unitech

MS912+ Wireless Pocket 2D Scanner

Quick Guide

Version 1.1

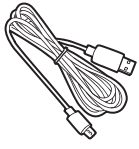
For more detailed scanner setting, please go to www.ute.com to download the user manual and scanner configuration manager utility.

OUT OF THE BOX

Wireless Pocket
2D Scanner

Quick Guide

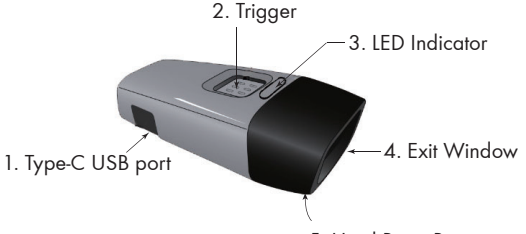
Quick Connection Card



USB Charger Cable

Wrist Lanyard

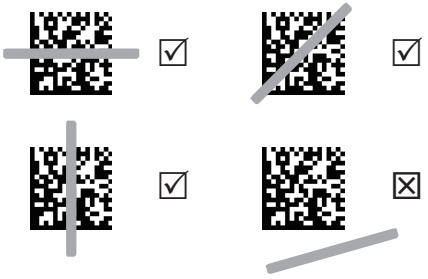
INTRODUCTION



SPECIFICATIONS

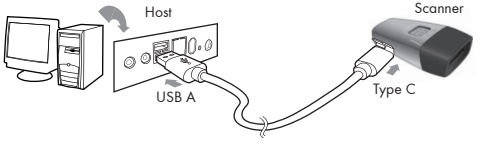
Sensor	640 x 480
Resolution	5mil (1D) / 10mil (2D)
Memory	2MB
Indicator	LED, Buzzer
PCS	30%
Housing	Plastic (PC+ABS)
Profile	BT HID, BT SPP
Battery Life	5000 scans
Charge Time	2 hours (fully charged)
Radio	Bluetooth 5.0 (Class2)
Coverage	20M/66ft. (line of sight)
Symbologies	All major 1D & 2D barcodes

GETTING STARTED



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

CHARGING THE BATTERY



1. Flip open the Type-C USB port on the scanner.
2. Insert the Type-C USB connector into the port on the scanner and USB A connector into a USB port on the host PC or a smartphone charger.

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)
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)
Four beeps (Hi-Lo-Hi-Lo)	Out of range/Poor connection
Five beeps	Low power
Several short beeps	The scanner switches from one communication mode to another

LED INDICATION

Off	Standby or Power off
Flashing Green	Disconnected or Discoverable
One Green Flash	Good Read
Flashing Red	Low power
Solid Red	Charging

INTERFACE

BT HID

BT SPP

Memory Mode

USB HID

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 7)
2. **BT SPP** - Emulates a **Bluetooth SPP device** that transmits each barcode data to the host after decode. (See page 7)
3. **Memory Mode** - Emulates a **USB mass storage device** that saves each barcode data during off-line data collection (See page 24)
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$ **Compatible iOS/Android/Windows platforms**

[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$

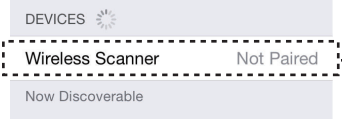
Disconnect

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

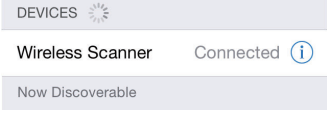
. E043$

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

ENABLE iOS HOTKEY

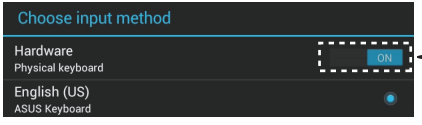
. E047$

After enabling iOS Hotkey(enabled 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 9 & 10.
3. Scan [Set Minute]
4. Scan [Set Second]
5. Scan [3] & [0] on page 9 & 10.
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 & USB-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

DEFAULT

ABORT

CHECK VERSION

BEEP MODE

NORMAL

MUTE

READING MODE

TRIGGER

AUTO-SENSING

CONTINUOUS

KEYBOARD LAYOUT

. C010$

ENGLISH (USA)

. C018$

ENGLISH (UK)

. C012$

FRENCH

. C011$

GERMAN

. C014$

ITALIAN

. C013$

SPANISH

. C009$

JAPAN (106 key)

. C025$

CANADIAN (FRENCH)

. C034$

CANADIAN (TRADITIONAL)

. C029$

NORWEGIAN

. C026$

SWEDISH

. C031$

PORTUGUESE

KEYBOARD LAYOUT

. C017$

CZECH
(QWERTY)

. C022$

CZECH
(QWERTZ)

. C021$

HUNGARIAN
(QWERTZ)

. C024$

HUNGARIAN
(101 KEY)

. C016$

SWISS
(GERMAN)

. C023$

SWISS
(FRENCH)

. C030$

BELGIAN
(AZERTY)

. C028$

DUTCH

. C027$

DANISH

. C032$

SLOVAK

. C033$

BRAZILIAN
(PORTUGUESE)

. C015$

ALT CODE

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

CR

LF

CR + LF

NONE

SPACE

TAB

MEMORY MODE

Memory Mode

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:

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.

. 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 9 & 10.
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 9 & 10.
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.

. R011$

DATA FORMAT

The default Data Format is <Date>, <Time>, <Barcode Data>
below are all items available for display and their codes:

Code	Item	Code	Item
2	Date	3	Time
4	Barcode Data	5	Quantity

Example:
To change Data Format to <Barcode Data>, <Quantity>, <Date>, <Time>
1. Scan [Data Format]
2. Scan [4], [5], [2], [3] on page 9.
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]

. 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 9.
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 9 & 10.
3. Scan [TimeFormat]

QUANTITY

ENABLE QUANTITY INPUT

When quantity input is enabled, the operation procedure under memory mode will be:

1. Scan [MEMORY MODE] (page 24)
2. Include <Quantity> in DATA FORMAT (page 26). For example, your data format is <Barcode Data>, <Quantity>.
3. Scan a desired barcode; it will be stored as <Barcode Data>.
4. Scan [SET QUANTITY] below.
5. Scan numeric barcodes (range: 1 - 99999) on page 9 &10 ; it will be stored as <Quantity>.
6. Scan [SET QUANTITY] again.
7. Scan [SAVE DATA] below.
8. Repeat Step 3 – 7 to until your task is completed.
9. Retrieve stored data (BARCODE.txt), as instructed on page 24.

SET QUANTITY

SAVE DATA

QUANTITY

DISABLE QUANTITY INPUT

When quantity input is disabled, the operation procedure under memory mode will be:

1. Scan [MEMORY MODE] (page 24)
2. Set DATA FORMAT (page 26) as appropriate. For example, your data format is <Barcode Data>, <Quantity>.
3. Scan a desired barcode; it will be stored as <Barcode Data>
4. Repeat Step 3 until your task is completed.
5. Retrieve stored data (BARCODE.txt), as instructed on page 24.

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