

Bluetooth Version

# FUZZYSCAN FAMILY

Quick Start Guide

**FUZZYSCAN**

**CORDLESS SCANNER**

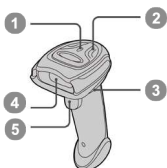
**cino**

# Getting Familiar with Your FuzzyScan

Thank you for choosing Cino FuzzyScan Bluetooth Cordless Image Scanner. Powered by the combination of cutting-edge FuzzyScan Imaging Technology and Bluetooth wireless technology, it not only provides outstanding reading performance, but also delivers the convenience and freedom of mobility. It's ideal for a broad range of applications to unleash your productivity with ease.

This document provides a quick reference for installation and operation. The complete documentation is available at [www.cino.com.tw](http://www.cino.com.tw).

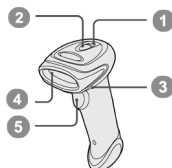
## A780BT Series



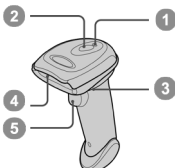
## A680BT Series



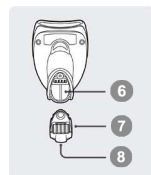
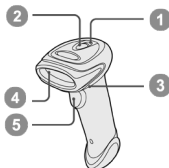
## A660BT Series



## F780BT & L780BT



## F680BT & L680BT



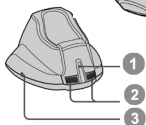
- 1 Link Indicator
- 2 Status Indicator
- 3 Beeper

- 4 Scan Window
- 5 Trigger
- 6 Battery Cavity

- 7 End Cap
- 8 Reset Button

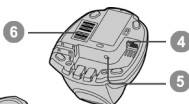
## HB2112 Smart Cradle

- 1 Central Indicator
- 2 Side Indicators
- 3 Paging/Reset Button
- 4 Host Interface Port
- 5 DC Power Jack
- 6 Quick Pair Barcode



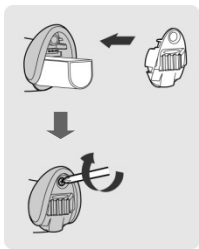
## HB2100 USB Charging Cradle

- 1 Central Indicator
- 2 Reserved
- 3 Reserved
- 4 USB Port
- 5 DC Power Jack



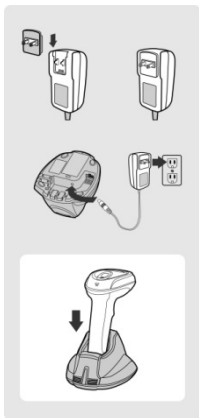
# Preparations before Using


## Install the Battery



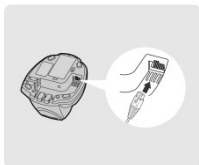
- 1 Ensure the battery contacts of the battery pack are facing the charging contacts inside the battery cavity.
- 2 Slide the battery pack into the battery cavity until hearing a click sound. Press the trigger to power on. The scanner will give 4 beeps when the battery pack is installed properly and if the battery pack still has power.
- 3 Secure the end cap with the screw provided.

## Charge the Battery via Power Supply Unit



- 1 Choose the right plug and slot it into the power supply unit cavity until a “click” is heard. Then plug the power supply unit into the wall outlet.
  - 2 Plug the DC power cord of power supply unit into the DC Jack of the cradle. The smart cradle will emit four beeps and the central indicator **blinks blue once** and side indicators **lights red**. If you use the charging cradle, the central indicator lights **blue**.
  - 3 Place the scanner on the cradle. The status indicator of scanner turns **steady red** if the battery is not fully charged. When the battery is fully charged, the status indicator will be **steady green**.
-  **Please charge the new battery pack for 8 hours before its first use.**

## Charge the Battery via USB 3.0 Port



- 1 If **USB 3.0** is available in your host device, both battery charging and regular operation can be supported by the USB bus power without using external power supply.
- 2 If only **USB 2.0** is available in your host device, we recommend using external power supply as power source, because the power supplied from USB 2.0 is not enough to support both battery charging and regular operation simultaneously. .

# Decide Your Radio Link Mode

The FuzzyScan Bluetooth image scanner provides several radio link modes to communicate with most host devices. When the Bluetooth-enabled host device is not available, it can work with the smart cradle in PAIR mode (peer-to-peer connection) or PICO mode (multiple connections) to provide a **plug-and-play** cordless migration of your existing non-Bluetooth-enabled host. Moreover, you can also use the scanner to work with Bluetooth-enabled host via SPP mode or HID mode.

When the radio link is disconnected, the scanner is capable of reconnecting automatically when it returns to the communication coverage. If you want to change the radio link mode, please scan the “**Uninstall**” command to reset the scanner to uninstall state.

## PAIR Mode

If the Bluetooth device is not available in your existing system, PAIR mode is the simplest plug-and-play solution. In this mode, a smart cradle can only work with one scanner. The smart cradle not only provides the Bluetooth radio link with the scanner, but also offers the legacy cabled interfaces to the host device, including USB HID, USB COM and RS232 Serial.

## PICO Mode

For the requirement of multiple connections, up to 7 scanners can be connected to one smart cradle concurrently. If you want to un-pair all scanners paired with the smart cradle, please press and hold the paging/reset key of the smart cradle for more than 5 seconds. If you just want to un-pair some of the paired scanners, please take those paired scanners to scan the “Uninstall” command one by one.

## HID Mode

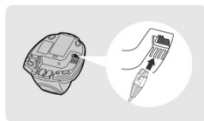
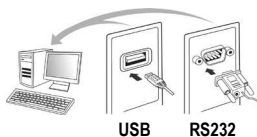
Through the most useful HID service, the scanner can work as a **Bluetooth Keyboard**. In this mode, the scanner will be discoverable by the radio connection request issued by the remote host device.

## SPP Master/Slave Mode

Through the standard SPP profile, the scanner can work as a **Bluetooth Serial Device**. In SPP master mode, the scanner initiates the radio connection request to the remote slave device. In SPP slave mode, the scanner will be discoverable by the radio connection request issued by the remote host device. Once the SPP slave pairing process is completed, the radio link mode will be switched to SPP master automatically. This behavior will enable auto-reconnection feature when the connection is lost.

## Use FuzzyScan in PAIR Mode

- 1 Using a suitable interface cable, connect the smart cradle to your host device. Turn on your host device. Make sure the smart cradle is receiving power, in which case, its LED lights will be on.
- 2 Power on the scanner and keep it well within your smart cradle's Bluetooth range during the entire pairing process.



- 3 Please note that if the scanner is shipped together with a smart cradle, they are pre-paired already. You will see the link indicator of scanner gives 1 blue blink per 2.5 seconds and the central indicator of smart cradle turns steady blue. If the scanner and smart cradle just give **alternative red and green blinks** (in “Uninstall” state), please follow step 4 to establish the connection between scanner and smart cradle.



Uninstall

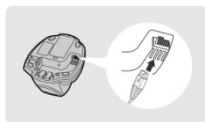
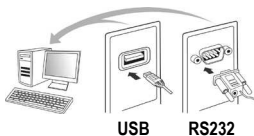
- 4 Scan the smart cradle's Quick Pair barcode with your scanner. This will launch the pairing process during which the scanner will emit a series of clicking sounds, and its link indicator will flash blue rapidly. Once pairing is completed, the scanner will beep 4 times in ascending tone, and its link indicator will **flash blue every 2.5 seconds**. The smart cradle's center indicator will be **steady blue**.
- 5 If the pairing process failed, you will hear the clicking sounds stop and the link indicator of scanner will give **3 blue blinks per 2 seconds**. Thereafter, the scanner will continue to search for the smart cradle for another 30 seconds before going into “Radio-Off” state. In the interim, you may scan the “Uninstall” command to set the scanner to the “Uninstall” state. If the scanner has entered radio-off state already, you can wake it up by pressing its trigger; this will also cause the scanner to re-attempt pairing.
- 6 Scan the corresponding host interface quick set command to complete the installation.



The default host interface of smart cradle is preset to **USB HID**. If you want to set the host interface to **USB COM**, you have to install the USB virtual COM driver into your host device before using the scanner. Please visit CINO website to download the driver.

# Use FuzzyScan in PICO Mode

- 1 Using a suitable interface cable, connect the smart cradle to your host device. Turn on your host device. Make sure the smart cradle is receiving power, in which case, its LED lights will be on. Create a Quick Pair barcode for PICO mode and have it ready. Please refer to the FuzzyScan Bluetooth Scanner Reference Manual for instructions on how to prepare such a barcode.
- 2 Power on the scanner and keep it well within your smart cradle's Bluetooth range during the entire pairing process.



- 3 Please note that if the scanner is shipped together with a smart cradle, they are pre-paired in PAIR mode already. The scanner's link should emit **1 blue blink every 2.5 seconds** and the smart cradle's central indicator should be a steady blue. Scan the "**Uninstall**" barcode below to unpair the scanner and smart cradle. Their indicators will then emit **alternating red and green blinks**.



Uninstall

- 4 Scan the Quick Pair barcode for PICO mode (which you have created in advance) with your scanner. This will launch the pairing process during which the scanner will emit a series of clicking sounds, and its link indicator will flash blue rapidly.
- 5 Once pairing is completed, the scanner will beep 4 times in ascending tone, and its link indicator will **flash blue every 2.5 seconds**. As for the smart cradle, its center indicator will display a **steady blue** light and its side indicators will be **steady green**.  
As applicable, repeat the above procedures to pair other scanners with the same smart cradle (up to 7 scanners).
- 6 Scan the corresponding host interface quick set command to complete the installation.



The default host interface of smart cradle is preset to **USB HID**. If you want to set the host interface to **USB COM**, you have to install the USB virtual COM driver into your host device before using the scanner. Please visit CINO website to download the driver.

# Use FuzzyScan in HID Mode

- 1 Ensure the battery is fully charged. Power on the scanner within radio coverage and ensure the status indicator of scanner gives **alternative red and green blinks** (in “Uninstall” state). If your scanner is not in the Uninstall state, please scan the “Uninstall” command first.



Uninstall

If your remote host is equipped with latest Bluetooth drivers, or it's an iOS or Android device, it is recommended to use “**HID Mode**”.



HID Mode

Once you had scanned the “**HID Mode**” barcode, the scanner's link indicators will blink blue 3 times every 2 seconds during the search process. You have to execute the Bluetooth Discovery procedure to find nearby Bluetooth device, then select “F(L/A)xxxBT-xxxx” (the xxxx are the last 4 digits of its MAC address).

- 2 The scanner will emit 4 beeps in ascending tone to indicate the connection is established. The scanner's link indicators will also **flash blue every 2.5 seconds** to indicate a radio-connected state.

If the scanner is not pair with the host device within 1 minute after scanning the above command, it will enter radio-off state automatically. You can wake up the scanner by pressing its trigger, this will also cause the scanner to re-attempt pairing.



The installation procedure may vary depending on different remote host devices, operating systems and the Bluetooth drivers. Please consult your professional IT consultant to obtain necessary support.

# Use FuzzyScan in SPP Mode

## Establish SPP Master Connection

- 1 Look for the Bluetooth host device's MAC address under its "Hardware" or "Bluetooth" settings. You will need this MAC address later on.
- 2 Ensure that a virtual COM port is available on your host device for scanner connection. If not, perform the steps required on your host device to add one. For example, go to "Local Services" under "**Bluetooth Advanced Settings**" and click on "**Add Serial Services**" to add a virtual incoming COM port.
- 3 Power on the scanner within radio coverage and make sure its status indicator gives **alternative red and green blinks** (in "**Uninstall**" state). If not, scan the "Uninstall" barcode to release its current pairing.



Uninstall

- 4 Scan the "**SPP Master Simple Mode**" barcode . The scanner's status indicator will turn steady red immediately.



SPP Master Simple Mode

- 5 Scan the 12 option codes (see Appendix) that correspond to your host device's MAC address, then scan the "FIN" barcode. The scanner will emit a series of clicking sounds and its link indicators will flash blue rapidly.
- 6 Launch your terminal application to connect it with the scanner. The scanner will emit 4 beeps in ascending tone to indicate radio connection, and its link indicator will **flash blue every 2.5 seconds**.
- 7 If the scanner fails to pair with host device within 30 seconds, its link indicator will give 3 blue blinks every 2 seconds. Thereafter, the scanner will continue to search for your host device for another 30 seconds before going into "Radio-Off" state. In the interim, you may scan the "Uninstall" command to set your scanner to the "Uninstall" state. If the scanner has entered radio-off state already, you can wake the scanner by pressing its trigger; this will also cause the scanner to re-attempt pairing.



The above procedures are based on popular Windows operation environment. But the installation procedure may vary depending on different remote host devices, operating systems and the Bluetooth drivers. Please consult your professional IT consultant to obtain necessary support if any problem is arise during the installation processes. For more detailed information, please visit CINO website.



## Establish SPP Slave Connection

- 1 Ensure that a virtual COM port is available on your host device for scanner connection. If not, perform the steps required on your host device to add one. For example, go to “Local Services” under “**Bluetooth Advanced Settings**” and click on “**Add Serial Services**” to add a virtual incoming COM port.
- 2 Power on the scanner within radio coverage, and make sure its status indicator gives off **alternating red and green blinks** (in “**Uninstall**” state). If not, scan the “Uninstall” barcode to release its current pairing.



Uninstall

- 3 Scan the “**SPP Slave Simple Mode**” barcode. The scanner’s status indicator will flash blue 3 times every 2 seconds while it waits for the pairing process to be launched.



SPP Slave Simple Mode

- 4 Execute the Bluetooth Discovery procedure to find all available Bluetooth device list in your remote host. You will see „F(L/A)xxxBT-xxxx” (the xxxx are the last 4 digits of its MAC address) is shown in the list if the scanner is successfully discovered. Perform the steps required on your host device to activate the pairing (e.g. tapping or double clicking on the model number, etc.). During the pairing process, the scanner will emit a series of clicking sounds and its link indicators will flash blue rapidly.
- 5 Launch your terminal application to build the connection with the scanner. The scanner will emit 4 beeps in ascending tone to indicate the radio is connected, and its link indicator will **flash blue every 2.5 seconds**.
- 6 If the scanner is not paired with the host device within 1 minute after scanning the above command, it will enter radio-off state automatically. You can wake up the scanner by pressing its trigger, this will also cause the scanner to re-attempt pairing.



The above procedures are based on popular Windows environment. But the installation procedure may vary depending on different remote host devices, operating systems and the Bluetooth drivers. Please consult your professional IT consultant to obtain necessary support if any problem has been encountered during the installation processes. For more detailed information, please visit CINO website.

## Out-of-range Scanning

When the radio connection is established between scanner and remote host device, the scanner will transmit each scanned data right after scanning the barcode. However, the default of the scanner is unable to scan any barcode data when it loses the radio connection with the remote host device. If you enable the out-of-range scanning function, the scanner is able to continue scanning barcode data while it is out of radio coverage. All scanned data will be temporarily stored into the memory buffer until radio link resumed.



Enable Out-of-range Scanning



Disable Out-of-range Scanning ◆

In case of the scanner is out of radio coverage, you will hear 4 beeps in descending tone to indicate the radio connection lost. The scanner's link indicators will **blink blue 3 times per 2 seconds**. Once the scanner is back to radio coverage, you will hear 4 beeps in ascending tone to indicate the radio connection rebuilt and the scanner's link indicators **blink blue once per 2.5 seconds**. At the same time, all the stored scanned data will be transmitted automatically right after the radio link is resumed.

## Presentation Scanning

The Presentation Scanning is designed for hand-free applications for user's convenience. If the "Presentation Scanning Auto-sense" function is enabled, the scanner is capable of automatically switching to presentation mode as soon as you place it onto the SmartStand or cradle.



Enable Auto-sense



Disable Auto-sense ◆

In presentation mode, you can select higher sensitivity level though the setting of **Presentation Sensitivity** when using scanner in a dim ambient lighting environment. For the setting of Presentation Sensitivity, please refer to Programming Manual for details.

## Power off the Scanner

By default, the scanner goes off if the scanner is not used during the user-defined time-out duration. You also can power off the scanner by scanning the "Power Off" command. If you want to activate the scanner, please press the trigger key.



Power Off

## Batch Scanning (Inventory Mode)

Thanks to the specially designed Batch Scanning function, the scanner is capable of storing up to **100,000** EAN-13 barcode data. It is an ideal cost-saving solution for inventory applications.

Once you scan the “Enter Batch Scanning” command to activate this function, all scanned barcode data will be stored into the memory storage, and the status indicator of scanner will give **green blink** at regular interval during batch scanning. You can scan and store the barcode data till the memory storage is full. If the storage is full, you will hear 2 long beeps and the status indicator will give 2 red blinks to indicate **out of storage**. To terminate the batch scanning, please scan the “Exit Batch Scanning” command.



Enter Batch Scanning



Exit Batch Scanning

## Use Quantity Feature

The scanner will support quantity feature when it enters batch scanning. When you use quantity feature, the quantity information and scanned barcode data will be stored into the memory storage together. You can enter the quantity information from 1 to 9999 by scanning the following quantity commands right after you had scanned the barcode data.



Quantity 0



Quantity 3



Quantity 7



Quantity 4



Quantity 1



Quantity 8



Quantity 5



Quantity 2



Quantity 9



Quantity 6

There are three ways to output the stored barcode data and quantity information. The preset output format is to transmit the stored barcode data as many times as the quantity indicated. But you can also set the scanner to output the stored barcode data together with quantity information in two fields, and a preset delimiter “,” will be output in between. To fulfill different application requirements, both the delimiter and output sequence can be changed as well.



As many times as the quantity indicates ◆



<Quantity><Field Delimiter><Scanned Data>



<Scanned Data><Field Delimiter><Quantity>

## How to Transmit Stored Data

The scanner is preset to transmit all stored data by scanning the “Transmit Stored Data” command. During the transmission, the scanner will emit continuous short clicks and the link indicator will blink blue. Then the scanner will give two short beeps after data transmission is completed.



Transmit Stored Data

But you are able to set the scanner to transmit the stored data by placing the scanner onto the cradle as well.



Scan Barcode  
Command ◆



Scan command or Place  
Scanner onto the Cradle



Place Scanner  
onto the Cradle

## How to Delete the Last Scanned Data

If you scanned a wrong barcode, the “Delete Last Scanned Data” command is helpful to recover mistake. By scanning the “Delete Last Scanned Data” command, the last stored data will be deleted.



Delete Last Scanned Data

## Link Mode Quick Set



## Host Interface Quick Set (for Smart Cradle only)



## Keyboard Layout Quick Set



# System Commands



Paging



System Information



Master Default



Switch On-screen  
Keyboard



PowerTool Host Link



Save Configuration



Power Off



Factory Default



Clone

# Operation Mode Quick Set



Trigger Mode ◆



Presentation Mode

# Option Codes



0



8



C



1



4



9



D



2



5



A



E



3



6



B



F



7



FIN (Finish)

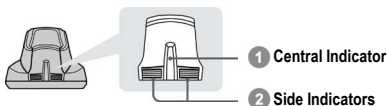


END (Exit)

# Indications

## Scanner Indications

Items	Link Indicator	Beeping
Radio connection	1 blue blink per 2.5 sec.	Off
Radio disconnection	3 blue blinks per 2 sec.	Off
During connection	Quick blue blinks	Short clicks
Radio connection built	1 blue blink per 2.5 sec.	4 beeps in ascending tone
Radio connection lost	3 blue blinks per 2 sec.	4 beeps in descending tone
Data Transmission	Quick blue blink	Short clicks
Items	Status Indicator	Beeping
Under charging (on cradle)	Steady red	Off
Fully charged (on cradle)	Steady green	Off
Under batch scanning	1 green blink per 2.5 sec.	Off
Pair failure	3 blue blinks per 2 sec.	Off
Out of memory	2 red blinks	2 long beeps
Battery power low	1 red blink at regular interval	1 beep at regular interval
Battery power extremely low	1 red blink	8 beeps
Good read	1 green blink	1 good read beep
Under Configuration	Steady red	Off
Uninstall state	Alternative red and green blinks	Off
Upgrade state	Steady red	Short click
Time out warning	Off	3 long beeps
Paged by smart cradle	Off	6 page beeps
Radio-off / Battery no power	Off	Off
Power Off	Off	Off



## HB2112 Smart Cradle Indications

Items	Indicators		Beeping	
	Central	Side		
Power on	Blink blue once	Off	Power on beeps	
Smart Cradle Upgrade State	Off	Steady red	Short clicks	
Uninstall state	Off	Alternative red-green blinks	Off	
PICO Mode	Radio Connected	Steady blue	Steady Green	Off
	Radio Disconnected	Off	Steady red	Off
PAIR Mode	Radio Connected	Steady blue	Off	Off
	Radio Disconnected	Off	Steady red	Off
Smart cradle paged by scanner	PICO Mode	Steady blue	Steady green	6 page beeps
	PAIR Mode	Steady blue	Off	6 page beeps

## HB2100 USB Charging Cradle Indication

Items	Central Indicator	Beeping
Power on	Steady blue	Off

## FuzzyScan Bluetooth Cordless Scanner Quick Start Guide International Edition, Rev. C3



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### Disclaimer

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### Regulatory



FCC part 15B, FCC part 15C



EN55022 EN55024  
EN301 489-1 & 489-17, EN300 328  
EN61000-3-2, EN61000-3-3, EN60950-1



Clause 2, Article 58-2 of Radio Waves Act.



Class B ITE



MIC T401



AS/NZS CISPR 22 Class B  
AS/NZS 4268



CNS13438, CNS14336



LP0002

LED Eye Safety IEC62471 Exempt group

Laser Eye Safety IEC60825-1 Class 1