

# Chapter 2 Installation and Operation

## Unpacking

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The standard KDC200 package<sup>1</sup> contains:

- One laser scanning data collector unit,
- One USB cable,
- One Neck strap and
- One CD containing the software and user manual.



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<sup>1</sup>The package content may vary by region.

# Installation

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Prior to installing the included software on your PC, verify that your system meets the minimum system requirements.

1. Microsoft Windows operating system: XP or Vista
2. Free space on hard drive of 512 MB.
3. Accessible USB port for connecting KDC200 to your computer
4. 256M byte memory or larger.

## Affix the neck strap to the KDC200

Use the included neck strap properly to avoid dropping the unit.

Fit the small thin cord of the strap around the pillar of the KDC200 and loop the thick cord of the strap through the thin loop in order to attach the hand strap.

Wear the neck strap when carrying the product to avoid dropping the unit.

Do not swing the product around on the strap, since contact with another object may damage the unit and cause it to malfunction.

## Copy the Provided Programs into your PC

Create a directory for the KTSync program.

Copy the “KTSync.exe” program from the CD into the new directory on your hard drive.

It is recommended that you also copy “KTReader.inf” and “KT200manual.pdf” into the same directory.

## Connect the KDC200 USB connector to your PC

Connect KDC200 to PC USB port. Use the included USB extension cable if needed.

The “New hardware found” message will pop up.

Follow the prompts and select the option to search for the best driver for your device.

Please select the directory containing the “KTReader.inf” file and continue hardware installation procedure.

A message will pop-up that new hardware is found and recognized as a serial device.

## Charge the battery

The battery is charged by connecting KDC200 to a USB port. It takes about two hours to fully charge the battery. The front panel LED will illuminate in orange during the battery charge. The front panel LED will illuminate in green upon charging the battery in full.

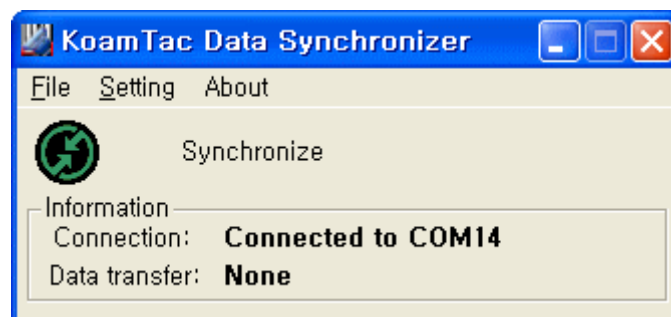
## Configure KDC200 options and system settings

User can access menu selection mode by pushing both buttons on the left side of the KDC200 simultaneously.

- Please set KDC200 options properly for the best performance.
- Please refer KDC200 menus section for the details on options.



User also can configure most of options at KTSync > Setting > Barcode & KDC menu. Please refer Chapter 3 Synchronization for the detailed description of each option.



## Location of buttons

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## Basic Operation

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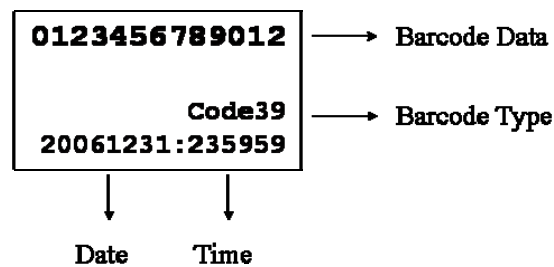
### Reading barcodes

Point KDC200 to the barcode and press the scan button.

A high beeper tone will be heard and the front panel LED will illuminate in green upon a successful scan.

A low beeper tone will be heard and the front panel LED will illuminate in red upon an unsuccessful scan.

The scanned barcode will be displayed, along with barcode type and time stamp.



When the barcode cannot be read, try the following:

- Check if the width of barcode label does not exceed the width of the light beam.
- Change the angle between the barcode and KDC200.
- Change the distance between the barcode and KDC200.
- Check option settings defined in KDC200 menu section.

### Upload barcode data to PC.

Use the included Synchronization program to upload barcode data from KDC200 to your PC. Please refer Chapter 3 for the details of Synchronization process.

# KDC200 Menus

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User can access menu selection mode by pushing both buttons on the left side of KDC200 simultaneously. The table below summarizes KDC200 menus. Please refer to Chapter 4 for the details of each option.

**User should set KDC200 optional parameters properly for the best scanning result.**

- Set proper security level. To increase the reliability ,user can set the security level to a number higher than 1 (the default value) up to 4. If the security level is  $n$ , then the decoder will keep reading the barcode until it decodes the same value  $n$  times.
- Select only necessary barcodes to increase the reliability further.
- Maximize the minimum barcode length. Small barcode length such as 2 or 3 can result in some errors.

Level 1	Level 2	Note
View Data	Delete	Review and delete stored data
Set Barcodes	EAN13	Enable/Disable Symbology
	EAN8	Enable/Disable Symbology
	UPCA	Enable/Disable Symbology
	UPCE	Enable/Disable Symbology
	CODE39	Enable/Disable Symbology
	ITF14	Enable/Disable Symbology
	CODE128	Enable/Disable Symbology
	I2of5	Enable/Disable Symbology
	CODABAR	Enable/Disable Symbology
	EAN128	Enable/Disable Symbology
	CODE93	Enable/Disable Symbology
	CODE35	Enable/Disable Symbology
	BooklandEAN	Enable/Disable Symbology
	EAN13withAddon	Enable/Disable Symbology
	EAN8withAddon	Enable/Disable Symbology
	UPCAwithAddon	Enable/Disable Symbology
UPCEwithAddon	Enable/Disable Symbology	
(Bar)Code Options	CodaBar_NoStartStopChars	
	UPCE_as_UPCA	
	EAN8_as_EAN13	

	UPCE_as_EAN13	
	ReturnCheckDigit	
	VerifyCheckDigit	
	UPCA_as_EAN13	
	I2of5_VerifyCheckDigit	
	Code39_VerifyCheckDigit	
	I2of5_ReturnCheckDigit	
	Code39_ReturnCheckDigit	
	UPCE_ReturnCheckDigit	
	UPCA_ReturnCheckDigit	
	EAN8_ReturnCheckDigit	
	EAN13_ReturnCheckDigit	
Scan Options	Scan Angle	Narrow/Wide
	Filter	Normal/High
	Time Out	1..10 sec
	Minimum Barcode Length	2..36
	Security Level	1..4
Data Process	Wedge / Store	Wedge Only
		Wedge & Store
		Store Only
	Data Format	Barcode only
		Packed data
Bluetooth	Power	Enable/Disable
	Pairing	Enter Pairing Mode
	Auto Connect	Enable/Disable
	Auto PowerOff	Enable/Disable
	Beep Warning	Enable/Disable
System	Memory Status	# of stored barcode, amount of remaining memory
	Reset Memory	Empty data memory
	Sleep Timeout	1sec..10sec
	Date / Time	YYYY:MM:DD, HH:MM:SS
	Battery	% left
	Version	FW version. Serial Number

	Factory Default	Restore factory default settings
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## View Data Menu

User can browse and delete scanned barcode in View Data menu.

## Set Barcodes Menu

KDC200 supports most of popular barcode symbologies. However, it is important to select only the required symbologies to provide the best scan performance. Please refer to Appendix A for the details of supporting symbologies.

## Barcode Options Menu

KDC200 supports various barcode options including transmission of start and stop characters, symbology conversion, verification of optional check character, and transmission of check digit. Please refer Appendix A for the details of each option.

## Scan Options Menu

- Scan Angle: User can control the laser beaming angle. Wide is 54° and Narrow is 27°. Default is Wide.
- Filter: User may use Higher filter mode for poor quality barcode. Default is Normal
- Timeout: User can set scanning timeout up to 10 sec. Default timeout is 2 sec.
- Minimum barcode length: User can set the smallest barcode size up to 36. It is strongly recommended to maximize the minimum length to prevent possible wrong readings. Default is 4.
- Security Level: Higher security level provides more reliable readings with some performance degradation. It is recommend to increase the security level for poor quality barcodes. Default is 1.

## Data Process Menu

Wedge / Store - KDC200 provides three modes of data transmission.

- Wedge Only: KDC200 doesn't store scanned barcode in the memory and just transmits it to the host
- Wedge & Store: KDC200 stores scanned data in the memory and transmits it to the host
- Store Only: KDC200 stores scanned data in the memory but doesn't transmit it to the host.

Data Format - KDC200 provides two data formats

- Barcode Only: KDC200 transmits scanned barcode only. User may incorporate proper data



transmission error detection and correction mechanism in this mode.

- Packed Data: KDC200 transmits packed data with checksum to minimize transmission error. KTSync program operates in Packed Data mode and user shouldn't change this option while using KTSync program.

## Bluetooth Menu

KDC200 supports rich Bluetooth features to increase usability as well as to minimize the power usage. Please refer to Chapter 3 for details on Bluetooth functions.

## System Menu

- Memory Status: User can check the number of stored barcodes and memory usages in this menu.
- Reset Memory: This menu enables user to erase all stored barcodes.
- Sleep Timeout: KDC200 goes to sleep mode after scanning barcode to minimize the power consumption. Default sleep timeout is 5 sec.
- Date/Time: User can set current data and time in this menu. KTSync program also provides automatic date and time synchronization with PC date and time function.
- Battery: This menu shows the current status of battery power level.
- Version: This menu shows the firmware version number and KDC200 serial number.

## LED Status

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LED Color	Status
Green	<ul style="list-style-type: none"><li>● Successful Reading</li><li>● USB is connected and battery is fully charged</li></ul>
Orange	<ul style="list-style-type: none"><li>● Low battery</li><li>● USB is connected and battery is charging</li></ul>
Red	<ul style="list-style-type: none"><li>● No reading</li><li>● Empty battery</li></ul>

## Empty Battery

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KDC200 will display “Empty Battery Connect USB” message if the battery becomes empty. User should synchronize the data immediately to prevent the loss of collected data.

## Buffer Full

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KDC200 will display “Buffer Full” message if the size of collected data reaches 200K byte or collected 10,240 data. User should synchronize and clear the memory to continue data collection using Synchronization program.

## Reset

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User can reset KDC200 as follows:

- Plug KDC200 USB connector to PC USB port.
- Press lower menu button and scan button together for 5 seconds.
- Release lower menu button and scan button once LED becomes yellow.
- Initial screen (“KoamTac Data Collector KDC200”) is displayed once reset.
- KDC200 stores collected data into flash memory and wouldn’t lose the data during reset process.