

Bluetooth Version

FUZZYSCAN FAMILY

Quick Start Guide

FUZZYSCAN

CORDLESS SCANNER

cino

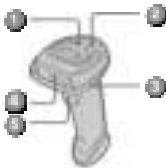


Getting Familiar with Your FuzzyScan

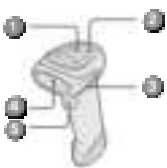
Thank you for choosing Cino FuzzyScan Bluetooth Cordless Image Scanner. Powered by the combination of cutting-edge FuzzyScan Imaging Technology and Bluetooth wireless technology, it not only provides outstanding reading performance, but also delivers the convenience and freedom of mobility. It's ideal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

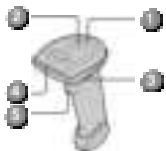
A780BT Series



A680BT Series

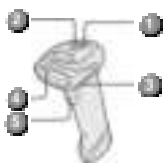


F780BT & L780BT



- | | |
|--------------------|------------------|
| 1 Link Indicator | 4 Trigger |
| 2 Status Indicator | 5 Battery Cavity |
| 3 Beeper | 6 End Cap |
| 4 Scan Window | 5 Reset Button |

A670BT, F680BT & L680BT



HB2100 USB Charging Cradle

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

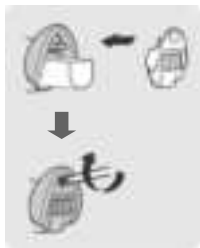


HB211x Smart Cradle

- 1 Central Indicator
- 2 Side Indicators
- 3 Paging/Reset Button
- 4 USB Bus Power Switch
- 5 Host Interface Port
- 6 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 before locking it with the end cap. The scanner will give 4 beeps when the battery pack is installed properly 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 an appropriate plug and slot it into the power adapter cavity until it is locked. Then plug the AC power plug into the AC wall socket.
- 2 Plug the DC power cord of power supply unit into the DC Jack of the cradle. The smart cradle emits the power-on beeps and the central indicator gives **one blue blink**. If you use the charging cradle, the central power indicator turns **steady 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 of scanner turns **steady green**.
- 4 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.
- 3 If you want to use this feature, please set the USB bus power switch to "**ON**", then connect the cradle to the host device via USB cable.

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 devices. Moreover, you can also use the scanner to work with Bluetooth-enabled host devices via SPP mode or HID mode.

When the radio link is disconnected, the scanner is capable of reconnecting the radio link automatically when it returns to the communication coverage. But please note that this feature is not available in SPP slave mode. 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 button 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. In some cases, you may be requested to enter the Passkey (PIN) to establish the Bluetooth connection for security purpose.

SPP Master/Slave Mode

Through the standard SPP service, 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.

Use FuzzyScan in PAIR Mode

- 1 Ensure the battery is fully charged. Please refer to the section of **Preparations before Using** for details.
- 2 Please choose your desired interface cable, then plug it into the host interface port of the smart cradle and connect it to the host device.



- 3 Turn on the power of your host device.
- 4 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** (“Uninstall” state), please follow step 5 to establish the connection between scanner and smart cradle.
- 5 Scan “PAIR mode” command. The status indicator of scanner will turn steady red immediately.



Place the scanner on the smart cradle, then you will hear one short beep to indicate the pairing process is activated. The scanner will emit continuous short clicks and the link indicator of scanner will flash blue quickly during the pairing process. When you hear 4 beeps in ascending tone, the pairing process is completed. You will see that the link indicator of scanner gives **1 blue blink per 2.5 seconds** and the central indicator of the smart cradle turns **steady blue**.

If the scanner pairing process failed or it's not placed on the smart cradle within 20 seconds, you will hear 2 “Di-do Di-do” beeps to warn the failure of pairing, the scanner will return to uninstall state automatically.

- 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 Ensure the battery is fully charged and choose your desired interface cable, then plug it into the host interface port of the smart cradle and connect it to the host device.



USB RS232



- 2 Turn on the power of your host device.
- 3 Ensure the side indicators of the smart cradle give **alternative red and green blinks** (in “**Uninstall**” state). If the smart cradle is paired with other scanners, please press and hold the paging/reset button for **more than 5 seconds** to un-pair all paired scanners. Then the smart cradle will return to uninstall state automatically.
- 4 Prepare the scanners you want to pair with the smart cradle. Ensure the status indicator of each scanner give **alternative red and green blinks** (in “**Uninstall**” state). If the scanner is not in uninstall state, please scan the “Uninstall” command to un-pair the scanner, then scan the “PICO mode” command, and the status indicator of scanner will turn steady red.



Uninstall



PICO Mode

Place the scanner on the smart cradle, then you will hear one short beep indicating the pairing process is activated. The scanner will emit continuous short clicks and the link indicator of scanner will flash blue quickly during the pairing process. When you hear 4 beeps in ascending tone, the pairing process is completed. You will see that the link indicator of scanner gives **1 blue blink per 2.5 seconds**, the central indicator of the smart cradle turns **steady blue** and its side indicators turn **steady green**.

If the scanner pairing process failed or it's not placed on the smart cradle within 20 seconds, you will hear 2 “Di-do Di-do” beeps warning the failure of pairing, the scanner will return to uninstall state automatically.

- 5 Please scan the corresponding host interface quick set command to complete the installation. Then repeat the same procedures to pair other scanners with the smart cradle.



For user's convenience, the smart cradle will automatically assign the ID numbers to each scanner. Please scan the **System Information** command to check the assigned ID number of each scanner.

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 the scanner is not in 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**” for quick pairing. If necessary, you may use “**HID Mode with Passkey**” to establish a more secure connection. If you frequently experienced the problem in using HID mode, please try “**HID Legacy Mode**” instead.



HID Mode



HID Legacy Mode



HID Mode with Passkey

Once you had scanned one of the above commands, the link indicator of scanner will give 3 blue blinks per 2 seconds during searching process. You have to execute the Bluetooth Discovery procedure to find available Bluetooth device, then select “F(L/A)xxxBT-xxxx”.

- 2 If you use “**HID Mode**”, please go to step 5.
- 3 If you use “**HID Mode with Passkey**”, you will be requested to enter the Passkey (PIN) on the remote host. Please enter the Passkey (PIN) accordingly by scanning the “**Option Code**” (page 13), and then scan the “**FIN (Finish)**” to end the Passkey entry, then go to step 5.
- 4 If you scan “**HID Legacy Mode**”, the Passkey (PIN) may be requested. Please enter “**00000000**” (default setting), you will see “Keyboard on F(L/A)xxxBT-xxxx”. Please double click this HID service to establish the connection between scanner and remote host device.
- 5 The scanner will emit 4 beeps in ascending tone to indicate the connection is established. At the same time, the link indicator of scanner will give 1 blue blink per 2.5 seconds to indicate the scanner is in radio-connected state.

Please note that if the scanner is not connected to the host device within 1 minute after scanning the above command, the scanner will enter radio-off status automatically. You can just press the trigger to wake up the scanner to continue the installation.

- 6 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. For more detailed information, please visit CINO website.

Use FuzzyScan in SPP Mode

Establish SPP Master Connection

- 1 Ensure the battery is fully charged. Please go to the folder “**Hardware**” located in Bluetooth Advanced Setting of the remote host device to check its device **MAC address**. Then prepare a 12-character Code 128 barcode of the remote host device MAC address, or follow the step 4 to input MAC address by scanning 12 option codes.
- 2 Ensure a virtual COM port is available in your remote host for connecting the scanner. If not, please enter the folder “**Local Services**” located in Bluetooth Advanced Setting. Click the “**Add Serial Services**” to add one more Bluetooth COM port.
- 3 Power on the scanner within radio coverage and ensure the status indicator of scanner gives **alternative red and green blinks** (in “**Uninstall**” state). If the scanner is not in uninstall state, please scan the “Uninstall” command first, then scan the “SPP Master Mode” command. The status indicator of scanner will turn steady red immediately.



Uninstall



SPP Master Mode

- 4 Scan a 12-character MAC address barcode. The scanner will emit continuous short clicks and the link indicator will flash blue quickly during the radio connecting process. If the Passkey (PIN) is requested, please enter “**00000000**” (default setting).
- 5 The scanner will emit 4 beeps in ascending tone to indicate the radio is connected. At the same time, the link indicator of scanner will give 1 blue blink per 2.5 seconds to indicate the scanner is in radio-connected state.

Please note that if the scanner failed to connect to the host device within 30 seconds, the link indicator will give 3 blue blinks per 2 seconds. But the scanner is still continuing to discover the host device for another 30 seconds before entering radio-off status. In the interim, you still can scan “Uninstall” command to resume the scanner to an uninstall state. If the scanner entered radio-off status already, you can just press the trigger to wake up the scanner to continue the installation.

- 6 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 arise during the installation processes. For more detailed information, please visit CINO website.

Establish SPP Slave Connection

- 1 Ensure the battery is fully charged and a virtual COM port is available in your remote host for connecting the scanner. If not, please go to the folder **"Client Applications"** located in Bluetooth Advanced Setting. Click the **"Add COM Port"** to add one more Bluetooth COM port.
- 2 Power on the scanner within radio coverage and ensure the status indicator of scanner gives **alternative red and green blinks** (in **"Uninstall"** state). If the scanner is not in uninstall state, please scan the **"Uninstall"** command first, and then scan the **"SPP Slave Mode"** command. The link indicator of scanner will give 3 blue blinks per 2 seconds during searching process.



Uninstall



SPP Slave Mode

- 3 You have to execute the Bluetooth Discovery procedure to find all available Bluetooth device list in your remote host. You will see **"F(L/A)xxxBT-xxxx"** is shown in the list if the scanner is successfully discovered.
- 4 Double click the **"F(L/A)xxxBT-xxxx"** on the discovered Bluetooth devices. If the Passkey (PIN) is requested,, please enter **"00000000"** (default setting). You will see **"Serial Port on F(L/A)xxxBT-xxxx"**. Please double click this SPP service to establish the connection between scanner and remote host device.
- 5 The scanner will emit 4 beeps in ascending tone to indicate the connection is established. At the same time, the scanner's link indicator will give 1 blue blink per 2.5 seconds to indicate the scanner is in radio-connected state.

Please note that if the scanner is not connected to the host device within 1 minute after scanning the **"SPP Slave Mode"** command, the scanner will enter radio-off status automatically. You can press the trigger to wake up the scanner to continue the installation.



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 scanner is preset not 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 indicator will give 3 blue blinks 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 indicator will give 1 blue blink 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

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 would like to activate the scanner, please press the trigger button.



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 3



Quantity 0



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



PAIR Mode



PICO Mode



SPP Master Mode



UNINSTALL



SPP Slave Mode



HID Legacy Mode



HID Mode



HID Mode with Paskey

Host Interface Quick Set (for Smart Cradle only)



USB HID
Standard Mode ◆



RS232 Serial



USB HID Turbo Mode



USB Com Port
Emulation

Keyboard Layout Quick Set



USA ◆



Latin America



France



United Kingdom-UK



Netherlands



Germany



Canadian French



Japan



Spain

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	Steady red	2 Di-do Di-do beeps
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 blinks	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



HB211x Smart Cradle Indications

Items		Indicators		Beeping
		Central	Side	
Power on		1 blue blink	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. C1



P/N: YMAUB30020030R0

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Warranty

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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