WIRELESS RING.

BARCODE SCANNER

Quick Guide



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

Wireless Ring Barcode Scanner Quick Guide (Rev2) P/N: 8012-0066001

#### **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 equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. End users must follow the specific operating instructions for satisfying RF exposure compliance. To maintain compliance with FCC exposure compliance requirement, please follow operation instruction as documented in this manual. Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment. 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. This device and its antenna(s) must not be co-located or operating in conjunction with any other antenna or transmitter.

#### **LASER DEVICES**

Complies with 21CFR1040.10 and 1040.11 except for deviations pursuant to Laser Notice No. 50, dated June 24, 2007.

EN60825-1: 2007 IEC60825-1 (Ed. 2.0) Model name: MS 650
Brand name: United
Laser Models APCD-650-07-XX-05

**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.

- Put the scanner in places excessively high temperatures such as expose under direct sunlight.
- 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.

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### INTRODUCTION



# **SPECIFICATIONS**

Sensor Linear Image Sensor

Resolution 4mil/ 0.1mm Indicator LED, Buzzer

**PCS** 30%

Plastic(PC+ABS) Housing

**Profile** BT HID, USB HID, USB VCP, Memory

Battery Life 6000 scans (1 scan/ 5 sec) Charge Time 2.5 hours (fully charged) Radio Bluetooth 4.1 (Class2) 10M/33ft. (line of sight) Coverage

Symbologies All major 1D barcodes incl. GS1 Databar

## **BEEPER INDICATION**

Single beep

Single short beep

ASCII in configuration procedure

Two beeps

i. Wireless connection

ii. The scanner successfully reads

Good read

a configuration barcode

Three beeps Three short beeps Wireless disconnection

i. The scanner reads a barcode while disconnected.

The scanner reads a Code39 of

ii. The scanner reads an unexpected barcode during configuration procedure. (scan [ABORT] to abort and start over)

iii. Memory Full

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

Out of range/Poor connection

Low power

## **LED INDICATION**

Off Flashing Blue One Green Flash Flashing Red Solid Red

Standby or Power off

Disconnected or Discoverable

Good Read Low power Charging

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# **OUT OF THE BOX**

Wireless Ring Barcode Scanner



**USB Charger Cable** 



Quick Guide

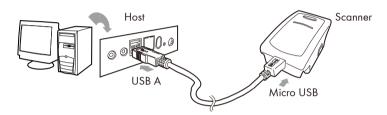


Laser Brightness Configuration Card



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# **CHARGING THE BATTERY**



- Flip open the micro USB port on the scanner.
   Insert the micro USB connector into the port on the scanner and USB A connector into a USB port on the host PC.
- 3. Keep charging until the red LED indicator turns off.

# **STEP 1 - GETTING STARTED**

1. Pull open the long end and insert your index finger through the loop.



2. Adjust and attach the long end for a comfortable fit.



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3. Clench your fist and use your thumb to tap the touch-activated trigger button. A gentle touch on the button will work; there is no need to press with force.



4. Aim at the barcode you wish to scan.



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- 1. If either your hand or the Velcro strap is soaking wet, the Laser beam may automatically light up without touch trigger. The scanner can still work well in this condition but it will waste battery power, so it is recommended to dry both your hand and the Velcro strap.
- 2. The following gloves have been tested to be working with the touch-activated button: latex examination glove, antistatic glove, white cotton glove (with or without latex coating), safety glove, and rubber glove. However, it is still recommended to operate with bare hand or thin glove to ensure the responsiveness of button.
- 3. Don't need to tighten Velcro strap too much. Just make the strap fit your finger so that the scanner will not easily move while being touched for trigger. We also suggest to release the strap from your finger for 1 minute after 2 hours of continuous use if your finger feels uncomfortable.

## STEP 2 - BUTTON PREFERENCE

Scan one of below configuration barcodes to determine which touch-sensing button to enable according to your habit:







Right Button Only

[ For Left-handed User ]

Left Button Only

[ For Right-handed User ]

**Both Buttons** 

## **STEP 3 - INTERFACE SELECTION**

Scan one of below configuration barcodes to determine your interface:

**BT HID** 

[ Recommended ]

**USB HID** 

**USB VCP** 

**Memory Mode** 









- 1. BT HID Emulates a Bluetooth HID keyboard that transmits barcode data to the host. (see page 11 - 12)
- 2. USB HID Emulates a USB keyboard that transmits barcode data to the host.
- 3. USB VCP Emulates a USB virtual com device that transmits barcode data to the host.
- 4. Memory Emulates a USB mass storage device that saves barcodes collected off-line. (see page 24 - 28)

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# BT - HID . GETTING CONNECTED

 Scan [Disconnect] to delete previous pairing record. Alternatively, you may long-press the function button for 5 seconds until the the scanner emit two beeps.



**Disconnect** 

2. Scan [BT - HID]; the scanner will emit two beeps.



BT - HID

3. Scan either one of below barcodes according to your host system.

F068\$



iOS/MAC/WINDOWS



**ANDROID** 

- Select "Scanner XXXXXX" on the discovered device list of your Bluetooth. ("XXXXXX" are the last 6 digits of MAC address which can also be found on the product label)
- 5. The scanner will emit two beeps to verify the connection.

# BT - HID . SMARTPHONE/TABLET TOUCH KEYBOARD

Please follow below instruction to toggle touch keyboard on smartphone/tablet.

## iOS

To toggle iOS touch keyboard, please simply press the function button.



Function Button

### **Android**

- 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.

# BT - HID . POWER OFF TIMEOUT

The period of inactivity before auto power-off.

# **Variable Timeout**

. BO30\$



BU20#



**SET MINUTE** 

(Range: 00 ~ 60)

**SET SECOND** 

(Range: 00 ~ 60)

The default timeout is 00 minute and 30 seconds. For example, to set the timeout as 5 minutes 30 seconds:

- 1. Scan [Set Minute]
- 2. Scan [0] & [5] on page 14.
- 3. Scan [Set Minute]
- 4. Scan [Set Second]
- 5. Scan [3] & [0] on page 14.
- 6. Scan [Set Second]

# No Timeout (Scanner Always On)

BO21\$



DISABLE TIMEOUT

Warning! This will cause the battery to drain quickly.

# **NUMERIC BARCODES**



1

6





2

7





3













5



# **GENERAL SETTINGS**



**DEFAULT** 



**ABORT** 



CHECK VERSION

# **BEEPER**



**BEEP ON** 



**BEEP OFF** 

# **ILLUMINATION PREFERENCE**

<u>LASER ALWAYS ON</u> LED ON AFTER 1 SEC



Laser Always on Led Auto-Adaptive



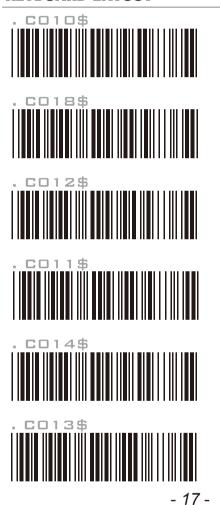
LASER ALWAYS ON LED ALWAYS ON



LASER OFF LED ALWAYS ON



# **KEYBOARD LAYOUT**



C009\$ **JAPAN ENGLISH** (106 key) (USA) **ENGLISH CANADIAN** (FRENCH) (UK) **CANADIAN FRENCH** (TRADITIONAL) **NORWEGIAN GERMAN ITALIAN SWEDISH SPANISH PORTUGUESE** 

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# **KEYBOARD LAYOUT**













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CZECH (QWERTY)

CZECH (QWERTZ)

HUNGARIAN (QWERTZ)

HUNGARIAN (101 KEY)

SWISS (GERMAN)

SWISS (FRENCH) BELGIAN (AZERTY)

DUTCH

DANISH

SLOVAK

BRAZILIAN (PORTUGUESE)

ALT CODE

. co30\$

. CO28\$



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# **ENABLE SYMBOLOGIES**









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ENABLE ALL CODE

CODE 32

**UK PLESSEY** 

MSI

INDUSTRIAL 2 OF 5

MATRIX 2 OF 5 CODE 93

**IATA** 

**TELEPEN** 

GS1 DATABAR

G\$1 DATABAR LIMITED

GS1 DATABAR EXPANDED











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## **TERMINATOR**







LF



CR + LF



NONE



SPACE



**TAB** 

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## 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. Alternatively, you may press the function button once.

### **DELETE LAST DATA**



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

## MEMORY MODE DATE & TIME SETUP

. ROO6\$

**SET DATE** 

Example: To set Date to 2017-08-01 (Year-Month-Day):

- 1. Scan [Set Date]
- 2. Scan [1], [7], [0], [8], [0], [1] on page 14.
- 3. Scan [Set Date]



SFT 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 14.
- 3. Scan [Set Time]
- \* Full drain of battery may cause the Time and Date to stop. To avoid this, please, please fully charge the scanner for at least 1 hour before use.

# MEMORY MODE DATA FORMAT

**DATA FORMAT** 



The default Data Format is <Date>, <Time>, <Barcode Data> only below are all items available for display and their 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 14.
- 3. Scan [Data Format]

FIELD SEPARATOR (DELIMITER)



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]

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# MEMORY MODE DATE FORMAT



**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
80	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 14.
- 3. Scan [Date Format]

# MEMORY MODE TIME FORMAT

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 14
- 3. Scan [Time Format]

# **HOW TO REMOVE VELCRO STRAP**

1. Pull open the long end.



2. Pull out the long end through the slot.



3. Pull open the short end on the other side.



4. Remove the whole Velcro strap from the scanner by pulling the long end.



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# **HOW TO INSTALL VELCRO STRAP**

1. Insert the short end through the slot, with Velcro side facing upwards.



2. Attach the short end to the long end to close.



3. Insert the long end through the other slot, with Velcro side facing upwards.



4. Attach the long end to itself to close.



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## **TEST BARCODES**

#### Code 39



CODE-39 TEST

Interleaved 2 of 5



9876543210

**Code 128** 



12345678

**EAN** 



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## TROUBLESHOOTING

### Q: Your Bluetooth is unable to detect the scanner.

- A: (1) Make sure your Bluetooth is 4.0 or later version that supports BLE.
  - (2) Restart your Bluetooth or Host device and try again, following the instruction on page 11.
  - (3) Make sure the scanner is in BT-HID mode (see page 10). If the scanner is discoverable, its LED indicator will be flashing Blue.
  - (4) The scanner might be powered off. By default the scanner goes to sleep after 30 seconds of inactivity. You can re-activate the scanner by touching the scan button on both sides. Alternatively, you may also increase the power off timeout (see page 13) so that the scanner will stay awake longer.

# Q: Your Bluetooth can detect the scanner, but it cannot pair with the scanner successfully.

- A: (1) Make sure your Bluetooth is 4.0 or later version that supports BLE.
  - (2) Restart your Bluetooth or Host device and try again, following the instruction on page 11.
  - (3) Make sure to remove the scanner from the Bluetooth of host device that has previously paired with the scanner.
  - (4) Follow the instruction on page 11 and try again.

#### Q: The scanner does not read barcode instantly.

- A: (1) Barcode print quality is too poor.
  - (2) The ambient light is too weak. If that's the case, configure the LED illumination to auto-adaptive or always on (see page 16)

### Q: The scanner does not output barcode data as expected.

A: (1) The keyboard layout of scanner does not match that of your host device. Try configuring keyboard layout on page 17 - 20.