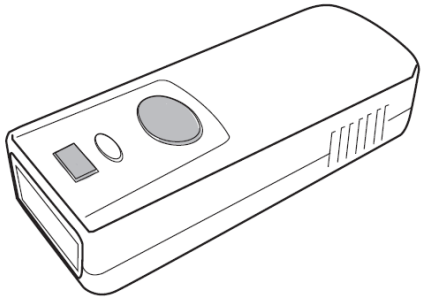
Wireless 2D scanner

- MS925HC -



User's Manual

Version 1.2

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Change Log.

Date	Change Description	Version
2019/10/29	first published version	1.0
20200409	Renew the product name from MS925 to MS925HC	1.1
20200619	Add “SCANLINK ”	1.2

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About This Manual

Thank you for purchasing the unitech product.
This manual explains how to install, operate and maintain our product.
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Regulatory Compliance Statements

FCC Warning Statements

This device 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 with radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference with radio or television reception,

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which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more 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.

1. This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.
2. This device complies with FCC RF radiation exposure limits set forth for an uncontrolled environment. To maintain compliance with FCC RF exposure requirements, avoid direct contact to the transmitting antenna during transmitting.
3. Any changes or modifications (including the antennas) made to this device that are not expressly approved by the manufacturer may void the user's authority to operate the equipment.

Operation on the 5.15 - 5.25GHz frequency band is restricted to indoor use only. The FCC requires indoor use for the 5.15-5.25GHz band to reduce the potential for harmful interference to co-channel Mobile Satellite Systems. Therefore, it will only transmit on the 5.25-5.35 GHz, 5.47-5.725 GHz and 5.725–5.850 GHz band when associated with an access point (AP).

FCC Label Statement

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.

RF Radiation Exposure Statement

For body contact during operation, this device has been tested and meets FCC RF exposure guidelines when used with an accessory that contains no metal

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and that positions the handset a minimum of 1.5 cm from the body.
Use of other accessories may not ensure compliance with FCC RF exposure guidelines.

Canadian Compliance Statement

This Class B Digital apparatus meets all requirements of the Canadian Interference-Causing Equipment Regulations.

Cet appareil numerique de la classe B respecte les exigences du Reglement sur le material broilleur du Canada.

European Conformity Statement

unitech Electronics co., Ltd herewith declares that the unitech product is in compliance with the essential requirements and all other provisions of the RED 2014/53/EU directive, the EMC 2014/30/EU directive and the Low Voltage 2014/35/EU directive.
The declaration of conformity is available for download at :
https://portal.unitech.eu/public/Safetyregulatorystatement

CE RF Exposure Compliance

This device meets EU requirements (2014/53/EU) on the limitation of exposure of the general public to electromagnetic fields by way of health protection.
For body-worn operation, this device has been tested and meets the ICNIRP guidelines and the European Standard EN 62209-2, for use with dedicated accessories, SAR is measured with this device at a separation of 0.5 cm to the body, while transmitting at the highest certified output power level in all frequency bands of this device. Use of other accessories which contain metals may not ensure compliance with ICNIRP exposure guidelines.

CE Mark Warning

CE

This equipment complies with the requirements of Directive 2014/53/EU of the European Parliament and Commission from 24 May, 2014 governing Radio

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and Telecommunications Equipment and mutual recognition of conformity.

RoHS Statement

This device conforms to RoHS (Restriction of Hazardous Substances) European Union regulations that set maximum concentration limits on hazardous materials used in electrical and electronic equipment.

Waste electrical and electronic equipment (WEEE)

unitech has set up a policy and process to meet the EU directive 2002/96/EC and update 2003/108/EC concerning electronic waste disposal.

For more detailed information of the electronic waste disposal of the products you have purchased from unitech directly or via unitech's resellers, you shall either contact your local supplier or visit us at : https://portal.unitech.eu/public/WEEE

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Taiwan NCC Warning Statement

低功率電波輻射性電機管理辦法

第十二條：經型式認證合格之低功率射頻電機，非經許可，公司、商號或使用者均不得擅自變更頻率、加大功率或變更原設計之特性及功能。

第十四條：低功率射頻電機之使用不得影響飛航安全及干擾合法通信；經發現有干擾現象時，應立即停用，並改善至無干擾時方得繼續使用。
前項合法通信，指依電信法規定作業之無線電通信。

低功率射頻電機需忍受合法通信或工業、科學及醫療用電波輻射性電機設備之干擾。

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Laser Information

The unitech product is certified in the U.S. to conform to the requirements of DHHS/CDRH 21CFR Subchapter J and to the requirements of IEC 825-1. Class II and Class 2 products are not considered to be hazardous. The unitech product contains internally a Visible Laser Diode (VLD) whose emissions do not exceed the maximum limits as set forth in the above regulations. The scanner is designed so that there is no human access to harmful laser light during normal operation, user maintenance or prescribed service operations.

The laser safety warning label required by the DHHS/IEC for the unitech product's optional laser scanner module is located on the memory compartment cover, on the back of the unit.

* Laser information only applies to the products with laser components.

CAUTION! Use of controls or adjustments or performance of procedures other than those specified herein may result in hazardous laser light. Use of optical instruments with the scanner, including binoculars, microscopes, and magnifying glasses, with will increase eye damage. This does not include eyeglasses worn by the user.

LED Information

The unitech product contains LED indicator(s) or LED ring whose luminance is not harmful to human eyes during normal operation, user maintenance or prescribed service operations.

*LED information only applies to the products with LED components.

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Battery Notice

1. To guarantee optimal performance, it is recommended that rechargeable batteries be replaced every year, or after 500 charging cycles are completed. It is normal for the battery to balloon or expand after one year or 500 cycles. Although it does not cause damage, it cannot be used again and must be disposed of according to the location's safe battery disposal procedures.
2. If a battery performance decreases more than 20%, the battery is at the end of its life cycle. Stop use and ensure the battery is disposed of properly.
3. The length of time that a battery lasts depends on the battery type and how the device is used. Conserve the battery life by doing the following:
   - Avoid fully uncharging the battery because this places additional strain on it. Several partial uncharges with frequent charges are better than a fully uncharged battery. Charging a partially charged battery does not cause harm to the unit.
   - Keep the battery cool. Avoid hot vehicles. For prolonged storage, keep the battery at a 40% charge level.
   - Do not leave the battery uncharged and unused for an extended period of time, the battery will wear out and the longevity of the battery will be at least half of one with frequent charges.
4. Protect battery life by not over or under charging the battery.
5. Please do not leave battery unused for long time without charging it. Despite unitech’s safety precautions, the battery pack may begin to change shape. If so, stop using it immediately. Please check to see if you are using a proper power adapter to charge the battery or contact your service provider for service.
6. If you cannot charge the battery after it has been idle for an extended period of time and it begins to heat up, please do not try to charge it. It may not be functional anymore.
7. Please only use the original battery from unitech. Using a third party battery can damage our products. Please note that when such damage occurs, it is not covered by unitech’s warranty policy

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CAUTION!

- RISK OF EXPLOSION IF BATTERY IS REPLACED INCORRECTLY.
  DISPOSE OF USED BATTERIES ACCORDING TO THE INSTRUCTIONS..
- 如果更換不正確之電池行事會有爆炸的風險
  請依製造商說明書處理用過之電池
- 如果更换不正确之电池行事会有爆炸的风险
  请依制造商说明书处理用过之电池

Battery charge notice

It is important to consider temperature when the battery pack is charging. Charging is most efficient at normal room temperature or in a slightly cooler environment. It is essential that batteries are charged within the stated range of 0˚C to 40˚C. Charging batteries outside of the specified range could damage the batteries and shorten their life cycle.

CAUTION! Do not charge batteries at a temperature lower than 0˚C. This will and make the batteries unstable and dangerous. Please use a battery temperature detecting device for a charger to ensure a safe charging temperature range.

CAUTION! To ensure the unit working properly, please keep all connectors away from the contaminants staying inside of them such as dust, grease, mud, and water. The negligence may cause the unit with no communication, short circuited, overheated and so on.

CAUTION! If the connector is damaged, please ensure the connector is being fully repaired before using the unit to avoid causing short circuited.

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Storage and safety notice

Although charged batteries may be left unused for several months, their capacity may be depleted due to build up of internal resistance. If this happens, they will require recharging prior to use. Batteries may be stored at temperatures between -20°C to 60°C, however they may deplete more rapidly at higher temperatures. It is recommended to store batteries at room temperature.

** The message above only applies to the usage of the removable batteries. For the products with non-removable batteries / without batteries, please refer to the specification of each product.*

Product Operation and Storage Notice

The unitech product has applicable operation and storage temperature conditions. Please follow the limitation of suggested temperature conditions to avoid failure, damage or malfunction.

**For applicable temperature conditions, please refer to the specification of each product.*

Adapter Notice

1. Please do not leave the power adapter in the socket when it is not connected to your unitech product for charging.
2. Please remove the power adapter when the battery is fully recharged.
3. The bundled power adapter that comes with your unitech product is not meant to be used outdoors. An adapter exposed to water or rain, or a very humid environment can cause damage to both the adapter and the product.
4. Please only use the bundled power adapter or same specification of adapter to charge your unitech product. Using the wrong power adapter can damage your unitech product.

** The message above only applies to the product connected to the adapter. For the products without using the adapters, please refer to the specification of each product.*

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Hearing Damage Warning

Zx.3 Warning

The warning shall be placed on the equipment, or on the packaging, or in the instruction manual and shall consist of the following:

- the symbol of Figure 1 with a minimum height of 5 mm; and
- the following wording, or similar :

To prevent possible hearing damage, do not listen at high volume levels for long periods.

Figure 1 – Warning label (IEC 60417-6044)

Alternatively, the entire warning may be given through the equipment display during use, when the user is asked to acknowledge activation of the higher level.

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Worldwide Support

unitech's professional support team is available to quickly answer questions or assist with technical-related issues. Should an equipment problem occur, please contact the nearest unitech regional service representative.
For complete contact information please visit the Web sites listed below:

Taipei, Taiwan – Headquarters	Europe
Tel: +886-2-89121122 **E-mail:** info@hq.ute.com **Address:** 5F, No. 136, Lane 235, Baoqiao Road, Xindian District, New Taipei City 231, Taiwan (R.O.C.) **Website:** http://www.ute.com	**Tel:** +31-13-4609292 **E-mail:** info@eu.ute.com **Address:** Kapitein Hatterasstraat 19, 5015 BB, Tilburg, the Netherlands **Website:** http://eu.ute.com
China	**Japan**
Tel: +86-59-2310-9966 **E-mail:** info@cn.ute.com **Address:** Room401C, 4F, RIHUA International Mansion, Xinfeng 3nd Road, Huoju Hi-tech District, Xiamen, Fujan , China **Website:** http://cn.ute.com	**Tel:** +81-3-35232766 **E-mail:** info@jp.ute.com **Address:** Kayabacho Nagaoka Building 8F.,1-5-19 Shinkawa, Chuo-Ku, Tokyo, 104-0033, Japan **Website:** http://jp.ute.com
Asia & Pacific / Middle East	**Latin America**
Tel: +886-2-27911556 **E-mail:** info@apac.ute.com info@india.ute.com info@mideast.ute.com **Address:** 4F., No. 236, ShinHu 2nd Rd., NeiHu Chiu, 114, Taipei,Taiwan **Website:** http://apac.ute.com / http://mideast.ute.com	**Tel:** +52-55-5171-0528 **E-mail:** info@latin.ute.com **Address:** 17171 Park Row, Suite 210 Houston, TX 77084USA (Rep.) **Website:** http://latin.ute.com
North America	**Please scan QR Code to visit us :**
Tel: +1-714-8916400 **E-mail:** info@us.ute.com / info@can.ute.com **Address:** 6182 Katella Ave, Cypress, CA 90630, USA **Website:** http://us.ute.com	

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Warranty Policy

The items covered under the unitech Limited Warranty are free from defects during normal use.

The warranty period is varied from each country. Please consult with your supplier or unitech local office for actual length of warranty period to your purchased product.

Warranty becomes void if equipment is modified, improperly installed or used, damaged by accident or neglect, or if any parts are improperly installed or replaced by the user.

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Table of Contents

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Chapter 1 - Overview

1.1 Package

Please make sure the following contents are in the MS925HC gift box.
If something is missing or damaged, please contact your unitech representative.

The standard package contents:

- MS925HC 2D Mini Wireless Barcode Scanner
- Quick Start Guide
- Regulatory Compliance Statements
- USB Charging Cable
- Neck Strap

The barcode with an asterisk (*) which appears in the following chapters indicates that it is the default option for the corresponding setting.

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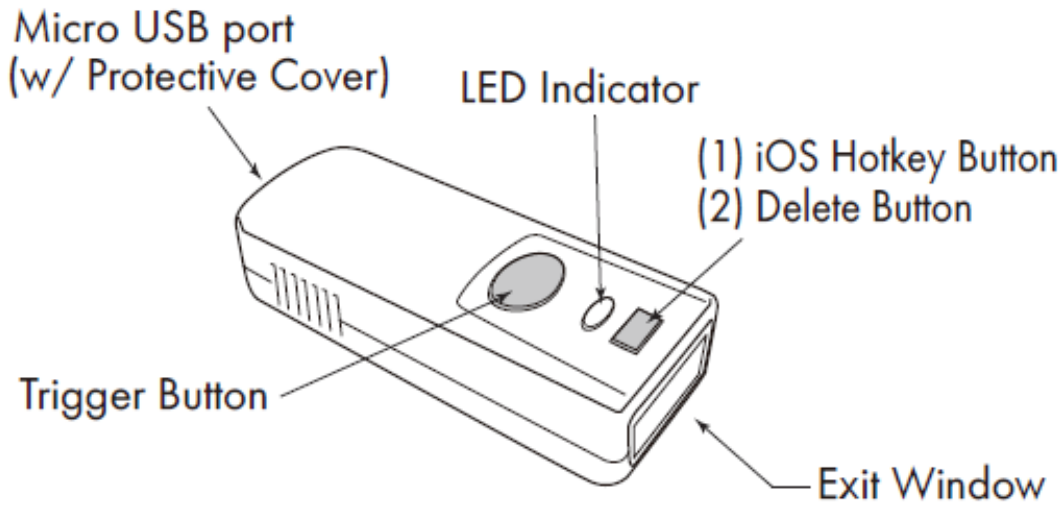
1.2 Scanner Detail



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1.3 Specifications

Sensor	Area Image Sensor
Max. Resolution	4mil/ 0.1mm (1D); 8mil/ 0.2mm (2D)
Memory	2MB
Indicator	LED, Buzzer
PCS	30%
Housing	Plastic (PC+ABS)
Profile	SPP, HID
Battery Life	4200 scans
Charge Time	2 hours (fully charged)
Radio	Bluetooth 2.1 + EDR (Class2)
Coverage	10M/33ft. (line of sight)
Symbologies	All major 1D & 2D barcodes

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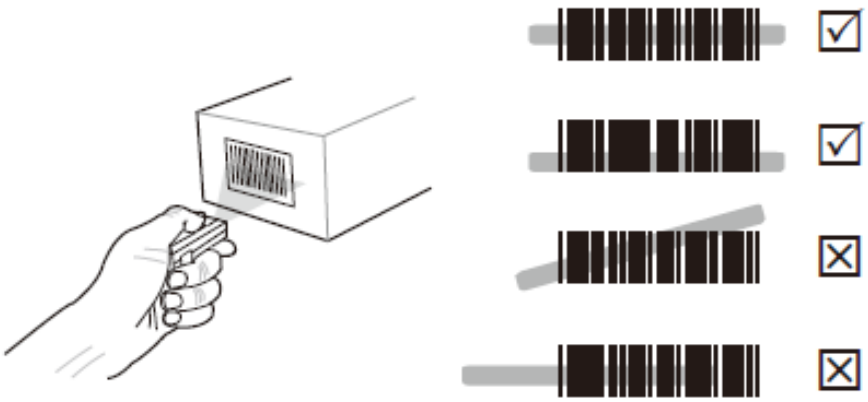
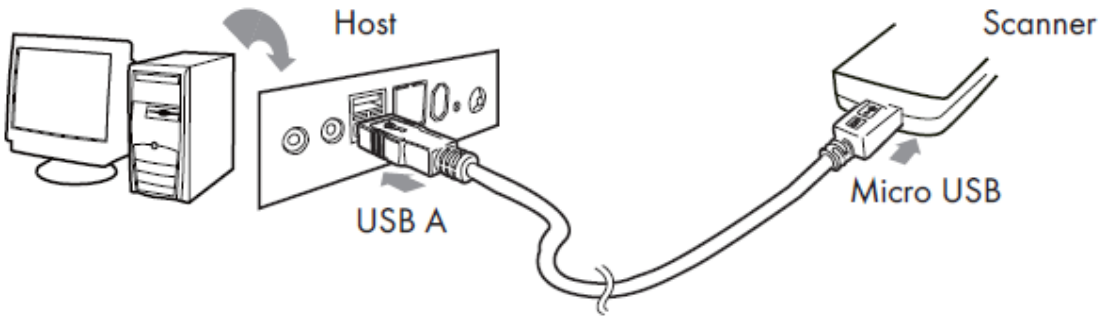
1.4 Getting Started



To scan a barcode, make sure the aiming beam crosses every bar and space of the barcode.

1.5 Battery Charging



1. Flip and 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.

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1.6 Beeper / LED Indicator

■ Beeper Indicator

Single long beep	Power up
Single beep	Good read
Single short beep	The scanner reads a Code39 of ASCII in configuration procedure.
Two beeps	● Wireless connection
	● 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	● The scanner reads a barcodes while disconnected.
	● The scanner reads an unexpected barcode during configuration procedure. (scan **[ABORT]** to abort and start over)

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■ LED Indicator

Off	Standby or Power off
Flashing Green	Disconnected or Discoverable
Green for 2 sec	Good Read
Flashing Red	Low power
Solid Red	Charging

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Chapter 2 - Installation

2.1 Interface

2.1.1 BT HID

Emulates a **Bluetooth® HID keyboard** that transmits each barcode data to the host after decode.

BT HID

2.1.2 BT SPP

Emulates a **Bluetooth® SPP device** that transmits each barcode data in serial communication to the host after decode.

BT SPP

2.1.3 USB HID

Emulates a **USB keyboard** that transmits each barcode data to the host after decode.

USB HID

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2.1.4 USB VCP

Emulates a **USB virtual com device** that transmit each barcode data to the host after decode.

USB VCP

2.1.5 Memory Mode

Emulates a **USB mass storage device** that saves each barcode data during off-line data collection.

Memory Mode

Function Support Matrix

Mode	Interface	On-line Operation	Off-line Operation	Ez Utility
Wireless	BT HID	✓		
	BT SPP	✓		
Tethered	Memory		✓	
	USB HID	✓		✓
	USB VCP	✓		✓

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2.2 Bluetooth® Profile

2.2.1 BT HID (Recommended)

1. Press the trigger for 1 second to activate the scanner.
2. Scan **[DISCONNECT]**

Disconnect

3. Scan **[BT HID]**; the scanner will emit several beeps.
4. Select "Wireless Scanner" from discovered device list.
   (For PC, please click "Create a pairing code for me")
5. If Bluetooth application prompt you to enter a pincode, please follow the steps in **PINCODE SETUP** section.
6. The scanner will beep twice to verify the connection.

BT HID

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2.2.2 BT SPP

1. Press the trigger for 1 second to activate the scanner.
2. Scan **[DISCONNECT]**

Disconnect

3. Scan **[BT SPP]**; the scanner will emit several beeps.
4. Select "Wireless Scanner" from discovered device list.
   (For PC, please click "Enter the device's pairing code")
5. If Bluetooth application prompt your to enter a pincode, enter "1234" from the host.
6. Open serial communication software with com port
   (see Device Manager) properly set up.
7. The scanner will beep twice to verify the connection.

BT SPP

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2.3 Pincode Setup

2.3.1 Pincode Setup

Step 1 :

Pincode Start

Step 2 :

Scan numeric barcodes (see NUMERIC BARCODES below) based on the pincode generated by the Bluetooth® application.

1

2

3

4

5

6

7

8

9

0

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Step 3 :

Enter

Step 4 :

Pincode Stop

2.4 Getting connected, Touch keyboard

2.4.1 Getting Connected – iOS & Android

1. Press the trigger for 1 second to power up the scanner.
2. Scan **[DISCONNECT]** to clear last pairing record.

Disconnect

3. Scan below configuration barcode; the scanner will emit several beeps.

BT HID

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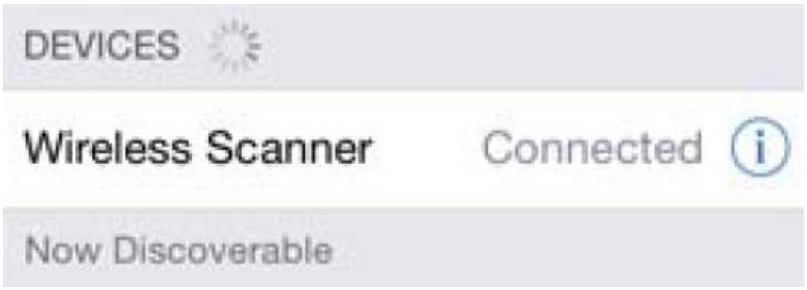
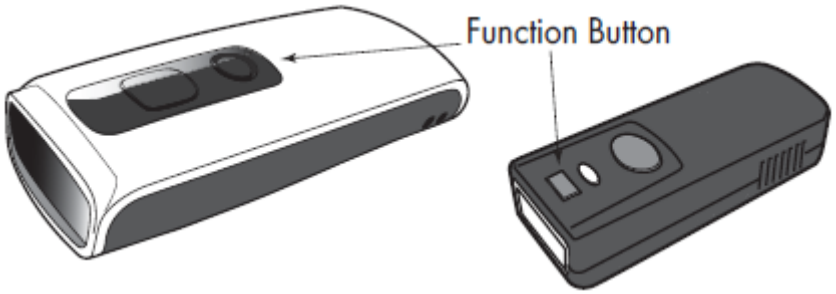
5. Select "Wireless Scanner" from discovered device list.

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



2.4.2 Touch Keyboard – iOS

While connected with the scanner, the Touch Keyboard on the iOS device might disappear. To resolve this issue, please simply press the function button to toggle iOS Touch Keyboard.



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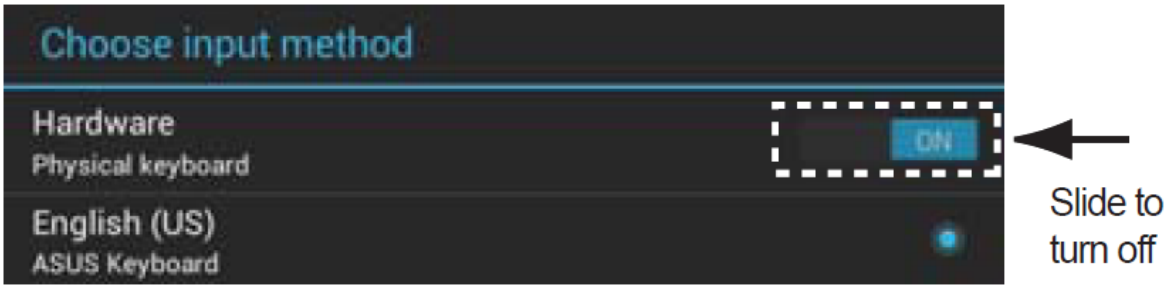
2.4.3 Touch Keyboard – Android

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.



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2.5 Scanlink

ScanLink is a connection method that turns the scanner into a master device, which initiates the Bluetooth connection with the target host device (now a slave device). This, as a result, saves user the trouble of going through numerous setup procedures on the host device to establish connection.

2.5.1 CANLINK via Bluetooth HID/SPP Profile

First, please generate one ScanLink barcode for the target slave device in below methods:
1. The barcode must be Code 39 with no checksum
2. Barcode data format: HID(or SPP) + device's MAC address

For example, the target slave device's MAC address is 001583522C3B.

Please encode:
HID001583522C3B in Code39 barcode. or
SPP001583522C3B in Code39 barcode.

Now, you may establish Bluetooth conneciton with only one scan on the ScanLink barcode.

*Note: Please check the your host device's compati- bility before using ScanLink function via either of the profiles.

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2.6 Power Off Timeout

2.6.1 Variable Timeout

The timeout is 3 minutes and 0 second by default, and is programmable from minimum of 10 seconds (00:10) to maximum of 60minutes and 60 seconds (60:60)

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

1. Scan [Set Minute]
2. Scan [0] & [5] on below numeric barcode table.
3. Scan [Set Minute]
4. Scan [Set Second]
5. Scan [3] & [0] on below numeric barcode table.
6. Scan [Set Second]

Set Minute
(Default: 03 MIN)

Set Second
(Range: 00 SEC)

Disable Time out
(Scanner always On)

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2.6.2 Numeric Barcodes

1 2 3 4 5

6 7 8 9 0

2.7 Set Bluetooth® device ID

2.7.1 Set Bluetooth® device ID

To customize your own Bluetooth device name for the wireless scanner, please follow below steps:

Step 1 :

Default Wireless ID

Step 2 :

Set Wireless ID

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Step 3 :

Scan up to 16 alphanumeric characters from Full ASCII Table as your desired Device ID.

Step 4 :

Set Wireless ID

Step 5 :

Scan a desired BT mode in **BLUETOOTH PROFILE** to complete the configuration.

Note:

1. If you have connected the scanner with the host BEFORE customizing your Bluetooth device name, please remove the device and create a new connection to make sure device name is refreshed. For PC, it is recommended to restart the Bluetooth® adaptor in order to refresh device name.
2. At Step 3, the scanner will beep three times as an alert that more than 16 characters are entered.
3. To reset the Bluetooth device name to default (”Wireless Scanner”), please simply do Step1 & Step 5, skipping Step 2 to Step 4.

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2.8 Set SPP Pincode

2.8.1 Set SPP Pincode

By default, the pincode under SPP profile for the scanner is "1234". You may customize this pincode with below steps:

Step 1 :

Set SPP Pincode

Step 2 :

Scan numeric barcodes (see NUMERIC BARCODES below)

Up to 8 numbers can be set as SPP Pincode.

Numeric Barcodes

1 **2** **3** **4** **5**

6 **7** **8** **9** **0**

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Step 3 :

Set SPP Pincode

Step 4 :

Scan a desired BT mode in BLUETOOTH® PROFILE to complete the configuration.

2.9 Batch Mode, Binary check character

2.9.1 Batch Mode

Enable

Disable *

When out of range, the scanner will temporarily keep scanned data in its memory buffer (4K RAM) until the buffer is full. When back in range, the scanner will send all stored data back to the host.

Note:

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

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2.9.2 Binary Check Character

Enable

Disable *

Once enabled, a checksum will be added to the end of each data to conduct X or 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

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2.10 Memory Mode, Delete Record

2.10.1 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 exit Memory Mode, simply scan any interface barcode in INTERFACE other than Memory Mode.

2.10.2 Delete Last Record

Delete Last Record

To delete ONE stored data, please scan below barcode or press function button.

Clear All Record –

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

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2.11 Data Format, Date & Time Setup

2.11.1 Data Format

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

Code	Item	Code	Item
2	Date	4	Barcode Data
3	Time		

Data Format

Example:
To change Data Format to **<Barcode Data>, <Date>, <Time>**

1. Scan [Data Format]
2. Scan [4], [2], [3] on Appendix A.
3. Scan [Data Format]

Field Separator

Default is comma (,) . You may replace it with any alphanumeric characters from the full ASCII table.

Example:
To change Field Separator to Semicolon (;)
1. Scan [Field Separator]
2. Scan [;] from the full ASCII table on Appendix A.
3. Scan [Field Separator]

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2.11.2 Date & Time Setup

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 Appendix A.
3. Scan [Set Date]

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 Appendix A.
3. Scan [Set Time]

Note:

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.

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2.12 Date Format, Time Format

2.12.1 Date Format

The default Date Format for Batch Mode 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

Date Format

Example:
To set Date Format to MM/DD/YY (Code =12)
1. Scan [Date Format]
2. Scan [1], [2] on Appendix A.
3. Scan [Date Format]

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2.12.2 Time Format

The default Time Format for Batch Mode 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

Time Format

Example:

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

1. Scan [Time Format]
2. Scan [0], [2] on Appendix A.
3. Scan [TimeFormat]

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Chapter 3 – Symbology

3.1 Enable / Disable Symbologies

Enable	Disable
ENABLE ALL CODE	DISABLE ALL CODE
CODE 32	CODE 32*
CHINA POSTAL CODE	CHINA POSTAL CODE*
UK PLESSEY CODE	UK PLESSEY CODE*
INDUSTRIAL 2 OF 5	INDUSTRIAL 2 OF 5*
MATRIX 2 OF 5	MATRIX 2 OF 5*
INTERLEAVED 2 OF 5*	INTERLEAVED 2 OF 5
CODE 128*	CODE 128
CODABAR*	CODABAR
TELEPEN	TELEPEN*
Enable All 1D Code	Disable All 1D Code
Enable All 2D Code	Disable All 2D Code

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Enable	Disable
UPC-A*	UPC-A
UPC-E*	UPC-E
EAN-8*	EAN-8
EAN-13*	EAN-13
MSI	MSI*
CODE 39*	CODE 39
CODE 11	CODE 11*
CODE 93	CODE 93*
EAN/UCC/GS1-128*	EAN/UCC/GS1-128*
IATA	IATA*

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Enable	Disable
 **GS1 Databar ENABLE**	 **GS1 Databar DISABLE***
 **GS1 Databar STACKED ENABLE***	 **GS1 Databar STACKED DISABLE**
 **GS1 Databar LIMITED ENABLE**	 **GS1 Databar LIMITED DISABLE**
 **GS1 Databar EXPANDED ENABLE**	 **GS1 Databar EXPANDED DISABLE**
 **GS1 Databar EXPANDED STACKED ENABLE**	 **GS1 Databar EXPANDED STACKED DISABLE**

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Enable	Disable
	
PDF 417*	**PDF 417**
	
DATA MATRIX*	**DATA MATRIX**
	
QR CODE*	**QR CODE**
	
MICRO QR CODE*	**MICRO QR CODE**
	
AZTEC	**AZTEC***

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3.2 MSI Code, UK Plessey Code, Telepen

For MIN/MAX Length setting procedure, please refer to Appendix A.

MSI

ENABLE

DISABLE*

CDV & SEND CD*

CDV & NOT SEND CD

CHECK DIGIT DOUBLE MOD 10

CHECK DIGIT DOUBLE 11 PLUS MOD 10

CHECK DIGIT SINGLE MOD 10*

MAX LENGTH (48)

MIN LENGTH (6)

UK PLESSEY CODE

ENABLE

DISABLE*

CDV & SEND CD

CDV & NOT SEND CD*

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TELEPEN

ENABLE TELEPEN

DISABLE TELEPEN

TELEPEN ASCII

TELEPEN NUMBER

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3.3 Code 93, Telepen , IATA

For MIN/MAX Length setting procedure, please refer to Appendix A.

Code 93

ENABLE

DISABLE*

MIN Length (6)

MAX Length (48)

China Postal Code (TOSHIBA Code)

ENABLE

DISABLE*

DISABLE CDV*

CDV & SEND CD

CDV & NOT SEND CD

MIN LENGTH (11)

MAX LENGTH (48)

IATA

ENABLE

DISABLE*

DISABLE CDV*

CDV & SEND CD

CDV & NOT SEND CDV

MIN LENGTH (6)

MAX LENGTH (48)

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3.4 Interleaved 2 of 5, Code 11

For MIN/MAX Length setting procedure, please refer to Appendix A.

Interleaved 2 of 5

ENABLE*

DISABLE

DISABLE CDV*

CDV & SEND CD

CDV & NOT SEND CD

First digit suppressed

Last digit suppressed

No suppressed*

MIN LENGTH (6)

MAX LENGTH (48)

Code 11

ENABLE

DISABLE*

DISABLE CDV

CDV & SEND CD

CDV & SEND CD (1 digit)*

CDV & SEND CD (2 digits)

CDV & NOT SEND CD

MIN LENGTH (6)

MAX LENGTH (32)

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3.5 Industrial 2 of 5, Matrix 2 of 5

For MIN/MAX Length setting procedure, please refer to Appendix A.

Industrial 2 of 5

ENABLE

DISABLE*

DISABLE CDV*

CDV & SEND CD

CDV & NOT SEND CD

MIN LENGTH (6)

MAX LENGTH (48)

Matrix 2 of 5

ENABLE

DISABLE*

DISABLE CDV*

CDV & SEND CD

CDV & NOT SEND CD

MIN LENGTH (6)

MAX LENGTH (48)

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3.6 Codabar

For MIN/MAX Length setting procedure, please refer to Appendix A.

Codabar

ENABLE*

DISABLE

DISABLE CDV*

CDV & SEND CD

CDV & NOT SEND CD

MIN Length (6)

MAX Length (48)

Start / Stop

ST/SP: abcd/ abcd

ST/SP: ABCD/ABCD*

ST/SP: ABCD / TN*E

ST/SP: abcd/tn*e

SEND START / STOP*

Not send START / STOP

Example of ST (Start) / SP (Stop)

123456	Not Transmit ST/SP
A123456B	ST/SP: ABCD/ABCD
a123456b	ST/SP: abcd/abcd
A123456N	ST/SP: ABCD/TN*E
a123456n	ST/SP: abcd/tn*e

CLSI format

CLSI FORMATION ON

CLSI FORMATION OFF*

CLSI FORMAT

CLSI- Enable library space insertion. If you enable the CLSI format, this option inserts spaces in position 2, 7, 13 of the data string for use in library systems.

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3.7 ABC-Codabar CX-Codabar

ABC-Codabar

 **On**

 **Off***

 **Set insert Data ***

** The data can be any alphanumerics of FULL ASCII Table*

 **Insert Data On**

 **Insert Data Off**

Remark :

ABC-CODABAR (American Blood Commission). The ABC Code is an acronym for American Blood Commission. This bar code is a variant of the CODABAR Code developed for the use in the blood bank. This Code consists of two bar codes which are decoded in one read cycle. The code is concatenated when the stop character of the first bar code and the start character of the second bar code is a " D ", these two " D " are not transmitted.

CX Code-Codabar

 **On**

 **Off***

 **Set insert Data ***

** The data can be any alphanumerics of FULL ASCII Table*

 **Insert Data On**

 **Insert Data Off***

Remark :

The CX-Code consists of two bar codes which are decoded in one read cycle, the code is concatenated when the stop character of the first bar code is a C, and the start character of the second bar code is a B. The B and C characters are not transmitted**.**

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3.8 Codabar coupling, Adjacent Required

Codabar Coupling

 **On**

 **Off***

Set insert Data *

** The data can be any alphanumerics of FULL ASCII Table*

 **Insert Data On**

 **Insert Data Off**

ABC-Codabar and CX-Codabar have certain rules regarding the Stop Character of first bar code and the stop character of second bar code while in conjunction, while Codabar- Coupling is enabled, the data from any two Codabar bar codes can be coupled into one set of data without any limitations between the Stop character of first bar code and the Start character of second bar code. The Start and Stop characters associated with each bar code will be sent.

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Adjacent Required

 **On**

 **Off ***

If CODABAR ADJACENT is enabled, the scanner will only read two adjacent Codabar bar codes; a single bar code will not be read.

Notes:

1. Both ABC-Codabar and CX-Codabar can be enabled together, except when Codabar-Coupling is also enabled.

2. If ABC-Codabar, CX-Codabar, and Codabar-Coupling are all enabled at the same time, the scanner will read only Codabar- Coupling, that is, ABC-Codabar, CX-Codabar will be considered coupling formats.

Setting Procedure – Set Insert Data

Step 1- Scan SET INSERT DATA.

Step 2- Scan any combination of alphanumeric characters from FULL ASCII Table.

Step 3- Scan SET INSERT DATA.

Notes :

1. The scanner will beep three times as a reminder that a setting is not yet complete.

2. If you make a mistake, forget a step, etc., Scan RESET to start again.

 **Reset / Abort**

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3.9 Standard & Full ASCII 39, Code 32

For MIN/MAX Length setting procedure, please refer to Appendix A.

Standard Code 39 & Full ASCII 39

ENABLE*

DISABLE

DISABLE CDV*

CDV & SEND CD

CDV & NOT SEND CD

Full ASCII Code 39 Enable*

Full ASCII Code 39 Disable

MIN LENGTH (1)

MAX LENGTH (48)

Start / Stop –Send

Start / Stop –Not Send*

Code 32

ENABLE

DISABLE*

Leading & Tailing not send

Leading send only

Tailing send only

Leading & Tailing send *

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Note:

The default for Code 39 is Standard Code 39. If Full ASCII Code 39 is enabled, Standard Code 39 will be automatically disabled.

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3.10 UPC-E

UPC-E

ENABLE*

DISABLE

Lead Digit Send*

Lead Digit No Send

Check Digit Send*

Check Digit No Send

Add on Supplement

+5 On

+5 Off*

+2 On

+2 Off*

Add a Space On

Add a Space Off*

Addenda Required On*

Addenda Required Off

Note:

If ADDENDA REQUIRED is set to ON, the scanner will only read an UPC-E bar code that has an addenda. At the same time please also scan +5 ON or +2 ON so the scanner will output a 5-digit or 2-digit addendum.

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3.11 UPC-E System Number, UPC-E expand to UPC-A

UPC-E System number	UPC-E EXPAND TO UPC-A
UPC-E0 OFF & UPC-E1 OFF	Enable
UPC-E1 ON ONLY	
UPC-E0 ON ONLY *	Disable*
UPC-E0 ON & UPC-E1 ON	

Notes:

1. If UPC-E EXPAND TO UPC-A FORMAT is enabled, the output of UPC-A will be 12 digits.
2. The default output of UPC-A is 12 digits, if UPC-A EXPAND TO EAN13 is enabled, a zero will be added to the front of the barcode.

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3.12 UPC-A, UPC-A Expand to EAN-13

UPC-A	UPC-A Expand to EAN-13	Add on Supplement
		
ENABLE*	**ENABLE**	**+5 On**
		
DISABLE	**DISABLE***	**+5 Off***
		
Lead Digit Send*		**+2 On**
		
Lead Digit No Send		**+2 Off***
		
Check Digit Send*		**Add a Space On**
		
Check Digit No Send		**Add a Space Off***
		
		Addenda Required On*
		
		Addenda Required Off

Note:

If ADDENDA REQUIRED is set to ON, the scanner will only read an UPC-A bar code that has an addenda. At the same time please also scan +5 ON or +2 ON so the scanner will output a 5-digit or 2-digit addendum.

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3.13 EAN-8

EAN-8

ENABLE*

DISABLE

Lead Digit Send*

Lead Digit No Send

Check Digit Send *

Check Digit No Send

Add on Supplement

+5 On

+5 Off*

+2 On

+2 Off*

Add a Space On

Add a Space Off*

Addenda Required On*

Addenda Required Off

Note:

If ADDENDA REQUIRED is set to ON, the scanner will only read an EAN-8 bar code that has an addenda. At the same time please also scan +5 ON or +2 ON so the scanner will output a 5-digit or 2-digit addendum.

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3.14 EAN-13, ISBN, ISSN, ISMN

EAN-13

ENABLE*

DISABLE

Lead Digit Send*

Lead Digit No Send

Check Digit Send*

Check Digit No Send

Add on Supplement

+5 On

+5 Off*

+2 On

+2 Off*

Add a Space On

Add a Space Off*

Addenda Required On*

Addenda Required Off

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ISBN

ISBN OFF*

ISBN ON

Notes:

1. If ADDENDA REQUIRED is set to ON, the scanner will only read an EAN-13 bar code that has an addenda.
2. Either ISSN or ISBN will be considered as an extension of EAN-13. If ISSN or ISBN needs to be read, EAN-13 must be enabled. If ISSN and ISBN need to be read with addenda, EAN-13 must be enabled with ADDENDA REQUIRED set to ON, and +2 ON or +5 ON must be enabled as well.

ISSN

ISSN OFF*

ISSN ON

Note:

Both ISSN and ISBN are the extension codes of EAN-13.If scanner is required to read either ISSN or ISBN, EAN-13 must be enabled. Otherwise the scanner will not be able t read ISSN or ISBN.

ISMN

ISMN OFF*

ISMN ON

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3.15 EAN/UCC/GS1-128, Code 128

EAN / UCC/GS1-128

ENABLE*

DISABLE

Code ID Enable

Code ID Disable*

FUNC 1 Char Send

FUNC 1 Char Not Send*

Define FNC 1

Notes:

The first FNC1 character is translated to]c1, and the secondFNC1 character is translated to an ASCII <GS> character

String format :

]C1	DATA CHARACTERS	<GS>	DATA CHARACTERS

Setting Procedure:

1. Scan DEFINE FNC1.
2. Scan one ASCII Code
3. Scan DEFINE FNC1.

Code 128

Enable*

Disable

Min Length (5)

Max Length (48)

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3.16 GS1 DataBar, Limited, Expanded

GS1 DataBar (RSS-14) - OMNI & STACKED

GS1 DataBar ENABLE

GS1 DataBar CHECK DIGIT SEND

GS1 DataBar PREFIX SEND

GS1 DataBar STACKED ENABLE*

GS1 DataBar DISABLE*

GS1 DataBar CHECK DIGIT NOT SEND*

GS1 DataBar PREFIX NOT SEND*

GS1 DataBar STACKED DISABLE

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GS1 DataBar (RSS-14) - Limited

 GS1 DataBar LIMITED ENABLE

 GS1 DataBar LIMITED CHECK DIGIT SEND

 GS1 DataBar LIMITED PREFIX SEND

 GS1 DataBar LIMITED DISABLE*

 GS1 DataBar LIMITED CHECK DIGIT NOT SEND*

 GS1 DataBar LIMITED PREFIX NOT SEND*

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GS1 DataBar (RSS-14) - Expanded

 GS1 DataBar EXPANDED ENABLE

 GS1 DataBar EXPANDED STACKED ENABLE*

 GS1 DataBar EXPANDED MIN LENGTH (01)

 GS1 DataBar EXPANDED DISABLE*

 GS1 DataBar EXPANDED STACKED DISABLE

 GS1 DataBar EXPANDED MAX LENGTH (74)

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3.17 PDF 417, Data Matrix, AZTEC

PDF417

 ENABLE *

 DISABLE

 MIN LENGTH (0001)

 MAX LENGTH (2750)

Data Matrix

 ENABLE *

 DISABLE

 MIN LENGTH (0001)

 MAX LENGTH (3116)

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AZTEC

 ENABLE

 DISABLE *

 MIN LENGTH (0001)

 MAX LENGTH (3832)

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3.18 QR CODE, MICRO QR CODE

QR CODE

 ENABLE*

 DISABLE

 MIN LENGTH (0001)

 MAX LENGTH (4000)

MICRO QR CODE

 ENABLE*

 DISABLE

 MIN LENGTH (0001)

 MAX LENGTH (0035)

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Chapter 4 – Command Settings

4.1 General setting

4.1.1 Default

Scan below bar code to restore the factory default .

4.1.2 Check Version

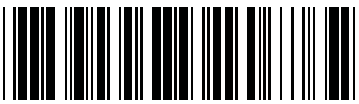
Scan below bar code to check firmware version.

4.1.3 Reset / Abort

Scan below bar code to abort multi-step configuration.

4.1.4 Setup Code Read

Scan below bar code to set up code read.



Setup Code On

Setup Code Off

Caution:

Scanning SETUP CODE OFF will turn the scanner into unprogrammable state and the scanner will not react to any configuration barcode!

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4.1.5 Quick Shot Mode

When enabled, the scanner is optimized for moving barcode reading.

Disable*

Enable

4.1.6 Mobile Display Mode

When enabled, the scanner is optimized for on-screen barcode reading.

This mode is not supported when Quick Shot Mode is enabled.

Disable*

Enable

4.2 Reading Mode

4.2.1 Reading Mode

Scan below bar code to set up reading mode.

Continuous Mode

- LED is always on.
- The trigger does not function in Continuous Mode.

Trigger Mode*

- The LED will turn on when the trigger is pressed.
- The LED will go off when the trigger is released.

Flash Mode

- The LED is on steady if a barcode is close to the scanner, but starts flashing if no barcode is detected after 60seconds.
- The trigger does not function in Flash Mode.

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Continuous Auto Off

- The LED is always on when the trigger is pressed .
- The LED will go off if no barcode has been detected after 60 seconds.

Toggle Mode

- The LED is always on when the trigger is pressed.
- The LED will go off if one barcode is read.

Test Mode

Factory Scanability Test Use Only

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4.3 Beep Tone, Beep Mode, Terminator

4.3.1 Beep Tone

Scan below bar code to set up beep tone.

Beep High

Beep Low

Beep Medium *

Beep off

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4.3.2 Beep Mode

Scan below bar code to set up beep mode.

Normal *

Mute

Warning Beep Only

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4.3.3 Terminator

Scan below bar code to set up terminator.

None

LF

CR *

CR + LF

TAB

SPACE

ESC

Notes:

1. For the BT HID/ USB HID interface the default terminator is CR.
2. For the USB VCP / BT SPP interface the default terminator is CR+LF.
3. Below is the position of Terminator among output data string:
   [Preamble] [Symbology ID] [Barcode Length] [Barcode Data] [Postamble] [Terminator]
4. By default, with Preamble, Postamble, Barcode Length and Symbology IDdisabled, the scanner data output will be:
   [Barcode Data] [Terminator]

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4.4 Send Data Length, Preamble & Postamble

4.4.1 Send Data Length

Scan below bar code to send data length.

Send Data Length On

Send Data Length Off*

4.4.2 Preamble & Postamble (Prefix and Suffix)

Scan below bar code to set up preamble & postamble.

Clear Pre / Postamble

Preamble

Postamble

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Example :

Set PREAMBLE String as " ## "

POSTAMBLE String as " $$ "

Setting Procedure:

Step 1 : Scan : CLEAR PRE/ POSTAMBLE.

Step 2 : Scan : PREAMBLE.

Step 3 : Scan : " # " twice from Full ASCII Table.

Step 4 : Scan : PREAMBLE.

Step 5 : Scan : POSTAMBLE.

Step 6 : Scan : " $ " twice from Full ASCII Table.

Step 7 : Scan : POSTAMBLE.

Data Format :

[Preamble] [Symbology ID] [Barcode Length] [Barcode Data] [Postamble] [Terminator]

Notes:

1. A PREAMBLE is a string of up to 16 characters added to the beginning of a scanned barcode.
2. A POSTAMBLE is a string of up to 16 characters added to the end of a scanned barcode.
3. Default value for both: None.

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4.5 Advanced Reading Mode Settings

4.5.1 LED AUTO-OFF CONTROL (TRIGGER & TOGGLE MODE)

LED Auto Off Disable *

LED Auto Off Enable

Notes:

When enabled, LED will automatically go off after LED Auto-Off Timeout elapses.

4.5.2 LED AUTO-OFF TIMEOUT(TRIGGER, TOGGLE, FLASH,CONTINUOUS AUTO OFF MODE)

LED AUTO OFF TIMEOUT(DEFAULT = 60 SEC)

Notes:

1. Scan LED AUTO-OFF TIMEOUT
2. Scan 3 digits (000~255) from Full ASCII Code39 numeric table (Group 46)
   (001=0.1 Sec, 002=0.2 Sec, 003=0.3 Sec, 004=0.4 Sec, 005=0.5 Sec
   006=1.0 Sec, 007=1.5 Sec, 008=2.0 Sec, 009=2.5 Sec, 010=3.0 Sec ...254=124.5 Sec, 255=125 Sec, Default = 124 (60 Sec))
3. Scan LED AUTO-OFF TIMEOUT

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4.5.3 TRIGGER CONTROL (FLASH, CONTINUOUS & TEST MODE)


TRIGGER CONTROL DISABLE *


TRIGGER CONTROL ENABLE

Notes:

When enabled, LED can be switched on/off by pressing trigger

4.5.4 IDENTICAL READ INTERVAL(FLASH, CONTINUOUS & CONTINUOUS AUTO OFF MODE)

IDENTICAL READ INTERVAL(DEFAULT = 1.0 SEC)

Note:

1. The interval will start counting only after the scanned barcode is removed from the aimer of scanner. If you want to read the same barcode continuously without any timeout, please use Test Mode.

Steps:

1.Scan IDENTICAL READ TIMEOUT

2. Scan 3 digits (000~255) from Full ASCII Code39 numeric table (Group 46) (001=0.1 Sec, 002=0.2 Sec, 003=0.3 Sec, 004=0.4 Sec, 005=0.5 Sec 006=1.0 Sec, 007=1.5 Sec, 008=2.0 Sec, 009=2.5 Sec, 010=3.0 Sec...254=124.5 Sec, 255=125 Sec, Default = 006 (1.0 Sec))

3. Scan IDENTICAL READ TIMEOUT

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4.6 Accuracy Adjustment

0 1 2 3 4

5 6` 7 8 9

Accuracy Adjustment

Accuracy Adjustment assures a more reliable decoded output.
Enabling the feature and setting a number from 1 to 9 subjects the decoded output a higher standard of accuracy. The higher the number, the greater the accuracy.

Setting Procedure:

1. Scan Accuracy Adjustment.
2. Scan one digit (1~9) from barcode menu above. (Default : 1)
3. Scan Accuracy Adjustment.

Reset / Abort

1. The scanner will beep three times as indication that a setting is not yet complete or unexpected barcode is scanned during multi-step configuration
2. If you make a mistake, forget a step, etc., and want to abort the multi- step configuration, scan RESET/ABORT and start over again.

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4.7 Code ID, Inverse Barcode

4.7.1 Inverse Barcode

Disable 1D Inverse Barcode*

Enable 1D Inverse Barcode

Disable 2D Inverse Barcode*

Enable 2D Inverse Barcode

4.7.2 Enable Code ID

Factory ID On

Aim ID On

Set ID On

Disable Code ID

1. Only ONE code ID will be sent.
2. The code ID is located at the position before the barcode data and after the preamble.

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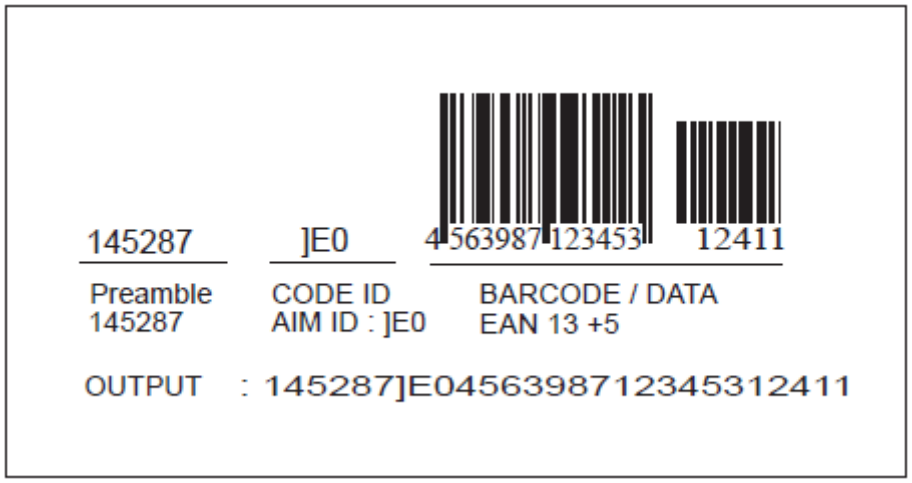
EXAMPLE :

1.Preamble 145287,

2.Code ID: enable AIM ID,

3.Bar code symbologies : EAN 13+5



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4.8 Symbologies Code Identifier

Symbologies			Factory ID	AIM ID
1D	Code 39	Disable CDV	M	]A0
		CDV & Send CD		]A1
		CDV & Not Send CD		]A3
	Full ASCII Code 39	Disable CDV	D	]A4
		CDV & Send CD		]A5
		CDV & Not Send CD		]A7
	Code 32		B	]X0
	Codabar		N	]F0
		ABC Codabar		]F1
		CDV & Send CD		]F2
		CDV & Not Send CD		]F4
	Interleaved 2 of 5	Disable CDV	I	]I0
		CDV & Send CD		]I1
		CDV & Not Send CD		]I3
	UK Plessey		P	]P0
	IATA 2 of 5		R	]R0
	Matrix 2 of 5		Y	]X0
	Industrial 2 of 5		V	]S0
	Code 11	Disable CDV	J	]H0
		CDV & Send CD-1		]H0
		CDV & Send CD-2		]H1
		CDV & Not Send CD		]H3
	MSI	Disable CDV	O	]M0
		Mod 10 / CDV & Not Send CD		]M1
	Telepen	ASCII	U	]B0
		Numeric		]B1
	China Postal Code		H	]X0
	EAN-13	+2/+5 OFF	F	]E0
		+2/+5 ON		]E3
	UPC-A	+2/+5 OFF	A	]E0
		+2/+5 ON		]E3
	EAN-8	+2/+5 OFF	S	]E4
		+2/+5 ON		]E4
	UPC-E	+2/+5 OFF	E	]E0
		+2/+5 ON		]E3
	Code 93		L	]G0
	Code 128		K	]C0
	GS1 128		T	]C1
	GS1 Databar		G	]e0
2D	PDF417		Z	]L0
	Micro QR Code		w	]Q0
	QR Code		W	]Q0
	Data Matrix		X	]d0
	Aztec		z	]z0

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4.9 Set Code ID

EAN 13 Set ID

EAN 8 Set ID

UPC E Set ID

UPC A Set ID

Code 39 Set ID

Code 93 Set ID

Codabar Set ID

IATA Set ID

Code 128 Set ID

EAN 128 Set ID

Telepen Set ID

Code 11 Set ID

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Steps:

1. Scan the SET ID barcode for a particular symbology.
2. Scan one or two alphanumeric characters from the Full ASCII Table.
3. Scan the SET ID barcode again.

Reset / Abort

1. The scanner will beep three times as indication that a setting is not yet complete or unexpected barcode is scanned during multi-step configuration
2. If you make a mistake, forget a step, etc., and want to abort the multi- step configuration, scan RESET/ABORT and start over again.

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MSI Code Set ID

UK Plessey Set ID

Matrix 2 of 5 Set ID

Interleaved 2 of 5 Set ID

Industrial 2 of 5 Set ID

Full ASCII Code39 Set ID

GS1 Databar (RSS-14) Limited Set ID

GS1 Databar (RSS-14) Expanded Set ID

GS1 Databar (RSS-14) Set ID

China Post Code[TOSHIBA Code] Set ID

Code 32 Set ID

Steps:

1. Scan the SET ID bar code for a particular symbology.
2. Scan one or two alphanumeric characters from the Full ASCII Table.
3. Scan the SET ID bar code again.

Reset / Abort

1. The scanner will beep three times as indication that a setting is not yet complete or unexpected barcode is scanned during multi-step configuration
2. If you make a mistake, forget a step, etc., and want to abort the multi- step configuration, scan RESET/ABORT and start over again.

Reset / Abort

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PDF417 Set ID

Micro QR Code Set ID

QR Code Set ID

Data Matrix Set ID

Aztec Set ID

Steps:

1. Scan the SET ID bar code for a particular symbology.
2. Scan one or two alphanumeric characters from the Full ASCII Table.
3. Scan the SET ID bar code again.

Reset / Abort

1. The scanner will beep three times as indication that a setting is not yet complete or unexpected barcode is scanned during multi-step configuration
2. If you make a mistake, forget a step, etc., and want to abort the multi- step configuration, scan RESET/ABORT and start over again.

Reset / Abort

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4.10 Inter-block and Inter-character Delay, Function Code, UTF-8 Conversion

4.10.1 Interblock Delay

Set Interblock Delay(Default = 0mS)

Steps:

1. Scan [Set Interblock Delay].
2. Scan three digits (Range: 000~255, unit: 10mS) from the Full ASCII numeric table.
3. Scan [Set Interblock Delay].

4.10.2 Intercharacter Delay

Set Intercharacter Delay(Default = 0mS)

Steps:

1. Scan [Set Intercharacter Delay].
2. Scan three digits (Range: 000~255, unit: 1mS) from the Full ASCII numeric table.
3. Scan [Set Intercharacter Delay].

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4.10.3 Function Code Conversion

Enable*

Disable

* Once disabled, the scanner will output the original encoded data of the barcodes in Full ASCII Table.

4.10.4 UTF-8 to Unicode Conversion

Enable

Disable*

* This conversion is not supported when Keyboard Layout is set to Alt Code.

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4.10 Keyboard Layout


ENGLISH (USA)


ENGLISH (UK)


FRENCH


GERMAN


ITALIAN


SPANISH


CZECH (QWERTY)


CZECH (QWERTZ)


HUNGARIAN (QWERTZ)


HUNGARIAN (101 KEY)


SWISS (GERMAN)


SWISS (FRENCH)


JAPAN (106 key)


CANADIAN (FRENCH)


CANADIAN (TRADITIONAL)


NORWEGIAN


SWEDISH


PORTUGUESE


BELGIAN (AZERTY)


DUTCH


DANISH


SLOVAK


BRAZILIAN (PORTUGUESE)


ALT CODE

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4.11 Caplock Mode,Numeric Key, HT/CR/ESC Conversion

4.11.1 Capital Lock Mode

 Caplock Off*

 Caplock On

 Caplock Free

Notes:

1. When barcode scanner is set to Caplock Free mode, no matter keyboard Capslock LED indicator is ON or OFF, output will be always the same as the Original barcode. In other words, what you see is what output is.(CODABAR is the exception)
2. If ABCD/ ABCD, abcd/ abcd, ABCD/T*E, abcd/tn*e are on, they work independently according to their rules.

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4.11.2 Numeric Key

 Numeric Key

 Alphanumeric Key*

Notes:

1. By default, the alphanumeric key is used for transmitting digits. Scan NUMERIC KEY if you want to use the keys on the numeric keypad.
2. If you select NUMERIC KEY, the Num Lock status of the physical keyboard should be ON.

4.11.3 HT/CR/ESC converts to TAB/Enter/Escape

HT/CR/ESC converts to TAB/ENTER/ESCAPE enable

HT/CR/ESC converts to TAB/ENTER/ESCAPE Disable*

Notes:

1. By default, HT [$I], CR [$M] and ESC [%A] is transmitted as <0x09>, <0x0D> and <0x1B> respectively.
2. When enabled, HT [$I], CR [$M] and ESC [%A] is transmitted as <TAB>, <ENTER> and <ESCAPE> on keyboard respectively.

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Appendix A – Full ASCII table & Function Key table

A-1 MIN/ MAX Length setting Procedure

MIN / MAX LENGTH
STEP 1 - Scan: MIN LENGTH/ MAX LENGTH
STEP 2 - Scan: Two digits above
STEP 3 - Scan: MIN LENGTH/ MAX LENGTH

Please note that when Min Length and / or Max Length are enabled, the scanner will only read bar codes that fall into those length parameters. Bar codes shorter or longer than specified will not be read. The default lengths for these are indicated in parentheses under the Min and Max bar codes for each symbology.

Reset / Abort

1. The scanner will beep three times as indication that a setting is not yet complete or unexpected barcode is scanned during multi-step configuration.
2. If you make a mistake, forget a step, etc., and want to abort the multi-step configuration, scan RESET/ABORT and start over again.

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FULL ASCII (Code 39) Numeric Table

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A-2 FULL ASCII Table (Code 39)

- FULL ASCII Table (CODE 39) Control Codes

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DLE


DC1


DC2


DC3


DC4


NAK


SYN


ETB


CAN


EM


SUB


ESC


FS


GS


RS


US


SP

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- FULL ASCII Table (CODE 39) Symbols

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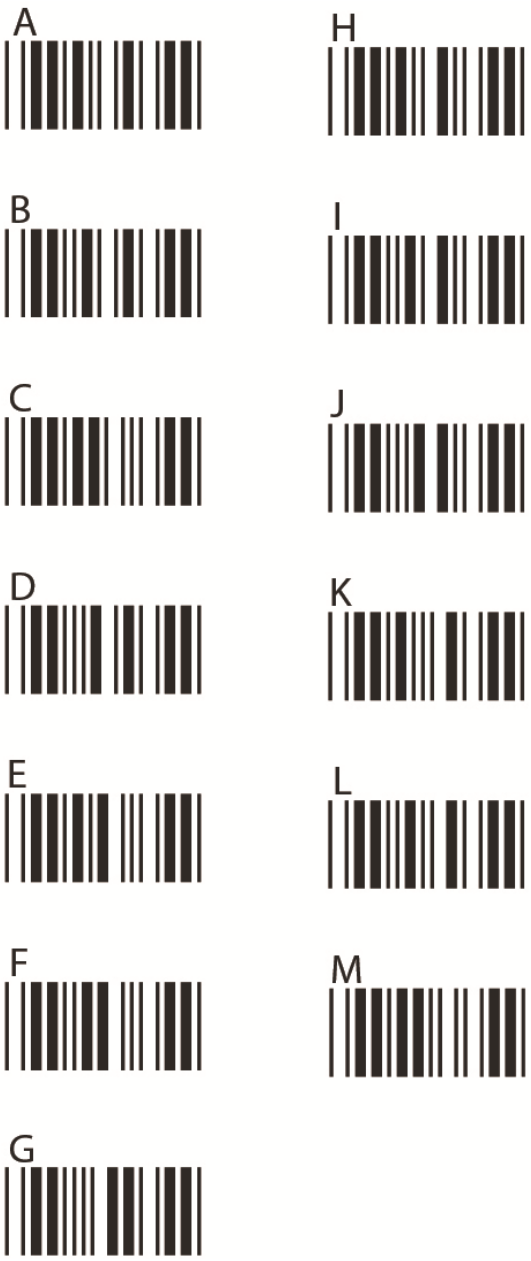
- FULL ASCII Table (CODE 39) Upper Case Alphabets



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N

U

O

V

P

W

Q

X

R

Y

S

Z

T

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- FULL ASCII Table (CODE 39) Lower Case Alphabets

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n


o


p


q


r


s


t


u


v


w


x


y


z

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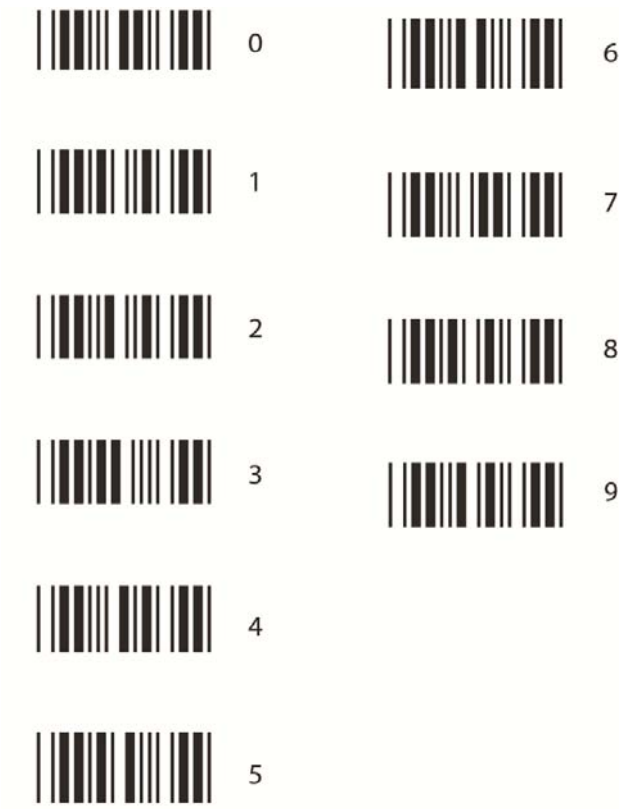
- FULL ASCII Table (CODE 39) Numbers



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A-3 Function Key Table (Code39)

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- FULL ASCII Table (CODE 39) Navigation Keys


Cursor Right


Cursor Left


Cursor Up


Cursor Down


Page Up


Page Down


Tab


Back Tab


Esc


Enter


BS


Ins


Del

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- FULL ASCII Table (CODE 39) Modifier Keys


Alt (Left) make*1


Alt (Right) make


Shift (Left) make *2


Shift (Right) make


Win (Left) make


Win (Right) make


Ctrl (Left) make *3


Ctrl (Right) make


Alt (Left) break


Alt (Right) break


Shift (Left) break


Shift (Right) break


Win (Left) break


Win (Right) break


Ctrl (Left) break


Ctrl (Right) break

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- For UK Keyboard Special Character


£


¬

Notes:

*1: When "Alt(Left)Make" is programmed, please scan "Alt(Left)Break" to resume barcode setting.

*2: When "Shift(Left)Make" is programmed, please scan "Shift(Left)Break" to resume barcode setting.

*3: When "Ctrl(Left)Make" is programmed, please scan "Ctrl(Left)Break" to resume barcode setting.

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Appendix B – Default Table

B-1 Default Table 1

GROUP	PARAMETER	DEFAULT
1	Setup Code Read	On
	Quick Shot Mode	Disable
	Mobile Display Mode	Disable
2	Reading Mode	Trigger Mode
3	LED Auto-Off Control	Disable
	LED Auto-Off Timeout (Trigger, Toggle, Flash...)	60 sec
	Trigger Control	Disable
	Identical Read Interval	1.0 sec
4	Beep Tone	Beep Medium
	Beep Mode	Normal
	Terminator	CR(HID); CR+LF(VCP/SPP)
5	Send Data Length	Off
	Preamble & Postamble	None
6	Accuracy Adjustment	1
7	Inverse Barcode	1D Disable; 2D Disable
	Code ID	Disable
9~11	Set Code ID	None
12	Interblock Delay	0 ms
	Intercharacter Delay	0 ms
	Function Code Conversion	Enable
	UTF-8 to Unicode Conversion	Disable
13	HT/CR/ESC Conversion	Disable
	Capital Lock Mode	Off
	Numeric Key	Alphanumeric Key
14	Keyboard Layout	English (USA)
15	Interface	N/A (not affected by Default)
16	Bluetooth Profile	N/A (not affected by Default)
17	Pincode Setup	N/A
19	Power Off Timeout	3 minutes & 0 second
20	Set Wireless ID	Wireless Scanner
21	Set SPP Pincode	1234
23	Batch Mode	Disable
	Binary Check Character	Disable
24	Memory Mode	N/A (not affected by Default)
25	Data Format	<Date><Time><Barcode Data>
	Field Separator	,
26	Date Format	DD/MM/YYYY
	Time Format	HH:MM:SS
27~29	**Enable and Disable Symbologies**	
	Code 32	Disable
	China Postal Code	Disable
	UK Plessey Code	Disable
	Industrial 2 of 5	Disable
	Matrix 2 of 5	Disable
	Interleaved 2 of 5	Enable
	Code 128	Enable
	Codabar	Enable
	Telepen	Disable
	UPC-A	Enable
	UPC-E	Enable
	EAN-8	Enable
	EAN-13	Enable
	MSI	Disable
	Code 39	Enable
	Code 11	Disable
	Code 93	Disable
	EAN/UCC/GS1-128	Enable
	IATA	Disable
	GS1 Databar	Disable
	GS1 Databar Stacked	Enable
	GS1 Databar Limited	Disable
	GS1 Databar Expanded	Disable
	GS1 Databar Expanded Stacked	Enable
	PDF417	Enable
	Data Matrix	Enable
	QR Code	Enable
	Micro QR Code	Enable
	Aztec	Disable

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B-2 Default Table 2

GROUP	PARAMETER	DEFAULT
30	**MSI**	
	Enable/Disable	Disable
	Check Digits	CDV & send CD
	Check Digits Mode	Single Mod 10
	UK Plessey Code	
	Enable/Disable	Disable
	Check Digits	CDV & not send CD
	Telepen	
	Enable/Disable	Disable
	Telepen ASCII/Number	ASCII
31	**Code 93**	
	Enable/Disable	Disable
	Min Length	6 digits
	Max Length	48 digits
	IATA	
	Enable/Disable	Disable
	Check Digits	Disable CDV
	Min Length	6 digits
	Max Length	48 digits
	China Post Code (Toshiba Code)	
	Enable/Disable	Disable
	Check Digits	Disable CDV
	Min Length	11 digits
	Max Length	48 digits
32	**Interleaved 2 of 5**	
	Enable/Disable	Enable
	Check Digits	Disable CDV
	First/ last digit suppressed	No suppressed
	Min Length	6 digits
	Max Length	48 digits
	Code 11	
	Enable/Disable	Disable
	Check Digits	Disable CDV
	CDV & Send CD (1 Digit/2 Digits)	1 digit
	Min Length	6 digits
	Max Length	32 digits
33	**Industrial 2 of 5**	
	Enable/Disable	Disable
	Check Digits	Disable CDV
	Min Length	6 digits
	Max Length	48 digits
	Matrix 2 of 5	
	Enable/Disable	Disable
	Check Digits	Disable CDV
	Min Length	6 digits
	Max Length	48 digits
34	**Codabar**	
	Enable/Disable	Enable
	Check Digits	Disable CDV
	Min Length	6 digits
	Max Length	48 digits
	ST/SP; Abcd/abcd, abcd/tn*c, ABCD/ABCD,ABCD/TN*C	ABCD/ABCD
	Send Start/Stop	Send
	CLSI Format	Off
35	**ABC-Codabar**	
	ON/OFF	Off
	Insert Data	Off
	CX-Codabar	
	ON/OFF	Off
	Insert Data	Off
36	**Codabar-Coupling**	
	ON/OFF	Off
	Insert Data	Off
	Adjacent Required	Off

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B-3 Default Table 3

GROUP	PARAMETER	DEFAULT
37	**Code 39**	
	Full ASCII 39 Enable/Disable	Enable
	Check Digits	Disable CDV
	Start/Stop	Not Send
	Min Length	1 digit
	Max Length	48 digits
	Code 32	
	Enable/Disable	Disable
	Leading & Tailing	Send
38	**UPC-E**	
	Enable/Disable	Enable
	Check Digits	Send
	Lead Digits	Send
	Add a space	Off
	Addenda required	Off
	+5 On/Off	Off
	+2 On/Off	Off
39	**UPC-E System Number, UPC-E Expand to UPC-A**	
	UPC-E System Number	UPC-E0 On Only
	UPC-E expand to UPC-A	Disable
40	**UPC-A, UPC-A Expand to EAN-13**	
	Enable/Disable	Enable
	Check Digits	Send
	Lead Digits	Send
	UPC-A expand to EAN-13	Disable
	Add a space	Off
	Addenda required	On
	+5 On/Off	Off
	+2 On/Off	Off

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41	**EAN-8**	
	Enable/Disable	Enable
	Check Digits	Send
	Lead Digits	Send
	Add a space	Off
	Addenda required	On
	+5 On/Off	Off
	+2 On/Off	Off
42	**EAN-13**	
	Enable/Disable	Enable
	Check Digits	Send
	Lead Digits	Send
	Add a space	Off
	Addenda required	On
	+5 On/Off	Off
	+2 On/Off	Off
	ISBN	Off
	ISSN	Off
	ISMN	Off
43	**EAN/UCC/GS1-128**	
	Enable/Disable	Enable
	Code ID	Disable
	Func 1 Char Send	Not Send
	Code 128	
	Enable/Disable	Enable
	Check Digits	Disable CDV
	Min Length	5 digits
	Max Length	48 digits

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B-4 Default Table 4

GROUP	PARAMETER	DEFAULT
44	**GS1 Databar**	
	GS1 Databar	Disable
	GS1 Databar Check Digit	Not Send
	GS1 Databar Prefix	Not Send
	GS1 Databar Stacked	Enable
	GS1 Databar Limited	Disable
	GS1 Databar Limited Check Digit	Not Send
	GS1 Databar Limited Prefix	Not Send
	GS1 Databar Expanded	Disable
	GS1 Databar Expanded Stacked	Enable
	GS1 Databar Expanded Min Length	1 digit
	GS1 Databar Expanded Max Length	74 digits
45	**PDF417**	
	Enable/Disable	Enable
	Min Length	1 digit
	Max Length	2750 digits
	Data Matrix	
	Enable/Disable	Enable
	Min Length	1 digit
	Max Length	3116 digits
	Aztec	
	Enable/Disable	Disable
	Min Length	1 digit
	Max Length	3832 digits
46	**QR Code**	
	Enable/Disable	Enable
	Min Length	1 digit
	Max Length	4000 digits
	Micro QR Code	
	Enable/Disable	Enable
	Min Length	1 digit
	Max Length	35 digits

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