Newland

NLS-NVH200

Hand-held Barcode Scanner

User Guide

Disclaimer

Please read through the manual carefully before using the product and operate it according to the manual. It is advised that you should keep this manual for future reference.

Do not disassemble the device or remove the seal label from the device, doing so will void the product warranty provided by Fujian Newland Auto-ID Tech. Co., Ltd.

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Revision History

Revision	Description	Released Date
V1.0.0	Initial Revision	2018-07-16

Contents

Preface

Introduction

This manual mainly introduces the specifications, functions and detailed usage of a new generation of wireless two-dimensional Bluetooth bar code scanner NLS-NVH200 designed by NewLand.

Chapter Outline

Handbook

This icon indicates something relevant to this manual.

This icon indicates this information requires extra attention from the reader.

This icon indicates handy tips that can help you use or configure the scanner with ease.

This icon indicates practical examples that can help you to acquaint yourself with operations.

Chapter 1　About NVH200

Introduction

NLS-NVH200 is a high performance wireless Bluetooth bar code scanner designed for industrial production lines or logistics applications. The product has the characteristics of long-distance wireless code scanning transmission, high-resolution and high-speed barcode reading, fast upper computer function configuration and so on. It can meet different kinds of code scanning needs.

NLS-NVH200 wireless scanner uses the world's leading NewLand intelligent image recognition technology to identify all kinds of mainstream one-dimensional bar code and standard two-dimensional bar code. It Can be widely used in factory production lines, such as electronic manufacturing, battery production, automotive manufacturing lines in the production of traceability, quality management and so on.

This chapter will introduce the use of NVH200 wireless scanner step by step with pictures. If you have a NVH200 wireless scanner on hand, please compare the scanner with this document, so that you can understand this document better. This chapter applies to ordinary users, maintenance personnel and software developers.

Features of the NVH200

- ➢ Bluetooth 5.0 Wireless Transmission Technology (Frequency: 2402-2480MHz).
- ➢ High resolution image sensor.
- ➢ Comprehensive and high-speed reading ability.
- ➢ Powerful software configuration and data editing capabilities.
- ➢ Fast and accurate decoding capability
- ➢ Reliable and durable structural design

List of packaging accessories

Name	Specifications / Models	Number	Remarks
NLS-NVF200 Scanner	NLS-NVF200	1 ×	

USB/RS232 Cable	RJ45 to USB or RS232	1 ×	
The power adapter	Output: DC 5V,1.5A	1 ×	
Quick Guide	Paper	1 ×	
Certificate/warranty card	Paper	1 ×	

Unpacking

Open the package and take out the NVH200 scanner and its accessories. Check to make sure everything on the packing list is present and intact. If any contents are damaged or missing, please keep the original package and contact your dealer immediately for after-sales service.

Note: CD200 pedestal as a separate package accessories, for the convenience of writing, this document also describes the CD200 pedestal.

NVH200 Scanner
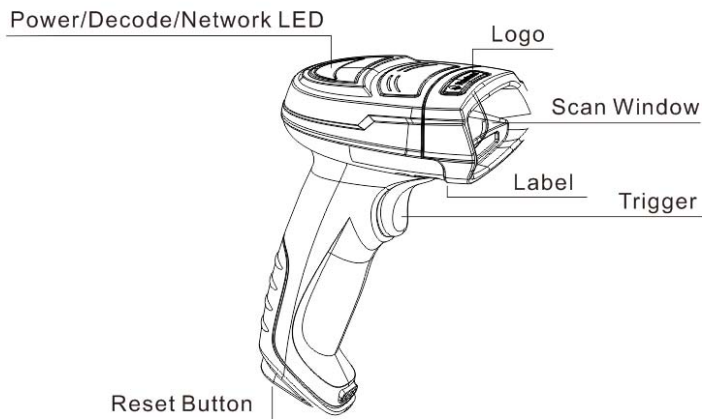
Indicator Definitions

Green: Barcode is decoded successfully/ Charge saturation.
Blue：Wireless network.
Red： Wireless transmission failure /In Charge.
Purple：Firmware Update / FLASH has data.

Figure 1-1

CD200 Pedestal appearance
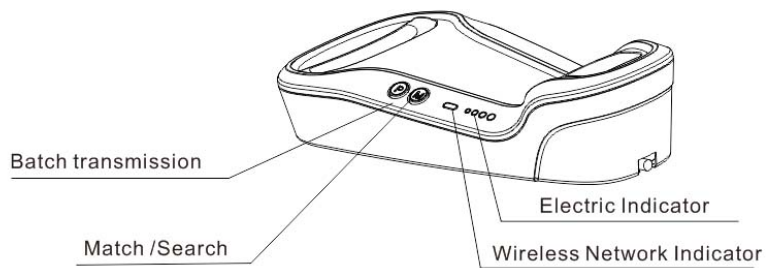
Key definition

P：Batch transmission
M：Match/Search
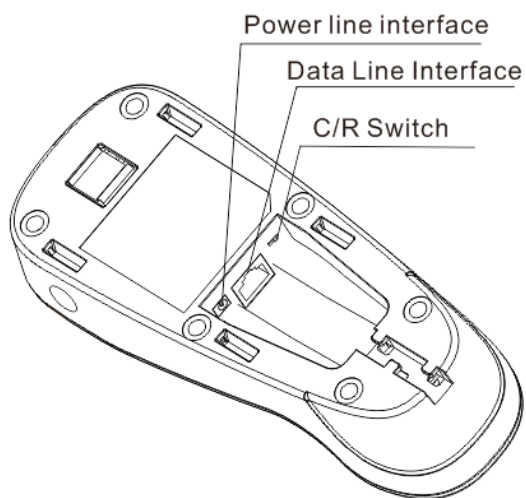
Figure 1-2

Indicator Definitions

Blue LED：Wireless Network Indicator
Green LED: The four level of electricity indication is low, medium, high and full respectively.

Figure 1-3

Communication Mode

Communication modes include synchronous mode (factory default), asynchronous mode and batch mode.

✧ Synchronization mode: with Bluetooth network, the scanner will be transmitted to the base immediately after successful decoding. Without network, transmission will be failed.

✧ Asynchronous mode: in the case of Bluetooth network, the scanner will be transmitted to the base immediately after the decoder is successfully decoded. In the network-free state, the scanner saves the bar code to the user's FLASH memory in accordance with FIFO (first in first out), and automatically transmits the bar code to the base after recovering the network.

✧ Batch mode: Without considering the existence of Bluetooth network, the scanner automatically saves the bar code to the user FLASH after decoding successfully, places the wireless gun on the base, and presses the "P" key on the base (see Figure 1-2) to realize the batch transmission.

CD200 Data Line Interface Definitions

Figure 1-4

PIN	Signal	Type	Function
1	NC	-	Not connected
2	NC	-	Not connected
3	VCC	P	Power,+5V
4	TXD	O	RS-232 ouput
5	RXD	I	RS-232 input
6	CTS	I	Flow control signal
7	RTS	O	

8	GND	P	Ground
9	D-	I/O	USB signal
10	D+	I/O	

Connecting the NVH200 to a Host Device

The scanner must be connected to a host device in actual application, such as PC, POS or any intelligent terminal with USB or RS-232, using a communication cable (USB or RS-232 cable).

USB

USB port on the host device
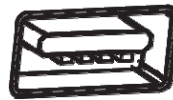
RS-232

RS-232 port on the host device

Using Data line
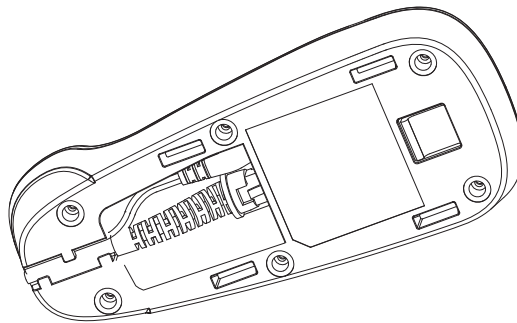
Figure 1-5

Using USB Cable
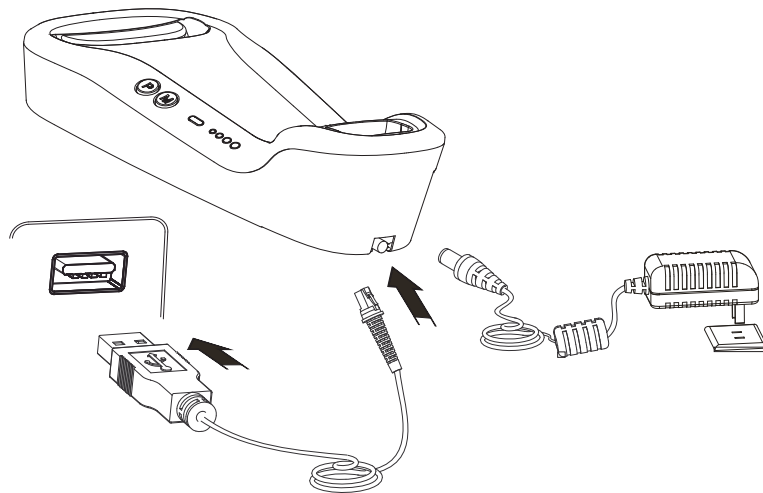
Figure 1-6

1. Connect the base (CD200) of scanner to a host device through a USB cable with RJ45 and USB connectors:

2. Connect the host interface (USB interface) of the USB data line to the host computer.

3. Connect the CD200 base to the power adapter.

Using RS-232 Data Line
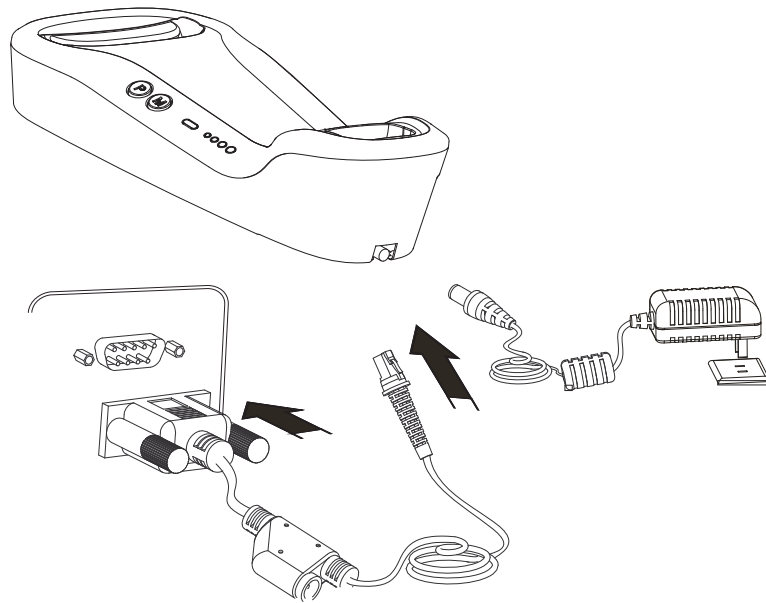
Figure 1-7

    1. Connect the device interface (RJ45 interface) of the RS-232 data line with the data line interface (Figure 1-3) of the CD200 base.

    2. Connect the host interface (RS-232 interface) of the RS-232 data line to the host computer.

    3. Connect the power cord interface of the CD200 base (see Figure 1-3) with the power adapter.

Power On, Sleep, Power Off, Reboot

Power on: press the trigger button (more than 1 seconds), and the scanner starts.

Sleep: In manual reading mode, the scanner does not perform any action for more than a certain period of time (more than 5 seconds), and it will automatically go to sleep.

Power off: In manual reading mode, the device is dormant for more than a certain period of time (default 5 minutes), it will automatically shut down. Shutdown can also be achieved by reading the "Power off" bar code (see Chapter 2 "Selection of Working Mode" section).

Reboot: if the scanner is dead or no response, press reset button to restart the device.

Maintenance

✧ The scan window should be kept clean.

✧ Do not scratch the scan window.

✧ Use soft brush to remove the stain from the scan window.

✧ Use the soft cloth to clean the window, such as eyeglass cleaning cloth.

✧ Do not spray any liquid on the scan window.

✧ Do not use any detergent to clean other parts of the scanner except for water.

 The warranty DOES NOT cover damages caused by inappropriate care and maintenance.

Dimensions

Left View

Figure 1-8

Front View
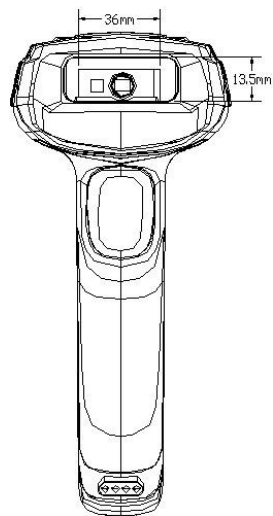
Figure 1-9

Top View
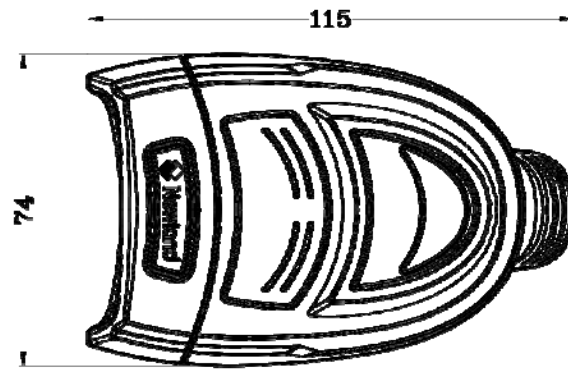
Figure 1-10

CD200
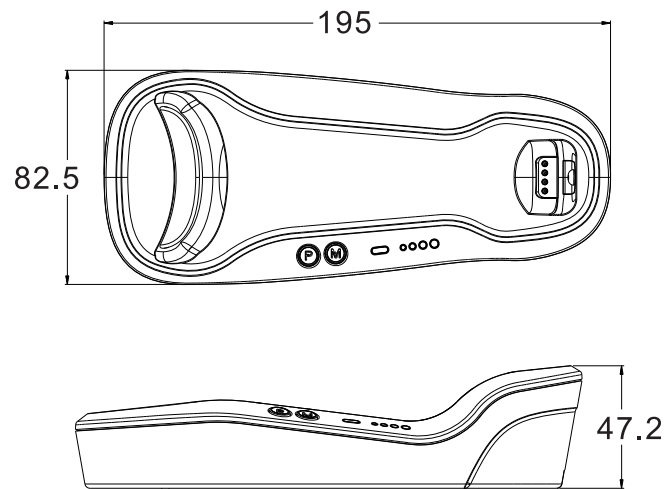
Figure 1-11

Explanation of reading angle
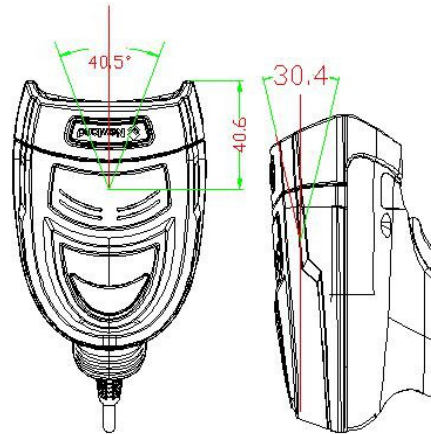
Figure 1-12

Scanning Instructions

When the scanner is in the default scan mode, you can follow the steps below to scan a barcode:

1. Press and hold the trigger. Then the scanner will project a red hair-cross aiming pattern.

2. Center the aiming pattern on the barcode, as shown in the figure below.

3. Release the trigger when the aiming pattern goes off. If the barcode is decoded successfully, the scanner will emit a good decode beep and the decoded data will be sent to the host device.

Note: For barcodes of the same batch, the scanner keeps a high success ratio in certain distance which is regarded as the optimal scanning distance.
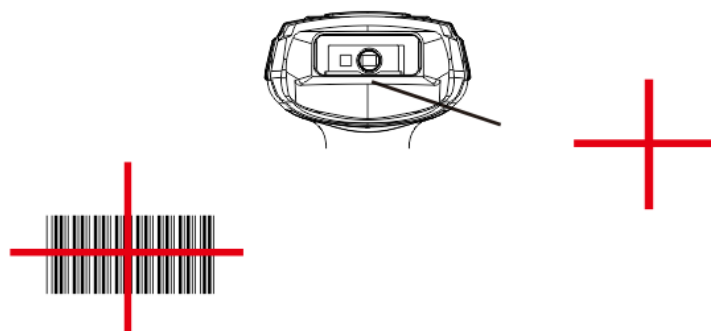
Figure 1-16

Chapter 2   EasySet

EasySet

EasySet, developed by Fujian Newland Auto-ID Tech. Co., Ltd., is a configuration tool for Newland's 1D/2D handheld barcode scanner, fixed mount barcode scanners and OEM scan engines. It can set or query device configurations through the EasySet graphical interface, or it can interact directly with devices by means of instructions.
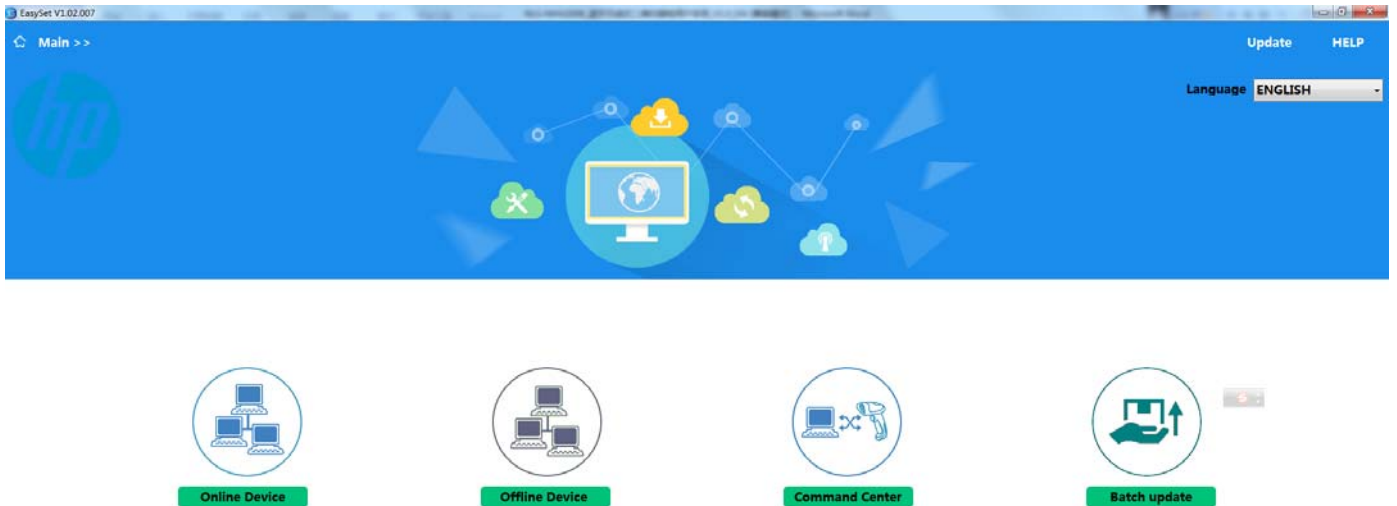
Through the "HELP" interface option of the EasySet interface, you can get the EasySet manual.

Chapter 3   System Settings

Introduction

There are three ways to configure the NVH200: Barcode programming, command programming and Easyset programming.

Barcode programming

The NVH200 can be configured by scanning programming barcodes. All user programmable features/options are described along with their programming barcodes/commands in the following sections.

This programming method is most straightforward. However, it requires manually scanning barcodes. As a result, errors are more likely to occur.

Command programming

The NVH200 can also be configured by serial commands sent from the host device. Besides introducing the barcode, we will also introduce the commands string in the following sections. Using settings command to set up the scanner is automated. Users can design an application program to send those command strings to the scanners to perform device configuration.

EasySet programming

Besides the two methods mentioned above, you can conveniently perform scanner configuration through EasySet too. EasySet is a Windows-based configuration tool particularly designed for Newland products, enabling users to gain access to decoded data and captured images and to configure scanners. For more information about this tool, refer to the EasySet User Guide.

Tip: Except that some temporary settings will disappear after the device is restarted or powered off, other function settings will be stored in the scanner and will not be lost due to the shutdown.

Barcode Identification
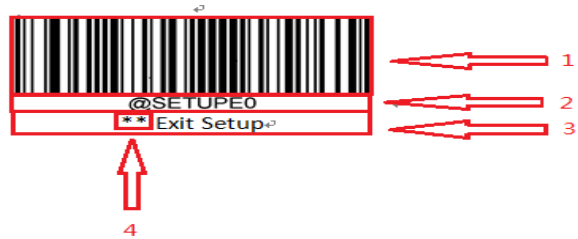
The figure above is an example that shows you the programming barcode and command for the Exit Setup function:

The identification consists of four parts:

1. The "Exit Setup" barcode.
2. The "Exit Setup" command.
3. The description of feature/option.
4. ** indicates factory default settings.

Use of Programming Barcode

Scanning the "Enter Setup" barcode can enable the scanner to enter the setup mode. Then you can scan a number of programming barcodes to configure your scanner. To exit the setup mode, scan the "Exit Setup" barcode or a non-programing barcode.

```
@SETUPE0
```
** Exit Setup

```
@SETUPE1
```
Enter Setup

Programming Barcode Data

Programming barcode data (i.e. the characters under programming barcode) can be transmitted to the host device. Scan the appropriate barcode below to enable or disable the transmission of programming barcode data to the host device.

```
@SETUPT0
```
** Do Not Transmit Programming Barcode Data

```
@SETUPT1
```
Transmit Programming Barcode Data

Illumination

```
@ILLSCN1
```
** Enable

```
@ILLSCN0
```
Disable

Aiming

‖‖‖‖‖‖‖‖‖‖‖‖‖‖‖‖‖
@AMLENA1
** Normal

‖‖‖‖‖‖‖‖‖‖‖‖‖‖‖‖‖
@AMLENA0
Off

‖‖‖‖‖‖‖‖‖‖‖‖‖‖‖‖‖
@AMLENA2
Always on

LED Setting

Good Read LED Setting

‖‖‖‖‖‖‖‖‖‖‖‖‖‖‖‖‖
@GRLENA1
** Enable

‖‖‖‖‖‖‖‖‖‖‖‖‖‖‖‖‖
@GRLENA0
Disable

Good Read LED duration

This parameter sets the amount of time that the Good Read LED to remain on following a good read. It is programmable in 20ms, 120ms, 220ms,320ms.

@GRLDUR20
** Short(20ms)

@GRLDUR120
Normal(120ms)

@GRLDUR220
Long(220ms)

@GRLDUR320
Prolonged(320ms)

@GRLDUR
Custom
(20-10000ms)

Set the Good Read LED duration to 800ms:

1. Scan the Enter Setup barcode.

2. Scan the Custom barcode.

3. Scan the numeric barcodes "8", "0" and "0" from the "Digit Barcodes" section in Appendix.

4. Scan the Save barcode from the "Save/Cancel Barcodes" section in Appendix.

5. Scan the Exit Setup barcode.

Prompts

Boot Beep

||||||||||||
@PWBENA1
** Enable

||||||||||||
@PWBENA0
Disable

Good Read Beep

Scanning the Disable barcode can turn off the beep that indicates successful decode; scanning the Enable barcode can turn it back on.

||||||||||||
@GRBENA1
** Enable

||||||||||||
@GRBENA0
Disable

Good Read Beep Duration

This parameter sets the length of the beep the scanner emits on a good read. It is programmable in 40ms, 80ms, 120ms.

@GRBDUR40
Short(40ms)

@GRBDUR80
** Medium(80ms)

@GRBDUR120
Long(120ms)

@GRBDUR
Custom
(Range 20-300ms)

Set the Good Read Beep duration to 200ms,you can refer to the followings in sequence：

1. Scan "Enter Setup" barcode.

2. Scan the "Custom" barcode.

3. Scan the numeric barcodes "2", "0" and "0" from the "Digit Barcodes" section in Appendix.

4. Scan the Save barcode from the "Save/Cancel Barcodes" section in Appendix.

5. Scan "Exit Setup".

Good Read Beep Frequency

‖‖‖‖‖‖‖‖‖‖‖‖‖‖‖‖‖‖‖‖
@GRBFRQ800
Extra Low(800Hz)

‖‖‖‖‖‖‖‖‖‖‖‖‖‖‖‖‖‖‖‖
@GRBFRQ1600
Low(1600Hz)

‖‖‖‖‖‖‖‖‖‖‖‖‖‖‖‖‖‖‖‖
@GRBFRQ2730
** Medium(2730Hz)

‖‖‖‖‖‖‖‖‖‖‖‖‖‖‖‖‖‖‖‖
@GRBFRQ4200
High(4200Hz)

‖‖‖‖‖‖‖‖‖‖‖‖‖‖‖‖‖‖‖‖
@GRBFRQ
Custom
(Range:20-20000Hz)

Set the Good Read Beep frequency to 2,000Hz, you can refer to the followings in sequence:

1. Scan "Enter Setup" barcode.

2. Scan the "Custom" barcode.

3. Scan the numeric barcodes "2", "0" and "0" from the "Digit Barcodes" section in Appendix.

4. Scan the Save barcode from the "Save/Cancel Barcodes" section in Appendix.

5. Scan "Exit Setup".

Good Read Beep Volume

||||||||||||||||||||||||||||||||
@GRBVOL0
** High

||||||||||||||||||||||||||||||||
@GRBVOL1
Medium

||||||||||||||||||||||||||||||||
@GRBVOL2
Low

Number of Good Read Beeps

The number of beeps of a good read can be programmed from 1 to 9.
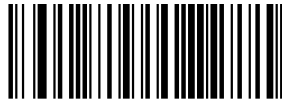
||||||||||||||||||||||||||||||||
@GRBNUM
Number of Good Read Beeps

Good Read Beep Interval Time

||||||||||||||||||||||||||||||||
@GRBITV0
** Short

||||||||||||||||||||||||||||||||
@GRBITV1
Medium

Scan Mode

✧ Level Trigger Mode: A trigger pull activates a decode session. The decode session continues until a barcode is decoded or you release the trigger

✧ Sense Mode: The scanner activates a decode session every time it detects a barcode presented to it. The decode session continues until a barcode is decoded or the decode session timeout expires. Timeout between Decodes (Same Barcode) can avoid undesired rereading of same barcode in a given period of time. Sensitivity can change the Sense Mode's sensibility to changes in images captured.

✧ Continues Mode: The scanner automatically starts one decode session after another. To suspend/resume barcode reading, simply press the trigger. Timeout between Decodes (Same Barcode) can avoid undesired rereading of same barcode in a given period of time.

✧ Batch Mode：A trigger pull activates a round of multiple decode sessions. This round of multiple scans continues until you release the trigger. Rereading the same barcode is not allowed in the same round.

@SCNMOD0
** Level Trigger Mode
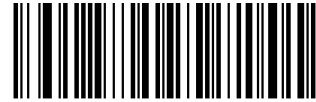
@SCNMOD2
Sense Mode

@SCNMOD3
Continues Mode

@SCNMOD7
Batch Mode

One Reading Timeout

This parameter sets the maximum time decode session continues during a scan attempt. It is programmable in 1ms increments from 1ms to 3600000ms. When it is set to 0, the timeout is infinite. The default setting is 3,000ms

```
@ORTSET
```
One Reading Timeout

Set the decode session timeout to 1500ms, you can refer to the followings in sequence:

1. Scan the "Enter Setup" barcode.

2. Scan the "One Reading Timeout" barcode.

3. Scan the numeric barcodes "1", "5", "0" and "0" from the "Digit Barcodes" section in Appendix.

4. Scan the "Save" barcode from the "Save/Cancel Barcodes" section in Appendix.

5. Scan the "Exit Setup" barcode.

Reading Interval

Timeout between Decodes sets the time period between the end of one decode session and the start of next session. It is programmable in 1ms increments from 1ms to 10,000ms. The default timeout is 500ms. This feature is only applicable to the Continues modes.

@SCNINV

Reading interval(Continues Mode)

Example Set up the interval as 500ms, you can refer to the followings in sequence:

1. Scan the "Enter Setup" barcode.

2. Scan "Reading interval" barcode

3. Scan the numeric barcodes "5", "0" and "0" from the "Digit Barcodes" section in Appendix.

4. Scan the Save barcode from the "Save/Cancel Barcodes" section in Appendix.

5. Scan the "Exit Setup" barcode.

Delay Settings

Reread Delay (Same Barcode)

✧ Enable： Do not allow the scanner to re-read same barcode before the timeout between decodes (same barcode) expires.

✧ Disable： Allow the scanner to re-read same barcode.

✧ Default：Disable the reread delay.

![barcode @RRDENA1]

@RRDENA1
Enable reread delay

![barcode @RRDENA0]

@RRDENA0
** Disable reread delay

Reread Delay Timeout (Same Barcode)

The following parameter sets the timeout between decodes for same barcode. It is programmable in 1ms increments from 1ms to 3,600,000ms. The default setting is 15,000ms.

![barcode @RRDDUR]

@RRDDUR
Reread delay timeout(same barcode)

Set up reread delay timeout for the same barcode as 1000ms, you can refer to the following sequence.

1. Scan the "Enter Setup" barcode.

2. Scan the "reread delay timeout" barcode.

3. Scan the numeric barcodes "1", "0", "0" and "0" from the "Digit Barcodes" section in Appendix.

4. Scan the Save barcode from the "Save/Cancel Barcodes" section in Appendix.

5. Scan the Exit Setup barcode.

Good Read Delay

Good Read Delay sets the minimum amount of time before the scanner can read another barcode. Scan the appropriate barcode below to enable or disable the delay.

@GRDENA1
Enable

@GRDENA0
** Disable

Good Reread Delay timeout

This parameter is programmable in 1ms increments from 1ms to 3,600,000ms. The default setting is 500ms.

@GRDDUR
Good Read Delay

Set the good read delay to 1,000ms,

1.   Scan the Enter Setup barcode.

2.   Scan the Good Read Delay barcode.

3.   Scan the numeric barcodes "1", "0", "0" and "0" from the "Digit Barcodes" section in Appendix.

4.   Scan the Save barcode from the "Save/Cancel Barcodes" section in Appendix.

5.   Scan the Exit Setup barcode.

Vibrate Setting

Good Read Vibrate

```
||||||||||||||||||||||||||||||||
@GRVENA1
On
```

```
||||||||||||||||||||||||||||||||
@GRVENA0
** Off
```

Vibrate Duration

This parameter is programmable in 1ms increments from 100 to 2000ms, the default setting is 300ms.

```
||||||||||||||||||||||||||||||||
@GRVDUR
```
Good Read Vibrate Duration

Image Decoding Timeout

Image Decoding Timeout specifies the maximum time the scanner will spend decoding an image. This parameter is programmable in 1ms increments from 1ms to 3,000ms. The default timeout is 350ms.

```
||||||||||||||||||||||||||||||||
@DETSET
```
Image Decoding Timeout

Set the image decoding timeout to 800ms:

Example

1. Scan the Enter Setup barcode.

2. Scan the Image Decoding Timeout barcode.

3. Scan the numeric barcodes "8", "0" and "0" from the "Digit Barcodes" section in Appendix.

4. Scan the Save barcode from the "Save/Cancel Barcodes" section in Appendix.

5. Scan the Exit Setup barcode.

Sensitivity

Sensitivity specifies the degree of acuteness of the scanner's response to changes in images captured. You can select an appropriate degree of sensitivity that fits the application environment. The default setting is Level 1. This feature is only applicable to the Sense mode.

@SENLVL14
Low

@SENLVL11
Medium

@SENLVL8
High

@SENLVL5
Enhanced

@SENLVL
Custom

Set the sensitivity to Level 10:

1. Scan the Enter Setup barcode.

2. Scan the Custom Sensitivity barcode.

3. Scan the numeric barcodes "1" and "0" from the "Digit Barcodes" section in Appendix.

4. Scan the Save barcode from the "Save/Cancel Barcodes" section in Appendix.

5. Scan the Exit Setup barcode.

||||||||||||||||||||||
@SETUPE1

Enter Setup

Scanning Preferences

||||||||||||||||||||||
@EXPLVL0

** Normal Mode

||||||||||||||||||||||
@EXPLVL4

Motion Mode

||||||||||||||||||||||
@EXPLVL5

Screen Scan Mode

||||||||||||||||||||||
@SETUPE0

** 【Exit Setup】

Read Barcode On/Off

Through sending the command can control to enable or disable to scan the barcode. By default, read barcode is enabled.

✧ Read Barcode Off: Sending the Read Barcode Off command ~<SOH>0000#SCNENA0;<ETX> to the scanner can disable it from reading barcode, and the scanner is unable to scan barcode unless you send the Read Barcode On command

✧ Read Barcode On: Sending the command: ~<SOH>0000#SCNENA1;<ETX> to power cycle it.

Decode Central Area

✧ Whole Area Decoding: The scanner attempts to decode barcode(s) within its field of view, from the center to the periphery, and transmits the barcode that has been first decoded.

✧ Aimed Barcode Decoding: The scanner only decodes the barcode aimed squarely by the aiming pattern. For those using a crosshair aiming pattern, only the barcode aimed by the center of crosshair will be decoded.

@CADENA0

** Whole Area Decoding

@CADENA2

Aimed Barcode Decoding

Image Flipping

it can supported to flip horizontally or Vertical mirror output, in addition, you can get the Image through the Easyset.

@MIRROR0

** Not Flipping

@MIRROR1

Flip Horizontally

@SETUPE0

**Exit Setup

Smart Stand Mode

After this feature is turned on, the scanner will switch from its current scan mode to the Sense mode when it is inserted in the stand, and it will operate in its previous scan mode when it is removed from the stand.

||| ||| |||| ||| |||| ||| |||
@SMTENA0

Off

||| ||| |||| ||| |||| ||| |||
@SMTENA1

** On

Default Settings

Factory Defaults

Scanning the following barcode can restore the scanner to the factory defaults.

You may use set all of the parameters to factory default when you met the following cases:

✧ Scanner is not properly configured so that it fails to decode barcodes.

✧ You forget previous configuration and want to avoid its impact.

|||||| ||| ||| ||| |||||
@FACDEF

** Restore All Factory Defaults

Custom Defaults

Scanning the Restore All Custom Defaults barcode can reset all parameters to the custom defaults. Scanning the Save as Custom Defaults barcode can set the current settings as custom defaults. Custom defaults are stored in the non-volatile memory.

|||||| ||| ||| ||| |||||
@CUSSAV

Save as Custom Defaults

|||||| ||| ||| ||| |||||
@CUSDEF

Restore All Custom Defaults

Restoring the scanner to the factory defaults will not remove the custom defaults from the scanner.

Pairing settings

Matching of scanner and base

The scanner must be matched with the base to communicate with each other. The same base can be paired with 7 scanners. Users can manually pair the scanner with the base: in boot state, the scanner is placed on the base, and then press the "M" key on the base. Paired successful scanners will have voice prompts. If you need to unpair it, you can put the scanner on the base of the pairing, press the "M" button for 5 seconds, the successful unpairing scanner will have a sound prompt. It can also be cleared by scanning the following clear pairing code. If the scanner needs to be paired with another pedestal, it can be paired with another pedestal directly.

```
||||| ||| ||  ||||||||  ||| |||||
@WLSCLP
```
Wireless scanner clears pairing information

Find Paired Scanner

Under the boot state, press the "M" button on the base, and the scanner matching the base will give voice prompts.

Power off

It has been a long time that you have not used the device or it is under transportation process, it will be power off.

```
||||| |||||  ||  |||| ||| |||||
@PWROFF
```
Power Off

Chapter 4 Query Commands

Introduction

This chapter provides the barcodes that are used to query the device information.

Query System Information

After scanning the barcode below, the product information (including product name, hardware version, firmware version, decoder version and manufacturing date, and so on) will be sent to the device.

```
@QRYSYS
```
Query System Information

System information includes:

Name
Product Name
Firmware Version
Decoder Version
Hardware Version
Serial Number
OEM Serial Number
Manufacturing Date

Query Product Name

After scanning the barcode below, the product name information will be sent to the device.

```
@QRYPDN
```
Query Product Name

Query Firmware Version

After scanning the barcode below, the product firmware version information will be sent to the device.

```
@SETUPE0
```

**Exit Setup

||||||| |||| ||| | ||||| |||| |||
@SETUPE1
Enter Setup

||||| |||| ||| ||| |||| |||| |||
@QRYFWV
Query Firmware Version

Query Scanner Name

After scanning the barcode below, the product firmware version information will be sent to the device.

||||| |||| ||| ||| |||| |||| |||
@WLSNAM$
Query Scanner Name

Query Decoder Version

After scanning the barcode below, the decoder version information will be sent to the device.

||||| |||| ||| ||| |||| |||| |||
@QRYDCV
Query Decoder Version

Query Hardware Version

After scanning the barcode below, the hardware version information will be sent to the host.

||||| |||| ||| ||| |||| |||| |||
@QRYHWV
Query Hardware Version

Query Product Serial Number

After scanning the barcode below, the Product Serial Number information will be sent to the host.

||||| |||| ||| ||| |||| |||| |||
@QRYPSN
Query Product Serial Number

||||| |||| ||| ||| |||| |||| |||
@SETUPE0
**【Exit Setup】

Query Manufacturing Date

After scanning the barcode below, the Query Manufacturing Date information will be sent to the host.

||||| ||||| |||||| ||||| |||||
@QRYDAT

Query Manufacturing Date

Query OEM Serial Number

After scanning the barcode below, the Query OEM Serial Number information will be sent to the host.

||||| ||||| |||||| ||||| |||||
@QRYESN

Query OEM Serial Number

Query Base Information

After scanning the barcode below, the CD200 information(Type, Series Number, Manufacturing Date, Hardware Version) will be sent to the host.

||||| ||||| |||||| ||||| |||||
EC00320

Query Base Information

Query Wireless Gun Battery Power

||||| ||||| |||||| ||||| |||||
@WLSQPW

Query Wireless Gun Battery Power

Chapter 5 Communication Settings

Introduction

✧   TheNVH200containsthree modes of wireless communication: synchronous, asynchronous and batch mode.

✧   The wired communication between the CD200 base and the PC terminal: RS-232 or USB

Wireless Communication Settings

✧   Wireless communication includes: Synchronous (Default), Asynchronous and Batch mode.

✧   Synchronous mode:

Under the network condition, the NVH200 wireless scanner will transmit the bar code to the CD200 base immediately after the bar code is collected. Without network, bar code transmission failed.

||||| |||| | ||| ||| |||| ||||| |||||
@WLSBAT0

Synchronous mode

✧   Asynchronous mode:

When the state of the network connection is normal, the bar code is transmitted to the base immediately. When the network connection is disconnected, the barcode data is saved to the user FLASH, and the barcode is transmitted to the base immediately after the network connection is restored. The device will automatically delete the saved barcode information saved by Flash.

||||| |||| | ||| ||| |||| ||||| |||||
@WLSBAT1

Asynchronous mode

✧   Batch mode:

No matter whether the network is connected or not, the barcode is collected and saved to the user FLASH immediately. After the scanner is placed on the base, the "P" key is pressed to complete the batch transmission. When the transmission is completed, the device selects whether to delete the bar code information saved by Flash according to the "Auto Clear Flash" configuration.

||||| |||| | ||| ||| |||| ||||| |||||
@WLSBAT2

Batch mode

||||| |||| | ||| ||| |||| ||||| |||||
@SETUPE0
＊＊【Exit Setup】

Enable Batch Transmission

The scanner transfers the barcode stored in Flash in the manual batch mode to the host.

‖‖‖‖‖‖‖‖‖‖‖‖‖‖
@WLSSBT
Enable Batch Transmission

Query and Remove barcode in user FlASH

‖‖‖‖‖‖‖‖‖‖‖‖‖‖
@WLSQFC
Query the Barcode number in Flash

‖‖‖‖‖‖‖‖‖‖‖‖‖‖
@WLSCLF
Clean Barcode in Flash

Prevent duplicate storage of same barcode

◇ **On**：In automatic batch mode and manual batch mode, if the scanner continuously reads the same barcode, only the barcode read for the first time will be stored. Subsequent read barcodes will not be stored, and there will be prompt tones.

◇ **Off**: In automatic batch mode and manual batch mode, if the scanner continuously reads the same barcode, the barcode read will be stored repeatedly.

‖‖‖‖‖‖‖‖‖‖‖‖‖‖
@WLSSSE0
** On

‖‖‖‖‖‖‖‖‖‖‖‖‖‖
@WLSSSE1
Off

||||||||||||||||||||||||||||||
@SETUPE1

Enter Setup
Transmission Delay (Batch Mode)

||||||||||||||||||||||||||||||
@WLSBTD0
** Off

||||||||||||||||||||||||||||||
@WLSBTD50
Short

||||||||||||||||||||||||||||||
@WLSBTD100
Medium

||||||||||||||||||||||||||||||
@WLSBTD150
Long

||||||||||||||||||||||||||||||
@WLSBTD
Custom(Range 0 - 10000ms)

Set the Transmission Delay (Batch Mode) time out as 200ms:

1. Scan the Enter Setup barcode.

2. Scan the Custom (Range 0 - 10000ms)barcode.

3. Scan the numeric barcodes "2" "0" and "0" from the "Digit Barcodes" section in Appendix.

4. Scan the Save barcode from the "Save/Cancel Barcodes" section in Appendix.

5. Scan the Exit Setup barcode.

||||||||||||||||||||||||||||||
@SETUPE0
**【Exit Setup】

Auto Clear Flash

◇ **On**：In manual batch mode, the batch transfer is started, and the scanner automatically clears the bar code stored in Flash after the transfer is completed.

◇ **Off**：In manual batch mode, the batch transfer is started and the scanner does not clear the bar code stored in Flash after the transfer is completed.

‖‖‖‖‖‖‖‖‖‖
@WLSCLE0
** Off

‖‖‖‖‖‖‖‖‖‖
@WLSCLE1
On

Batch Transmission Terminator

When the Batch transmission is initiated in manual batch mode , and the terminator will be sent after transmission is completed.

‖‖‖‖‖‖‖‖‖‖
@WLSBTT0
** Off

‖‖‖‖‖‖‖‖‖‖
@WLSBTT1
On

Batch Transmission Terminator Settings

||||||||||||||||
@WLSBTC

Custom(0x0 - 0xff)

Retransmission

By default, the retransmission timeout is 200ms and the number of retransmission attempts is 3 times.

||||||||||||||||
@WLSRTE0

** Off

||||||||||||||||
@WLSRTE1

On

Retransmission Timeout Setting

The range for retransmission timeout is 200-10000ms.

||||| || ||| ||| || |||| |||
@WLSRTT

Custom(Range 200-10000ms)

Set the Retransmission Timeout as 200ms:

1. Scan the Enter Setup barcode.

2. Scan the Custom(Range 200-10000ms)barcode.

3. Scan the numeric barcodes "2" "0" and "0" from the "Digit Barcodes" section in Appendix.

4. Scan the Save barcode from the "Save/Cancel Barcodes" section in Appendix.

5. Scan the Exit Setup barcode.

Retransmission Retry Attempts

The number of retransmission Retry attempts can be modified from 1 to 10 times.

||| || ||| ||||| ||| ||| ||||| ||||| |||
@WLSRTN

Custom(Range 1-10)

CD200 Series Port Communication Setting

Baud Rate

Baud rate is the number of bits per second transmitted by serial port data communication. The baud rate used by CD200 base and data receiving host must be consistent to ensure the accuracy of data transmission. The scanner supports the baud rate listed below, which is bit/s. Default: 9600bps.

‖‖‖ ‖‖‖‖‖ ‖‖‖
@232BAD1
2400

‖‖‖ ‖‖‖‖‖ ‖‖‖
@232BAD2
4800

‖‖‖ ‖‖‖‖‖ ‖‖‖
@232BAD3
9600

‖‖‖ ‖‖‖‖‖ ‖‖‖
@232BAD4
14400

‖‖‖ ‖‖‖‖‖ ‖‖‖
@232BAD5
19200

‖‖‖ ‖‖‖‖‖ ‖‖‖
@232BAD6
38400

‖‖‖ ‖‖‖‖‖ ‖‖‖
@232BAD7
57600

‖‖‖ ‖‖‖‖‖ ‖‖‖
@232BAD8
**115200

‖‖‖ ‖‖‖‖‖ ‖‖‖
@SETUPE0
**Exit Setup

Parity Check Character

The scanner can choose different parity character types in the process of using serial port transmission, but it must be the same as the host parity character type.

✧   Select odd parity. If the number of "1" in the transmitted data is odd, the check character is 0.

✧   Select parity check. If the number of "1" in the transmitted data is even, the check character is 0.

✧   Select no check and do not send parity check characters.

@232PAR0

** None

@232PAR1

Even parity

@232PAR2

Odd parity

Data Bit Transmission

Seven or eight bits of data can be transmitted optionally. But please make sure that the data bits of the scanner are consistent with the data receiving host.

||||| |||| ||| ||| ||||
@232DAT1
7 Data Bit

||||| |||| ||| ||| ||||
@232DAT0
** 8 Data Bit

Stop Bit

The stop bit is located at the end of each byte of the transfer data and is used to indicate that this byte transfer is completed and can start beginning to receive the next byte of data.

By default, 1 stop bits are set. If you need to stop for a long time, you can set up 2 stop bits.

||||| |||| ||| ||| ||||
@232STP0
** 1 stop bits

||||| |||| ||| ||| ||||
@232STP1
2 stop bits

||||| |||| ||| ||| ||||
@SETUPE0

Hardware Automatic Flow Control (Default hardware version does not support)

When this setting is enabled, the scanner determines whether the data can be sent according to the level of the CTS signal. When the CTS signal is low, It is indicated that the serial buffer of the receiver (PC, etc.) is full, and the reader will not send the serial data until the CTS signal is set to a high level by the receiver (PC, etc.). When the reader's serial port is not ready to receive RTS will be set to low level, the transmitter (PC, etc.) detected that the signal is low level, can't send data to the reader, otherwise the data will be lost.

If hardware automatic flow control is forbidden, the receiving and sending of serial data will not be affected by RTS/CTS signal.

@232AFL0

** Off

@232AFL1

On

If you need to use hardware automatic flow control, make sure that the serial communication cable used contains RTS / CTS signal lines. If the serial communication cable does not contain RTS / CTS signal line, opening hardware automatic flow control will lead to serial communication failure.

CD200 USB Communication Settings

There are two options for the USB connection: 1 USB HID Keyboard 2 USB HID CDC COM Port

USB HID Keyboard

```
@INTERF3
```
** USB HID-KBW

USB HID CDC COM Port

```
@INTERF8
```
USB CDC COM Port

USB Country Keyboard Types

Keyboard layouts vary from country to country. The default setting is U.S. keyboard.

```
@KBWCTY0
```
** U.S. (English)

```
@KBWCTY1
```
Belgium

```
@KBWCTY2
```
Brazil

```
@KBWCTY3
```
Canada (French)

```
@KBWCTY4
```
Czechoslovakia

```
@KBWCTY5
```
Denmark

```
@KBWCTY6
```
Finland (Swedish)

```
@KBWCTY7
```
France

||||| ||| |||||| ||| |||||
@KBWCTY8

Germany/ Austria

||||| ||| |||||| ||| |||||
@KBWCTY9

Greece

||||| ||| |||||| ||| |||||
@KBWCTY10

Hungary

||||| ||| |||||| ||| |||||
@KBWCTY11

Israel (Hebrew)
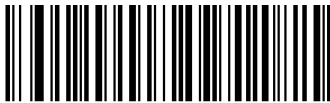
||||| ||| |||||| ||| |||||
@KBWCTY12

Italy

||||| ||| |||||| ||| |||||
@KBWCTY13

Latin America/ South America
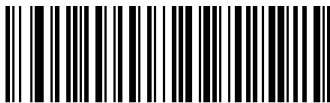
||||| ||| |||||| ||| |||||
@KBWCTY14

Netherlands (Dutch)

||||| ||| |||||| ||| |||||
@KBWCTY15

Norway

||||| ||| |||||| ||| |||||
@KBWCTY16

Poland

||||||||||||||||||||||||
@KBWCTY17

Portugal

||||||||||||||||||||||||
@KBWCTY18

Romania

||||||||||||||||||||||||
@KBWCTY19

Russia

||||||||||||||||||||||||
@KBWCTY21

Slovakia

||||||||||||||||||||||||
@KBWCTY22

Spain

||||||||||||||||||||||||
@KBWCTY23

Sweden

||||||||||||||||||||||||
@KBWCTY24

Switzerland (German)

||||||||||||||||||||||||
@KBWCTY25

Turkey_F
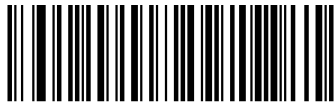
‖‖‖‖‖ @KBWCTY26
Turkey_Q

‖‖‖‖‖ @KBWCTY27
UK

‖‖‖‖‖ @KBWCTY28
Japan

Beep on Unknown Character

Due to the differences in keyboard layouts, some characters contained in barcode data may be unavailable on the selected keyboard. As a result, the scanner fails to transmit the unknown characters.

Scan the appropriate barcode below to enable or disable the emission of beep when an unknown character is detected.

‖‖‖‖‖ @KBWBUC0
** Off

‖‖‖‖‖ @KBWBUC1
On

Supposing French keyboard (Country Code: 7) is selected and barcode data "AÐF" is being dealt with, the keyboard will fail to locate the "Ð" (0xD0) character and the scanner will ignore the character and continue to process the next one.

Do Not Beep on Unknown Character: The scanner does not beep and the Host receives "AF".

‖‖‖‖‖ @SETUPE0

Beep on Unknown Character: The scanner beeps and the Host still receive "AF".

If Emulate ALT+Keypad ON is selected, Beep on Unknown Character does not function.

Emulate ALT+Keypad

After Emulate ALT+Keypad ON is selected, you need to choose the code page with which the barcodes were created and to turn Unicode Encoding On or Off depending on the encoding used by the application software. Code Page determines the target language, and Unicode output settings control whether the input to the host is encoded in Unicode or Code Page.

```
@KBWALT0
```
** Off

```
@KBWALT1
```
On

This method ensures that any character can be transmitted smoothly, but because there are too many keys to simulate for each character to be transmitted, the speed is slow.

Supposing Emulate ALT+Keypad is ON, Unicode Encoding is Off, and Code Page 1252 (West European Latin) is selected, barcode data "AÐF" (65/208/70) is sent as below:

"A" – "ALT Make" + "065" + "ALT Break" "Ð" -- "ALT Make" + "208" + "ALT Break"

"F" -- "ALT Make" + "070" + "ALT Break"

```
@SETUPE0
```
Exit Setup

Code Page

Code pages define the mapping of character codes to characters. If the data received does not display with the proper characters, it may be because the barcode being scanned was created using a code page that is different from the one the host program is expecting. If this is the case, select the code page with which the barcodes were created by scanning the appropriate barcode below. For PDF417, QR Code, Aztec and Data Matrix, besides setting the code page, you also need to set the character encoding in the "Character Encoding" section in Chapter 6. This feature is only effective when Emulate ALT+Keypad is turned on.

【barcode】
@KBWCPG0

** Code Page 1252 (West European Latin)
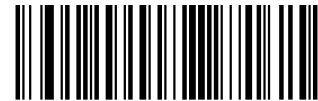
【barcode】
@KBWCPG1

Code Page 1251 (Cyrillic)

【barcode】
@KBWCPG2

Code Page 1250 (Central and East European Latin)
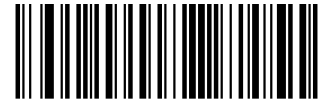
【barcode】
@KBWCPG3

Code Page 1253 (Greek)

【barcode】
@KBWCPG4

Code Page 1254 (Turkish)
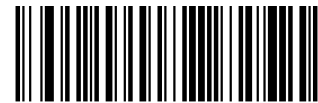
【barcode】
@KBWCPG5

Code Page 1255 (Hebrew)

【barcode】
@KBWCPG6

Code Page 1256 (Arabic)

||||| ||| || ||| ||||
@KBWCPG7
Code Page 1257 (Baltic)

||||| ||| || ||| ||||
@KBWCPG8
Code Page 1258 (Vietnamese)
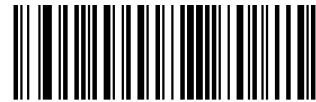
||||| ||| || ||| ||||
@KBWCPG9
Code Page 936 (Simplified Chinese, GB2312,GBK）

||||| ||| || ||| ||||
@KBWCPG10
Code Page 950 (Traditional Chinese, Big5)

||||| ||| || ||| ||||
@KBWCPG11
Code Page 874(Thai)

||||| ||| || ||| ||||
@KBWCPG12
Code Page 932(Japanese, Shift-JIS)

||||| ||| || ||| ||||
@KBWCPG13
Code Page 949(Korean, Unified Hangul Code)

||||| ||| || ||| ||||
@SETUPE0
**Exit Setup

Unicode Encoding

Different host program may use different character encodings for handling incoming barcode data. For instance, Microsoft Office Word uses Unicode encoding and therefore you should turn Unicode Encoding on, whereas Microsoft Office Excel or Notepad uses Code Page encoding and therefore you should turn Unicode Encoding off. This feature is only effective when Emulate ALT+Keypad is turned on.

|||| |||| |||| |||| |||| ||||
@KBWCPU0
** ** Off**

|||| |||| |||| |||| |||| ||||
@KBWCPU1
On

Control Characters Output

The ASCII characters located between 0x00~0x1F can be transferred to a certain control function key. The input of control function keys in the virtual keyboard is as follows. The corresponding relationship between specific ASCII values and control function keys is shown in the table below. Default: Off

@KBWFKM0
** Off

@KBWFKM1
Control + ASCII Mode

Other HID Keyboard-related settings on the scanner are set to default values. This setting is set to control the character output in Control+ASCII mode. The data is read as "A<HT>F (HT is invisible, not displayed on the terminal software)" (hexadecimal values are 0x41/0x09/0x46), and the scanner operates on a virtual keyboard. As follows:

Enter "A" - press the button A;

Enter "Ctrl I" - Because 0x09 data corresponds to the control function key "I", the virtual keyboard will hold down Ctrl, then press I, and finally release both Ctrl and I keys.

Enter "F" - press the button F.

Because "Ctrl I" corresponds to the function of converting characters into italics in some word processing software, you may see the normal character "A" and the italic character "F" when you do this.

This function is invalid if Emulate ALT+Keypad has been turned on.

ASCII Function Key Mapping Table

ASCII Function	ASCII Value（HEX）	Function Key Mapping Disabled	Ctrl+ASCII
NUL	00	Null	Ctrl+@
SOH	01	Keypad Enter	Ctrl+A
STX	02	Caps Lock	Ctrl+B
ETX	03	ALT	Ctrl+C
EOT	04	Null	Ctrl+D
ENQ	05	CTRL	Ctrl+E
ACK	06	Null	Ctrl+F
BEL	07	Enter	Ctrl+G
BS	08	Left Arrow	Ctrl+H
HT	09	Horizontal Tab	Ctrl+I
LF	0A	Down Arrow	Ctrl+J
VT	0B	Vertical Tab	Ctrl+K
FF	0C	Delete	Ctrl+L
CR	0D	Enter	Ctrl+M
SO	0E	Insert	Ctrl+N
SI	0F	Esc	Ctrl+O
DLE	10	F11	Ctrl+P
DC1	11	Home	Ctrl+Q
DC2	12	Print Screen	Ctrl+R
DC3	13	Backspace	Ctrl+S
DC4	14	tab+shift	Ctrl+T
NAK	15	F12	Ctrl+U
SYN	16	F1	Ctrl+V
ETB	17	F2	Ctrl+W
CAN	18	F3	Ctrl+X
EM	19	F4	Ctrl+Y
SUB	1A	F5	Ctrl+Z
ESC	1B	F6	Ctrl+[
FS	1C	F7	Ctrl+\
GS	1D	F8	Ctrl+]
RS	1E	F9	Ctrl+6
US	1F	F10	Ctrl+-

ASCII Function Key Mapping Table (Continued)

The last five characters (0x1B~0x1F) in the table above apply to US keyboard layout only. The following chart provides the equivalents of these five characters for other countries.

Country	Ctrl+ASCII					
United	Ctrl+ [	Ctrl+\	Ctrl+]	Ctrl+6	Ctrl+-	
Belgium	Ctrl+ [	Ctrl+<	Ctrl+]	Ctrl+6	Ctrl+-	
Scandinavia	Ctrl+8	Ctrl+<	Ctrl+9	Ctrl+6	Ctrl+-	
France	Ctrl+^	Ctrl+8	Ctrl+$	Ctrl+6	Ctrl+=	
Germany		Ctrl+Ã	Ctrl++	Ctrl+6	Ctrl+-	
Italy		Ctrl+\	Ctrl++	Ctrl+6	Ctrl+-	
Switzerland		Ctrl+<	Ctrl+..	Ctrl+6	Ctrl+-	
United Kingdom	Ctrl+ [	Ctrl+₡	Ctrl+]	Ctrl+6	Ctrl+-	
Denmark	Ctrl+8	Ctrl+\	Ctrl+9	Ctrl+6	Ctrl+-	
Norway	Ctrl+8	Ctrl+\	Ctrl+9	Ctrl+6	Ctrl+-	
Spain	Ctrl+ [	Ctrl+\	Ctrl+]	Ctrl+6	Ctrl+-	

Inter-Keystroke Delay

This parameter specifies the delay between emulated keystrokes. The default :No delay.

|||||||||||||||||||||||||||||
@KBWDLY0
** No Delay

|||||||||||||||||||||||||||||
@KBWDLY40
Long(40ms)

|||||||||||||||||||||||||||||
@KBWDLY20
Short(20ms)

Caps Lock

The Caps Lock ON option can invert upper and lower case characters contained in barcode data. This inversion occurs regardless of the state of Caps Lock key on the host device's keyboard.

|||||||||||||||||||||||||||||
@KBWCAP0
** Off

|||||||||||||||||||||||||||||
@KBWCAP1
On

Emulate ALT+Keypad ON/ Convert All to Upper Case/ Convert All to Lower Case prevails over Caps Lock ON.

When the Caps Lock ON feature is selected, barcode data "AbC" is transmitted as "aBc".

Convert Case

Scan the appropriate barcode below to convert all bar code data to your desired case.The default: No Case Conversion

✧ If it is set as"Convert All to Upper Case", Whether the barcode is capitalized or lowercase, all characters are converted to uppercase letters.

✧ If it is set as "Convert All to Lower Case", Whether the barcode is capitalized or lowercase, all characters are converted to lowercase letters.

|||||||||||||||||||||||||||||||
@KBWCAS0

** No Case Conversion

|||||||||||||||||||||||||||||||
@KBWCAS1

Convert All to Upper Case

|||||||||||||||||||||||||||||||
@KBWCAS2

Convert All to Lower Case

If Emulate ALT+Keypad ON is selected, Convert All to Lower Case and Convert All to Upper Case do not function.

When the Convert All to Lower Case feature is enabled, barcode data "AbC" is transmitted as "abc".

Emulate Numeric Keypad

Digital Character Use Emulate Numeric Keypad

Do Not Emulate Numeric Keypad 1: Sending a number (0-9) is emulated as keystroke(s) on main keyboard.

Emulate Numeric Keypad 1: Sending a number (0-9) is emulated as keystroke(s) on numeric keypad. The state of Num Lock on the simulated numeric keypad is determined by its equivalent on the host device. If Num Lock on the host device is turned off, the output of simulated numeric keypad is function key instead of number.

The numeric keypad, as shown in the figure above, is generally located on the far right side of the keyboard, and is controlled by the NumLock in the upper left corner whether the key value is a number or a function key. The virtual keyboard does not independently control the Num Lock state, but is consistent with the Num Lock state of the host's actual keyboard, so if the host's actual keyboard turns off Num Lock (Num Lock lights out), the scanner's virtual numeric keypad outputs a function key instead of a number.

||||| ||| || ||||||| ||||
@KBWNUM0
** Off

||||| ||| || ||||||| ||||
@KBWNUM1
On

Emulate ALT+Keypad ON prevails over Emulate Numeric Keypad.

Supposing the Emulate Numeric Keypad 1 feature is enabled:

If Num Lock on the host device is ON, "A4.5" is transmitted as "A4.5"; if Num Lock on the host device is OFF, "A4.5" is transmitted as ".A":

1. "A" is sent on main keyboard;

2. "4" is sent as the function key "Cursor Move to Left";

3. "." is sent on main keyboard;

4. "5" is not sent as it does not correspond to any function key.

Characters '+' , '-' , '*' , '/' Use Emulate Numeric Keypad

@KBWNCH0

** Off

@KBWNCH1

On

Polling Rate

Keyboard polling rate can be set to 1~10 milliseconds according to the following settings. The smaller the set value, the faster the scanner can send characters to the host. If the host will discard characters, please set the polling speed to set the value.

||||| ||| ||||| ||| |||||
@KBWPOR0
1ms

||||| ||| ||||| ||| |||||
@KBWPOR1
2ms

||||| ||| ||||| ||| |||||
@KBWPOR2
3ms

||||| ||| ||||| ||| |||||
@KBWPOR3
** 4ms

||||| ||| ||||| ||| |||||
@KBWPOR4
5ms

||||| ||| ||||| ||| |||||
@KBWPOR5
6ms

||||| ||| ||||| ||| |||||
@KBWPOR6
7ms

|||| |||| |||||||||||||||||| ||||||
@KBWPOR7
8ms

|||| |||| |||||||||||||||||| ||||||
@KBWPOR8
9ms

|||| |||| |||||||||||||||||| ||||||
@KBWPOR9
10ms
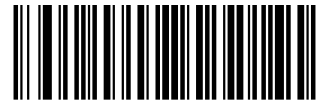
USB CDC COM Port

When you use USB connection, and at the same time you want the host to use serial port mode to receive data, you should use the USB CDC COM port mode. From the host system interface, the scanner is equivalent to connecting to the host through serial port.

|||||||||||||||||||||||||||
@INTERF8

USB CDC COM Port

Chapter 6   Symbologies

Introduction

Every symbology (barcode type) has its own unique attributes. This chapter provides programming barcodes for configuring the scanner so that it can identify various symbologies. It is recommended to disable those that are rarely used to increase the efficiency of the scanner.

Global Settings

Enable All Symbologies

If the Enable All Symbologies feature is enabled, the scanner will be able to read any barcodes.

||||| ||| |||| || ||| |||||
@ALLENA1
Enable All Symbologies

Disable All Symbologies

If the Disable All Symbologies feature is enabled, the scanner will not be able to read any non-programming barcodes except the programming barcodes.

||||| ||| |||| || ||| |||||
@ALLENA0
Disable All Symbologies

Enable 1D Symbologies

‖‖‖‖‖‖‖‖‖‖‖‖‖‖‖‖‖
@ALL1DC1
Enable 1D Symbologies

Disable 1D Symbologies

‖‖‖‖‖‖‖‖‖‖‖‖‖‖‖‖‖
@ALL1DC0
Disable 1D Symbologies

Enable 2D Symbologies

‖‖‖‖‖‖‖‖‖‖‖‖‖‖‖‖‖
@ALL2DC1
Enable 2D Symbologies

Disable 2D Symbologies

‖‖‖‖‖‖‖‖‖‖‖‖‖‖‖‖‖
@ALL2DC0
Disable 2D Symbologies

Enable All Postal Symbologies

@ALLPST1

Enable All Postal Symbologies

Disable All Postal Symbologies

@ALLPST0

Disable All Postal Symbologies

1D Twin Code

1D twin code is two 1D barcodes of a symbology or of different symbologies paralleled vertically. Both barcodes must have similar specifications and be placed closely together.

✧   There are 3 options for reading 1D twin code:

✧   Single 1D Code Only: Read either 1D code.

✧   Twin 1D Code Only: Read both 1D codes. Transmission sequence: upper 1D code followed by lower 1D code.

✧   Both Single & Twin: Read both 1D codes. If successful, transmit as twin 1D code only. Otherwise, try single 1D code only.

||||| ||||||| |||| ||||
@A1DDOU0
** Single 1D Code Only

||||| ||||||| |||| ||||
@A1DDOU2
Twin 1D Code Only

||||| ||||||| |||| ||||
@A1DDOU1
Both Single & Twin

Enhance Poor Quality 1D Barcode Decoding

||||| ||||||| |||| ||||
@ALL1DE0
** Off

||||| ||||||| |||| ||||
@ALL1DE1
On

Code 128

Restore Factory Defaults

||||| ||| |||| ||| ||| |||||
@128DEF

** Code 128 Restore Factory Defaults

Enable/Disable Code 128

||||| ||| ||| |||| ||||| |||
@128ENA1
**On

||||| ||| ||| |||| ||||| |||
@128ENA0
Off

If the scanner fails to identify Code 128 barcodes, you may first try this solution by scanning the Enter Setup barcode and then Enable Code 128 barcode.

Set Length Range for Code 128

The scanner can be configured to only decode Code 128 barcodes with lengths that fall between (inclusive) the minimum and maximum lengths. To accomplish it, you need to set the minimum and maximum lengths.

@128MIN

Set the Minimum Length (Default: 1)

@128MAX

Set the Maximum Length (Default: 48)

If minimum length is set to be greater than maximum length, the scanner only decodes Code 128 barcodes with either the minimum or maximum length. If minimum length is same as maximum length, only Code 128 barcodes with that length are to be decoded.

Set the scanner to decode Code 128 barcodes containing between 8 and 12 characters:

1. Scan the Enter Setup barcode.

2. Scan the Set the Minimum Length barcode.

3. Scan the numeric barcode "8" from the "Digit Barcodes" section in Appendix.

4. Scan the Save barcode from the "Save/Cancel Barcodes" section in Appendix.

5. Scan the Set the Maximum Length barcode.

6. Scan the numeric barcodes "1" and "2" from the "Digit Barcodes" section in Appendix.

7. Scan the Save barcode from the "Save/Cancel Barcodes" section in Appendix.

8. Scan the Exit Setup barcode.

@SETUPE0

Exit Setup

EAN-8

Restore Factory Defaults

```
║║║║║║║║║║║║║║║║
@EA8DEF
```
** EAN-8 Restore Factory Defaults

Enable/Disable EAN-8

```
║║║║║║║║║║║║║║║║
@EA8ENA1
```
** Enable EAN-8

```
║║║║║║║║║║║║║║║║
@EA8ENA0
```
Disable EAN-8

Transmit Check Character

EAN-8 is 8 digits in length with the last one as its check character used to verify the integrity of the data.

```
║║║║║║║║║║║║║║║║
@EA8CHK2
```
** Transmit EAN-8 Check Character

```
║║║║║║║║║║║║║║║║
@EA8CHK1
```
Do Not Transmit EAN-8 Check Character

2-Digit Add-On Code

An EAN-8 barcode can be augmented with a two-digit add-on code to form a new one. In the example below, the part surrounded by blue dotted line is an EAN-8 barcode while the part circled by red dotted line is a two-digit add-on code.

||||| |||| || ||| 1234 567 ||

||||| |||| || ||| ||||| |||
@EA8AD20
** Disable 2-Digit Add-On Code

||||| |||| || ||| ||||| |||
@EA8AD21
Enable 2-Digit Add-On Code

5-Digit Add-On Code

An EAN-8 barcode can be augmented with a five-digit add-on code to form a new one. In the example below, the part surrounded by blue dotted line is an EAN-8 barcode while the part circled by red dotted line is a five-digit add-on code.

@EA8AD50

** Disable 5-Digit Add-On Code

@EA8AD51

Enable 5-Digit Add-On Code

If you set up as "Enable 2- Digit Add-On Code" or "Enable 5-Digit Add-On Code", the scanner decodes a mix of EAN-8 barcodes with and without 2-digit / 5-digits add-on codes.

if you have set up as "Disable 2- Digit Add-On Code" or " Disable 5-Digit Add-On Code" , The scanner decodes EAN-8 and ignores the add-on code when presented with an EAN-8 plus 2-digit / 5-digit add-on barcode. It can also decode EAN-8 barcodes without 2-digit / 5-digit add-on codes.

Add-On Code Required

When EAN-8 Add-On Code Required is selected, the scanner will only read EAN-8 barcodes that contain add-on codes.

‖‖‖‖‖‖‖‖‖‖‖
@EA8REQ0
** EAN-8 Add-On Code Not Required

‖‖‖‖‖‖‖‖‖‖‖
@EA8REQ1
EAN-8 Add-On Code Required

Add-On Code Separator

When this feature is on, there is a space between the data from the barcode and the data from the add-on code. When turned off, there is no space.

‖‖‖‖‖‖‖‖‖‖‖
@EA8SEP0
** Off

‖‖‖‖‖‖‖‖‖‖‖
@EA8SEP1
On

Convert EAN-8 to EAN-13

When you convert the EAN-8 to EAN-13, Barcode information is processed according to EAN-13 settings.

‖‖‖‖‖‖‖‖‖‖‖
@EA8EXP0
**Do Not Convert EAN-8 to EAN-13

‖‖‖‖‖‖‖‖‖‖‖
@EA8EXP1
Convert EAN-8 to EAN-13

‖‖‖‖‖‖‖‖‖‖‖
@SETUPE0
Exit Setup

||||||||||||||||
@SETUPE1

Enter Setup

EAN-13

Restore Factory Defaults

||||||||||||||||
@E13DEF

** EAN-13 Restore Factory Defaults

Enable/Disable EAN-13

||||||||||||||||
@E13ENA1

** Enable EAN-13

||||||||||||||||
@E13ENA0

Disable EAN-13

Transmit Check Character

||||||||||||||||
@E13CHK2

** Transmit Check Character
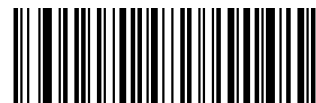
||||||||||||||||
@E13CHK1

Do Not Transmit Check Character

||||||||||||||||
@SETUPE0

**【Exit Setup】

2-Digit Add-On Code

An EAN-13 barcode can be augmented with a two-digit add-on code to form a new one. In the example below, the part surrounded by blue dotted line is an EAN-13 barcode while the part circled by red dotted line is a two-digit add-on code.

|||||||||||||||||||||||
1 234567 89012   34

|||||||||||||||||||||||
@E13AD20
** Disable 2-Digit Add-On Code

|||||||||||||||||||||||
@E13AD21
Enable 2-Digit Add-On Code

5-Digit Add-On Code

An EAN-13 barcode can be augmented with a five-digit add-on code to form a new one. In the example below, the part surrounded by blue dotted line is an EAN-13 barcode while the part circled by red dotted line is a five-digit add-on code.

|||‖|||‖|‖|‖|‖|‖|‖|‖
@E13AD50
** Disable 5-Digit Add-On Code

|||‖|||‖|‖|‖|‖|‖|‖|‖
@E13AD51
Enable 5-Digit Add-On Cod

If you set up as "Enable 2- Digit Add-On Code" or "Enable 5-Digit Add-On Code", the scanner decodes a mix of EAN-8 barcodes with and without 2-digit / 5-digits add-on codes.

if you have set up as "Disable 2- Digit Add-On Code" or " Disable 5-Digit Add-On Code" , The scanner decodes EAN-8 and ignores the add-on code when presented with an EAN-8 plus 2-digit / 5-digit add-on barcode. It can also decode EAN-8 barcodes without 2-digit / 5-digit add-on codes.

Add-On Code Required

When EAN-13 Add-On Code Required is selected, the scanner will only read EAN-13 barcodes that contain add-on codes.

@E13REQ0
** EAN-13 Add-On Code Not Required

@E13REQ1
EAN-13 Add-On Code Required

Add-On Code Separator

When this feature is on, there is a space between the data from the barcode and the data from the add-on code. When turned off, there is no space.

@E13SEP0
** Off

@E13SEP1
On

EAN-13 Beginning with 290 Add-On Code Required

✧ Require Add-On Code: All EAN-13 barcodes that begin with "290" must have a 2-digit or 5-digit add-on code. The EAN-13 barcode with the add-on code is then transmitted. If the required add-on code is not found, the EAN-13 barcode is discarded.

✧ Do Not Require Add-On Code: If you have selected Require Add-On Code, and you want to disable this feature, scan Do Not Require Add-On Code. EAN-13 barcodes are handled, depending on your selection for the "Add-On Code Required" feature.

@E132900
** Do Not Require Add-On Code

@E132901
Require Add-On Code

@SETUPE0
**Exit Setup

EAN-13 Beginning with 378/379 Add-On Code Required

✧ Require Add-On Code: All EAN-13 barcodes that begin with a "378" or "379" must have a 2-digit or 5-digit add-on code. The EAN-13 barcode with the add-on code is then transmitted. If the required add-on code is not found, the EAN-13 barcode is discarded.

✧ Do Not Require Add-On Code: If you have selected Require Add-On Code, and you want to disable this feature, scan Do Not Require Add-On Code. EAN-13 barcodes are handled, depending on your selection for the "Add-On Code Required" feature.

```
|||||||||||||||||||||||||
@E133780
```
** Do Not Require Add-On Code

```
|||||||||||||||||||||||||
@E133781
```
Require Add-On Code

EAN-13 Beginning with 414/419 Add-On Code Required

This setting programs the scanner to require an add-on code (2-digit or 5-digit) on EAN-13 barcodes that begin with a "414" or "419". The following settings can be programmed:

✧ Require Add-On Code: All EAN-13 barcodes that begin with a "414" or "419" must have a 2-digit or 5-digit add-on code. The EAN-13 barcode with the add-on code is then transmitted. If the required add-on code is not found, the EAN-13 barcode is discarded.

✧ Do Not Require Add-On Code: If you have selected Require Add-On Code, and you want to disable this feature, scan Do Not Require Add-On Code. EAN-13 barcodes are handled, depending on your selection for the "Add-On Code Required" feature.

```
|||||||||||||||||||||||||
@E134140
```
** Do Not Require Add-On Code

```
|||||||||||||||||||||||||
@E134141
```
Require Add-On Code

EAN-13 Beginning with 434/439 Add-On Code Required

✧ Require Add-On Code: All EAN-13 barcodes that begin with a "434" or "439" must have a 2-digit or 5-digit add-on code. The EAN-13 barcode with the add-on code is then transmitted. If the required add-on code is not found, the EAN-13 barcode is discarded.

✧ Do Not Require Add-On Code: If you have selected Require Add-On Code, and you want to disable this feature, scan Do Not Require Add-On Code. EAN-13 barcodes are handled, depending on your selection for the "Add-On Code Required" feature.

||||| |||| ||| ||||| |||
@E134340
** Do Not Require Add-On Code

||||| |||| ||| ||||| |||
@E134341
Require Add-On Code

EAN-13 Beginning with 977 Add-On Code Required

✧ Require Add-On Code: All EAN-13 barcodes that begin with "977" must have a 2-digit or 5-digit add-on code. The EAN-13 barcode with the add-on code is then transmitted. If the required add-on code is not found, the EAN-13 barcode is discarded.

✧ Do Not Require Add-On Code: If you have selected Require Add-On Code, and you want to disable this feature, scan Do Not Require Add-On Code. EAN-13 barcodes are handled, depending on your selection for the "Add-On Code Required" feature.

||||| |||| ||| ||||| |||
@E139770
** Do Not Require Add-On Code

||||| |||| ||| ||||| |||
@E139771
Require Add-On Code

EAN-13 Beginning with 978 Add-On Code Required

✧ Require Add-On Code: All EAN-13 barcodes that begin with "978" must have a 2-digit or 5-digit add-on code. The EAN-13 barcode with the add-on code is then transmitted. If the required add-on code is not found, the EAN-13 barcode is discarded.

✧ Do Not Require Add-On Code: If you have selected Require Add-On Code, and you want to disable this feature, scan Do Not Require Add-On Code. EAN-13 barcodes are handled, depending on your selection for the "Add-On Code Required" feature.

||||||||||||||||||||
@E139780
** 不要求

||||||||||||||||||||
@E139781
要求

EAN-13 Beginning with 979 Add-On Code Required

✧ Require Add-On Code: All EAN-13 barcodes that begin with "979" must have a 2-digit or 5-digit add-on code. The EAN-13 barcode with the add-on code is then transmitted. If the required add-on code is not found, the EAN-13 barcode is discarded.

✧ Do Not Require Add-On Code: If you have selected Require Add-On Code, and you want to disable this feature, scan Do Not Require Add-On Code. EAN-13 barcodes are handled, depending on your selection for the "Add-On Code Required" feature.

||||||||||||||||||||
@E139790
** Do Not Require Add-On Code

||||||||||||||||||||
@E139791
Require Add-On Code

UPC-E

Restore Factory Defaults

‖‖‖ ‖‖‖‖‖ ‖‖‖‖‖
@UPEDEF
** UPC-E Restore Factory Defaults

Enable/Disable UPC-E

‖‖‖ ‖‖‖‖‖ ‖‖‖‖‖
@UPEENA1
** Enable UPC-E

‖‖‖ ‖‖‖‖‖ ‖‖‖‖‖
@UPEENA0
Disable UPC-E

If the scanner fails to identify UPC-E barcodes, you may first try this solution by scanning the Enter Setup barcode and then Enable UPC-E barcode.

UPC-E0

@UPEEN01
**

Enable UPC-E0

@UPEEN00
Disable UPC-E0

UPC-E1

@UPEEN11
Enable UPC-E1

@UPEEN10
** Disable UPC-E1

Transmit Check Character

UPC-E is 8 digits in length with the last one as its check character used to verify the integrity of the data.

@UPECHK2
** Transmit UPC-E Check Character

@UPECHK1
Do Not Transmit UPC-E Check Character

2-Digit Add-On Code

A UPC-E barcode can be augmented with a two-digit add-on code to form a new one. In the example below, the part surrounded by blue dotted line is a UPC-E barcode while the part circled by red dotted line is a two-digit add-on code.

@UPEAD20
** Disable 2-Digit Add-On Code

@UPEAD21
Enable 2-Digit Add-On Code

@SETUPE0

5-Digit Add-On Code

A UPC-E barcode can be augmented with a five-digit add-on code to form a new one. In the example below, the part surrounded by blue dotted line is a UPC-E barcode while the part circled by red dotted line is a five-digit add-on code.

||||||||||||||||||||
@UPEAD50
** Disable 5-Digit Add-On Code

||||||||||||||||||||
@UPEAD51
Enable 5-Digit Add-On Code

If you set up as "Enable 2- Digit Add-On Code" or "Enable 5-Digit Add-On Code", the scanner decodes a mix of UPC-E barcodes with and without 2-digit / 5-digits add-on codes.

if you have set up as "Disable 2- Digit Add-On Code" or " Disable 5-Digit Add-On Code" , The scanner decodes UPC-E and ignores the add-on code when presented with an UPC-E plus 2-digit / 5-digit add-on barcode. It can also decode UPC-E barcodes without 2-digit / 5-digit add-on codes.

Add-On Code Required

When UPC-E Add-On Code Required is selected, the engine will only read UPC-E barcodes that contain add-on codes.

||| ||||| |||| ||| |||| || ||||| |||
@UPEREQ0
** UPC-E Add-On Code Not Required

||| |||||||| || |||| ||| ||| |||| |
@UPEREQ1
UPC-E Add-On Code Required

Add-On Code Separator

When this feature is on, there is a space between the data from the barcode and the data from the add-on code. When turned off, there is no space.
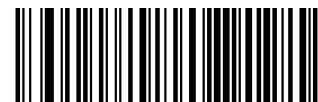
||| |||||| ||| || ||| |||| | |||| |
@UPESEP0
** Off

||| |||||||| || ||| | |||| ||| ||||
@UPESEP1
On

||| |||||||| ||| | |||| ||| |||| |
@SETUPE0
Exit Setup

||||| |||| ||||| |||||
@SETUPE1

Enter Setup

Transmit Preamble Character

Preamble characters (Country Code and System Character) can be transmitted as part of a UPC-E barcode. Select one of the following options for transmitting UPC-E preamble to the host device: transmit system character only, transmit system character and country code ("0" for USA), or transmit no preamble.

||||| |||| ||||| |||||
@UPEPRE1
** System Character

||||| |||| ||||| |||||
@UPEPRE0
No Preamble

||||| |||| ||||| |||||
@UPEPRE2
System Character & Country Code

Convert UPC-E to UPC-A

When you convert the UPC-E to UPC-A, Barcode information is processed according to EAN-13 settings.
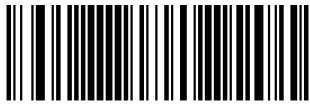
||||| |||| ||||| |||||
@UPEEXP0
** Do Not Convert UPC-E to UPC-A

||||| |||| ||||| |||||
@UPEEXP1
Convert UPC-E to UPC-A

||||| |||| ||||| |||||
@SETUPE0

UPC-A

Restore Factory Defaults

||||| |||| ||| ||||| ||| |||||
@UPADEF
** UPC-A Restore Factory Defaults

Enable/Disable UPC-A

||||| |||| ||| ||||| ||| |||||
@UPAENA1
** Enable UPC-A

||||| |||| ||| ||||| ||| |||||
@UPAENA0
Disable UPC-A

If the scanner fails to identify UPC-A barcodes, you may first try this solution by scanning the Enter Setup barcode and then Enable UPC-A barcode.

Transmit Check Character

||||| |||| || ||| ||||| |||||
@UPACHK2
** Transmit UPC-A Check Character

||||| |||| || ||| ||||| |||||
@UPACHK1
Do Not Transmit UPC-A Check Character

2-Digit Add-On Code

A UPC-A barcode can be augmented with a two-digit add-on code to form a new one. In the example below, the part surrounded by blue dotted line is a UPC-A barcode while the part circled by red dotted line is a two-digit add-on code.
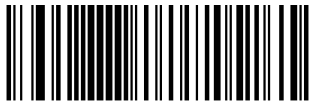
||||| |||| || ||| ||||| |||||
@UPAAD20
** Disable 2-Digit Add-On Code

||||| |||| || ||| ||||| |||||
@UPAAD21
Enable 2-Digit Add-On Code

5-Digit Add-On Code

A UPC-A barcode can be augmented with a five-digit add-on code to form a new one. In the example below, the part surrounded by blue dotted line is a UPC-A barcode while the part circled by red dotted line is a five-digit add-on code.

||||| |||||| || |||| ||| |||||
1 23456 78901   23456

||||| |||| |||| ||||| |||
@UPAAD50
** Disable 5-Digit Add-On Code
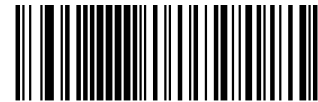
||||| |||| |||| ||||| |||
@UPAAD51
Enable 5-Digit Add-On Code

If you set up as "Enable 2- Digit Add-On Code" or "Enable 5-Digit Add-On Code", the scanner decodes a mix of UPC-A barcodes with and without 2-digit / 5-digits add-on codes.

if you have set up as "Disable 2- Digit Add-On Code" or " Disable 5-Digit Add-On Code" , The scanner decodes UPC-A and ignores the add-on code when presented with an UPC-A plus 2-digit / 5-digit add-on barcode. It can also decode UPC-A barcodes without 2-digit / 5-digit add-on codes.

||||| |||| |||| ||||| |||
@SETUPE0
Exit Setup

Enter Setup

Add-On Code Required

When UPC-A Add-On Code Required is selected, the engine will only read UPC-A barcodes that contain add-on codes.

||||| ||| || ||||| ||||| |||||
@UPAREQ0
** UPC-A Add-On Code Not Required

||||| ||| || ||||| ||||| |||||
@UPAREQ1
UPC-A Add-On Code Required

Add-On Code Separator

When this feature is on, there is a space between the data from the barcode and the data from the add-on code. When turned off, there is no space.

||||| ||| || ||||| ||||| |||||
@UPASEP0
** Off

||||| ||| || ||||| ||||| |||||
@UPASEP1
On

Transmit Preamble Character
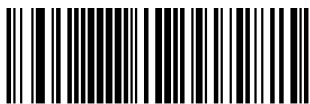
||||| ||| || ||||| ||||| |||||
@UPAPRE0
** No Preamble

||||| ||| || ||||| ||||| |||||
@UPAPRE1
System Character

||||| ||| || ||||| ||||| |||||
@UPAPRE2
System Character & Country Code

Interleaved 2 of 5

Restore Factory Defaults

||| ||| ||||| |||| || |||| |||
@I25DEF
** Interleaved 2 of 5 Restore Factory Defaults

Enable/Disable Interleaved 2 of 5

||| ||||| ||| |||| || ||||| |||
@I25ENA1
** Enable Interleaved 2 of 5

||| ||||| ||| |||| || ||||| |||
@I25ENA0
Disable Interleaved 2 of 5

If the scanner fails to identify Interleaved 2 of 5 barcodes, you may first try this solution by scanning the Enter Setup barcode and then Enable Interleaved 2 of 5 barcode.

Set Length Range for Interleaved 2 of 5

The scanner can be configured to only decode Interleaved 2 of 5 barcodes with lengths that fall between (inclusive) the minimum and maximum lengths. To accomplish it, you need to set the minimum and maximum lengths

‖‖‖‖‖‖‖‖‖‖
@I25MIN

Set the Minimum Length (Default: 6)

‖‖‖‖‖‖‖‖‖‖
@I25MAX

Set the Maximum Length (Default: 80)

The maximum length limit of any one-dimensional bar code shall not exceed 127. If the maximum length is less than the minimum length, the barcode of these two lengths shall be read only. If the maximum length is equal to the minimum length, only this length is supported.

Set the scanner to decode Interleaved 2 of 5 barcodes containing between 8 and12 characters:

1. Scan the Enter Setup barcode.

2. Scan the Set the Minimum Length barcode.

3. Scan the numeric barcode "8" from the "Digit Barcodes" section in Appendix.

4. Scan the Save barcode from the "Save/Cancel Barcodes" section in Appendix.

5. Scan the Set the Maximum Length barcode.

6. Scan the numeric barcodes "1" and "2" from the "Digit Barcodes" section in Appendix.

7. Scan the Save barcode from the "Save/Cancel Barcodes" section in Appendix.

8. Scan the Exit Setup barcode.

Check Character Verification

A check character is optional for Interleaved 2 of 5 and can be added as the last character. It is a calculated value used to verify the integrity of the data.

✧ Disable: The scanner transmits Interleaved 2 of 5 barcodes as is.

✧ Do Not Transmit Check Character After Verification: The scanner checks the integrity of all Interleaved 2 of 5 barcodes to verify that the data complies with the check character algorithm. Barcodes passing the check will be transmitted except the last digit, whereas those failing it will not be transmitted.

✧ Transmit Check Character After Verification: The scanner checks the integrity of all Interleaved 2 of 5 barcodes to verify that the data complies with the check character algorithm. Barcodes passing the check will be transmitted, whereas those failing it will not be transmitted.

Since Interleaved 2 of 5 must always have an even number of digits, a zero may need to be added as the first digit when the check character is added. The check character is automatically generated when making Interleaved 2 of 5 barcodes.

||||| ||| ||| | || ||||| |||||
@I25CHK0
** Disable

||||| || ||||| | || ||| |||||
@I25CHK1
Do Not Transmit Check Character

||||| || | |||| | || ||| |||||
@I25CHK2
Transmit Check Character

If the Do Not Transmit Check Character After Verification option is enabled, Interleaved 2 of 5 barcodes with a length that is less than the configured minimum length after having the check character excluded will not be decoded.

For example, when the Do Not Transmit Check Character After Verification option is enabled and the minimum length is set to 4, Interleaved 2 of 5 barcodes with a total length of 4 characters including the check character cannot be read.

ITF-14

Restore Factory Defaults

@I14DEF

** ITF-14 Restore Factory Defaults

Enable/Disable ITF-14

@I14ENA0

** Disable ITF-14

@I14ENA1

Enable ITF-14 , Do Not Transmit Check Character

@I14ENA2

Enable ITF-14 and Transmit Check Character

An example of the ITF-14 priority principle: when ITF-14 is enabled and Interleaved 2 of 5 is disabled, the scanner only decodes Interleaved 2 of 5 barcodes with a length of 14 characters and the last character as the check character.

ITF-6

Restore Factory Defaults

‖‖‖‖‖‖‖‖‖‖‖‖‖
@IT6DEF
** ITF-6 Restore Factory Defaults

Enable/Disable ITF-6

‖‖‖‖‖‖‖‖‖‖‖‖‖
@IT6ENA0
** Disable ITF-6

‖‖‖‖‖‖‖‖‖‖‖‖‖
@IT6ENA1
Enable ITF-6 But Do Not Transmit Check Character

‖‖‖‖‖‖‖‖‖‖‖‖‖
@IT6ENA2
Enable ITF-6 and Transmit Check Character

An example of the ITF-6 priority principle: when ITF-6 is enabled and Interleaved 2 of 5 is disabled, the scanner only decodes Interleaved 2 of 5 barcodes with a length of 6 characters and the last character as the check character.

|||||||||||||||||||
@SETUPE1
Enter Setup

Matrix 2 of 5

Restore Factory Defaults

|||||||||||||||||||
@M25DEF
** Matrix 2 of 5 Restore Factory Defaults

Enable/Disable Matrix 2 of 5

|||||||||||||||||||
@M25ENA1
** Enable Matrix 2 of 5

|||||||||||||||||||
@M25ENA0
Disable Matrix 2 of 5

If the scanner fails to identify Matrix 2 of 5 barcodes, you may first try this solution by scanning the Enter Setup barcode and then Enable Matrix 2 of 5 barcode.

|||||||||||||||||||
@SETUPE0
** 【Exit Setup】

Set Length Range for Matrix 2 of 5

The scanner can be configured to only decode Matrix 2 of 5 barcodes with lengths that fall between (inclusive) the minimum and maximum lengths. To accomplish it, you need to set the minimum and maximum lengths.

||||| ||| ||| ||||| |||||
@M25MIN
Set the Minimum Length (Default: 4)

||||| ||| ||| ||||| |||||
@M25MAX
Set the Maximum Length (Default: 80)

The maximum length limit of any one-dimensional bar code shall not exceed 127. If the maximum length is less than the minimum length, the barcode of these two lengths shall be read only. If the maximum length is equal to the minimum length, only this length is supported.

Set the scanner to decode Matrix 2 of 5   barcodes containing between 8 and12 characters:

1. Scan the Enter Setup barcode.

2. Scan the Set the Minimum Length barcode.

3. Scan the numeric barcode "8" from the "Digit Barcodes" section in Appendix.

4. Scan the Save barcode from the "Save/Cancel Barcodes" section in Appendix.

5. Scan the Set the Maximum Length barcode.

6. Scan the numeric barcodes "1" and "2" from the "Digit Barcodes" section in Appendix.

7. Scan the Save barcode from the "Save/Cancel Barcodes" section in Appendix.

8. Scan the Exit Setup barcode.

||||| ||| ||| ||||| |||||
@SETUPE0
Exit Setup

Check Character Verification

A check character is optional for Matrix 2 of 5 and can be added as the last character. It is a calculated value used to verify the integrity of the data.

✧ Disable: The scanner transmits Matrix 2 of 5 barcodes as is.

✧ Do Not Transmit Check Character After Verification: The scanner checks the integrity of all Matrix 2 of 5 barcodes to verify that the data complies with the check character algorithm. Barcodes passing the check will be transmitted except the last digit, whereas those failing it will not be transmitted.

✧ Transmit Check Character After Verification: The scanner checks the integrity of all Matrix 2 of 5 barcodes to verify that the data complies with the check character algorithm. Barcodes passing the check will be transmitted, whereas those failing it will not be transmitted.

Since Matrix 2 of 5 must always have an even number of digits, a zero may need to be added as the first digit when the check character is added. The check character is automatically generated when making Matrix 2 of 5 barcodes.

@M25CHK0
** Disable

@M25CHK1
Do Not Transmit Check Character After Verification

@M25CHK2
Transmit Check Character After Verification

If the Do Not Transmit Check Character After Verification option is enabled, Matrix 2 of 5 barcodes with a length that is less than the configured minimum length after having the check character excluded will not be decoded.

For example, when the Do Not Transmit Check Character After Verification option is enabled and the minimum length is set to 4, Matrix 2 of 5 barcodes with a total length of 4 characters including the check character cannot be read.

Code 39

Restore Factory Defaults

‖‖‖‖‖‖‖‖‖‖‖
@C39DEF
** Code 39 Restore Factory Defaults

Enable/Disable Code 39

‖‖‖‖‖‖‖‖‖‖‖
@C39ENA1
** Enable Code 39

‖‖‖‖‖‖‖‖‖‖‖
@C39ENA0
Disable Code 39

If the scanner fails to identify Code 39 barcodes, you may first try this solution by scanning the Enter Setup barcode and then Enable Code 39 barcode.

‖‖‖‖‖‖‖‖‖‖‖
@SETUPE0
Exit Setup

Set Length Range for Code 39

The scanner can be configured to only decode Code 39 barcodes with lengths that fall between (inclusive) the minimum and maximum lengths. To accomplish it, you need to set the minimum and maximum lengths.

|||| ||| |||| ||| |||| |||| ||||
@C39MIN

Set the Minimum Length (Default: 1)

|||| ||| |||| ||| |||| |||| ||||
@C39MAX

Set the Maximum Length (Default: 48)

If minimum length is set to be greater than maximum length, the scanner only decodes Code 39 barcodes with either the minimum or maximum length. If minimum length is same as maximum length, only Code 39 barcodes with that length are to be decoded.

Set the scanner to decode Code 39 barcodes containing between 8 and 12 characters:

1. Scan the Enter Setup barcode.

2. Scan the Set the Minimum Length barcode.

3. Scan the numeric barcode "8" from the "Digit Barcodes" section in Appendix.

4. Scan the Save barcode from the "Save/Cancel Barcodes" section in Appendix.

5. Scan the Set the Maximum Length barcode.

6. Scan the numeric barcodes "1" and "2" from the "Digit Barcodes" section in Appendix.

7. Scan the Save barcode from the "Save/Cancel Barcodes" section in Appendix.

8. Scan the Exit Setup barcode.

Check Character Verification

A check character is optional for Code 39 and can be added as the last character. It is a calculated value used to verify the integrity of the data.

✧ Disable: The scanner transmits Code 39 barcodes as is.

✧ Do Not Transmit Check Character After Verification: The scanner checks the integrity of all Code 39 barcodes to verify that the data complies with the check character algorithm. Barcodes passing the check will be transmitted except the last digit, whereas those failing it will not be transmitted.

✧ Transmit Check Character After Verification: The scanner checks the integrity of all Code 39 barcodes to verify that the data complies with the check character algorithm. Barcodes passing the check will be transmitted, whereas those failing it will not be transmitted.

|||||||||||||||||||||||
@C39CHK0
** Disable

|||||||||||||||||||||||
@C39CHK1
Do Not Transmit Check Character After Verification

|||||||||||||||||||||||
@C39CHK2
Transmit Check Character After Verification

If the Do Not Transmit Check Character After Verification option is enabled, Code 39 barcodes with a length that is less than the configured minimum length after having the check character excluded will not be decoded.

For example, when the Do Not Transmit Check Character After Verification option is enabled and the minimum length is set to 4, Code 39 barcodes with a total length of 4 characters including the check character cannot be read.

Enter Setup

Start/Stop Characters

It is possible to set the start and stop characters together with the barcode data after successful reading.

|||||||||||||||||||||||||||||||
@C39TSC0
** Off

|||||||||||||||||||||||||||||||
@C39TSC1
On

Full ASCII

Enable Code 39 Full ASCII can open the function of reading the complete ASCII character.

|||||||||||||||||||||||||||||||
@C39ASC0
** Disable Code 39 Full ASCII

|||||||||||||||||||||||||||||||
@C39ASC1
Enable Code 39 Full ASCII

Code32 Pharmaceutical (PARAF)

Code 32 Pharmaceutical is a form of Code 39 bar code used by Italy pharmacy. This barcode is also known as PARAF.

The output format of Code 32 is: * + A + 8 digit + 1 bit check + *.

```
@C39E320
```
** Off

```
@C39E321
```
On

Code 32 Pharmaceutical can only be read only if Code39 can be read without verification.

Code32 Prefix

```
@C39S320
```
** Off

```
@C39S321
```
On

Transmit Code 32 Start/Stop Character

```
@C39T320
```
** Do Not Transmit Code 32 Start/Stop Character

```
@C39T321
```
Transmit Code 32 Start/Stop Character

```
@SETUPE0
```
Exit Setup

Transmit Code 32 Check Character

||| ||| ||||| ||| ||| ||| |||||
@C39C320
** Transmit Code 32 Check Character

||| ||| ||||| ||| ||| ||| |||||
@C39C321
Transmit Code 32 Check Character

Codabar

Restore Factory Defaults

||||| ||| || ||| |||||
@CBADEF

** Codabar Restore Factory Defaults

Enable/Disable Codabar

||||| ||| || ||| |||||
@CBAENA1

** Enable Codabar

||||| ||| || ||| |||||
@CBAENA0

Disable Codabar

If the scanner fails to identify Codabar barcodes, you may first try this solution by scanning the Enter Setup barcode and then Enable Codabar barcode.

||||| ||| || ||| |||||
@SETUPE0

Exit Setup

Set Length Range for Codabar

The scanner can be configured to only decode Codabar barcodes with lengths that fall between (inclusive) the minimum and maximum lengths. To accomplish it, you need to set the minimum and maximum lengths

‖‖‖‖‖‖‖‖‖‖‖‖‖‖‖
@CBAMIN

Set the Minimum Length (Default: 2)

‖‖‖‖‖‖‖‖‖‖‖‖‖‖‖
@CBAMAX

Set the Maximum Length (Default: 60)

If minimum length is set to be greater than maximum length, the scanner only decodes Codabar barcodes with either the minimum or maximum length. If minimum length is same as maximum length, only Codabar barcodes with that length are to be decoded.

Check Character Verification

A check character is optional for Codabar and can be added as the last character. It is a calculated value used to verify the integrity of the data.

 ✧ Disable: The scanner transmits Codabar barcodes as is.

 ✧ Do Not Transmit Check Character After Verification: The scanner checks the integrity of all Codabar barcodes to verify that the data complies with the check character algorithm. Barcodes passing the check will be transmitted except the last digit, whereas those failing it will not be transmitted.

 ✧ Transmit Check Character After Verification: The scanner checks the integrity of all Codabar barcodes to verify that the data complies with the check character algorithm. Barcodes passing the check will be transmitted, whereas those failing it will not be transmitted.

@CBACHK0
** Disable

@CBACHK1
Do Not Transmit Check Character After Verification

@CBACHK2
Transmit Check Character After Verification

If the Do Not Transmit Check Character After Verification option is enabled, Codabar barcodes with a length that is less than the configured minimum length after having the check character excluded will not be decoded.

For example, when the Do Not Transmit Check Character After Verification option is enabled and the minimum length is set to 4, Codabar barcodes with a total length of 4 characters including the check character cannot be read.

@SETUPE0

Start/Stop Character

Codabar barcode data before and after each byte data as a start and stop character, the start and stop character is "A", "B", "C", "D", you can set the success of the read code start and terminator with the bar code data transmission.

@CBATSC0
** Do Not Transmit Start/Stop Character

@CBATSC1
Transmit Start/Stop Character

Start/Stop Character Format

@CBASCF0
** ABCD/ABCD

@CBASCF1
ABCD/TN*E

@CBASCF2
abcd/abcd

@CBASCF3
abcd/tn*e

Code 93

Restore Factory Defaults

||| ||| ||| || |||| || ||| |||||
@C93DEF

** Code 93 Restore Factory Defaults

Enable/Disable Code 93

||| ||| || ||| |||| ||| |||||
@C93ENA1
Enable Code 93

||| ||| || ||| |||| ||| |||||
@C93ENA0
**Disable Code 93

If the scanner fails to identify Code 93 barcodes, you may first try this solution by scanning the Enter Setup barcode and then Enable Code 93 barcode.

||| ||| || ||| |||| ||| |||||
@SETUPE0

Exit Setup

Set Length Range for Code 93

The scanner can be configured to only decode Code 93 barcodes with lengths that fall between (inclusive) the minimum and maximum lengths. To accomplish it, you need to set the minimum and maximum lengths.

Set the Minimum Length (Default: 1)

Set the Maximum Length (Default: 48)

If minimum length is set to be greater than maximum length, the scanner only decodes Code 93 barcodes with either the minimum or maximum length. If minimum length is same as maximum length, only Code 93 barcodes with that length are to be decoded.

Set the scanner to decode Code 93 barcodes containing between 8 and 12 characters:

1. Scan the Enter Setup barcode.

2. Scan the Set the Minimum Length barcode.

3. Scan the numeric barcode "8" from the "Digit Barcodes" section in Appendix.

4. Scan the Save barcode from the "Save/Cancel Barcodes" section in Appendix.

5. Scan the Set the Maximum Length barcode.

6. Scan the numeric barcodes "1" and "2" from the "Digit Barcodes" section in Appendix.

7. Scan the Save barcode from the "Save/Cancel Barcodes" section in Appendix.

8. Scan the Exit Setup barcode.

Check Character Verification

Check characters are optional for Code 93 and can be added as the last two characters, which are calculated values used to verify the integrity of the data.

◇ Disable: The scanner transmits Code 93 barcodes as is.

◇ Do Not Transmit Check Character After Verification: The scanner checks the integrity of all Code 93 barcodes to verify that the data complies with the check character algorithm. Barcodes passing the checks will be transmitted except the last two digits, whereas those failing them will not be transmitted.

◇ Transmit Check Character After Verification: The scanner checks the integrity of all Code 93 barcodes to verify that the data complies with the check character algorithm. Barcodes passing the checks will be transmitted, whereas those failing them will not be transmitted.

‖‖‖‖ @C93CHK0 ‖‖‖‖
Disable

‖‖‖‖ @C93CHK1 ‖‖‖‖
** Do Not Transmit Check Character After Verification

‖‖‖‖ @C93CHK2 ‖‖‖‖
Transmit Check Character After Verification

If the Do Not Transmit Check Character After Verification option is enabled, Code 93 barcodes with a length that is less than the configured minimum length after having the two check characters excluded will not be decoded.

For example, when the Do Not Transmit Check Character After Verification option is enabled and the minimum length is set to 4, Code 93 barcodes with a total length of 4 characters including the two check characters cannot be read.

‖‖‖‖ @SETUPE0 ‖‖‖‖
Exit Setup

China Post 25

Restore Factory Defaults

@CHPDEF

** China Post 25 Restore Factory Defaults

Enable/Disable China Post 25

@CHPENA1

Disable China Post 25
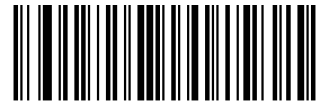
@CHPENA0

** Enable China Post 25

If the scanner fails to identify China Post 25 barcodes, you may first try this solution by scanning the Enter Setup barcode and then Enable China Post 25 barcode.

Set Length Range for China Post 25

The scanner can be configured to only decode China Post 25 barcodes with lengths that fall between (inclusive) the minimum and maximum lengths. To accomplish it, you need to set the minimum and maximum lengths.

@CHPMIN

Set the Minimum Length (Default: 1)

@CHPMAX

Set the Maximum Length (Default: 48)

If minimum length is set to be greater than maximum length, the scanner only decodes China Post 25 barcodes with either the minimum or maximum length. If minimum length is same as maximum length, only China Post 25 barcodes with that length are to be decoded.

Set the scanner to decode China Post 25 barcodes containing between 8 and 12 characters:

1. Scan the Enter Setup barcode.

2. Scan the Set the Minimum Length barcode.

3. Scan the numeric barcode "8" from the "Digit Barcodes" section in Appendix.

4. Scan the Save barcode from the "Save/Cancel Barcodes" section in Appendix.

5. Scan the Set the Maximum Length barcode.

6. Scan the numeric barcodes "1" and "2" from the "Digit Barcodes" section in Appendix.

7. Scan the Save barcode from the "Save/Cancel Barcodes" section in Appendix.

8. Scan the Exit Setup barcode.

@SETUPE0

**Exit Setup

Check Character Verification

A check character is optional for China Post 25 and can be added as the last character. It is a calculated value used to verify the integrity of the data.

✧ Disable: The scanner transmits China Post 25 barcodes as is.

✧ Do Not Transmit Check Character After Verification: The scanner checks the integrity of all China Post 25 barcodes to verify that the data complies with the check character algorithm. Barcodes passing the check will be transmitted except the last digit, whereas those failing it will not be transmitted.

✧ Transmit Check Character After Verification: The scanner checks the integrity of all China Post 25 barcodes to verify that the data complies with the check character algorithm. Barcodes passing the check will be transmitted, whereas those failing it will not be transmitted.

@CHPCHK0
**Disable

@CHPCHK1
Do Not Transmit Check Character After Verification

@CHPCHK2
Transmit Check Character After Verification

If the Do Not Transmit Check Character After Verification option is enabled, China Post 25 barcodes with a length that is less than the configured minimum length after having the check character excluded will not be decoded.

For example, when the Do Not Transmit Check Character After Verification option is enabled and the minimum length is set to 4, China Post 25 barcodes with a total length of 4 characters including the check character cannot be read.

GS1-128 (UCC/EAN-128)

Restore Factory Defaults

‖‖‖‖‖‖‖‖‖‖‖
@GS1DEF
** GS1-128 Restore Factory Defaults

Enable/Disable UCC/EAN-128

‖‖‖‖‖‖‖‖‖‖‖
@GS1ENA1
** Enable UCC/EAN-128

‖‖‖‖‖‖‖‖‖‖‖
@GS1ENA0
Disable UCC/EAN-128

If the scanner fails to identify UCC/EAN-128 barcodes, you may first try this solution by scanning the Enter Setup barcode and then Enable UCC/EAN-128 barcode.

‖‖‖‖‖‖‖‖‖‖‖
@SETUPE0
Exit Setup

Set Length Range for UCC/EAN-128

The scanner can be configured to only decode UCC/EAN-128 barcodes with lengths that fall between (inclusive) the minimum and maximum lengths. To accomplish it, you need to set the minimum and maximum lengths.

@GS1MIN

Set the Minimum Length (Default: 1)

@GS1MAX

Set the Maximum Length (Default: 48)

If minimum length is set to be greater than maximum length, the scanner only decodes UCC/EAN-128 barcodes with either the minimum or maximum length. If minimum length is same as maximum length, only UCC/EAN-128 barcodes with that length are to be decoded.

Set the scanner to decode UCC/EAN-128 barcodes containing between 8 and 12 characters:

1. Scan the Enter Setup barcode.

2. Scan the Set the Minimum Length barcode.

3. Scan the numeric barcode "8" from the "Digit Barcodes" section in Appendix.

4. Scan the Save barcode from the "Save/Cancel Barcodes" section in Appendix.

5. Scan the Set the Maximum Length barcode.

6. Scan the numeric barcodes "1" and "2" from the "Digit Barcodes" section in Appendix.

7. Scan the Save barcode from the "Save/Cancel Barcodes" section in Appendix.

8. Scan the Exit Setup barcode.

Transcript Check Character

Transmit UCC/EAN-128 Check Character

** Do Not Transmit UCC/EAN-128 Check Character

GS1 Databar (RSS)

Restore Factory Defaults

**GS1 Databar Restore Factory Defaults

Enable/Disable GS1 Databar

** Enable GS1 Databar

Disable GS1 Databar

If the scanner fails to identify GS1 Databar barcodes, you may first try this solution by scanning the Enter Setup barcode and then Enable GS1 Databar barcode.

Transmit Application Identifier "01"

barcode @RSSTAI1

** Transmit Application Identifier "01"

barcode @RSSTAI0

Do Not Transmit Application Identifier "01"

barcode @SETUPE0

**Exit Setup

GS1 Composite (EAN·UCC Composite)

Restore Factory Defaults

|||||| || ||||| |||| ||||||
@CPTDEF

** GS1 Composite Restore Factory Defaults

Enable/Disable GS1 Composite
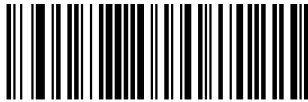
|||| ||| |||||| || |||||
@CPTENA1

Enable GS1 Composite

|||| ||| |||||| |||| |||||
@CPTENA0

** Disable GS1 Composite

UPC/EAN Version

|||| ||| |||||| || |||||
@CPTUPC1

Enable UPC/EAN Composite
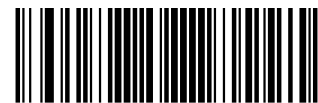
|||| ||| |||||| |||| |||||
@CPTUPC0

** Disable UPC/EAN Composite

If the scanner fails to identify GS1 Composite, you may first try this solution by scanning the Enter Setup barcode and then Enable GS1 Composite barcode.

Code 11

Restore Factory Defaults

||||| ||| |||| |||| ||| |||
@C11DEF

** Code 11 Restore Factory Defaults

Enable/Disable Code 11

||||| ||| |||| |||| ||| |||
@C11ENA1
Enable Code 11

||||| ||| |||| |||| ||| |||
@C11ENA0
** Disable Code 11

If the scanner fails to identify Code 11, you may first try this solution by scanning the Enter Setup barcode and then Enable Code 11 barcode.

||||| |||| || ||||| |||
@SETUPE0

Exit Setup

Set Length Range for Code 11

The scanner can be configured to only decode Code 11 barcodes with lengths that fall between (inclusive) the minimum and maximum lengths. To accomplish it, you need to set the minimum and maximum lengths.

||||||||||||||||||||
@C11MIN

Set the Minimum Length (Default: 4)

||||||||||||||||||||
@C11MAX

Set the Maximum Length (Default: 48)

If minimum length is set to be greater than maximum length, the scanner only decodes Code 11 barcodes with either the minimum or maximum length. If minimum length is same as maximum length, only Code 11 barcodes with that length are to be decoded.

Set the scanner to decode Code 11 barcodes containing between 8 and 12 characters:

1. Scan the Enter Setup barcode.

2. Scan the Set the Minimum Length barcode.

3. Scan the numeric barcode "8" from the "Digit Barcodes" section in Appendix.

4. Scan the Save barcode from the "Save/Cancel Barcodes" section in Appendix.

5. Scan the Set the Maximum Length barcode.

6. Scan the numeric barcodes "1" and "2" from the "Digit Barcodes" section in Appendix.

7. Scan the Save barcode from the "Save/Cancel Barcodes" section in Appendix.

8. Scan the Exit Setup barcode.

Check Character Verification

Check characters are optional for Code 11 and can be added as the last one or two characters, which are calculated values used to verify the integrity of the data.

If the Disable option is enabled, the scanner transmits Code 11 barcodes as is.

‖‖‖ ‖‖ ‖‖‖ ‖‖ ‖‖‖
@C11CHK0
Disable

‖‖‖ ‖‖ ‖‖‖ ‖‖ ‖‖‖
@C11CHK1
** One Check Character, MOD11

‖‖‖ ‖‖ ‖‖‖ ‖‖ ‖‖‖
@C11CHK2
Two Check Characters, MOD11/MOD11

‖‖‖ ‖‖ ‖‖‖ ‖‖ ‖‖‖
@C11CHK3
Two Check Characters，MOD11/MOD9

‖‖‖ ‖‖ ‖‖‖ ‖‖ ‖‖‖
@C11CHK4
One Check Character, MOD11 (Len<=10) Two
Check Characters, MOD11/MOD11(Len>10)

‖‖‖ ‖‖ ‖‖‖ ‖‖ ‖‖‖
@C11CHK5
One Check Character, MOD11 (Len<=10) Two
Check Characters, MOD11/MOD9 (Len>10)

‖‖‖ ‖‖ ‖‖‖ ‖‖ ‖‖‖
@SETUPE0
Exit Setup

Transmit Check Character

@C11TCK0

Do Not Transmit Code 11 Check Character

@C11TCK1

** Transmit Code 11 Check Character

If you select a check character algorithm and the Do Not Transmit Check Character option, Code 11 barcodes with a length that is less than the configured minimum length after having the check character(s) excluded will not be decoded.

For example, when the One Check Character, MOD11 and Do Not Transmit Check Character options are enabled and the minimum length is set to 4, Code 11 barcodes with a total length of 4 characters including the check character cannot be read.

ISBN

Restore Factory Defaults

‖|‖‖|‖|‖‖|‖‖|‖|‖|‖‖|‖|‖
@ISBDEF
** ISBN Restore Factory Defaults

Enable/Disable ISBN

‖|‖‖|‖|‖‖|‖‖|‖|‖|‖‖|‖|‖
@ISBENA1
Enable ISBN

‖|‖‖|‖|‖‖|‖‖|‖|‖|‖‖|‖|‖
@ISBENA0
** Disable ISBN

If the scanner fails to identify ISBN Databar barcodes, you may first try this solution by scanning the Enter Setup barcode and then Enable ISBN Databar barcode.

ISBN Format

‖|‖‖|‖|‖‖|‖‖|‖|‖|‖‖|‖|‖
@ISBT101
** ISBN-10

‖|‖‖|‖|‖‖|‖‖|‖|‖|‖‖|‖|‖
@ISBT100
ISBN-13

‖|‖‖|‖|‖‖|‖‖|‖|‖|‖‖|‖|‖
@SETUPE0

Exit Setup

|||||||| ||| ||| @SETUPE1

Enter Setup

ISSN

Restore Factory Defaults

|||||||| ||| ||| @ISSDEF

** ISSN Restore Factory Defaults

Enable/Disable ISSN

|||||||| ||| ||| @ISSENA1

Enable ISSN

|||||||| ||| ||| @ISSENA0

** Disable ISSN

If the scanner fails to identify ISSN barcodes, you may first try this solution by scanning the Enter Setup barcode and then Enable ISSN barcode.

Industrial 25

Restore Factory Defaults

‖‖‖‖‖‖‖‖‖‖‖
@L25DEF
** Industrial 25 Restore Factory Defaults

Enable/Disable Industrial 25

‖‖‖‖‖‖‖‖‖‖‖
@L25ENA1
Enable Industrial 25

‖‖‖‖‖‖‖‖‖‖‖
@L25ENA0
** Disable Industrial 25

If the scanner fails to identify Industrial 25 barcodes, you may first try this solution by scanning the Enter Setup barcode and then Enable Industrial 25 barcode.

‖‖‖‖‖‖‖‖‖‖‖
@SETUPE0
Exit Setup

Set Length Range for Industrial 25

The scanner can be configured to only decode Industrial 25 barcodes with lengths that fall between (inclusive) the minimum and maximum lengths. To accomplish it, you need to set the minimum and maximum lengths.

@L25MIN

Set the Minimum Length (Default: 6)

@L25MAX

Set the Maximum Length (Default: 48)

If minimum length is set to be greater than maximum length, the scanner only decodes Industrial 25 barcodes with either the minimum or maximum length. If minimum length is same as maximum length, only Industrial 25 barcodes with that length are to be decoded.

Set the scanner to decode Industrial 25 barcodes containing between 8 and 12 characters:

1. Scan the Enter Setup barcode.

2. Scan the Set the Minimum Length barcode.

3. Scan the numeric barcode "8" from the "Digit Barcodes" section in Appendix.

4. Scan the Save barcode from the "Save/Cancel Barcodes" section in Appendix.

5. Scan the Set the Maximum Length barcode.

6. Scan the numeric barcodes "1" and "2" from the "Digit Barcodes" section in Appendix.

7. Scan the Save barcode from the "Save/Cancel Barcodes" section in Appendix.

8. Scan the Exit Setup barcode.

Check Character Verification

。 A check character is optional for Industrial 25 and can be added as the last character. It is a calculated value used to verify the integrity of the data.

✧　Disable: The scanner transmits Industrial 25 barcodes as is.

✧　Do Not Transmit Check Character After Verification: The scanner checks the integrity of all Industrial 25 barcodes to verify that the data complies with the check character algorithm. Barcodes passing the check will be transmitted except the last digit, whereas those failing it will not be transmitted.

✧　Transmit Check Character After Verification: The scanner checks the integrity of all Industrial 25 barcodes to verify that the data complies with the check character algorithm. Barcodes passing the check will be transmitted, whereas those failing it will not be transmitted.

✧

|||| ||| | ||||||| ||| |||| |||||
@L25CHK0
** Disable

|||| ||| | ||||||| ||| |||| |||||
@L25CHK1
Do Not Transmit Check Character After Verification

|||| ||| | ||||||| ||| |||| |||||
@L25CHK2
Transmit Check Character After Verification

If the Do Not Transmit Check Character After Verification option is enabled, Industrial 25 barcodes with a length that is less than the configured minimum length after having the check character excluded will not be decoded.

For example, when the Do Not Transmit Check Character After Verification option is enabled and the minimum length is set to 4, Industrial 25 barcodes with a total length of 4 characters including the check character cannot be read.

|||| ||| | ||||||| ||| |||| |||||
@SETUPE0
Exit Setup

Standard 25

Restore Factory Defaults

‖‖‖‖‖‖‖ @S25DEF

** Standard 25 Restore Factory Defaults

Enable/Disable Standard 25

‖‖‖‖‖‖‖ @S25ENA1

Enable Standard 25

‖‖‖‖‖‖‖ @S25ENA0

** Disable Standard 25

If the scanner fails to identify Standard 25 barcodes, you may first try this solution by scanning the Enter Setup barcode and then Enable Standard 25 barcode.

Set Length Range for Standard 25

The scanner can be configured to only decode Standard 25 barcodes with lengths that fall between (inclusive) the minimum and maximum lengths. To accomplish it, you need to set the minimum and maximum lengths.

|||||||||||||||||||||||||
@S25MIN
Set the Minimum Length (Default: 6)

|||||||||||||||||||||||||
@S25MAX
Set the Maximum Length (Default: 48)

If minimum length is set to be greater than maximum length, the scanner only decodes Standard 25 barcodes with either the minimum or maximum length. If minimum length is same as maximum length, only Standard 25 barcodes with that length are to be decoded.

Set the scanner to decode Standard 25 barcodes containing between 8 and 12 characters:

1. Scan the Enter Setup barcode.

2. Scan the Set the Minimum Length barcode.

3. Scan the numeric barcode "8" from the "Digit Barcodes" section in Appendix.

4. Scan the Save barcode from the "Save/Cancel Barcodes" section in Appendix.

5. Scan the Set the Maximum Length barcode.

6. Scan the numeric barcodes "1" and "2" from the "Digit Barcodes" section in Appendix.

7. Scan the Save barcode from the "Save/Cancel Barcodes" section in Appendix.

8. Scan the Exit Setup barcode.

Check Character Verification

A check character is optional for Standard 25 and can be added as the last character. It is a calculated value used to verify the integrity of the data.

✧ Disable: The scanner transmits Standard 25 barcodes as is.

✧ Do Not Transmit Check Character After Verification: The scanner checks the integrity of all Standard 25 barcodes to verify that the data complies with the check character algorithm. Barcodes passing the check will be transmitted except the last digit, whereas those failing it will not be transmitted.

✧ Transmit Check Character After Verification: The scanner checks the integrity of all Standard 25 barcodes to verify that the data complies with the check character algorithm. Barcodes passing the check will be transmitted, whereas those failing it will not be transmitted.

@S25CHK0
**Disable

@S25CHK1
Do Not Transmit Check Character After Verification

@S25CHK2
Transmit Check Character After Verification

If the Do Not Transmit Check Character After Verification option is enabled, Standard 25 barcodes with a length that is less than the configured minimum length after having the check character excluded will not be decoded.

For example, when the Do Not Transmit Check Character After Verification option is enabled and the minimum length is set to 4, Standard 25 barcodes with a total length of 4 characters including the check character cannot be read.

Plessey

Restore Factory Defaults

||||| ||| ||||| |||||
@PLYDEF

** Plessey Restore Factory Defaults

Enable/Disable Plessey

||||| ||| ||||| |||||
@PLYENA1

Enable Plessey

||||| ||| ||||| |||||
@PLYENA0

** Disable Plessey

If the scanner fails to identify Plessey barcodes, you may first try this solution by scanning the Enter Setup barcode and then Enable Plessey barcode.

||||| ||| ||||| |||||
@SETUPE0

Exit Setup

Set Length Range for Plessey

The scanner can be configured to only decode Plessey barcodes with lengths that fall between (inclusive) the minimum and maximum lengths. To accomplish it, you need to set the minimum and maximum lengths.

@PLYMIN

Set the Minimum Length (Default: 4)

@PLYMAX

Set the Maximum Length (Default: 48)

If minimum length is set to be greater than maximum length, the scanner only decodes Standard 25 barcodes with either the minimum or maximum length. If minimum length is same as maximum length, only Standard 25 barcodes with that length are to be decoded.

Set the scanner to decode Plessey barcodes containing between 8 and 12 characters:

1. Scan the Enter Setup barcode.

2. Scan the Set the Minimum Length barcode.

3. Scan the numeric barcode "8" from the "Digit Barcodes" section in Appendix.

4. Scan the Save barcode from the "Save/Cancel Barcodes" section in Appendix.

5. Scan the Set the Maximum Length barcode.

6. Scan the numeric barcodes "1" and "2" from the "Digit Barcodes" section in Appendix.

7. Scan the Save barcode from the "Save/Cancel Barcodes" section in Appendix.

8. Scan the Exit Setup barcode.

Check Character Verification

Check characters are optional for Plessey and can be added as the last two characters, which are calculated values used to verify the integrity of the data.

✧ Disable: The scanner transmits Plessey barcodes as is.

✧ Do Not Transmit Check Character After Verification: The scanner checks the integrity of all Plessey barcodes to verify that the data complies with the check character algorithm. Barcodes passing the checks will be transmitted except the last two digits, whereas those failing them will not be transmitted.

✧ Transmit Check Character After Verification: The scanner checks the integrity of all Plessey barcodes to verify that the data complies with the check character algorithm. Barcodes passing the checks will be transmitted, whereas those failing them will not be transmitted.

@PLYCHK0
**Disable

@PLYCHK1
Do Not Transmit Check Character After Verification

@PLYCHK2
Transmit Check Character After Verification

If the Do Not Transmit Check Character After Verification option is enabled, Plessey barcodes with a length that is less than the configured minimum length after having the check characters excluded will not be decoded.

For example, when the Do Not Transmit Check Character After Verification option is enabled and the minimum length is set to 4, Plessey barcodes with a total length of 4 characters including the check characters cannot be read.

@SETUPE0
**Exit Setup

![barcode @SETUPE1]

Enter Setup

MSI Plessey

Restore Factory Defaults

![barcode @MSIDEF]

@MSIDEF

** MSI-Plessey Restore Factory Defaults

Enable/Disable MSI-Plessey

![barcode @MSIENA1]

@MSIENA1

Enable MSI-Plessey

![barcode @MSIENA0]

@MSIENA0

** Disable MSI-Plessey

If the scanner fails to identify MSI-Plessey barcodes, you may first try this solution by scanning the Enter Setup barcode and then Enable MSI-Plessey barcode.

![barcode @SETUPE0]

@SETUPE0

** 【Exit Setup】

144

Set Length Range for MSI Plessey

The scanner can be configured to only decode MSI Plessey barcodes with lengths that fall between (inclusive) the minimum and maximum lengths. To accomplish it, you need to set the minimum and maximum lengths.

||||| ||| ||| ||| |||| ||
@MSIMIN
Set the Minimum Length (Default: 4)

||||| ||| ||| ||| |||| ||
@MSIMAX
Set the Maximum Length (Default: 48)

If minimum length is set to be greater than maximum length, the scanner only decodes Standard 25 barcodes with either the minimum or maximum length. If minimum length is same as maximum length, only Standard 25 barcodes with that length are to be decoded.

Set the scanner to decode MSI-Plessey barcodes containing between 8 and 12 characters:

1. Scan the Enter Setup barcode.

2. Scan the Set the Minimum Length barcode.

3. Scan the numeric barcode "8" from the "Digit Barcodes" section in Appendix.

4. Scan the Save barcode from the "Save/Cancel Barcodes" section in Appendix.

5. Scan the Set the Maximum Length barcode.

6. Scan the numeric barcodes "1" and "2" from the "Digit Barcodes" section in Appendix.

7. Scan the Save barcode from the "Save/Cancel Barcodes" section in Appendix.

8. Scan the Exit Setup barcode.

Check Character Verification

Check characters are optional for MSI-Plessey and can be added as the last one or two characters, which are calculated values used to verify the integrity of the data. If the Disable option is enabled, the scanner transmits MSI-Plessey barcodes as is.

||||||||||||||||||||
@MSICHK0
Disable

||||||||||||||||||||
@MSICHK1
** One Check Character, MOD10

||||||||||||||||||||
@MSICHK2
Two Check Characters, MOD10/MOD10

||||||||||||||||||||
@MSICHK3
Two Check Characters, MOD10/MOD11

Transmit Check Character

@MSITCK1
** Transmit Check Character

@MSITCK0
Do Not Transmit Check Character

If you select a check character algorithm and the Do Not Transmit Check Character option, MSI-Plessey barcodes with a length that is less than the configured minimum length after having the check character(s) excluded will not be decoded.

For example, when the One Check Character, MOD11 and Do Not Transmit Check Character options are enabled and the minimum length is set to 4, Code 11 barcodes with a total length of 4 characters including the check character cannot be read.

@SETUPE0
Exit Setup

PDF417

Restore Factory Defaults

|||||||||| @PDFDEF

** PDF417 Restore Factory Defaults

Enable/Disable PDF417

|||||||||| @PDFENA1

** Enable PDF417

|||||||||| @PDFENA0

Disable PDF417

If the scanner fails to identify PDF417 barcodes, you may first try this solution by scanning the Enter Setup barcode and then Enable PDF417 barcode.

Set Length Range for PDF417

。The scanner can be configured to only decode PDF417 barcodes with lengths that fall between (inclusive) the minimum and maximum lengths. To accomplish it, you need to set the minimum and maximum lengths.

@PDFMIN
Set the Minimum Length (Default: 1)

@PDFMAX
Set the Maximum Length (Default: 2710)

The maximum length limit of any two-dimensional bar code shall not exceed 65535 bytes, and the maximum length limit shall not be less than the minimum length limit.

If you want to read only a fixed length PDF417 bar code, you can set the minimum length limit to be equal to the maximum length limit.

Set the scanner to decode PDF417 barcodes containing between 8 and 12 characters:

1. Scan the Enter Setup barcode.

2. Scan the Set the Minimum Length barcode.

3. Scan the numeric barcode "8" from the "Digit Barcodes" section in Appendix.

4. Scan the Save barcode from the "Save/Cancel Barcodes" section in Appendix.

5. Scan the Set the Maximum Length barcode.

6. Scan the numeric barcodes "1" and "2" from the "Digit Barcodes" section in Appendix.

7. Scan the Save barcode from the "Save/Cancel Barcodes" section in Appendix.

8. Scan the Exit Setup barcode.

@SETUPE0
Exit Setup

PDF417 Twin Code

PDF417 twin code is 2 PDF417 barcodes paralleled vertically or horizontally. They must both be either regular or inverse barcodes. They must have similar specifications and be placed closely together.

There are 3 options for reading PDF417 twin codes:

✧ Single PDF417 Only: At any time, the device reads only one PDF417 bar code in a code diagram at a time.

✧ Twin PDF417 Only: At any time the device must detect the PDF417 Twin code in a code map, and both codes are decoded successfully to send the decoded information.

✧ Both Single & Twin: When the device detects the PDF417 twin code and decodes the double code successfully in a code graph, it sends the twin code decoding information. Otherwise, the picture is read-only single code processed.

||||||||||||||||||||
@PDFDOU0
** Single PDF417 Only

||||||||||||||||||||
@PDFDOU1
Twin PDF417 Only

||||||||||||||||||||
@PDFDOU2
Both Single & Twin
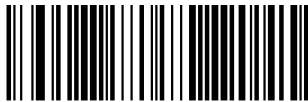
PDF417 Inverse

PDF 417 has regular barcode and the inverse barcode.

✧   Regular barcode: Dark bars on a bright background.

✧   Inverse barcode: Bright bars on a dark background.

|||| ||| || ||| |||| || |||
@PDFINV0

** Decode Regular PDF417 Barcodes Only

|||| ||| || ||| |||| || |||
@PDFINV1
Decode Inverse PDF417 Barcodes Only

|||| ||| || ||| |||| || |||
@PDFINV2
Decode Both

||||| ||| | ||| ||||| |||
@SETUPE0
**Exit Setup

Character Encoding

@PDFENC0
** Default

@PDFENC1
UTF-8

ECI Output
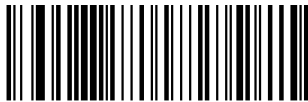
@PDFECI0
Enable ECI Output
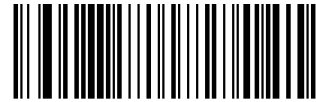
@PDFECI1
** Disable ECI Output

Micro PDF417

Restore Factory Defaults

||||| |||| ||| ||||| |||
@MPDDEF
** Micro PDF417 Restore Factory Defaults

Enable/Disable Micro PDF417

||||| |||| ||| ||||| |||
@MPDENA1
Enable Micro PDF417

||||| |||| ||| ||||| |||
@MPDENA0
** Disable Micro PDF417

If the scanner fails to identify Micro PDF417 barcodes, you may first try this solution by scanning the Enter Setup barcode and then Enable Micro PDF417 barcode.

||||| |||| ||| ||||| |||
@SETUPE0
Exit Setup

Set Length Range for Micro PDF417

The scanner can be configured to only decode MicroPDF417 barcodes with lengths that fall between (inclusive) the minimum and maximum lengths. To accomplish it, you need to set the minimum and maximum lengths.

||||||||||||||||||||
@MPDMIN

Set the Minimum Length (Default: 1)

||||||||||||||||||||
@MPDMAX

Set the Maximum Length (Default: 366)

The maximum length limit of any two-dimensional bar code shall not exceed 65535 bytes, and the maximum length limit shall not be less than the minimum length limit.

If you want to read only a fixed length Micro PDF417 bar code, you can set the minimum length limit to be equal to the maximum length limit.

Set the scanner to decode Micro PDF417 barcodes containing between 8 and 12 characters:

1. Scan the Enter Setup barcode.

2. Scan the Set the Minimum Length barcode.

3. Scan the numeric barcode "8" from the "Digit Barcodes" section in Appendix.

4. Scan the Save barcode from the "Save/Cancel Barcodes" section in Appendix.

5. Scan the Set the Maximum Length barcode.

6. Scan the numeric barcodes "1" and "2" from the "Digit Barcodes" section in Appendix.

7. Scan the Save barcode from the "Save/Cancel Barcodes" section in Appendix.

8. Scan the Exit Setup barcode.

QR Code

Restore Factory Defaults

║║║║║║║║║║║║║║║
@QRCDEF
** QR Restore Factory Defaults

Enable/Disable QR Code

║║║║║║║║║║║║║║║
@QRCENA1
** Enable QR Code

║║║║║║║║║║║║║║║
@QRCENA0
Disable QR Code

If the scanner fails to identify QR Code barcodes, you may first try this solution by scanning the Enter Setup barcode and then Enable QR Code barcode.

║║║║║║║║║║║║║║║
@SETUPE0
Exit Setup

Set Length Range for QR Code

The scanner can be configured to only decode QR Code barcodes with lengths that fall between (inclusive) the minimum and maximum lengths. To accomplish it, you need to set the minimum and maximum lengths.

@QRCMIN

Set the Minimum Length (Default: 1)

@QRCMAX

Set the Maximum Length (Default: 7089)

The maximum length limit of any two-dimensional bar code shall not exceed 65535 bytes, and the maximum length limit shall not be less than the minimum length limit.

If you want to read only a fixed length QR bar code, you can set the minimum length limit to be equal to the maximum length limit.

Set the scanner to decode QR barcodes containing between 8 and 12 characters:

1. Scan the Enter Setup barcode.

2. Scan the Set the Minimum Length barcode.

3. Scan the numeric barcode "8" from the "Digit Barcodes" section in Appendix.

4. Scan the Save barcode from the "Save/Cancel Barcodes" section in Appendix.

5. Scan the Set the Maximum Length barcode.

6. Scan the numeric barcodes "1" and "2" from the "Digit Barcodes" section in Appendix.

7. Scan the Save barcode from the "Save/Cancel Barcodes" section in Appendix.

8. Scan the Exit Setup barcode.

QR Twin Code

QR twin code is 2 QR barcodes paralleled vertically or horizontally. They must both be either regular or inverse barcodes. They must have similar specifications and be placed closely together.

There are 3 options for reading QR twin codes:

◇ Single QR Only: At any time, the device reads only one QR bar code in a code diagram at a time.

◇ Twin QR Only: At any time the device must detect the QR Twin code in a code map, and both codes are decoded successfully to send the decoded information.

◇ Both Single & Twin: Read both QR codes. If successful, transmit as twin QR only. Otherwise, try single QR only.

||||| |||| ||| ||||| |||
@QRCDOU0
** Single QR Only

||||| |||| ||| ||||| |||
@QRCDOU1
Twin QR Only

||||| |||| ||| ||||| |||
@QRCDOU2
Both Single & Twin

||||| |||| ||| ||||| |||
@SETUPE0

QR Inverse

PDF 417 has regular barcode and the inverse barcode.

✧ Regular barcode: Dark bars on a bright background.

✧ Inverse barcode: Bright bars on a dark background.

||||| ||| |||||| ||||| ||||
@QRCINV0
Decode Regular QR Barcodes Only

||||| ||| |||||| ||||| ||||
@QRCINV1
Decode Inverse QR Barcodes Only

||||| ||| |||||| ||||| ||||
@QRCINV2
** Decode Both

Character Encoding

@QRCENC0
** Default

@QRCENC1
UTF-8

ECI Output

@QRCECI0
Off

@QRCECI1
** On

||||||||||||||||||

@SETUPE1

Enter Setup

Micro QR Code

Restore Factory Defaults

||||||||||||||||||

@MQRDEF

** Micro QR Restore Factory Defaults

Enable/Disable Micro QR Code

||||||||||||||||||

@MQRENA1

** Enable Micro QR Code

||||||||||||||||||

@MQRENA0

Disable Micro QR Code

If the scanner fails to identify Micro QR Code barcodes, you may first try this solution by scanning the Enter Setup barcode and then Enable Micro QR Code barcode.

||||||||||||||||||

@SETUPE0

【Exit Setup】

Set Length Range for Micro QR Code

The scanner can be configured to only decode Micro QR barcodes with lengths that fall between (inclusive) the minimum and maximum lengths. To accomplish it, you need to set the minimum and maximum lengths.

```
@MQRMIN
```
Set the Minimum Length (Default: 1)

```
@MQRMAX
```
Set the Maximum Length (Default: 35)

The maximum length limit of any two-dimensional bar code shall not exceed 65535 bytes, and the maximum length limit shall not be less than the minimum length limit.

If you want to read only a fixed length Micro QR bar code, you can set the minimum length limit to be equal to the maximum length limit.

Set the scanner to decode Micro QR barcodes containing between 8 and 12 characters:

1. Scan the Enter Setup barcode.

2. Scan the Set the Minimum Length barcode.

3. Scan the numeric barcode "8" from the "Digit Barcodes" section in Appendix.

4. Scan the Save barcode from the "Save/Cancel Barcodes" section in Appendix.

5. Scan the Set the Maximum Length barcode.

6. Scan the numeric barcodes "1" and "2" from the "Digit Barcodes" section in Appendix.

7. Scan the Save barcode from the "Save/Cancel Barcodes" section in Appendix.

8. Scan the Exit Setup barcode.

Aztec

Restore Factory Defaults

@AZTDEF

** Aztec Code Restore Factory Defaults

Enable/Disable Aztec Code
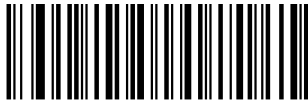
@AZTENA1
Enable Aztec Code

@AZTENA0
** Disable Aztec Code

If the scanner fails to identify Aztec Code barcodes, you may first try this solution by scanning the Enter Setup barcode and then Enable Aztec Code barcode.

Set Length Range for Aztec Code

The scanner can be configured to only decode Aztec barcodes with lengths that fall between (inclusive) the minimum and maximum lengths. To accomplish it, you need to set the minimum and maximum lengths.

|||||||||||||||||||||||||
@AZTMIN
Set the Minimum Length (Default: 1)

|||||||||||||||||||||||||
@AZTMAX
Set the Maximum Length (Default: 3832)

Minimum length is not allowed to be greater than maximum length.

If you only want to read Aztec barcodes with a specific length, setting both minimum and maximum length to be that desired length.

Set the scanner to decode Aztec barcodes containing between 8 and 12 characters:

1. Scan the Enter Setup barcode.

2. Scan the Set the Minimum Length barcode.

3. Scan the numeric barcode "8" from the "Digit Barcodes" section in Appendix.

4. Scan the Save barcode from the "Save/Cancel Barcodes" section in Appendix.

5. Scan the Set the Maximum Length barcode.

6. Scan the numeric barcodes "1" and "2" from the "Digit Barcodes" section in Appendix.

7. Scan the Save barcode from the "Save/Cancel Barcodes" section in Appendix.

8. Scan the Exit Setup barcode.

Read Multi-barcodes on an Image

There are three options:

✧ Read One Barcode Only (MOD 1): Read one barcode only.

✧ Read fixed number barcode only(MOD 2): Read fixed number of barcodes only.

✧ Composite Reading(MOD 3): Composite Reading. Read fixed number of barcodes first. If unsuccessful, read one barcode only.

|‖|‖||‖||‖|||‖||‖||‖|‖|
@AZTMOD1
** Read One Barcode Only (MOD 1)

|‖|‖||‖||‖|||‖||‖||‖|‖|
@AZTMOD2
Read fixed number barcode only(MOD 2)

|‖|‖||‖||‖|||‖||‖||‖|‖|
@AZTMOD3
Composite Reading(MOD 3)

Set the Number of Barcodes

||||| |||||| ||| ||||||
@AZTMUL1
** 1

||||| |||||| ||| ||||||
@AZTMUL2
2

||||| |||||| ||| ||||||
@AZTMUL3
3

||||| |||||| ||| ||||||
@AZTMUL4
4
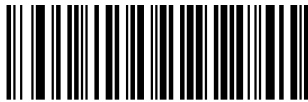
||||| |||||| ||| ||||||
@AZTMUL5
5

||||| |||||| ||| ||||||
@AZTMUL6
6

||||| |||||| ||| ||||||
@AZTMUL7
7

||||| |||||| ||| ||||||
@AZTMUL8
8
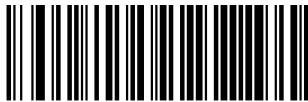
Character Encoding

|||||||||||||||||||||||||||||||||
@AZTENC0
** Default

|||||||||||||||||||||||||||||||||
@AZTENC1
UTF-8

ECI Output
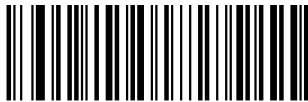
|||||||||||||||||||||||||||||||||
@AZTECI0
Off

|||||||||||||||||||||||||||||||||
@AZTECI1
** On

Data Matrix

Restore Factory Defaults

```
||| ||| |||| ||| |||| || |||||
@DMCDEF
```
** Data Matrix Restore Factory Defaults

Enable/Disable Data Matrix

```
||| ||| |||| ||| |||| || |||||
@DMCENA1
```
** Enable Data Matrix

```
||| ||| |||| ||| |||| || |||||
@DMCENA0
```
Disable Data Matrix

If the scanner fails to identify Data Matrix barcodes, you may first try this solution by scanning the Enter Setup barcode and then Enable Data Matrix barcode.

```
||| ||| |||| ||| |||| || |||||
@SETUPE0
```
**Exit Setup

Set Length Range for Data Matrix

The scanner can be configured to only decode Data Matrix barcodes with lengths that fall between (inclusive) the minimum and maximum lengths. To accomplish it, you need to set the minimum and maximum lengths.

Set the Minimum Length (Default: 1)

Set the Maximum Length (Default: 3116)

The maximum length limit of any two-dimensional bar code shall not exceed 65535 bytes, and the maximum length limit shall not be less than the minimum length limit.

If you want to read only a fixed length Data Matrix bar code, you can set the minimum length limit to be equal to the maximum length limit.

Set the scanner to decode Data Matrix barcodes containing between 8 and 12 characters:

1. Scan the Enter Setup barcode.

2. Scan the Set the Minimum Length barcode.

3. Scan the numeric barcode "8" from the "Digit Barcodes" section in Appendix.

4. Scan the Save barcode from the "Save/Cancel Barcodes" section in Appendix.

5. Scan the Set the Maximum Length barcode.

6. Scan the numeric barcodes "1" and "2" from the "Digit Barcodes" section in Appendix.

7. Scan the Save barcode from the "Save/Cancel Barcodes" section in Appendix.

8. Scan the Exit Setup barcode.

Data Matrix Twin Code

Data Matrix twin code is 2 Data Matrix barcodes paralleled vertically or horizontally. They must both be either regular or inverse barcodes. They must have similar specifications and be placed closely together.

There are 3 options for reading Data Matrix twin codes:

✧ Single Data Matrix Only: Read either Data Matrix code.

✧ Twin Data Matrix Only: Read both Data Matrix codes. Transmission sequence: left (upper) Data Matrix code followed by right (lower) Data Matrix code.

✧ Both Single & Twin: Read both Data Matrix codes. If successful, transmit as twin Data Matrix only. Otherwise, try single Data Matrix only.

||||| |||| ||||| ||||
@DMCDOU0
**Single Data Matrix Only

||||| |||| ||||| ||||
@DMCDOU1
Twin Data Matrix Only

||||| |||| ||||| ||||
@DMCDOU2
Both Single & Twin

Rectangular Barcode

Data Matrix has two formats:

✧ Square barcodes having the same amount of modules in length and width: 10*10, 12*12   144*144.

✧ Rectangular barcodes having different amounts of models in length and width: 6*16, 6*14…..14*22.

@DMCREC1
** On

@DMCREC0
Off

Data Matrix Inverse

✧ Regular barcode: Dark bars on a bright background.
✧ Inverse barcode: Bright bars on a dark background.

@DMCINV0
Decode Regular Data Matrix Barcodes Only

@DMCINV1
Decode Inverse Data Matrix Barcodes Only

@DMCINV2
** Decode Both

Character Encoding

||||||||||||||||||||||||||
@DMCENC0
** Default

||||||||||||||||||||||||||
@DMCENC1
UTF-8

ECI Output

||||||||||||||||||||||||||
@DMCECI0
Off

||||||||||||||||||||||||||
@DMCECI1
** On

||||||||||||||||||||||||||
@SETUPE0

Exit Setup

```
||||| ||| ||||| ||||||
@SETUPE1
```
Enter Setup

Maxicode

Restore Factory Default

```
||||||| |||| ||| |||||||||
@MXCDEF
```
** Maxicode Restore Factory Default

Enable/Disable Maxicode

```
||||||| |||| ||| |||||||||
@MXCENA1
```
Enable Maxicode

```
||||||| |||| ||| |||||||||
@MXCENA0
```
** Disable Maxicode

If the scanner fails to identify Maxicode barcodes, you may first try this solution by scanning the Enter Setup barcode and then Enable Maxicode barcode.

Set Length Range for Maxicode

The scanner can be configured to only decode Maxicode barcodes with lengths that fall between (inclusive) the minimum and maximum lengths. To accomplish it, you need to set the minimum and maximum lengths.

‖‖‖‖‖‖‖‖‖
@MXCMIN
Set the Minimum Length (Default: 1)

‖‖‖‖‖‖‖‖‖
@MXCMAX
Set the Maximum Length (Default:150)

The maximum length limit of any two-dimensional bar code shall not exceed 65535 bytes, and the maximum length limit shall not be less than the minimum length limit.

If you want to read only a fixed length Maxicode barcode, you can set the minimum length limit to be equal to the maximum length limit.

Set the scanner to decode Maxicode barcodes containing between 8 and 12 characters:

1. Scan the Enter Setup barcode.

2. Scan the Set the Minimum Length barcode.

3. Scan the numeric barcode "8" from the "Digit Barcodes" section in Appendix.

4. Scan the Save barcode from the "Save/Cancel Barcodes" section in Appendix.

5. Scan the Set the Maximum Length barcode.

6. Scan the numeric barcodes "1" and "2" from the "Digit Barcodes" section in Appendix.

7. Scan the Save barcode from the "Save/Cancel Barcodes" section in Appendix.

8. Scan the Exit Setup barcode.

Han Xin（Chinese Sensible Code）

Restore Factory Defaults

@CSCDEF

** Chinese Sensible Code Restore Factory Defaults

Enable/Disable Chinese Sensible Code

@CSCENA1

Enable Chinese Sensible Code

@CSCENA0

** Disable Chinese Sensible Code

If the scanner fails to identify Chinese Sensible Code barcodes, you may first try this solution by scanning the Enter Setup barcode and then Enable Chinese Sensible Code barcode.

Set Length Range for Chinese Sensible Code

Chinese sensible Code barcodes with lengths that fall between (inclusive) the minimum and maximum lengths. To accomplish it, you need to set the minimum and maximum lengths.

‖‖‖‖‖‖‖‖‖‖‖‖‖
@CSCMIN

Set the Minimum Length (Default: 1)

‖‖‖‖‖‖‖‖‖‖‖‖‖
@CSCMAX

Set the Maximum Length (Default: 7827)

Minimum length is not allowed to be greater than maximum length. If you only want to read Chinese Sensible Code barcodes with a specific length, set both minimum and maximum lengths to be that desired length.

Set the scanner to decode Chinese Sensible Code barcodes containing between 8 and 12 characters:

1. Scan the Enter Setup barcode.

2. Scan the Set the Minimum Length barcode.

3. Scan the numeric barcode "8" from the "Digit Barcodes" section in Appendix.

4. Scan the Save barcode from the "Save/Cancel Barcodes" section in Appendix.

5. Scan the Set the Maximum Length barcode.

6. Scan the numeric barcodes "1" and "2" from the "Digit Barcodes" section in Appendix.

7. Scan the Save barcode from the "Save/Cancel Barcodes" section in Appendix.

8. Scan the Exit Setup barcode."

Chinese Sensible Twin Code

Chinese Sensible twin code is 2 Chinese Sensible barcodes paralleled vertically or horizontally. They must both be either regular or inverse barcodes. They must have similar specifications and be placed closely together.

There are 3 options for reading Chinese Sensible twin codes:

✧ Only Single Han Xin: At any time, the device can only decode one Han Xin code.

✧ Only Twin Han Xin：Any time the device in a code map must detect the Chinese Sensible Twin code, and both codes are decoded successfully before sending the decoding information.

✧ Both Single & Twin: Read both Chinese Sensible codes. If successful, transmit as twin Chinese Sensible Code only. Otherwise, try single Chinese Sensible Code only.

@CSCDOU0
** Only Single Han Xin

@CSCDOU1
Only Twin Han Xin

@CSCDOU2
Both Single & Twin

Chinese Sensible Inverse

✧ Regular barcode: Dark bars on a bright background.

✧ Inverse barcode: Bright bars on a dark background.

||||| |||| ||| |||||| |||||
@CSCINV0

** Decode Regular Chinese Sensible Barcodes Only

||||| |||| ||| |||||| |||||
@CSCINV1

Decode Inverse Chinese Sensible Barcodes Only

||||| |||| ||| |||||| |||||
@CSCINV2

Decode Both

||||| |||| ||| |||||| |||||
@SETUPE0

Exit Setup

USPS Postnet

Restore Factory Defaults

@PNTDEF

** USPS Postnet Restore Factory Defaults

Enable/Disable USPS Postnet

@PNTENA1

Enable USPS Postnet

@PNTENA0

** Disable USPS Postnet

Transmit Check Character

USPS Postnet barcode data contains check characters, and check characters are the last 1 charactes of data. Check characters are values calculated from all data except check characters to verify the correctness of the data.

✧   If it is set to "Do Not Transmit Check Character ", the scanner will normally transmit all barcode data.

✧   Set to" Transmit Check Character", and the scanner will transmit all the bar code data normally and the last check character together.

@PNTCHK1

Do Not Transmit Check Character

@PNTCHK2

** Transmit Check Character

USPS Intelligent Mail

Restore Factory Defaults

||||| |||| ||||| ||||| |||||
@ILGDEF

** USPS Intelligent Mail Restore Factory Defaults

Enable/Disable USPS Intelligent Mail

||||| |||| ||||| ||||| |||||
@ILGENA1

Enable USPS Intelligent Mail

||||| |||| ||||| ||||| |||||
@ILGENA0

** Disable USPS Intelligent Mail

Royal Mail

Restore Factory Defaults

@ROYDEF

** Royal Mail Restore Factory Defaults

Enable/Disable Royal Mail

@ROYENA1
Enable Royal Mail

@ROYENA0
** Disable Royal Mail

USPS Planet

Restore Factory Defaults

||||| |||||| ||| ||||| |||||
@PLADEF
** USPS Planet Restore Factory Defaults

Enable/Disable USPS Planet

||||| |||||| ||| ||||| |||||
@PLAENA1
Enable USPS Planet

||||| |||||| ||| ||||| |||||
@PLAENA0
** Disable USPS Planet

Transmit Check Character

USPS Planet barcode data contains check characters, and check characters are the last 1 character of data. Check characters are values calculated from all data except check characters to verify the correctness of the data.

✧   If it is set to "Do Not Transmit Check Character ", the scanner will normally transmit all barcode data.
✧   Set to" Transmit Check Character", and the scanner will transmit all the bar code data normally and the last check character together.

||||| |||||| ||| ||||| |||||
@PLACHK1
Do Not Transmit Check Character

||||| |||||| ||| ||||| |||||
@PLACHK2
** Transmit Check Character

||||| |||||| ||| ||||| |||||
@SETUPE0
Exit Setup

KIX Post

Restore Factory Defaults

** KIX Post Restore Factory Defaults

Enable/Disable KIX Post

Enable KIX Post

** Disable KIX Post

Australian Postal

Restore Factory Defaults

||||||| |||| || |||||||||
@APLDEF

** Australian Postal Restore Factory Defaults

Enable/Disable Australian Postal

||||||| |||| || |||||||||
@APLENA1
Enable Australian Postal

||||||| |||| || |||||||||
@APLENA0
** Disable Australian Postal

||||||| |||| || |||||||||
@SETUPE0

**Exit Setup

Passport OCR

Restore Factory Defaults

@PASDEF
** Passport OCR Restore Factory Defaults

Enable/Disable Passport OCR

@PASENA1
Enable Passport OCR

@PASENA0
**Disable Passport OCR

Chapter 7 Data Formatting

Introduction

You may use the Data Formatter to modify the scanner's output. For example, you can use the Data Formatter to insert characters at certain points in barcode data.

Normally, when you scan a barcode, it gets outputted automatically; however, when you create a format, you must use a "send" command (see the "Send Commands" section in this chapter) within the format programming to output data.

A total of four data formats can be set, namely, data format 0, data format 1, data format 2, data format 3, according to the actual needs of the four groups of data formats can be set separately. Set up before you can use it correctly. Data formats include the scope of application of data formats (such as bar code type, bar code length) and data editing commands. When the read bar code does not match the data format used, the scanner emits an error message (if the "data format does not match the error message tone" is turned on).

Multiple data formats can be programmed into the scanner. The maximum size of all data formats created is 2048 characters. By default, the data formatter is disabled. Enable it when required.

If you have changed data format settings, and wish to clear all formats and return to the factory defaults, scan the Default Data Format code below.

||||| |||| ||| |||||| ||||
@DFMDEF
** Default Data Format

Enable/Disable Data Formatter

◇ **Disable Data Formatter:**

Disable the date formatter function.

◇ **Enable Data Formatter, Required, Keep Prefix/Suffix:**

Scanned data that meets your data format requirements is modified accordingly and gets outputted along with prefixes and suffixes (if prefix and suffix are enabled). Any data that does not match your data format requirements generates an error beep (if Non-Match Error Beep is turned ON) and the data in that barcode is not transmitted.

◇ **Enable Data Formatter, Required, Drop Prefix/Suffix:**

Scanned data that meets your data format requirements is modified accordingly and gets outputted without prefixes and suffixes (even if prefix and suffix are enabled). Any data that does not match your data format requirements generates an error beep (if Non-Match Error Beep is turned ON) and the data in that barcode is not transmitted.

◇ **Enable Data Formatter, Not Required, Keep Prefix/Suffix:**

Scanned data that meets your data format requirements is modified accordingly and gets outputted along with prefixes and suffixes (if prefix and suffix are enabled). Barcode data that does not match your data format requirements is transmitted as read along with prefixes and suffixes (if prefix and suffix are enabled).

◇ **Enable Data Formatter, Not Required, Drop Prefix/Suffix:**

Scanned data that meets your data format requirements is modified accordingly and gets outputted without prefixes and suffixes (even if prefix and suffix are enabled). Barcode data that does not match your data format requirements is transmitted as read along with prefixes and suffixes (if prefix and suffix are enabled).。

||||| |||| ||| ||| |||| |||||
@DFMENA0

**   Disable Data Formatter:

||||| |||| ||| ||| |||| |||||
@DFMENA1

Enable Data Formatter, Required, Keep
Prefix/Suffix:

||||| |||| ||| ||| |||| |||||
@DFMENA2

Enable Data Formatter, Required, Drop
Prefix/Suffix

||||| |||| ||| ||| |||| |||||
@DFMENA3

Enable Data Formatter, Not Required, Keep
Prefix/Suffix

||||| |||| ||| ||| |||| |||||
@DFMENA4

Enable Data Formatter, Not Required, Drop
Prefix/Suffix

||||| |||| ||| ||| |||| |||||
@SETUPE0

**Exit Setup

Add a Data Format

Format

Step 1: Scan the Enter Setup barcode.

Step 2： Scan the Add Data Format barcode.

@DFMADD

Add Data Format

Step 3： Select a label (Format_0 or Format_1 or Format_2 or Format_3).

Scan a numeric barcode 0 or 1 or 2 or 3 to label this data format Format_0 or Format_1 or Format_2 or Format_3.

Step 4： In turn, read the data code "6", "9", "9", "9".

Step 5： Select bar code serial number

The data format only works on the bar code of the specified type. Refer to appendix - bar code serial number comparison table. The bar code serial number consists of 3 data bits. If the data format is valid for all barcode types, the bar code serial number is set to 999. For example, only for EAN-13 processing, then read the data code "005".

Step 6： Set Length Range for barcode

。The data format only works on the bar code of the specified length. The length of data consists of 4 data bits. For example, when barcode data length is 32, then read the data code "0032". If the data format is valid for all data bar codes, the bar code length is set to 9999.

Step 7： Set Formatter commands

Scan the data code to set the required data formatter command. For example, if the data formatter command is F141, then read the data code "F141". The maximum length of the data formatter command is 500 characters. For detailed commands, please refer to the data format edit command.

Step 8： Scan " Save" barcode.

Example

Program a Format_0 data format using formatter command type 6, Code 128 containing 10 characters applicable, send all characters followed by "A".

    1. Scan the Enter Setup barcode

    2. Scan the Add Data Format barcode

    3. Scan the 0 barcode

    4. Scan the 6 barcode

    5. Scan the 9 barcode three times

    6. Scan the barcodes 002

    7. Scan the barcodes 0010

    8. Scan the alphanumeric barcodes F141

    9. Scan the Save barcode

Delete Data Format

There are two methods to remove data format created from your scanner:

Delete one data format: Scan the Clear One barcode, a numeric barcode (0-3) and the Save barcode. For example, to delete Format_2, you should scan the Clear One barcode, the 2 barcode and the Save barcode

Delete all data formats: Scan the Clear All barcode.

||||||||||||||
@DFMCAL
Delete one data format

||||||||||||||
@DFMCLR
Delete all data formats

Enable Data Format

After enabling the Data Formatter, you may select a data format you want to use by scanning the appropriate barcode below. Default: Data Format 0

||||||||||||||
@DFMUSE0
** Data Format 0
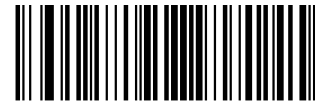
||||||||||||||
@DFMUSE1
Data Format 1

||||||||||||||
@DFMUSE2
Data Format 2

||||||||||||||
@DFMUSE3
Data Format 3

Change Data Format for a Single Scan

You can switch between data formats for a single scan. The next barcode is scanned using the data format selected here, then reverts to the format you have selected above. For example, you may have set your scanner to the data format you saved as Format 3. You can switch to Format 1 for a single trigger pull by scanning the Single Scan – Format 1 barcode below. The next barcode that is scanned uses Format 1, then reverts back to Format 3.

Note: This setting will be lost by removing power from the scanner, or turning off/ rebooting the device.

‖|‖‖|‖‖|‖
@DFMSIN0
Single Scan Data Format 0

‖|‖‖|‖‖|‖
@DFMSIN1
Single Scan Data Format 1

‖|‖‖|‖‖|‖
@DFMSIN2
Single Scan Data Format 2

‖|‖‖|‖‖|‖
@DFMSIN3
Single Scan Data Format 3

Non-Match Error Beep

If Non-Match Error Beep is turned ON, the scanner generates an error beep when a barcode is encountered that does not match your required data format.

‖|‖‖|‖‖|‖
@DFMTON0
Off

‖|‖‖|‖‖|‖
@DFMTON1
** On

Query Data Formats

✧ Query Current Data Formats

Get the current configuration data format 0 to the configuration content of data format 3.

✧ Query Preset Data Formats

Get the configuration data from factory configuration 0 to data format 3.

All data formats configured by querying are configured as follows:

Data Format 0:xxxx;

Data Format 1:xxxx;

Data Format 2:xxxx;

Data Format 3:xxxx;

```
@DFMQCU
```
Query Current Data Formats

```
@DFMQFA
```
Query Current Data Formats

Formatter Command

When working with the Data Formatter, a virtual cursor is moved along your input data string. The following commands are used to both move this cursor to different positions, and to select, replace, and insert data into the final output. For the hex value of ASCII characters involved in the commands, refer to the "ASCII Table" in Appendix.

1234567890ABCDEFGHIJ

Send Commands

F1 Send all characters

Syntax=F1xx (xx: The insert character's hex value)

Include in the output message all of the characters from the input message, starting from current cursor position, followed by an insert character.

F2 Send a number of characters

Syntax=F2nnxx (nn: The numeric value (00-99) for the number of characters; xx: The insert character's hex value)

Include in the output message a number of characters followed by an insert character. Start from the current cursor position and continue for "nn" characters or through the last character in the input message, followed by character "xx

F2 Example: Send a number of characters

1234567890ABCDEFGHIJ

Send the first 10 characters from the barcode above, followed by a carriage return. Command string: F2100D

F2 is the "Send a number of characters" command

10 is the number of characters to send

0D is the hex value for a CR

The data is output as: 1234567890

<CR>

F3 Send all characters up to a particular character

Syntax=F3ssxx (ss: The particular character's hex value; xx: The insert character's hex value)

Include in the output message all characters from the input message, starting with the character at the current cursor position and continuing to, but not including, the particular character "ss," followed by character "xx." The cursor is moved forward to the "ss" character.

F3 Example: Send all characters up to a particular character

‖‖‖‖‖‖‖‖‖‖‖‖
1234567890ABCDEFGHIJ

Using the barcode above, send all characters up to but not including "D," followed by a carriage return.

Command string: F3440D

F3 is the "Send all characters up to a particular character" command

44 is the hex value for a "D"

0D is the hex value for a CR

The data is output as: 1234567890ABC<CR>

E9 Send all but the last characters

Syntax=E9nn (nn: The numeric value (00-99) for the number of characters that will not be sent at the end of the message)

Include in the output message all but the last "nn" characters, starting from the current cursor position. The cursor is moved forward to one position past the last input message character included.

F4 Insert a character multiple times

Syntax=F4xxnn (xx: The insert character's hex value; nn: The numeric value (00-99) for the number of times it should be sent)

Send "xx" character "nn" times in the output message, leaving the cursor in the current position.

E9 and F4 Example: Send all but the last characters, followed by 2 tabs

‖‖‖‖‖‖‖‖‖‖‖‖
1234567890ABCDEFGHIJ

Send all characters except for the last 8 from the barcode above, followed by 2 tabs. Command string: E908F40902

E9 is the "Send all but the last characters" command

08 is the number of characters at the end to ignore

F4 is the "Insert a character multiple times" command

09 is the hex value for a horizontal tab

02 is the number of time the tab character is sent The data is output as: 1234567890AB<tab><tab>

Output：**1234567890A<tab><tab>**

B3 Insert symbology name

Insert the name of the barcode's symbology in the output message, without moving the cursor.

B4 Insert barcode length

Insert the barcode's length in the output message, without moving the cursor. The length is expressed as a numeric string and does

not include leading zeros.

B3 and B4 Example: Insert the symbology name and length

1234567890ABCDEFGHIJ

Send the symbology name and length before the barcode data from the barcode above. Break up these insertions with spaces. End with a carriage return.

Command string: B3F42001B4F42001F10D

B3 is the "Insert symbology name" command

F4 is the "Insert a character multiple times" command 20 is the hex value for a space

01 is the number of time the space character is sent B4 is the "Insert barcode length" command

F4 is the "Insert a character multiple times" command 20 is the hex value for a space

01 is the number of time the space character is sent F1 is the "Send all characters" command

0D is the hex value for a CR

The data is output as: Code128 20 1234567890ABCDEFGHIJ

                                      <CR>

Move Commands

F5 Move the cursor forward a number of characters

Syntax=F5nn (nn: The numeric value (00-99) for the number of characters the cursor should be moved ahead)

Move the cursor ahead "nn" characters from current cursor position.

F5 Example: Move the cursor forward and send the data

1234567890ABCDEFGHIJ

Move the cursor forward 3 characters, then send the rest of the barcode data from the barcode above. End with a carriage return.

Command string: F503F10D

F5 is the "Move the cursor forward a number of characters" command

03 is the number of characters to move the cursor

F1 is the "Send all characters" command 0D is the hex value for a CR

The data is output as: 4567890ABCDEFGHIJ

                        <CR>

F6 Move the cursor backward a number of characters

Syntax=F6nn (nn: The numeric value (00-99) for the number of characters the cursor should be moved back)

Move the cursor back "nn" characters from current cursor position.

F7 Move the cursor to the beginning

Syntax＝F7

Move the cursor to the first character in the input message.

EA Move the cursor to the end

Syntax＝EA

Move the cursor to the last character in the input message.

Search Commands

F8 Search forward for a character

Syntax＝F8xx (xx: The search character's hex value)

Search the input message forward for "xx" character from the current cursor position, leaving the cursor pointing to the "xx" character.

F8 Example: Send barcode data that starts after a particular character

1234567890ABCDEFGHIJ

Search for the letter "D" in barcodes and send all the data that follows, including the "D". Using the barcode above: Command string: F844F10D

F8 is the "Search forward for a character" command 44 is the hex value for "D"

F1 is the "Send all characters" command 0D is the hex value for a CR

The data is output as: DEFGHIJ

                               <CR>

F9 Search backward for a character

Syntax＝F9xx(xx: The search character's hex value)

Search the input message backward for "xx" character from the current cursor position, leaving the cursor pointing to the "xx" character.

B0 Search forward for a string

Syntax=B0nnnnS (nnnn: The string length (up to 9999); S: The ASCII hex value of each character in the string)

Search forward for "S" string from the current cursor position, leaving cursor pointing to "S" string. For example, B0000454657374 will search forward for the first occurrence of the 4-character string "Test."

B0 Example: Send barcode data that starts after a string of characters

1234567890ABCDEFGHIJ

Search for the letters "FGH" in barcodes and send all the data that follows, including "FGH." Using the barcode above: Command string: B00003464748F10D

B0 is the "Search forward for a string" command 0003 is the string length (3 characters)

46 is the hex value for "F" 47 is the hex value for "G" 48 is the hex value for "H"

F1 is the "Send all characters" command 0D is the hex value for a CR

The data is output as: FGHIJ

                               <CR>

B1 Search backward for a string

Syntax＝B1nnnnS (nnnn: The string length (up to 9999); S: The ASCII hex value of each character in the string)

Search backward for "S" string from the current cursor position, leaving cursor pointing to "S" string. For example, B1000454657374 will search backward for the first occurrence of the 4-character string "Test."

E6 Search forward for a non-matching character

Syntax＝E6xx (xx: The search character's hex value)

Search the input message forward for the first non-"xx" character from the current cursor position, leaving the cursor pointing to the non-"xx" character.

E6 Example: Remove zeros at the beginning of barcode data

0000123abc

This example shows a barcode that has been zero filled. You may want to ignore the zeros and send all the data that follows. E6 searches forward for the first character that is not zero, then sends all the data after, followed by a carriage return. Using the barcode above:

Command string: E630F10D

E6 is the "Search forward for a non-matching character" command 30 is the hex value for 0

F1 is the "Send all characters" command 0D is the hex value for a CR

The data is output as: 37692

                                      <CR>

E7 Search backward for a non-matching character

Syntax＝E7xx(xx: The search character's hex value)

Search the input message backward for the first non-"xx" character from the current cursor position, leaving the cursor pointing to the non-"xx" character.

Other Commands

FB Suppress characters

Syntax＝FBnnxxyy..zz (nn: The numeric value (00-15) for the number of suppressed characters; xxyy..zz: The hex value of the characters to be suppressed)

Suppress all occurrences of up to 15 different characters, starting at the current cursor position, as the cursor is advanced by other commands.

FB Example: Remove spaces in barcode data

12 34_5*6 78

This example shows a barcode that has spaces in the data. You may want to remove the spaces before sending the data. Using the barcode above:

Command string: FB0120F10D

FB is the "Suppress characters" command

03 is the number of the characters to be suppressed

20 is the hex value for a space

F1 is the "Send all characters" command 0D is the hex value for a CR

The data is output as: 12345678

                                 <CR>

E4 Replace characters

Syntax = E4nnxx1xx2yy1yy2... Zz1zz2 (nn: number of substituted characters + number of substituted characters; xx1: hexadecimal value of substituted characters, xx2: hexadecimal value of substituted characters, and so on)

Starting from the right side of the cursor, replace the output character (up to 15 characters) without moving the cursor.

E4 Example: Replace zeros with CRs in barcode data

12304560780AB

If the barcode has characters that the host application does not want included, you can use the E4 command to replace those characters with something else. In this example, you will replace the zeros in the barcode above with carriage returns.

Command string: E402300DF10D

E4 is the "Replace characters" command

02is the total count of characters to be replaced, plus the replacement characters (0 is replaced by CR, so total characters=2)

30 is the hex value for 0

0D is the hex value for a CR (the character that will replace the 0) F1 is the "Send all characters" command

0D is the hex value for a CR

The data is output as: 123

        456

        78

        AB

        <CR>

BA Replace a string with another

Syntax＝BAnnNN1SS1NN2SS2

nn: The count of replacements to be made, if nn=00 or nn>=the number of occurrences of a string to be replaced, then replace all occurrences of that string.

NN1: The length of the string to be replaced, NN1>0.

SS1: The ASCII hex value of each character in the string to be replaced.

NN2: The length of replacement string, NN2>=0. To replace string "SS1" with NUL (i.e. delete string "SS1"), you should set NN2 to 00 and leave out SS2.

SS2: The ASCII hex value of each character in the replacement string.

From the current cursor position, search forward for the occurrence of "SS1" string (of length "NN1") and replace the string with "SS2" string (of length "NN2") in the output message until every "SS1" stringis replaced or the count of replacements made reaches "nn" times, without moving the cursor.

XYZ Replace "23"s with "XYZ"s in barcode data

||||||||||||||||||||||||||||||||

1234Abc23R0123U

Command string:**BA020232330358595AF100**

BA is the "Replace a string with another" command

02: Times for the replace

02: The length for string "23"

3233: The hex value for string 3233

03: The length for string "XYZ"

58595A: The hex value for string "XYZ"

F1: "Send all characters" command

00: The hex value for a NUL

Output: 1XYZ4AbcXYZR0123U

EF Insert a delay, used in USB keyboard mode.

Syntax＝EFnnnn (nnnn: The delay in 5ms increments, up to 9999)

Insert a delay of up to 49,995 milliseconds (in multiples of 5), starting from the current cursor position. This command can only be used with USB HID Keyboard.

EF Example: Insert a delay of 1s between the 5th and 7th character

||||||| ||||| ||||| |||| |||||| |||||| |||||
1234567890ABCDEFGHIJ

Command String: **F20500EF0200F20200EF0200F100**

Send the first 5 characters in a barcode, wait for 1s, then send the rest of the barcode data. Command string: F20500EF0200E900

F2 is the "Send a number of characters" command

05 is the number of characters to send 00 is the hex value for a Null character

EF is the "Insert a delay" command

0200 is the delay value (5msX200=1000ms=1s)

F2 is the "Send a number of characters" command

02 is the length of the sent character (output from the right side of the current cursor).

00 is the Hexadecimal off NUL

EF is the " Insert a delay" command

0200 is the length of the delay is 200 times that of 5ms, that is 1s.

Output: **12345{1s delay}67{1s delay}890ABCDEFGHIJ**

Chapter 8 Prefix & Suffix Settings

Introduction

After decoding, the scanner gets a string of data, which can be numbers, English, symbols and so on. For two-dimensional codes, it can also be Chinese characters. This string of data is the data information contained in the bar code. In practice, we may not only need the data information of barcode, or the data information contained in barcode can't meet your needs. If you want to know which type of bar code the data comes from, or when the bar code information was scanned, or if you want to scan a bar code, the text of the record bar code can be wrapped back automatically, which may not be included in the bar code data information.

It is not advocated to increase the length and flexibility of the bar code by adding these contents. At this point, we think that the bar code data information before or after the addition of some content, and these additional content, according to real-time changes in demand, can choose to add or shield, this is the bar code data information prefix, prefix and suffix method, that is to meet the needs without modifying the bar code The content of information.

Barcode processing procedure:

1. Edit data with Data Formatter

2. Append prefix/suffix

3. Pack data

4. Append terminating character：

Global Settings

Enable/Disable All Prefixes/Suffixes

Disable All Prefixes/Suffixes: Transmit barcode data with no prefix/suffix.

Enable All Prefixes/Suffixes: Allow to append Code ID prefix, AIM ID prefix, custom prefix/suffix and terminating character to the barcode data before the transmission.

```
||| |||| || ||| ||| ||| |||
@APSENA0
```
** Disable All Prefixes/Suffixes

```
||| |||| || ||| ||| ||| |||
@APSENA1
```
Enable All Prefixes/Suffixes

Prefix Sequence

```
||| |||| || ||| ||| ||| |||
@PRESEQ0
```
** Code ID +Custom+AIM ID

```
||| |||| || ||| ||| ||| |||
@PRESEQ1
```
Custom+Code ID+AIM ID

```
||| |||| || ||| ||| ||| |||
@SETUPE0
```
Exit Setup

Custom Prefix

If you have enabled the Custom Prefix, you are allowed to append to the data a user-defined prefix.

For example, if the custom prefix is "AB" and the barcode data is "123", the Host will receive "AB123".

@CPRENA0
** Disable Custom Prefix

@CPRENA1
Enable Custom Prefix

Modify Custom Prefix

To set a custom prefix, scan the Set Custom Prefix barcode then the numeric barcodes corresponding to the hexadecimal value of a desired prefix then the Save barcode. Also A custom prefix cannot exceed 10 characters whose range is 0x00~0xFF.

@CPRSET
Modify Custom Prefix

Set the custom prefix to "CODE" (HEX: 0x43/0x4F/0x44/0x45):

1. Scan the Enter Setup barcode.

2. Scan the Modify Custom Prefix barcode.

3. Scan the numeric barcodes "4", "3", "4", "F", "4", "4", "4" and "5" from the "Digit Barcodes" section in Appendix.

4. Scan the Save barcode from the "Save/Cancel Barcodes" section in Appendix.

5. Scan the Enable Custom Prefix barcode.

6. Scan the Exit Setup barcode.

AIM ID Prefix

AIM (Automatic Identification Manufacturers) ID defines symbology identifier (For the details, see the "AIM ID Table" section in Appendix). If AIM ID prefix is enabled, the scanner will add the symbology identifier before the scanned data after decoding.

Prefix Format:"]"+AIM Prefix +Digit"0", for example, Code 128 AIM ID prefix is "]C0".
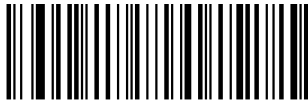
```
@AIDENA0
```
** Disable AIM ID Prefix

```
@AIDENA1
```
Enable AIM ID Prefix

AIM ID is not user programmable.

Code ID Prefix

In addition to the AIM prefix that can be used to identify different bar code types, users can also use the Code ID prefix to identify the bar code type. Unlike the AIM prefix, the Code ID prefix corresponding to each bar type can be customized. The code ID of all barcodes is one or two characters and must be alphabetic, not numeric, invisible, or punctuated.

@CIDENA0
** Disable Code ID Prefix

@CIDENA1
Enable Code ID Prefix

Restored Code ID Defaults

@CIDDEF
Restored Code ID Defaults

Modify Code ID

See the examples below to learn how to modify a Code ID and restore the default Code IDs of all symbologies.

Modify PDF417 Code ID to be "p" (HEX: 0x70):

1. Scan the Enter Setup barcode.

2. Scan the Modify PDF417 Code ID barcode.

3. Scan the numeric barcodes "7" and "0" from the "Digit Barcodes" section in Appendix.

4. Scan the Save barcode from the "Save/Cancel Barcodes" section in Appendix.

5. Scan the Exit Setup barcode

Restore the default Code IDs of all symbologies:

1. Scan the Enter Setup barcode.

2. Scan the Restore All Default Code IDs barcode.

3. Scan the Exit Setup barcode.

@SETUPE0
** 【Exit Setup】

Modify ID Code ID

‖‖‖‖‖ @CID002
Code 128

‖‖‖‖‖ @CID003
GS1-128 (UCC/EAN-128)

‖‖‖‖‖ @CID004
EAN-8

‖‖‖‖‖ @CID005
EAN-13

‖‖‖‖‖ @CID006
UPC-E

‖‖‖‖‖ @CID007
UPC-A

‖‖‖‖‖ @CID008
Interleaved 2 of 5

‖‖‖‖‖ @CID009
ITF-14

‖‖‖‖‖ @CID010
ITF-6

‖‖‖‖‖ @SETUPE0

|||||||||||||||||||||||||||||
@CID011
Matrix 2 of 5

|||||||||||||||||||||||||||||
@CID013
Code 39

|||||||||||||||||||||||||||||
@CID015
Codabar

|||||||||||||||||||||||||||||
@CID017
Code 93

|||||||||||||||||||||||||||||
@CID019
China Post 25

|||||||||||||||||||||||||||||
@CID023
ISSN

|||||||||||||||||||||||||||||
@CID024
ISBN

|||||||||||||||||||||||||||||
@CID025
Industrial 25

|||||||||||||||||||||||||||||
@CID026
Standard 25

||||| ||| || ||||| |||| |||| ||||| |||
@CID027
Plessey

||||| ||| || ||||| |||| |||| ||||| |||
@CID028
Code 11

||||| ||| || ||||| |||| |||| ||||| |||
@CID029
MSI Plessy

||||| ||| || ||||| |||| |||| ||||| |||
@CID030

GS1 Composite

||||| ||| || ||||| |||| |||| ||||| |||
@CID031

GS1 Databar (RSS)

||||| ||| || ||||| |||| |||| ||||| |||
@SETUPE0
**Exit Setup

Modify 2D Code ID

||||||||||||||||||||
@CID032
PDF417

||||||||||||||||||||
@CID033
QR

||||||||||||||||||||
@CID034
Aztec

||||||||||||||||||||
@CID035
Data Matrix

||||||||||||||||||||
@CID036
Maxicode

||||||||||||||||||||
@CID039
Han Xin

||||||||||||||||||||
@CID043
Micro QR
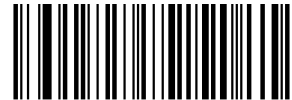
||||||||||||||||||||
@CID042
Micro PDF417

Modify Postal Symbologies Code ID

||||||||||||||||||||||||
@CID096
USPS Postnet

||||||||||||||||||||||||
@CID097
USPS Inteligent Mail

||||||||||||||||||||||||
@CID098
Royal Mail

||||||||||||||||||||||||
@CID099
USPS Planet

||||||||||||||||||||||||
@CID100
KIX Post

||||||||||||||||||||||||
@CID101
Australian Postal

```
||| |||| || ||| || |||| |||
@SETUPE1
```
Enter Setup

Custom Suffix

If you have enabled the Custom Prefix, you are allowed to append to the data a user-defined prefix.

For example, if the custom prefix is "AB" and the barcode data is "123", the Host will receive "123AB".

```
|| ||| |||| || ||| |||| |||
@CSUENA0
```
** Disable Custom Suffix

```
||| |||| || ||| || |||| |||
@CSUENA1
```
Enable Custom Suffix

Modify Custom Suffix

To set a custom suffix, scan the Set Custom Suffix barcode then the numeric barcodes corresponding to the hexadecimal value of a desired suffix then the Save barcode. It is noted that a custom suffix cannot exceed 10 characters.

```
||| |||| || ||| || |||| |||
@CSUSET
```
Modify Custom Suffix

Set the custom Suffix to "CODE" (HEX: 0x43/0x4F/0x44/0x45):

1. Scan the Enter Setup barcode.

2. Scan the Modify Custom Suffix barcode.

3. Scan the numeric barcodes "4", "3", "4", "F", "4", "4", "4" and "5" from the "Digit Barcodes" section in Appendix.

4. Scan the Save barcode from the "Save/Cancel Barcodes" section in Appendix.

5. Scan the Enable Custom Prefix barcode.

6. Scan the Exit Setup barcode.

Terminating Character Suffix

A terminating character such as carriage return (CR) or carriage return/line feed pair (CRLF) can only be used to mark the end of data, which means nothing can be added after it.

‖‖‖‖‖‖‖‖‖
@TSUENA0
Disable Terminating Suffix

‖‖‖‖‖‖‖‖‖
@TSUENA1
**Enable Terminating Suffix

Modify Terminating Character Suffix

To set a terminating character suffix, scan the Set Terminating Character Suffix barcode then the numeric barcodes corresponding to the hexadecimal value of a desired terminating character then the Save barcode.

Note: A terminating character suffix cannot exceed 2 characters.

‖‖‖‖‖‖‖‖‖
@TSUSET
Modify Terminating Character Suffix
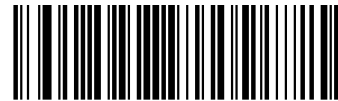
‖‖‖‖‖‖‖‖‖
@TSUSET0D
** Terminating Character CR (0x0D)

‖‖‖‖‖‖‖‖‖
@TSUSET0D0A
Terminating Character CRLF (0x0D,0x0A)

Chapter 9 Batch Programming

Introduction

Settings can be cumbersome when multiple settings are required for a reading device. At this point, we can store all the information that needs to be set into a bar code, and the device can read the bar code to complete a number of settings.

Batch programming enables users to integrate a batch of commands into a single batch barcode. Listed below are batch programming rules:

1. Command format: Command + Parameter Value.

2. Each command is terminated by a semicolon (;). Note that there is no space between a command and its terminator semicolon.

3. Use the barcode generator software to generate a 2D batch barcode.

Example: Create a batch barcode for Illumination On (command: ILLSCN1), Sense Mode (Command: SCANMOD2), Decode Session Timeout = 2s(Command: ORTSET2000), disable Interleaved 2 of 5 barcode (command: I25ENA0)

1. Input the commands: @ILLSCN1; SCNMOD2; ORTSET2000;

2. Generate a batch barcode.

When setting up a scanner with the above configuration, scan the Enable Batch Barcode bar code and then the batch barcode generated.

```
||||||||||||||||||||||||||||||
@BATCHS
```
Enable Batch Barcode

Create a Batch Command

A batch command may contain a number of individual commands each of which is terminated by a semicolon (;).

Command structure: Command (+ setting information).

There are 3 sets of command forms.

1. Syntax: command

This form of command at most, is not with the help of data code, a set of commands can be completed.

For example:

Set the baud rate of 38400 to @232BAD6.

The command to set automatic read code is @SCNMOD2.

2. Syntax: Command +Digits

This form of command is used to set the values of some parameters, such as the maximum and minimum length of barcode reading, the one-time reading timeout, the same reading delay settings, sensitivity settings, etc.

For example:

The order of setting a read delay is 3000 milliseconds: @ORTSET3000

The command with a successful decoding duration of 100 milliseconds is set to: @GRBDUR100

3. Syntax: Command +HEX

This form of command can be used to set custom prefixes, custom suffixes, terminator suffixes, CodeID, etc.

Note: every two sixteen character characters in the command represent a character to be set.

For example:

The command with custom prefix "J" is set to: @CPRSET4A

Set the command CodeID of Code128 to "J": @CID0026A

Create A Batch Barcode

Batch barcode can use every scanner that can support and enabled barcode, it is suggested that using the 2D barcode.

Example: Create a batch barcode for Illumination On, Sense Mode, Decode Session Timeout = 2s:

1. Input the following commands: @ILLSCN1;SCNMOD2;ORTSET2000;

2. Generate a PDF417 batch barcode.

Use Batch Barcode

To put a batch barcode into use, scan the following barcodes. (Use the example above.)

‖‖‖‖‖‖‖‖‖‖‖
@SETUPE1
Enter Setup

‖‖‖‖‖‖‖‖‖‖‖
@BATCHS
Enable Batch Barcode

Batch Barcode

‖‖‖‖‖‖‖‖‖‖‖
@SETUPE0
Exit Setup
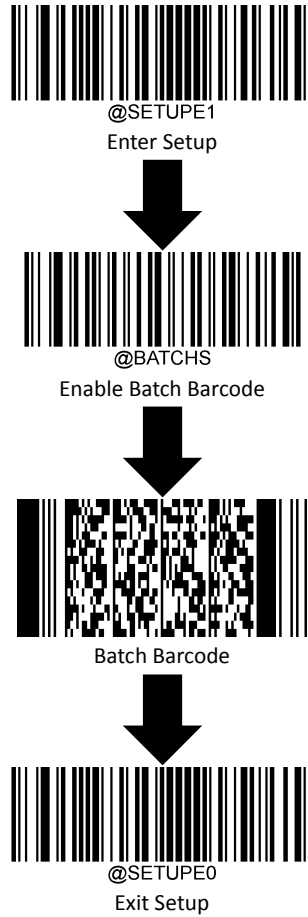
Appendix

Data Barcode

After reading the data code, read "Save barcode" to save the data code settings.

0~9

@DIGIT0
0

@DIGIT1
1

@DIGIT2
2

@DIGIT3
3

@DIGIT4
4

@DIGIT5
5

‖‖‖‖‖‖‖‖‖‖‖‖‖‖‖

@DIGIT6

6

‖‖‖‖‖‖‖‖‖‖‖‖‖‖‖

@DIGIT7

7

‖‖‖‖‖‖‖‖‖‖‖‖‖‖‖

@DIGIT8

8

‖‖‖‖‖‖‖‖‖‖‖‖‖‖‖

@DIGIT9

9

A~F

A

B

C

D

E

F

Save /Cancel Barcode

读完数据码后要读取保存码才能将读取到的数据保存下来。如果在读取数据码时出错，除了重新设置外，您还可以取消读取错误的数据。

如读取某个设置码，并依次读取数据"1"，"2"，"3"，此时若读取"取消前一次读的一位数据"，将取消最后读的数字"3"，若读取"取消前面读的一串数据"将取消读取到的数据"123"，若读取"取消当前设置"将连设置码一起取消，但此时设备还处于启动设置状态。

@DIGSAV
Save

@DIGCAN
取消当前设置

@DIGDEL
取消前一次读的一位数据

@DIGDAL
取消前面读的一串数据

Factory Defaults Table

Parameter	Factory Default	Remark
System Settings		
Barcode Programming	Disabled	
Programming Barcode Data	Do not transmit	
Illumination	On	
Aiming	Normal	
Good Read Vibration	Off	
Good Read Vibration Duration	300ms	
Good Read LED	On	
Good Read LED Duration	Short (20ms)	
Good Read Beep	On	
Good Read Beep Duration	Medium (80ms)	
Good Read Beep Frequency	Medium (2730Hz)	
Good Read Beep Volume	Loud	
Power On Beep	On	
Default Scan Mode	Level Mode	
Decode Session Timeout	3,000ms	1-3,600,000ms; 0: infinite.
Timeout between Decodes (Same Barcode)	Disabled, 15,000ms	1-3,600,000ms
Good Read Delay	Disabled, 500ms	1-3,600,000ms
Image Decoding Timeout	350ms	1-3,000ms
Sensitivity	Level 1	Level 1-20
Scanning Preference	Normal Mode	
Read Barcode	On	
Decode Area	Whole Area Decoding	
Image Flipping	Do Not Flip	
Smart Stand Mode	On	
Default Interface	USB HID Keyboard	
RS-232 Interface		
Baud Rate	9600	

Parity Check	None	
Data Bits	8	
Stop Bits	1	
USB Interface		
USB Country Keyboard	US keyboard	USB HID Keyboard
Beep on Unknown Character	Off	USB HID Keyboard
Emulate ALT+Keypad	Off	USB HID Keyboard
Code Page	Code Page 1252 (West European Latin)	USB HID Keyboard
Unicode Encoding	Off	USB HID Keyboard
Function Key Mapping	Disable	USB HID Keyboard
Inter-Keystroke Delay	No Delay	USB HID Keyboard
Caps Lock	Off	USB HID Keyboard
Convert Case	No Case Conversion	USB HID Keyboard
Emulate Numeric Keypad 1	Disabled	USB HID Keyboard
Emulate Numeric Keypad 2	Disabled	USB HID Keyboard
Polling Rate	4ms	USB HID Keyboard
Symbologies		
Global Settings		
1D Twin Code	Single 1D Code Only	
Enhance Poor Quality 1D Barcode Decoding	Off	
Code 128		
Code 128	Enabled	
Maximum Length	48	
Minimum Length	1	
EAN-8		
EAN-8	Enabled	
Check Character	Transmit	
2-Digit Add-On Code	Disabled	
5-Digit Add-On Code	Disabled	
Add-On Code	Not Required	

Add-On Code Separator	Off	
Convert EAN-8 to EAN-13	Disabled	
EAN-13		
EAN-13	Enabled	
Check Character	Transmit	
2-Digit Add-On Code	Disabled	
5-Digit Add-On Code	Disabled	
Add-On Code	Not required	
Add-On Code Separator	Off	
EAN-13 Beginning with 290 Add-On Code Required	Do Not Require Add-On Code	
EAN-13 Beginning with 378/379 Add-On Code Required	Do Not Require Add-On Code	
EAN-13 Beginning with 414/419 Add-On Code Required	Do Not Require Add-On Code	
EAN-13 Beginning with 434/439 Add-On Code Required	Do Not Require Add-On Code	
EAN-13 Beginning with 977 Add-On Code Required	Do Not Require Add-On Code	
EAN-13 Beginning with 978 Add-On Code Required	Do Not Require Add-On Code	
EAN-13 Beginning with 979 Add-On Code Required	Do Not Require Add-On Code	
UPC-E		
UPC-E0	Enabled	
UPC-E1	Disabled	
Check Character	Transmit	
2-Digit Add-On Code	Disabled	
5-Digit Add-On Code	Disabled	
Add-On Code	Not required	
Add-On Code Separator	Off	
Transmit Preamble Character	System Character	
Convert UPC-E to UPC-A	Disabled	
UPC-A		

UPC-A	Enabled	
Check Character	Transmit	
2-Digit Add-On Code	Disabled	
5-Digit Add-On Code	Disabled	
Add-On Code	Not required	
Add-On Code Separator	Off	
Transmit Preamble Character	No Preamble	
Interleaved 2 of 5		
Interleaved 2 of 5	Enabled	
Check Character Verification	Disabled	
Maximum Length	80	
Minimum Length	6	
ITF-14		
ITF-14	Disabled	
ITF-6		
ITF-6	Disabled	
Matrix 2 of 5		
Matrix 2 of 5	Enabled	
Check Character Verification	Disabled	
Maximum Length	80	
Minimum Length	4	
Code 39		
Code 39	Enabled	
Check Character Verification	Disabled	
Start/Stop Character	Do not transmit	
Code 39 Full ASCII	Disabled	
Code 32	Disabled	
Code 32 Prefix	Disabled	
Code 32 Start/Stop Character	Do not transmit	
Code 32 Check Character	Do not transmit	

Maximum Length	48	
Minimum Length	1	
Codabar		
Codabar	Enabled	
Check Character Verification	Disabled	
Start/Stop Character	Do not transmit ABCD/ABCD as Start/Stop Character	
Maximum Length	60	
Minimum Length	2	
Code 93		
Code 93	Disabled	
Check Character	Do not transmit	
Check Character Verification	Enabled	
Maximum Length	48	
Minimum Length	1	
China Post 25		
China Post 25	Disabled	
Check Character Verification	Disabled	
Maximum Length	48	
Minimum Length	1	
GS1-128 (UCC/EAN-128)		
GS1-128	Enabled	
Check Character	Do not transmit	
Maximum Length	48	
Minimum Length	1	
GS1 Databar		
GS1 Databar	Enabled	
Application Identifier "01"	Transmit	
GS1 Composite (EAN•UCC Composite)		
GS1 Composite	Disabled	

UPC/EAN Composite	Disabled	
Code 11		
Code 11	Disabled	
Check Character	Transmit	
Check Character Verification	One Check Character, MOD11	
Maximum Length	48	
Minimum Length	4	
ISBN		
ISBN	Disabled	
ISBN Format	ISBN-10	
ISSN		
ISSN	Disabled	
Industrial 25		
Industrial 25	Disabled	
Check Character Verification	Disabled	
Maximum Length	48	
Minimum Length	6	
Standard 25		
Standard 25	Disabled	
Check Character Verification	Disabled	
Maximum Length	48	
Minimum Length	6	
Plessey		
Plessey	Disabled	
Check Character Verification	Disabled	
Maximum Length	48	
Minimum Length	4	
MSI-Plessey		
MSI-Plessey	Disabled	
Check Character	Transmit	

Check Character Verification	One Check Character, MOD10	
Maximum Length	48	
Minimum Length	4	
PDF417		
PDF417	Enabled	
Read Single PDF417 Only	On	
PDF417 Inverse	Decode Regular PDF417 Barcodes Only	
Character Encoding	Default Character Encoding	
PDF417 ECI Output	Enabled	
Maximum Length	2710	
Minimum Length	1	
MicroPDF417		
MicroPDF417	Disabled	
Maximum Length	366	
Minimum Length	1	
QR Code		
QR Code	Enabled	
Read Single QR Only	Enabled	
QR Inverse	Read regular & inverse barcodes	
Character Encoding	Default Character Encoding	
QR ECI Output	Enabled	
Maximum Length	7089	
Minimum Length	1	
Micro QR		
Micro QR	Enabled	
Maximum Length	35	
Minimum Length	1	
Aztec		
Aztec	Disabled	
Read Multi-barcodes on an Image	Mode 1	

Number of Barcodes on an Image	1	
Character Encoding	Default Character Encoding	
Aztec ECI Output	Enabled	
Maximum Length	3832	
Minimum Length	1	
Data Matrix		
Data Matrix	Enabled	
Read Single DM Only	Enabled	
Rectangular Barcode	Enabled	
Data Matrix Inverse	Read regular & inverse barcodes	
Character Encoding	Default Character Encoding	
Data Matrix ECI Output	Enabled	
Maximum Length	3116	
Minimum Length	1	
Maxicode		
Maxicode	Disabled	
Maximum Length	150	
Minimum Length	1	
Chinese Sensible Code		
Chinese Sensible Code	Disabled	
Read Single Chinese Sensible Code Only	Enabled	
Chinese Sensible Code Inverse	Decode regular Chinese Sensible barcodes only	
Maximum Length	7827	
Minimum Length	1	
USPS Postnet		
USPS Postnet	Disabled	
Check Character	Transmit	
USPS Intelligent Mail		
USPS Intelligent Mail	Disabled	

Royal Mail		
Royal Mail	Disabled	
USPS Planet		
USPS Planet	Disabled	
Check Character	Transmit	
KIX Post		
KIX Post	Disabled	
Australian Postal		
Australian Postal	Disabled	
Passport OCR		
Passport OCR	Disabled	
Data Formatter		
Data Formatter	Disabled	
Non-Match Error Beep	On	
Data Format Selection	Format_0	
Prefix & Suffix		
Prefix Sequence	Code ID+ Custom +AIM ID	
Custom Prefix	Disabled	Max.: 10 characters
AIM ID Prefix	Disabled	
Code ID Prefix	Disabled	One or two English letters
Custom Suffix	Disabled	Max.: 10 characters
Terminating Character Suffix	Enabled CR (0x0D)	Max.: 2 characters

AIM ID Table

Symbology	AIM ID	Possible AIM ID Modifiers (m)
Code128	]C0	
GS1-128 (UCC/EAN-128)	]C1	
EAN-8	]E4	
EAN-8 with Addon	]E3	
EAN-13	]E0	
EAN-13 with Addon	]E3	
UPC-E	]E0	
UPC-E with Addon	]E3	
UPC-A	]E0	
UPC-A with Addon	]E3	
Interleaved 2 of 5	]Im	0，1，3
ITF-14	]Im	1，3
ITF-6	]Im	1，3
Matrix 2 of 5	]X0	
Code 39	]Am	0，1，3，4，5，7
Codabar	]Fm	0，2，4
Code 93	]G0	
China Post 25	]X0	
ISSN	]X0	
ISBN	]X0	
Industrial 25	]S0	
Standard 25	]R0	
Plessey	]P0	
Code 11	]Hm	0，1，3
MSI Plessey	]Mm	0，1
GS1 Composite	]em	0-3
GS1 Databar （RSS）	]e0	
PDF417	]Lm	0-2
QR Code	]Qm	0-6
Aztec	]zm	0-9， A-C
Data Matrix	]dm	0-6
Maxicode	]Um	0-3
Han Xin （Chinese Sensible Code）	]X0	
Micro PDF417	]L0	
Micro QR	]Q1	
USPS Postnet	]X0	
USPS Inteligent Mail	]X0	
Royal Mail	]X0	
USPS Planet	]X0	
KIX Post	]X0	
Australian Postal	]X0	

| Specific OCR-B |]o2 | |
| Passport OCR |]o2 | |

Reference material: Refer to ISO/IEC 15424:2008 Information technology – Automatic identification and data capture techniques – Data Carrier Identifiers (including Symbology Identifiers)

Code ID Table

Symbology	Code ID

Code128	j
GS1-128 (UCC/EAN-128)	j
EAN-8	d
EAN-13	d
UPC-E	c
UPC-A	c
Interleaved 2 of 5	e
ITF-14	e
ITF-6	e
Matrix 2 of 5	v
Code 39	b
Codabar	a
Code 93	i
China Post 25	X
ISSN	g
ISBN	B
Industrial 25	I
Standard 25	f
Plessey	n
Code 11	H
MSI Plessey	m
GS1 Composite	y
GS1 Databar (RSS)	R
PDF417	r
QR Code	s
Aztec	z
Data Matrix	u
MaxiCode	x
Chinese Sensible Code	h
Micro PDF417	R
Micro QR	X
USPS Postnet	P
USPS Inteligent Mail	M
Royal Mail	x
USPS Planet	L
KIX Post	K
Australian Postal	A
Specific OCR-B	S
Passport OCR	O

Symbology ID Number

Symbology	ID Number
Code 128	002
GS1-128 (UCC/EAN-128)	003
EAN-8	004
EAN-13	005
UPC-E	006
UPC-A	007
Interleaved 2 OF 5	008
ITF-14	009
ITF-6	010
Matrix 2 of 5	011
Code 39	013
Codabar	015
Code 93	017
China Post 25	019
ISSN	023

ISBN	024
Industrial25	025
Standard25	026
Plessey	027
Code11	028
MSI-Plessey	029
GS1 Composite	030
GS1 Databar (RSS)	031
PDF417	032
QR Code	033
Aztec	034
Data Matrix	035
Maxicode	036
Chinese Sensible Code	039
Micro PDF417	042
Micro QR	043
Specific OCR-B	064
Passport OCR	066
USPS Postnet	096
USPS Inteligent Mail	097
Royal Mail	098
USPS Planet	099
KIX Post	100
Australian Postal	101

ASCII Table

Hex	Dec	Char
00	0	NUL （Null char.）
01	1	SOH （Start of Header）

02	2	STX （Start of Text）
03	3	ETX （End of Text）
04	4	EOT （End of Transmission)
05	5	ENQ （Enquiry）
06	6	ACK （Acknowledgment）
07	7	BEL （Bell）
08	8	BS （Backspace）
09	9	HT （Horizontal Tab）
0a	10	LF （Line Feed）
0b	11	VT （Vertical Tab）
0c	12	FF （Form Feed）
0d	13	CR （Carriage Return）
0e	14	SO （Shift Out）
0f	15	SI （Shift In）
10	16	DLE （Data Link Escape）
11	17	DC1 （XON） （Device Control 1）
12	18	DC2 （Device Control 2）
13	19	DC3 （XOFF） （Device Control 3）
14	20	DC4 （Device Control 4）
15	21	NAK （Negative Acknowledgment）
16	22	SYN （Synchronous Idle）
17	23	ETB （End of Trans. Block）
18	24	CAN （Cancel）
19	25	EM （End of Medium）
1a	26	SUB （Substitute）
1b	27	ESC （Escape）
1c	28	FS （File Separator）
1d	29	GS （Group Separator）
1e	30	RS （Request to Send）
1f	31	US （Unit Separator）
20	32	SP （Space）
21	33	! （Exclamation Mark）
22	34	" （Double Quote）
23	35	# （Number Sign）
24	36	$ （Dollar Sign）
25	37	% （Percent）
26	38	& （Ampersand）
27	39	` （Single Quote）
28	40	(（Right / Closing Parenthesis）
29	41	) （Right / Closing Parenthesis）
2a	42	* （Asterisk）
2b	43	+ （Plus）
2c	44	, （Comma）
2d	45	- （Minus / Dash）
2e	46	. （Dot）

2f	47	/ （Forward Slash）
30	48	0
31	49	1
32	50	2
33	51	3
34	52	4
35	53	5
36	54	6
37	55	7
38	56	8
39	57	9
3a	58	: （Colon）
3b	59	; （Semi-colon）
3c	60	< （Less Than）
3d	61	= （Equal Sign）
3e	62	> （Greater Than）
3f	63	? （Question Mark）
40	64	@ （AT Symbol）
41	65	A
42	66	B
43	67	C
44	68	D
45	69	E
46	70	F
47	71	G
48	72	H
49	73	I
4a	74	J
4b	75	K
4c	76	L
4d	77	M
4e	78	N
4f	79	O
50	80	P
51	81	Q
52	82	R
53	83	S
54	84	T
55	85	U
56	86	V
57	87	W
58	88	X
59	89	Y
5a	90	Z
5b	91	[（Left / Opening Bracket）

5c	92	\ （Back Slash）
5d	93	] （Right / Closing Bracket）
5e	94	^ （Caret / Circumflex）
5f	95	_ （Underscore）
60	96	' （Grave Accent）
61	97	a
62	98	b
63	99	c
64	100	d
65	101	e
66	102	f
67	103	g
68	104	h
69	105	i
6a	106	j
6b	107	k
6c	108	l
6d	109	m
6e	110	n
6f	111	o
70	112	p
71	113	q
72	114	r
73	115	s
74	116	t
75	117	u
76	118	v
77	119	w
78	120	x
79	121	y
7a	122	z
7b	123	{ （Left/ Opening Brace）
7c	124	| （Vertical Bar）
7d	125	} （Right/Closing Brace）
7e	126	~ （Tilde）
7f	127	DEL （Delete）

FCC 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 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.

Caution: Any changes or modifications to this device not explicitly approved by manufacturer could void your authority to operate this 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.

RF Exposure Information

The device has been evaluated to meet general RF exposure requirement. The device can be used in portable exposure condition without restriction.