

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

MS912 WIRELESS BARCODE SCANNER

Quick Guide



Version 1.2

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 la classe B prescrites dans le Règlement sur le brouillage radioélectrique édicté par le 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 to Directive 2002/95/EC.

NON-MODIFICATION STATEMENT

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



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.
5. Insert or drop foreign materials or water into scanning window or vents.
6. Using the scanner while hand is wet or damp.



Do Not

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



Mini Wireless
Barcode Reader



Quick Guide



Quick Connection Card

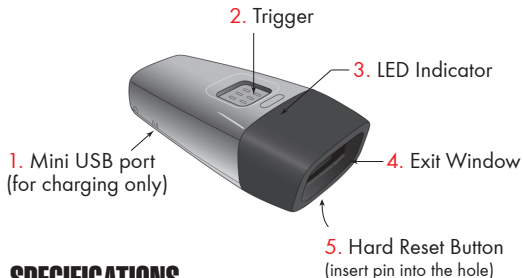


USB Charger Cable



Hand Strap

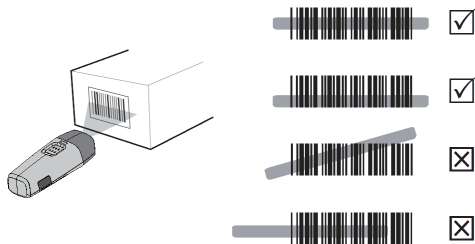
INTRODUCTION



SPECIFICATIONS

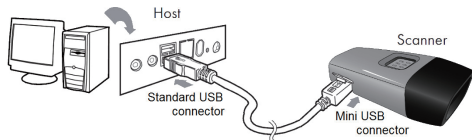
Light source	625nm visible red LED
Scan rate	240 scans/sec
Sensor	Linear CMOS sensor
Resolution	5mil/ 0.127mm
PCS	30%
Housing	Plastic(ABS)
Profile	SPP, HID
Battery Life	5000 scans (1 scan/ 5 sec)
Charge Time	2 hours (fully charged)
Coverage	10M/33ft. (line of sight)
Operating Temp	0 to 50 °C (32 °F to 122 °F)
Symbologies	All major 1D barcodes incl. GS1 Databar

GETTING STARTED



To scan a barcode, make sure the aiming beam crosses every bar and space of 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	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 Green	Disconnected or Discoverable
Green for 2 sec	Good Read
Flashing Red	Low power
Solid Red	Charging

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]**; the scanner will emit several beeps.
4. Select "Wireless Scanner" from discovered device list.
5. The Bluetooth application may prompt you to scan a pincode (see **PINCODE SETUP**  section) it generated.
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.
The default pincode is "1234".
5. Open serial communication software with com port (see Device Manager) 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



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 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

SMARTPHONE CONNECTION

Getting Connected - iOS & Android

Simply follow instruction in [BT mode - HID] (page 7), in which step 5 can be skipped since iOS & Android will not require pin-code for connection.

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

Please follow below steps to toggle Android virtual keyboard:

1. Enter "Settings"
2. Enter "Language & input"
3. In Keyboard & input window, tap "Default" to continue.
4. Turn off "Hardware - Physical keyboard", and the Touch Keyboard will function properly again.

INTERFACE SELECTION

. C035\$



WIRELESS

. C008\$



USB-HID

. C006\$



USB-VCP

The scanner's interface is Wireless by default. However, it can also be used as a tethered scanner by scanning above barcodes.

Function Support Matrix

Interface	Profile	Batch Mode	Memory Mode	Ez Utility
Wireless	BT HID	✓	✓	
	BT SPP	✓	✓	
USB-HID	N/A		✓	✓
USB-VCP	N/A		✓	✓

*Note: 1. Memory Mode is only supported by MS912-SUBB00-SG.

2. For Ez Utility(PC-based software utility), please go to www.ute.com to download or contact your local distributor.

GENERAL SETTINGS

. A001\$



DEFAULT

. P023\$



ABORT

. A007\$



CHECK
VERSION

BEEPER

. F012\$



BEEP OFF

. F018\$



BEEP ON

READING MODE

. F002\$



TRIGGER

. F003\$



TOGGLE

. F001\$



FLASH

. F005\$



CONTINUOUS

. F006\$



CONTINUOUS
AUTO OFF

TERMINATOR

. D012\$



CR

. D011\$



LF

. D013\$



CR + LF

. D010\$



NONE

. D015\$



SPACE

. D014\$



TAB

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)

BELGIAN
(AZERTY)

DUTCH

DANISH

SLOVAK

BRAZILIAN
(PORTUGUESE)

ALT CODE

. C030\$



. C028\$



. C027\$



. C032\$



. C033\$



. C015\$



ENABLE SYMBOLOGIES

. A002\$



ENABLE
ALL CODE

. K010\$



CODE 32

. L010\$



UK PLESSEY

. L001\$



MSI

. N001\$



INDUSTRIAL
2 OF 5

. M010\$



MATRIX
2 OF 5

CODE 93

. G010\$



IATA

. N017\$



TELEPEN

. L014\$



GS1 DATABAR

. N032\$



GS1 DATABAR
LIMITED

. N010\$



GS1 DATABAR
EXPANDED

. N026\$



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 = $54h \wedge 45h \wedge 53h \wedge 54h \wedge 0Dh \wedge 0Ah = 11h$

2. Bluetooth HID:

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

BCC = $54h \wedge 45h \wedge 53h \wedge 54h \wedge E7h = F1h$

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

BATCH MODE

Being out of range, the scanner will temporarily keep scanned data in its memory buffer(2K RAM) until the buffer is full. The scanner will send all stored data back to the host after getting in range.

*Note: Batch Mode will not function when Memory Mode is enabled, or no connection is made beforehand.

MEMORY MODE

The following pages only apply to the memory version mini wireless scanner, MS912M (P/N: MS912-5UBB00-SG), which can be easily distinguished by an "M" mark on the rear of the scanner.



MEMORY MODE

For memory version only

. R001\$



ENABLE MEMORY

. R002\$



DISABLE MEMORY

Once enabled, the scanner will stop sending data via Bluetooth and begin storing data into the internal flash disk (2MB)

Delete Last Record/ Clear All Record/ Output Data

. R005\$



DELETE LAST RECORD

. R004\$



CLEAR ALL RECORD

. R003\$



OUTPUT DATA

MEMORY MODE

For memory version only

Data Output - Interface

WIRELESS

. C035\$



USB-HID

. C008\$



USB-VCP

. C006\$



Data Output - Wireless Method

To output stored data via **WIRELESS**, please do the following:

1. Scan [**WIRELESS**]
2. Follow the steps on page 7 to connect to host via HID or SPP.
3. Scan [**ENABLE MEMORY**] and scan your desired barcodes.
4. To output data:

(1) in BT HID profile, simply scan [**OUTPUT DATA**]

(2) in BT SPP profile, simply scan [**OUTPUT DATA**] or send below string to the scanner:

CR,LF,{O,1,},CR,LF (Totals 8 bytes w/o commas)

to further clear all stored data, please send below string:

CR,LF,{O,2,},CR,LF (Totals 8 bytes w/o commas)

Data Output - Tethered Method

To output stored data via **USB-HID** please do the following:

1. Connect the scanner and the host with mini USB cable.
2. Scan [**USB-HID**] (page 26)
3. Scan [**ENABLE MEMORY**] (page 25) and scan your desired barcodes.
4. Open Notepad or any app that can accept HID keyboard input.
5. Scan [**OUTPUT DATA**] (page 25)

To output stored data via **USB-VCP**, please do the following:

1. Install VCP driver (available on www.ute.com)
2. Connect the scanner and the host with mini USB cable.
3. Scan [**USB-VCP**] (page 26)
4. Scan [**ENABLE MEMORY**] (page 25) and scan your desired barcodes.
5. Establish communication by Windows HyperTerminal or other serial communication softwares.
6. To output data:
 - (1) simply scan [**OUTPUT DATA**] (page 25)
 - (2) send below string to the scanner:
{**0,1**} (Totals 4 bytes w/o commas)
7. To further clear all stored data, please send below string:
{**0,2**} (Totals 4 bytes w/o commas)

To populate the stored data into Excel spreadsheet, please follow "CSV Converter Instruction" under "Utility" folder on www.ute.com

DATA FORMAT

The default Data Format is <Barcode Data> only
below are all elements available for display and their codes:

Code	Item	Code	Item
1	Item No.	4	Barcode Data
2	Date	5	Quantity
3	Time		

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]

FIELD SEPARATOR

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

Example: To change Field Separator to Semicolon (;)

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



DATE FORMAT

For memory version only

. 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]

TIME FORMAT

For memory version only

. 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]

DATE & TIME SETUP

For memory version only

. R006\$



SET DATE

Example: To set Date to 2012-08-01 (Year-Month-Day):

1. Scan [Set Date]
2. Scan [1], [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 running low on battery, please fully charge the scanner for at least 3 hours before use.

QUANTITY

For memory version only

. R017\$



ENABLE QUANTITY INPUT

Once you enable quantity input, the operation procedure under memory mode will be as follows:

1. Scan [ENABLE MEMORY] (page 25)
2. Set DATA FORMAT (page 28) as appropriate. For example, your data format is <Barcode Data>, <Quantity>.
3. Scan a random barcode; it will be stored as <Barcode Data>.
4. Scan [SET QUANTITY]
5. Scan the numeric barcodes on page 9 & 10 as desired (ranges from 1 to 99999); it will be stored as <Quantity>.
6. Scan [SAVE DATA]
7. Repeat Step 3 - 6 to complete your task.
8. Output memory data (refer to **Data Output** section on page 26 & 27)

. R015\$



SET QUANTITY

. R016\$



SAVE DATA

. R018\$



DISABLE QUANTITY INPUT

Once quantity input is disabled, the operation procedure under memory mode will be as follows:

1. Scan [ENABLE MEMORY] (page 25)
2. Set DATA FORMAT (page 28) as appropriate. For example, your data format is <Barcode Data>, <Quantity>.
3. Scan a random barcode; it will be stored as <Barcode Data>
4. Repeat Step 3 to complete your task.
5. Output memory data (refer to **Data Output** section on page 26 & 27) and the result will be:

<Barcode Data 1>, 00001
<Barcode Data 2>, 00001
<Barcode Data 3>, 00001

.....

.....

*By default, <Quantity> = 00001. To remove <Quantity> from the data format, simply repeat Step 2 and set <Barcode Data> only.

Code 39



CODE-39 TEST

Interleaved 2 of 5



9876543210

Code 128



12345678

EAN



4 716415 942052