KOAMTAC

SKXPro/SKX5
Quick Guide

116 Village Blvd, Suite 305, Princeton, NJ 08540 USA
T: + 1-609-256-4700 F: +1-609-228-4373
info@koamtac.com www.koamtac.com

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SKXPro/SKX5 Quick Guide

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1. Product Introduction

The SKXPro/SKX5 is a 2D Imager Barcode Data Scanning Sled for the Samsung Galaxy XCover Pro/5. It is connected to the XCover Pro/5 via the USB Type-C port at the bottom of the SKXPro/SKX5. Data between the SKXPro/SKX5 and XCover Pro/5 is transferred through this physical connection, not by Bluetooth.

1.1 SKXPro/SKX5 Diagram

① Left & Right SCAN Keys (for SKXPro/SKX5)
② VOLUME UP Key (access to XCover Pro/5 Volume Key)
③ VOLUME DOWN Key (access to XCover Pro/5 Volume Key)
④ SIDE Key (of XCover Pro/5)
⑤ XCover Key (access to XCover Pro/5 XCover Key)
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⑦ Hand Strap Holes (for SKXPro/SKX5)
⑧ USB Port to access XCover Pro/5 or SKXPro/SKX5 from PC
⑨ Barcode Scan Window (for SKXPro/SKX5)
⑩ Pogo Pins for Charging XCover Pro/5 and SKXPro/SKX5
⑪ Screw Holes (for SKXPro/SKX5)

1.2 How to Turn On and Off

Refer to the figure in section 1.1 to locate the buttons and keys.

The SKXPro/SKX5 does not have its own internal battery but rather draws power from the XCover Pro/5's battery. The SKXPro/SKX5 works only when the XCover Pro/5 is mounted into SKXPro/SKX5 Scanning Sled. If you need to access the SKXPro/SKX5 or the XCover Pro/5, you can access them by using the USB port from the back of the SKXPro/SKX5.

To turn on the XCover Pro/5, press and hold the SIDE key for a few seconds.

To turn off the XCover Pro/5, press and hold the VOLUME DOWN and SIDE keys simultaneously. Alternatively, open the notification panel and tap power icon.

1.3 Power Hibernation Mode (SKX5 Only)

To save the battery of the phone, you can turn off the SKX5 sled when you are using the sled actively. (hibernation mode)

Press and hold the left and the right SCAN buttons at the same time for 3 seconds and you will hear the beep sound. Then the sled now turns off. To use the sled again, follow the same direction. That is, press and hold the left and the right SCAN buttons at the same time for 3 seconds and you will hear the beep sound. Then the sled now turns back on.

2. Connectivity

2.1 Connection Between the XCover Pro/5 and the SKXPro/SKX5

Once the XCover Pro/5 is assembled with the SKXPro/SKX5, the two will be connected via USB and the connectivity will be USB HID connectivity by default. This allows the SKXPro/SKX5 to function as a keyboard. The SKXPro/SKX5 is also able to utilize USB Serial connectivity.

a. USB HID **Connectivity**: Allows one-way USB communication. The SKXPro/SKX5 only transmits data to the host device, the XCover Pro/5.
b. USB Serial **Connectivity**: Allows two-way USB communication. The SKXPro/SKX5 transmits data to the XCover Pro/5 application and the XCover Pro/5 application can transmit data/control back to the SKXPro/SKX5.

Note: USB HID inputs data directly into an application, while USB Serial requires KTSync SKXPro/SKX5 or a custom application developed using 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/

2.2 Connection Between XCover Pro/5 and PC

To access the XCover Pro/5 while installed in the SKXPro/SKX5 sled, you can use the USB port located on the back of SKXPro/SKX5. (Item ⑧ from the diagram in section 1.1) Please connect the SKXPro/SKX5 sled to the PC with a USB cable, then scan the barcode shown below to bypass the SKXPro/SKX5. Once you disconnect the USB cable from the PC, the XCover Pro/5 will automatically reconnect to the SKXPro/SKX5.

Phone to PC Connection

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To connect a PC to the SKXPro/SKX5 (for firmware upgrades or SKXPro/SKX5 configuration), please connect the SKXPro/SKX5 sled to the PC with a USB cable, then scan the barcode below. Once you disconnect the USB cable from the PC, the SKXPro/SKX5 will automatically reconnect to the XCover Pro/5.

PC to SKXPro/SKX5 Connection

To reset the default connection (XCover Pro/5 to SKXPro/SKX5), use this barcode.

Phone to SKXPro/SKX5 Connection

See Reference Manual for more detailed information
Visit store.koamtac.com to purchase additional SKXPro/SKX5 and accessories.

3. Usage

3.1 Using Keyboard Wedge (HID Keyboard): USB HID Mode (DEFAULT)

This option is only available when SKXPro/SKX5 is set to USB HID connectivity. USB HID mode is the default mode of the SKXPro/SKX5. Once the XCover Pro/5 phone is assembled into the SKXPro/SKX5, the SKXPro/SKX5 automatically works as a keyboard without any further setup. If you open any application with a text field and tap on the text field, then proceed to scan any barcode, you will notice that the barcode data will be populated into that text field. If you need to switch back into USB HID Mode from USB Serial Mode, scan this barcode:

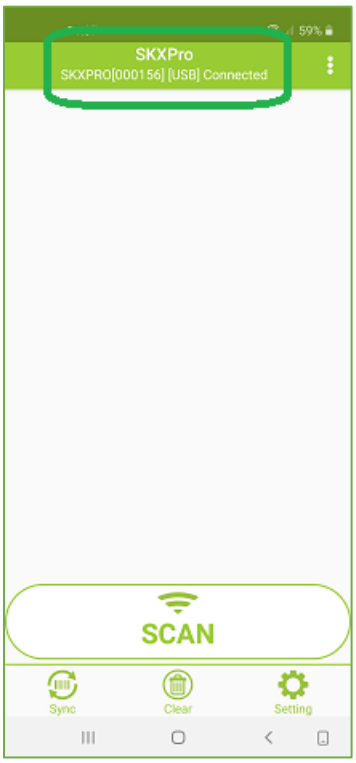
USB HID Mode (HID Keyboard Mode)

3.2 Using KTSync SKXPro/SKX5: USB Serial Mode

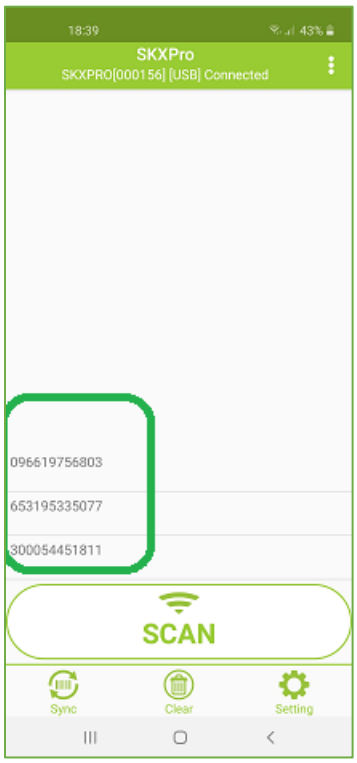
The KTSync SKXPro/SKX5 app is a program which communicates with the SKXPro/SKX5 via USB Serial connection. It enables users to read and store data, supports keyboard wedging, and also contains configuration options for the SKXPro/SKX5. Download the KTSync SKXPro/SKX5 app from the Google Play Store. You can use KTSync SKXPro/SKX5 app to utilize your SKXPro/SKX5 alone or with a native application. This is only available when using a USB connection with USB Serial Mode. To change to USB Serial Mode, scan this barcode:

USB Serial Mode

a) Download and install KTSync SKX app from the Google Play Store.
b) Open the KTSync SKX app then it will automatically connect to the SKXPro/SKX5. The SKXPro/SKX5 will display "Connected" next to the name of your SKXPro/SKX5 at the top of the application. (Fig. 1)
c) To test your connection, scan any barcode. If the connection is successful, the barcode data will display on the screen. (Fig. 2)



< Fig. 1 >



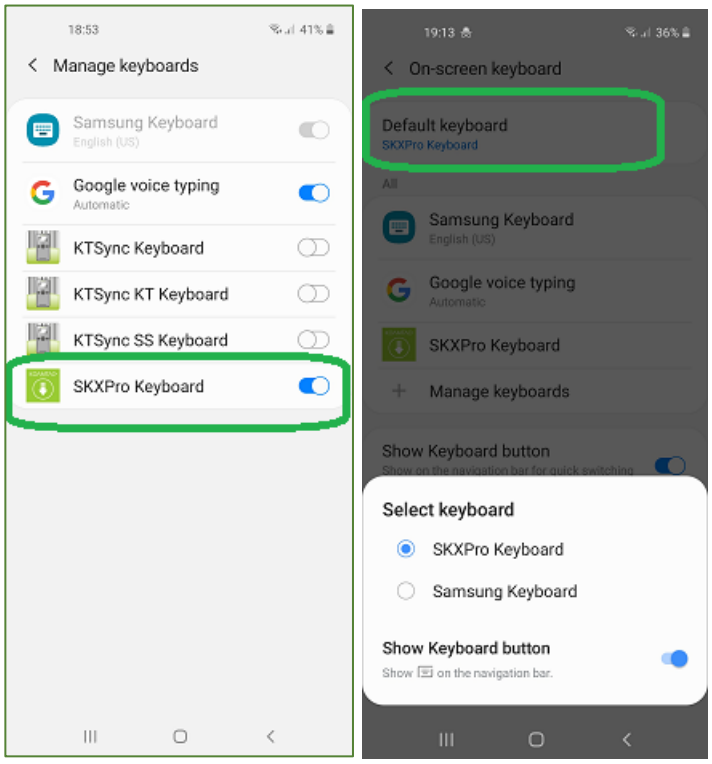
< Fig. 2 >

3.3 Using SKX Keyboard – Android

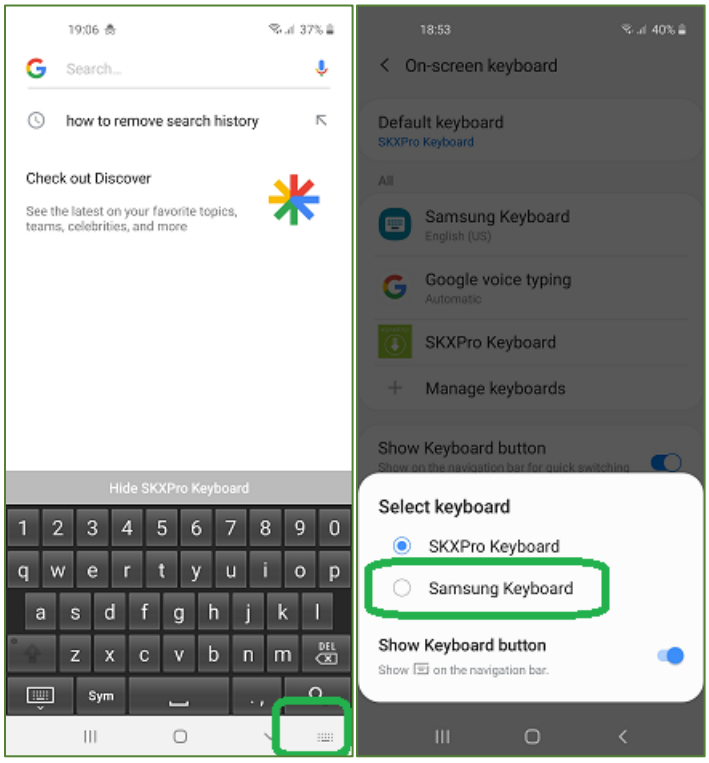
You can set up the SKXPro/SKX5 as a keyboard while SKXPro/SKX5 is connected in USB Serial Mode.

a) While the KTSync SKX app is running in the background, navigate to Settings → General management → Language and input → On-screen keyboard → Manage keyboards.
b) Tap on "SKX Keyboard" to enable it.
c) Change "SKX Keyboard" to the default keyboard. (Fig. 5)

To switch back to the previous keyboard, simply change the default keyboard again. Or, when a text field is selected, tap on the keyboard button from the keyboard and select the default keyboard. (Fig. 6)



< Fig. 5 >



< Fig. 6 >

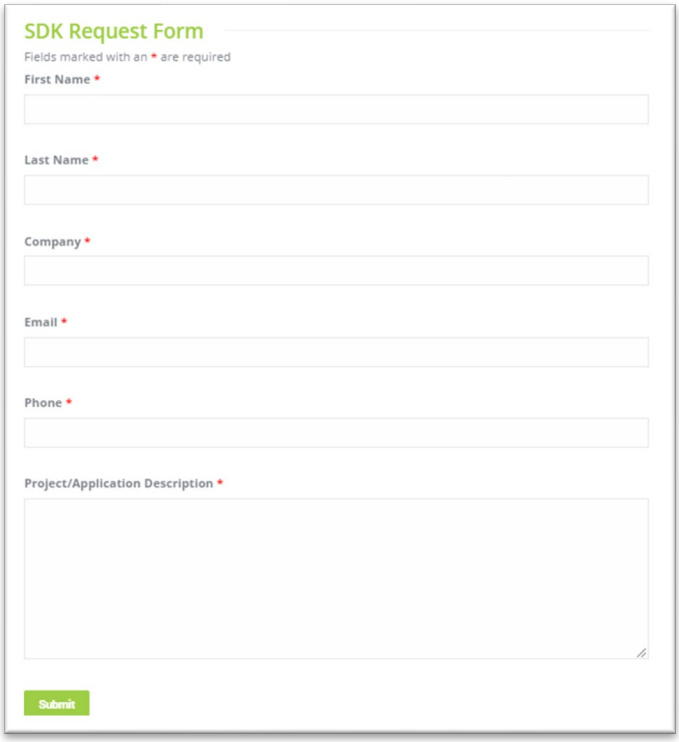
Note: The SKXPro/SKX5 must be connected to KTSync SKX app and the SKX keyboard must be selected for this to work.

3.4 Using Other Developed Applications with SDK – Android

A Software Development Kit (SDK) for Android is available to all KOAMTAC customers to ensure smooth development of applications that work seamlessly with a SKXPro/SKX5 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.

4. SKXPro/SKX5 Demo: Scan & Search

4.1 Purpose

☐ When you scan any barcode on any product or any logistics package, the selected retail/logistics website pops up and shows the searched result or the tracking information.

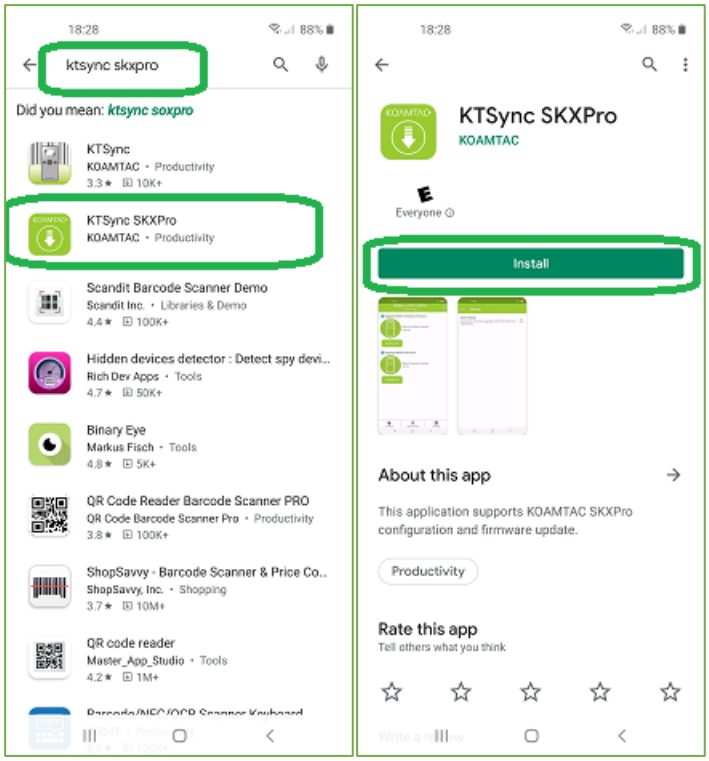
4.2 How to Test

Before Demo Instructions

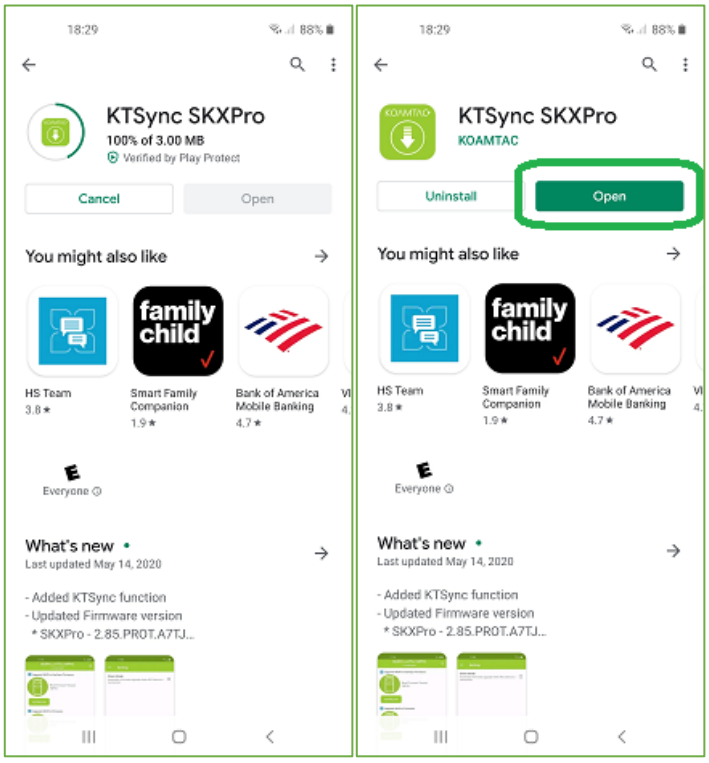
1. By default, the SKXPro/SKX5 is in USB HID keyboard mode. In this mode, you can scan a barcode into any text field of any application.
2. To use this demo, change the mode to USB Serial Mode, (a.k.a. KTSync/Download Mode) by scanning the special barcode below first and wait for 3 seconds.

USB Serial Mode

3. Now, go to the Google Play Store and search for "KTSync SKX". (Fig7)
4. Download and install KTSync SKX app from Play Store. (Fig. 8)

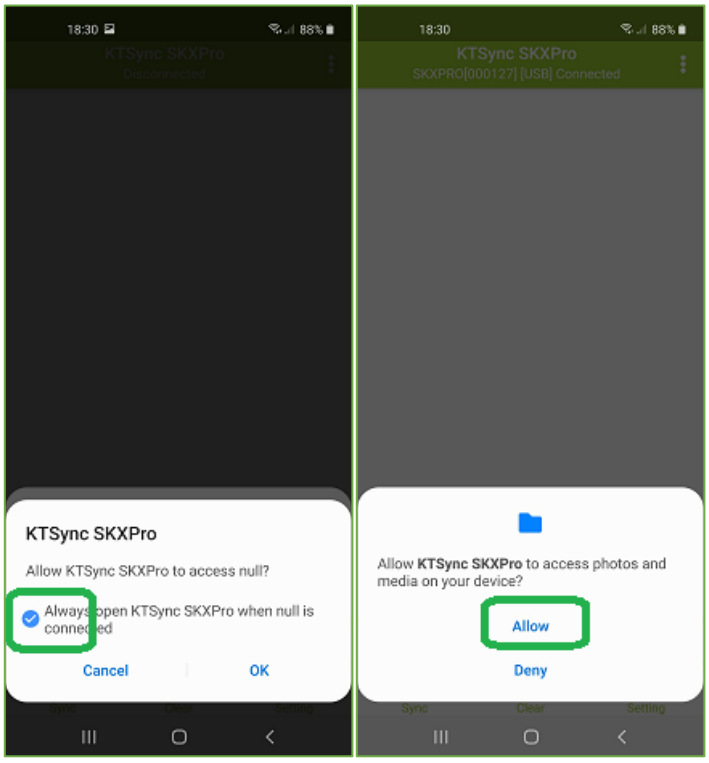


< Fig. 7 >



< Fig. 8 >

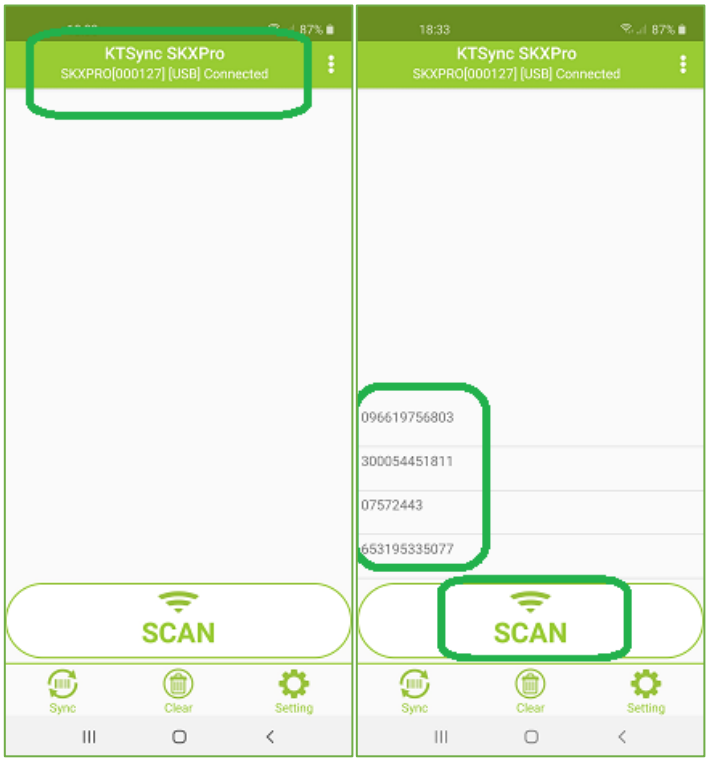
5. When you open or run the KTSync SKX app for the first time on your phone, there are several permission popups which require you to allow them all. This is a one-time setting from the first launch. (Fig. 9)



< Fig. 9 >

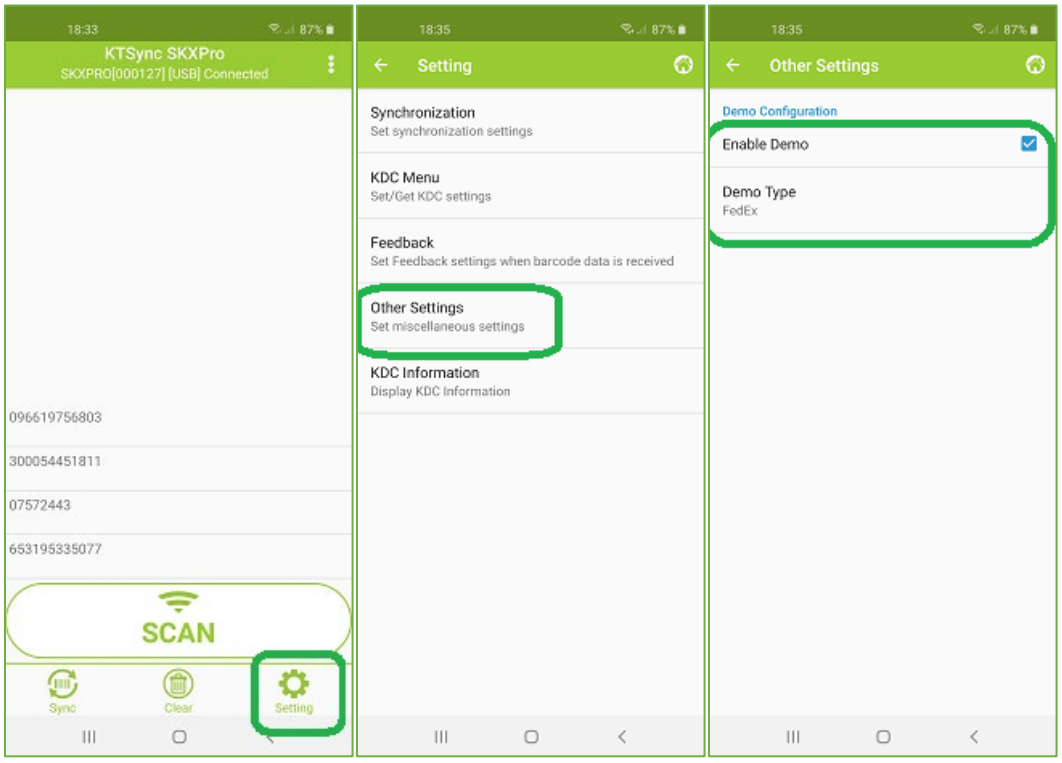
Demo Instructions

6. The KTSync SKX app on the XCover Pro/5 will automatically connect to the SKXPro/SKX5 SmartSled when you launch it. You will see the connected message on the top, you are able to scan it. (Fig. 10)
7. For testing purpose, scan any barcode with the SCAN button on the app or with the SCAN button on the left/right side of the SKXPro/SKX5 and see if it is displayed on the KTSync SKX display screen. (Fig. 11)

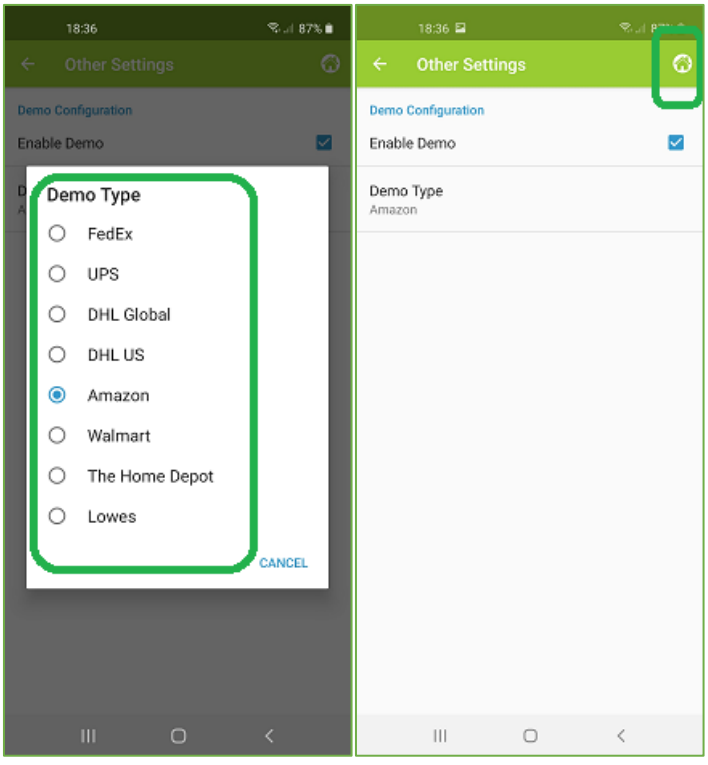


< Fig. 10 > < Fig. 11>

8. Enable demo mode (Setting → Other Settings → Check "Enable Demo") (Fig.12)
9. Select the demo type (demo store): FedEx, UPS, DHL Global, DHL US, Amazon, Walmart, The Home Depot, Lowes. (Settings → Other Settings → Demo Type) And tap "Home" icon at the right upper corner. (Fig. 13)

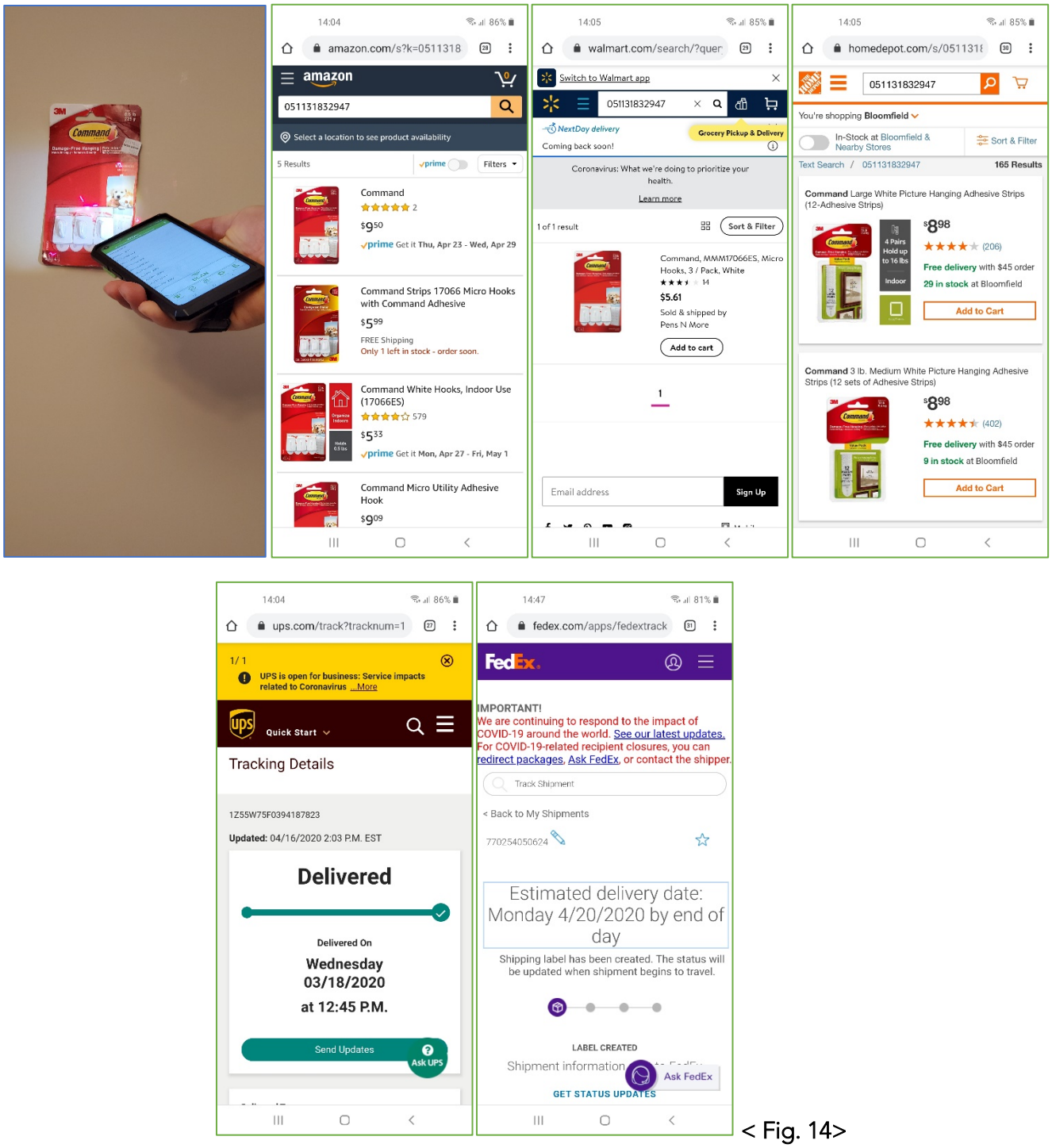

KTSync SKXPro
SKXPRO[000127] [USB] Connected
096619756803
300054451811
07572443
653195335077
SCAN
Sync
Clear
Setting
Setting
Synchronization
Set synchronization settings
KDC Menu
Set/Get KDC settings
Feedback
Set Feedback settings when barcode data is received
Other Settings
Set miscellaneous settings
KDC Information
Display KDC Information
Other Settings
Demo Configuration
Enable Demo
Demo Type
FedEx

< Fig. 12>


Other Settings
Demo Configuration
Enable Demo
Demo Type
FedEx
UPS
DHL Global
DHL US
Amazon
Walmart
The Home Depot
Lowes
CANCEL
Other Settings
Demo Configuration
Enable Demo
Demo Type
Amazon

< Fig. 13>

10. Now scan any barcode, whether it is a UPC from a product or a logistics tracking barcode. Then the selected retail/logistics website will be displayed and populated with search results for the barcode you just scanned, as shown below: (Fig. 14)

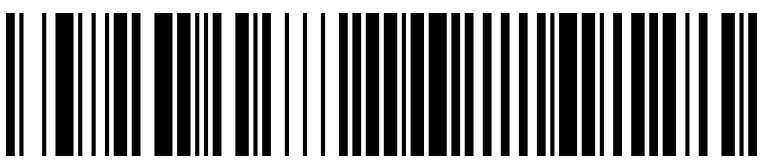


< Fig. 14>

Demo Instructions

11. To finish the demo, close the KTSync SKX app. Next, go back to the normal USB HID Mode (HID Keyboard Mode) by scanning this special barcode below:

USB HID Mode (HID Keyboard Mode)



4.3 Sample Barcodes for Demo Testing

UPS

FedEx

Amazon/Walmart/Home Depot

5. Product Specifications (SKXPro)

Physical	Design	Integrated Sled
	Size	3.25" x 6.61" x 0.86" (82.6 mm x 168 mm x 21.9 mm)
	Weight	Weight (XCover Pro + SKXPro): 10.1 oz (285 g) Weight (SKXPro Only): 2.4 oz (67 g) Weight (Protective Boot + Hand Strap Only): 1.34 oz (38 g)
Functionality	Supporting OS	Android
	Keys	Scan Key (2 keys from SKXPro) + Volume UP Key, Volume DOWN Key, SIDE Key, TOP Key (from XCover Pro)
	Buzzer	Yes
	LED Indicator	No LED
	USB Port	1 Type C USB Port (Access to XCover Pro)
Memory	RAM	SRAM 64KB
	ROM	Internal Flash ROM 512KB (256KB for Program, 256KB for User Data)
	Barcode Storage	13,000 Barcodes (EAN-13)
Power	Battery (Standard)	No Internal Battery
	Battery (Extended)	2,000 mAh (optional companion) 6,000 mAh with Pistol Grip (optional companion)
	Charging Solution	Pogo Pin Charging Cradle
	Charging Time	15W Fast Charging supported by Charging Cradle & Fast Charging via Samsung AFC adaptor: 2 Hours Normal Charging via General USB adaptor: 3.5Hours
Communication	Bluetooth	No Bluetooth
	USB	USB Serial / USB HID
Barcode Reader	1D/2D Symbology	N6703 with 1280x800
	Motion Tolerance	6m/sec (SKXPro)
	Aimer	Red Laser
	Illumination	White
	Scan Range	1.57" to 20.3" (40 to 517 mm) for 10mil Code39 1.73' to 31.5" (44 to 800 mm) for 20mil Code39
	Screen Reading	Yes
	Postal Codes / OCR Passport	Yes / No
UHF Reader	Supported Standards	IEPC Class1 Gen2, EPC Gen2 V2

See Reference Manual for more detailed information
Visit store.koamtac.com to purchase additional SKXPro/SKX5 and accessories.

(Optional)	Nominal Read Range	6'+ (1.8 m+) for 0.5W Reader 20'+ (6 m+) for 1.0W Reader dependent on tag type and operating environment
	Frequency	US, EU, JP, KR
	Output Power Range	Up to +27dBm for 0.5W Reader Up to +30dBm for 1.0W Reader
	Read Rate	100 tags per second for 0.5W Reader 200 tags per second for 1.0W Reader
	Tag Storage	N/A
SLED-MSRIC (Optional)	MSR Standard & Type	ISO 7810, 7811, 7813, AAMVA, Custom Data Format
	MSR Read Card Format / Handling Method	Track1, Track2, Track3 / Manual swipe, Bidirectional
	IC Card Reader Standard	ISO7816 Class A, B, C, and T0/T1
	IC Card Reader Card Type	ISO7816 Class A, B, and C(5V/3V/1.8V) Smart Cards
	IC Card Reader Compliance	EMV Level 1
	Data Encryption Method	AES128/192/256, DES/TDS, RSA(2048)
Environment	Drop Spec	SKXPro with Protective Boot: 6' (1.8 m) SKXPro without Protective Boot: 5' (1.5 m) SKXPro with Companions: 5' (1.5 m)
	IP Rating	IP67 (SKXPro) IP65 (SKXPro + Companions) IP64 (SKXPro + 1.0W Reader)
	Operating Temp.	-4˚F (-20˚C) to 122˚F (50˚C)
	Storage Temp.	-4˚F (-20˚C) to 140˚F (60˚C)
	Humidity Spec	5% ~ 95% (non-condensing)
Regulatory Conformance	Laser Safety (SKXPro)	IEC60825-1 (Class II)
	LED Safety	N/A
	Regulatory	FCC, CE, RoHS Compliant
Accessories	1-Slot Charging Cradle	Yes
	5-Slot Charging Cradle	Yes
	Protective Boot	Yes
	Hand strap	Yes

6. Product Specifications (SKX5)

Physical	Design	Integrated Sled
	Size	3.07" x 6.38" x 0.91" (77.9 mm x 162 mm x 23 mm)
	Weight	Weight (XCover5 + SKX5): 8.84 oz (250.5 g) Weight (SKX5 Only): 2.77 oz (78.5 g)
Functionality	Supporting OS	Android
	Keys	Scan Key (2 keys from SKX5) + Volume UP Key, Volume DOWN Key, SIDE Key, TOP Key (from XCover5)
	Buzzer	Yes
	LED Indicator	No LED
	USB Port	1 Type C USB Port (Access to XCover5)
Memory	RAM	SRAM 64KB
	ROM	Internal Flash ROM 512KB (256KB for Program, 256KB for User Data)
	Barcode Storage	13,000 Barcodes (EAN-13)
Power	Battery (Standard)	No Internal Battery
	Battery (Extended)	2,000 mAh (optional companion) 6,000 mAh with Pistol Grip (optional companion)
	Charging Solution	Pogo Pin Charging Cradle
	Charging Time	15W Fast Charging supported by Charging Cradle & Fast Charging via Samsung AFC adaptor: 110 min Normal Charging via General USB adaptor: 120 min
Communication	Bluetooth	No Bluetooth
	USB	USB Serial / USB HID
Barcode Reader	1D/2D Symbology	N3601 with 1Mpx for SKX5
	Motion Tolerance	N/A
	Aimer	Green LED (SKX5)
	Illumination	White
	Scan Range	1.2" to 17.9" (31 mm to 455 mm) for 10mil Code39 1.9" to 29.1" (49 mm to 740 mm) for 20mil Code39
	Screen Reading	Yes
	Postal Codes / OCR Passport	Yes / No
UHF Reader (Optional)	Supported Standards	IEPC Class1 Gen2, EPC Gen2 V2
	Nominal Read Range	6'+ (1.8 m+) for 0.5W Reader 20'+ (6 m+) for 1.0W Reader

		dependent on tag type and operating environment
	Frequency	US, EU, JP, KR
	Output Power Range	Up to +27dBm for 0.5W Reader Up to +30dBm for 1.0W Reader
	Read Rate	100 tags per second for 0.5W Reader 200 tags per second for 1.0W Reader
	Tag Storage	N/A
SLED-MSRIC (Optional)	MSR Standard & Type	ISO 7810, 7811, 7813, AAMVA, Custom Data Format
	MSR Read Card Format / Handling Method	Track1, Track2, Track3 / Manual swipe, Bidirectional
	IC Card Reader Standard	ISO7816 (T=0, T=1)
	IC Card Reader Card Type	ISO7816 Class A, B, C (5V, 3V, 1.8V) Smart Cards
	IC Card Reader Compliance	EMV Level 1 Contact
	Data Encryption Method	AES128/192/256, DES/TDS, RSA(2048)
Environment	Drop Spec	SKX5 with Protective Boot: 6' (1.8 m) SKX5 without Protective Boot: 5' (1.5 m) SKX5 with Companions: 5' (1.5 m)
	IP Rating	IP67 (SKX5) IP65 (SKX5 + Companions) IP64 (SKX5 + 1.0W Reader)
	Operating Temp.	-4˚F (-20˚C) to 122˚F (50˚C)
	Storage Temp.	-4˚F (-20˚C) to 140˚F (60˚C)
	Humidity Spec	5% ~ 95% (non-condensing)
Regulatory Conformance	Laser Safety	N/A
	LED Safety	IEC62471:2006
	Regulatory	CE, RoHS Compliant
Accessories	1-Slot Charging Cradle	Yes
	5-Slot Charging Cradle	Yes
	Protective Boot	Yes
	Hand strap	Yes

7. Charging Accessories and Companions

7.1 Charging Accessories

1-slot charging cradle and 5-slot charging cradle are available.

XCover Pro/5 1-slot/5-slot Charging Cradle & SKXPro/5 1-slot/5-slot Charging Cradle

SKXPro/5+Pistol 1-slot/5-slot Charging Cradle

XCover Pro/5 4-slot/20-slot Battery Charger

7.2 Companions

- 0.5W UHF Reader Companion
- 1.0W UHF Reader Companion
- 2000mAh Extended Battery Companion
- Pistol Grip Companion with or without spare 6,000mAh battery
- SLED-MSRIC Magnetic Swipe Card Reader and IC Card Reader