2D Wireless))) Barcode Reader
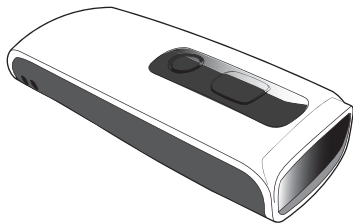
Quick Guide

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.

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 las classe B prescrites dans le Réglement sur le brouillage radioélectrique édicté par les ministère 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.

WASTE ELECTRICAL AND ELECTRONIC EQUIPMENT

The WEEE directive places an obligation on all EU-based manufacturers and importers to take-back electronic products at the end of their useful life.

ROHS STATEMENT OF COMPLIANCE

This product is compliant with Directive 2002/95/EC.

NON-MODIFICATION STATEMENT

Changes or modifications not expressly approved by the party responsible for compliance

CE FC RoHS

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 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. 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
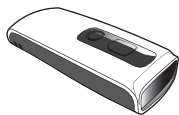
2D Wireless
Barcode Reader

Quick Guide

USB Charger Cable

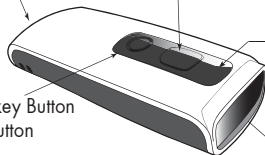Neck Strap

INTRODUCTION

Micro USB port
(w/ Protective Cover)

Trigger Button

LED Indicator

(1) iOS Hotkey Button
(2) Delete Button

Exit Window

SPECIFICATIONS

Light source	625nm red LED
Scan rate	60 frames/sec
Sensor	752 x 480 CMOS sensor
Resolution	5mil/ 1D barcode; 6.67mil/ 2D barcode
PCS	30%
Housing	Plastic (PC)
Profile	SPP, HID
Battery Life	10000 scans
Charge Time	3 hours (fully charged)
Coverage	10M/33ft. (line of sight)
Operating Temp	-20 to 60°C (-4°F to 140°F)
Symbologies	QR Code, DataMatrix, PDF417 & major 1D barcodes

GETTING STARTED

‖‖‖‖◉‖‖‖	☑	‖‖‖‖◉‖‖	☑
◉ ‖‖‖‖‖‖‖‖	☒	‖‖‖‖‖‖‖‖ ◉	☒

To scan a barcode, make sure the aiming spot is pointed directly at the barcode scanned.

CHARGING THE BATTERY

Host .... Scanner
USB A .... Micro USB
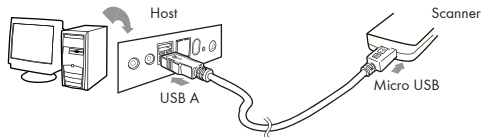
1. Flip open the micro USB port on the scanner.
2. Insert the micro USB connector into the port on the scanner and USB A connector into a USB port on the host PC or smartphone/tablet adapter.

BEEPER INDICATION

Single long beep	Power up
Single beep	Good read
Single short beep	The scanner reads a Code39 of ASCII in configuration procedure
Two beeps	i. Wireless connection
	ii. The scanner successfully reads a configuration barcode
Two short beeps	Good read (Batch mode/Memory mode)
Four beeps (Hi-Lo-Hi-Lo)	Out of range/Poor connection
Five beeps	Low power
Three beeps	Wireless disconnection
Three short beeps	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)
Several short beeps	The scanner switches from one communication mode to another

LED INDICATION

Off	Standby or Power off
Flashing Blue	Disconnected or Discoverable
Green for 2 sec	Good Read
Flashing Red	Low power
Solid Red	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. Driver is available on our website.

Function Support Matrix

Mode	Interface	On-line Operation	Off-line Operation	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$

[Recommanded]

BT mode - HID

1. Press the trigger for 1 second to activate the scanner.
2. Scan [**DISCONNECT**]
3. Scan [**BT mode - HID**]; the scanner will emit several beeps.
4. Select "Wireless Scanner" from discovered device list.
5. If the Bluetooth application requests 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**]; the scanner will emit several beeps.
4. Select "Wireless Scanner" from discovered device list. No pincode is required.
5. 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; the scanner will emit several beeps.

. E043$

BT mode - HID

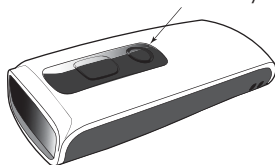4. Select "Wireless Scanner" from discovered device list.

DEVICES	
Wireless Scanner	Not Paired
Now Discoverable	

← Tap to connect

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

DEVICES	
Wireless Scanner	Connected (i)
Now Discoverable	

SMARTPHONE/TABLET TOUCH KEYBOARD

Touch Keyboard - iOS

iOS Hotkey Button

To toggle iOS Touch Keyboard, please press this button.

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.

Choose input method	
Hardware Physical keyboard	ON
English (US) ASUS Keyboard	●
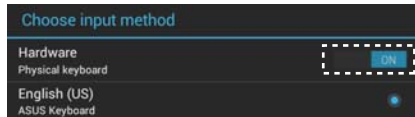
Slide to turn off

POWER OFF TIMEOUT

The timeout 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

. E029$

ENABLE

. E030$

DISABLE

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

BEEPER

.F012$	BEEP OFF
.F018$	**BEEP ON**

READING MODE

TRIGGER	.F002$
CONTINUOUS	.F005$
CONTINUOUS AUTO OFF	.F006$

VIBRATOR

VIBRATOR OFF	.D035$
VIBRATOR ON	.D034$

KEYBOARD LAYOUT

Barcode	Layout	Layout	Barcode
.C010$	**ENGLISH (USA)**	JAPAN (106 key)	.C009$
.C018$	ENGLISH (UK)	CANADIAN (FRENCH)	.C025$
.C012$	FRENCH	CANADIAN (TRADITIONAL)	.C034$
.C011$	GERMAN	NORWEGIAN	.C029$
.C014$	ITALIAN	SWEDISH	.C026$
.C013$	SPANISH	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)

. C030$

DUTCH

. C028$

DANISH

. C027$

SLOVAK

. C032$

BRAZILIAN
(PORTUGUESE)

. C033$

ALT CODE

. C015$

ENABLE SYMBOLOGIES

Barcode	Label	Label	Barcode
.A002$	ENABLE ALL CODE	IATA	.N017$
.L010$	UK PLESSEY	GS1 DATABAR	.N010$
.L001$	MSI	PDF417	.G021$
.N001$	INDUSTRIAL 2 OF 5	QR CODE	.G025$
.M010$	MATRIX 2 OF 5	MICRO QR CODE	.G027$
.G010$	CODE 93	DATA MATRIX	.G031$

TERMINATOR

`. D012$`	**<u>CR</u>**
`. D011$`	LF
`. D013$`	CR + LF
`. D010$`	NONE
`. D015$`	SPACE
`. D014$`	TAB

MEMORY MODE 🖳

Memory Mode

`. C035$`

After scanning the above barcode, the scanner will be able to collect barcode data off-line. The barcode data will be stored in the format of:
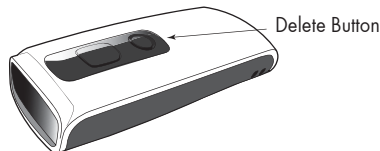< **Date** >, < **Time** >, < **Barcode Data** > < **CR** >

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 or press Delete Button.

Delete Last Record

`. R005$`

Delete Button

To delete ALL stored data, simply delete the file "**BARCODE.txt**" in the removable storage device "**MiniScan**" until you hear two beeps.

. R006$

SET DATE

Example: To set Date to 2014-08-01 (Year-Month-Day):
1. Scan [Set Date]
2. Scan [1], [4], [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 running out of battery, please fully charge the scanner for at least 3 hours before use.

. R011$

DATA FORMAT

The default Data Format is <Date>, <Time>, <Barcode Data> below are the codes for each item:

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]

. 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]

. 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

QR Code

PDF417

DataMatrix