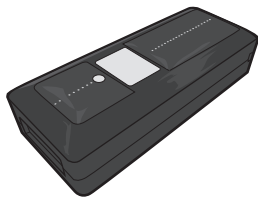


# 2D MINI WIRELESS

## BARCODE SCANNER

### Quick Guide

For full user's manual, please contact  
your local distributor.



## FCC WARNING STATEMENT

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation.

This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

## CANADIAN DOC STATEMENT

This digital apparatus does not exceed the Class B limits for radio noise for digital apparatus set out in the Radio Interference Regulations of the Canadian Department of Communications.

Le présent appareil numérique n'émet pas de bruits radioélectriques dépassant les limites applicables aux appareils numériques de la classe B prescrites dans le Règlement sur le brouillage radioélectrique édicté par les ministères des Communications du Canada.

## CE MARKING AND EUROPEAN UNION COMPLIANCE

Testing for compliance to CE requirements was performed by an independent laboratory. The unit under test was found compliant with all the applicable Directives, 2004/108/EC and 2006/95/EC.

## NON-MODIFICATION STATEMENT

Any changes or modifications not expressly approved by the party responsible for compliance could void your authority to operate the equipment.



## WARNING AND CAUTION



1. Take any metals into contact with the terminals in connectors.
2. Use the scanner where any inflammable gases.



If following condition occur, immediately power off the host computer, disconnect the interface cable, and contact your nearest dealer.

1. Smoke, abnormal odors or noises come from the scanner.
2. Drop the scanner so as to affect the operation or damage its housing.

Do not do behavior below.

1. Put the scanner in places excessively high temperatures such as expose under direct sunlight.
2. Use the scanner in extremely humid area or drastic temperature changes.
3. Place the scanner in oily smoke or steam environment such as cooking range.
4. Be covered or wrapped up the scanner in bad-ventilated area such as under cloth or blanket.



Do Not

5. Insert or drop foreign materials or water into scanning window or vents.
6. Using the scanner while hand is wet or damp.
7. Use the scanner with anti-slip gloves containing plasticizer and chemicals or organic solvents such as benzene, thinner, insecticide etc to clean the housing. Otherwise, it could not result fire and electrical shock but housing may be broken and injured.
8. Scratch or modify the scanner and bend, twist, pull or heat its interface cable.
9. Put heavy objects on interface cable.

Do not stare the light source from the scanning window or do not point the scanning window at other people's eyes or eyesight may be damaged by direct exposure under the light.



Do not put the scanner on an unstable or inclined plane.  
The scanner may drop, creating injuries.



Once the interface cable is damaged such as exposed or broken copper wires, stop using immediately and contact your dealer. Otherwise, it could result fire or electrical shock.

## OUT OF THE BOX

---



2D Mini Wireless  
Barcode Scanner



USB Charger Cable



Quick Guide



Quick Connection Card



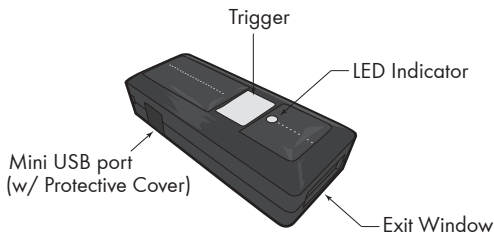
Hand Strap



Retractable Carabiner

## INTRODUCTION

---

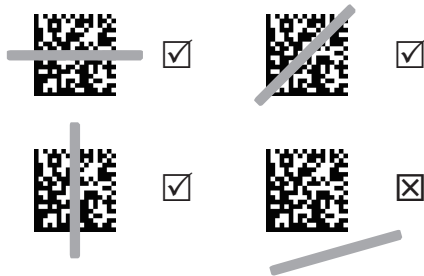


## SPECIFICATIONS

---

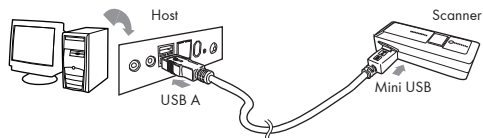
Sensor	640 x 480
Resolution	5mil (1D) / 10mil (2D)
Memory	2MB
Indicator	LED, Buzzer
PCS	30%
Housing	Plastic (PC+ABS)
Profile	BT HID, BT SPP
Battery Life	6000 scans
Charge Time	2 hours (fully charged)
Radio	Bluetooth 5.0 (Class2)
Coverage	20M/66ft. (line of sight)
Symbologies	All major 1D & 2D barcodes

## GETTING STARTED



To scan a barcode, make sure the aiming beam fully covers the barcode.

## CHARGING THE BATTERY



1. Flip open the mini USB port on the scanner.
2. Insert the mini USB connector into the port on the scanner and USB A connector into a USB port on the host PC.

## BEEPER INDICATION

Single long beep  
Single beep  
Single short beep

Two beeps

Two short beeps  
Three beeps  
Three short beeps

Four beeps (Hi-Lo-Hi-Lo)  
Five beeps  
Several short beeps

## LED INDICATION

Off  
Flashing Green  
One Green Flash  
Flashing Red  
Solid Red

Power up  
Good read  
The scanner reads a Code39 of ASCII in configuration procedure  
i. Wireless connection  
ii. The scanner successfully reads a configuration barcode  
Good read (Batch mode/Memory mode)  
Wireless disconnection  
i. The scanner reads a barcodes while disconnected.  
ii. The scanner reads an unexpected barcode during configuration procedure. (scan [ABORT] to abort and start over)  
Out of range/Poor connection  
Low power  
The scanner switches from one communication mode to another

Standby or Power off  
Disconnected or Discoverable  
Good Read  
Low power  
Charging

## INTERFACE

. E043\$



**BT HID**

. E042\$



**BT SPP**

. C035\$



**Memory Mode**

. C008\$



**USB HID**

. C006\$



**USB VCP**

## INTERFACE

There are 5 interfaces for data transmission/collection:

1. **BT HID** - Emulates a **Bluetooth HID keyboard** that transmits each barcode data to the host after decode.  
(See page 9)
2. **BT SPP** - Emulates a **Bluetooth SPP device** that transmits each barcode data to the host after decode.  
(See page 9)
3. **Memory Mode** - Emulates a **USB mass storage device** that saves each barcode data during off-line data collection (See page 26)
4. **USB HID** - Emulates a **USB keyboard** that transmits each barcode data to the host after decode.
5. **USB VCP** - Emulates a **USB virtual com device** that transmit each barcode data to the host after decode.

### Function Support Matrix

Mode	Interface	Batch Mode	Memory Mode	Ez Utility
Wireless	BT HID	✓		
	BT SPP	✓		
Tethered	Memory		✓	
	USB HID			✓
	USB VCP			✓

\*Note: For Ez Utility(PC-based software utility), please contact your local distributor.

## GETTING CONNECTED


There are two modes of wireless communication:

. E043\$



[ Recommended ]

**BT mode - HID**

1. Press the trigger for 1 second to activate the scanner.
2. Scan **[DISCONNECT]**
3. Scan **[BT mode - HID]**
4. Select "Wireless Scanner" from discovered device list.
5. If the Bluetooth application request to enter pincode, please refer to **PINCODE SETUP**  section on the next page.
6. The scanner will beep twice to verify the connection.

. E042\$



**BT mode - SPP**

1. Press the trigger for 1 second to activate the scanner.
2. Scan **[DISCONNECT]**
3. Scan **[BT mode - SPP]**
4. Select "Wireless Scanner" from discovered device list.  
If pincode is requested, enter default pincode "1234".
5. Open serial communication software with com port properly set up.
6. The scanner will beep twice to verify the connection.

. E031\$



**Disconnect**

## PINCODE SETUP


STEP 1

**Pincode Start**

. E032\$



STEP 2

Scan numeric barcodes (see **NUMERIC BARCODES**  section on the next pages) based on the pincode generated by the Bluetooth application.

STEP 3

**Enter**

\$TX



STEP 4

**Pincode Stop**

. E033\$



## NUMERIC BARCODES

---



**1**



**2**



**3**



**4**



**5**

**6**



**7**



**8**



**9**



**0**



# SMARTPHONE/TABLET CONNECTION

## Getting Connected - iOS & Android

1. Press the trigger for 1 second to power up the scanner.
2. Scan below configuration barcode to clear last pairing record.

. E031\$



**Disconnect**

3. Scan below configuration barcode to switch to BT HID profile.

. E043\$

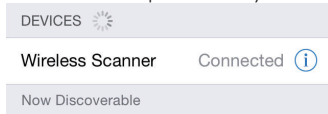


**BT mode - HID**

4. Select "Wireless Scanner" from discovered device list.



5. The scanner will beep twice to verify the connection.



# SMARTPHONE/TABLET TOUCH KEYBOARD

## Touch Keyboard - iOS

. E047\$



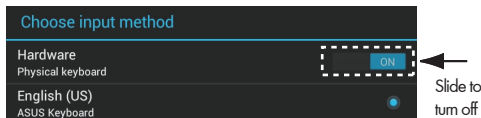
**ENABLE iOS HOTKEY**

After enabling iOS Hotkey(disabled by default), you may simply double-click the trigger to toggle the iPhone/iPad Touch Keyboard.

## Touch Keyboard - Android

While connected with the scanner, the Touch Keyboard on the Android smartphone or tablet might disappear. To resolve this issue, please change settings on Android device with below steps:

1. Enter "Settings"
2. Enter "Language & input"
3. Tap on "Default keyboard"
4. Turn off "Physical keyboard", or Turn on "On-screen keyboard" and the Touch Keyboard will function properly again.





## POWER OFF TIMEOUT

The period of inactivity before auto power-off.

### Variable Timeout

. B030\$



SET MINUTE  
(Range: 00 ~ 60)

. B029\$



SET SECOND  
(Range: 00 ~ 60)

The default timeout is 3 minutes 0 second.

For example, to set the timeout as 5 minutes 30 seconds:

1. Scan [Set Minute]
2. Scan [0] & [5] on page 11 & 12.
3. Scan [Set Minute]
4. Scan [Set Second]
5. Scan [3] & [0] on page 11 & 12.
6. Scan [Set Second]

### No Timeout (Scanner Always On)

. B021\$



DISABLE  
TIMEOUT

## BINARY CHECK CHARACTER

ENABLE

. E029\$



DISABLE

. E030\$



Once enabled, a checksum will be added to the end of each data to conduct Xor calculation. For Bluetooth SPP & USB-VCP, the BCC is 1 byte. For Bluetooth HID, the BCC are 2 bytes.

Example:

The barcode data is "TEST" with terminator <CR><LF>

1. Bluetooth SPP & USB-VCP:

Data Format = <T> + <E> + <S> + <T> + <CR> + <LF> + <BCC>.

BCC = 54h ^ 45h ^ 53h ^ 54h ^ 0Dh ^ 0Ah = 11h

2. Bluetooth HID:

Data Format = <T> + <E> + <S> + <T> + <Enter> + <BCC>

BCC = 54h ^ 45h ^ 53h ^ 54h ^ E7h = F1h

However, since control character cannot be displayed in Bluetooth HID, BCC will be converted into 2 bytes of characters. As a result, the data will be: TEST + <Enter> + F + 1

## GENERAL SETTINGS

. A001\$



DEFAULT

. P023\$



ABORT

. A007\$



CHECK  
VERSION

## BEEP MODE

. F023\$



NORMAL

. F024\$



MUTE

## READING MODE

. F002\$



TRIGGER

. F007\$



AUTO-SENSING

. F005\$



CONTINUOUS

# KEYBOARD LAYOUT

---

. C010\$



**ENGLISH**  
**(USA)**

. C018\$



ENGLISH  
(UK)

. C012\$



FRENCH

. C011\$



GERMAN

. C014\$



ITALIAN

. C013\$



SPANISH

JAPAN  
(106 key)

. C009\$



CANADIAN  
(FRENCH)

. C025\$



CANADIAN  
(TRADITIONAL)

. C034\$



NORWEGIAN

. C029\$



SWEDISH

. C026\$



PORTUGUESE

. C031\$



## KEYBOARD LAYOUT

---

. C017\$



CZECH  
(QWERTY)

. C022\$



CZECH  
(QWERTZ)

. C021\$



HUNGARIAN  
(QWERTZ)

. C024\$



HUNGARIAN  
(101 KEY)

. C016\$



SWISS  
(GERMAN)

. C023\$



SWISS  
(FRENCH)

BELGIAN  
(AZERTY)

DUTCH

DANISH

SLOVAK

BRAZILIAN  
(PORTUGUESE)

ALT CODE

. C030\$



. C028\$



. C027\$



. C032\$



. C033\$



. C015\$



## ENABLE/DISABLE SYMBOLOGIES

---

. A002\$



ENABLE  
ALL CODE

. G036\$



ENABLE ALL  
1D CODE

. G038\$



ENABLE ALL  
2D CODE

. A003\$



DISABLE  
ALL CODE

. G035\$



DISABLE ALL  
1D CODE

. G037\$



DISABLE ALL  
2D CODE

## INVERSE BARCODE

---

**DISABLE**  
**INVERSE BARCODE**

. D021\$



ENABLE  
INVERSE BARCODE

. D022\$



## CAPSLOCK

---

**CAPSLOCK OFF**

. A005\$



CAPSLOCK ON

. A004\$



CAPSLOCK FREE

. A006\$



## TERMINATOR

. D012\$



. D011\$



. D013\$



. D010\$



. D015\$



. D014\$



CR

LF

CR + LF

NONE

SPACE

TAB

## MEMORY MODE

. C035\$



Memory Mode

After scanning the above barcode, the scanner will be able to collect barcode data offline. The barcode data will be stored in the format of:

< Date >, < Time >, < Barcode Data > < CR >

To retrieve stored data, please connect the scanner to the host with cable, access removable storage device "MiniScan" from which you may open or copy the file "BARCODE.txt" to your computer.

To delete ONE stored data, please scan below barcode:

. R005\$



Delete Last Data

To delete ALL stored data, simply delete the file "BARCODE.txt" in the removable storage device "MiniScan" until the scanner emits 2 beeps.

## MEMORY MODE

. R006\$



### SET DATE

Example: To set Date to 2022-08-01 (Year-Month-Day):

1. Scan [Set Date]
2. Scan [2], [2], [0], [8], [0], [1] on page 11 & 12.
3. Scan [Set Date]

. R007\$



### SET TIME

Example: To set Time to 08:10:30 am (Hr:Min:Sec)

1. Scan [Set Time]
2. Scan [0], [8], [1], [0], [3], [0] on page 11 & 12.
3. Scan [Set Time]

\* To avoid Time and Date being reset to factory default due to drained battery, please fully charge the scanner for at least 2 hours before use.

## MEMORY MODE

. R011\$



### DATA FORMAT

The default Data Format is <Date>, <Time>, <Barcode Data>  
below are items and their setup codes:

Code	Item	Code	Item
2	Date	3	Time
4	Barcode Data		

Example:

To change Data Format to <Barcode Data>, <Date>, <Time>

1. Scan [Data Format]
2. Scan [4], [2], [3] on page 11.
3. Scan [Data Format]

. R010\$



### FIELD SEPARATOR

Default is comma ( , ). You may replace it with any alphanumeric characters from the full ASCII table in Full User's Manual.

Example: To change Field Separator to Semicolon ( ; )

1. Scan [Field Separator]
2. Scan [ ; ] from the full ASCII table.
3. Scan [Field Separator]

## MEMORY MODE

. R008\$



### DATE FORMAT

The default Date Format is DD/MM/YYYY (Code = 09), below is full list of available formats and their setup codes:

Code	Format	Code	Format
01	DD-MM-YYYY	09	DD/MM/YYYY
02	MM-DD-YYYY	10	MM/DD/YYYY
03	DD-MM-YY	11	DD/MM/YY
04	MM-DD-YY	12	MM/DD/YY
05	YYYY-MM-DD	13	YYYY/MM/DD
06	YY-MM-DD	14	YY/MM/DD
07	DD-MM	15	DD/MM
08	MM-DD	16	MM/DD

Example:

To set Date Format to MM/DD/YY (Code =12)

1. Scan [Date Format]
2. Scan [1], [2] on page 11.
3. Scan [Date Format]

## MEMORY MODE

. R009\$



### TIME FORMAT

The default Time Format is HH:MM:SS (Code = 01), below are available formats and their setup codes:

Code	Format	Code	Format
01	HH:MM:SS	02	HH:MM

Example:

To set Time Format to HH:MM (Code = 02)

1. Scan [Time Format]
2. Scan [0], [2] on page 11 & 12.
3. Scan [TimeFormat]



## TEST BARCODES

---

### Code 39



CODE-39 TEST

### Interleaved 2 of 5



9876543210

### Code 128



12345678

### EAN



4 716415 942052

## TEST BARCODES

---

### QR Code



### Micro QR Code



### PDF417



### Data Matrix



### Aztec

