/500L (1D)

Bluetooth Profile SPP

6A000

Bluetooth Profile HID iOS

6A001

Bluetooth Profile MFi

6A002

Bluetooth Profile SPP2.0

6A003

Bluetooth Profile HID normal

6A004

Note **For PCI PTS compliance, KDC500L supports only Bluetooth Profile SPP and MFi.**

KDC30/300/270C/350C/420/421/425/450/470C/500C (2D)

Bluetooth Profile SPP

┬MKDC6A000.

Bluetooth Profile HID iOS

┬MKDC6A001.

Bluetooth Profile MFi

┬MKDC6A002.

Bluetooth Profile SPP2.0

┬MKDC6A003.

Bluetooth Profile HID normal

┬MKDC6A004.

Note **For PCI PTS compliance, KDC500C supports only Bluetooth Profile SPP and MFi.**

Some KDCs are equipped with an LCD screen (KDC100/200/250/300/270/350/500), the user may select a Bluetooth profile from the **ConnectDevice** menu as shown below.

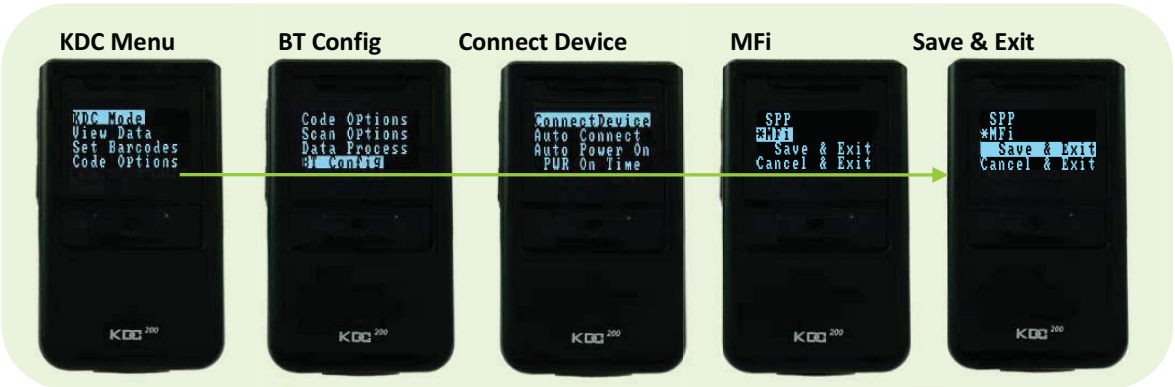


Figure 2 - Selecting a Bluetooth device type from the KDC menu

Pairing

First Option: Connect the KDC from a host (PC or Smart Device)

This method is recommended for first-time users or when the user is only connecting a few KDCs.

1. Put the KDC into **Pairing** mode

- Select the correct pairing barcode and scan below for your KDC model, or

KDC 20/100/200/250/270L/350L/410/411/415/470L/500L (1D)

KDC30/300/270C/350C/420/421/425/470C/500C (2D)

Pairing

- Select **Pairing** from the KDC menu.

Figure 3 - Selecting Pairing mode in KDC

- Press the Scan button for three seconds in order to enter into Pairing mode.

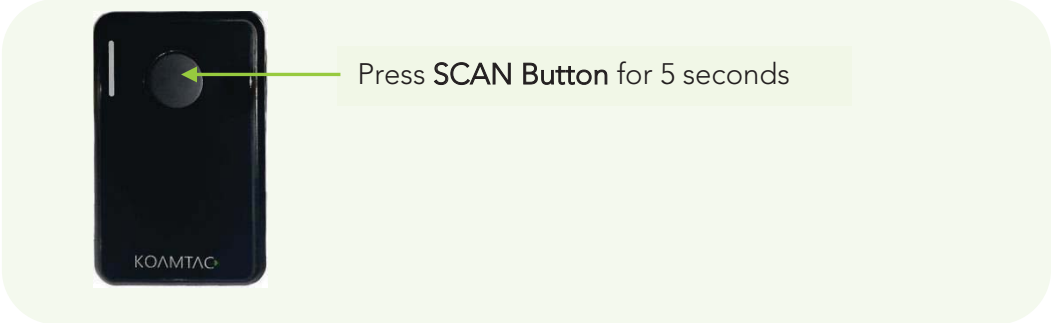


Figure 4 - Pairing mode button

- For the KDC500, press the FN button for five seconds in order to directly enter the BT Service menu while it is not in the sleep mode.

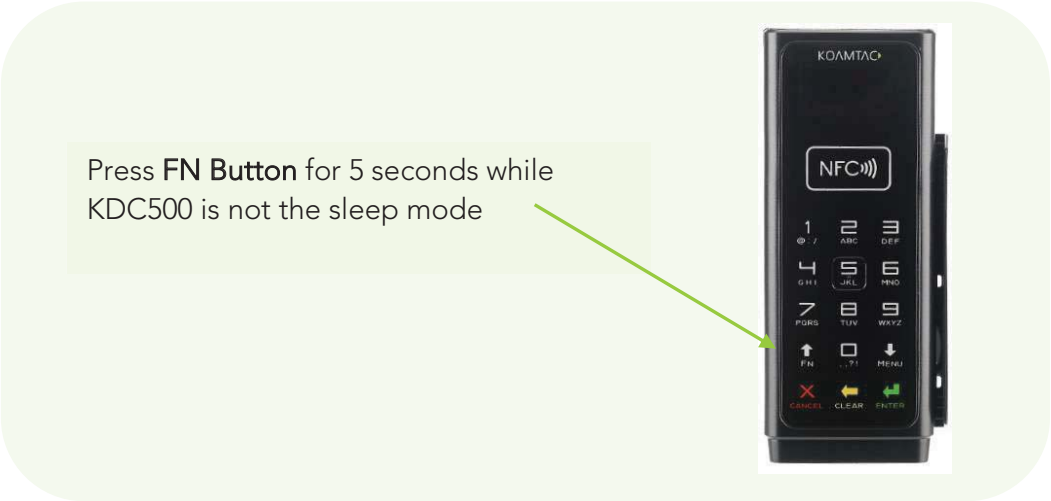


Figure 5 - Pairing menu shortcut button in KDC500

2. On the host device, go to **Settings -> Bluetooth**, and select the KDC that needs to be paired. The KDC and host device will now communicate with each other.

Note **For PCI PTS compliance, KDC500 requires Numeric Comparison method.**

3. After it has been installed, open KTSync and it will automatically find and connect to the KDC. (Refer to **2.2 KOAMTAC Installation Wizard** for more information about installing KTSync).

Second Option: Connect the host device from the KDC by scanning a Special Bluetooth MAC Address barcode

This method is recommended for advanced users or when the application or process requires the pairing of multiple KDCs to multiple host devices on a regular basis.

1. Find the **Bluetooth MAC Address** of the host device.

Figure 6 - Finding Bluetooth MAC Address

2. Create the **Bluetooth MAC Address Barcode** according to the format below as an example based on "http://www.terryburton.co.uk/barcodewriter/generator/".

For 1D scanners like KDC20/200/250/270L/350L/410/411/415/470L/500L,
Bluetooth MAC Address: **1234567890AB**
Barcode Type (Symbology): **Code 128**
Contents: **^FNC3651234567890AB**
Options: **parsefnc**

For 2D scanners like KDC30/300/270C/350C/420/421/425/450/470C/500C,
Bluetooth MAC Address: **1234567890AB**
Barcode Type (Symbology): **QR Code**
Contents: **^022M^013KDC651234567890AB.**
Options: **eclevel=M parse**

3. Print the **Bluetooth MAC Address**

Note:

2D barcode scanners such as the KDC30/300/350C/420/421/425/450/470C/500C models may read barcodes that have been printed QR barcodes that are on a LCD screen.

1D CCD barcode scanners may read barcodes that have been printed barcodes that are on a LCD screen.

1D laser barcode scanners such as the KDC20/100/200/250/270L/350L/410/411/415/470L/500L models are not designed to read barcodes from a LCD screen and will only read printed barcodes.

4. Connect the KDC to the host device by scanning the Bluetooth MAC Address Barcode.

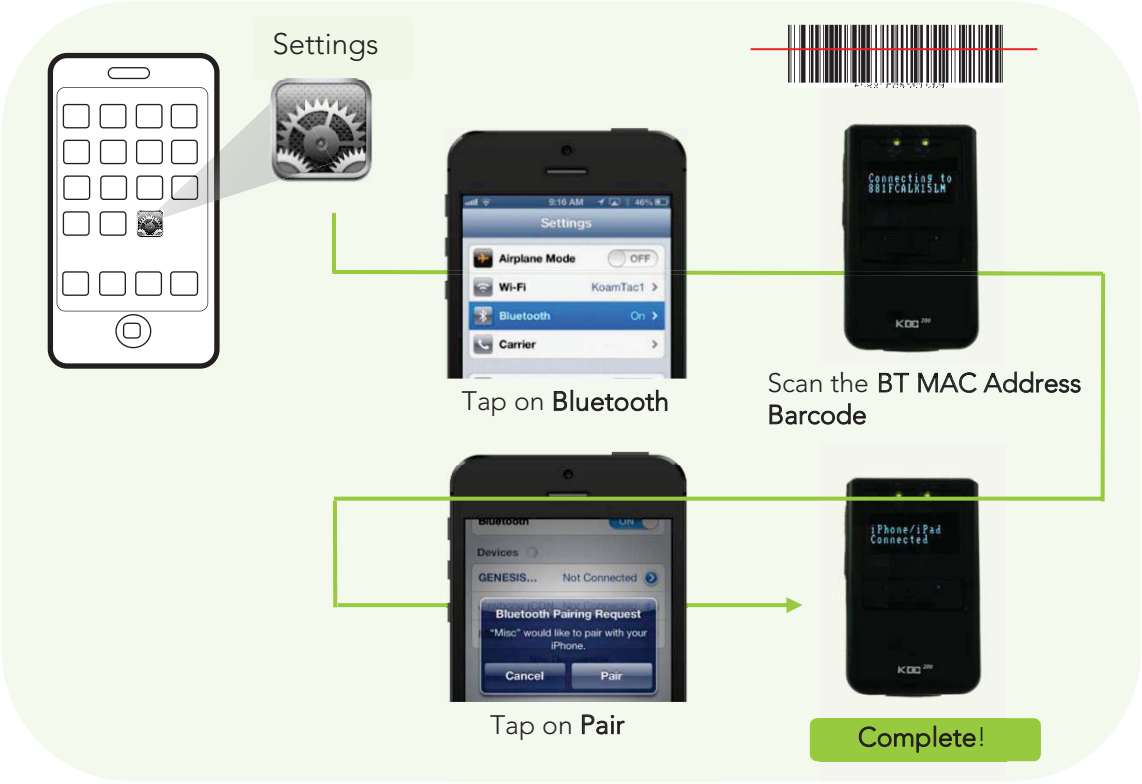


Figure 7 - Connecting KDC with a smart phone by scanning Bluetooth MAC Address Barcode

5. Open KTSync after it has been installed, and it will automatically find the KDC and connect. (Refer to **2.2 KOAMTAC Installation Wizard** for more information about installing KTSync)

2.2 KOAMTAC Installation Wizard

Windows 7, 8 & 10

WARNING: DO NOT CONNECT KDC TO USB PORT PRIOR TO DRIVER INSTALLATION

1. Insert KOAMTAC Installation CD into the computer's CD drive.
2. Click **Start** icon then **My Computer** icon. A list of devices on the computer will be displayed, including the disk drive containing the KOAMTAC Installation CD.
3. Click on the KOAMTAC Installation CD icon, then the Setup directory. Click on the PC_Setup.exe file, which will execute the KTSync Setup Wizard.

Note

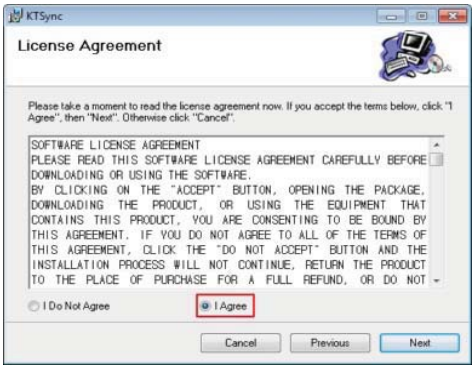
- If the KTSync Setup Wizard locates an older version of KTSync on the computer, the user will be prompted to remove the older program before installing the new version. Select Remove KTSync then click Finish. When removal is complete, click Close. Go to Step 2 to run KTSync Setup Wizard.

KTSync Setup Wizard

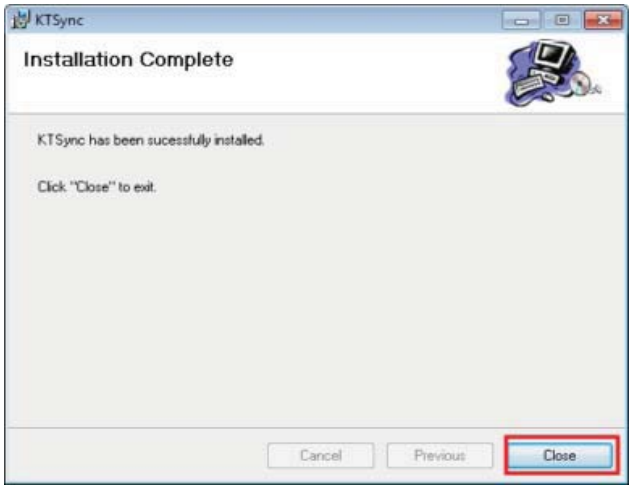
To install KTSync, follow the steps shown in the images below.

1. In the KTSync Setup Wizard window, click **Next**.

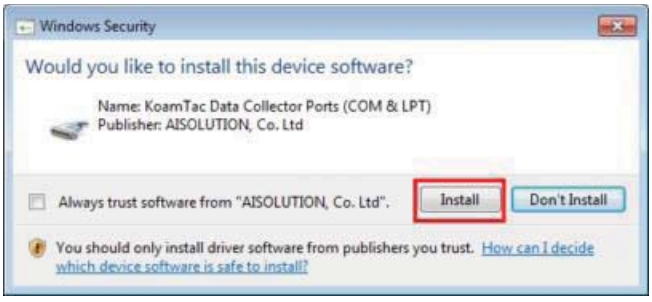
2. In the License Agreement window, select "I Agree" and click **Next**.



3. In the KTSync Installation Complete window, click **Close** and wait for the Device Driver Installation Wizard.



4. In the Windows Security window, click **Install** to complete installation.



Connect KDC to Computer

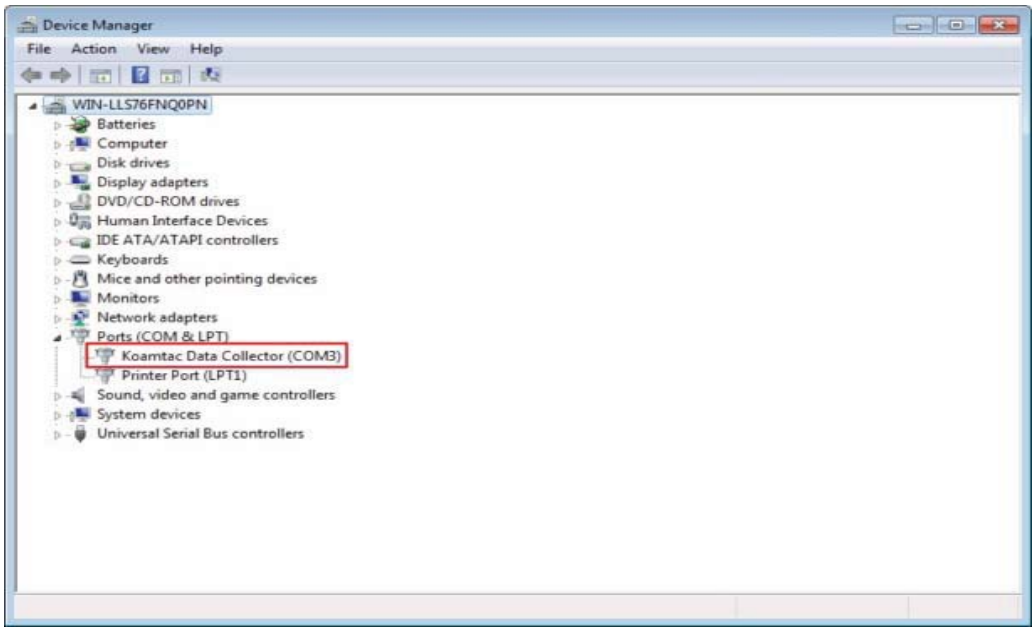
Using the USB cable included with the KDC or built-in swing out USB connector, follow the directions below.

1. Connect KDC to PC.

2. Wait until the computer beeps and/or displays the message *Found New Hardware.*

Verify COM Port Address

- The installed COM Port may be verified in Device Manager.



Android

- Download and install KTSync from the Android Play Store.

https://play.google.com/store/apps/details?id=com.koamtac.ktsync&hl

- BlackberryDownload and install KTSync from the Blackberry App World.

http://appworld.blackberry.com/webstore/content/16861?lang=en

iPad/iPhone/iPod Touch

- Download and install KTSync from the Apple App Store.

http://itunes.apple.com/us/app/ktsync/id372916602?mt=8

3. Operating your KDC

3.1 Getting Started

Attaching a Lanyard or Hand Strap to a KDC

To prevent possible damage to the KDC, we STRONGLY recommend wearing it around the neck or hand, using the included lanyard or hand strap. In addition, the user should not swing the KDC by its lanyard or hand strap. Impact with another object may cause the KDC to malfunction or damage.

To attach a lanyard/hand strap:

	KDC20/30	KDC100/200/300/270/350/400	KDC500
1 **Fit the thin end of the lanyard through the pillar of the KDC.**			
2 **Guide the thick end of strap through the thin loop.**			
3 **Pull the strap tight to secure.**			

Charge KDC Battery

Prior to using the KDC, the user should charge the battery. Follow the instructions below.

1. Connect the KDC cable to the mini USB connector on the KDC.
2. Connect the KDC cable to the Type A USB connector on the computer.
3. The KDC battery will begin charging. Within a few minutes, the two small LEDs (three LEDs in case of KDC500) on the front panel will illuminate orange. When the battery is fully charged, the LEDs will illuminate green.

KDC100	KDC20/200	KDC30/250/300/270	KDC350	KDC400	KDC500
2 Hours	2 Hours	4 Hours	5 Hours	5 Hours	5 Hours

Table 2 - Number of hours required to fully charge a KDC Battery

Configure KDC

The KDC is designed to meet the data collection requirements of many different industries in a variety of dynamic situations. To deliver the best performance in these diverse environments, the KDC is designed to be configured quickly and easily.

However, to perform at its optimum level, the KDC must be configured properly. Until the user is familiar with the KDC configuration settings, it is recommended that the user DOES NOT modify the KDC settings. The KDC may be configured by using three different methods, which are explained in Section 3.3 – KDC Menus, Chapter 5 –Synchronization, and Appendix C/D – Special Barcodes.

CONFIGURATION METHODS FOR THE KDC100/200/250/300/270/350/500

- KDC Menu
- KTSync Software
- Special Barcodes

Figure 8 - Location of KDC Menu and use of buttons (KDC100/200/250/300/270)

Press the **Menu** **Button** to access the KDC menu. Move the menu bar up and down by pressing the ⟨^ and ⟩v Buttons, and configure the KDC by pressing the SCAN Button to select a menu.

Figure 9 - Location and use of buttons on a keypad (KDC350)

Press the MENU **Button for 5 seconds** to access the KDC menu. Move the menu bar up and down by pressing the FN and MENU Buttons, and configure the KDC by pressing the SCAN Button to select a menu.

Figure 10 - Location and use of buttons on a keypad (KDC500)

CONFIGURATION METHODS FOR KDC20/30/400

- KTSync Software
- Special Barcodes

3.2 Basics

Reading Barcodes

To read a barcode using the KDC, simply point the KDC at a barcode and press the scan button. Be sure to point the scan engine window at the barcode, not at the user's face, and make sure to position the light beam on the barcode.

If a barcode has been successfully scanned, the user will hear one short beep and the LEDs will illuminate green. The scanned barcode data will be displayed on the KDC screen, along with the scan time and battery level. *Depending on the configuration of the KDC, other information may also be displayed.*

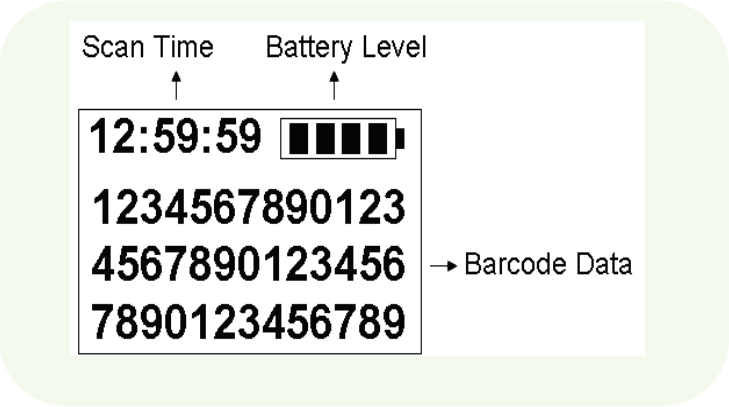


Figure 11 - KDC Display

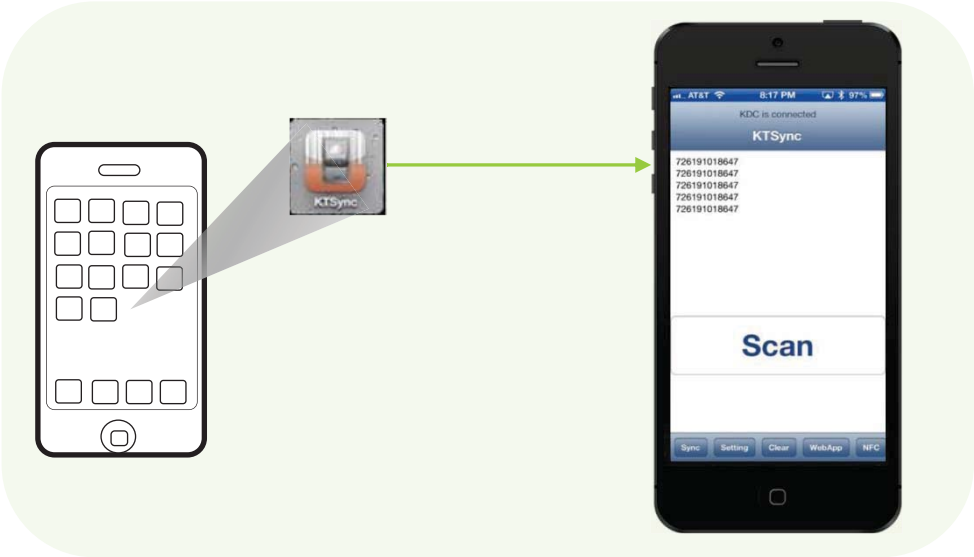


Figure 12 - Scanning barcodes using KTSync

If scanning was unsuccessful, the user will hear two short beeps, the LEDs will illuminate red, and the message ***Failed reading*** will display. If this is the case, the user should point the KDC at the barcode and press the scan button while trying the following suggestions:

- Modify the angle of the KDC in relation to the barcode, making the angle more wide or narrow as needed. (Laser Model)
- Modify the distance between the barcode and the KDC, moving closer or further away as needed.
- Check the option settings defined in the KDC menu section and change options as needed.
- Check to see that the barcode's width does not exceed the light beam's width, and vice versa.

Read Barcodes with GPS Coordinates (KDC250G/350G)

The KDC350G may add GPS coordinates after the barcode data. To do so, the user may follow the below instructions.

Note Because of the characteristics of GPS, this function is only available when outdoors.

1. Go to **GPS Power** in GPS Menu and select **Enable**.
2. Check to see if the KDC is successfully acquiring GPS data by selecting **Acquire Test** in GPS Menu.

   When the user selects the Acquire Test, an *'Acquiring'* message will appear on the screen. If this is the first test, check to make sure the 'Acquired' message appears within 90 seconds of acquiring GPS signal.
3. Go to **SystemConfig** in the KDC Menu and select **GPS data** in **Display Format**.
4. After finishing the configuration, scan a barcode as explained in **3.2.1 Reading Barcodes.**

   When the user has successfully scanned a barcode, the barcode data and GPS coordinate will appear on the KDC screen.

   For more information, refer to 3.3 Menu - **GPS Config (KDC250G/350G)**.

Reading NFC Tags (KDC350N/400N/KDC500)

1. Enable the **NFC Power** option in the **NFC Config** menu.

2. Touch the NFC tag to the back of the KDC350N/400N case (or NFC logo on the front of the KDC500 case), and make sure the tag and case are within 5cm of each other.

Figure 13 - Location for reading NFC Tag

3. The KDC will show the NFC tag UID and the user will hear a short beep if it has been read successfully.

Reading HF RFID Tags (KDC450/470)

The KDC450/470 may virtually read any ISO/IEC 14443 A or B compliant smartcards, or ISO/IEC 15693 compliant HF RFID tags.

To read a HF RFID tag, touch the RFID card to the back of the KDC450/470 case, and make sure the tag and case are within 5cm of each other. The user will hear a short beep if it has been read successfully.

Inputting Data by Using a Keypad (KDC350)

The KDC350 Enables users to input barcode data by using its keypad. The user may switch between **Num** mode and **Abc** mode by using the Mode button.

To switch between uppercase and lowercase letters, the user may press the Shift button while in **Abc** mode. To save the data input, press the Enter or SCAN button. For data input, press the Menu button. Refer to 1.5 Input data by using a keypad (KDC350) for more detailed information about the process.

Read Magnetic-Stripe (MS) Card(KDC500)

1. The paired host application sends a command to enable the MS Card Reader.

2. Swipe MS Card either top to bottom or bottom to top. Make sure the magnetic stripe of the card face to the KDC500.

3. The KDC500 will send the MS card data to the paired host application and the user will hear a short beep if it has been read successfully.

Read Integrated Chip (IC) Card(KDC500)

1. The paired host application sends a command to enable the IC Card Reader.

2. Insert IC Card into the IC Card slot located in the left side of KDC500. Make sure the IC of the card face to up.

3. The KDC500 will send the IC card data read to the paired host application.

Synchronizing data to the host device

Use the KTSync program to synchronize barcode data from the KDC to the host device. Please refer to Chapter 5. Synchronization for details.

3.3 KDC Menu

Top Menu	Sub Menu	Options	KDC20	KDC30	KDC100	KDC200	KDC250	KDC300	KDC270L	KDC350L	KDC350C
KDC Mode	Normal		Default	Default	Default	Default	Default	Default	Default	Default	Default
	Application		N/A	N/A	Custom Application	Custom Application	Custom Application	Custom Application	Custom Application	Custom Application	Custom Application
View Data	View/Delete		N/A	N/A	View/Delete Data	View/Delete Data	View/Delete Data	View/Delete Data	View/Delete Data	View/Delete Data	View/Delete Data
Set Barcodes (20//100/ 200/250/270L / /350L)	EAN13	Enabled/ Disabled	Enabled	N/A	Enabled	Enabled	Enabled	N/A	Enabled	Enabled	N/A
	EAN8	Enabled/ Disabled	Enabled	N/A	Enabled	Enabled	Enabled	N/A	Enabled	Enabled	N/A
	UPCA	Enabled/ Disabled	Enabled	N/A	Enabled	Enabled	Enabled	N/A	Enabled	Enabled	N/A
	UPCE	Enabled/ Disabled	Enabled	N/A	Enabled	Enabled	Enabled	N/A	Enabled	Enabled	N/A
	CODE39	Enabled/ Disabled	Enabled	N/A	Enabled	Enabled	Enabled	N/A	Enabled	Enabled	N/A
	ITF14	Enabled/ Disabled	Enabled	N/A	Enabled	Enabled	Enabled	N/A	Enabled	Enabled	N/A
	CODE128	Enabled/ Disabled	Enabled	N/A	Enabled	Enabled	Enabled	N/A	Enabled	Enabled	N/A
	I2of5	Enabled/ Disabled	Enabled	N/A	Enabled	Enabled	Enabled	N/A	Enabled	Enabled	N/A
	CODABAR	Enabled/ Disabled	Enabled	N/A	Enabled	Enabled	Enabled	N/A	Enabled	Enabled	N/A
	GS1-128	Enabled/ Disabled	Enabled	N/A	Enabled	Enabled	Enabled	N/A	Enabled	Enabled	N/A
	CODE93	Enabled/ Disabled	Enabled	N/A	Enabled	Enabled	Enabled	N/A	Enabled	Enabled	N/A
	CODE35	Enabled/ Disabled	Enabled	N/A	Enabled	Enabled	Enabled	N/A	Enabled	Enabled	N/A
	BooklandEAN	Enabled/ Disabled	Disabled	N/A	Disabled	Disabled	Disabled	N/A	Disabled	Disabled	N/A
	EAN13withAddon	Enabled/ Disabled	Disabled	N/A	Disabled	Disabled	Disabled	N/A	Disabled	Disabled	N/A
	EAN8withAddon	Enabled/ Disabled	Disabled	N/A	Disabled	Disabled	Disabled	N/A	Disabled	Disabled	N/A
	UPCAwithAddon	Enabled/ Disabled	Disabled	N/A	Disabled	Disabled	Disabled	N/A	Disabled	Disabled	N/A
	UPCEwithAddon	Enabled/ Disabled	Disabled	N/A	Disabled	Disabled	Disabled	N/A	Disabled	Disabled	N/A
	GS1 Omni	Enable/ Disable	Disabled	N/A	Disabled	Disabled	Disabled	N/A	Disabled	Disabled	N/A
	GS1 Limited	Enable/ Disable	Disabled	N/A	Disabled	Disabled	Disabled	N/A	Disabled	Disabled	N/A
	GS1 Expanded	Enable/ Disable	Disabled	N/A	Disabled	Disabled	Disabled	N/A	Disabled	Disabled	N/A
Set Barcodes (30/300/270C / 350C)	1D Symbology	Codabar	N/A	Enabled	N/A	N/A	N/A	Enabled	N/A	N/A	Enabled
		Code 11	N/A	Enabled	N/A	N/A	N/A	Enabled	N/A	N/A	Enabled
		Code 32	N/A	Enabled	N/A	N/A	N/A	Enabled	N/A	N/A	Enabled
		Code 39	N/A	Enabled	N/A	N/A	N/A	Enabled	N/A	N/A	Enabled
		Code 93	N/A	Enabled	N/A	N/A	N/A	Enabled	N/A	N/A	Enabled
		Code 128	N/A	Enabled	N/A	N/A	N/A	Enabled	N/A	N/A	Enabled
		EAN-8	N/A	Enabled	N/A	N/A	N/A	Enabled	N/A	N/A	Enabled
		EAN-13	N/A	Enabled	N/A	N/A	N/A	Enabled	N/A	N/A	Enabled
		GS1 Composit	N/A	Enabled	N/A	N/A	N/A	Enabled	N/A	N/A	Enabled
		I2of5	N/A	Enabled	N/A	N/A	N/A	Enabled	N/A	N/A	Enabled
		Matrix 2of5	N/A	Enabled	N/A	N/A	N/A	Enabled	N/A	N/A	Enabled
		MSI	N/A	Enabled	N/A	N/A	N/A	Enabled	N/A	N/A	Enabled
		Plessey	N/A	Enabled	N/A	N/A	N/A	Enabled	N/A	N/A	Enabled
		PosiCode	N/A	Enable	N/A	N/A	N/A	Enabled	N/A	N/A	Enabled
		GS1 Omni	N/A	Enabled	N/A	N/A	N/A	Enabled	N/A	N/A	Enabled
		GS1 Limited	N/A	Enabled	N/A	N/A	N/A	Enabled	N/A	N/A	Enabled
		GS1 Expanded	N/A	Enabled	N/A	N/A	N/A	Enabled	N/A	N/A	Enabled
		S2of5 Ind	N/A	Enabled	N/A	N/A	N/A	Enabled	N/A	N/A	Enabled
		S2of5 IATA	N/A	Enabled	N/A	N/A	N/A	Enabled	N/A	N/A	Enabled
		TLC39	N/A	Enabled	N/A	N/A	N/A	Enabled	N/A	N/A	Enabled
		Telepen	N/A	Enabled	N/A	N/A	N/A	Enabled	N/A	N/A	Enabled
		Trioptic	N/A	Enabled	N/A	N/A	N/A	Enabled	N/A	N/A	Enabled
		UPCA	N/A	Enabled	N/A	N/A	N/A	Enabled	N/A	N/A	Enabled
		UPCE0	N/A	Enabled	N/A	N/A	N/A	Enabled	N/A	N/A	Enabled
		UPCE1	N/A	Enabled	N/A	N/A	N/A	Enabled	N/A	N/A	Enabled
	2D Symbology	AztecCode	N/A	Enabled	N/A	N/A	N/A	Enabled	N/A	N/A	Enabled
		AztecRunes	N/A	Enabled	N/A	N/A	N/A	Enabled	N/A	N/A	Enabled
		CodablockF	N/A	Enabled	N/A	N/A	N/A	Enabled	N/A	N/A	Enabled
		Code16K	N/A	N/A	N/A	N/A	N/A	Enabled	N/A	N/A	Enabled
		Code49	N/A	N/A	N/A	N/A	N/A	Enabled	N/A	N/A	Enabled
		DataMatrix	N/A	Enabled	N/A	N/A	N/A	Enabled	N/A	N/A	Enabled

		MaxiCode	N/A	Enabled	N/A	N/A	N/A	Enabled	N/A	N/A	Enabled
		MicroPDF	N/A	Enabled	N/A	N/A	N/A	Enabled	N/A	N/A	Enabled
		PDF417	N/A	Enabled	N/A	N/A	N/A	Enabled	N/A	N/A	Enabled
		QRCode	N/A	Enabled	N/A	N/A	N/A	Enabled	N/A	N/A	Enabled
		HanXin Code	N/A	Enabled	N/A	N/A	N/A	Enabled	N/A	N/A	Enabled
	Postal Codes	Postnet	N/A	Enabled	N/A	N/A	N/A	Enabled	N/A	N/A	Enabled
		PlanetCode	N/A	Enabled	N/A	N/A	N/A	Enabled	N/A	N/A	Enabled
		UK Post	N/A	Enabled	N/A	N/A	N/A	Enabled	N/A	N/A	Enabled
		Mayada Post	N/A	Enabled	N/A	N/A	N/A	Enabled	N/A	N/A	Enabled
		Kix Post	N/A	Enabled	N/A	N/A	N/A	Enabled	N/A	N/A	Enabled
		Australia Post	N/A	Enabled	N/A	N/A	N/A	Enabled	N/A	N/A	Enabled
		Japan Post	N/A	Enabled	N/A	N/A	N/A	Enabled	N/A	N/A	Enabled
		China Post	N/A	Enabled	N/A	N/A	N/A	Enabled	N/A	N/A	Enabled
		Korea Post	N/A	Enabled	N/A	N/A	N/A	Enabled	N/A	N/A	Enabled
	OCR	OCR Off	N/A	Enabled	N/A	N/A	N/A	Enabled	N/A	N/A	Enabled
		OCR A	N/A	Disabled	N/A	N/A	N/A	Disabled	N/A	N/A	Disabled
		OCR B	N/A	Disabled	N/A	N/A	N/A	Disabled	N/A	N/A	Disabled
		OCR Passport	N/A	Disabled	N/A	N/A	N/A	Disabled	N/A	N/A	Disabled
		OCR MICR	N/A	Disabled	N/A	N/A	N/A	Disabled	N/A	N/A	Disabled
		OCR SEMI	N/A	Disabled	N/A	N/A	N/A	Disabled	N/A	N/A	Disabled
Barcode Options (20/100 /200/250/270 L/ /350L)	CodaBar_NoStartStopChars	Enabled/ Disabled	Disabled	N/A	Disabled	Disabled	Disabled	N/A	Disabled	Disabled	N/A
	UPCE_as_UPCA	Enabled/ Disabled	Disabled	N/A	Disabled	Disabled	Disabled	N/A	Disabled	Disabled	N/A
	EAN8_as_EAN13	Enabled/ Disabled	Disabled	N/A	Disabled	Disabled	Disabled	N/A	Disabled	Disabled	N/A
	UPCE_as_EAN13	Enabled/ Disabled	Disabled	N/A	Disabled	Disabled	Disabled	N/A	Disabled	Disabled	N/A
	ReturnCheckDigit	Enabled/ Disabled	Disabled	N/A	Disabled	Disabled	Disabled	N/A	Disabled	Disabled	N/A
	VerifyCheckDigit	Enabled/ Disabled	Disabled	N/A	Disabled	Disabled	Disabled	N/A	Disabled	Disabled	N/A
	UPCA_as_EAN13	Enabled/ Disabled	Disabled	N/A	Disabled	Disabled	Disabled	N/A	Disabled	Disabled	N/A
	I2of5_VerifyCheckDigit	Enabled/ Disabled	Disabled	N/A	Disabled	Disabled	Disabled	N/A	Disabled	Disabled	N/A
	Code39_VerifyCheckDigit	Enabled/ Disabled	Disabled	N/A	Disabled	Disabled	Disabled	N/A	Disabled	Disabled	N/A
	I2of5_ReturnCheckDigit	Enabled/ Disabled	Disabled	N/A	Disabled	Disabled	Disabled	N/A	Disabled	Disabled	N/A
	Code39_ReturnCheckDigit	Enabled/ Disabled	Disabled	N/A	Disabled	Disabled	Disabled	N/A	Disabled	Disabled	N/A
	UPCE_ReturnCheckDigit	Enabled/ Disabled	Enabled	N/A	Enabled	Enabled	Enabled	N/A	Enabled	Enabled	N/A
	UPCA_ReturnCheckDigit	Enabled/ Disabled	Enabled	N/A	Enabled	Enabled	Enabled	N/A	Enabled	Enabled	N/A
	EAN8_ReturnCheckDigit	Enabled/ Disabled	Enabled	N/A	Enabled	Enabled	Enabled	N/A	Enabled	Enabled	N/A
	EAN13_ReturnCheckDigit	Enabled/ Disabled	Enabled	N/A	Enabled	Enabled	Enabled	N/A	Enabled	Enabled	N/A
Barcode Options (30/300/270C /350C)	Codabar	Tx StartStop (Enabled/ Disabled)	N/A	Disabled	N/A	N/A	N/A	Disabled	N/A	N/A	Disabled
		Check Digit (DoNotVerify/ VerfyDONotTX/VerifyDoTx)	N/A	DoNotVerify	N/A	N/A	N/A	DoNotVerify	N/A	N/A	DoNotVerify
		Concatenate(Disabled/Enabled/Required)	N/A	N/A	N/A	N/A	N/A	Enabled	N/A	N/A	Enabled
	Code39	Tx StartStop (Enabled/ Disabled)	N/A	Disabled	N/A	N/A	N/A	Disabled	N/A	N/A	Disabled
		Check Digit(DoNotVerify/VerfyDONotTX/VerifyDoTx)	N/A	DoNotVerify	N/A	N/A	N/A	DoNotVerify	N/A	N/A	DoNotVerify
		Append (Enabled/ Disabled)	N/A	N/A	N/A	N/A	N/A	Disabled	N/A	N/A	Disabled
		Full ASCII(Enabled /Disabled)	N/A	Disabled	N/A	N/A	N/A	Disabled	N/A	N/A	Disabled
	I2of5	Check Digit (DoNotVerify/ VerfyDONotTX/VerifyDoTx)	N/A	DoNotVerify	N/A	N/A	N/A	DoNotVerify	N/A	N/A	DoNotVerify
	Code11	Check Digit (2 digits/1 digit)	N/A	2 digits	N/A	N/A	N/A	2 digits	N/A	N/A	2 digits
	Code128	Concatenate(Disabled/Enabled)	N/A	Disabled	N/A	N/A	N/A	Disabled	N/A	N/A	Disabled
	Telepen	Output(Original/AIM)	N/A	Always AIM	N/A	N/A	N/A	AIM	N/A	N/A	AIM
	UPCA	VerifyChkDgt(Enabled/Disabled)	N/A	Always Enabled	N/A	N/A	N/A	Enabled	N/A	N/A	Enabled
		NumberSys(Enabled/ Disabled)	N/A	Enabled	N/A	N/A	N/A	Enabled	N/A	N/A	Enabled
		2DgtAddenda(Enabled/Disabled)	N/A	Disabled	N/A	N/A	N/A	Disabled	N/A	N/A	Disabled

		5DgtAddenda(Enabled/Disabled)	N/A	Disabled	N/A	N/A	N/A	Disabled	N/A	N/A	Disabled
		Req. Addenda (Enabled/Disabled)	N/A	N/A	N/A	N/A	N/A	Disabled	N/A	N/A	Disabled
		Sep. Addenda (Enabled/Disabled)	N/A	N/A	N/A	N/A	N/A	Enabled	N/A	N/A	Enabled
		Coupon Code (Enabled/Disabled)	N/A	N/A	N/A	N/A	N/A	Enabled	N/A	N/A	Enabled
	UPCE	Expand (Enabled/Disabled)	N/A	Disabled	N/A	N/A	N/A	Disabled	N/A	N/A	Disabled
		Req. Addenda (Enabled/Disabled)	N/A	N/A	N/A	N/A	N/A	Disabled	N/A	N/A	Disabled
		Sep. Addenda (Enabled/Disabled)	N/A	N/A	N/A	N/A	N/A	Enabled	N/A	N/A	Enabled
		Check Digit (Enabled/Disabled)	N/A	Enabled	N/A	N/A	N/A	Enabled	N/A	N/A	Enabled
		NumberSys(Enabled/Disabled)	N/A	Enabled	N/A	N/A	N/A	Enabled	N/A	N/A	Enabled
		2DgtAddenda(Enabled/Disabled)	N/A	Disabled	N/A	N/A	N/A	Disabled	N/A	N/A	Disabled
		5DgtAddenda(Enabled/Disabled)	N/A	Disabled	N/A	N/A	N/A	Disabled	N/A	N/A	Disabled
	EAN-13 EAN-8	VerifyChkDgt(Enabled/Disabled)	N/A	Enabled	N/A	N/A	N/A	Enabled	N/A	N/A	Enabled
		2DgtAddenda(Enabled/Disabled)	N/A	Disabled	N/A	N/A	N/A	Disabled	N/A	N/A	Disabled
		5DgtAddenda(Enabled/Disabled)	N/A	Disabled	N/A	N/A	N/A	Disabled	N/A	N/A	Disabled
		Req. Addenda (Enabled/Disabled)	N/A	N/A	N/A	N/A	N/A	Disabled	N/A	N/A	Disabled
		Sep. Addenda (Enabled/Disabled)	N/A	N/A	N/A	N/A	N/A	Enabled	N/A	N/A	Enabled
		ISBN Trans. (Enabled/Disabled)	N/A	Disabled	N/A	N/A	N/A	Disabled	N/A	N/A	Disabled
		VerifyChkDgt(Enabled/Disabled)	N/A	Enabled	N/A	N/A	N/A	Enabled	N/A	N/A	Enabled
		2DgtAddenda(Enabled/Disabled)	N/A	Disabled	N/A	N/A	N/A	Disabled	N/A	N/A	Disabled
		5DgtAddenda(Enabled/Disabled)	N/A	Disabled	N/A	N/A	N/A	Disabled	N/A	N/A	Disabled
		Req. Addenda (Enabled/Disabled)	N/A	Disabled	N/A	N/A	N/A	Disabled	N/A	N/A	Disabled
		Sep. Addenda (Enabled/Disabled)	N/A	Enabled	N/A	N/A	N/A	Enabled	N/A	N/A	Enabled
	MSI	Tx CheckChar (Enabled/Disabled)	N/A	Disabled	N/A	N/A	N/A	Disabled	N/A	N/A	Disabled
	PosiCode	A and B/A&B LimitedA/A&B LimitedB	N/A	N/A	N/A	N/A	N/A	A&B LimitedB	N/A	N/A	A&B LimitedB
	GS1	UPCEAN Ver.(Enabled/Disabled)	N/A	N/A	N/A	N/A	N/A	Disabled	N/A	N/A	Disabled
		GS1 Emulation (No Emulate/GS1 128 Emul/GS1 Emulate)	N/A	N/A	N/A	N/A	N/A	No Emulate	N/A	N/A	No Emulate
	PostNet	Tx CheckChar(Enabled/Disabled)	N/A	N/A	N/A	N/A	N/A	Disabled	N/A	N/A	Disabled
	PlanetCode	Tx CheckChar(Enabled/Disabled)	N/A	N/A	N/A	N/A	N/A	Disabled	N/A	N/A	Disabled
Scan Options	Scan Angle	Narrow/Wide	Wide (Laser only)	N/A	Wide	Wide	Wide	N/A	Wide (Opticon Laser only)	Wide (Opticon Laser only)	N/A
	Filter	Normal/High	Normal (Laser only)	N/A	Normal	Normal	Normal	N/A	Normal (Opticon Laser only)	Normal (Opticon Laser only)	N/A
	Time Out	.5 seconds to 10 seconds	2 second(s)	2 second(s)	2 second(s)	2 second(s)	2 second(s)	2 second(s)	2 second(s)	2 second(s)	2 second(s)
	Min. Barcode Length	2 to 36 characters	4 chars	N/A	4 chars	4 chars	4 chars	N/A	4 chars	4 chars	N/A
	Min. Barcode Length	2 to 48 characters	N/A	N/A	N/A	N/A	N/A	4 chars	N/A	N/A	4 chars
	Security Level	1 to 4 level	2 level	N/A	2 level	2 level	2 level	N/A	2 level	2 level	N/A
	Image Capture	Enabled/Disabled	N/A	N/A	N/A	N/A	N/A	Disabled	N/A	N/A	Disabled
	Auto Trigger	Enabled/Disabled	Disabled	Disabled	Disabled	Disabled	Disabled	Disabled	Disabled	Disabled	Disabled
	Reread Delay	Continuous, Short, Medium,	Medium	Medium	Medium	Medium	Medium	Medium	Medium	Medium	Medium

		Long, Extra Long									
	Finger Trigger	Enabled/Disabled	N/A	N/A	Enabled	Enabled	Enabled	N/A	Enabled	Enabled	N/A
	Partial Display	Start Position	1	1	1	1	1	1	1	1	1
		No. of Char(s)	0 chars	0 chars	0 chars	0 chars	0 chars	0 chars	0 chars	0 chars	0 chars
		Action	Select	Select	Select	Select	Select	Select	Select	Select	Select
Data Process	Wedge / Store	Wedge Only									
		Wedge & Store Always	Default	Default	Default	Default	Default	Default	Default	Default	Default
		Store Only									
		Save if Sent									
		Save if Not Sent									
	Data Format	Barcode only	Default	Default	Default	Default	Default	Default	Default	Default	Default
		Packet Data									
	Data Editor/ Prefix										
	Data Editor/ Suffix										
	Data Editor/ AIM ID	None/In Prefix/In Suffix	None	None	None	None	None	None	None	None	None
	Data Editor/ Partial Data	Start Position	1	1	1	1	1	1	1	1	1
		No. of Char(s)	0 chars	0 chars	0 chars	0 chars	0 chars	0 chars	0 chars	0 chars	0 chars
		Action	Select	Select	Select	Select	Select	Select	Select	Select	Select
	Handshake	Enable/ Disabled	Disabled	Disabled	Disabled	Disabled	Disabled	Disabled	Disabled	Disabled	Disabled
	Terminator	None, CR, LF, CR+LF, Tab, Right Arrow, Left Arrow,Down Arrow, Up Arrow	CR+LF	CR+LF	CR+LF	CR+LF	CR+LF	CR+LF	CR+LF	CR+LF	CR+LF
	Chk Duplicate	Enabled/Disabled	Disabled	Disabled	Disabled	Disabled	Disabled	Disabled	Disabled	Disabled	Disabled
	Enter Key	Enabled/Disabled	N/A	N/A	N/A	N/A	N/A	N/A	Disabled	Disabled	Disabled
	Extend Key	Enabled/ Disabled	N/A	N/A	N/A	N/A	N/A	N/A	Disabled	Disabled	Disabled
	Age Verify	Verification Enabled/ Disabled	N/A	Disabled	N/A	N/A	N/A	Disabled	N/A	N/A	Disabled
		Age Default	N/A	21	N/A	N/A	N/A	21	N/A	N/A	21
BT Config	Connect Device (Non Mfi mode)	SPP	Default	Default	N/A	Default	Default	Default	Default	Default	Default
		HID iOS			N/A						
		SPP2.0			N/A						
		HID normal			N/A						
	Connect Device (Mfi mode)	SPP			N/A						
		MFi	Default	Default	N/A	Default	Default	Default	Default	Default	Default
	Auto Connect	Enabled /Disabled	Disabled	Disabled	N/A	Disabled	Disabled	Disabled	Disabled	Disabled	Disabled
	Auto Reconnect	Enabled/ Disabled	Disabled	Disabled	N/A	Disabled	Disabled	Disabled	Disabled	Disabled	Disabled
	Auto Power On	Enabled/ Disabled	Disabled	Disabled	N/A	Disabled	Disabled	Disabled	Disabled	Disabled	Disabled
	Auto Power On/Power On Time	disabled, 1sec to 10second(s)	Disabled	Disabled	N/A	Disabled	Disabled	Disabled	Disabled	Disabled	Disabled
	Auto Power Off	Enabled/ Disabled	Disabled	Disabled	N/A	Disabled	Disabled	Disabled	Disabled	Disabled	Disabled
	Auto Power Off/Beep Warning	Enabled/ Disabled	Disabled	Disabled	N/A	Disabled	Disabled	Disabled	Disabled	Disabled	Disabled
	Auto Power Off/Power Off Time	1 to 30 minutes	Disabled	Disabled	N/A	Disabled	Disabled	Disabled	Disabled	Disabled	Disabled
	PowerOff Msg	Enabled/Disabled	Disabled	Disabled	N/A	Disabled	Disabled	Disabled	Disabled	Disabled	Disabled
	MAC Address	12 Characters *Bluetooth* MAC Address			N/A						
	BT FW Version	v1.2.xrt Bluetooth Firmware Version			N/A						
	Wakeup Nulls	Enabled/Disabled	Disabled	Disabled	N/A	Disabled	Disabled	Disabled	Disabled	Disabled	Disabled
	Connect Alert	Enabled/Disabled	Disabled	Disabled	N/A	Disabled	Disabled	Disabled	Disabled	Disabled	Disabled
	BT Toggle	Enabled/Disabled	Enabled	Enabled	N/A	Enabled	Enabled	Enabled	Enabled	Enabled	Enabled
	DisconnectBtn	Enabled/Disabled	Enabled	Enabled	N/A	Enabled	Enabled	Enabled	Enabled	Enabled	Enabled
	HID AutoLock	disabled,1,2,3,4,5,10,15 minutes	1 minutes	1 minutes	N/A	1 minutes	1 minutes	1 minutes	1 minutes	1 minutes	1 minutes
	HID Keyboard	US,German,French ,Italian,Spanish	US	US	N/A	US	US	US	US	US	US
	HID Delay/Initial	Disabled, 1,2,3,5,10 secs	Disabled	Disabled	N/A	Disabled	Disabled	Disabled	Disabled	Disabled	Disabled
	HID Delay/Inter char	Disabled,10, 20, 30, 50, 100msec	Disabled	Disabled	N/A	Disabled	Disabled	Disabled	Disabled	Disabled	Disabled

	HID Ctrl Char	Disabled, Alt+Numpad, ^+Character, Replace to |	Disabled	Disabled	N/A	Disabled	Disabled	Disabled	Disabled	Disabled	Disabled
BT Service	Power	Enabled/ Disabled	Enabled	Enabled	N/A	Enabled	Enabled	Enabled	Enabled	Enabled	Enabled
	Pairing	Pairing neighboring Bluetooth devices			N/A						
	Discovering	Discovering neighboring *Bluetooth* devices			N/A						
	Connecting to	View Connect to *Bluetooth* device			N/A						
	HID Sync				N/A						
	Auto Pairing	Enabled/Disabled	Enabled	Enabled	N/A	Enabled	Enabled	Enabled	Enabled	Enabled	Enabled
USB Config-USB Serial Mode (M model)	USB Mode	USB Serial/USB Disk/USB HID	USB Serial	USB Serial	USB Serial	USB Serial	USB Serial	USB Serial	USB Serial	USB Serial	USB Serial
USB Config-USB Disk Mode (M model)	USB Mode	USB Serial/USB Disk/USB HID	N/A	N/A	USB Disk	USB Disk	USB Disk	USB Disk	USB Disk	USB Disk	USB Disk
	Disk Format	Format KDC USB Disk	N/A	N/A							
	Data Format	Data,DataTime, DataType,DataTimeType	N/A	N/A	Data	Data	Data	Data	Data	Data	Data
USB Config-USB HID (M model)	USB Mode	USB Serial/USB Disk/USB HID	USB HID	USB HID	USB HID	USB HID	USB HID	USB HID	USB HID	USB HID	USB HID
NFC Config (N model)	NFC Power	Enabled/ Disabled	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Enabled	Enabled
	Data Format	Barcode only/Packet Data	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Packet Data	Packet Data
	UID Only	Enabled/ Disabled	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
GPS Config (G model)	GPS Power	Disabled	N/A	N/A	N/A	N/A	Disabled	N/A	N/A	Disabled	Disabled
	Power Mode	Normal/Power Save	N/A	N/A	N/A	N/A	Normal	N/A	N/A	Normal	Normal
	Bypass Data	Enabled/ Disabled	N/A	N/A	N/A	N/A	Disabled	N/A	N/A	Disabled	Disabled
	Acqurie Test		N/A	N/A	N/A	N/A		N/A	N/A		
	Reset GPS		N/A	N/A	N/A	N/A		N/A	N/A		
System Config	Memory Size(3.0+ only)	0.5/6.5, 1/6, 2/5, 3/4, 4/3, 5/2, 6/1, 70	N/A	N/A	0.5M/6.5M	0.5M/6.5M	0.5M/6.5M	0.5M/6.5M	0.5M/6.5M	0.5M/6.5M	0.5M/6.5M
	Memory Status	No. of Stored Barcodes									
		Free Memory Available									
	Reset Memory	Memory (Empties Data)									
		Application Memory									
		BT Registry (KDC100 Not use)									
	Auto Erase	Enabled/ Disabled	Disabled	Disabled	Disabled	Disabled	Disabled	Disabled	Disabled	Disabled	Disabled
	Sleep Timeout	Disabled, 1sec to 10minute(s)	5 second(s)	5 second(s)	5 second(s)	5 second(s)	5 second(s)	5 second(s)	5 second(s)	5 second(s)	5 second(s)
	Date / Time	YYYY:MM:DD & HH:MM:SS									
	Battery	% of Battery Charge Available									
	Version	Firmware Version & Serial No.									
	Button Lock	Enabled/ Disabled	Disabled	Disabled	Disabled	Disabled	Disabled	Disabled	Disabled	Disabled	Disabled
	Beep Alert /Beep Sound	Enabled/ Disabled	Enabled	Enabled	Enabled	Enabled	Enabled	Enabled	Enabled	Enabled	Enabled
	Beep Alert /Power On Beep	Enabled/ Disabled	Enabled	Enabled	Enabled	Enabled	Enabled	Enabled	Enabled	Enabled	Enabled
	Beep Alert /Beep On Connect	Enabled/ Disabled	Enabled	Enabled	Enabled	Enabled	Enabled	Enabled	Enabled	Enabled	Enabled
	Beep Alert /Beep On Scan	Enabled/ Disabled	Enabled	Enabled	Enabled	Enabled	Enabled	Enabled	Enabled	Enabled	Enabled
	Beep Volume	Low/High	Low	Low	Low	Low	Low	Low	Low	Low	Low
	Mfi (i-chip installed)	Enabled/Disabled	Enabled	Enabled	N/A	Enabled	Enabled	Enabled	Enabled	Enabled	Enabled
	Vibrator	Enabled/ Disabled/ Config	Disabled	Disabled	N/A	N/A	N/A	N/A	Disabled	Disabled	Disabled
	Auto Exit	Enabled/ Disabled	N/A	N/A	Enabled	Enabled	Enabled	Enabled	Enabled	Enabled	Enabled
	Port Status	Enabled/ Disabled	N/A	N/A	Enabled	Enabled	Enabled	Enabled	Enabled	Enabled	Enabled
	Display Format	Time & Battery / Type & Time / Type & Battery / Memory Status / GPS Data(KDC250 only)/Barcode Only/	N/A	N/A	Time & Battery	Time & Battery	Time & Battery	Time & Battery	Time & Battery	Time & Battery	Time & Battery

		Graphic									
	Menu Barcode	Enabled/ Disabled	N/A	Disabled	N/A	N/A	N/A	Disabled	N/A	N/A	Disabled
	Scrolling	Enabled/ Disabled	N/A	N/A	Enabled	Enabled	Enabled	Enabled	Enabled	Enabled	Enabled
	Brightness	1 to 15 level(8 level)	N/A	N/A	8 level	8 level	8 level	8 level	8 level	8 level	8 level
	Keypad	Enabled/ Disabled	N/A	N/A	N/A	N/A	N/A	N/A	Enabled	Enabled	Enabled
	Language (FW Version 3.x only)	None/ US(English)/ French/ Italian/ Spanish/ Korean/ Japanese	N/A	N/A	None	None	None	None	None	None	None
	Factory Default	Restores Default Settings									
MSR Config	Data Format	MSR Data Only	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
		Packet Data	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	Use Track1	Enabled/ Disabled	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	Use Track2	Enabled/ Disabled	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	UseTrack3	Enabled/ Disabled	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	Beep on error reading	Enabled/ Disabled	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	Encrypt MSR Data	Enabled/ Disabled	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	AES Key Length	128bit/192bit /256bit	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	Card Type	ISO/OTHER 1/AAMVA	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	Track Separator	None/Space/Comma/Semicolon/CR/LF/CR&LF/Tab	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	Attach Start/End Sentinel		N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	Partial Data Start Position		N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	Partial Data Length		N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	Partial Data Action	Erase/ Select	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
WIFI Config	Power		N/A	N/A	N/A	N/A	N/A	N/A	N/A	Enable	Enable
	AP	SSID	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Empty	Empty
		Passcode	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Empty	Empty
	Server	IP Address	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0.0.0.0	0.0.0.0
	Server	URL Address	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Empty	Empty
	Server	Port Number	N/A	N/A	N/A	N/A	N/A	N/A	N/A	80	80
	Server > Protocol	UDP/TCP/ HTTP GET/ HTTP Post	N/A	N/A	N/A	N/A	N/A	N/A	N/A	HTTP Post	HTTP Post
	Server > SSL	Enabled/ Disabled	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Disabled	Disabled
	Server	Server Page	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Empty	Empty
	Resp. Timeout	1/2/3/4/5/6/7/8/9/10 sec	N/A	N/A	N/A	N/A	N/A	N/A	N/A	10 sec	10 sec
	Connect	Connecting to AP	N/A	N/A	N/A	N/A	N/A	N/A	N/A		
	Auto Connect	Enabled/ Disabled	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Disabled	Disabled
	Send Stored	Enabled/ Disabled	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Enabled	Enabled
	Version	APP MAC	N/A	N/A	N/A	N/A	N/A	N/A	N/A		

Top Menu	Sub Menu	Options	KDC410/411	KDC415	KDC420/421	KDC425	KDC430	KDC450	KDC470C	KDC500L	KDC500C
KDC Mode	Normal		Default	Default	Default	Default	Default	Default	Default	N/A	N/A
	Application		N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
View Data	View/Delete		N/A	N/A	N/A	N/A	N/A	N/A	N/A	View/Delete Data	View/Delete Data
Set Barcodes (410/411/415/470L/500L)	EAN13	Enabled/ Disabled	Enabled	Enabled	N/A	N/A	N/A	N/A	N/A	Enabled	N/A
	EAN8	Enabled/ Disabled	Enabled	Enabled	N/A	N/A	N/A	N/A	N/A	Enabled	N/A
	UPCA	Enabled/ Disabled	Enabled	Enabled	N/A	N/A	N/A	N/A	N/A	Enabled	N/A
	UPCE	Enabled/ Disabled	Enabled	Enabled	N/A	N/A	N/A	N/A	N/A	Enabled	N/A
	CODE39	Enabled/ Disabled	Enabled	Enabled	N/A	N/A	N/A	N/A	N/A	Enabled	N/A
	ITF14	Enabled/ Disabled	Enabled	Enabled	N/A	N/A	N/A	N/A	N/A	Enabled	N/A
	CODE128	Enabled/ Disabled	Enabled	Enabled	N/A	N/A	N/A	N/A	N/A	Enabled	N/A
	I2of5	Enabled/ Disabled	Enabled	Enabled	N/A	N/A	N/A	N/A	N/A	Enabled	N/A
	CODABAR	Enabled/ Disabled	Enabled	Enabled	N/A	N/A	N/A	N/A	N/A	Enabled	N/A
	GS1-128	Enabled/ Disabled	Enabled	Enabled	N/A	N/A	N/A	N/A	N/A	Enabled	N/A
	CODE93	Enabled/ Disabled	Enabled	Enabled	N/A	N/A	N/A	N/A	N/A	Enabled	N/A
	CODE35	Enabled/ Disabled	Enabled	Enabled	N/A	N/A	N/A	N/A	N/A	Enabled	N/A
	BooklandEAN	Enabled/ Disabled	Disabled	Disabled	N/A	N/A	N/A	N/A	N/A	Disabled	N/A
	EAN13withAddon	Enabled/ Disabled	Disabled	Disabled	N/A	N/A	N/A	N/A	N/A	Disabled	N/A
	EAN8withAddon	Enabled/ Disabled	Disabled	Disabled	N/A	N/A	N/A	N/A	N/A	Disabled	N/A
	UPCAwithAddon	Enabled/ Disabled	Disabled	Disabled	N/A	N/A	N/A	N/A	N/A	Disabled	N/A
	UPCEwithAddon	Enabled/ Disabled	Disabled	Disabled	N/A	N/A	N/A	N/A	N/A	Disabled	N/A
Set Barcodes (420/421/425/450/470C/500C)	1D Symbology	Codabar	N/A	N/A	Enabled	Enabled	N/A	Enabled	Enabled	N/A	Enabled
		Code 11	N/A	N/A	Enabled	Enabled	N/A	Enabled	Enabled	N/A	Enabled
		Code 32	N/A	N/A	Enabled	Enabled	N/A	Enabled	Enabled	N/A	Enabled
		Code 39	N/A	N/A	Enabled	Enabled	N/A	Enabled	Enabled	N/A	Enabled
		Code 93	N/A	N/A	Enabled	Enabled	N/A	Enabled	Enabled	N/A	Enabled
		Code 128	N/A	N/A	Enabled	Enabled	N/A	Enabled	Enabled	N/A	Enabled
		EAN-8	N/A	N/A	Enabled	Enabled	N/A	Enabled	Enabled	N/A	Enabled
		EAN-13	N/A	N/A	Enabled	Enabled	N/A	Enabled	Enabled	N/A	Enabled
		GS1 Composit	N/A	N/A	Enabled	Enabled	N/A	Enabled	Enabled	N/A	Enabled
		I2of5	N/A	N/A	Enabled	Enabled	N/A	Enabled	Enabled	N/A	Enabled
		Matrix 2of5	N/A	N/A	Enabled	Enabled	N/A	Enabled	Enabled	N/A	Enabled
		MSI	N/A	N/A	Enabled	Enabled	N/A	Enabled	Enabled	N/A	Enabled
		Plessey	N/A	N/A	Enabled	Enabled	N/A	Enabled	Enabled	N/A	Enabled
		PosiCode	N/A	N/A	Enabled	Enabled	N/A	Enabled	Enabled	N/A	Enabled
		GS1 Omni	N/A	N/A	Enabled	Enabled	N/A	Enabled	Enabled	N/A	Enabled
		GS1 Limited	N/A	N/A	Enabled	Enabled	N/A	Enabled	Enabled	N/A	Enabled
		GS1 Expanded	N/A	N/A	Enabled	Enabled	N/A	Enabled	Enabled	N/A	Enabled
		S2of5 Ind	N/A	N/A	Enabled	Enabled	N/A	Enabled	Enabled	N/A	Enabled
		S2of5 IATA	N/A	N/A	Enabled	Enabled	N/A	Enabled	Enabled	N/A	Enabled
		TLC39	N/A	N/A	Enabled	Enabled	N/A	Enabled	Enabled	N/A	Enabled
		Telepen	N/A	N/A	Enabled	Enabled	N/A	Enabled	Enabled	N/A	Enabled
		Trioptic	N/A	N/A	Enabled	Enabled	N/A	Enabled	Enabled	N/A	Enabled
		UPCA	N/A	N/A	Enabled	Enabled	N/A	Enabled	Enabled	N/A	Enabled
		UPCE0	N/A	N/A	Enabled	Enabled	N/A	Enabled	Enabled	N/A	Enabled
		UPCE1	N/A	N/A	Enabled	Enabled	N/A	Enabled	Enabled	N/A	Enabled
	2D Symbology	AztecCode	N/A	N/A	Enabled	Enabled	N/A	Enabled	Enabled	N/A	Enabled
		AztecRunes	N/A	N/A	Enabled	Enabled	N/A	Enabled	Enabled	N/A	Enabled
		CodablockF	N/A	N/A	Enabled	Enabled	N/A	Enabled	Enabled	N/A	Enabled
		Code16K	N/A	N/A	Enabled	Enabled	N/A	Enabled	Enabled	N/A	Enabled
		Code49	N/A	N/A	Enabled	Enabled	N/A	Enabled	Enabled	N/A	Enabled
		DataMatrix	N/A	N/A	Enabled	Enabled	N/A	Enabled	Enabled	N/A	Enabled
		MaxiCode	N/A	N/A	Enabled	Enabled	N/A	Enabled	Enabled	N/A	Enabled
		MicroPDF	N/A	N/A	Enabled	Enabled	N/A	Enabled	Enabled	N/A	Enabled
		PDF417	N/A	N/A	Enabled	Enabled	N/A	Enabled	Enabled	N/A	Enabled
		QRCode	N/A	N/A	Enabled	Enabled	N/A	Enabled	Enabled	N/A	Enabled
		HanXin Code	N/A	N/A	Enabled	Enabled	N/A	Enabled	Enabled	N/A	Enabled
	Postal Codes	Postnet	N/A	N/A	Enabled	Enabled	N/A	Enabled	Enabled	N/A	Enabled
		PlanetCode	N/A	N/A	Enabled	Enabled	N/A	Enabled	Enabled	N/A	Enabled
		UK Post	N/A	N/A	Enabled	Enabled	N/A	Enabled	Enabled	N/A	Enabled

		Mayada Post	N/A	N/A	Enabled	Enabled	N/A	Enabled	Enabled	N/A	Enabled
		Kix Post	N/A	N/A	Enabled	Enabled	N/A	Enabled	Enabled	N/A	Enabled
		Australia Post	N/A	N/A	Enabled	Enabled	N/A	Enabled	Enabled	N/A	Enabled
		Japan Post	N/A	N/A	Enabled	Enabled	N/A	Enabled	Enabled	N/A	Enabled
		China Post	N/A	N/A	Enabled	Enabled	N/A	Enabled	Enabled	N/A	Enabled
		Korea Post	N/A	N/A	Enabled	Enabled	N/A	Enabled	Enabled	N/A	Enabled
	OCR	OCR Off	N/A	N/A	Enabled	Enabled	N/A	Enabled	Enabled	N/A	Enabled
		OCR A	N/A	N/A	Disabled	Disabled	N/A	Disabled	Disabled	N/A	Disabled
		OCR B	N/A	N/A	Disabled	Disabled	N/A	Disabled	Disabled	N/A	Disabled
		OCR USC	N/A	N/A	Disabled	Disabled	N/A	Disabled	Disabled	N/A	Disabled
		OCR MICR	N/A	N/A	Disabled	Disabled	N/A	Disabled	Disabled	N/A	Disabled
		OCR SEMI	N/A	N/A	Disabled	Disabled	N/A	Disabled	Disabled	N/A	Disabled
Barcode Options (410/411/415/470L/500L)	CodaBar_NoStartStopChars	Enabled/ Disabled	Disabled	Disabled	N/A	N/A	N/A	N/A	N/A	Disabled	N/A
	UPCE_as_UPCA	Enabled/ Disabled	Disabled	Disabled	N/A	N/A	N/A	N/A	N/A	Disabled	N/A
	EAN8_as_EAN13	Enabled/ Disabled	Disabled	Disabled	N/A	N/A	N/A	N/A	N/A	Disabled	N/A
	UPCE_as_EAN13	Enabled/ Disabled	Disabled	Disabled	N/A	N/A	N/A	N/A	N/A	Disabled	N/A
	ReturnCheckDigit	Enabled/ Disabled	Disabled	Disabled	N/A	N/A	N/A	N/A	N/A	Disabled	N/A
	VerifyCheckDigit	Enabled/ Disabled	Disabled	Disabled	N/A	N/A	N/A	N/A	N/A	Disabled	N/A
	UPCA_as_EAN13	Enabled/ Disabled	Disabled	Disabled	N/A	N/A	N/A	N/A	N/A	Disabled	N/A
	I2of5_VerifyCheckDigit	Enabled/ Disabled	Disabled	Disabled	N/A	N/A	N/A	N/A	N/A	Disabled	N/A
	Code39_VerifyCheckDigit	Enabled/ Disabled	Disabled	Disabled	N/A	N/A	N/A	N/A	N/A	Disabled	N/A
	I2of5_ReturnCheckDigit	Enabled/ Disabled	Disabled	Disabled	N/A	N/A	N/A	N/A	N/A	Disabled	N/A
	Code39_Return CheckDigit	Enabled/ Disabled	Disabled	Disabled	N/A	N/A	N/A	N/A	N/A	Disabled	N/A
	UPCE_ReturnCheckDigit	Enabled/ Disabled	Enabled	Enabled	N/A	N/A	N/A	N/A	N/A	Enabled	N/A
	UPCA_ReturnCheckDigit	Enabled/ Disabled	Enabled	Enabled	N/A	N/A	N/A	N/A	N/A	Enabled	N/A
	EAN8_ReturnCheckDigit	Enabled/ Disabled	Enabled	Enabled	N/A	N/A	N/A	N/A	N/A	Enabled	N/A
	EAN13_ReturnCheckDigit	Enabled/ Disabled	Enabled	Enabled	N/A	N/A	N/A	N/A	N/A	Enabled	N/A
Barcode Options (KDC420/425/450/470C/500C)	Codabar	Tx StartStop (Enabled/ Disabled)	N/A	N/A	Disabled	Disabled	N/A	Disabled	Disabled	N/A	Disabled
		Check Digit (DoNotVerify/VerfyDONotTX/VerifyDoTx)	N/A	N/A	DoNotVerify	DoNotVerify	N/A	DoNotVerify	DoNotVerify	N/A	DoNotVerify
		Concatenate(Disabled/Enabled/ Required)	N/A	N/A	Enabled	Enabled	N/A	Enabled	Enabled	N/A	Enabled
	Code39	Tx StartStop (Enabled/ Disabled)	N/A	N/A	Disabled	Disabled	N/A	Disabled	Disabled	N/A	Disabled
		Check Digit(DoNotVerify/VerfyDONotTX/VerifyDoTx)	N/A	N/A	DoNotVerify	DoNotVerify	N/A	DoNotVerify	DoNotVerify	N/A	DoNotVerify
		Append (Enabled/ Disabled)	N/A	N/A	Disabled	Disabled	N/A	Disabled	Disabled	N/A	Disabled
		Full ASCII(Enabled/Disabled)	N/A	N/A	Disabled	Disabled	N/A	Disabled	Disabled	N/A	Disabled
	I2of5	Check Digit (DoNotVerify/VerfyDONotTX/VerifyDoTx)	N/A	N/A	DoNotVerify	DoNotVerify	N/A	DoNotVerify	DoNotVerify	N/A	DoNotVerify
	Code11	Check Digit (2 digits/1 digit)	N/A	N/A	2 digits	2 digits	N/A	2 digits	2 digits	N/A	2 digits
	Code128	Concatenate(Disabled/Enabled)	N/A	N/A	Disabled	Disabled	N/A	Disabled	Disabled	N/A	Disabled
	Telepen	Output(Original/ AIM)	N/A	N/A	AIM	AIM	N/A	AIM	AIM	N/A	AIM
	UPCA	VerifyChkDgt(Enabled/Disabled)	N/A	N/A	Enabled	Enabled	N/A	Enabled	Enabled	N/A	Enabled
		NumberSys(Enabled/ Disabled)	N/A	N/A	Enabled	Enabled	N/A	Enabled	Enabled	N/A	Enabled
		2DgtAddenda(Enabled/Disabled)	N/A	N/A	Disabled	Disabled	N/A	Disabled	Disabled	N/A	Disabled
		5DgtAddenda(Enabled/Disabled)	N/A	N/A	Disabled	Disabled	N/A	Disabled	Disabled	N/A	Disabled
		Req. Addenda (Enabled/ Disabled)	N/A	N/A	Disabled	Disabled	N/A	Disabled	Disabled	N/A	Disabled
		Sep. Addenda (Enabled/ Disabled)	N/A	N/A	Enabled	Enabled	N/A	Enabled	Enabled	N/A	Enabled
		Coupon Code (Enabled/ Disabled)	N/A	N/A	Enabled	Enabled	N/A	Enabled	Enabled	N/A	Enabled
	UPCE	Expand (Enabled/ Disabled)	N/A	N/A	Disabled	Disabled	N/A	Disabled	Disabled	N/A	Disabled
		Req. Addenda (Enabled/ Disabled)	N/A	N/A	Disabled	Disabled	N/A	Disabled	Disabled	N/A	Disabled

		Sep. Addenda (Enabled/ Disabled)	N/A	N/A	Enabled	Enabled	N/A	Enabled	Enabled	N/A	Enabled
		Check Digit (Enabled/ Disabled)	N/A	N/A	Enabled	Enabled	N/A	Enabled	Enabled	N/A	Enabled
		NumberSys(Enabled/ Disabled)	N/A	N/A	Enabled	Enabled	N/A	Enabled	Enabled	N/A	Enabled
		2DgtAddenda(Enabled/Disabled)	N/A	N/A	Disabled	Disabled	N/A	Disabled	Disabled	N/A	Disabled
		5DgtAddenda(Enabled/Disabled)	N/A	N/A	Disabled	Disabled	N/A	Disabled	Disabled	N/A	Disabled
	EAN-13	VerifyChkDgt(Enabled/Disabled)	N/A	N/A	Enabled	Enabled	N/A	Enabled	Enabled	N/A	Enabled
		2DgtAddenda(Enabled/Disabled)	N/A	N/A	Disabled	Disabled	N/A	Disabled	Disabled	N/A	Disabled
		5DgtAddenda(Enabled/Disabled)	N/A	N/A	Disabled	Disabled	N/A	Disabled	Disabled	N/A	Disabled
		Req. Addenda (Enabled/ Disabled)	N/A	N/A	Disabled	Disabled	N/A	Disabled	Disabled	N/A	Disabled
		Sep. Addenda (Enabled/ Disabled)	N/A	N/A	Enabled	Enabled	N/A	Enabled	Enabled	N/A	Enabled
		ISBN Trans. (Enabled/ Disabled)	N/A	N/A	Disabled	Disabled	N/A	Disabled	Disabled	N/A	Disabled
	EAN-8	VerifyChkDgt(Enabled/Disabled)	N/A	N/A	Enabled	Enabled	N/A	Enabled	Enabled	N/A	Enabled
		2DgtAddenda(Enabled/Disabled)	N/A	N/A	Disabled	Disabled	N/A	Disabled	Disabled	N/A	Disabled
		5DgtAddenda(Enabled/Disabled)	N/A	N/A	Disabled	Disabled	N/A	Disabled	Disabled	N/A	Disabled
		Req. Addenda (Enabled/ Disabled)	N/A	N/A	Disabled	Disabled	N/A	Disabled	Disabled	N/A	Disabled
		Sep. Addenda (Enabled/ Disabled)	N/A	N/A	Enabled	Enabled	N/A	Enabled	Enabled	N/A	Enabled
	MSI	Tx CheckChar (Enabled/ Disabled)	N/A	N/A	Disabled	Disabled	N/A	Disabled	Disabled	N/A	Disabled
	PosiCode	A and B/A&B LimitedA/A&B LimitedB	N/A	N/A	A&B LimitedB	A&B LimitedB	N/A	A&B LimitedB	A&B LimitedB	N/A	A&B LimitedB
	GS1	UPCEAN Ver.(Enabled/Disabled)	N/A	N/A	Disabled	Disabled	N/A	Disabled	Disabled	N/A	Disabled
		GS1 Emulation (No Emulate/ GS1 128 Emul/GS1 Emulate)	N/A	N/A	No Emulate	No Emulate	N/A	No Emulate	No Emulate	N/A	No Emulate
	PostNet	Tx CheckChar(Enabled/Disabled)	N/A	N/A	Disabled	Disabled	N/A	Disabled	Disabled	N/A	Disabled
	PlanetCode	Tx CheckChar(Enabled/Disabled)	N/A	N/A	Disabled	Disabled	N/A	Disabled	Disabled	N/A	Disabled
Scan Options	Power	Enabled/ Disabled	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Disabled	Disabled
	Scan Angle	Narrow/ Wide	Wide	Wide	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	Filter	Normal/ High	Normal	Normal	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	Time Out	.5 seconds to 10 seconds	2 second(s)	2 second(s)	2 second(s)	2 second(s)	N/A	2 second(s)	2 second(s)	2 second(s)	2 second(s)
	Min. Barcode Length	2 to 36 characters	4 chars	4 chars	N/A	N/A	N/A	N/A	N/A	4 chars	N/A
	Min. Barcode Length	2 to 48 characters	N/A	N/A	4 chars	4 chars	N/A	4 chars	4 chars	N/A	4 chars
	Security Level	1 to 4 level	2 level	2 level	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	Image Capture	Enabled/ Disabled	N/A	N/A	Disabled	Disabled	N/A	Disabled	Disabled	N/A	N/A
	Auto Trigger	Enabled/ Disabled	Disabled	Disabled	Disabled	Disabled	N/A	Disabled	Disabled	Disabled	Disabled
	Reread Delay	Continuous, Short, Medium, Long, Extra Long	Medium	Medium	Medium	Medium	N/A	Medium	Medium	Medium	Medium
	Finger Trigger	Enabled/Disabled	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	Partial Display	Start Position	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1	1
		No. of Char(s)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0 chars	0 chars
		Action	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Select	Select
Data Process	Wedge / Store	Wedge Only									
		Wedge & Store Always	Default	Default	Default	Default	Default	Default	Default	Default	Default
		Store Only									
		Save if Sent									
		Save if Not Sent									
	Data Format	Barcode only	Default	Default	Default	Default	N/A	Default	Default		
		Packet Data								Default	Default
	Data Editor/Prefix										
	Data Editor/Suffix										

	Data Editor/AIM ID	None/In Prefix/In Suffix	None	None	None	None	N/A	None	None	None	None
	Data Editor/Partial Data	Start Position	1	1	1	1	N/A	1	1	1	1
		No. of Char(s)	0 chars	0 chars	0 chars	0 chars	N/A	0 chars	0 chars	0 chars	0 chars
		Action	Select	Select	Select	Select	N/A	Select	Select	Select	Select
	Handshake	Enable/ Disabled	Disabled	Disabled	Disabled	Disabled	N/A	Disabled	Disabled	N/A	N/A
	Terminator	None, CR, LF, CR+LF, Tab, Right Arrow, Left Arrow,Down Arrow, Up Arrow	CR+LF	CR+LF	CR+LF	CR+LF	CR+LF	CR+LF	CR+LF	CR+LF	CR+LF
	Chk Duplicate	Enabled/ Disabled	Disabled	Disabled	Disabled	Disabled	N/A	Disabled	Disabled	Disabled	Disabled
	Enter Key	Enabled/ Disabled	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Disabled	Disabled
	Extend Key	Enabled/ Disabled	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Disabled	Disabled
	Age Verify	Verification Enabled/ Disabled	N/A	N/A	Disabled	Disabled	N/A	Disabled	Disabled	N/A	N/A
		Age Default	N/A	N/A	21	21	N/A	21	21	N/A	N/A
BT Config	Auto SPP/MFi	Enabled/ Disabled	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Enabled	Enabled
	ConnectDevice (Non Mfi mode)	SPP	Default	Default	Default	Default	Default	Default	Default	N/A	N/A
		HID iOS								N/A	N/A
		SPP2.0								N/A	N/A
		HID normal								N/A	N/A
	ConnectDevice (Mfi mode)	SPP									
		MFi	Default	Default	Default	Default	Default	Default	Default	Default	Default
	Auto Connect	Enabled /Disabled	Disabled	Disabled	Disabled	Disabled	Disabled	Disabled	Disabled	N/A	N/A
	Auto Reconnect	Enabled/ Disabled	Disabled	Disabled	Disabled	Disabled	Disabled	Disabled	Disabled	Disabled	Disabled
	Auto Power On	Enabled/ Disabled	Disabled	Disabled	Disabled	Disabled	Disabled	Disabled	Disabled	Disabled	Disabled
	Auto Power On/Power On Time	disabled, 1sec to 10second(s)	Disabled	Disabled	Disabled	Disabled	Disabled	Disabled	Disabled	N/A	N/A
	Auto Power Off	Enabled/ Disabled	Disabled	Disabled	Disabled	Disabled	Disabled	Disabled	Disabled	N/A	N/A
	Auto Power Off/Beep Warning	Enabled/ Disabled	Disabled	Disabled	Disabled	Disabled	Disabled	Disabled	Disabled	N/A	N/A
	Auto Power Off/Power Off Time	1 to 30 minutes	Disabled	Disabled	Disabled	Disabled	Disabled	Disabled	Disabled	N/A	N/A
	PowerOff Msg	Enabled/Disabled	Disabled	Disabled	Disabled	Disabled	Disabled	Disabled	Disabled	N/A	N/A
	MAC Address	12 Characters *Bluetooth* MAC Address									
	BT FW Version	v1.2.xrt Bluetooth Firmware Version									
	Wakeup Nulls	Enabled/Disabled	Disabled	Disabled	Disabled	Disabled	Disabled	Disabled	Disabled	N/A	N/A
	Connect Alert	Enabled/Disabled	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	BT Toggle	Enabled/Disabled	Enabled	Enabled	Enabled	Enabled	Enabled	Enabled	Enabled	N/A	N/A
	DisconnectBtn	Enabled/Disabled	Disabled	Disabled	Disabled	Disabled	Disabled	Disabled	Disabled	N/A	N/A
	HID AutoLock	disabled,1,2,3,4,5,10,15 minutes	1 minutes	1 minutes	1 minutes	1 minutes	1 minutes	1 minutes	1 minutes	N/A	N/A
	HID Keyboard	US,German,French ,Italian, Spanish	US	US	US	US	US	US	US	N/A	N/A
	HID Delay/Initial	Disabled, 1,2,3,5,10 secs	Disabled	Disabled	Disabled	Disabled	Disabled	Disabled	Disabled	N/A	N/A
	HID Delay/Interchar	Disabled,10, 20, 30, 50, 100msec	Disabled	Disabled	Disabled	Disabled	Disabled	Disabled	Disabled	N/A	N/A
	HID Ctrl Char	Disabled, Alt+Numpad, ^+Character, Replace to |	Disabled	Disabled	Disabled	Disabled	Disabled	Disabled	Disabled	N/A	N/A
BT Service	Power	Enabled/ Disabled	Enabled	Enabled	Enabled	Enabled	Enabled	Enabled	Enabled	Enabled	Enabled
	Pairing	Pairing neighboring Bluetooth devices									
	Discovering	Discovering neighboring *Bluetooth* devices								N/A	N/A
	Connecting to	View Connect to *Bluetooth* device									
	Disconnect		N/A	N/A	N/A	N/A	N/A	N/A	N/A		
	HID Sync									N/A	N/A
	Auto Pairing	Enabled/ Disabled	Enabled	Enabled	Enabled	Enabled	Enabled	Enabled	Enabled	Enabled	Enabled
USB Config-USB Serial Mode (M model)	USB Mode	USB Serial/USB Disk/USB HID	USB Serial	USB Serial	USB Serial	USB Serial	USB Serial	USB Serial	USB Serial	N/A	N/A

USB Config-USB Disk Mode (M model)	USB Mode	USB Serial/USB Disk/USB HID	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	Disk Format	Format KDC USB Disk	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	Data Format	Data,DataTime, DataType,DataTimeType	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
USB Config-USB HID Mode (M model)	USB Mode	USB Serial/USB Disk/USB HID	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
NFC Config (N model)	NFC Power	Enabled/ Disabled	Enabled	Enabled	Enabled	Enabled	N/A	N/A	N/A	Disabled	Disabled
	Data Format	Barcode only/Packet Data	Packet Data	Packet Data	Packet Data	Packet Data	N/A	N/A	N/A	N/A	N/A
	UID Only	Enabled/ Disabled	N/A	N/A	N/A	Disabled	N/A	N/A	N/A	N/A	N/A
GPS Config (G model)	GPS Power	Disabled	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	Power Mode	Normal/Power Save	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	Bypass Data	Enabled/ Disabled	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	Acqurie Test		N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	Reset GPS		N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
System Config	Memory Size(KDC500)	0.5/2.5, 1/2, 2/1, 3/0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0.5/2.5	0.5/2.5
	Memory Status	No. of Stored Barcodes	N/A	N/A	N/A	N/A	N/A	N/A	N/A		
		Free Memory Available	N/A	N/A	N/A	N/A	N/A	N/A	N/A		
	Reset Memory	Memory (Empties Data)	N/A	N/A	N/A	N/A	N/A	N/A	N/A		
		Application Memory	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
		BT Registry (KDC100 Not use)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	Auto Erase	Enabled/ Disabled	Enabled	Enabled	Enabled	Enabled	Enabled	Enabled	Enabled	Enabled	Enabled
	Sleep Timeout	Disabled, 1sec to 10minute(s)	5 second(s)	5 second(s)	5 second(s)	5 second(s)	5 second(s)	5 second(s)	5 second(s)	5 second(s)	5 second(s)
	Date / Time	YYYY:MM:DD & HH:MM:SS	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	Battery	% of Battery Charge Available	N/A	N/A	N/A	N/A	N/A	N/A	N/A		
	Version	Firmware Version & Serial No.	N/A	N/A	N/A	N/A	N/A	N/A	N/A		
	Button Lock	Enabled/ Disabled	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	Beep Alert /Beep Sound	Enabled/ Disabled	Enabled	Enabled	Enabled	Enabled	Enabled	Enabled	Enabled	Enabled	Enabled
	Beep Alert /Power On Beep	Enabled/ Disabled	Enabled	Enabled	Enabled	Enabled	Enabled	Enabled	Enabled	Enabled	Enabled
	Beep Alert /Beep On Connect	Enabled/ Disabled	Enabled	Enabled	Enabled	Enabled	Enabled	Enabled	Enabled	Enabled	Enabled
	Beep Alert /Beep On Scan	Enabled/ Disabled	Enabled	Enabled	Enabled	Enabled	Enabled	Enabled	Enabled	Enabled	Enabled
	Beep Alert /BeepOnMSCard	Enabled/ Disabled	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Enabled	Enabled
	Beep Alert /BeepOnICCard	Enabled/ Disabled	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Enabled	Enabled
	Beep Alert /BeepOnNFCCard	Enabled/ Disabled	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Enabled	Enabled
	Beep Volume	Low/High	Low	Low	Low	Low	Low	Low	Low	Low	Low
	Mfi (i-chip installed)	Enabled/Disabled	Enabled	Enabled	Enabled	Enabled	Enabled	Enabled	Enabled	N/A	N/A
	Auto Exit	Enabled/ Disabled	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Enabled	Enabled
	Port Status	Enabled/ Disabled	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Enabled	Enabled
	Display Format	Time & Battery / Type & Time / Type & Battery / Memory Status / GPS Data(KDC250 only)/Barcode Only	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Time & Battery	Time & Battery
	Menu Barcode	Enabled/ Disabled	N/A	N/A	Disabled	Disabled	N/A	Disabled	Disabled	Disabled	Disabled
	Scrolling	Enabled/ Disabled	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	Brightness	1 to 15 level(8 level)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	8	8
	Keypad	Enabled/ Disabled	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Disabled	Disabled
	Language	US(English)/ Korean/ Japanese	N/A	N/A	N/A	N/A	N/A	N/A	N/A	US(English)	US(English)
	Factory Default	Restores Default Settings									
MSR Config	Power	Enabled/ Disabled /	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Disabled	Disabled
	Data Format	MSR Data Only	N/A	Default	N/A	Default	Default	N/A	N/A	N/A	N/A
		Packet Data	N/A		N/A			N/A	N/A	N/A	N/A
	Use Track1	Enabled/ Disabled	N/A	Enabled	N/A	Enabled	Enabled	N/A	N/A	Enabled	Enabled
	Use Track2	Enabled/ Disabled	N/A	Enabled	N/A	Enabled	Enabled	N/A	N/A	Enabled	Enabled
	Use Track3	Enabled/ Disabled	N/A	Enabled	N/A	Enabled	Enabled	N/A	N/A	Enabled	Enabled

	Null Check Track1	Enabled/ Disabled	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Disabled	Disabled
	Null Check Track2	Enabled/ Disabled	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Enabled	Enabled
	Null Check Track3	Enabled/ Disabled	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Disabled	Disabled
	Beep on error reading	Enabled/ Disabled	N/A	Disabled	N/A	Disabled	Disabled	N/A	N/A	Enabled	Enabled
	Encrypt MSR Data	Enabled/ Disabled	N/A	Disabled	N/A	Disabled	Disabled	N/A	N/A	N/A	N/A
	AES Key Length	128bit/192bit/256bit	N/A	128bit	N/A	128bit	N/A	N/A	N/A	N/A	N/A
	Card Type	ISO/OTHER 1/AAMVA	N/A	ISO	N/A	ISO	ISO	N/A	N/A	ISO	ISO
	Track Separator	None/Space/Comma/Semicolon/CR/LF/CR&LF/Tab	N/A	None	N/A	None	None	N/A	N/A	N/A	N/A
	Attach Start/End Sentinel		N/A	Enabled	N/A	Enabled	Enabled	N/A	N/A	Enabled	Enabled
	Partial Data Start Position		N/A	1	N/A	1	1	N/A	N/A	N/A	N/A
	Partial Data Length		N/A	0	N/A	0	0	N/A	N/A	N/A	N/A
	Partial Data Action	Erase/ Select	N/A	Select	N/A	Select	Select	N/A	N/A	N/A	N/A
ICCR Config	Power	Enabled/ Disabled /	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Disabled	Disabled
	IFD Number		N/A	N/A	N/A	N/A	N/A	N/A	N/A		
	Config Number		N/A	N/A	N/A	N/A	N/A	N/A	N/A		
Key Mgmt	Stored Keys		N/A	N/A	N/A	N/A	N/A	N/A	N/A		
	Inject Keys		N/A	N/A	N/A	N/A	N/A	N/A	N/A		
Sensitive/ Set Date/Time	Date		N/A	N/A	N/A	N/A	N/A	N/A	N/A		
	Time		N/A	N/A	N/A	N/A	N/A	N/A	N/A		
Sensitive/ Set Self-Test			N/A	N/A	N/A	N/A	N/A	N/A	N/A		
Sensitive/ Set Passwords	1st Password		N/A	N/A	N/A	N/A	N/A	N/A	N/A		
	2nd Password		N/A	N/A	N/A	N/A	N/A	N/A	N/A		
Sensitive/ Key Mgmt	Stored Keys		N/A	N/A	N/A	N/A	N/A	N/A	N/A		
	Inject Keys		N/A	N/A	N/A	N/A	N/A	N/A	N/A		
	Clear Keys		N/A	N/A	N/A	N/A	N/A	N/A	N/A		
Sensitive/ Card Encrypt		Plaintext / TDES / AES	N/A	N/A	N/A	N/A	N/A	N/A	N/A	AES	AES
UHF Configuration (UHF model)	UHF Power	Enabled/ Disabled	N/A	N/A	N/A	N/A	N/A	Disabled	Disabled	N/A	N/A
	Power On Time	500ms/1sec/1.5sec/2sec/2.5sec/3sec/3.5sec/4sec/4.5sec/5sec	N/A	N/A	N/A	N/A	N/A	1 second	1 second	N/A	N/A
	Power Off Time	500ms/1sec/1.5sec/2sec/2.5sec/3sec/3.5sec/4sec/4.5sec/5sec	N/A	N/A	N/A	N/A	N/A	1.5 second	1.5 second	N/A	N/A
	Power Level	0/1/2/3/4/5/6/7	N/A	N/A	N/A	N/A	N/A	0	0	N/A	N/A
	Data Format	Hexa Decimal / Binary	N/A	N/A	N/A	N/A	N/A	Hexa Decimal	Hexa Decimal	N/A	N/A

Table 3 - KDC Menu

KDC Mode Menu

The KDC Mode Menu has two options – Normal Mode and Application Mode.

Normal

This is the default mode that provides basic barcode scanning. In normal mode, barcode data may be manipulated directly through the KDC or through KTSync during the synchronization process.

Application

This mode enables the user to run the user application created by the Application Generation Tool, as described in **Chapter 6 Application Generation.**

View Data Menu

This menu option enables the user to view and/or delete barcodes stored in the KDC. In the case of the KDC20/30, you may delete the last scanned barcode by pressing the DELETE button on the right side of the unit.

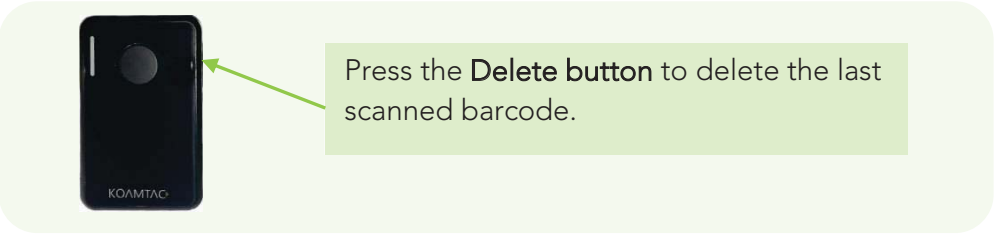


Figure 14 - Delete Function in KDC20/30

Set Barcodes Menu

This menu lists all the barcode symbologies supported by the KDC and enables the user to select the barcode symbologies to be scanned. For maximum scan performance, you should select only the symbologies that you will be scanning. Please refer to **10. Appendix A – 10.1 Symbologies** for a detailed listing of symbologies supported by the KDC.

Code Options Menu

The KDC supports various Code Options, including Transmission of Start and Stop Characters, Symbology Conversion, Verification of Optional Check Character, and Transmission of Check Digit. Please refer to **10. Appendix A – 10.2 Code Options** for a detailed explanation of each option.

Scan Options Menu

Power(KDC500 only)

Users may choose to turn the Scan Engine Power on or off. Select between Enable and Disable.

Scan Angle (Opticon laser model only)

This option enables the user to configure the laser beam angle to the barcode. There are two options for scan angle: Wide and Narrow. Wide is 54° and Narrow is 27°. The default is wide.

Filter (Opticon laser model only)

This menu enables the user to change the Filter mode from Normal to High for poor quality barcodes. The default is Normal.

Timeout

In this menu, you may set the scan timeout. The timeout options are from 500ms up to 10 seconds. The default is 2 seconds.

Minimum Barcode Length

This option enables the user to set a barcode length from 2 characters to 36 characters (KDC20/100/200/250/270L/350L/410/411/415/470L/500L) or 2 characters to 48 characters (KDC30/300/350C/420/421/425/450/470C/500C). It is strongly recommended that you maximize the minimum barcode length setting to prevent possible errors.

- The default minimum barcode length of KDC20/100/200/250/270L/350L/410/411/415/470L/500L is 4 characters.
- The default minimum barcode length of KDC30/300/350C/420/421/450/470C/500C is as follows:

		Minimum (Default)	Maximum (Default)
1D Symbology	Codabar	2(4)	60(60)
	Code 11	1(4)	80(80)
	Code 32	-	-
	Code 39	0(0)	48(48)
	Code 93	0(0)	80(80)
	Code 128	0(0)	80(80)
	EAN-8	-	-
	EAN-13	-	-
	GS1 Composite	-	-
	I2of5	2(4)	80(80)
	Matrix 2of5	1(4)	80(80)
	MSI	4(4)	48(48)
	Plessey	4(4)	48(48)
	PosiCode	2(4)	80(48)
	GS1 Omni	-	-
	GS1 Limited	-	-
	GS1 Expanded	4(4)	74(74)
	S2of5 Ind	1(4)	48(48)
	S2of5 IATA	1(4)	48(48)
	TCL39	-	-
	Telepen	1(1)	60(60)
	Trioptic	-	-
	UPCA	-	-
	UPCE0	-	-
	UPCE1	-	-

2D Symbology	AztecCode	1(1)	3750(3750)
	AztecRunes		
	CodablockF	1(1)	2048(2048)
	Code16K	0(1)	160(160)
	Code49	1(1)	81(81)
	DataMatrix	1(1)	1500(1500)
	MaxiCode	1(1)	150(150)
	MicroPDF	1(1)	366(366)
	PDF417	1(1)	2750(2750)
	QRCode	1(1)	3500(3500)
	HanXin Code	-	-
Postal Codes	Postnet	-	-
	PlanetCode	-	-
	UK Post	-	-
	Mayada Post	-	-
	Kix Post	-	-
	Australia Post	-	-
	Japan Post	-	-
	China Post	2(4)	80(80)
	Korea Post	2(4)	80(48)
OCR	OCR Off	-	-
	OCR A	-	-
	OCR B	-	-
	OCR Passport	-	-
	OCR MICR	-	-
	OCR SEMI	-	-

Table 4 - KDC30/300/350C/420/450/500C Minimum Barcode Length

Image Capture (KDC30/300/270C/350C/420/421/425/450/470C)

This option enables the user to capture an image in JPEG format in C:\myData folder. You should enable the image capture option first, and then press the Scan button to start the aiming. A green aiming light will illuminate and an image will be taken upon release of the Scan button. KDC will disable the image capture option if the user presses the scan button for 5 seconds.

Security Level (Laser Model only)

This menu enables the user to ensure an accurate barcode reading by setting the number of times the KDC will read a barcode. Security Level is set from 1 up to 4. The higher security level means readings are more reliable; however, some performance degradation is likely. For poor quality barcodes, we recommend increasing the security level. The default is 2.

Auto Trigger

Once enabled, Auto Trigger enables the user to scan a barcode automatically. You may adjust reread delay from continuous to extra-long. Auto Trigger mode always enables the duplicate check

option.(1D Model only)

Note

- *USB cable insertion requirement is removed from FW2.85/86.O and FW 3.02.*
- *You may exit the auto trigger mode by pressing the scan button for 3 seconds.*

Reread Delay

You may adjust the reread delay from continuous to extra-long.

Partial Display

This option enables the user to display partial data. You may define the start position and number of characters to be displayed.

Data Process Menu

Wedge/Store

The KDC provides five modes of data transmission in keyboard wedging mode.

- **Wedge Only**: Barcode data is NOT stored in memory but transmitted to the host.
- **Wedge & Store Only**: Barcode data is stored in memory and transmitted to the host.
- **Store Only**: Barcode data is stored in memory but NOT transmitted to the host.
- **Save if Sent**: If data transmission is successful, barcode data is stored in memory.
- **Save if Not Sent**: If data transmission is NOT successful, barcode data is stored in memory.

Data Format

The KDC provides two data formats, Barcode Only and Packet Data.

- **Barcode Only**: The KDC transmits scanned barcodes only. You may incorporate appropriate data transmission error detection and correction mechanisms in this mode. KDC supports a selection of various termination characters for Barcode Only format. You may select <NONE>, <CR>, <LF>, <CR+LF> or <TAB> as the termination character.

- **Packet Data**: KDC transmits packet data with checksum to minimize transmission errors. KTSync sets Data Format to Packet Data format upon execution.
  - ➢ You may change **Data Format** to **Barcode Only** if you would prefer to use the Barcode Only mode. However, the KDC would stay in Packet Data mode if KTSync is aborted abnormally. If this is the case, you may have to change the KDC back to Barcode Only mode manually.
    - **Barcode Index**: KDC20i/30i/200i/250i/300i/270i/350i/400i/500i add 4 bytes barcode index to maintain last synchronized barcode information.

Note

- This optional index would be added if data format is “Packet Data”.

- 4 bytes index would be added before “@” when responding to “p” command.
- 4 bytes index plus “@” character would be added after checksum byte if the user scans a barcode and wedges to the host.

Data Editor

The KDC provides various data editing options.

- **Prefix** - Enables user to add a prefix to scanned data that may then be wedged to the host. The Prefix must be defined in the KTSync. The maximum length for a Prefix is 11 characters.

Note This Prefix option is different from the Prefix option in KTSync, which attaches the prefix to data during synchronization.

Note The user may also define the prefix by scanning characters defined in Appendix C&D(E&F for KDC500). as shown below in the special barcodes.

KDC20/100/200/250/300/270L/350L/410/411/415/470L/500L

Prefix Enter Start

83000

Prefix/Suffix Enter Finish

83002

KDC30/270C/350C/420/421/425/450/470C/500C

Prefix Enter Start

TMKDC83000.

Prefix/Suffix Enter Finish

TMKDC83002.

Note Users may also delete or display current prefixes by scanning the following special barcodes.

- **KDC20/100/200/250/300/270L/350L/410/411/415/470L/500L**

Delete Prefix

Display Prefix

- **KDC30/270C/350C/420/421/425/450/470C/500C**

Delete Prefix

Display Prefix

- **Suffix** - Enables the user to add a suffix to scanned data, which may then be wedged to the host. The suffix must be defined in the KTSync. The maximum length for a suffix is 11 characters.

Note

- This Suffix option is different from the Suffix option in KTSync, which appends the suffix to data during synchronization.

Note

- The user may also define the suffix by scanning characters defined in Appendix C&D(E&F for KDC500). as shown below in the special barcodes.

20/100/200/250/300/270L/350L/410/411/415/470L/500L

Suffix Enter Start

Prefix/Suffix Enter Finish

KDC30/270C/350C/420/421/425/450/470C/500C

Suffix Enter Start

Prefix/Suffix Enter Finish

Note The user may also delete or display a current suffix by scanning the following special barcodes.

- **KDC20/100/200/250/300/270L/350L/410/411/415/470L/500L**

Delete Suffix

Display Suffix

- **KDC30/270C/350C/420/421/425/450/470C/500C**

Delete Suffix

Display Suffix

- **AIM ID** - Enables the user to add AIM ID to scanned data, which may then be wedged to the host. AIM ID can be added to the end of a Prefix or Suffix.
- **Partial Data**: Enables the user to store and/or transfer partial data. The user defines the

start position and number of characters to be stored and/or transferred. The user also can select if taking or erasing the characters selected with Start position and No of char(s).

- Start position
  - This option specifies the start position of data.
- No of char(s)
  - This option specifies the length of data. The '0' means all data.
- Action
  - This option selects if erasing or taking the specified data.

Handshake(KDC500 doesn't support it)

KDC provides Handshake mode when Data Format is set to Packet Data.

- Handshake Mode will increase the reliability of barcode data transmission.
- The default mode for Handshake is disabled.
- Data transmission speed is slower when Handshake Mode is enabled.

Terminator

The KDC supports various termination characters when the Data Format mode is set to Barcode only. Select <NONE>, <CR>, <LF>, <CR+LF>, or <TAB> as the termination character. The default terminator is <CR+LF>. The Up/Down/Left/Right arrow terminator is also available for HID mode.

Chk Duplicate

This option prevents you from collecting duplicate data.

Enter Key (KDC350/500 only)

This option determines the behavior of the '#' key on the keypad.

- If this option is enabled, the '#' key acts as a keyboard enter key.
  - The '#' key finishes the current data input, and stores/sends input data according to the menu settings of **Wedge/Store**.
  - The cursor moves to next line after the current data input is complete, regardless of whether there is a data input or not.
  - The screen is scrolled up one line if the '#' key is pressed on the last line of KDC screen.
  - If 'Shift' is enabled, remember that the '#' key will input the '#' character.

Extend Key (KDC350/500 only)

This option enables users to enter more symbols by using keypad.

Age Verification (KDC30/300/270C/350C/420/421/425/450/470C)

This option enables to verify age by reading driver license.

BT Config Menu – KDC20/30/200/250/300/270/350/400/500

The KDC supports *Bluetooth* Ver2.1+EDR. Before utilizing the advantages of Bluetooth functionality with the KDC, the user should become familiar with Bluetooth connectivity and its impact on the host environment.

To configure your KDC for Bluetooth functionality, you may use the KDC Menus.

Below is a listing of the Bluetooth options and their settings. The default settings for these options have been set to increase the usability of Bluetooth technology without compromising the KDC battery usage.

> **IMPORTANT: We strongly recommend NOT changing these settings until the user has fully tested the Bluetooth connection between the KDC and the host device.**

For more detailed information regarding Bluetooth functionality with the KDC, please refer to Chapter 4. BLUETOOTH.

ConnectDevice

You may choose the Bluetooth device type in this option.

- HID normal - KDC20(i)/30(i)/200(i)/250(i)/300(i)/270(i)/350(i)/400(i)
- HID iOS - KDC20(i)/30(i)/200(i)/250(i)/300(i)/270(i)/350(i)/400(i)
- SPP2.0 - KDC20(i)/30(i)/200(i)/250(i)/300(i)/270(i)/350(i)/400(i)
- SPP - KDC20(i)/30(i)/200(i)/250(i)/300(i)/270(i)/350(i)/400(i)/500(i)
- MFi - KDC20i/30i/200i/250i/270i/300i/270i/350i/400i/500i

Auto Connect

Enabled or Disabled(KDC500 doesn't support)

Auto Reconnect

Enabled or Disabled

Auto Power On

Enabled or Disabled(KDC500 doesn't support)

PWR On Time

Disabled, 1 to 10 seconds(KDC500 doesn't support)

Auto Power Off

Enabled or Disabled (KDC250G/350G should use option in system menu)
(KDC500 doesn't support)

Beep Warning

Enabled or Disabled(KDC500 doesn't support)

PWR Off Time

1 to 30 Minutes(KDC500 doesn't support)

PowerOff Msg

Enabled or Disabled(KDC500 doesn't support)

MAC Address

When users select this option, KDC displays 12 characters *Bluetooth* MAC Address.

FW Version

This option displays *Bluetooth* Firmware Version

Wakeup Nulls

Enabled or Disabled(KDC500 doesn't support)

BT Toggle

Enable or Disable iOS device soft keyboard or Connect/Disconnect Bluetooth. (KDC500 doesn't support)

BT Disconnect Button

Enable or Disable Bluetooth disconnection by pressing down button for 3 seconds. (KDC500 doesn't support)

HID AutoLock

Disabled, 1, 2, 3, 4, 5, 10, 15 minutes(KDC500 doesn't support)

HID Keyboard

Users may select a keyboard language in HID mode. KDC supports five languages: English, German, French, Spanish, and Italian. (KDC500 doesn't support)

HID Initial Delay

In this menu, users may define the initial delay between 1 second to 10 seconds before data transmission in HID mode(KDC500 doesn't support)

HID Inter-character Delay

This option enables users to define the inter-character delay between 10msec to 100msec in HID mode(KDC500 doesn't support)

HID Control Character

This option helps users to map control characters to **ALT+Numlock or ^+Character_or '|'**. (KDC500 doesn't support)

BT Service Menu – KDC20/30/200/250/300/270/350/400/500

Power

Users may choose to turn Bluetooth Power on or off. Select between Enable and Disable.

Pairing Mode

This option Enables user to enter pairing mode by simply selecting this menu.

- The KDC enters into pairing mode so that the host *Bluetooth* device may search for it.
- The KDC may exit pairing mode if the user presses the SCAN button or if it fails to pair with the *Bluetooth* host device within 90 seconds.

Discovering

When users choose this menu, KDC searches for nearby *Bluetooth* devices. (KDC500 doesn't support)

Connecting To

This option enables the user to inquire to a registered *Bluetooth* device. (KDC500 doesn't support)

Disconnect

This option enables the user to disconnect KDC from the paired *Bluetooth* device. (KDC500 only)

HID Sync

KDC transmits all stored data to the host over HID profile if HID Sync option is enabled. (KDC500 doesn't support)

Auto Pairing

Enables or Disable the automatic Host Bluetooth type detection (SPP or MFi).(i Model only)

GPS Config Menu – KDC250G/350G

Barcode and GPS data format

The GPS enabled model adds the GPS coordinate after the barcode data, if GPS data is available. The GPS data starts with "**<G|P/S]**" and ends with "**:**". For example, the GPS enabled model would record barcode "1234567890" , GPS coordinate "4354.45275,N;07925.81993,W" and Altitude data "208.7,M"as "1234567890<G|P/S]4354.45275,N;07925.81993,W ,208.7,M:" in the barcode data field.

GPS Menu

- **GPS Power**: Turning GPS Power on or off
  - Users may enable or disable the GPS Power.
  - The GPS module consumes extensive battery power. To conserve battery power, it is strongly recommended to turn off the GPS option when the GPS enabled model is not being used for an extended period of time.
  - It is also recommended to use the GPS Auto Power Off option in the SystemConfig menu. This option automatically turns off the GPS power if a barcode is not scanned for

a period of time.

- **Power Mode**: The user may choose the type power consumption for the GPS function.
  - Users may extend the battery life of the GPS enabled model in Power Save mode.
  - Users should use normal mode if accurate GPS data is required.
  - The KDC350G will last about 15 hours in normal non-bypass data mode and 18 hours in power save non-bypass data mode.
  - The KDC350G will last about 7 hours in normal bypass data mode and 8 hours in power save bypass data mode.
- **Bypass Data:** Enabled or Disabled
  - This option should be disabled if users wish to record the GPS data with a scanned barcode data.
  - The KDC will bypass GPS data to the host if the bypass option is enabled.
  - The KDC becomes a Bluetooth GPS receiver if this bypass data option is selected.
- **Acquire Test**: Select to acquire GPS signal.
- **Reset GPS**: Reset KDC GPS module.

GPS Hot Key

The KDC250G/350G provides the following hot keys for convenient GPS operations:

- **GPS Acquire Test Cancellation**
  - Users may cancel the GPS acquire test by pressing the SCAN button during the test.
- **GPS Data Append Cancellation**
  - Users may cancel GPS data append by pressing SCAN button if GPS data is not available immediately.
  - Users should hold the SCAN button for more than 3 seconds to cancel GPS data append.

USB Mode Menu– 100M/200M/250M/300M/270/350

Disabled

When this option is selected, KDC enters into USB Serial mode.

USB Disk

This option enables the user to change to USB Disk mode and barcode data that KDC scanned is stored into a file in flash disk when this option is selected.

KDC100M/200M/250M/300M/350 may be used as USB Disk with 4MB or 8MB space and KDC270 may be used as USB Disk with 8MB space.

USB HID

When this option is enabled, KDC enters into USB HID mode.

Disk Format

This option is available in USB Disk mode and Enables users to format KDC USB Disk.

Data Format

This option is available in USB Disk mode.

- **Data**
- **Data Time**
- **Data Type**
- **Data Time Type**

Note

- Changing the “USB Mode” option will erase all data in KDC memory. Make sure to back up your data before changing this option.
- KTSync may not recognize the KDC if the KDC is in “USB DISK” mode or “USB HID” mode.

NFC Config Menu – KDC350N/411N/415N/421N/425N/500

NFC Power

- Turning NFC Power on or off
- Options: Enable/Disable

Data Format

- Options: Data only/Packet data.(KDC500 doesn't support)

UID Only

- Enable or Disable UID Only menu
- The KDC only sends UID data to the host device when the KDC is in UID Only mode.
- (KDC500 doesn't support)

UHF Config Menu – KDC450U

UHF Power

- Turning UHF Module Power On or Off
- Options: Enable/Disable

Power On Time

Specify the power on time duration of UHF module.

- Options: 500ms/1sec/1.5sec/2sec/2.5sec/3sec/3.5sec/4sec/4.5sec/5sec

Power Off Time

Specify the power off time duration of UHF module.

- Options: 500ms/1sec/1.5sec/2sec/2.5sec/3sec/3.5sec/4sec/4.5sec/5sec

Power Level

Specify the UHF module power level to determine the power strength of antenna. 7 means the most power strength.

- Options: 0/1/2/3/4/5/6/7

Data Format

Specify the data format of UHF data when it is transmitted from KDC to Host.

- Options: Binary / Hexa Decimal

Smart Hopping

It enables KDC450U to find an optimized UHF channel and can be initiated by reading a special barcode.

WIFI Config Menu (KDC350F)

KDC350F WiFi model can send and receive data to/from host by using the following protocols.

- UDP
- TCP
- HTTP_GET
- HTTP_POST

In UDP/TCP mode, KDC350F will support full duplex mode, meaning is the KDC350F will be ready to get data from host all the time.

Power

- Turns the Wi-Fi Module Power ON and OFF.

AP

- Set AP SSID.
- Set AP Passcode.

Server

- Configure the following server information
  - IP Address
  - URL Address
  - Port Number
  - Protocol (UDP/TCP/HTTP-GET/HTTP-POST)
  - SSL(Security)
  - Server Page

Connect

- Connect to AP and server.

Auto Connect

- Enable/Disable KDC to reconnect to AP & Server when it detects disconnection from AP and Server.

Send Stored

- Enable/Disable KDC to send stored data when sending a new read data.

CDMA Config Menu (KDC350WA CDMA)

KDC350WA CDMA model can send and receive data to/from host by using the following protocols if and only if the device is activated and the Verizon network is available.

- UDP
- TCP
- HTTP_GET
- HTTP_POST

In UDP/TCP mode, KDC350WA will support full duplex mode, meaning is the KDC350WA will be ready to get data from host all the time.

Power

- Turns the CDMA Module Power ON and OFF.

Provisioning

- Activates the device under Verizon CDMA network.

Server

- Configure the following server information
  - IP Address
  - URL Address
  - Port Number
  - Protocol (UDP/TCP/HTTP-GET/HTTP-POST)
  - SSL(Security)
  - Server Page
  - Resp. Timeout

Connect

- Connect to Server.

Disconnect

- Disconnect from Server.

Auto Connect

- Enable/Disable KDC to reconnect to Server when it detects disconnection from Server.

Send Stored

- Enable/Disable KDC to send stored data when sending a new read data.

Information

- Displays CDMA module firmware version, the CDMA number, MEID, and IP address.

MSR Config Menu – KDC415/425/430/500

Power(KDC500 only)

- Turning MSR(Magnetic-Stripe Card Reader) on or off
- Options: Enabled/Disabled

Data Format(KDC415/425/430 only)

- Enables/Disables whether KDC415/425/430 sends with packet data or not.
- Options: Enabled/Disabled

Use Track

The user may select which track(1/2/3) data to read from the MS Card.

- Track 1 : Enabled/Disabled
- Track 2 : Enabled/Disabled
- Track 3 : Enabled/Disabled

Null Check(KDC500 only)

The user may select which track(1/2/3) data should not be null. When this option is enabled for a Track and the read data is null, MS Card read fail occurs.

- Track 1 : Enabled/Disabled
- Track 2 : Enabled/Disabled
- Track 3 : Enabled/Disabled

Beep On Error

When this option is enabled, KDC makes a beep sound when it fails to read a MS card.

Encrypt MSR Data(KDC415/425/430 only)

- If enabled, KDC415/425/430 sends MSR data with AES encrypted.
- Options: Enabled/Disabled

AES Key length(KDC415/425/430 only)

- Specify the AES key length.
- Options: 128bits/192bits/256bits

Card Type

The user may select which type of MS card to read.

- ISO
- OTHER 1
- AAMVA
- JIS(KDC500 only)

Track Separator(KDC415/425/430 only)

- Specify the separator which will be added between track data
- Options: None, Space, Comma, Semicolon, CR, LF, CR&LF, Tab

Attach SS/ES

When this option is enabled, KDC does not exclude the Start Sentinal(SS) and End Sentinal(ES) control characters in the track data when it sends the card data to the connected Host device.

Partial Data(KDC415/425/430 only)

Enables the user to transfer partial MSR data. The user defines the start position and number of characters to be transferred.

- Start position
  - This option specifies the start position of data.
- No of char(s)
  - This option specifies the length of data. The '0' means all data.
- Action
  - This option selects if erasing or taking the specified data.

ICCR Config Menu – KDC500

Power

- Turning ICCR(IC Card Reader) on or off
- Options: Enable/Disable

IFD Number

This option shows the EMV IFD(Interface Device) number.

Config Number

The option shows the stored EMV Contact Configuration number.

SystemConfig Menu

Memory Size *(3.0+ version only, KDC500 doesn't support)*

The user may select how much memory to divide between normal data memory and application database memory.

- The KDC will erase all stored data upon changing the partition size.
- The user should enter the following key sequence to change the partition.
  - UP button + UP button + DOWN button + DOWN button + SCAN button

Memory Status

In this option, users may checks the number of stored barcodes and memory usage.

Reset Memory

In this option, users may reset KDC memory by erasing all stored barcodes, applications, and BT registry. KDC500 only erase all stored barcodes.

Auto Erase

If enabled, this feature erases stored barcodes on the KDC once the 'Buffer Full' condition is reached.

Sleep Timeout

This option Enables users to set the amount of time the KDC waits before going to *sleep* (when not being used).

Auto Power Off *(KDC250G/350G)*

- **Bluetooth**: Enabled/Disabled
- **GPS**: Enabled/Disabled
- **Power Off Time**:0(Never), 5, 10, 20, 30, 60, 120 minutes

Date/Time

In this option, users may set the date and time of the KDC, which may also be set using KTSync.(except KDC500)

Battery

This option shows the current status of battery power level.

Version

This option shows the KDC firmware version and serial number.

KDC500 displays only firmware version.

Serial Number(KDC500 only)

KDC500 displays the serial number

Button Lock

This option enables the user to lock or unlock the KDC scan and scroll buttons.(KDC500 doesn't support)

Beep Alert

- **Beep Sound**: Enables or disables KDC beep sound.

- **Power On Beep**: Enables or disables beep sound when KDC power is on.
- **Beep On Connect**: Enables or disables beep sound when KDC is connected to the host.
- **Beep On Scan**: Enables or disables beep sound when KDC is scanning.
- **Beep On MS Card** (KDC500 only) : Enables or disables beep sound when KDC reads a MS Card.
- **Beep On IC Card** (KDC500 only) : Enables or disables beep sound when KDC reads an EMV Contact Card.
- **Beep On NFC Card** (KDC500 only) : Enables or disables beep sound when KDC reads an NFC Tag or EMV Contactless Card.

Beep Volume

This option enables the user to adjust the beep volume from High to Low.

MFi Mode *(KDC20i/30i/200i/250i/270i/300i/350i/400i)*

This option Enables user to enable or disable MFi mode. MFi mode supports SPP and MFi Bluetooth profiles. Non-MFi mode supports SPP, SPP2.0, HID iOS and HID normal.

Vibrator(KDC20/30/270/350)

Enables, disables and configure KDC vibrator.

- There are two additional options for KDC vibrator configuration.
    - Scan Success ➔ Specify the number of vibration when scan successfully.
    - Scan Failure ➔ Specify the number of vibration when scan failed.

Auto Exit

This option enables KDC to automatically exit KDC Menus.

Port Status

This option enables users to enable or disable KDC port messages.

Display Format

There are various selections of display format; Time & Battery, Type & Time, Type & Battery, Memory Status, Barcode only and Graphics.

The Graphics option enables to display ‘O’ for scan success and ‘X’ for scan failure.

Menu Barcode

This option enables users to enable or disable Honeywell special barcodes (KDC300/350C/500C only).

Scrolling

This option enables users to enable or disable display scrolling for a barcode with more than 40 characters.(KDC500 doesn’t support)

Brightness

This option enables users to adjust brightness of display.

Keypad(KDC350/500)

This option enables users to enter data by using keypad.

Language(Version 3.0+, KDC500)

This option enables users to select KDC display languages.

The supported languages are as following.

- None – Languages is not supported. Default is an English.
- US(English)
- French
- Italian
- Spanish
- Korean
- Japanese

KDC500 only supports US(English), Korean and Japanese.

Factory Default

By selecting this option, users may reset KDC options to factory default settings.

Key Mgmt Menu– KDC500

- **Stored Keys** : Displays all the encryption keys stored in the KDC500.
- **Inject Keys** : In this menu, the user can inject the necessary encryption keys via Key Loader device.

Sensitive Menu – KDC500

KDC500 Sensitive menu has sub menus which can impact on the KDC500 security services. KDC500 requires two passwords for the Sensitive menu group access in order to ensure only authorized people can utilize the sensitive services. The default passwords are 0000000 and 11111111.

Note

- For PCI PTS compliance, the default passwords should be changed prior to use. Without the default passwords change, KDC500 declines all the payment related service requests; such as MS Card Read, IC Card Insertion, PIN Entry, etc.

Set Date/Time

In this menu, the user can set the date and time of the KDC500.

Set Self-Test

The user can set the time for the Self-Test in this menu. In PCI PTS, it requires to perform the Self-Test(Firmware and stored key authentication) at least once in 24 hours.

Set Passwords

In this menu, the user can change the current passwords to access the Sensitive Menu.

Key Mgmt

- **Stored Keys** : Displays all the encryption keys stored in the KDC500.
- **Inject Keys** : In this menu, the user can inject the necessary encryption keys via Key Loader device.
- **Clear Keys** : In this menu, the user can clear all the encryption keys stored in the KDC500 except the Firmware Update Authentication key which is loaded during the manufacturing process.

Card Encrypt

This menu allows user to choose the encryption algorithm for the sensitive card data from the list below.

- Plaintext
- T-DES
- AES

3.4 LED Status

LED Color	Status
Green	• Successful Reading • USB is connected and battery is fully charged. • MFi mode in pairing mode.
Orange	• Low battery • USB is connected and battery is charging • HID mode is in pairing mode. (except KDC500)
Red	• No reading • SPP mode is in pairing mode.

Table 5 - Explanation of LEDs

3.5 Empty Battery

KDC100/200/250/300/270/350

The KDC will display the message ***Empty Battery Connect USB*** when the battery is empty. Please charge the KDC IMMEDIATELY to prevent any interruptions while it is collecting data.

KDC20/30/400

- Under 30% - Orange LED flickers at 1-second-intervals for 5 seconds every minute.
- Under 20% - Orange LED flickers at 1-second-intervals for 10 seconds every minute.
- Under 10% - Red LED flickers in 1- second-interval for 10 seconds every minute, and the user will hear a beeping sound.

KDC500

- Under 10% (Low) Displays the message ***Low Battery Please Charge***. KDC500 is still functional, but charge the KDC500 IMMEDIATELY to prevent any interruptions while it is collecting data.
- Under 5% (Empty) - Displays the message ***Empty Battery Please Charge***. KDC500 is not functional any longer.

3.6 Buffer Full

The KDC will display the message ***Buffer Full*** when there is no more space in the flash memory or the number of collected barcodes reaches the maximum number of stored barcode. To prevent the loss of data, you should synchronize the data then reset the memory when this message is displayed.

The 4MB/8MB version KDC reaches the Buffer Full condition in the following situations:

- 0.5MB Partition - Collected data size reaches 0.5MB or collected number is 25,600
- 1MB Partition - Collected data size reaches 1MB or collected number is 51,200
- 2MB Partition - Collected data size reaches 2MB or collected number is 102,400
- 3MB Partition - Collected data size reaches 3MB or collected number is 153,600
- 4MB Partition - Collected data size reaches 4MB or collected number is 204,800
- 5MB Partition - Collected data size reaches 5MB or collected number is 256,000
- 6MB Partition - Collected data size reaches 6MB or collected number is 307,200
- 7MB Partition - Collected data size reaches 7MB or collected number is 358,400
- 8MB Partition - Collected data size reaches 8MB or collected number is 409,600

3.7 Reset Feature (100/200/250/300) or Power-on/off (KDC20/30/270/350/400/500)

The Reset feature enables the user to restart the KDC100/200/250/300 if necessary, without losing any stored barcode data or option settings. To reset the KDC, follow the below steps.

1. Press the DOWN and SCAN buttons simultaneously for 5 seconds.
2. When the LEDs illuminate orange, release the buttons.
3. The KDC initial screen, **KoamTac Data Collector KDC**, displays when reset is complete.

Note The KDC stores collected data into flash memory and will not lose data nor the KDC settings during the reset process.

If you are using the KDC20/30/270/350, you may turn the power on and off by pressing the DOWN and SCAN button simultaneously for 5 seconds. When the LED light is green, you may release the buttons and the power will be on. When you turn off the KDC20/30/270/350/470, you will hear a beep sound after pressing the DOWN and SCAN buttons simultaneously.

If you are using the KDC400 (except KDC470) you may turn the power on and off by sliding the power switch.

If you are using the KDC500, you can turn the power on and off by pressing the left and right SCAN buttons simultaneously for 5 seconds. When the display shows KOAMTAC logo, you may release the buttons and the power will be on. When you turn off the KDC500, you will see the display shows blank after pressing the left and right SCAN buttons simultaneously.

3.8 Replace Battery

Each KDC comes with a rechargeable, Lithium-polymer (KDC20/100/200) or Lithium-ion (KDC30/250/300/270/350/400/500) battery. The battery may be recharged from any USB port or KDC charging cradle, and may be recharged about 300 times before it needs to be replaced. KOAMTAC recommends replacing the battery annually, as a declining battery will cause noticeable performance degradation in the KDC. Replacement batteries may be purchased from a KDC reseller. Batteries should be disposed of properly as according to the WEEE regulation. The steps for replacing a battery are as follows.

1. Disassemble the KDC back cover by unscrewing the middle screw.
2. Remove the old battery and replace with a new battery.
3. Reassemble the back cover.

1		Unscrew the screw indicated by the arrow.
2		Remove the battery cover by pulling it down.
3		Remove the battery. Pull out the 2 pin connecter gently.

Figure 15 - Replacing a Battery

4. Bluetooth - KDC20/30/200/250/300/270/350/400/500

The KDC20/30/200/250/300/270/350/400 supports HID (Human Interface Device) normal, HID iOS, SPP (Serial Port Profile) and SPP2.0 profiles. The KDC500 supports SPP only. The KDC20i/30i/200i/250i/300i/270i/350i/400i/500i supports MFi (Made for iPhone/iPad/iPod touch) profiles too. They are compatible with the following Bluetooth stacks:

- BlueSoleil
- Broadcom (Widcomm)
- Microsoft Windows XP, Vista, 7, 8, 10, and Mobile 5.0+
- Toshiba

Note For PCI PTS compliance, KDC500 can support only SPP and MFi profiles.

The KDC200/250/300/270/350/500's *Bluetooth* options may be configured by using the KDC menu, PC KTSync and special barcodes. The KDC20/30/400's Bluetooth options may be configured by using the PC KTSync and special barcodes.

4.1 Bluetooth Config

Connect Device

The KDC supports both Serial Port Profile (SPP) and Human Interface Device Profile (HID). The user may choose amongst SPP2.0, SPP (2.1), HID normal, or HID iOS profiles to communicate with the host device. An additional MFi (Made for iPhone/iPad/iPod touch) option is available for KDC20i/30i/200i/250i/300i/270i/350i/400i/500i models when MFi mode is enabled.(SystemConfig Menu). KDC500i doesn't have MFi mode option and supports MFi by default.

If the **BT Toggle** option(KDC500 doesn't support) in **BT Config** is enabled, the user may connect and disconnect the Bluetooth connection with the host device by pressing the UP and DOWN buttons. It normally takes 3 seconds to connect and 1 second to disconnect. This is a very useful feature for iPhone and iPad applications.
The user may also enable and disable the iPhone and iPad soft keyboard instantly by using this BT Toggle option in HID mode.

The UP button shows the Bluetooth connection status and the DOWN button shows the time when this option is disabled.

Note The user should first un-pair the KDC from the Bluetooth host to change the Connect Device setting on the scanner to a different Bluetooth profile.

Auto Connect

This feature enables the KDC to automatically connect to the host device when the KDC is powered on. KDC500 doesn't support Auto Connect.

IMPORTANT: Until the host device and the KDC have been fully tested, it is strongly recommended that this feature be set to 'Disabled', because a host device that does not support this feature could cause problems, such as power loss or upload delays.

Note The KDC automatically tries to connect to the host 10 times within the duration of two minutes when *Bluetooth* power is ON, *Bluetooth* is disconnected, Auto Connect is enabled, and system Sleep Timeout is set to 5 seconds.

Auto Reconnect

This feature enables the KDC to automatically connect to the host device when the KDC is disconnected from a host.

Note The KDC tries to connect automatically to the host 10 times within the duration of two minutes if Bluetooth is disconnected.

Auto Power On

The Auto Power On option Enables the KDC to automatically power on Bluetooth when the SCAN button is pressed. The default setting is Disabled. KDC500 doesn't support this option.

Note Users should press the scan button for the duration defined in the **BT Config** Power-on time option. The host program may have to open the COM port again in order to be reconnected with the KDC.

PWR ON Time

The PWR On Time option works in conjunction with the Auto Power On option. The default value is Disabled. If the KDC Bluetooth power is off, you may turn on the Bluetooth power by pressing the SCAN button for the PWR On Time option value. KDC500 doesn't support this option.

Auto Power Off

The Auto Power Off option works in conjunction with the PWR Off Time option. This option Enables the KDC to power off Bluetooth automatically when the KDC is NOT CONNECTED to the host for the time duration specified in the PWR Off Time option. KDC500 doesn't support this option.

The default for this option is disabled. It is strongly recommended to keep it enabled to maximize the operation time of the KDC. If Auto Power Off is Enabled, Bluetooth may be manually powered off before the specified time in the PWR off time option.

It is recommended to enable 'Auto Power On' option if this option is enabled. User doesn't need to turn on the Bluetooth power manually with this configuration.

Beep Warning

The KDC beeps to warn user to power off the Bluetooth if this option is enabled with five short beeps when the following condition meets..

1. Bluetooth power is ON
2. KDC is disconnected
3. Auto Power Off is DISABLED

KDC500 doesn't support this option.

PWR OFF Time

The PWR Off Time option works in conjunction with the Auto Power Off option. If Auto Power Off is Enabled, the KDC powers off Bluetooth when the duration of time specified in the PWR Off Time option is met and the KDC is NOT CONNECTED to the host. The time setting for this option is from one (1) minute to 30 minutes. The default is five (5) minutes. KDC500 doesn't support this option.

PowerOFF Msg

The KDC sends a Bluetooth power off message "BTOFF" to the host when KDC is connected from host if this option is enabled. KDC500 doesn't support this option.

MAC Address

The user may verify the KDC Bluetooth MAC Address.

FW Version

The user may verify the KDC Bluetooth firmware version in this menu.

Wakeup Nulls

The KDC sends three leading Null bytes to wake up the *Bluetooth* connected device. This feature may be disabled if the *Bluetooth* connected device does not require additional bytes to wake up. KDC500 doesn't support this option.

Autolock Time

The iPhone/iPad/iPod touch loses incoming Bluetooth data while in sleep mode. To prevent data loss, you may set the KDC Autolock time to the same Autolock time of your iPhone/iPad/iPod touch, to use the automatic wakeup feature in HID mode. KDC500 doesn't support this option.

If the Autolock time is set to more than one minute and the barcode scan interval is larger than the auto-lock time, there will be a one second delay of barcode transmission. The auto-lock time would be set as 0, 1, 2, 3, 4, 5, 10, 15 minutes. 0 means the iPhone/iPad/iPod touch never enters sleep mode. This option may not need from iOS 5.x.

HID Keyboard

The user may select an international keyboard – English, German, French, Spanish, or Italian. It is also required to set the host keyboard with the same keyboard as selected in this menu. KDC500 doesn't support this option.

HID Initial and Inter-Character Delay

Certain applications may not process HID input fast enough and may lose some characters during transmission. Users should increase initial and inter-character delay to prevent data loss during HID transmission. KDC500 doesn't support this option.

- HID Initial Delay: Defines the initial delay between 1 sec to 10 sec before data transmission in HID mode.
- HID Inter-character Delay: Defines the inter-character delay between 10msec to 100msec in HID mode.

Control Character Transmission in HID mode

Control characters between ASCII values 0x00 and 0x1F may be replaced by the ALT+Numpad or ^+Character or replaced with '|'. KDC500 doesn't support this option.

- Disabled ➔ Transmit the original control character.
- Alt+Numpad ➔ Transmit Alt+ ASCII value from Numpad.
- ^+Character ➔ Control characters would be substituted as shown in the following table.
- Replacement to | ➔ Control characters would be substituted as "|".

Control Char	Transmit Chars	Control Char	Transmit Chars	Control Char	Transmit Chars	Control Char	Transmit Chars
0x01	^A	**0x0B**	^K	**0x14**	^T	**0x1D**	^]
0x02	^B	**0x0C**	^L	**0x15**	^U	**0x1E**	^^
0x03	^C	**0x0E**	^N	**0x16**	^V	**0x1F**	^_
0x04	^D	**0x0F**	^O	**0x17**	^W		
0x05	^E	**0x10**	^P	**0x18**	^X		
0x06	^F	**0x11**	^Q	**0x19**	^Y		
0x07	^G	**0x12**	^R	**0x1A**	^Z		
0x09	^I	**0x13**	^S	**0x1C**	^\		

Function Key Transmission in HID mode

The user may send F1 to F12 function keys by scanning special barcodes in HID mode. KDC500 doesn't support this option.

Disconnect/Reconnect/BT(HID) Toggle

The user may disconnect or reconnect the Bluetooth connection, and toggle the soft keyboard using side buttons. KDC500 doesn't support this option.

Bluetooth Profile	UP Key	DOWN Key (DisconnectBTN disabled)	DOWN Key (DisconnectBTN enabled)
SPP	Reconnect	Does nothing	Releases BT connection
HID iOS	Reconnect	Soft Keyboard Toggle if pressing less than 3sec	Soft Keyboard Toggle if pressing less than 3sec, Releases BT connection
MFi	Reconnect	Does nothing	Releases BT connection
SPP 2.0	Reconnect	Does nothing	Releases BT connection
HID normal	Reconnect	Does nothing	Releases BT connection

Note Some SPP host doesn't support Reconnection from KDC.

4.2 Bluetooth Service

Power

The POWER option enables the user to Enable or Disable the Bluetooth functionality of the KDC. To use Bluetooth, this option must be set to enable.

However, like all devices enabled for Bluetooth, the KDC will constantly search to connect with a Bluetooth host when set to enable. Constant searching for Bluetooth devices increases power consumption.

Unless you are using Bluetooth with your KDC, this option should be set to disable.

IMPORTANT: To prevent unnecessary power problems, it is strongly recommended that the POWER option be set to disable if the KDC is idle for an extended period of time.

Pairing

Before you are able to use Bluetooth, the KDC must be paired with the host device. This pairing process needs to be completed only once with each host device. After pairing, the host device will always recognize the KDC as a Bluetooth device, unless the Bluetooth configuration is modified. If it is modified, you may need to pair the devices again.

IMPORTANT: The host device must be configured for Bluetooth before it may be paired to the KDC.

Note KDC with Bluetooth Spec2.1+EDR does not prompt Pin code entry menu.

To pair the KDC20/30/200/250/300/270/350/400 with the host, follow these instructions:

1. Select Pairing from the Bluetooth menu. The message "**Pairing started…"** will be displayed.
2. The **"Pairing Done"** message will display when the Bluetooth connection is successfully established. The connection must be established before the pairing timeout of 90 seconds.

- If **"Pairing failed..."** message displays, the Bluetooth connection with the host device failed. If the message **"Connected"** displays, a Bluetooth connection is established.

- It is possible for the message "**Pairing failed..."** to display on the KDC while the host device displays the **"Connected"** message. If this occurs, a Bluetooth connection has been established.

For KDC500 paring with the host, Numeric Comparions pairing method is required for PCI PTS complicance. See the section 2.1 Bluetooth Paring for the details.

Discovering

KDC200/250/300/270/350 starts to search for neighboring *Bluetooth* devices if the Discovering menu is executed. It will take about 30 seconds to finish searching and to list available neighboring *Bluetooth* devices. Another option is to enter the corresponding Bluetooth MAC address in the KTSync Bluetooth menu, instead of waiting for the KDC to search for neighborhood *Bluetooth* devices. KDC20/30/400 only supports via KTSync configuration. KDC500 doesn't support this feature.

Connect To

This option lets you easily connect the KDC to *Bluetooth* devices that have been either previously registered in KTSync under the File Menu or discovered/connected from the KDC *Bluetooth* Service menu. KDC20/30/400 only supports via KTSync configuration. KDC500 doesn't support this feature.

Note There could be an interoperability issue depending on the corresponding device Bluetooth stack. The master Bluetooth device may request that you to follow the master Bluetooth device's security procedures, if the KDC tries to connect to the master Bluetooth device.

HID Sync

The user may synchronize stored barcode data over HID using the HID Sync option. The KDC will start to transmit all stored barcode data upon execution of the HID Sync option. KDC500 doesn't support this feature.

Tips

Pair and connect KDC20i/30i/200i/250i/300i/270i/350i/400i and iOS4.0+ in HID iOS mode

Note

- Users have to disable the MFi option in System > MFi menu and change the Bluetooth profile to HID-iOS to use HID Bluetooth profiles.
- Users have to RESET the iPhone/iPad/iPod touch in order to change HID to MFi mode, and vice versa, after removing a previous KDC connection.
- KDC with Bluetooth Spec2.1+EDR does not prompt Pin code entry menu.
- KDC with Bluetooth Spec. 2.1+EDR stack does not require 4 or 6 digits PIN digits entry

Follow the below steps in order to pair and connect KDC models for MFi and iOS4.0+ in HID mode.

1. Go to the MFi menu of KDC SystemConfig Menu
2. Change MFi option to Disabled
3. Change ConnectDevice to HID iOS mode
4. Remove previous KDC connection and RESET the device
5. Change KDC to Pairing mode

6. The iPhone/iPad/iPod touch will find a new device as ***Keyboard***

7. Click ***Keyboard*** device

iOS Soft Keyboard Toggling using BT Toggle Option.

Users need to select the option to use this feature in **BT Config**>**BT Toggle**. Press the DOWN button to toggle a soft keyboard.

Auto Pairing

For SPP and MFi mode, user used to select host profile before pairing. However, user doesn't need to select host device profile if this option is enabled. KDC automatically detects if host device is a SPP or MFi mode. This option is supported from KDC Bluetooth firmware version 2.2.O.

5. Synchronization

When barcode data is collected, it must be uploaded to your application. KTSync, which is bundled with the KDC, is a software that Enables barcode data to be uploaded to any PC, PDA, or smartphone running Android 2.1+, Apple iOS3.1.3+, Blackberry,Mac and Windows XP/Vista/7/8/10/Mobile 5.0+. It has three major functions. (Windows XP/Vista/7/8/10 version supports all of the following features. Tablet, PDA and Smartphone versions support only limited features of PC KTSync.)

- **Synchronization** - Provides data upload functionality to your applications.
- **Keyboard Emulator** - Enables scanned data to be uploaded directly into your application as if the data were being entered manually with a keyboard.
- **Application Generation** - Enables users to create custom applications or download predefined applications such as Master-Slave, Pick/Bin, DB Lookup and Inventory.

Additional functions include:

- Prefix and Suffix add-ons to eliminate manual data entry.
- Symbology and Scan Option selections.
- Barcode Wedging options.
- KDC Menu configurations.

5.1 KTSync Menu

KTSync was installed on your PC during the initial installation process. Before data may be uploaded to any host device, KTSync must be launched on the host and configured to recognize the KDC. The following screen displays when KTSync is launched:

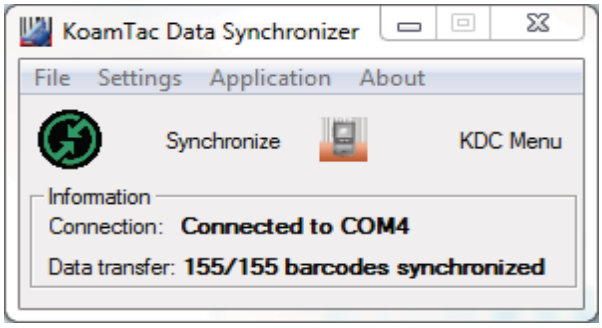


Figure 16 - KTSync® Synchronizer Initial Screen

File Menu

- Connect: This option displays the Serial port (COM#) assigned to KDC. You may also use this option to manually assign the Serial port. The Serial port assigned to KDC may be found under Windows Device Manager. The port assignment is used by KTSync for synchronizing data from the KDC to the host.
- Synchronize: This option manually tells the KDC to synchronize data with the host. While data is being synchronized, KTSync menu options are unavailable

Note Please do not use your computer during data synchronization.

- Bluetooth: This option is not available on KDC100/KDC500. Users may register a MAC address to be directly connected by KDC20/30/200/250/300/270/350/400.
- Configuration: This option Enables users to set different KDCs with same settings by exporting and importing settings from one KDC to the other.
- Exit: This option ends the KTSync program. You must re-run KTSync before you may synchronize data on the KDC.

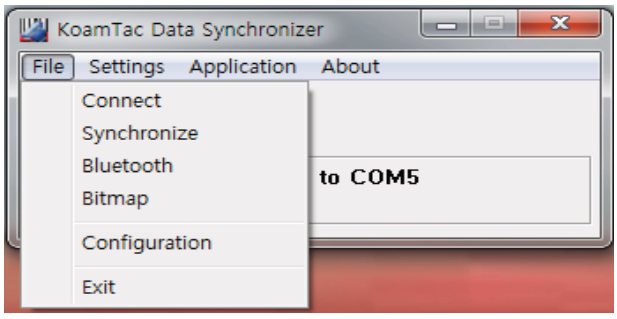


Figure 17 - File Menu

Settings Menu

- Synchronization: Select Synchronize options.
- Barcode & KDC: Select Barcode and KDC options.
- Others: Select Auto Connection and/or Synchronization Confirmation options.

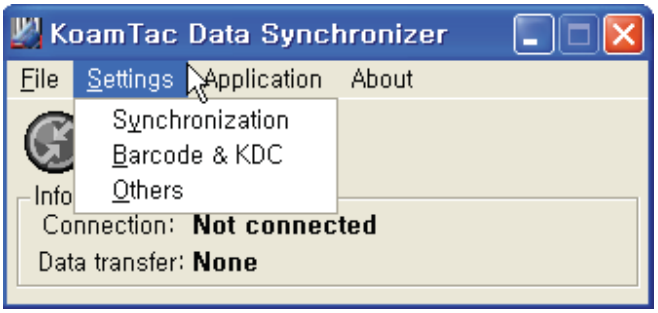


Figure 18 – Setting Menu

Application Menu(KDC500 doesn't support Application)

- Generation: Create user application or download predefined application.
- DB Lookup: Enables users to download DB into KDC and display barcode description field.
- Master/Slave: The user defines a master barcode for comparison with one or more slave barcodes.
- Pick/BIN: The user defines Pick ID and the barcode symbology for comparison with a defined Bin.
- Inventory: Users may count inventories. Inventory description will be displayed if inventory DB is downloaded into the KDC.

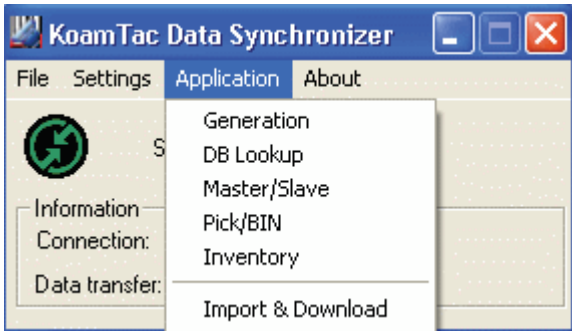


Figure 19 - Application Menu

About Menu - KTSync - Version Information

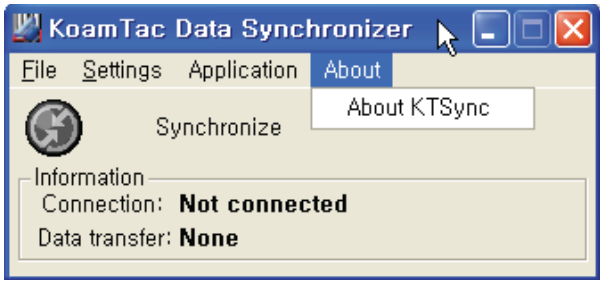


Figure 20 - About Menu

5.2 File Menu

Connect to KDC

The KDC automatically connects to a COM port when connected to the PC's USB port. **If needed, the user may manually assign the KDC COM port by using the KTSync Connection submenu under the File menu.**

Figure 21 - COM Port Selection for KDC

- The COM port assignment is found in the Windows Device Manager.
- KTSync will not connect to the KDC if it is in the KDC Menus. You must EXIT from the KDC Menus.
- If KTSync fails to connect automatically to the KDC, please follow these steps:

1. Exit KTSync.
2. Check to make sure that you have connected the KDC to a USB port on your PC.
3. Make sure that the user is using the cable provided with the KDC.
4. Check to make sure that the KDC is not in KDC Mode Menu.
5. Restart KTSync.

Note You may manually assign the COM port using KTSync Connect option under the File menu.

Synchronize

Located under the File Menu, this option enables the user to manually synchronize data on KDC with the host. This option is similar to clicking on the Synchronize button in the KoamTac Data Synchronizer box.

Erase KDC Memory

Erase all stored data in the KDC internal memory.

Bluetooth

This menu option enables the user to register up to ten Bluetooth devices, including their MAC address, PIN #, and optional prefixes or suffixes. This option enables direct Bluetooth connection between KDC and other Bluetooth devices, such as a *Bluetooth* printer. The user should choose a *Bluetooth* device to be connected in "Connect to" menu in KDC *Bluetooth* Service menu.(KDC500 doesn't support this feature)

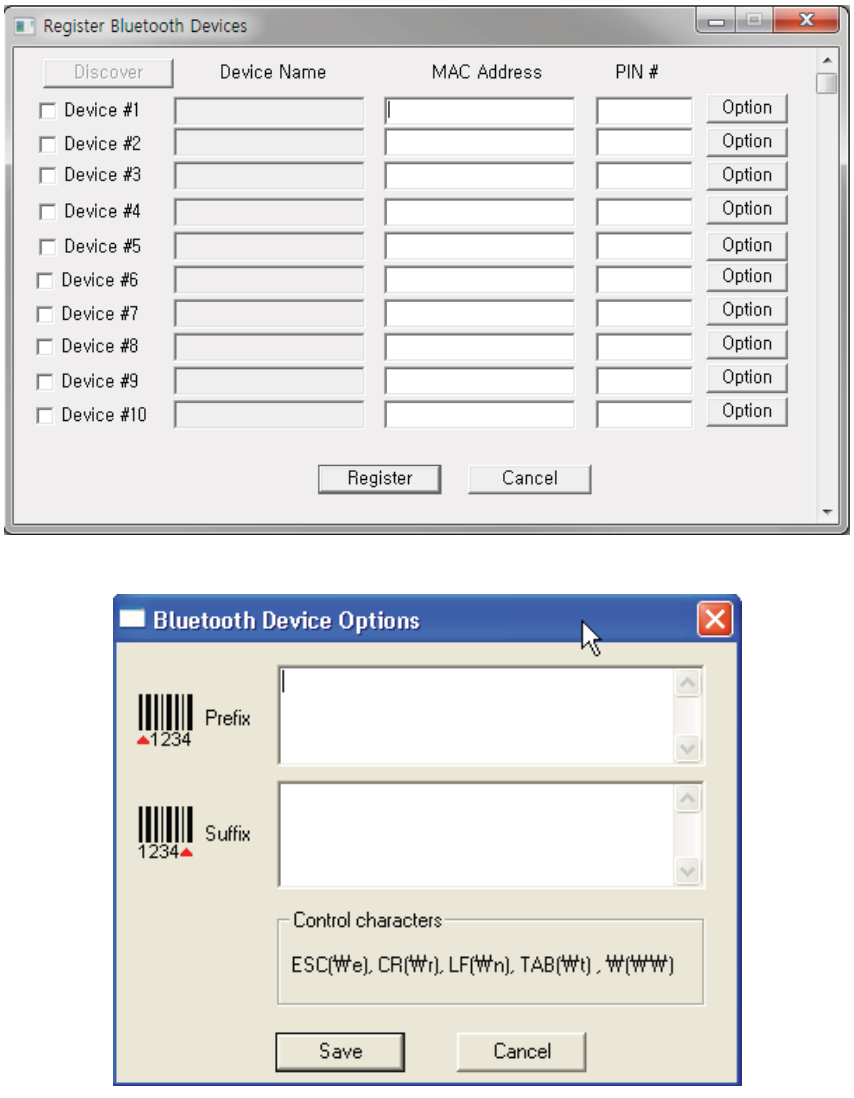
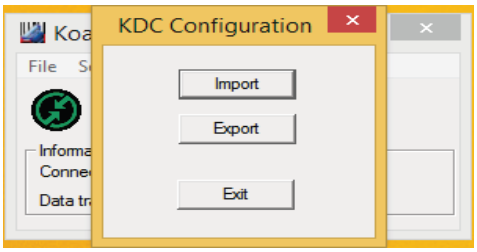


Figure 22 - Bluetooth Device Registry

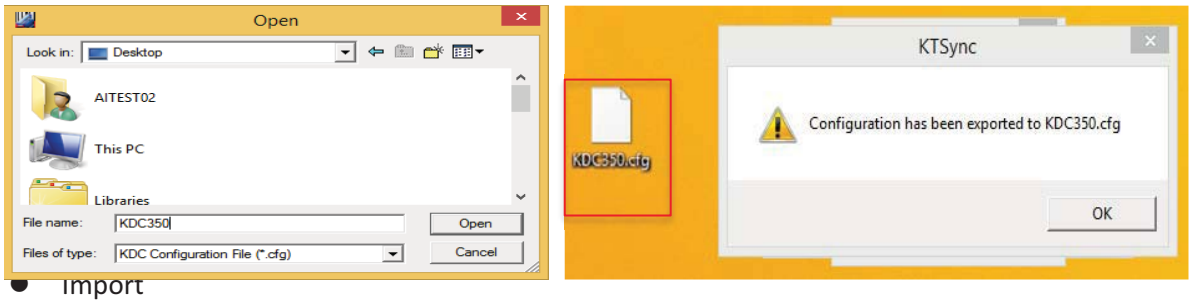
Configuration

This menu is useful for the users who need to configure different KDCs with same settings. In this menu, you may export settings from a KDC to your computer and import it to other KDCs.

When you select **Configuration** in File menu, you will need to choose either **Export** or **Import**. First, select Export. You name the settings file, press **Open**, and it is exported to your computer. Second, connect a different KDC to your computer and import the settings file to the KDC by selecting **Import** in the Configuration menu. Once configuration has been finished, KDC will restart.



- Export



- Import

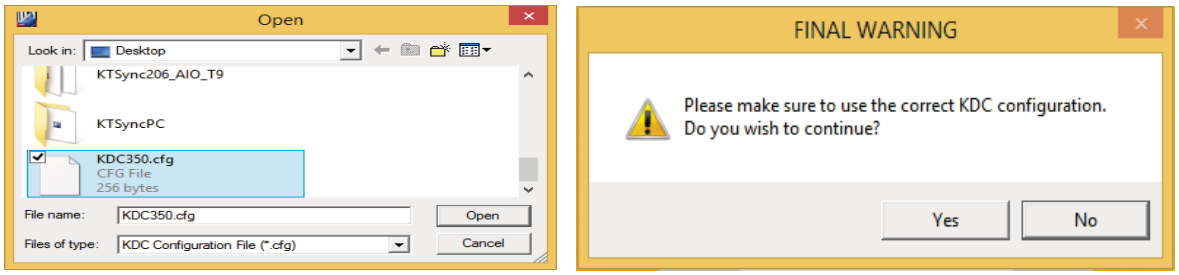


Figure 23 – Configuration

Synchronization Settings

KTSync provides several synchronization options for synchronizing data from your KDC to host devices.

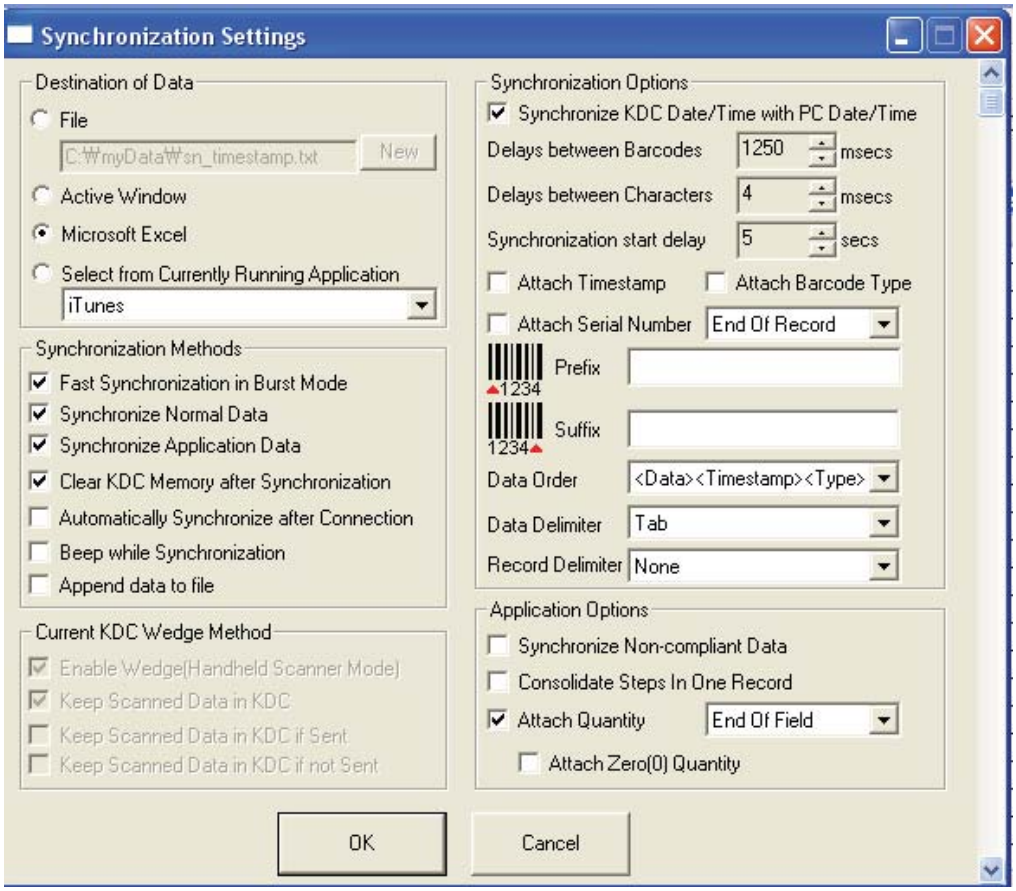


Figure 24 - KTSync Synchronization Settings

Destination of Data

When barcode data is uploaded to the host device, you must assign a destination for the data. Destination of Data options include:(This option is applied to only Windows XP/Vista/7/8/10)

- File - This option means data will be saved in the assigned filename. You may select a different target directory by clicking the New icon. The default directory is C:\MyData\sn_timestamp.txt. If this directory is not created, you will be prompted to create it before data may be uploaded to a file.
- Active Window - This option means scanned barcode data is sent directly to the active program running on your device as if the data is being entered directly from a keyboard.
- Microsoft Excel - This option means barcode data is being imported directly into Microsoft's Excel. Various parameters may be set when uploading data to Excel.

- Select from Current Running Application – This option enables the user to select a currently running application for data synchronization.

Note

- Data synchronization begins immediately if "Automatically Synchronize after Connection" is selected. If not selected, data synchronization is started manually by the user.
- Users SHOULD NOT operate the PC during the synchronization process. It may interrupt the process causing unreliable results.

Synchronization Methods

Fast Synchronization in Burst Mode

The KDC may synchronize data to a host device in Burst mode or Sequential mode. Burst mode provides the fastest synchronization process but could result in error in a poor *Bluetooth* environment. Fast synchronization in Burst mode is only recommended with USB connection.

Synchronize Normal Data

If Synchronize Normal Data option is selected, the KDC will synchronize only Normal Data in KDC memory. If the user wants all data in KDC memory synchronized, the user should select Synchronize Normal Data and Synchronize Application Data.

Synchronize Application Data

If Synchronize Application Data option is selected, the KDC will synchronize only Application Data in KDC memory. If the user want all data in KDC memory synchronized, the user should select Synchronize Normal Data and Synchronize Application Data.

Clear KDC Memory after Synchronization

If this option is selected, the stored barcode data is cleared from the KDC memory after synchronization.

- It is important to clear the KDC memory periodically to prevent a Buffer Full message. Buffer Full prevents the KDC from storing additional data. Stored barcode data may also be deleted using the Reset Memory feature on the KDC.

Automatically Synchronize after Connection

This option lets the user automatically synchronize collected data immediately to the computer when the KDC is connected to the host.

- IMPORTANT: Before selecting this option, remember to configure all options properly.
- Data synchronization may be done manually by clicking the synchronize icon if this option is not selected.

Beep while Synchronization

The user may enable or disable the beep tone during the synchronization process. If this option is selected, a beep is sounded every time barcode data is synchronized. The KDC beeps 5 times when the synchronization process is complete.

Append Data to File

If the user has specified a file name and Append data to File option is enabled, KTSync will append data to the existing file instead of creating a new file.

Current KDC Wedge Method

The KDC may be configured in one of five wedge/store modes:

- Wedge Only - Scanned data is transmitted to the host. The KDC does not store scanned data.
- Wedge & Store - Scanned data is stored in the KDC and transmitted to the host.
- Store Only - Scanned data is stored in the KDC but NOT transmitted to the host.
- Save if Sent - Scanned data is stored in the KDC ONLY if transmission to the host is successful.
- Save if Not Sent - Scanned data is stored in the KDC ONLY if transmission to the host is unsuccessful.

Enable Wedge (Handheld Scanner Mode)

This option will be checked if Wedge Only or Wedge & Store option is selected.

Keep Scan Data in KDC

This option will be checked if Store Only or Wedge & Store option is selected.

Synchronization Options

Synchronize KDC Time with PC Time when Connected

This option enables the user to synchronize the KDC date and time with the host date and time. Synchronization of date and time occurs after the data is uploaded to the host device.

Delays

The user may set transmission delays between barcodes and characters during the synchronization process. It is important to set proper delays to prevent errors during the transmission of collected barcodes. Some Windows applications, such as Excel, require longer delay times.

Attachments

Timestamp, Barcode Type, and Serial Number may be attached to the scanned barcode by selecting these options. The Serial Number of the KDC may be attached to the Start or End of Record.

Prefix and Suffix

- Enter the characters the user wants to attach to the front (Prefix) or back (Suffix) of the barcode in the Prefix and Suffix fields.
- The character set is any combination of ASCII characters including alphanumeric, line feed ("\n"), and carriage return ("\r").

Order and Delimiter

- Select Order of Data – Type, Data, and Timestamp
- Select the Delimiter between Data – Tab, Space, Comma, and Semicolon
- Select the Delimiter between Records – None, LF, CR, Tab, and <LF & CR>

Application Options

Synchronize Non-Compliant Data

The KDC will synchronize both compliant and non-compliant data (filtered data) if Synchronize Non-Compliant Data option is Enabled.

Consolidate Steps in One Record

KTSync will consolidate the data collected in Step 1 with the data collected in Step 2 and/or Step 3. When Consolidate Steps in One Record is enabled, data will be consolidated into one record instead of individual data records for each step. If this option is enabled, non-complete records, i.e. three steps were defined but data was only collected for two steps, will be discarded.

Attach Quantity

If this option is enabled, quantity will be attached to the left or right of the data.

5.3 Barcode & KDC Settings

KTSync enables the user to configure the KDC Scan Options and Barcode Settings. The configuration options for the KDC using KTSync are similar to the Set Barcodes, Code Options, Data Editing and Scan Options on the KDC Menu. Please refer to 11. Appendix A – Barcode & Scan Options for proper barcode settings for the application.

Note The user must configure barcode and scan options properly for optimal KDC performance.

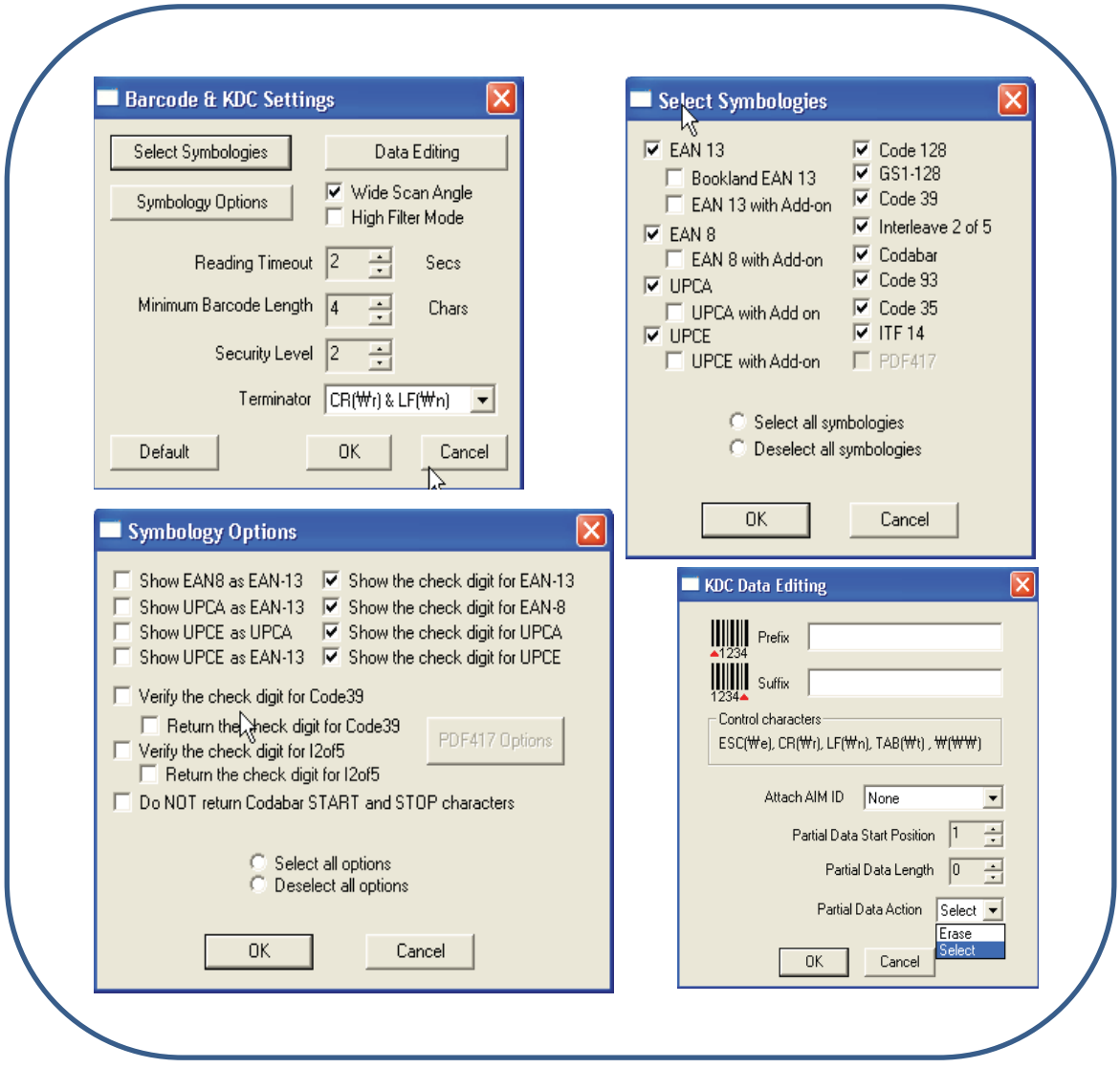


Figure 25 - Barcode & KDC Settings, Symbologies, Data Editing and Scan Options

Select Symbologies and Symbology Options

The process for scanning and reading barcodes is delicate and complicated. Although your KDC is equipped with a high performance scan engine, if configured incorrectly it may not perform at its peak performance level. To ensure its high performance, the KDC comes configured to optimize its scan engine technology. Unless you clearly understand the impact of your changes to the KDC settings, please do not change factory default settings. Please refer to Appendix A for details. Pressing the Default icon will reset all symbology related options to factory default settings.

Data Editing Option

Prefix - Enables the user to add a prefix to scanned data that may then be stored in KDC or wedged to the host. The Prefix format must be defined in the data format menu of KTSync. The maximum length for a Prefix is 11 characters.

Note This Prefix option is different from the Prefix option in KTSync that appends the prefix to data during synchronization.

Suffix - Enables the user to add a suffix to scanned data, which may then be stored in KDC or wedged to the host. The Suffix must be defined in the data format menu of KTSync. The maximum length for a Suffix is 11 characters.

Note This Suffix option is different from the Suffix option in KTSync that appends the suffix to data during synchronization.

AIM ID - Enables the user to add AIM ID to scanned data, which may then be stored in KDC or wedged to the host. AIM ID must be defined in data format menu of KTSync. AIM ID is either added to the end of Prefix or Suffix.

Partial Data: Enables the user to display and store partial data. The user defines the start position and number of characters to be displayed and stored.

- Select the ***x*** characters from ***y*** position
  - Set Partial Data Start Position to ***y***, Partial Data Length to ***x,*** Partial Data Action to Select.
  - Partial Data Length ***0*** selects all characters from ***y*** position.
- Erase the ***x*** characters from ***y*** position
  - Set Partial Data Start Position to ***y***, Partial Data Length to ***x,*** Partial Data Action to Erase.
  - Partial Data Length ***0*** erases all characters from ***y*** position.

5.4 Other Settings

Other options under the Settings menu allow the user to select four additional settings:

- **Ask Confirmation before Trying Auto Connection** prevents unintentional launch of KTSync.
- **Ask Confirmation before Starting Auto Synchronization** prevents unintentional synchronization of data.
- **Minimize KTSync on Start** will minimize KTSync and send it to the tray upon execution.
- **Keep Checking *Bluetooth* Connection** Enables reconnection of KDC once *Bluetooth* signal is detected. This feature is useful when moving to or from *Bluetooth* host device frequently. KTSync will automatically reconnect *Bluetooth* connection when the user enter an effective *Bluetooth* network range. *(Not Available on KDC100)*

To select any of these settings, click on the box to the left of the setting. A check mark (√) will display next to the setting to indicate that it is selected.

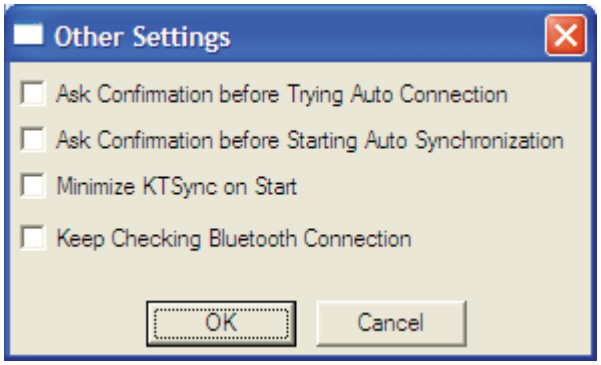


Figure 26 - KTSync® Confirmation Settings

KDC Menu in KTSync

After connecting KDC to PC with a USB cable, run KTSync on your PC and you will see **KDC Menu** on the right side of KTSync window. Click **KDC Menu**, and you may configure your KDC in KDC Menu window, as shown below.

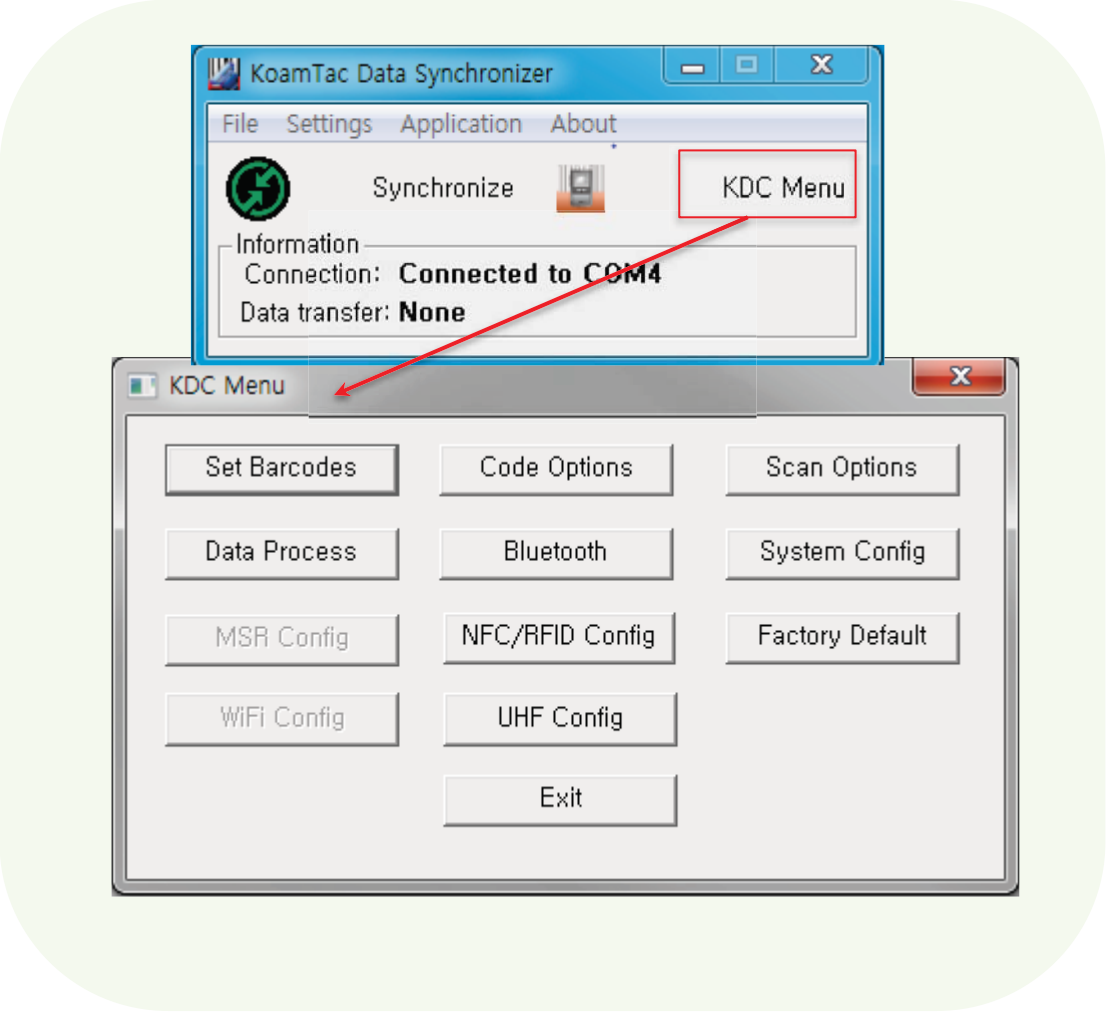


Figure 27 - KDC Menu in KTSync

5.5 Mobile pKTSync

pKTSync provides limited functionality for Pocket PC 2003 and Mobile 5.0+ users.

1. Synchronization - Provides data upload functionality to your applications.
2. Keyboard Emulator - Enables scanned data to be uploaded directly into your application as if the data were being entered manually on a keyboard.

For detailed explanations of these functions, please refer to earlier sections of this chapter.

WARNING: The user must assign the correct COM port to KDC before using pKTSync. Please refer to the mobile device manual for details on Bluetooth pairing and COM port assignment methods.

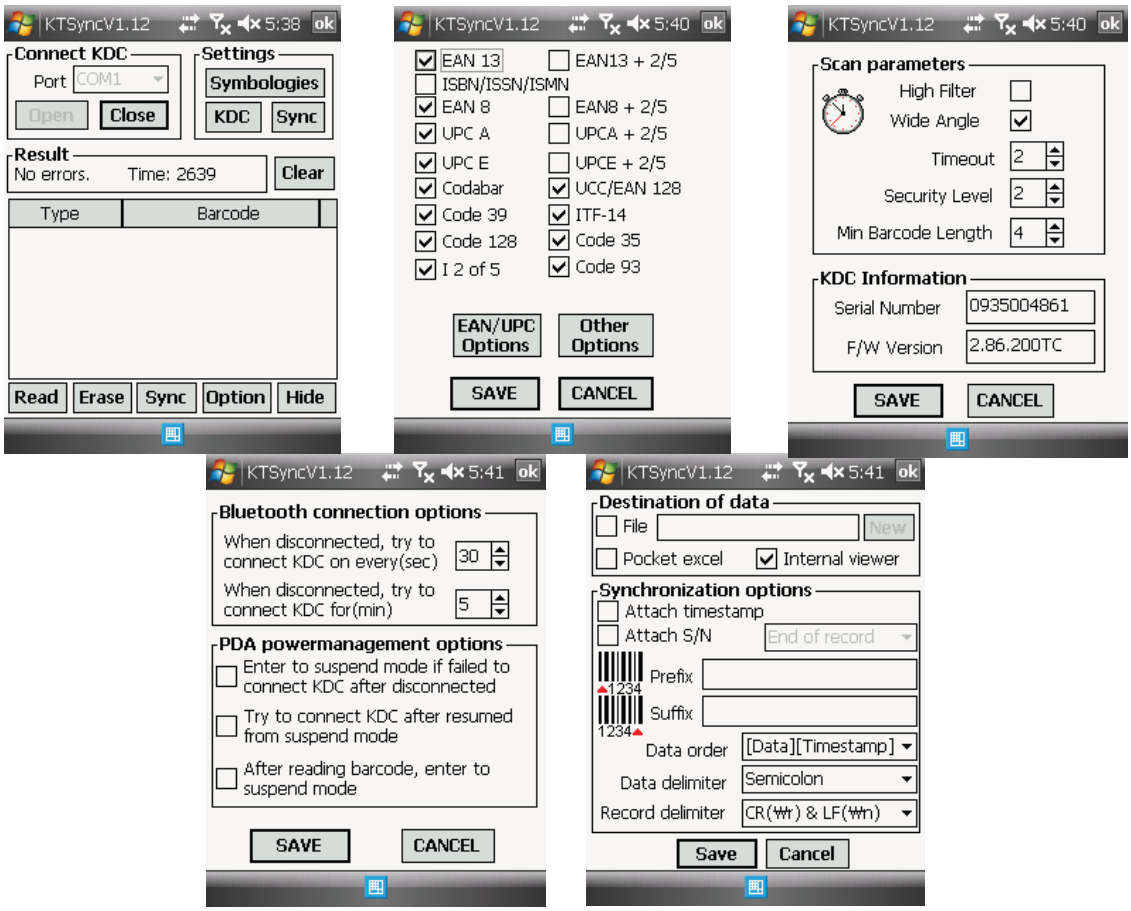


Figure 28 - Mobile pKTSync

5.6 Android aKTSync

The KTSync provides limited functionality of PC aKTSync to Android users.

Note

- aKTSync only supports Android devices with 2.1+ OS version and that are compatible with BluetoothChat application.
- KDC with Bluetooth Spec2.1+EDR doesn't prompt Pin code entry menu.

KDC and Android Pairing

1. Pairing
   - Select **SPP** Bluetooth profile from the KDC **ConnectDevice** submenu in **BT Config** menu.
   - Search KDCxxx from Android and pair the two devices.
   - If SPP2.0 is selected, KDCxxx PIN code is "0000".
2. Connection
   - Click **Connect** icon in aKTSync.
   - Android will list paired *Bluetooth* devices and the user should select the target KDC.
3. Synchronization: Provides data upload functionality to the applications.
4. Settings: The user may change various Synchronization options in the settings menu.
5. Wedging: The user may wedge barcode data to any Android application. Press the home key and launch the target application.

Launch KTSync

1. Download and install aKTSync from the Android Play Store.
2. Change KDC Bluetooth **ConnectDevice** option to *SPP.*
3. Execute Android *Bluetooth* device scan option and KDC *Bluetooth* pairing option.
   A. Execute KDC *Bluetooth* **Pairing** option.
   B. Launch **Settings** on the Android device.
   C. Select **Wireless and Networks.**
   D. Click on **Bluetooth Settings.**
   E. Click on **Scan devices.**
   F. The Android device will display the KDC model and 6 digits of the serial number.
4. Press the KDC list entry, enter "0000" PIN code, and press **OK.**
5. When paired, the Android device will display "*Paired but not connected*".
6. Launch aKTSync program.
   A. Press menu key and select the **Connect** option on the top left.

B. From the list of paired devices, choose the KDC to use.

C. On the top menu bar of aKTSync, you will see a message "*connecting*", and then "*connected*".

D. On the KDC display, you will see "Pairing Succeeded!!!" and then "Bluetooth Connected".

E. Select **Settings** option on the bottom left to change KTSync setting.

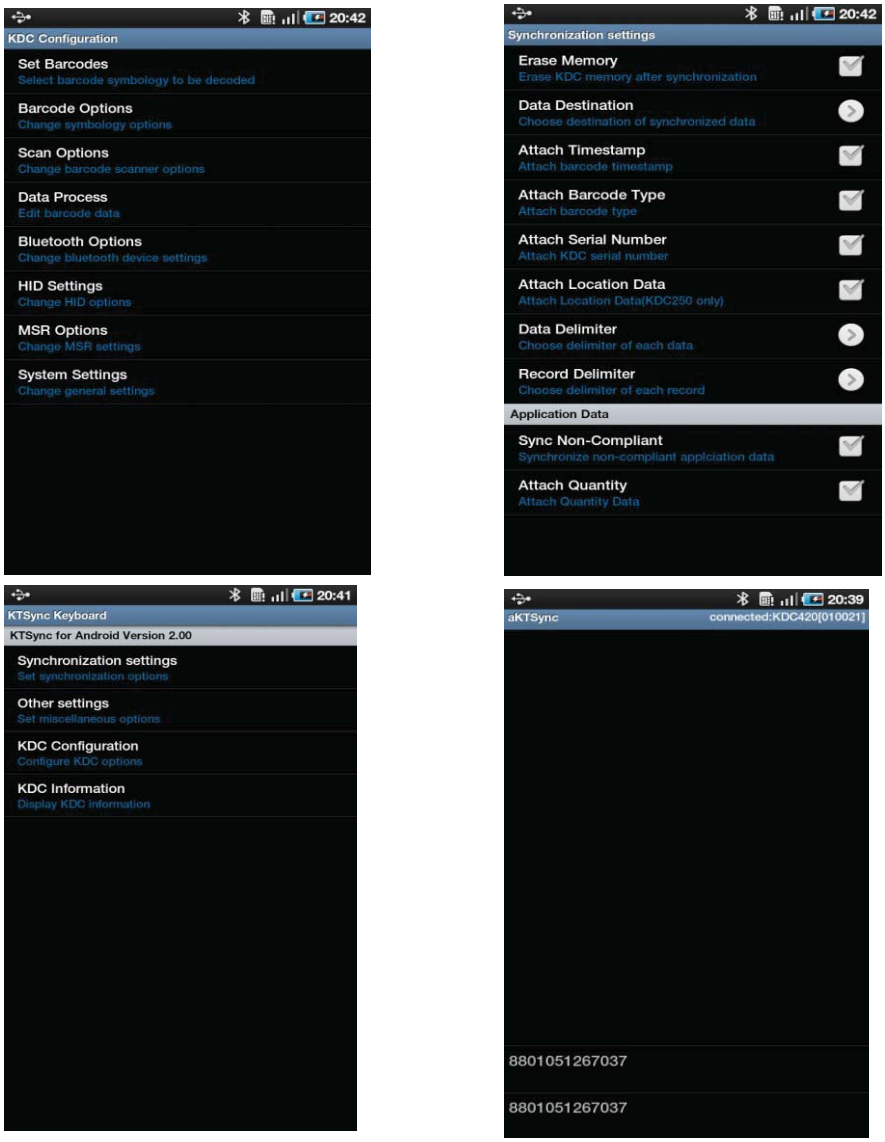


Figure 29 - Android aKTSync

Keyboard Wedge

1. Launch **Settings** on the Android device.
2. Select **Language and Keyboard** (or **Input method**).
3. Select **KTSync Keyboard**.
4. Launch the application and touch the input box to focus.
5. The barcode will be wedged to the input box upon scanning a barcode.

5.7 iPad/iPhone/iPod Touch KTSync

The KTSync for iPad/iPhone/iPod touch provides limited functionality of PC KTSync for iPad, iPhone and iPod touch users.

1. The KDC supports **SPP** and **MFi** Bluetooth profiles.
2. The iPhone/iPad/iPod touch should use **MFi** Bluetooth profiles. **MFi** is the default profile of KDCi models.
3. Download the KTSync program from the App Store.
4. Enable the iPhone/iPad/iPod touch Bluetooth power from the **Setting > General > Bluetooth menu**.

Note

• Users have to disable MFi option in System > MFi menu to use HID Bluetooth profiles.
• Users have to RESET the iPhone/iPad/iPod touch to change “HID to MFi mode” or “vice versa” after removing previous KDC connection.
KDC with Bluetooth Spec2.1+EDR does not prompt Pin code entry menu.

KDC20i/30i/200i/250i/300i/270i/350i/400i/500i connection using MFi mode

1. Download and install iKTSync from the Apple App Store.
   http://itunes.apple.com/us/app/ktsync/id372916602?mt=8
2. Press the two KDC side buttons simultaneously to enter menu mode.
3. Scroll down to **Bluetooth** menu using KDC Down button.
4. Press the front middle scan button.
5. Scroll down to **Discovering** and press the front middle scan button.
   a. **“Discovering Started …”** message will be displayed on KDC screen.
   b. Discovering will take about 30 seconds.
6. Select discovered iPhone/iPod touch device name and press the front middle scan button.
   a. [Pin Code] User Default/Enter PinCode will be displayed.
   b. Press the front middle scan button to select the **Use Default** option.
   c. The message “Connecting to iPhone/iPod touch device name” will be displayed.
   d. iPhone/iPad/iPod touch will ask for the PIN number.
   f. Please enter “0000” and hit “connect” icon.
   g.“iPhone/iPad Connected” message will be displayed.
7. Launch KTSync and configure Settings.

iKTSync Settings

iKTSync provides following Settings menu.

- Synchronization - The user may configure Synchronization options, such as destination of data, data formation and delimiters.
- Other settings - Users may configure KDC350 GPS module, disconnection options and soft trigger button.
-

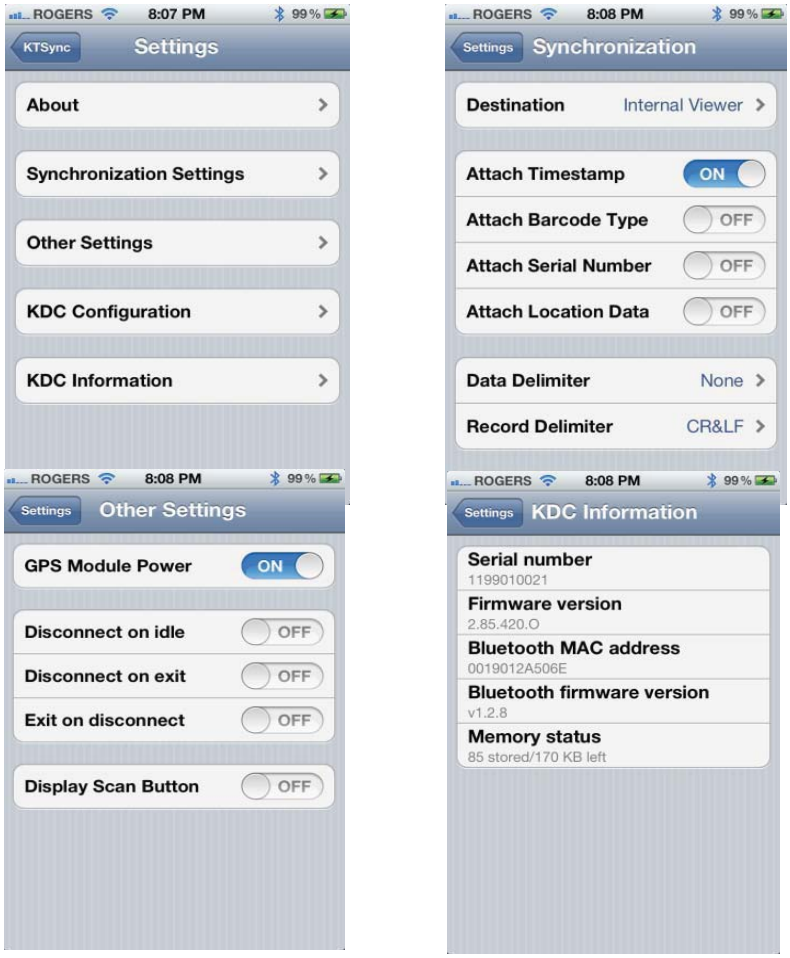


Figure 30 - iPad/iPhone/iPod touch KTSync

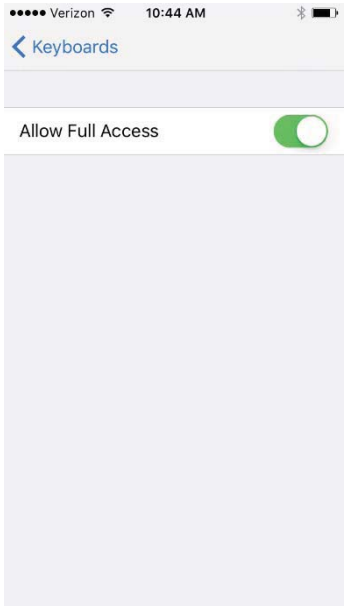
How to Connect and Reconnect MFi Mode using UP Keys

1. The user needs to select the option to use this feature in the BT Config > BT Toggle.
2. Press the UP button to connect or reconnect to the iPhone/iPad/iPod touch.

How to use Keyboard Wedge with iKTSync

1. Navigate to the iPhone/iPad/iPod Settings > General > Keyboard > Keyboards > Add New Keyboard... > Select the KTSync keyboard to be added.

2. Select the KTSync Keyboard > Allow Full Access.



3. Open up the application you want to scan into, and tap on the screen so the on-screen keyboard appears. Tap and hold on the globe icon located to the left of the spacebar. Select the KTSync Keyboard & begin scanning!

Note: The KDC must be connected to KTSync & the KTSync keyboard must be selected in order for this to work.

5.8 Blackberry bKTSync

The bKTSync provides limited functionality of PC KTSync for Blackberry users.

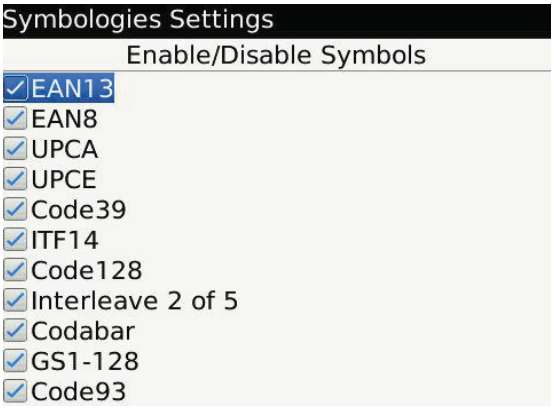
KDC with Bluetooth Spec2.1+EDR does not prompt Pin code entry menu.

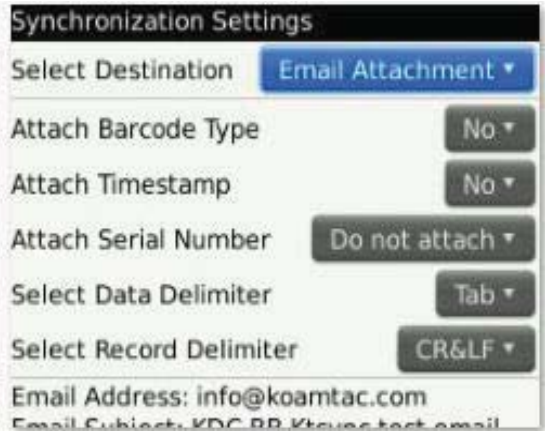
Note

1. Download and install bKTSync from the Blackberry App World.
   http://appworld.blackberry.com/webstore/search/ktsync?lang=en
2. Go to **Blackberry Options > Applications** menu and enable **Input Simulation** option.
3. Change KDC Bluetooth profile in **ConnectDevice** option to **SPP**.
4. Execute Blackberry *Bluetooth* manager and KDC *Bluetooth* pairing option:

   A. Execute KDC Bluetooth **Pairing** option.
   B. Launch the Blackberry Bluetooth manager and select “Search”. The KDC model and 6 digits of the serial number will be displayed.
   C. Highlight the KDC and press the Enter or Select Key.
   D. Enter “0000” PIN code and press the Enter or Select Key.
   E. The Blackberry will display “Pairing with KDC” and then”complete.”
   F. Close the Blackberry Bluetooth manager.

5. Go to Downloads folder and execute KTSync.
6. The user may configure KDC options in KDC settings and Symbologies Settings menu.
7. Go to KTSync Synchronization Settings and select Destination. To send collected barcode data as an email attachment, choose **Email Attachment** as destination and enter in the email address, subject, and body message that the user want to send. The user may enter multiple email addresses using the semicolon (;) separator.
8. To scan barcodes into any application (like email, notes, worksheet or web browser), press the menu key and select **Running in the background** option. bKTSync will maintain the connection and place the scanned barcode data wherever the cursor is flashing.





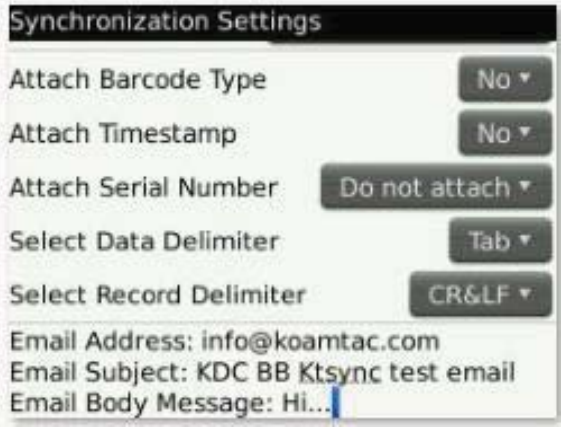


Figure 31 - Blackberry bKTSync

5.9 KTSync for Mac OS X

The KTSync Mac OS X version provides limited functionality of PC Windows KTSync for Mac OS X users.

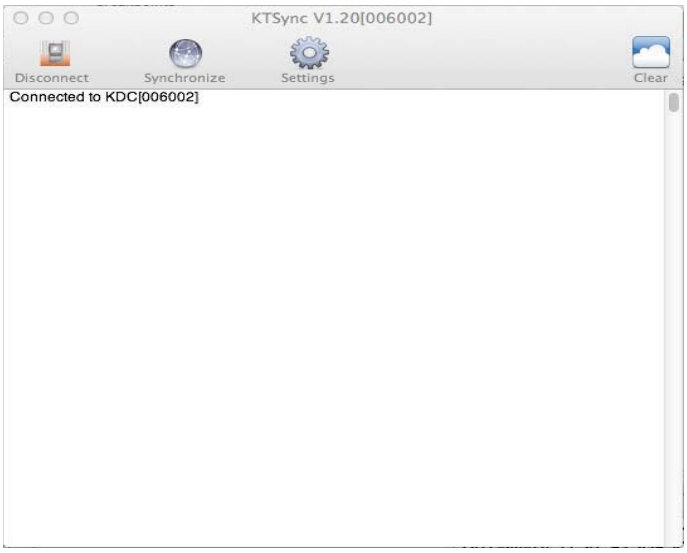
Note

- KTSync for Mac OS X version supports both Bluetooth SPP profile and USB connection. The user should pair KDC with Mac before using the KTSync program via Bluetooth connection.
- Mac OS X version KTSync is built as a X86 binary application and works with the Intel-based Mac. It is verified on Mac PC running Mac OS X 10.6.5 and later versions.

KTSync Mac OS X version supports the following features:

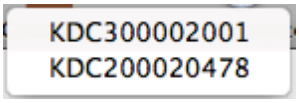
- ✓ Keyboard wedge function to a file, internal viewer, active window, and user application.
- ✓ Synchronization to a file, internal viewer, active window, and user application.
- ✓ Automatic connection and disconnection on USB port.

The user will see the following initial KTSync screen upon launching the program. KTSync will connect automatically if KDC is plugged in a USB port or if KDC is paired.



Connect Button

The user may connect the Mac with the KDC that is paired or plugged into the USB port by clicking the Connect button. The following screen will be displayed when this button is pressed, and KTSync will start to connect to the selected KDC.



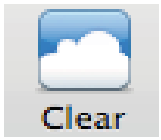
Disconnect Button

KTSync changes Connect button to Disconnect button once the KDC is connected. The user may disconnect the KDC manually by selecting connected KDC on the following screen.

Synchronize Button

The user may start the synchronization process by pressing the Synchronize button. The user may select the destination of barcode data in the settings menu. There are 4 selectable destinations: File, Internal viewer, Active window, and User application.

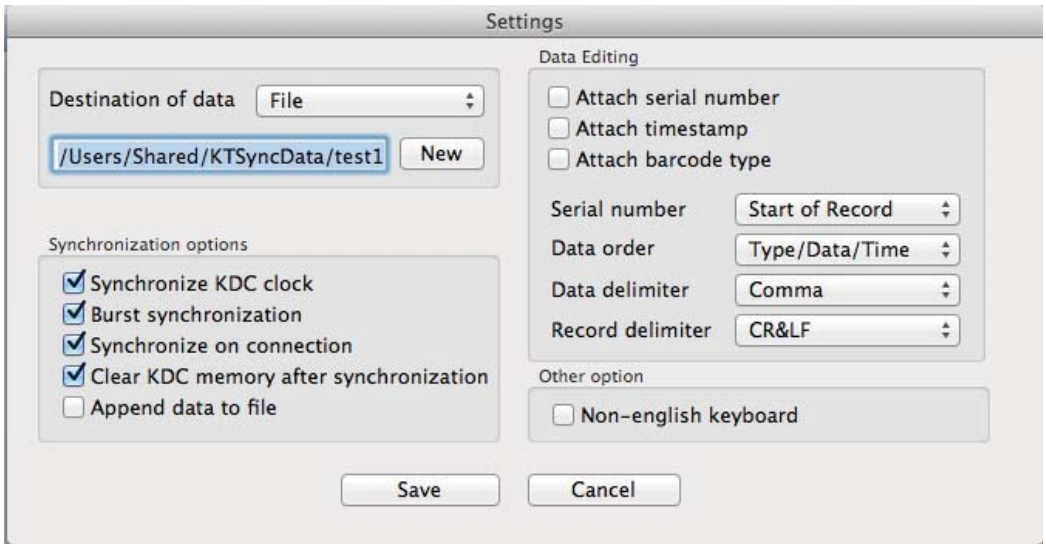
Clear Button



The user may press this button to clear the KTSync internal viewer.

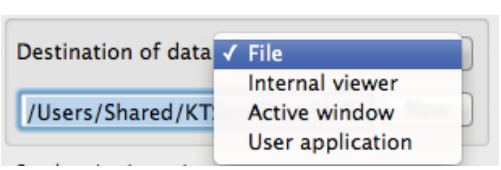
Settings Button

The user may configure synchronization options on the following screen by pressing the Settings button.



Destination of Data

The KTSync program wedges or downloads barcode data to one of the following four destinations:



- **File**: The KTSync makes a file name based on 3.11 if file name is specified as an "sn_timestamp.txt". The default directory is /Users/Shared/KTSyncData directory. The user may define another directory or another filename by clicking the "New" button. The maximum file path length is 128 characters.
- **Internal Viewer**: The KTSync displays barcode data in KTSync internal text viewer.
- **Active Window**: The KTSync sends barcode data to current active window if Active window option is selected.
- **User Application**: The user may define the target application by pressing the "New" button. The maximum application name path length is 128 characters.

Synchronization Options

- **Synchronize KDC Clock**
  KTSync will set the KDC's date and time with Mac PC date and time when the KDC is connected to Mac, if this option is enabled.

- **Burst Synchronization**
  KTSync will synchronize barcode data from KDC in burst mode. Otherwise, KTSync would synchronize barcode data one by one. This option is enabled by default and maynot be disabled.

- **Synchronization on Connection**
  KTSync will automatically synchronize barcode data from the KDC when the KDC is connected, if this option is enabled.

- **Clear KDC Memory After Synchronization**
  KTSync clears barcode data stored in the KDC's memory once synchronization has finished, if this option is enabled.

- **Append Data to File**
  KTSync appends synchronized data to existing file specified on destination. If file does not exist then KTSync creates a new file.

Data Edition

- **Attach Serial Number**
  The KTSync will add a KDC serial number to barcode data. This option is enabled by default and maynot be disabled.

- **Attach Time Stamp**
  The KTSync would add timestamp to barcode data. This option is enabled by default and maynot be disabled.

- **Attached Barcode Type**
  The KTSync would add barcode type to barcode data. This option is enabled by default and maynot be disabled.

- **Serial Number**
  When **Attach serial number** is enabled, this option determines when to attach serial number. “Start of record” means to attach at the front of record and “End of record” means to attach to the end of record.

- **Data Order**
  This option specifies the order of data (Barcode Type, Barcode Data and Timestamp) in the record.

- **Data Delimiter**
  This option is used to select a character to be added between barcode data, serial number and timestamp and/or barcode type. User may select one of the following: **None, Tab, Space, Comma** and **Semicolon** as the data delimiter. The **Comma** is selected as the data delimiter by default.

- **Record Delimiter**
  This option is used to select a character to be added at the end of the barcode record. The user may select one of **None, CR, LF, TAB**, and **CR&LF** as the record delimiter. The **CR&LF** is selected as the record delimiter by default.

Other Options

- **Non-English Keyboard**
  This option is used when the barcode data has non-English characters and a non-English keyboard.

6. Application Generation

Note KDC FW2.85 does not support the Application Generation feature. Users should upgrade FW2.85 to FW2.86 or FW3.0+ to use Application Generation feature.

When you select the Application menu from the KTSync, the user may choose from the following five Applications: Generation, DB Lookup, Master/Slave, Pick/BIN, and Inventory. Users may also download saved programs using the Import & Download option.

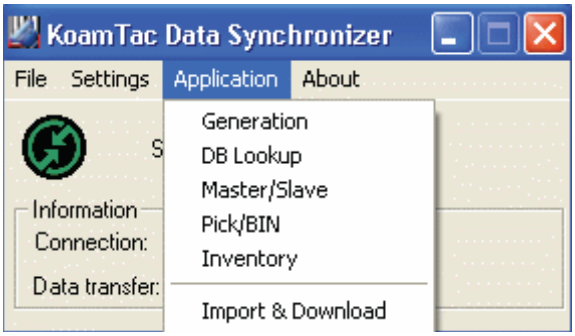


Figure 32 - Application Menu

When the Application tool is selected, the KDC will beep once to acknowledge a connection between the KDC and the Application tool. The following KTSync warning window will pop up if the downloaded application in KDC does not match with KTSync application tool.

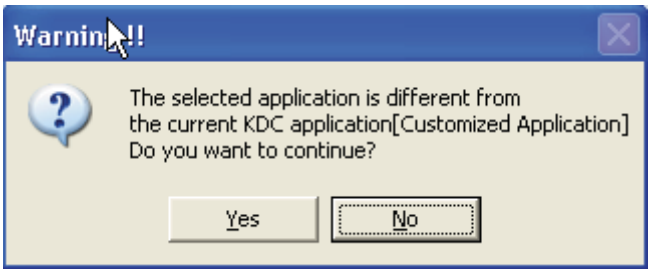


Figure 33 - Application Warning Window

Note KDC will wedge barcode data to the host in application mode if “wedge and store always” option in data process menu is selected and KDC firmware version is higher than 2.86.xxx.G or 3.0+.

6.1 Application Generation

KDC Application Generation tool is a robust feature that enables the user to create custom applications for collecting and managing barcode data. To create a custom application, select the Generation submenu from the Application menu in KTSync®.

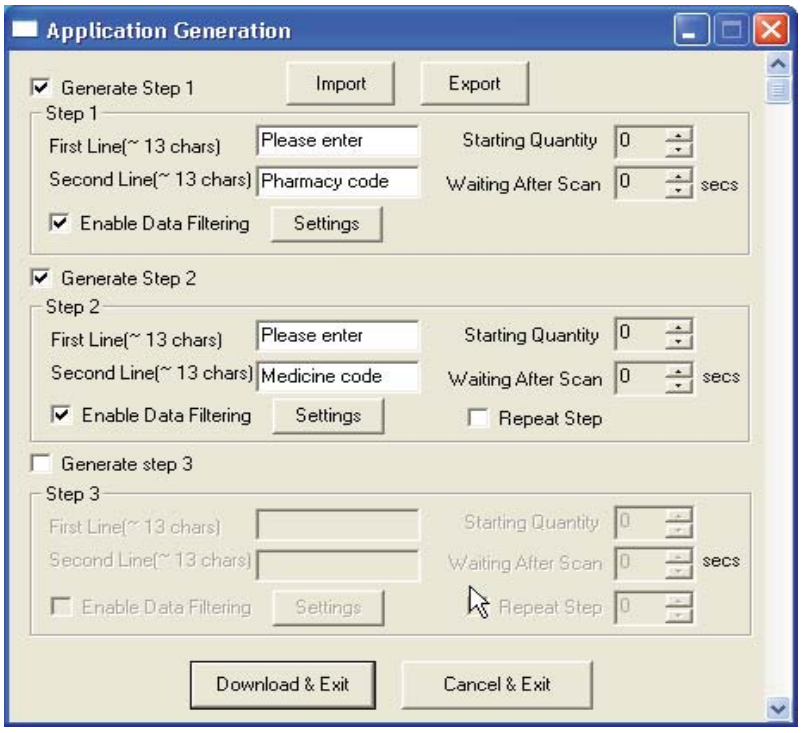


Figure 34 - Application Generation Menu

Generate Application

Generate step *1* *- To generate a custom application, click on the Generate Step 1 box. This enables the user to define the user prompts and data collection settings for Step 1 of the custom application. Below is a description of each field. These prompts are the same when selecting Generate step 2 and Generate step 3.*

Note The custom application may include only Step 1.

- **First line**
  Enter up to 13 characters; these will display on the first line of the KDC.

- **Second line**
  Enter up to 13 characters; these will display on the second line of the KDC.

- **Starting quantity**
  Enter a predefined start quantity for each scanned barcode. The start quantity may be defined from 1 to 128. Use the up or down side key to choose the desired quantity.

- **Waiting to scan**
  Enter the number of seconds the KDC pauses before the user prompts display. During this timeout period, the user may modify the quantity. If this field is set to zero, the

quantity field may not be adjusted. This field may be defined from “-1” to “30” seconds. “-1” second enables infinite waiting of user quantity input.

- **Enable data filter**
  Check this box to enable the data filtering option. Data filtering enables the user to predefine different aspects of the barcode data the user are collecting.

Data Filter Settings

When the user select Enable data filtering, the user must click on the Settings button to select the Data filter setting. The options for the Data filter settings are the same for Step1, Step 2, and Step 3.

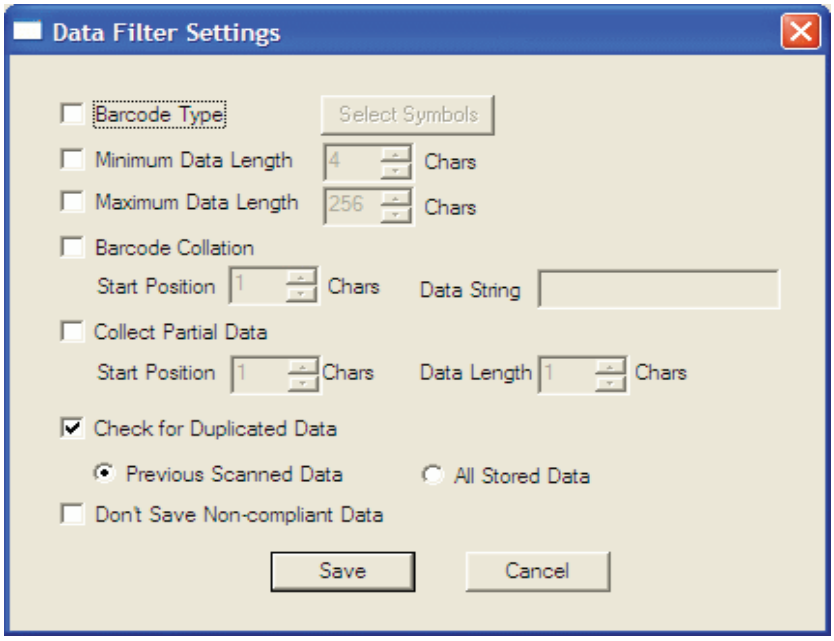


Figure 35 - Data Filter Settings

- **Barcode Type**
  This field enables the user to select the type of barcodes the KDC will collect. When the user clicks on the box, Select Symbols is enabled. A listing of the symbologies supported by the KDC will display. To select a barcode symbology, click on the box associated with the symbology.

- **Minimum Data Length**
  This field enables the user to define the minimum length of the scanned barcode. The length may be between 2 and 36 (1D models), 2 and 48 (2D models) characters. If the user scans a barcode that has a length of less than the defined length, the barcode data is not collected.

Note The default KDC minimum barcode length defined in scan option is 4. Therefore, users should change KDC minimum barcode length to 2 or 3 to define minimum data length to 2 or 3.

- **Maximum Data Length**

  This field enables the user to define the maximum length of a scanned barcode. The defined length may be between 2 and 256 characters. If the user scans a barcode that has a length is greater than the defined length, the barcode data is not collected.

- **Barcode Collation**

  This option enables the user to define a data string that the KDC will use to compare scanned barcodes.

  - Starting Position – This is the start position of the scanned barcode data to be compared with the defined data string.
  - Data String – This is the defined value to be compared with scanned barcode data. This value may be up to 32 characters.

- **Collect Partial Data**

  This option enables the user to define partial barcode data to be collected when a barcode is scanned. Only the partial data will be stored in the KDC.

  - Start position – This is the starting position that the KDC will use when collecting scanned barcode data.
  - Data Length – This is the length of partial data to be stored by the KDC.

- **Check for Duplicated Data**

  This option enables the user to prevent the collection of duplicate data.

  - Previous Scanned Data – This option enables the user to compare the scanned barcode with the previously scanned barcode and treat it as non-compliant data if the user scanned the same barcode twice.
  - All Stored Data – This option enables the user to compare the scanned barcode with stored barcode data and treat it as non-compliant data if the same barcode already scanned and stored.

- **Do not Save Non-Compliant Data**

  This field tells the KDC how to manage non-compliant data based on the defined data filtering fields. If this field is enabled, non-compliant data is NOT stored in the KDC. If this option is not enabled, non-compliant data is stored.

Generate step 2

To include another step in the data collection process, click the box, Generate step 2. This step has the same options as Step 1. In this step, the user have the option of repeating step 2 by clicking the box, Repeat Step.

Note This field is disabled when the application has three steps.

Generate step 3

To include a third step, click the box, Generate step 3. This step has the same options as step 1 and 2. In this step, the user has the option to repeat steps 2 or 3.

Application Download and Execution

Before running your application, it must be downloaded to KDC.

1. Click the “Download” icon from Application Generation Window.
2. Change KDC from Normal mode to Application mode.
   A. Press two side buttons simultaneously to enter menu mode.
   B. Select KDC mode and enter scan button.
   C. Change to Application mode.
   D. Save and exit from menu mode.
3. KDC will run in normal mode if you do not change to Application mode after downloading the application.
4. If you want to delete the downloaded application in your KDC, select App. Data in Reset Memory after you go to System Config in KDC Menu.

6.2 Predefined Applications

KTSync provides four Predefined Applications: Master/Slave, Pick/Bin, DB Lookup and Inventory.

Master/Slave

Master/Slave predefined application enables you to define a ***master*** barcode for comparison with one or more ***slave*** barcodes. The predefined application may be run once or continuously. Within either setting, you may define a substring for comparison of master and slave barcodes.

Master/Slave Onetime

Define one ***master*** barcode and compare it with one ***slave*** barcode.

Master/Slave Continuous

Define one ***master*** barcode and compare it with multiple ***slave*** barcodes.

Collation Options

Works in either Onetime or Continuous Mode to compare a substring within the master and slave barcodes.

- **Master start position** - Select the numeric position of start substring character in Pick barcode, 1 to 255.
- **Slave start position** - Select the numeric position of start substring character in Pick barcode, 1 to 255.
- **Comparing Barcode Length** - Number of characters to be compared, 0 to 255. 0 means all characters.

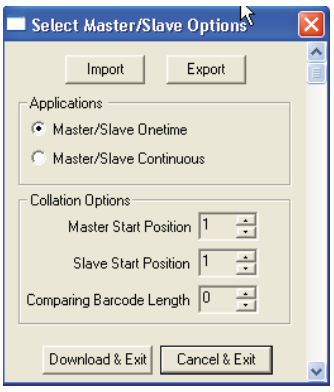


Figure 36 - Master/Slave Application Settings

Pick/Bin

The Pick/Bin predefined application is a special version of the Master/Slave predefined application. The Pick/Bin application enables you to define the Pick ID and the barcode symbology for comparison with a defined Bin.

- **Number of ID and Symbology**

  Define Pick ID characters from 1 to 32 and the barcode symbology.

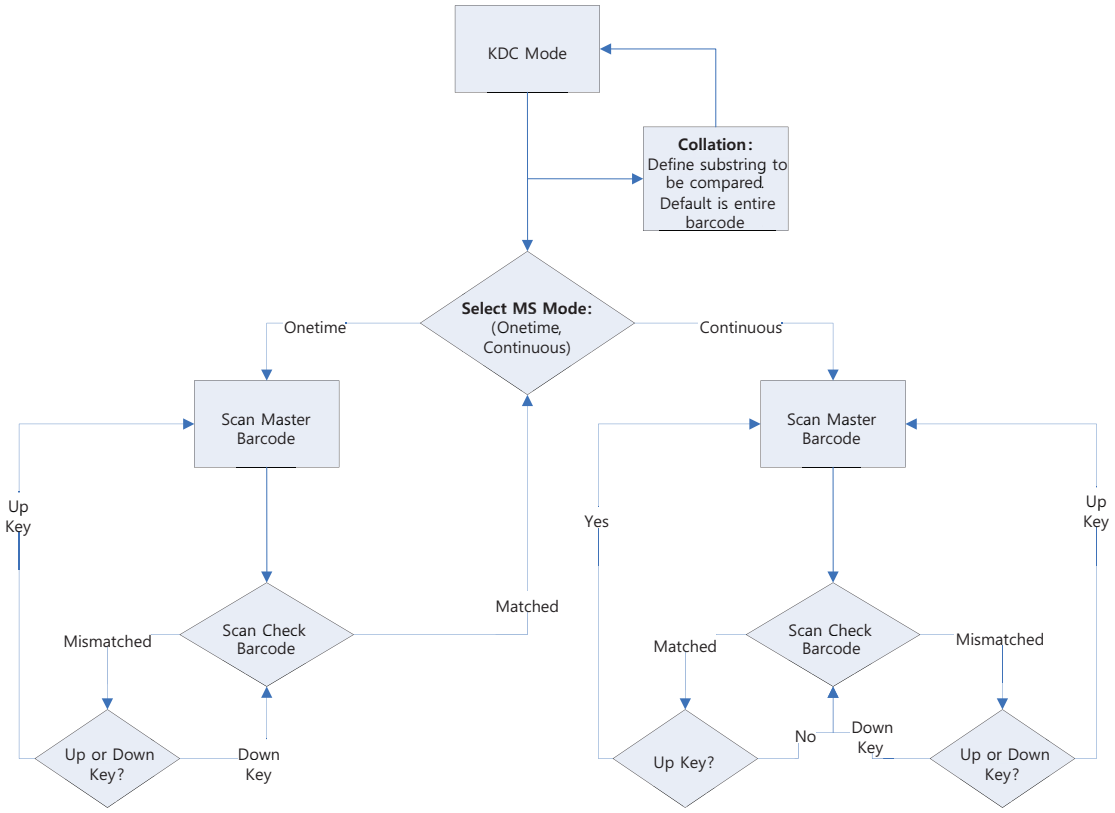


Figure 37 - Master/Slave Application Flow Chart

- **Pick Start Position and Symbology**

  Select numeric position of start substring character in Pick barcode from 1 to 255 and the barcode symbology.

- **Bin Start Position and Symbology**

  Select the numeric position of start substring character in Bin barcode from 1 to 255 and the barcode symbology.

- **Comparing Barcode Length**

Select the number of characters to be compared from 0 to 255. 0 means all characters.

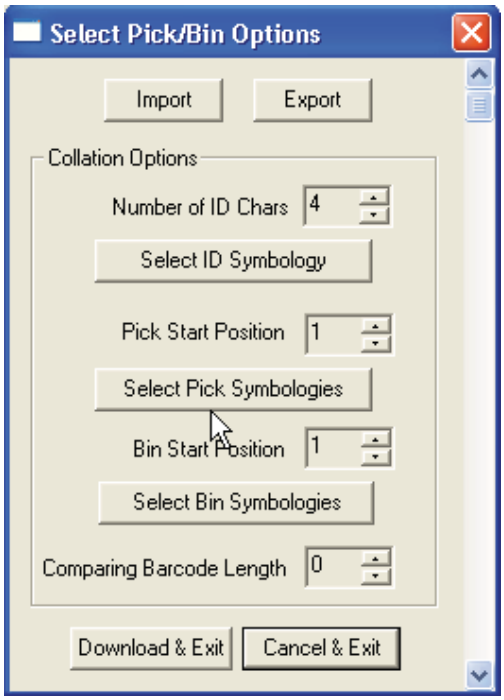


Figure 38 - Pick/BIN Application Menu

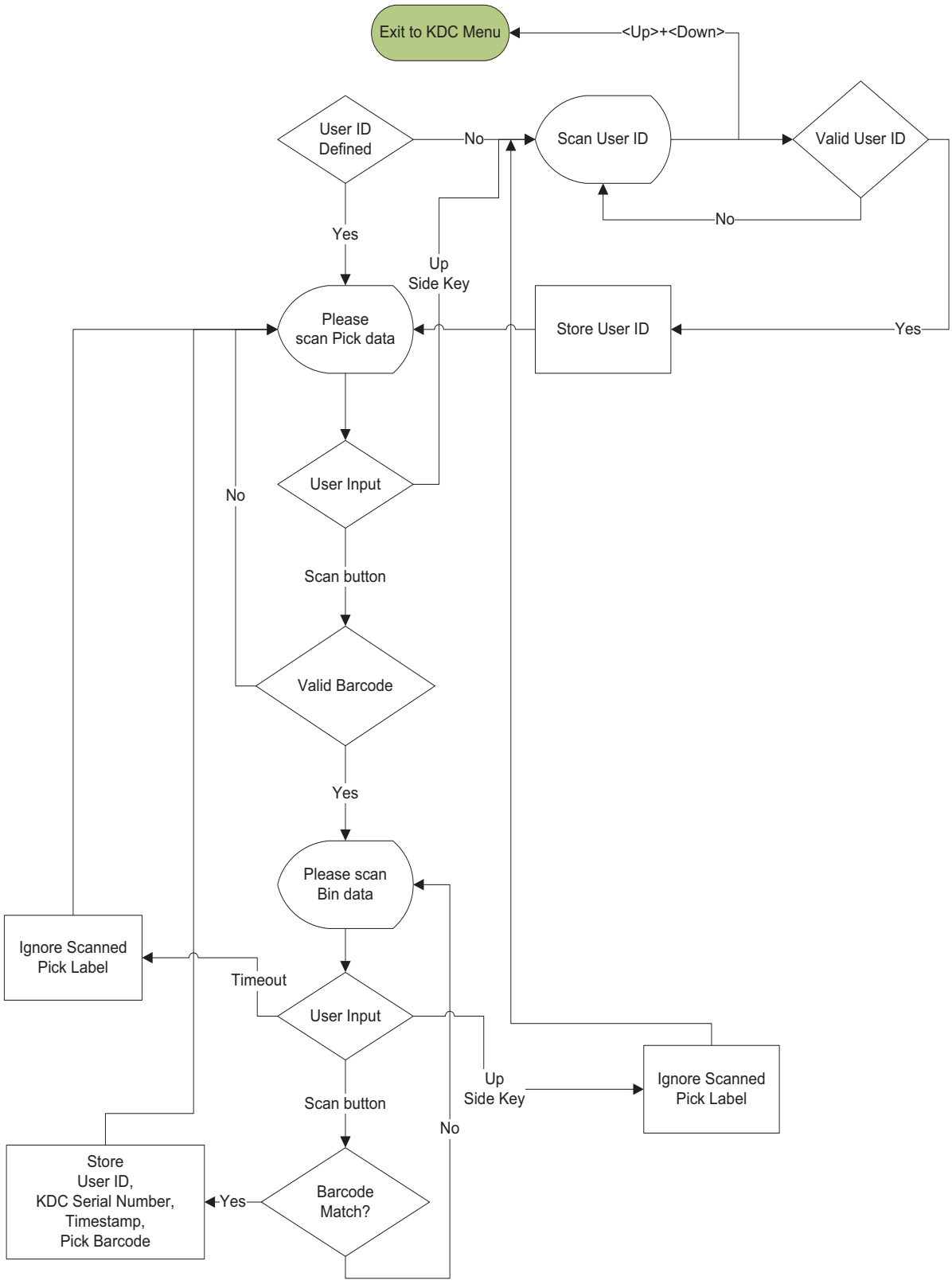


Figure 39 - Pick/BIN Application Flow Chart

DB Lookup Application

The DB Lookup application enables the user to download a database to the KDC that may then be utilized for advanced AUTO-ID applications, such as displaying additional data after scanning a barcode. For example, using our DB Lookup application, you may download a product database including information such as description, price, and stock quantity. With the advanced data functionality built-in to the KDC, you may easily display product price, description, and stock level after the product's barcode is scanned.

Functionality of DB Lookup Application (based on the firmware version v2.86 and v3.0+)

- The database size may not exceed 800 records (v2.86) / 61,440 records (v3.0+).
- The maximum record size is 128 bytes.
- Each record may have up to 4 fields, including the barcode, which is the primary key.
- The maximum field size is 39 characters.
- Quantities may be entered by pressing the UP or DOWN scroll buttons after DB fields are displayed.
- Quantity may be 1 to 128.
- The user may create a database using Microsoft Excel.
    1. Excel file must be saved as .txt.
    2. Records should be separated by CR/LF.
    3. Fields should be separated by TAB.
    4. Database should end with CR/LF.
    5. Last 4 bytes of database should be CR/LF/CR/LF.

DB Lookup Fields and Settings (based on the firmware version v2.86 and v3.0+)

- **Download DB to KDC -** Downloads user created database to KDC.
- **Starting Quantity -** Enter predefined start quantity for each scanned barcode. The start quantity may be defined from 1 to 128 and may be adjusted using UP or DOWN buttons.
- **Barcode Field -** Select the position of barcode field in database from 1 to 4.
- **Stored Barcode Start Position -** Select the numeric position of start substring character of barcode in database from 1 to 39.
- **Scanned Barcode Start Position -** Select the numeric position of start substring character of scanned barcode from 1 to 39.

- **Comparing Barcode Length -** Number of characters to be compared from 0 to 255 where 0 is all characters.
- **Display on KDC -** Define database fields to be displayed on KDC. KDC may display one to three fields. KDC will display one field in two or three lines, if same field is specified in line entering option.

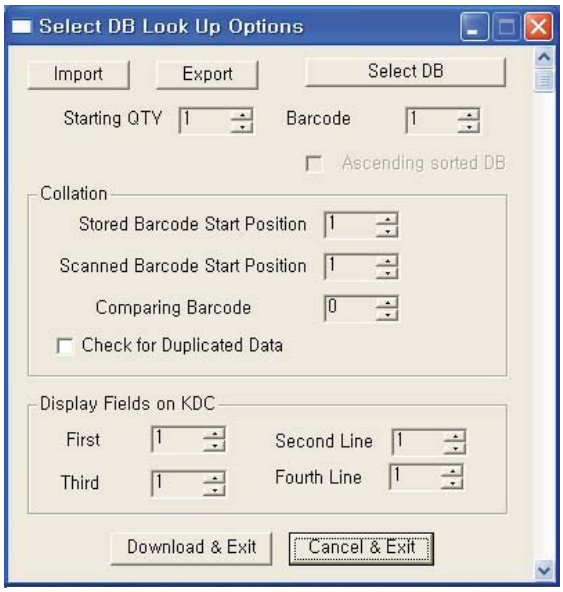


Figure 40 - DB Lookup Application Menu

Inventory Application

The Inventory application enables the user to count inventories by scanning inventory barcodes. This application will increase inventory item count if the same item is scanned. Users may also download an inventory database to the KDC. If inventory DB is downloaded, KDC will display inventory description.

Functionality of Inventory Application (based on the firmware version v2.86 and v3.0+)

- The inventory may not exceed 800 items (v2.86) / 61,440 items (v3.0+).
- The maximum record size is 128 bytes.
- Each record may have up to 4 fields, including the barcode, which is the primary key.
- The maximum field size is 39 characters.
- Quantities 1 to 32786 may be entered by pressing the UP or DOWN buttons after inventory is scanned.
- Starting Quantity may be 1 to 128.
- Min/Max. Data Length is between 2 to 256 (1D models) or 4 to 256 (2D models).
- Barcode Collation Start Position is between 1 to 256.
- The length of Collation Data String is between 1 to 30.

- Collect Partial Data Start Position is between 1 to 256.
- Collect Partial Data Length is between 1 to 256.
- Users may create an inventory database using Microsoft Excel.
  - Excel file must be saved as .txt.
  - Click **User Inventory DB** option to display inventory description.
  - Click **Do not add non-existing item into DB** if one do not wish to add new items into inventory DB.
  - The number of Barcode Data Field is between 1 to 4.
  - The position of Display Filed is between 1 to 4.

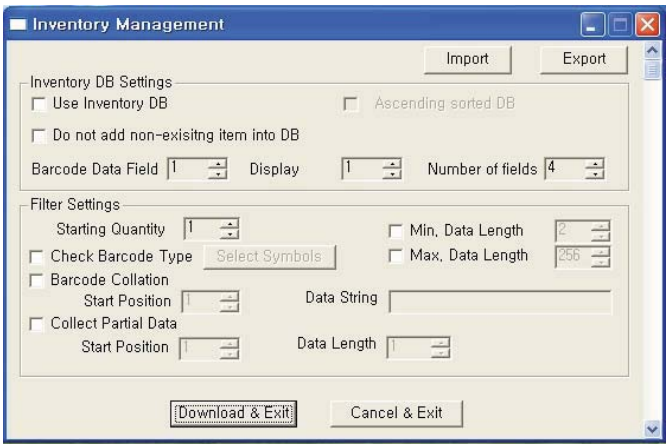


Figure 41 – Inventory Application

7. Troubleshooting

ISSUE	CAUSE	SOLUTION
KDC not working	Dead battery	● Charge battery by connecting KDC to your PC using the included cable
	Hardware failure	● Contact distributor for technical support
KDC not charging	Bad battery	● Replace battery – Contact Local Distributor
	Poor USB port	● USB port doesn't supply proper current to KDC - Charge KDC using a different USB port on your PC
Failed reading	Damaged barcode	● Scan a different barcode
	Out of scan range	● Move the scanner closer to barcode ● Move scanner farther from the barcode
	Incorrect angle	● Change the angle of scanner to barcode
	Symbology not supported	● Contact KOAMTAC - www.KOAMTAC.com for possibility of custom symbology support
	Scan options	● Check scan option settings
	Dirty scan window	● Clean scan window
	Damaged scan window	● Replace scan window
KDC reads wrong barcode	Dirty scan window	● Clean scan window
	Damaged scan window	● Replace scan window
	Poor quality barcode	● Select only necessary barcodes ● Increase minimum barcode length ● Increase security level
Can't communicate with PC, PDA, or smartphone	USB cable is not connected properly	● Check cable connection between KDC and host device
	Software is not working properly	● Reload the software
	COM configuration	● Check COM port configurations
LED blinks yellow	Low battery power	● Charge the battery by connecting KDC to PC. ● KDC will lose collected data if the battery is empty.
Buffer Full Message	Full Memory	● Clear the Memory using Synchronization program
Empty Battery Message	Empty battery	● Connect USB immediately. ● Synchronize the collected data and

		charge KDC
Abnormal KTSync Operation on DELL PC	Quickset Utility	● Disable Quickset Utility before using KTSync. ● Dell Quickset utility interrupts normal KTSync operation
	WSED Utility	● Disable WSED Wireless enable/disable utility ● delete the folder C:\Program Files\WSED, which contains a file WSED.exe, with the same icon as in the taskbar ● Delete the registry entry KEY_LOCAL_MACHINE \SOFTWARE\Microsoft\Windows\CurrentVersion\Run\WSED
Touch Keypad not working (KDC500)	Foreign Object detected	● Clear any foreign object (including your finger) placed on the touch keypad and reset KDC.
	Hardware failure	● Contact distributor for technical support
Compromise Message displayed (KDC500)	Security Attack detected	● Contact distributor for technical support

Table 6 - Troubleshooting Techniques

8. Warranty

LIMITED WARRANTY AND DISCLAIMERS

BY OPENING THE PACKAGE OF THIS PRODUCT YOU AGREE TO BECOME BOUND BY THE LIABILITY AND WARRANTY CONDITIONS AS DESCRIBED BELOW.

UNDER ALL CIRCUMSTANCES, THIS MANUAL SHOULD BE READ ATTENTIVELY, BEFORE INSTALLING AND OR USING THE PRODUCT.

Serial Number

A serial number appears on the KDC label. This official registration number is strictly related to the device purchased. Make sure that the serial number appearing on your KDC is not removed. Removing the serial number will affect the warranty conditions and liability disadvantageously, so please maintain the label with serial number on the KDC. Units with the serial number label removed should not be operated.

Warranty/Warranty Period/Liability

KOAMTAC, Inc. ("KOAMTAC") manufactures its hardware products in accordance with industry-standard practices. Unless otherwise agreed in a contract, KDC is warranted for a period of one year after purchase, covering defects in material and workmanship except rechargeable battery. KOAMTAC will repair or, at its opinion, replace products that prove to be defective in material or workmanship under proper use during the warranty period. KOAMTAC will not be liable in cases (i) in which the unit has been repaired or altered unless done or approved by KOAMTAC, (ii) in which the unit has not been maintained in accordance with any operating or handling instructions supplied by KOAMTAC, (iii) in which the unit has been subjected to unusual physical or electrical stress, misuse, abuse, power shortage, negligence or accident or (iv) in which the unit has been used other than in accordance with the product operating and handling instructions. Preventive maintenance is the responsibility of the customer and is not covered under this warranty. Under no circumstance will KOAMTAC be liable for any direct, indirect, consequential or incidental damages arising out of use or inability to use either the hardware or software, even if KOAMTAC has been informed about the possibility of such damages.

Warranty Coverage and Procedure

During the warranty period, KOAMTAC will repair or replace defective products returned to KOAMTAC warehouse. International customers should contact the local KOAMTAC office or support center. If warranty service is required, KOAMTAC will issue a Return Material Authorization Number. Products must be shipped in the original or comparable package, shipping and insurance charges prepaid. KOAMTAC will ship the repaired or replacement product freight and insurance prepaid. Customer accepts full responsibility for its software and data including the appropriate backup thereof. Repair or replacement of a product during warranty will not extend the original warranty term.

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

9. Contact Information

KOAMTAC

CORPORATE HEADQUARTERS

116 Village Blvd., Suite 305

Princeton, NJ 08540, USA

Phone: 609-256-4700, FAX: 609-228-4373

Email: support@koamtac.com

For more information, visit our website - www.koamtac.com

10. Appendix A – Barcode & Scan Options

The process for scanning and reading barcodes is delicate and complicated. Although the KDC is equipped with a high performance scan engine, if configured incorrectly, it may not perform at its peak performance level. To ensure its high performance, the KDC comes configured to optimize its scan engine technology. Unless you clearly understand the impact of your changes to the KDC settings, please do not change factory default settings.

10.1 Symbologies

KOAMTAC's KDC products support most major barcode symbologies including 1D, 2D, Postal, and OCR-Fonts. Below is the list of the barcode symbologies supported by the KDC with respect to each model's particular area of support. To ensure superior scan performance, remember to select only the required symbologies.

	KDC20/100/200/250/270L/350L/ 410/411/415/470L/500L	***KDC30/300/270C/350C/420/421/425 /450/470C/500C***
1D Barcodes	EAN13, EAN8, UPCA, UPCE, Bookland EAN, EAN13 with Addon, EAN8 with Add-on, UPCA with Add-on, UPCE with Add-on, Interleave 2 of 5, ITF14, Code128, Codabar, GS1-128, Code39, Code93, & Code35	Codabar, Code11, Code32, Code39, Code128, EAN8, EAN13, GS1-128, I2of5, MSI, Plessey, PosiCode, GS1 DATABAR OMNI, GS1 Limited, GS1 Expanded, S2of5IA, S2of5ID, TLC39, Telepen, Trioptic, UPCA, & UPCE
2D Barcodes	*N/A*	AztecCode, AztecRunes, CodablockF,Code 16K, Code49, DataMatrix, MaxiCode, MicroPDF, PDF417, & QRCode and HanXin Code
Postal Barcodes	*N/A*	AusPost, MayadaPost, ChinaPost, JapanPost, KoreaPost, KixPost, Planet Code, Postnet (US), & UKPost
OCR Fonts	*N/A*	OCR-A, OCR-B, OCRUSCurrency, OCRMICRE13B, & OCRSEMIFONT

Table 7 - Symbologies Supported by KDC

Bookland EAN vs. EAN-13

Bookland EAN, which includes ISBN, ISSN, and ISMN, is supported by the KDC. This group of symbologies is essentially an EAN-13 barcode with fixed prefixes; 977 for ISSN, 978 for ISBN, and 979 for ISMN. If EAN-13 and Bookland EAN are both enabled, Bookland EAN takes precedence. Bookland

EAN does not have any options. The Bookland EAN barcode does not contain any groupings – that is, there are no hyphens or separators. Thus, the ISBN 957-630-239-0 is transmitted as 9576302390.

Add-on Symbologies

By default, the 2 or 5 digit add-on symbols with a UPCE, UPCA, EAN-8, and EAN-13 barcode are neither decoded nor transmitted. Transmission for these specific symbologies is enabled by setting the appropriate *withAddon* options. There are 4 *withAddon* options, one for each symbology:

- **UPCEwithAddon**
- **UPCAwithAddon**
- **EAN8withAddon**
- **EAN13withAddon**

The decoding of add-on symbols are defined by the following table, which explains the process for EAN-13 symbols.

Mode	Behavior	Value of flags	
Auto-discrimination	If add-on symbol is present, then it is also decoded; otherwise, only the EAN-13 symbol is decoded.	true	true
With add-on	Only EAN-13 barcodes with 2 or 5 add-on symbols are decoded.	false	true
Without add-on	The add-on symbol is ignored.	true	false

Table 8 - Add-on for EAN-13 Symbology

The add-on symbol is appended to the EAN-13 barcode. The process is similar for UPCE, UPCA, and EAN-8 barcodes. Note that all the UPCE, UPCA, EAN-8, and EAN-13 formatting and conversion options are in effect. The following table should help explain the effect of various options for EAN-8 barcode 12345670 + 12.

Barcode	EAN8_as_EAN13	EAN8_ReturnCheckDigit	EAN13_ReturnCheckDigit
1234567012	False	True	N/A
123456712		False	
00000123456712	True	N/A	False

000001234567012			True

Table 9 - Add-on for EAN-8 Symbology

The add-on symbol contains neither a check digit nor a terminating guard band. Every effort has been made to reduce the decoding error; however, it is likely to decode a partial scan of a 5-digit add-on symbol as a 2-digit add-on symbol. It is strongly recommended that the minimum security level be set at 2 while decoding add-on symbols. Since the decoder takes a conservative view on the add-on symbols, it is likely that the add-on symbol will be missed in the auto-discrimination mode. Auto-discrimination mode should then be avoided.

10.2 Code Options (KDC20/100/200/250/270L/410/411/415/470L)

The KDC supports the following barcode options:

- Transmission of start and stop characters
- Reverse direction
- Symbology conversion
- Verification of optional check character
- Transmission of check digit
- Transmission of Start and Stop Characters

For Codabar symbols, the user may choose not to transmit the start and stop symbols, the NOTIS Editing. By default, they are transmitted. Setting the field **CodaBar_NoStartStopChars** to true disables the transmission.

Reverse Direction

This option may be selected if direction oriented symbologies are designated, such as Code35.

Symbology Conversion

By default the EAN-8, UPCE, and UPCA symbols are transmitted in their native format. However, it is possible to show them in a different format. The user may choose to display UPCE symbols as either UPC-A or EAN-13 symbols, EAN-8 symbols as EAN-13 symbols, or UPC-A symbols as EAN-13 symbols. The following table shows the effect of setting various options.

Option	EAN-8	UPC-A	UPC-E	All others

EAN8_as_EAN13	Converted to EAN-13	No effect	No effect	No effect
UPCA_as_EAN13	No effect	Converted to EAN-13	No effect	
UPCE_as_EAN13	No effect	No effect	Converted to EAN-13	
UPCE_as_UPCA	No effect	No effect	Converted to UPC-A	

Table 10 - Symbology Conversion

Verification of Optional "Check Digit"

Code39 and Interleave 2 of 5 have an optional check digit, which, by default, is not verified. Changing the option **VerifyCheckDigit** to true may enable their verification, or the user may enable the verification for individual symbologies. If the check digit verification fails, the barcode is not transmitted.

Option Selected	Verify Code39 check digit	Verify I2of5 check digit
VerifyCheckDigit	Yes	Yes
Code39_VerifyCheckDigit	Yes	No effect
I2of5_VerifyCheckDigit	No effect	Yes

Table 11 - Verification of Optional "Check Digit"

Transmission of "Check Digit"

By default, the check digit – optional or mandatory – is not transmitted. Its transmission may be enabled for all symbologies by enabling **ReturnCheckDigit** option.

Option Selected	Is the check digit returned?					
ReturnCheckDigit	**Yes**	**Yes**	**Yes**	**Yes**	**Yes**	**Yes**

EAN13_ReturnCheckDigit	**Yes**	No effect	No effect	No effect	No effect	No effect
EAN8_ReturnCheckDigit	No effect	**Yes**	No effect	No effect	No effect	No effect
UPCA_ReturnCheckDigit	No effect	No effect	**Yes**	No effect	No effect	No effect
UPCE_ReturnCheckDigit	No effect	No effect	No effect	**Yes**	No effect	No effect
Code39_ReturnCheckDigit	No effect	No effect	No effect	No effect	**Yes**	No effect
I2of5_ReturnCheckDigit	No effect	No effect	No effect	No effect	No effect	**Yes**

Table 12 - Transmission of "Check Digit"

Resolution of Inconsistencies

Three types of inconsistencies could arise in the assignment of symbology options. The decoder has pre-defined strategies to resolve these inconsistencies: If **UPCE_as_EAN13** is true, then **UPCE_as_UPCA** is ignored.

If symbology conversion is selected but the target symbology is not enabled, then the decoder still outputs the symbol in the target symbology. For example, suppose UPC-E is enabled and **UPCE_as_EAN13** is true but EAN-13 is disabled. All UPC-E symbols will be shown as EAN-13 and EAN-13 options (if specified) will be applied. For the two symbologies that have optional check digits, Code39 and Interleave 2 of 5, the decoder will always transmit the check digit if the verification is disabled.

Verify Check Digit	Return Check Digit	Description
Disabled	Enabled or Disabled	Check digit is not verified but is transmitted
Enabled	Disabled	Check digit is verified but is not transmitted
Enabled	Enabled	Check digit is verified and is transmitted

Table 13 - Resolution of Inconsistencies

10.3 Miscellaneous Barcode Information

Height of a Linear Barcode

Industry standards suggest a height of either 6.5mm or 15% of the symbol length, whichever is greater. Symbols of less than recommended heights may cause recognition problems.

Check Characters

Yes, we recommend the use of check-characters in barcodes. Operating without check-characters is not safe and will lead to errors that are costly to correct. Using check-characters positively affects data integrity, especially when character density is at the limits and/or image quality is not at its best.

Prevent Interleave 2 of 5 Partial Reading

A partial scan of an Interleave 2 of 5 symbols may decode and cause incorrect data to be read. To prevent partial scans on long symbols, the user should include bearer bars. These bars run along the top and bottom edges of the barcode in the scanning direction. If a partial scan of the barcode occurs, the scanning beam will hit the bearer bar and will not decode. The bearer bar must touch the top and bottom of all the bars and must be at least 3 times as wide.

Another solution for the short scanning problem is to fix all Interleave 2 of 5 symbols to a set number of digits. Zeros may be used to pad the data to the set number of digits. The application program would then be set to only accept scans of the correct number of digits.

Finally, a check digit may be used. The Interleave 2 of 5 symbology has an optional check character that uses a weighted Modulo 10 scheme. The check character is the last character in the symbol and should be checked by the decoder and then transmitted with the data. Since Interleave 2 of 5 must always have an even number of digits, the leftmost character may need to be a zero when the check character is added. The standard check digit is calculated by assigning alternating 3,1,3,1… weights to respective data digits. These weights are then multiplied by their respective data digits and the products are summed. The check digit is the digit that needs to be added to the sum to make it an even multiple of 10. An example would be if the sum of the products was 37, then the check digit would be 3.

Equation to Determining Potential Number of Stored Barcodes

The number of barcodes that may be stored in the KDC memory depends on the size of the barcodes.

Example: *In case of EAN-13, it takes up 20 bytes. The maximum number of EAN-13 barcodes that may be saved is STORAGE_SIZE/20. For example, in case of 4MB, it may store maximum 204,800 barcodes and in case of 8MB, it may store maximum 409,600 barcodes.*

Data Buffer Full

When the data buffer is full, the KDC displays a message, **Buffer Full**, ignoring any command to scan barcodes. The user must reset the data buffer to continue data collection.

11. Appendix B –FAQ

11.1 Symbology

Q: What barcode symbologies are supported by the KDC?

A: The KDC20/100/200/250/270L/350L/410/411/415/470L/500L support 1D barcode only. KDC30/300/270C/350C/420/421/425/450/470C/500C support most major 1D, 2D barcode symbologies and OCR.

KDC30/300/270C/350C/420/421/425/450/470C/500C	***KDC20/100/200/250/270L/350L/410/411/415/470L/500L***
2D Barcodes	***1D Barcodes***
AztecCode, AztecRunes, CodablockF, Code16K, Code49, DataMatrix, MaxiCode, MicroPDF, PDF417, QRCode, and HanXin Code	EAN13
	EAN8
	UPCA
	UPCE
1D Barcodes	Bookland EAN
Codabar, Code11, Code32, Code39, Code128, EAN8, EAN13, GS1-128, I2of5, MSI, Plessey, PosiCode, GS1 DATABAR OMNI, GS1 Limited, GS1 Expanded, S2of5IA, S2of5ID, TLC39, Telepen, Trioptic, UPCA, and UPCE	EAN13 with Add-on
	EAN8 with Add-on
	UPCA with Add-on
	UPCE with Add-on
	Interleave 2 of 5
	ITF14
	Code128
	Codabar
	GS1-128
	Code39
	Code93
	Code35
Postal Barcodes	
AusPost, CanadaPost, ChinaPost, JapanPost, KoreaPost, KixPost, Planet Code, Postnet (US), and UKPost	
OCR Fonts	
OCR-A, OCR-B, OCRPassport,	

Table 15 – Symbologies supported by KDC

11.2 Host Interface

Q: What interface ports are supported by the KDC?
A: The KDC100 has two USB ports: Swing-out Type A and Ultra-mini USB ports that support USB to Serial protocol. KDC200/250/300/350/400(except KDC470) have one Ultra-mini USB port that supports USB to Serial protocol and Bluetooth that supports HID/SPP/MFi *Bluetooth* profiles. KDC270 and KDC470 have one Micro USB port. KDC20/30 have one Swing-out Type A USB port which supports USB to Serial protocol and Bluetooth with HID, SPP and MFi *Bluethooth* profiles. KDC500 has one micro USB port that supports USB to Serial protocol and Bluetooth that supports SPP/MFi *Bluetooth* profile.

11.3 Battery

Q: How long will the KDC battery last before it needs to be replaced?
A: The battery on the KDC may be charged at least 300 times before it needs to be replaced.

Q: How long does it take to charge the KDC?
A: It takes about 2 hours to charge the KDC20/100/200, 4 hours to charge the KDC30/250/300/270, and 5 hours to charge the KDC350/400/500.

Q: How many barcodes may a fully charged KDC scan?
A: If the user scans a barcode every 1 seconds, KDC100/30 scans more than 12,000 barcodes, KDC20 scans more than 11,000 barcodes, KDC200 scans more than 8,500 barcodes, KDC250 scans more than 33,000 scans, KDC300 scans more than 22,000 scans and 2D models of KDC350/400/500 scan more than 40,000.

Q: How long will the KDC battery lasts in the sleep mode?
A: **KDC100** lasts more than 75 days. **KDC20/200** lasts more than 2 days while connected in Bluetooth and 60 days if not connected in Bluetooth. **KDC250/270L** lasts 7 days while connected in Bluetooth and 120 days if not connected in Bluetooth. **KDC30/270C/300** last more than 25 days while connected in Bluetooth and 5 days if not connected in Bluetooth. **KDC350** lasts more than 12 hours while GPS is active and Bluetooth is connected, 7 days while GPS is not active and Bluetooth is connected, and 20 days while GPS is not active and Bluetooth is not connected. **KDC410/415/420/425/430/470** last more than 8 days while connected in Bluetooth and 20 days while if not connected in Bluetooth. **KDC450/470** lasts more than 4 hours while reading RFiD tag continuously every second and Bluetooth is connected, 5 days if reading RFiD tag casually and Bluetooth is connected. **KDC500** lasts more 7 days while connected in Bluetooth and 10 days if not connected in Bluetooth.

Q: May I replace the KDC battery?
A: Yes. The KDC has a separate compartment for the battery that may be opened easily with a driver. KDC batteries may be purchased at www.KOAMTACstore.com or from local KDC reseller.

11.4 Memory

Q: How many barcodes may be stored in the KDC?
A: 4MB version of KDC100M/200M/250M/300M350 may storemaximum of 204,800 barcodes and 8MB version and KDC270/470 may store maximum of 409,600 barcodes . KDC20/30 have 150KB data memory which may store maximum 7,680 barcodes. KDC41x/42x has 80KB data memory and may store maximum 4,096 barcodes. KDC500 has 3MB data memory which may store maximum 153,600 barcodes.

Q: May I download stored barcodes or wedge barcodes to my application?
A: Yes. KTSync® is keyboard wedging, application generation, DB look up, and inventory program bundled with the KDC200/250/300/350, which supports host devices running on Android®, iPhone/iPad/iPod touch, Blackberry®, Windows® XP/Vista/7/8/10/Mobile 5.0+. KTSync® provides keyboard wedging program only for KDC20/30/400. KDC100 and KDC500 only supports Windows XP/Vista/7 version.

Q: Does the KDC support *Android®*, *iPhone/iPad/iPod touch®*, *Blackberry®*, Mac® and *Windows®* devices?
A: KTSync® currently supports Android®, iPhone/iPad/iPod touch, Blackberry®, Mac® and Windows® devices.

11.5 Programming

Q: May the KDC be programmed by a KOAMTAC partner?
A: Yes. KOAMTAC's Application Generation tool provides an enhanced programming environment for developing custom applications for the KDC.

1. KDC supports, at most, three step data collection processes, including the ability to perform various data functionality features.
2. KDC's database lookup function provides enhanced data processes, enabling the KDC to display database results with or without scanned barcode data.
3. KDC may display a message from the Host by enabling two-way communications and a messaging application.

Q: Does KOAMTAC provide customization services for the KDC?
A: Yes. Custom applications or projects may be developed by KOAMTAC engineers. This service is provided for an additional fee to KOAMTAC. For more information regarding this service, please contact KOAMTAC.

Q: May a partner develop a PC or Smartphone application for the KDC?
A: A software development kit for Windows® XP/Vista/7/8/10/Mobile 5.0+ and Android is available

on KOAMTAC support page. Android®, iPhone/iPad/iPod touch, Blackberry®, and Mac® SDK are available through KOAMTAC authorized distributors.

12. Appendix C – 1D Special Barcodes (KDC20/20D/100/200/250/350L/350D/410/415)

12.1 Set Symbologies

Enable EAN13  2000001	Disable EAN13  2100001
Enable EAN8  2000002	Disable EAN8  2100002
Enable UPCA  2000004	Disable UPCA  2100004
Enable UPCE  2000008	Disable UPCE  2100008
Enable Code39  2000010	Disable Code39  2100010
Enable ITF14  2000020	Disable ITF14  2100020

Enable Code128  2000040	Disable Code128  2100040
Enable I2 of 5  2000080	Disable I2 of 5  2100080
Enable Codabar  2000100	Disable Codabar  2100100
Enable GS1-128  2000200	Disable GS1-128  2100200
Enable Code93  2000400	Disable Code93  2100400
Enable Code35  2000800	Disable Code35  2100800
Enable Bookland EAN  2001000	Disable Bookland EAN  2101000
Enable EAN13 with Addon  2002000	Disable EAN13 with Addon  2102000

Enable EAN8 with Addon  2004000	Disable EAN8 with Addon  2104000
Enable UPCA with Addon  2008000	Disable UPCA with Addon  2108000
Enable UPCE with Addon  2010000	Disable UPCE with Addon  2110000
Enable GS1 Omni  2020000	Disable GS1 Omni  2120000
Enable GS1 Limited  2040000	Disable GS1 Limited  2140000
Enable GS1 Expanded  2080000	Disable GS1 Expanded  2180000

12.2 Barcode Options

Codabar - do NOT transmit start/stop  3000000001	Codabar - transmit start/stop  3100000001

Convert UPCE to UPCA  3000000200	Do NOT convert UPCE to UPCA  3100000200
Convert EAN8 to EAN13  3000000400	Do NOT convert EAN8 to EAN13  3100000400
Convert UPCE to EAN13  3000000800	Do NOT convert UPCE to EAN13  3100000800
Return Check Digit  3000001000	Do NOT Return Check Digit  3100001000
Verify Check Digit  3000002000	Do NOT Verify Check Digit  3100002000
Convert UPCA to EAN13  3000080000	Do NOT Convert UPCA to EAN13  3100080000
Verify check digit for I2of5  3000400000	Do NOT verify check digit for I2of5  3100400000
Verify check digit for Code39  3000800000	Do NOT verify check digit for Code39  3100800000

Return check digit for I2of5 3004000000	Do NOT return check digit for I2of5 3104000000
Return check digit for Code39 3008000000	Do NOT return check digit for Code39 3108000000
Return check digit for UPCE 3010000000	Do NOT return check digit for UPCE 3110000000
Return check digit for UPCA 3020000000	Do NOT return check digit for UPCA 3120000000
Return check digit for EAN8 3040000000	Do NOT return check digit for EAN8 3140000000
Return check digit for EAN13 3080000000	Do NOT return check digit for EAN13 3180000000

12.3 Delete Last Scanned Barcode

Delete Last Scanned Barcode 80001

12.4 Scan Options

Wide Scan Angle*  3000004000	Narrow Scan Angle*  3100004000
Normal Filter Mode*  3100008000	High Filter Mode*  3000008000
Enable Auto Trigger  5A001	Disable Auto Trigger  5A010
Reread Delay = Continuous  5B000	Reread Delay = Short  5B001
Reread Delay = Medium  5B002	Reread Delay = Long  5B003
Reread Delay = Extra Long  5B004	

*Opticon laser only

12.5 Scan Timeout

Scan Timeout = 500msec  101F4	Scan Timeout = 1sec  103E8

Scan Timeout = 2sec  107D0	Scan Timeout = 3sec  10BB8
Scan Timeout = 4sec  10FA0	Scan Timeout = 5sec  11388
Scan Timeout = 6sec  11770	Scan Timeout = 7sec  11B58
Scan Timeout = 8sec  11F40	Scan Timeout = 9sec  12328
Scan Timeout = 10sec  12710	

12.6 Minimum Barcode Length

Minimum Length = 2  002	Minimum Length = 3  003
Minimum Length = 4  004	Minimum Length = 5  005

Minimum Length = 6  006	Minimum Length = 7  007
Minimum Length = 8  008	Minimum Length = 9  009
Minimum Length = 10  00A	Minimum Length = 11  00B
Minimum Length = 12  00C	Minimum Length = 13  00D
Minimum Length = 14  00E	Minimum Length = 15  00F
Minimum Length = 16  010	Minimum Length = 17  011
Minimum Length = 18  012	Minimum Length = 19  013
Minimum Length = 20  014	Minimum Length = 21  015

Minimum Length = 22  016	Minimum Length = 23  017
Minimum Length = 24  018	Minimum Length = 25  019
Minimum Length = 26  01A	Minimum Length = 27  01B
Minimum Length = 28  01C	Minimum Length = 29  01D
Minimum Length = 30  01E	Minimum Length = 31  01F
Minimum Length = 32  020	Minimum Length = 33  021
Minimum Length = 34  022	Minimum Length = 35  023
Minimum Length = 36  024	

12.7 ScanIfConnect

ScanIfConnect = Enable	ScanIfConnect = Disable
 5I001	 5I010

12.8 Security Level(Laser model only)

Security level = 1  41	Security level = 2  42
Security level = 3  43	Security level = 4  44

12.9 Data Process - Wedge/Store, Enter Key & Extend Key

Wedge Only  82000	Wedge & Store Always  82001
Store Only  82002	Save if Sent  82003
Save if Not Sent  82004	
Enable Enter Key (KDC350L/D Only)  8E001	Disable Enter Key (KDC350L/D Only)  8E000
Enable Extend Key (KDC350L/D Only)  8X001	Disable Extend Key (KDC350L/D Only)  8X000

12.10 Data Process - Data Edit

Start Prefix Enter  83000	Start Suffix Enter  83001
Finish Prefix/Suffix Enter  83002	Cancel Prefix/Suffix Enter  83003
Delete Prefix  83004	Delete Suffix  83005
Display Prefix  83006	Display Suffix  83007
AIM ID None  8B000	AIM ID In Prefix  8B001
AIM ID In Suffix  8B002	

12.10 Data Process - Data Format & Handshake

Data format = Barcode only 84001	Data format = Packet data 84010
Enable Handshake 86001	Disable Handshake 86010

12.11 Data Process - Termination Character & Duplicate Check

Termination Character = None  88000	Termination Character = CR  88001
Termination Character = LF  88002	Termination Character = CR+LF  88003
Termination Character = Tab  88004	
Enable Duplicate Check  89001	Disable Duplicate Check  89010

12.11 Bluetooth

Enable Bluetooth Power  60001	Disable Bluetooth Power  60010
Enter Pairing Mode  61001	
Enable Discovering  61101	Disable Discovering  61110
Connect To Last  61201	Connecting to  61301
Disconnect  6D000	
HID Sync  6E000	SPP Sync  6E001
Bluetooth Profile = SPP  6A000	Bluetooth Profile = HID iOS  6A001

Bluetooth Profile = MFi  6A002	Bluetooth Profile = SPP2.0  6A003
Bluetooth Profile = HID Normal  6A004	
Enable Auto Connect  62001	Disable Auto Connect  62010
Enable Auto Reconnect  6R001	Disable Auto Reconnect  6R010
Enable Auto Power On  66001	Disable Auto Power On  66010
Enable Auto Power Off  64001	Disable Auto Power Off  64010
Enable Beep Warning  68001	Disable Beep Warning  68010
Enable Power Off Msg  63001	Disable Power Off Msg  63010

Display BT MAC Address  63100	Display BT FW Version  63200
Enable Wakeup Nulls  63401	Disable Wakeup Nulls  63410
Enable BT Toggle  6B001	Disable BT Toggle  6B010
Enable BT Disconnect Button  6B101	Disable BT Disconnect Button  6B110
Enable Auto Pairing  6N001	Disable Auto Pairing  6N010

12.12 Bluetooth Auto Power On Time

Auto Power On Time = Disabled  67000	Auto Power On Time = 1sec  67001
Auto Power On Time = 2sec  67002	Auto Power On Time = 3sec  67003
Auto Power On Time = 4sec  67004	Auto Power On Time = 5sec  67005
Auto Power On Time = 6sec  67006	Auto Power On Time = 7sec  67007
Auto Power On Time = 8sec  67008	Auto Power On Time = 9sec  67009
Auto Power On Time = 10sec  6700A	

12.13 Bluetooth Power Off Time

BT Power Off Time = 1min  69001	BT Power Off Time = 2min  69002
BT Power Off Time = 3min  69003	BT Power Off Time = 4min  69004
BT Power Off Time = 5min  69005	BT Power Off Time = 6min  69006
BT Power Off Time = 7min  69007	BT Power Off Time = 8min  69008
BT Power Off Time = 9min  69009	BT Power Off Time = 10min  6900A
BT Power Off Time = 11min  6900B	BT Power Off Time = 12min  6900C
BT Power Off Time = 13min  6900D	BT Power Off Time = 14min  6900E

BT Power Off Time = 15min  6900F	BT Power Off Time = 16min  69010
BT Power Off Time = 17min  69011	BT Power Off Time = 18min  69012
BT Power Off Time = 19min  69013	BT Power Off Time = 20min  69014
BT Power Off Time = 21min  69015	BT Power Off Time = 22min  69016
BT Power Off Time = 23min  69017	BT Power Off Time = 24min  69018
BT Power Off Time = 25min  69019	BT Power Off Time = 26min  6901A
BT Power Off Time = 27min  6901B	BT Power Off Time = 28min  6901C
BT Power Off Time = 29min  6901D	BT Power Off Time = 30min  6901E

12.14 HID Auto Lock Time

HID Auto Lock Time = 0min (Never)  6C000	HID Auto Lock Time = 1min  6C001
HID Auto Lock Time = 2min  6C002	HID Auto Lock Time = 3min  6C003
HID Auto Lock Time = 4min  6C004	HID Auto Lock Time = 5min  6C005
HID Auto Lock Time = 10min  6C00A	HID Auto Lock Time = 15min  6C00F

12.15 HID Keyboard

HID Keyboard = US  6F000	HID Keyboard = German  6F001
HID Keyboard = French  6F002	HID Keyboard = Italian  6F003
HID Keyboard = Spanish  6F004	

12.16 HID Initial Delay

HID Initial Delay = Disabled  H0000	HID Initial Delay = 1second  H0001
HID Initial Delay = 2seconds  H0002	HID Initial Delay = 3seconds  H0003
HID Initial Delay = 5seconds  H0005	HID Initial Delay = 10seconds  H000A

12.17 HID Character Delay

HID Character Delay = Disabled H1000	HID Character Delay = 10msec H100A
HID Character Delay = 20msec H1014	HID Character Delay = 30msec H101E
HID Character Delay = 50msec H1032	HID Character Delay = 100msec H1064

12.18 HID Control Character

HID Control Character = Disabled H2000	HID Control Character = Alt+Numpad H2001
HID Control Character = ^+Character H2002	HID Control Character = Replace with '|' H2003

12.19 System

Memory Size = 0.5M / 3.5M Note1,2  5E000	Memory Size = 1M / 3M Note1,2  5E001
Memory Size = 2M / 2M Note1,2  5E002	Memory Size = 3M / 1M Note1,2  5E003
Memory Size = 4M / 0M Note1,2  5E004	Confirm Memory Size Change Note1,2  5E100
Memory Size = 5M / 3M Note2  5E005	Memory Size = 6M / 2M Note2  5E006
Memory Size = 7M / 1M Note2  5E007	Memory Size = 8M / 0M Note2  5E008
Memory Status  50001	Reset Memory  50002
Erase Memory  50003	Reset App data  50004

※ Note 1. 4M Model Only

※ Note 2. 8M Model Only

Reset BT Registry  50005	
Enable Auto Erase  5F001	Disable Auto Erase  5F010
Date/Time  52001	Battery  53001
Display Version  54001	
Lock Button  55001	Unlock Button  55010
Enable Beep Sound  56001	Disable Beep Sound  56010
High Beep Volume  5D001	Low Beep Volume  5D010
Enable Auto Menu Exit  58001	Disable Auto Menu Exit  58010

Enable MFi Mode  6M001	Disable MFi Mode  6M010
Enable Vibrator  5G001	Disable Vibrator  5G010
Scan Success = No vibration  5S000	Scan Success = 1 vibration  5S001
Scan Success = 2 vibrations  5S002	Scan Success = 3 vibrations  5S003
Scan Success = 4 vibrations  5S004	Scan Success = 5 vibrations  5S005
Scan Failure = No vibration  5S200	Scan Failure = 1 vibration  5S201
Scan Failure = 2 vibrations  5S202	Scan Failure = 3 vibrations  5S203
Scan Failure = 4 vibrations  5S204	Scan Failure = 5 vibrations  5S205

Enable Port Status  58101	Disable Port Status  58100
Display Format = Time & Battery  58200	Display Format = Type & Time  58201
Display Format = Type & Battery  58202	Display Format = Memory Status  58203
Display Format = GPS Data (GPS Model)  58204	Display Format = Barcode Only  58205
Display Format = Graphic  58206	
Enable Scrolling  59001	Disable Scrolling  59010
Factory Default  57001	KDC Reset  A0000
Enable Backup Battery (KDC20/20D Only)  5R001	Disable Backup Battery (KDC20/20D Only)  5R010

12.20 Sleep Timeout

Sleep Timeout = Disable  51000	Sleep Timeout = 1sec  51001
Sleep Timeout = 2sec  51002	Sleep Timeout = 3sec  51003
Sleep Timeout = 4sec  51004	Sleep Timeout = 5sec  51005
Sleep Timeout = 10sec  5100A	Sleep Timeout = 20sec  51014
Sleep Timeout = 30sec  5101E	Sleep Timeout = 1min  5103C
Sleep Timeout = 2min  51078	Sleep Timeout = 5min  5112C
Sleep Timeout = 10min  51258	

12.21 ETC

Enable Reverse Direction  3000000002	Disable Reverse Direction  3100000002
Enable Verify check digit  3002000000	Disable Verify check digit  3102000000
Enable Return check digit  3001000000	Disable Return check digit  3101000000

12.22 Function

F1 7001	F2 7002
F3 7003	F4 7004
F5 7005	F6 7006
F7 7007	F8 7008
F9 7009	F10 700A
F11 700B	F12 700C

12.23 Number

0 7130	1 7131

2  7132	3  7133
4  7134	5  7135
6  7136	7  7137
8  7138	9  7139

12.24 Lower Case Alphabet

a 7161	b 7162
c 7163	d 7164
e 7165	f 7166
g 7167	h 7168
i 7169	j 716A
k 716B	l 716C
m 716D	n 716E

o  716E	p  7170
q  7171	r  7172
s  7173	t  7174
u  7175	v  7176
w  7177	x  7178
y  7179	z  717A

12.25 Upper Case Alphabet

A 7141	B 7142
C 7143	D 7144
E 7145	F 7146
G 7147	H 7148
I 7149	J 714A
K 714B	L 714C
M 714D	N 714E

O  714F	P  7150
Q  7151	R  7152
S  7153	T  7154
U  7155	V  7156
W  7157	X  7158
Y  7159	Z  715A

12.26 Control Character

BS 7108	TAB 7109
LF 710A	VT 710B
CR 710D	ESC 711B
Space 7120	DEL 717F
Shift + Tab 7111	

12.27 Symbol Character

!  7121	“  7122
#  7123	$  7124
%  7125	&  7126
‘  7127	( 7128
)  7129	*  712A
+  712B	,  712C
-  712D	.  712E

/  712F	:  713A
;  713B	<  713C
=  713D	>  713E
?  713F	@  7140
[ 715B	\  715C
]  715D	^  715E
_  715F	`  7160
{  717B	|  717C

}  717D	~  717E
Start String  7201	Stop String  7210

- The user may compose a string up to 16 characters.
- A string would be composed by scanning the “Start-String”, number/alphabet/special characters, and “Stop-String” special barcodes.
- The KDC will abort string composition if the user do not scan “Stop-String” in one minute after scanning “Start-String” and number/alphabet/special characters.

12.28 GPS (GPS Model Only)

Enable GPS Power G0001	Disable GPS Power G0010
Enable GPS Bypass Data G1001	Disable GPS Bypass Data G1010
Reset GPS Module G2000	GPS Acquire Test G2001
GPS Power Save Mode = Normal G2002	GPS Power Save Mode = Power Saving G2003
Enable GPS Auto Power Off G3001	Disable GPS Auto Power Off G3010

12.29 GPS/BT Auto Power Off Timeout

Auto Power Off = 0min (Disabled)  G4000	Auto Power Off = 5min  G4005
Auto Power Off = 10min  G400A	Auto Power Off = 20min  G4014
Auto Power Off = 30min  G401E	Auto Power Off = 60min  G403C
Auto Power Off = 120min  G4078	

12.30 NFC (NFC Model Only)

Enable NFC Power  N0001	Disable NFC Power  N0010
NFC Data Format = Data only  N1001	NFC Data Format = Packet data  N1000
UID Only = Enable  N3001	UID Only = Disable  N3000
New Data Format = Enable  N4001	New Data Format = Disable  N4010

12.31 USB Disk (M Model Only)

USB Serial Mode U0000	USB Disk Mode U0001
USB HID Mode U0002	Format USB Disk U1000
Data Format = Data U2000	Data Format = Data, Time U2001
Data Format = Data, Type U2002	Data Format = Data, Time, Type U2003

12.32 USB DM Button(KDC20/20D Only)

USB DM Button = Enable 5U001	USB DM Button = Disable 5U010

12.33 WIFI (WIFI Model Only)

Enable WIFI Power  S0001	Disable WIFI Power  S0010
Provisioning  S1000	Protocol = UDP  S2000
Protocol = TCP  S2001	Protocol = HTTP_GET  S2002
Protocol = HTTP_POST  S2003	Server URL  S4
Port Number  S5	Server Page  S6
Enable SSL  S7001	Disable SSL  S7010
Enable AutoConnect  S8001	Disable AutoConnect  S8010

AP SSID S9	AP Passcode SA
Connect SB	Server IP S3
Enable Send Stored SC001	Disable Send Stored SC010

12.34 Multilanguage

Disable(English Only) 5L000	English 5L001
	French 5L003
Italian 5L004	Spanish 5L005
Korean 5L006	Japanese 5L007

13. Appendix D – 2D Special Barcodes (KDC30/300/350C/350WA/420/425/450)

13.1 Set Symbologies

For KDC300/350C/420/425/450, please refer to Honeywell Adaptus® Technology enabled scanner user manual, such as 4600 or 4820.

13.2 Barcode Options

For KDC300/350C/420/425/450, please refer to Honeywell Adaptus® Technology enabled scanner user manual, such as 4600 or 4820.

13.3 Delete Last Scanned Barcode

Delete Last Scanned Barcode

13.4 Scan Options

Enable Auto Trigger  ┬MKDC5A001.	Disable Auto Trigger  ┬MKDC5A010.
Reread Delay = Continuous  ┬MKDC5B000.	Reread Delay = Short  ┬MKDC5B001.
Reread Delay = Medium  ┬MKDC5B002.	Reread Delay = Long  ┬MKDC5B003.
Reread Delay = Extra Long  ┬MKDC5B004.	

13.5 Scan Timeout

Scan Timeout = 500msec  ┬MKDC101F4.	Scan Timeout = 1sec  ┬MKDC103E8.
Scan Timeout = 2sec  ┬MKDC107D0.	Scan Timeout = 3sec  ┬MKDC10BB8.
Scan Timeout = 4sec  ┬MKDC10FA0.	Scan Timeout = 5sec  ┬MKDC11388.
Scan Timeout = 6sec  ┬MKDC11770.	Scan Timeout = 7sec  ┬MKDC11B58.
Scan Timeout = 8sec  ┬MKDC11F40.	Scan Timeout = 9sec  ┬MKDC12328.
Scan Timeout = 10sec  ┬MKDC12710.	

13.6 Minimum Barcode Length (except KDC30)

Minimum Length = 2  ┬MKDC002.	Minimum Length = 3  ┬MKDC003.
Minimum Length = 4  ┬MKDC004.	Minimum Length = 5  ┬MKDC005.
Minimum Length = 6  ┬MKDC006.	Minimum Length = 7  ┬MKDC007.
Minimum Length = 8  ┬MKDC008.	Minimum Length = 9  ┬MKDC009.
Minimum Length = 10  ┬MKDC00A.	Minimum Length = 11  ┬MKDC00B.
Minimum Length = 12  ┬MKDC00C.	Minimum Length = 13  ┬MKDC00D.
Minimum Length = 14  ┬MKDC00E.	Minimum Length = 15  ┬MKDC00F.

Minimum Length = 16  ┬MKDC010.	Minimum Length = 17  ┬MKDC011.
Minimum Length = 18  ┬MKDC012.	Minimum Length = 19  ┬MKDC013.
Minimum Length = 20  ┬MKDC014.	Minimum Length = 21  ┬MKDC015.
Minimum Length = 22  ┬MKDC016.	Minimum Length = 23  ┬MKDC017.
Minimum Length = 24  ┬MKDC018.	Minimum Length = 25  ┬MKDC019.
Minimum Length = 26  ┬MKDC01A.	Minimum Length = 27  ┬MKDC01B.
Minimum Length = 28  ┬MKDC01C.	Minimum Length = 29  ┬MKDC01D.
Minimum Length = 30  ┬MKDC01E.	Minimum Length = 31  ┬MKDC01F.

Minimum Length = 32  TMKDC020.	Minimum Length = 33  TMKDC021.
Minimum Length = 34  TMKDC022.	Minimum Length = 35  TMKDC023.
Minimum Length = 36  TMKDC024.	

13.7 Image Capture (except KDC30)

Capture Now  ┬MKDC90000.	Enable Image Capture  ┬MKDC91001.
Image Format = JPEG  ┬MKDC92006.	Image Format = BMP  ┬MKDC92008.
Pixel Depth = 1 bit per pixel  ┬MKDC93001.	Pixel Depth = 8 bit per pixel  ┬MKDC93008.

13.8 ScanIfConnect

ScanIfConnect = Enable  ┬MKDC5I001.	ScanIfConnect = Disable  ┬MKDC5I010.

13.9 Data Process - Wedge/Store, Enter Key & Extend Key

Wedge Only  ┬MKDC82000.	Wedge & Store Always  ┬MKDC82001.
Store Only  ┬MKDC82002.	Save if Sent  ┬MKDC82003.
Save if Not Sent  ┬MKDC82004.	
Enable Enter Key (KDC350C Only)  ┬MKDC8E001.	Disable Enter Key (KDC350C Only)  ┬MKDC8E000.
Enable Extend Key (KDC350C Only)  ┬MKDC8X001.	Disable Extend Key (KDC350C Only)  ┬MKDC8X000.
Enable Age Verification  ┬MKDC8V001.	Disable Age Verification  ┬MKDC8V000.

13.10 Data Process - Data Edit

Start Prefix Enter  ┬MKDC83000.	Start Suffix Enter  ┬MKDC83001.
Finish Prefix / Suffix Enter  ┬MKDC83002.	Cancel Prefix / Suffix Enter  ┬MKDC83003.
Delete Prefix  ┬MKDC83004.	Delete Suffix  ┬MKDC83005.
Display Prefix  ┬MKDC83006.	Display Suffix  ┬MKDC83007.
AIM ID None  ┬MKDC8B000.	AIM ID In Prefix  ┬MKDC8B001.
AIM ID In Suffix  ┬MKDC8B002.	

13.11 Data Process – Data Format & Handshake

Data format = Barcode only TMKDC84001.	Data format = Packet data TMKDC84010.
Enable Handshake TMKDC86001.	Disable Handshake TMKDC86010.

13.12 Data Process - Termination Character & Duplicate Check

Termination Character = None  ┬MKDC88000.	Termination Character = CR  ┬MKDC88001.
Termination Character = LF  ┬MKDC88002.	Termination Character = CR+LF  ┬MKDC88003.
Termination Character = Tab  ┬MKDC88004.	
Enable Duplicate Check  ┬MKDC89001.	Disable Duplicate Check  ┬MKDC89010.

13.13 Bluetooth

Enable Bluetooth Power  ┬MKDC60001.	Disable Bluetooth Power  ┬MKDC60010.
Enter Pairing Mode  ┬MKDC61001.	
Enable Discovering  ┬MKDC61101.	Disable Discovering  ┬MKDC61110.
Connect To Last  ┬MKDC61201.	Connect To  ┬MKDC61301.
Disconnect  ┬MKDC6D000.	
HID Sync  ┬MKDC6E000.	SPP Sync  ┬MKDC6E001.
Bluetooth Profile = SPP  ┬MKDC6A000.	Bluetooth Profile = HID iOS  ┬MKDC6A001.

Bluetooth Profile = MFi  ┬MKDC6A002.	Bluetooth Profile = SPP2.0  ┬MKDC6A003.
Bluetooth Profile = HID Normal  ┬MKDC6A004.	
Enable Auto Connect  ┬MKDC62001.	Disable Auto Connect  ┬MKDC62010.
Enable Auto Reconnect  ┬MKDC6R001.	Disable Auto Reconnect  ┬MKDC6R010.
Enable Auto Power Off  ┬MKDC64001.	Disable Auto Power Off  ┬MKDC64010.
Enable Auto Power On  ┬MKDC66001.	Disable Auto Power On  ┬MKDC66010.
Enable Beep Warning  ┬MKDC68001.	Disable Beep Warning  ┬MKDC68010.
Enable Power Off Msg  ┬MKDC63001.	Disable Power Off Msg  ┬MKDC63010.

Display BT Mac Address  ┬MKDC63100.	Display BT FW Version  ┬MKDC63200.
Enable Wakeup Nulls  ┬MKDC63401.	Disable Wakeup Nulls  ┬MKDC63410.
Enable BT Toggle  ┬MKDC6B001.	Disable BT Toggle  ┬MKDC6B010.
Enable BT Disconnect Button  ┬MKDC6B101.	Disable BT Disconnect Button  ┬MKDC6B110.
Enable Auto Pairing  ┬MKDC6N001.	Disable Auto Pairing  ┬MKDC6N010.

13.14 Bluetooth Auto Power On Time

Auto Power On Time = Disabled  ┬MKDC67000.	Auto Power On Time = 1sec  ┬MKDC67001.
Auto Power On Time = 2sec  ┬MKDC67002.	Auto Power On Time = 3sec  ┬MKDC67003.
Auto Power On Time = 4sec  ┬MKDC67004.	Auto Power On Time = 5sec  ┬MKDC67005.
Auto Power On Time = 6sec  ┬MKDC67006.	Auto Power On Time = 7sec  ┬MKDC67007.
Auto Power On Time = 8sec  ┬MKDC67008.	Auto Power On Time = 9sec  ┬MKDC67009.
Auto Power On Time = 10sec  ┬MKDC6700A.	

13.15 Bluetooth Power Off Time

BT Power Off Time = 1min ┬MKDC69001.	BT Power Off Time = 2min ┬MKDC69002.
BT Power Off Time = 3min ┬MKDC69003.	BT Power Off Time = 4min ┬MKDC69004.
BT Power Off Time = 5min ┬MKDC69005.	BT Power Off Time = 6min ┬MKDC69006.
BT Power Off Time = 7min ┬MKDC69007.	BT Power Off Time = 8min ┬MKDC69008.
BT Power Off Time = 9min ┬MKDC69009.	BT Power Off Time = 10min ┬MKDC6900A.
BT Power Off Time = 11min ┬MKDC6900B.	BT Power Off Time = 12min ┬MKDC6900C.
BT Power Off Time = 13min ┬MKDC6900D.	BT Power Off Time = 14min ┬MKDC6900E.

BT Power Off Time = 15min  ┬MKDC6900F.	BT Power Off Time = 16min  ┬MKDC69010.
BT Power Off Time = 17min  ┬MKDC69011.	BT Power Off Time = 18min  ┬MKDC69012.
BT Power Off Time = 19min  ┬MKDC69013.	BT Power Off Time = 20min  ┬MKDC69014.
BT Power Off Time = 21min  ┬MKDC69015.	BT Power Off Time = 22min  ┬MKDC69016.
BT Power Off Time = 23min  ┬MKDC69017.	BT Power Off Time = 24min  ┬MKDC69018.
BT Power Off Time = 25min  ┬MKDC69019.	BT Power Off Time = 26min  ┬MKDC6901A.
BT Power Off Time = 27min  ┬MKDC6901B.	BT Power Off Time = 28min  ┬MKDC6901C.
BT Power Off Time = 29min  ┬MKDC6901D.	BT Power Off Time = 30min  ┬MKDC6901E.

13.16 HID Auto Lock Time

HID Auto Lock Time = 0min (Never)  ┬MKDC6C000.	HID Auto Lock Time = 1min  ┬MKDC6C001.
HID Auto Lock Time = 2min  ┬MKDC6C002.	HID Auto Lock Time = 3min  ┬MKDC6C003.
HID Auto Lock Time = 4min  ┬MKDC6C004.	HID Auto Lock Time = 5min  ┬MKDC6C005.
HID Auto Lock Time = 10min  ┬MKDC6C00A.	HID Auto Lock Time = 15min  ┬MKDC6C00F.

13.17 HID Keyboard

HID Keyboard = US  ┬MKDC6F000.	HID Keyboard = German  ┬MKDC6F001.
HID Keyboard = French  ┬MKDC6F002.	HID Keyboard = Italian  ┬MKDC6F003.
HID Keyboard = Spanish  ┬MKDC6F004.	

13.18 HID Initial Delay

HID Initial Delay = Disabled  ┬MKDCH0000.	HID Initial Delay = 1second  ┬MKDCH0001.
HID Initial Delay = 2seconds  ┬MKDCH0002.	HID Initial Delay = 3seconds  ┬MKDCH0003.
HID Initial Delay = 5seconds  ┬MKDCH0005.	HID Initial Delay = 10seconds  ┬MKDCH000A.

13.19 HID Character Delay

HID Character Delay = Disabled  ┬MKDCH1000.	HID Character Delay = 10msec  ┬MKDCH100A.
HID Character Delay = 20msec  ┬MKDCH1014.	HID Character Delay = 30msec  ┬MKDCH101E.
HID Character Delay = 50msec  ┬MKDCH1032.	HID Character Delay = 100msec  ┬MKDCH1064.

13.20 HID Control Character

HID Control Character = Disabled  ┬MKDCH2000.	HID Control Character = Alt+Numpad  ┬MKDCH2001.
HID Control Character = ^+Character  ┬MKDCH2002.	HID Control Character = Replace with '|'  ┬MKDCH2003.

13.21 System

Memory Size = 0.5M / 3.5M Note1,2  ┬MKDC5E000.	Memory Size = 1M / 3M Note1,2  ┬MKDC5E001.
Memory Size = 2M / 2M Note1,2  ┬MKDC5E002.	Memory Size = 3M / 1M Note1,2  ┬MKDC5E003.
Memory Size = 4M / 0M Note1,2  ┬MKDC5E004.	Confirm memory size Note1,2  ┬MKDC5E100.
Memory Size = 5M / 3M Note2  ┬MKDC5E005.	Memory Size = 6M / 2M Note2  ┬MKDC5E006.
Memory Size = 7M / 1M Note2  ┬MKDC5E007.	Memory Size = 8M / 0M Note2  ┬MKDC5E008.
Memory Status  ┬MKDC50001.	Reset Memory  ┬MKDC50002.
Erase Memory  ┬MKDC50003.	Reset App data  ┬MKDC50004.

※ Note 1. 4M Model Only

※ Note 2. 8M Model Only

Reset BT Registry  ┬MKDC50005.	
Enable Auto Erase  ┬MKDC5F001.	Disable Auto Erase  ┬MKDC5F010.
Date/Time  ┬MKDC52001.	Battery  ┬MKDC53001.
Display Version  ┬MKDC54001.	
Lock Button  ┬MKDC55001.	Unlock Button  ┬MKDC55010.
Enable Beep Sound  ┬MKDC56001.	Disable Beep Sound  ┬MKDC56010.
High Beep Volume  ┬MKDC5D001.	Low Beep Volume  ┬MKDC5D010.
Enable MFi Mode  ┬MKDC6M001.	Disable MFi Mode  ┬MKDC6M010.

Enable Vibrator  ┬MKDC5G001.	Disable Vibrator  ┬MKDC5G010.
Scan Success = No vibration  ┬MKDC5S000.	Scan Success = 1 vibration  ┬MKDC5S001.
Scan Success = 2 vibrations  ┬MKDC5S002.	Scan Success = 3 vibrations  ┬MKDC5S003.
Scan Success = 4 vibrations  ┬MKDC5S004.	Scan Success = 5 vibrations  ┬MKDC5S005.
Scan Failure = No vibration  ┬MKDC5S200.	Scan Failure = 1 vibration  ┬MKDC5S201.
Scan Failure = 2 vibrations  ┬MKDC5S202.	Scan Failure = 3 vibrations  ┬MKDC5S203.
Scan Failure = 4 vibrations  ┬MKDC5S204.	Scan Failure = 5 vibrations  ┬MKDC5S205.
Enable Auto Menu Exit  ┬MKDC58001.	Disable Auto Menu Exit  ┬MKDC58010.

Enable Port Status  ┬MKDC58101.	Disable Port Status  ┬MKDC58100.
Display Format = Time & Battery  ┬MKDC58200.	Display Format = Type & Time  ┬MKDC58201.
Display Format = Type & Battery  ┬MKDC58202.	Display Format = Memory Status  ┬MKDC58203.
Display Format = GPS Data(GPS Model)  ┬MKDC58204.	Display Format = Barcode Only  ┬MKDC58205.
Display Format = Graphic  ┬MKDC58206.	
Enable Menu Barcode  ┬MKDC52401.	Disable Menu Barcode  ┬MKDC52410.
Enable Scrolling  ┬MKDC59001.	Disable Scrolling  ┬MKDC59010.
Factory Default  ┬MKDC57001.	KDC Reset  ┬MKDCA0000.

13.22 Sleep Timeout

Sleep Timeout = Disable  ┬MKDC51000.	Sleep Timeout = 1sec  ┬MKDC51001.
Sleep Timeout = 2sec  ┬MKDC51002.	Sleep Timeout = 3sec  ┬MKDC51003.
Sleep Timeout = 4sec  ┬MKDC51004.	Sleep Timeout = 5sec  ┬MKDC51005.
Sleep Timeout = 10sec  ┬MKDC5100A.	Sleep Timeout = 20sec  ┬MKDC51014.
Sleep Timeout = 30sec  ┬MKDC5101E.	Sleep Timeout = 1min  ┬MKDC5103C.
Sleep Timeout = 2min  ┬MKDC51078.	Sleep Timeout = 5min  ┬MKDC5112C.
Sleep Timeout = 10min  ┬MKDC51258.	

13.23 Function

F1  TMKDC7001.	F2  TMKDC7002.
F3  TMKDC7003.	F4  TMKDC7004.
F5  TMKDC7005.	F6  TMKDC7006.
F7  TMKDC7007.	F8  TMKDC7008.
F9  TMKDC7009.	F10  TMKDC700A.
F11  TMKDC700B.	F12  TMKDC700C.

13.24 Number

0  TMKDC7130.	1  TMKDC7131.
2  TMKDC7132.	3  TMKDC7133.
4  TMKDC7134.	5  TMKDC7135.
6  TMKDC7136.	7  TMKDC7137.
8  TMKDC7138.	9  TMKDC7139.

13.25 Lower Case Alphabet

a  ┬MKDC7161.	b  ┬MKDC7162.
c  ┬MKDC7163.	d  ┬MKDC7164.
e  ┬MKDC7165.	f  ┬MKDC7166.
g  ┬MKDC7167.	h  ┬MKDC7168.
j  ┬MKDC7169.	i  ┬MKDC716A.
k  ┬MKDC716B.	l  ┬MKDC716C.
m  ┬MKDC716D.	n  ┬MKDC716E.

o  TMKDC716F.	p  TMKDC7170.
q  TMKDC7171.	r  TMKDC7172.
s  TMKDC7173.	t  TMKDC7174.
u  TMKDC7175.	v  TMKDC7176.
w  TMKDC7177.	x  TMKDC7178.
y  TMKDC7179.	z  TMKDC717A.

13.26 Upper Case Alphabet

A  ┬MKDC7141.	B  ┬MKDC7142.
C  ┬MKDC7143.	D  ┬MKDC7144.
E  ┬MKDC7145.	F  ┬MKDC7146.
G  ┬MKDC7147.	H  ┬MKDC7148.
I  ┬MKDC7149.	J  ┬MKDC714A.
K  ┬MKDC714B.	L  ┬MKDC714C.
M  ┬MKDC714D.	N  ┬MKDC714E.

O  TMKDC714F.	P  TMKDC7150.
Q  TMKDC7151.	R  TMKDC7152.
S  TMKDC7153.	T  TMKDC7154.
U  TMKDC7155.	V  TMKDC7156.
W  TMKDC7157.	X  TMKDC7158.
Y  TMKDC7159.	Z  TMKDC715A.

13.27 Control Character

BS  MKDC7108.	TAB  MKDC7109.
LF  MKDC710A.	VT  MKDC710B.
CR  MKDC710D.	ESC  MKDC711B.
Space  MKDC7120.	DEL  MKDC717F.
Shift + Tab  MKDC7111.	

13.28 Symbol Character

!  ┬MKDC7121.	“  ┬MKDC7122.
#  ┬MKDC7123.	$  ┬MKDC7124.
%  ┬MKDC7125.	&  ┬MKDC7126.
‘  ┬MKDC7127.	( ┬MKDC7128.
)  ┬MKDC7129.	*  ┬MKDC712A.
+  ┬MKDC712B.	,  ┬MKDC712C.
-  ┬MKDC712D.	.  ┬MKDC712E.

/  ┬MKDC712F.	:  ┬MKDC713A.
;  ┬MKDC713B.	<  ┬MKDC713C.
=  ┬MKDC713D.	>  ┬MKDC713E.
?  ┬MKDC713F.	@  ┬MKDC7140.
[ ┬MKDC715B.	\  ┬MKDC715C.
]  ┬MKDC715D.	^  ┬MKDC715E.
_  ┬MKDC715F.	`  ┬MKDC7160.
{  ┬MKDC717B.	|  ┬MKDC717C.

}  ┬MKDC717D.	~  ┬MKDC717E.
Start String  ┬MKDC7201.	Stop String  ┬MKDC7210.

Note

- The user may compose a string up to 16 characters.
- A string would be composed by scanning the “Start-String”, number/alphabet/special characters, and “Stop-String” special barcodes.
- The KDC will abort string composition if the user do not scan “Stop-String” in one minute after scanning “Start-String” and number/alphabet/special characters.

13.29 GPS (GPS Model Only)

Enable GPS Power  ┬MKDCG0001.	Disable GPS Power  ┬MKDCG0010.
Enable GPS Bypass Data  ┬MKDCG1001.	Disable GPS Bypass Data  ┬MKDCG1010.
Reset GPS Module  ┬MKDCG2000.	GPS Acquire Test  ┬MKDCG2001.
GPS Power Save Mode = Normal  ┬MKDCG2002.	GPS Power Save Mode = Power Saving  ┬MKDCG2003.
Enable GPS Auto Power Off  ┬MKDCG3001.	Disable GPS Auto Power Off  ┬MKDCG3010.

13.30 GPS/BT Auto Power Off Timeout

Auto Power Off = 0min (Disabled)  ┬MKDCG4000.	Auto Power Off = 5min  ┬MKDCG4005.
Auto Power Off = 10min  ┬MKDCG400A.	Auto Power Off = 20min  ┬MKDCG4014.
Auto Power Off = 30min  ┬MKDCG401E.	Auto Power Off = 60min  ┬MKDCG403C.
Auto Power Off = 120min  ┬MKDCG4078.	

13.31 NFC (NFC Model Only)

Enable NFC Power  *MKDCN0001.	Disable NFC Power  *MKDCN0010.
NFC Data Format = Data only  *MKDCN1001.	NFC Data Format = Packet data  *MKDCN1000.
UID Only = Enable  *MKDCN3001.	UID Only = Disable  *MKDCN3000.
New Data Format = Enable  *MKDCN4001.	New Data Format = Disable  *MKDCN4010.

13.32 UHF (UHF Model Only)

Enable UHF Power  *MKDCNU001.	Disable NFC Power  *MKDCNU000.
Power On Time = 500ms  *MKDCNU101.	Power On Time = 1 sec  *MKDCNU102.

Power On Time = 1.5 sec  ┬MKDCNU103.	Power On Time = 2 sec  ┬MKDCNU104.
Power On Time = 2.5 sec  ┬MKDCNU105.	Power On Time = 3 sec  ┬MKDCNU106.
Power On Time = 3.5 sec  ┬MKDCNU107.	Power On Time = 4 sec  ┬MKDCNU108.
Power On Time = 4.5 sec  ┬MKDCNU109.	Power On Time = 5 sec  ┬MKDCNU10A.
Power Off Time = 500ms  ┬MKDCNU201.	Power Off Time = 1 sec  ┬MKDCNU202.
Power Off Time = 1.5 sec  ┬MKDCNU203.	Power Off Time = 2 sec  ┬MKDCNU204.
Power Off Time = 2.5 sec  ┬MKDCNU205.	Power Off Time = 3 sec  ┬MKDCNU206.
Power Off Time = 3.5 sec  ┬MKDCNU207.	Power Off Time = 4 sec  ┬MKDCNU208.

Power Off Time = 4.5 sec  ┬MKDCNU209.	Power Off Time = 5 sec  ┬MKDCNU20A.
Power Level = 0  ┬MKDCNU400.	Power Level = 1  ┬MKDCNU401.
Power Level = 2  ┬MKDCNU402.	Power Level = 3  ┬MKDCNU403.
Power Level = 4  ┬MKDCNU404.	Power Level = 5  ┬MKDCNU405.
Power Level = 6  ┬MKDCNU406.	Power Level = 7  ┬MKDCNU407.
Data Format = Binary  ┬MKDCNU300.	Data Format = Hexa Decimal  ┬MKDCNU301.
Smart Hopping  ┬MKDCNUH.	

13.33 USB Disk (M Model Only)

USB Serial Mode  ┬MKDCU0000.	USB Disk Mode  ┬MKDCU0001.
USB HID Mode  ┬MKDCU0002.	Format USB Disk  ┬MKDCU1000.
Data Format = Data  ┬MKDCU2000.	Data Format = Data,Time  ┬MKDCU2001.
Data Format = Data,Type  ┬MKDCU2002.	Data Format = Data,Time,Type  ┬MKDCU2003.

13.34 USB DM Button(KDC30 only)

USB DM Button = Enable  ┬MKDC5U001.	USB DM Button = Disable  ┬MKDC5U010.

13.35 WIFI (WIFI Model Only)

Enable WIFI Power  ┬MKDCS0001.	Disable WIFI Power  ┬MKDCS0010.
Provisioning  ┬MKDCS1000.	Protocol = UDP  ┬MKDCS2000.
Protocol = TCP  ┬MKDCS2001.	Protocol = HTTP_GET  ┬MKDCS2002.
Protocol = HTTP_POST  ┬MKDCS2003.	Server URL  ┬MKDCS4.
Port Number  ┬MKDCS5.	Server Page  ┬MKDCS6.
Enable SSL  ┬MKDCS7001.	Disable SSL  ┬MKDCS7010.
Enable AutoConnect  ┬MKDCS8001.	Disable AutoConnect  ┬MKDCS8010.

AP SSID  	AP Passcode 
Connect  	Server IP 
Enable Send Stored  	Disable Send Stored 

13.36 CDMA (KDC350WA CDMA Model Only)

Enable CDMA Power	Disable CDMA Power
	

13.37 Multilanguage

Disable(English Only) ┬MKDC5L000.	English ┬MKDC5L001.
	French ┬MKDC5L003.
Italian ┬MKDC5L004.	Spanish ┬MKDC5L005.
Korean ┬MKDC5L006.	Japanese ┬MKDC5L007.

14. APPENDIX E - MSR Special Barcodes (KDC415/425MSR)

14.1 KDC415MSR

Beep On Error	
No Beep On Error  M6000	Beep On Error  M6001
Data Format	
MSR Data Only  M1000	Packet data  M1001
Encrypt Mode	
Disabled  M2000	AES  M2001
Enable Track	
Enable Track1  M3001	Enable Track2  M3002
Enable Track3  M3004	

Disable Track	
Disable Track1  M4001	Disable Track2  M4002
Disable Track3  M4004	
Track Separator	
Track Separator = None  M5000	Track Separator = Space  M5001
Track Separator = Comma  M5002	Track Separator = Semi Colon  M5003
Track Separator = CR  M5004	Track Separator = LF  M5005
Track Separator = CR+LF  M5006	Track Separator = Tab  M5007
AES Key Length	
AES Key Length = 128 bits  M8000	AES Key Length = 192 bits  M8001

AES Key Length = 256 bits  M8002	
MSR Card Type	
MSR Card Type = ISO  MA000	MSR Card Type = Other 1  MA001
MSR Card Type = AAMVA  MA002	

14.2 KDC425MSR

Beep On Error	
No Beep On Error  ┬MKDCM6000.	Beep On Error  ┬MKDCM6001.
Data Format	
MSR Data Only  ┬MKDCM1000.	Packet data  ┬MKDCM1001.
Encrypt Mode	
Disabled  ┬MKDCM2000.	AES  ┬MKDCM2001.
Enable Track	
Enable Track1  ┬MKDCM3001.	Enable Track2  ┬MKDCM3002.
Enable Track3  ┬MKDCM3004.	
Disable Track	

Disable Track1  ┬MKDCM4001.	Disable Track2  ┬MKDCM4002.
Disable Track3  ┬MKDCM4004.	
Track Separator	
Track Separator = None  ┬MKDCM5000.	Track Separator = Space  ┬MKDCM5001.
Track Separator = Comma  ┬MKDCM5002.	Track Separator = Semi Colon  ┬MKDCM5003.
Track Separator = CR  ┬MKDCM5004.	Track Separator = LF  ┬MKDCM5005.
Track Separator = CR+LF  ┬MKDCM5006.	Track Separator = Tab  ┬MKDCM5007.
AES Key Length	

AES Key Length = 128 bits  ┬MKDCM8000.	AES Key Length = 192 bits  ┬MKDCM8001.
AES Key Length = 256 bits  ┬MKDCM8002.	
MSR Card Type	
MSR Card Type = ISO  ┬MKDCMA000.	MSR Card Type = Other 1  ┬MKDCMA001.
MSR Card Type = AAMVA  ┬MKDCMA002.	

15. Appendix F – 1D Special Barcodes (500D)

15.1 Set Symbologies

Enable EAN13  2000001	Disable EAN13  2100001
Enable EAN8  2000002	Disable EAN8  2100002
Enable UPCA  2000004	Disable UPCA  2100004
Enable UPCE  2000008	Disable UPCE  2100008
Enable Code39  2000010	Disable Code39  2100010
Enable ITF14  2000020	Disable ITF14  2100020

Enable Code128  2000040	Disable Code128  2100040
Enable I2 of 5  2000080	Disable I2 of 5  2100080
Enable Codabar  2000100	Disable Codabar  2100100
Enable GS1-128  2000200	Disable GS1-128  2100200
Enable Code93  2000400	Disable Code93  2100400
Enable Code35  2000800	Disable Code35  2100800
Enable Bookland EAN  2001000	Disable Bookland EAN  2101000
Enable EAN13 with Addon  2002000	Disable EAN13 with Addon  2102000

Enable EAN8 with Addon  2004000	Disable EAN8 with Addon  2104000
Enable UPCA with Addon  2008000	Disable UPCA with Addon  2108000
Enable UPCE with Addon  2010000	Disable UPCE with Addon  2110000
Enable GS1 Omni  2020000	Disable GS1 Omni  2120000
Enable GS1 Limited  2040000	Disable GS1 Limited  2140000
Enable GS1 Expanded  2080000	Disable GS1 Expanded  2180000

15.2 Barcode Options

Codabar - do NOT transmit start/stop 3000000001	Codabar - transmit start/stop 3100000001
Convert UPCE to UPCA 3000000200	Do NOT convert UPCE to UPCA 3100000200
Convert EAN8 to EAN13 3000000400	Do NOT convert EAN8 to EAN13 3100000400
Convert UPCE to EAN13 3000000800	Do NOT convert UPCE to EAN13 3100000800
Return Check Digit 3000001000	Do NOT Return Check Digit 3100001000
Verify Check Digit 3000002000	Do NOT Verify Check Digit 3100002000
Convert UPCA to EAN13 3000080000	Do NOT Convert UPCA to EAN13 3100080000

Verify check digit for I2of5  3000400000	Do NOT verify check digit for I2of5  3100400000
Verify check digit for Code39  3000800000	Do NOT verify check digit for Code39  3100800000
Return check digit for I2of5  3004000000	Do NOT return check digit for I2of5  3104000000
Return check digit for Code39  3008000000	Do NOT return check digit for Code39  3108000000
Return check digit for UPCE  3010000000	Do NOT return check digit for UPCE  3110000000
Return check digit for UPCA  3020000000	Do NOT return check digit for UPCA  3120000000
Return check digit for EAN8  3040000000	Do NOT return check digit for EAN8  3140000000
Return check digit for EAN13  3080000000	Do NOT return check digit for EAN13  3180000000

15.3 Delete Last Scanned Barcode

Delete Last Scanned Barcode

80001

15.4 Scan Options

Enable Auto Trigger  5A001	Disable Auto Trigger  5A010
Reread Delay = Continuous  5B000	Reread Delay = Short  5B001
Reread Delay = Medium  5B002	Reread Delay = Long  5B003
Reread Delay = Extra Long  5B004	

15.5 Scan Timeout

Scan Timeout = 500msec  101F4	Scan Timeout = 1sec  103E8
Scan Timeout = 2sec  107D0	Scan Timeout = 3sec  10BB8

Scan Timeout = 4sec  10FA0	Scan Timeout = 5sec  11388
Scan Timeout = 6sec  11770	Scan Timeout = 7sec  11B58
Scan Timeout = 8sec  11F40	Scan Timeout = 9sec  12328
Scan Timeout = 10sec  12710	

15.6 Minimum Barcode Length

Minimum Length = 2  002	Minimum Length = 3  003
Minimum Length = 4  004	Minimum Length = 5  005
Minimum Length = 6  006	Minimum Length = 7  007

Minimum Length = 8  008	Minimum Length = 9  009
Minimum Length = 10  00A	Minimum Length = 11  00B
Minimum Length = 12  00C	Minimum Length = 13  00D
Minimum Length = 14  00E	Minimum Length = 15  00F
Minimum Length = 16  010	Minimum Length = 17  011
Minimum Length = 18  012	Minimum Length = 19  013
Minimum Length = 20  014	Minimum Length = 21  015
Minimum Length = 22  016	Minimum Length = 23  017

Minimum Length = 24  018	Minimum Length = 25  019
Minimum Length = 26  01A	Minimum Length = 27  01B
Minimum Length = 28  01C	Minimum Length = 29  01D
Minimum Length = 30  01E	Minimum Length = 31  01F
Minimum Length = 32  020	Minimum Length = 33  021
Minimum Length = 34  022	Minimum Length = 35  023
Minimum Length = 36  024	

15.7 ScanIfConnect

ScanIfConnect = Enable	ScanIfConnect = Disable
 5I001	 5I010

15.8 Data Process - Wedge/Store, Enter Key & Extend Key

Wedge Only  82000	Wedge & Store Always  82001
Store Only  82002	Save if Sent  82003
Save if Not Sent  82004	
Enable Enter Key  8E001	Disable Enter Key  8E000
Enable Extend Key  8X001	Disable Extend Key  8X000

15.9 Data Process - Data Edit

Start Prefix Enter  83000	Start Suffix Enter  83001

Finish Prefix/Suffix Enter  83002	Cancel Prefix/Suffix Enter  83003
Delete Prefix  83004	Delete Suffix  83005
Display Prefix  83006	Display Suffix  83007
AIM ID None  8B000	AIM ID In Prefix  8B001
AIM ID In Suffix  8B002	

15.10 Data Process - Data Format

Data format = Barcode only  84001	Data format = Packet data  84010

15.11 Data Process - Termination Character & Duplicate Check

Termination Character = None  88000	Termination Character = CR  88001
Termination Character = LF  88002	Termination Character = CR+LF  88003
Termination Character = Tab  88004	
Enable Duplicate Check  89001	Disable Duplicate Check  89010

15.12 Bluetooth

Enable Bluetooth Power  60001	Disable Bluetooth Power  60010
Enter Pairing Mode  61001	
Disconnect  6D000	
Enable Auto Pairing  6N001	Disable Auto Pairing  6N010
Bluetooth Profile = SPP  6A000	Bluetooth Profile = MFi  6A002
Enable Auto Reconnect  6R001	Disable Auto Reconnect  6R010
Display BT MAC Address  63100	Display BT FW Version  63200

15.13 System

Memory Status 50001	Reset Memory 50002
Enable Auto Erase 5F001	Disable Auto Erase 5F010
Battery 53001	
Display Version 54001	Serial Number 54002
Enable Beep Sound 56001	Disable Beep Sound 56010
Enable Power On Beep 56101	Disable Power On Beep 56110
Enable BeepOnConnect 56201	Disable BeepOnConnect 56210

Enable Beep On Scan  56301	Disable Beep On Scan  56310
Enable BeepOnMSCard  56401	Disable BeepOnMSCard  56410
Enable BeepOnICCard  56501	Disable BeepOnICCard  56510
Enable BeepOnNFCCard  56601	Disable BeepOnNFCCard  56610
High Beep Volume  5D001	Low Beep Volume  5D010
Enable Auto Menu Exit  58001	Disable Auto Menu Exit  58010
Enable Port Status  58101	Disable Port Status  58100
Display Format = Time & Battery  58200	Display Format = Type & Time  58201

Display Format = Type & Battery  58202	Display Format = Memory Status  58203
Display Format = Barcode Only  58205	
Factory Default  57001	KDC Reset  A0000

15.14 Sleep Timeout

Sleep Timeout = Disable 51000	Sleep Timeout = 5sec 51005
Sleep Timeout = 10sec 5100A	Sleep Timeout = 20sec 51014
Sleep Timeout = 30sec 5101E	Sleep Timeout = 1min 5103C
Sleep Timeout = 2min 51078	Sleep Timeout = 5min 5112C
Sleep Timeout = 10min 51258	

15.15 NFC

Enable NFC Power	Disable NFC Power
 N0001	 N0010

15.16 MSR

Enable MSR Power	Disable MSR Power
 MB001	 MB010
No Beep On Error	Beep On Error
 M6000	 M6001
Enable Use Track1	Disable Use Track1
 M3001	 M4001
Enable Use Track2	Disable Use Track2
 M3002	 M4002
Enable Use Track3	Disable Use Track3
 M3004	 M4004

Enable Null Check Track1  M3101	Disable Null Check Track1  M4101
Enable Null Check Track2  M3102	Disable Null Check Track2  M4102
Enable Null Check Track3  M3104	Disable Null Check Track3  M4104
Enable Attach SS/ES  M9001	Disable Attach SS/ES  M9000
MSR Card Type = ISO  MA000	MSR Card Type = Other 1  MA001
MSR Card Type = AAMVA  MA002	MSR Card Type = JIS 2  MA003

15.17 ICCR(IC CARD READER)

Enable ICCR Power  I0001	Disable ICCR Power  I0010
IFD Number  I1000	Config Number  I1001

15.18 Key Management

Stored Keys  EK2000	Inject Keys  EK1000

15.19 Multilanguage

English  5L001	Korean  5L006
Japanese  5L007	

16. Appendix G – 2D Special Barcodes (KDC500C)

16.1 Set Symbologies

For KDC500C, please refer to Honeywell Adaptus® Technology enabled scanner user manual, such as 5600.

16.2 Barcode Options

For KDC500C, please refer to Honeywell Adaptus® Technology enabled scanner user manual, such as 5600.

16.3 Delete Last Scanned Barcode

Delete Last Scanned Barcode

16.4 Scan Options

Enable Auto Trigger  ┬MKDC5A001.	Disable Auto Trigger  ┬MKDC5A010.
Reread Delay = Continuous  ┬MKDC5B000.	Reread Delay = Short  ┬MKDC5B001.
Reread Delay = Medium  ┬MKDC5B002.	Reread Delay = Long  ┬MKDC5B003.
Reread Delay = Extra Long  ┬MKDC5B004.	

16.5 Scan Timeout

Scan Timeout = 500msec  *MKDC101F4.	Scan Timeout = 1sec  *MKDC103E8.
Scan Timeout = 2sec  *MKDC107D0.	Scan Timeout = 3sec  *MKDC10BB8.
Scan Timeout = 4sec  *MKDC10FA0.	Scan Timeout = 5sec  *MKDC11388.
Scan Timeout = 6sec  *MKDC11770.	Scan Timeout = 7sec  *MKDC11B58.
Scan Timeout = 8sec  *MKDC11F40.	Scan Timeout = 9sec  *MKDC12328.
Scan Timeout = 10sec  *MKDC12710.	

16.6 Minimum Barcode Length

Minimum Length = 2  ┬MKDC002.	Minimum Length = 3  ┬MKDC003.
Minimum Length = 4  ┬MKDC004.	Minimum Length = 5  ┬MKDC005.
Minimum Length = 6  ┬MKDC006.	Minimum Length = 7  ┬MKDC007.
Minimum Length = 8  ┬MKDC008.	Minimum Length = 9  ┬MKDC009.
Minimum Length = 10  ┬MKDC00A.	Minimum Length = 11  ┬MKDC00B.
Minimum Length = 12  ┬MKDC00C.	Minimum Length = 13  ┬MKDC00D.
Minimum Length = 14  ┬MKDC00E.	Minimum Length = 15  ┬MKDC00F.

Minimum Length = 16  ┬MKDC010.	Minimum Length = 17  ┬MKDC011.
Minimum Length = 18  ┬MKDC012.	Minimum Length = 19  ┬MKDC013.
Minimum Length = 20  ┬MKDC014.	Minimum Length = 21  ┬MKDC015.
Minimum Length = 22  ┬MKDC016.	Minimum Length = 23  ┬MKDC017.
Minimum Length = 24  ┬MKDC018.	Minimum Length = 25  ┬MKDC019.
Minimum Length = 26  ┬MKDC01A.	Minimum Length = 27  ┬MKDC01B.
Minimum Length = 28  ┬MKDC01C.	Minimum Length = 29  ┬MKDC01D.
Minimum Length = 30  ┬MKDC01E.	Minimum Length = 31  ┬MKDC01F.

Minimum Length = 32  TMKDC020.	Minimum Length = 33  TMKDC021.
Minimum Length = 34  TMKDC022.	Minimum Length = 35  TMKDC023.
Minimum Length = 36  TMKDC024.	

16.7 ScanIfConnect

ScanIfConnect = Enable	ScanIfConnect = Disable
 ┬MKDC5I001.	 ┬MKDC5I010.

16.8 Data Process - Wedge/Store, Enter Key & Extend Key

Wedge Only  ┬MKDC82000.	Wedge & Store Always  ┬MKDC82001.
Store Only  ┬MKDC82002.	Save if Sent  ┬MKDC82003.
Save if Not Sent  ┬MKDC82004.	
Enable Enter Key  ┬MKDC8E001.	Disable Enter Key  ┬MKDC8E000.
Enable Extend Key  ┬MKDC8X001.	Disable Extend Key  ┬MKDC8X000.

16.9 Data Process - Data Edit

Start Prefix Enter  ┬MKDC83000.	Start Suffix Enter  ┬MKDC83001.
Finish Prefix / Suffix Enter  ┬MKDC83002.	Cancel Prefix / Suffix Enter  ┬MKDC83003.
Delete Prefix  ┬MKDC83004.	Delete Suffix  ┬MKDC83005.
Display Prefix  ┬MKDC83006.	Display Suffix  ┬MKDC83007.
AIM ID None  ┬MKDC8B000.	AIM ID In Prefix  ┬MKDC8B001.
AIM ID In Suffix  ┬MKDC8B002.	

16.10 Data Process – Data Format

Data format = Barcode only  *MKDC84001.	Data format = Packet data  *MKDC84010.

16.11 Data Process - Termination Character & Duplicate Check

Termination Character = None  *MKDC88000.	Termination Character = CR  *MKDC88001.
Termination Character = LF  *MKDC88002.	Termination Character = CR+LF  *MKDC88003.
Termination Character = Tab  *MKDC88004.	
Enable Duplicate Check  *MKDC89001.	Disable Duplicate Check  *MKDC89010.

16.12 Bluetooth

Enable Bluetooth Power  ┬MKDC60001.	Disable Bluetooth Power  ┬MKDC60010.
Enter Pairing Mode  ┬MKDC61001.	Connect To  ┬MKDC61301.
Disconnect  ┬MKDC6D000.	
Enable Auto Pairing  ┬MKDC6N001.	Disable Auto Pairing  ┬MKDC6N010.
Bluetooth Profile = SPP  ┬MKDC6A000.	Bluetooth Profile = MFi  ┬MKDC6A002.
Enable Auto Reconnect  ┬MKDC6R001.	Disable Auto Reconnect  ┬MKDC6R010.
Display BT Mac Address  ┬MKDC63100.	Display BT FW Version  ┬MKDC63200.

16.13 System

Memory Status  ┬MKDC50001.	Reset Memory  ┬MKDC50002.
Enable Auto Erase  ┬MKDC5F001.	Disable Auto Erase  ┬MKDC5F010.
Battery  ┬MKDC53001.	
Display Version  ┬MKDC54001.	Serial Number  ┬MKDC54002.
Enable Beep Sound  ┬MKDC56001.	Disable Beep Sound  ┬MKDC56010.
Enable Power On Beep  ┬MKDC56101.	Disable Power On Beep  ┬MKDC56110.
Enable Beep On Connect  ┬MKDC56201.	Disable Beep On Connect  ┬MKDC56210.

Enable Beep On Scan  ┬MKDC56301.	Disable Beep On Scan  ┬MKDC56310.
Enable BeepOnMSCard  ┬MKDC56401.	Disable BeepOnMSCard  ┬MKDC56410.
Enable BeepOnICCard  ┬MKDC56501.	Disable BeepOnICCard  ┬MKDC56510.
Enable BeepOnNFCCard  ┬MKDC56601.	Disable BeepOnNFCCard  ┬MKDC56610.
High Beep Volume  ┬MKDC5D001.	Low Beep Volume  ┬MKDC5D010.
Enable Auto Menu Exit  ┬MKDC58001.	Disable Auto Menu Exit  ┬MKDC58010.
Enable Port Status  ┬MKDC58101.	Disable Port Status  ┬MKDC58100.
Display Format = Time & Battery  ┬MKDC58200.	Display Format = Type & Time  ┬MKDC58201.

Display Format = Type & Battery  ┬MKDC58202.	Display Format = Memory Status  ┬MKDC58203.
Display Format = Barcode Only  ┬MKDC58205.	
Enable Menu Barcode  ┬MKDC52401.	Disable Menu Barcode  ┬MKDC52410.
Factory Default  ┬MKDC57001.	KDC Reset  ┬MKDCA0000.

16.14 Sleep Timeout

Sleep Timeout = Disable  *MKDC51000.	Sleep Timeout = 5sec  *MKDC51005.
Sleep Timeout = 10sec  *MKDC5100A.	Sleep Timeout = 20sec  *MKDC51014.
Sleep Timeout = 30sec  *MKDC5101E.	Sleep Timeout = 1min  *MKDC5103C.
Sleep Timeout = 2min  *MKDC51078.	Sleep Timeout = 5min  *MKDC5112C.
Sleep Timeout = 10min  *MKDC51258.	

16.15 NFC

Enable NFC Power	Disable NFC Power
 ┬MKDCN0001.	 ┬MKDCN0010.

16.16 MSR

Enable MSR Power	Disable MSR Power
 ┬MKDCMB001.	 ┬MKDCMB010.
No Beep On Error	Beep On Error
 ┬MKDCM6000.	 ┬MKDCM6001.
Enable Use Track1	Disable Use Track1
 ┬MKDCM3001.	 ┬MKDCM4001.
Enable Use Track2	Disable Use Track2
 ┬MKDCM3002.	 ┬MKDCM4002.
Enable Use Track3	Disable Use Track3
 ┬MKDCM3004.	 ┬MKDCM4004.

Enable Null Check Track1  	Disable Null Check Track1 
Enable Null Check Track2  	Disable Null Check Track2 
Enable Null Check Track3  	Disable Null Check Track3 
Enable Attach SS/ES  	Disable Attach SS/ES 
MSR Card Type = ISO  	MSR Card Type = Other 1 
MSR Card Type = AAMVA  	MSR Card Type = JIS 2 

16.17 ICCR(IC CARD READER)

Enable ICCR Power  TMKDCI0001.	Disable ICCR Power  TMKDCI0010.
IFD Number  TMKDCI1000.	Config Number  TMKDCI1001.

16.18 Key Management

Stored Keys  TMKDCEK2000.	Inject Keys  TMKDCEK1000.

16.19 Multilanguage

English *MKDC5L001.	Korean *MKDC5L006.
Japanese *MKDC5L007.	

17. Appendix G – Multiple Special Barcodes

This chapter explains how to make a multiple configuration barcode for the KDC to configure multiple KDC settings by scanning one barcode. The KDC provides special barcodes that enable changes to the KDC configuration; but, this current barcode changes only one configuration. New KDC firmware VersionR_305 introduces a feature to enable the user to make one special barcode to change multiple KDC configurations.

17.1 KDC20/100/250/270L/350L/410/411/415/470L/500L

- Barcode type Code128 is used to make a single special barcode and its format is as follows:

  <FNC3><Barcode String>

  Here, the <FNC3> is a Code 128 control character and the <Barcode String> is an ASCII string for each KDC configuration.

- The multiple configuration Code128 barcode format is as follows and has a control character and series of barcode strings.

  <FNC3><Barcode String 1>;;;;; <Barcode String N>

  Here, the <FNC3> is a Code 128 control character and the <Barcode String 1> and <Barcode String N> are an ASCII string for each KDC configuration. The ';' is a separator for each configuration's barcode string. Please see user manual for the <Barcode String> for KDC configuration.

- Example: Assume the user is changing the following configurations with one barcode.

  - Change Wedge/Store to "Wedge Only" ➔ <FNC3>82000
  - Change Termination Character to "None" ➔ <FNC3>88000
  - Change Bluetooth "Auto PowerOff" to "Disabled" ➔ <FNC3>64010

  <FNC3>82000;88000;64010

17.2 KDC30/270C/300/350C/420/421/425/450/470C/500C

- The following format is for a single configuration barcode format:

  <SYN> M <CR> KDC <Barcode String>.

- *<SYN> is a control character 0x16 in hex format.*
- *M is an ASCII character 0x4D in hex format.*
- *<CR> is a control character 0x0d in hex format.*
- *KDC is an ASCII string 0x4B 0x44 0x43 in hex format.*
- *<Barcode String> is an ASCII string for each configuration*
- *. is an ASCII string 0x2E in hex format that indicates the end of barcode.*
- The multiple configuration barcode string uses a repeated barcode string of each configuration in the following format:

<SYN>M<CR>KDC<Barcode String 1> ;;;;;; <Barcode String N> .

- *<SYN> is a control character 0x16 in hex format.*
- *M is an ASCII character 0x4D in hex format.*
- *<CR> is a control character 0x0d in hex format.*
- *KDC is an ASCII string 0x4B 0x44 0x43 in hex format.*
- *<Barcode String1> and <Barcode String N> are an ASCII string for each configuration*
- *; is a separator between each barcode strings.*
- *. is an ASCII string 0x2E in hex format that indicates the end of barcode.*

- Example: Assume the user is changing the following configurations with one barcode.
  - *Change Wedge/Store to "Wedge Only" ➔ <SYN>M<CR>KDC82000.*
  - *Change Termination Character to "None" ➔ <SYN>M<CR>KDC 88000.*
  - ***Change Bluetooth "Auto PowerOff" to "Disabled" ➔ <SYN>M<CR>KDC 64010.***

<SYN>M<CR>KDC82000;88000;64010.

- Code 128

- QR code

18. Appendix H – Product Specification

18.1 KDC470

Main Processor	120MHz ARM Cortex-M4
Memory	1MB for Firmware, 128KB for RAM, 8MB for User Data
Display	N/A
Keypad	2 Scan Keys and Up/Down Key
Battery	Li-ion 1130mh
Charging	Micro USB or Charging Cradle
Mag-Stripe Reader	N/A
Smart Card Reader	N/A
Contactless and NFC (NXP PN512)	N/A
Security	N/A
Encryption	N/A
Key Management	N/A
Key Injection	N/A
OS compatibility	iOS, Android, Windows10
Barcode Scanner	Supports 1D and 2D
Interfaces	Bluetooth (V2.1+EDR, Class 2, HID/SPP/MFi), Micro USB port
Dimensions	65(W) x 1105(L) x 15.8(H) mm (2.56” x 4.13” x0.62”)
Weight	87g (3.07)
Drop Spec	5 feet(1.5M)
Operating Temperature	32˚F (0˚C) ~ 122˚F (50˚C)
Storage Temperature	-4˚F (-20˚C) ~ 140˚F (60˚C)
Humidity	5% ~ 95% (noncondensing)