KOAMTAC

KDC270/280
Quick Guide

Contents

See Reference Manual for more detailed information
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QG_KDC270_KDC280_20200605   p1

1. Product Introduction

The KDC270 Bluetooth barcode scanner is a 1D Laser, CCD, or 2D Imager Bluetooth Barcode Data Collector. The KDC 280 is a 2D Imager Bluetooth Barcode Datta Collector that supports Bluetooth Low Energy (BLE).

1.1 KDC270/280 Diagram
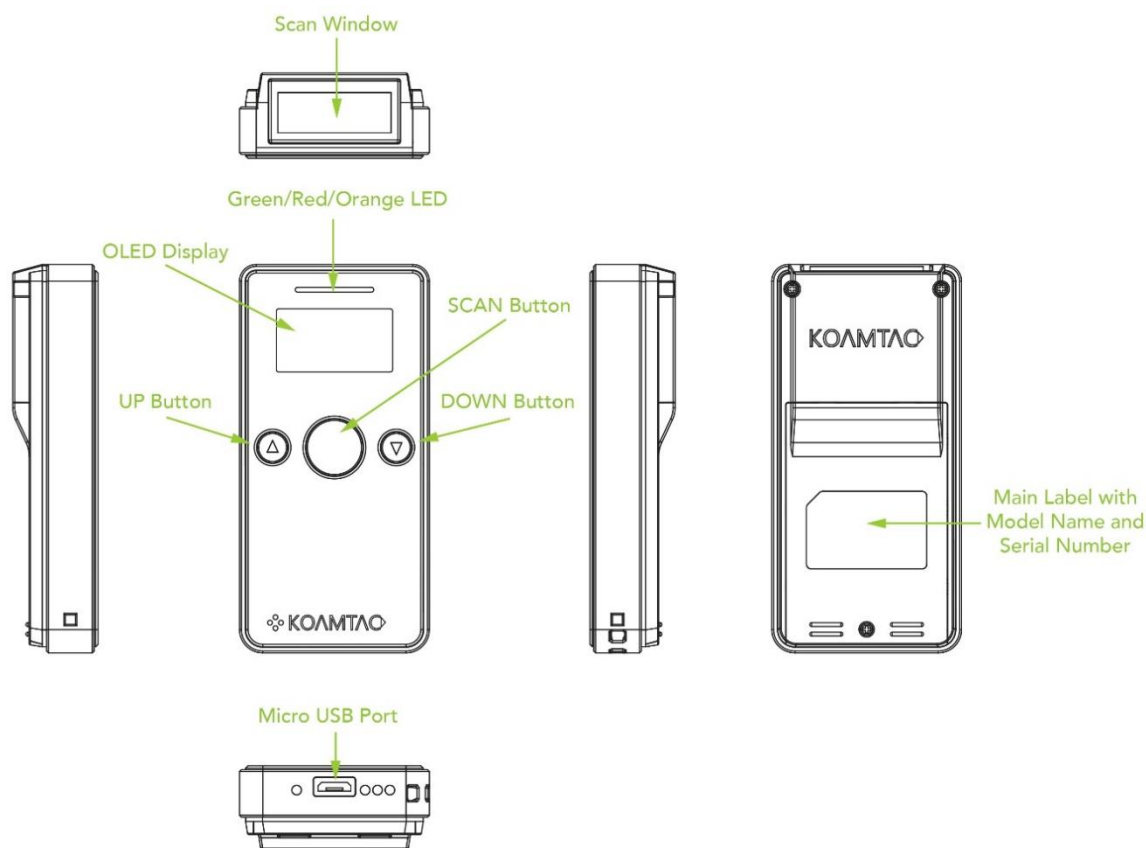
1.2 How to turn on and off

Refer to the figure in section 1.1 to locate the SCAN button.

a) Press SCAN button for 3 seconds.
b) The KDC will beep when it is turned ON.

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2. Bluetooth Pairing

Connecting your KDC using Bluetooth is made easy with the below pairing barcodes. If you are unsure which profile is right for you, please visit www.koamtac.com for more information.

2.1 Bluetooth Profiles Explained

a. **HID Profile**: Allows one-way Bluetooth communication with an Android or iOS host device. The KDC only transmits data to the host device.
b. **SPP Profile**: Allows two-way Bluetooth communication. The KDC transmits data to the host device and the host device can transmit data back to the KDC.
c. **HID Windows Profile**: Allows one-way Bluetooth communication with Windows host device. The KDC only transmits data to the host device.

Note: HID inputs data directly into an application. SPP requires the KOAMTAC SDK to input data into an application. To gain access to the SDK, please complete the form here: https://www.koamtac.com/sdk/
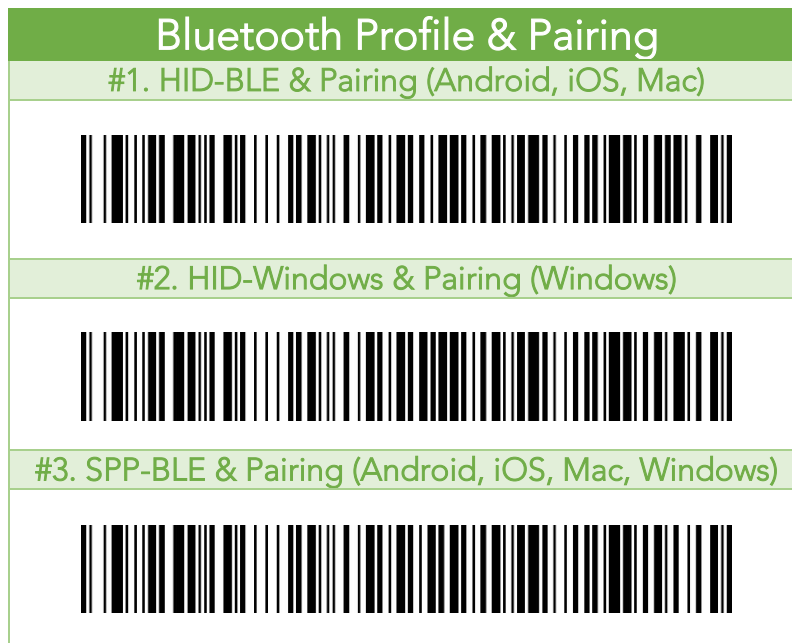
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QG_KDC270_KDC280_20200605   p3

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2.2   Pairing a KDC270 to your smart device

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1. Navigate to the Bluetooth setting on the host PC, Mac, Smartphone, or Tablet.
2. Ensure that Bluetooth is enabled on the host device and searching for devices.
3. Using the KDC, scan the pairing barcode that corresponds to your desired Bluetooth profile. If you are unsure which Bluetooth profile is right for you, please refer to the previous panel.
4. Check the list of available Bluetooth devices on your host device.
5. From the list, select KDC270 listed by serial number in brackets that matches the serial number found on the back side of the KDC270.
6. In HID mode, KDC270 is now ready to use.
7. To complete connection in SPP/MFi mode, launch KTSync or your application and select KDC270.

* The KDC270 will beep when successfully connected.

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2.3   Bluetooth Pairing a KDC280 to your smart device with special barcodes

Bluetooth Profile & Pairing
#1. HID-BLE & Pairing (Android, iOS, Mac)
#2. HID-Windows & Pairing (Windows)
#3. SPP-BLE & Pairing (Android, iOS, Mac, Windows)

a. Navigate to the Bluetooth setting on the host device and ensure that Bluetooth is both enabled and searching for devices.
b. Using the KDC, scan the pairing barcode above that corresponds to your desired Bluetooth profile. If you are unsure which Bluetooth profile is right for you, please refer to Chapter section 2.1.
   - If you use an Android, iOS, or Mac device and desire an HID connection, then scan barcode #1 above.
   - If you use a Windows device and desire an HID connection, then scan barcode #2 above.
   - If you desire an SPP connection for any device, then scan barcode #3 above.
c. In HID or HID Windows Profile, check the list of available Bluetooth devices on your host device. From the list, select the KDC280 listed by serial number in brackets that matches the serial number found on the back side of the KDC280. KDC280 will beep upon connection and display "Bluetooth Connected" on its screen. Now it is ready to use.
d. In SPP Profile for non-iOS, check the list of available Bluetooth devices on your host device. From the list, select the KDC280 listed by serial number in brackets that matches the serial number found on the back side of the KDC280. KDC280 will beep upon connection and display "Bluetooth Connected" on its screen, but you should launch KTSync or your application and select KDC280 within the application to complete the connection. Now it is ready to use.

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e. In SPP Profile for iOS, the KDC is NOT listed on your host device, so you should launch KTSync or your application and select the KDC280 listed by serial number in brackets that matches the serial number found on the back side of the KDC280. KDC280 will beep upon connection and display "Bluetooth Connected" on its screen. Now it is ready to use.

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QG_KDC270_KDC280_20200605   p6

3. Usage

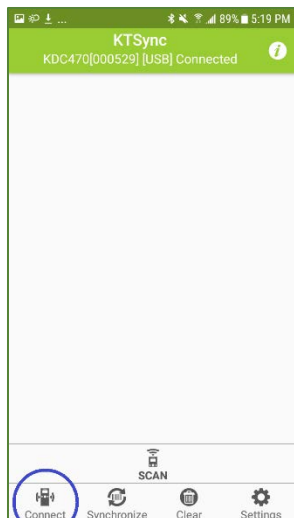### 3.1 Using Keyboard Wedge (HID Keyboard)

This option is only available using Bluetooth connection with HID profile.

Once the KDC is paired with the host, open any application with a text field and tap on the text field. Scan any barcode and it will populate in the text field.
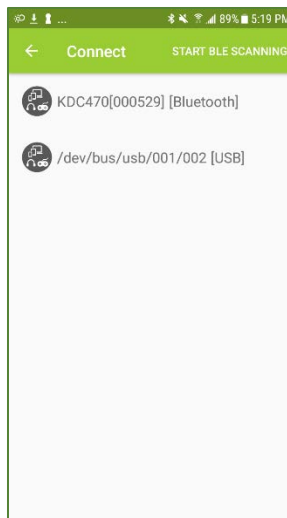
3.2 Using KTSync – Android/iOS

You can use KTSync to utilize your KDC alone or with a native application. This is only available using Bluetooth connection with SPP or MFi.
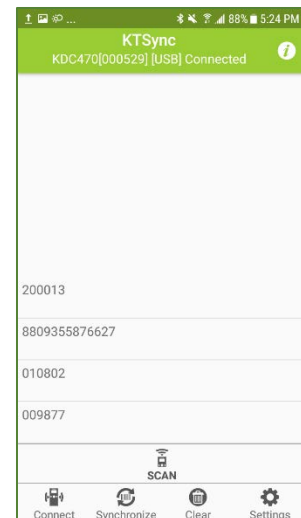
a) Download and install KTSync from the Google Play Store or the Apple App Store.
b) Open KTSync and tap on the "Connect" option on the bottom left to view a list of available devices. (Fig. 1)
c) From the device list, select your KDC – ensuring that the serial number displayed in brackets matches the serial number on the back of your KDC. (Fig. 2)
d) Upon successful connection, KTSync will display "Connected" next to the name of your KDC at the top of the application. (Fig. 3)
e) To test your connection, scan any barcode. If the connection is successful, the barcode data will display on the screen. (Fig. 3)

< Fig. 1 >   < Fig. 2 >   < Fig. 3 >

See Reference Manual for more detailed information
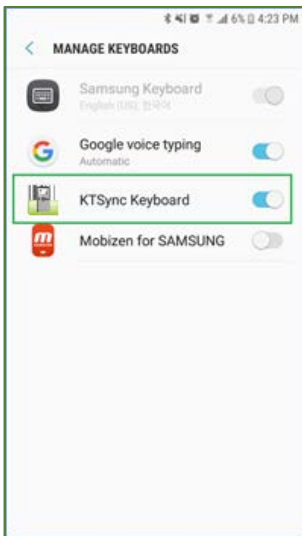Visit store.koamtac.com to purchase additional KDCs and accessories.
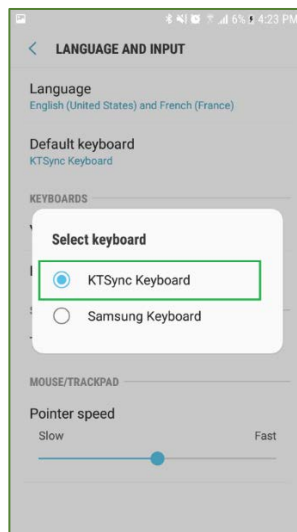
3.3 Using KTSync Keyboard – Android

Once your KDC is connected to KTSync, you can use your KDC as a keyboard.

a) While KTSync is running in the background, navigate to Settings > Language & Input > Virtual Keyboard > Manage keyboards
b) Tap on "KTSync Keyboard" to enable it.
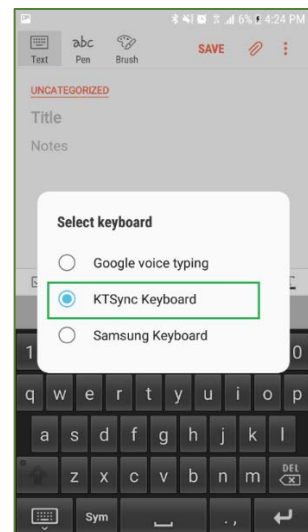c) Change "KTSync Keyboard" to the default keyboard. (Fig. 4)

To switch back to the previous keyboard, simply change the default keyboard again. Or, when a text field is selected swipe down from the top of the screen to bring up the notification panel. Select 'choose input method' and you can select the default keyboard from here. (Fig. 5)

< Fig. 4 >   < Fig. 5 >

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QG_KDC270_KDC280_20200605   p8

3.4 Using KTSync Keyboard – iOS

Once your KDC is connected to KTSync, you can use your KDC as a keyboard.

a) Navigate to the iPhone/iPad/iPod Settings > General > Keyboard > Keyboards > Add New Keyboard… > Select the KTSync keyboard to be added. (Fig. 6)

b) Select the KTSync Keyboard and toggle the switch to Allow Full Access. (Fig. 7)
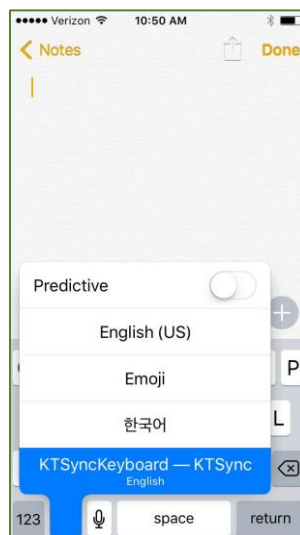
< Fig. 6 >   < Fig. 7 >
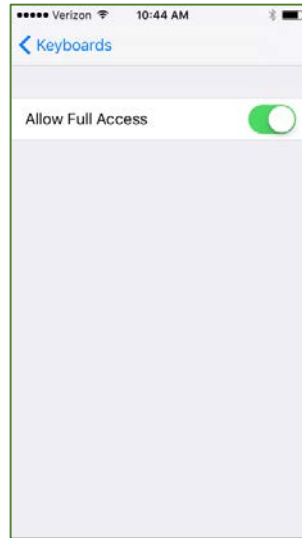
c) Open the application you want to scan into and tap on the screen, so the on-screen keyboard appears.

d) Press and hold the globe icon located to the left of the spacebar.

e) Select the KTSync Keyboard and begin scanning. (Fig. 8)

< Fig. 8 >

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

See Reference Manual for more detailed information
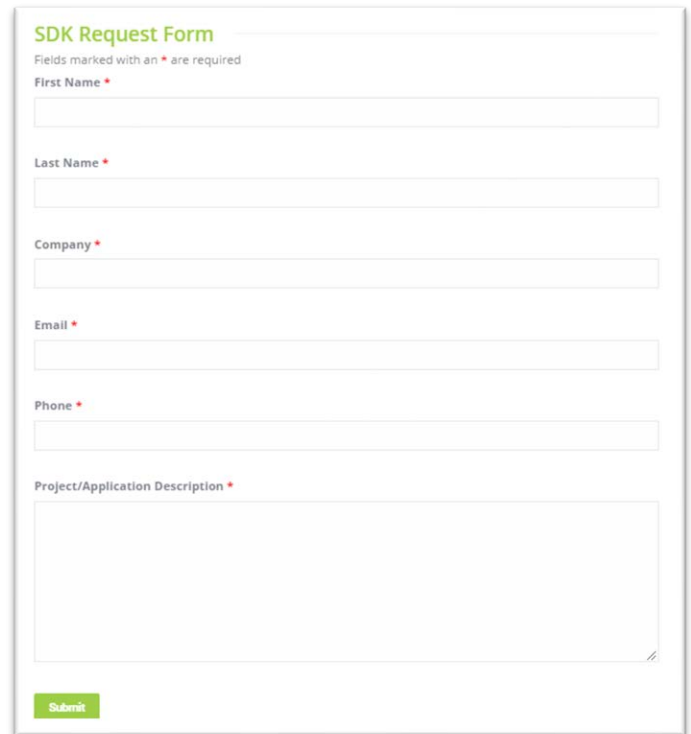Visit store.koamtac.com to purchase additional KDCs and accessories.

3.5 Using other Developed Applications with SDK – Android/iOS

A Software Development Kit (SDK) for Android and iOS is available to all KOAMTAC customers to ensure smooth development of applications that work seamlessly with a KDC scanner. It's easy to request the SDK from the KOAMTAC website:

a) On any web browser, open www.koamtac.com
b) Navigate to SUPPORT > Downloads > SDK
c) Complete the form and submit it.

After submission, a KOAMTAC representative will reach out regarding next steps for completing the SDK Agreement.

The SDK package will have libraries, documents, a sample application, and its source code.

SDK Request Form

Fields marked with an * are required

First Name *

Last Name *

Company *

Email *

Phone *

Project/Application Description *

Submit

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QG_KDC270_KDC280_20200605 p10

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4. Product Specifications

Physical	Design	Ultra-Compact Bluetooth Barcode Scanner
	Size	1.57" x 3.23" x 0.71" (40 mm x 82 mm x 18 mm)
	Weight	2.03 oz (57.5 g)
Functionality	Supporting OS	Android / iOS / Mac OS X / Windows
	Keys	Scan Key, Up Key, Down Key
	Buzzer	Yes
	LED Indicator	1 Tri-color LED (Red / Amber / Green)
	USB Port	1 Micro USB Port
Memory	RAM	SDRAM 64KB
	ROM	Internal Flash ROM 256KB External Flash ROM 8MB
	Barcode Storage	409,600 Barcodes (EAN-13)
Power	Battery (Standard)	650 mAh Lithium-ion
	Charging Solution	USB Connector
	Charging Time	4 Hours
Communication	Bluetooth	KDC270: V2.1+EDR, Class2, HID/SPP/MFi KDC280: Bluetooth Low Energy, HID/SPP
	Micro USB	Flash Memory (Windows), USB HID, USB Serial (Android with OTG cable / Windows)
Barcode Reader	1D Laser	Yes
	# of scans per charge (1 sec interval)	KDC270 Laser: >31,000 KDC270 CCD: >25,000 KDC270 Imager: >16,500 KDC280 Imager: >19,500
	# of scans per charge (10 sec interval)	KDC270 Laser: >9,500 KDC270 CCD: >7,500 KDC270 Imager: >4,000 KDC280 Imager: >4,500
	Scan Range (10mil Code39)	Laser: 1.97" to 7.48" (50 to 190 mm) CCD: 2.17" to 11.81" (55 to 300 mm) Imager: 1.81" to 9.68" (46 to 246 mm)
	Screen Reading	Laser: No CCD: Yes Imager: Yes
	Postal Codes / OCR Passport	Laser: No CCD: No Imager: Yes / MRZ
Environment	Drop Spec	5 ft (1.5 m)
	IP Rating	IP65
	Operating Temp.	14 °F to 122 °F (-10 °C to 50 °C)

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	Storage Temp.	-4 ˚F to 140 ˚F (-20 ˚C to 60 ˚C)
	Humidity Spec	5% ~ 95% (non-condensing)
Regulatory Conformance	Laser Safety	IEC60825/CDRH Class II
	LED Safety	IEC62471:2006
	Regulatory	R&TTE, FCC, KC, TELEC, VCCI, SRRC, RoHS Compliant
Accessories	1-Slot Charging Cradle	Yes
	4-Slot Charging Cradle	Yes
	Finger Trigger Glove	Yes
	Ring Scanner	Yes
	Protective Boot	Yes

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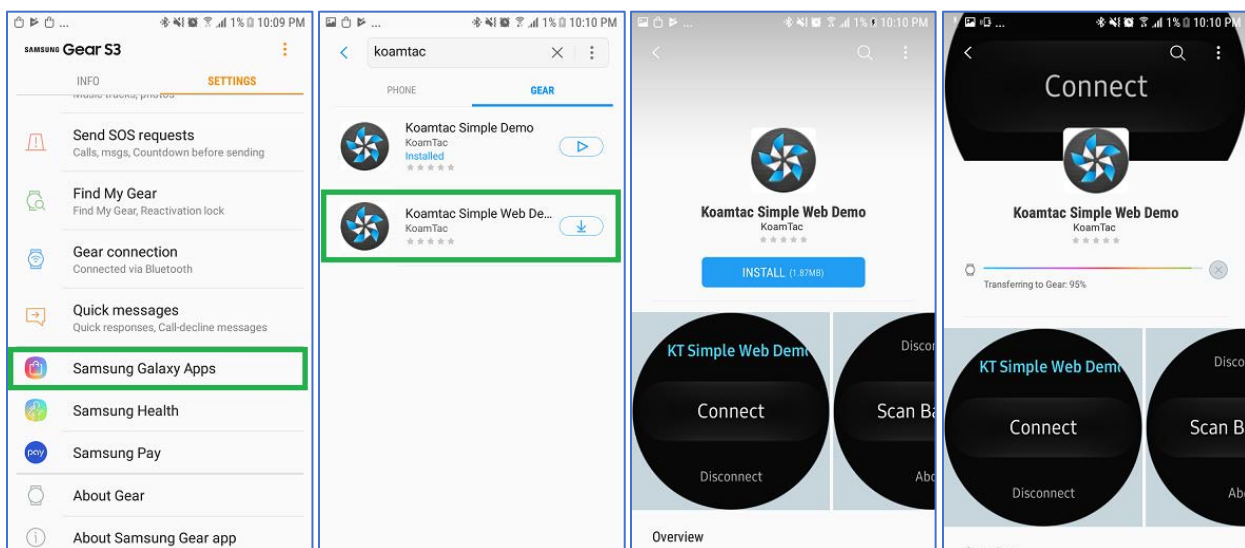# 5. How to Use Tizen WebApp Demo Application (Only for KDC280)

KDC280C-BLE has BLE (Bluetooth® Low Energy) V4.1 instead of Bluetooth V2.1 and supports below three profiles:

➢ SPP – It is a Koamtac specific customized profile which provides bi-directional communication in the paired mode.
➢ HID – It is a Bluetooth Low Energy standard profile which support Human Interface Device as like a keyboard or a mouse. It is required to be paired first.

To connect with Gear S3, you can use SPP profile from KDC, but to run the current demo application from KOAMTAC, you should use SPP profile to connect with Gear S3:

5.1 Connect the phone to Gear S3 and Install the demo application
➢ Download Galaxy Wearable (Samsung Gear) application from Play Store. (Please make sure your phone supports Galaxy Gear S3.)
➢ Connect the Samsung Gear to your smartphone. (You can refer to the link to learn how to connect: http://www.samsung.com/ca/support/skp/faq/1119975)
➢ On the Gear press the home button and scroll to settings. Scroll down and select Connect to a New Phone. On the phone, open the Samsung Gear application and search for nearby Gear devices. Select your Gear from the list and confirm the passcode on both devices.
➢ From Galaxy Store, search Koamtac apps, which is "**Koamtac Simple Web Demo**" App and install it on Gear S3.

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5.2 Pair/Connect KDC with Gear S3

➢ Put KDC280C-BLE into SPP mode and start pairing (you can also see Chapter 2.2 above)
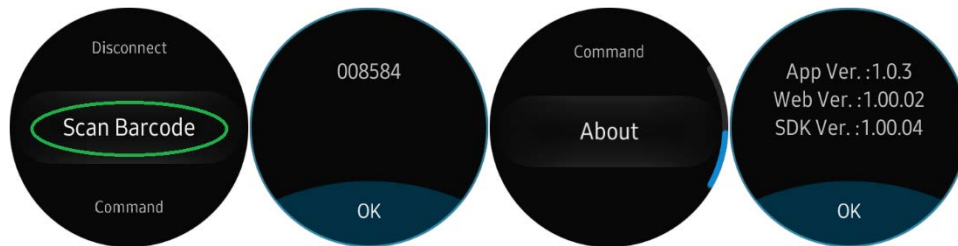

SPP & Pairing

SPP & Pairing

➢ Run KTSimpleWebDemo on your Gear S3.

➢ Tap "Connect" and the available devices will be listed on your Gear S3. Tap the KDC from the list of available devices to connect. The number between the brackets refers to the serial number located on the back of the KDC.

➢ Now you can trigger the KDC scanner via the demo application or the KDC itself. Any scanned bar code will be displayed on the Gear S3.   There are also many commands that can be used to view or set the configuration of the KDC.

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QG_KDC270_KDC280_20200605   p14

➢ If the KDC becomes disconnected or if you disconnect the current KDC, you can reconnect it later by selecting Connect from the Gear S3.

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QG_KDC270_KDC280_20200605   p15