WWS150i

Wasp

BARCODE TECHNOLOGIES

Table of Contents

Introduction

Barcoding is the most common Automated Data Collection (ADC) technology. It provides timely, error-free information that can be used to increase productivity, accuracy, and efficiency in the workplace. Virtually every type of industry is using barcodes to replace keyboard data entry. Studies have shown that a proficient data entry operator will make one error for every 300 characters that are manually entered. The error rate using barcodes is negligible and can be error-free using barcode symbologies with the check digit enabled.

The Wasp Charged Coupled Device (CCD) technology is a technique whereby a barcode is photographed, digitized, and electronically sampled by built-in photodetectors. The detectors process the measurement of every bar and space using the number of adjacent photodetectors which contrast a black mark and a white space. Of all the hand-held barcode scanning devices on the market, the CCD reader is the easiest to use and most cost effective for the typical business user.

The Wasp WWS150i Scanner is an extended distance scanner with a depth of reading of up to one foot depending on the mil size of the barcode. To activate the scanner, the user simply points the scanning aperture towards the barcode, pulls the trigger, and aims the red LED beam across the barcode.

Barcode Symbologies

Barcodes are symbols consisting of a series of bars and spaces which can be applied to packages, cartons, bottles, and other commercial products. The bars and spaces in each symbol are grouped in such a way to represent a specific ASCII character or function. The interpretation of these groups is based on a particular set of rules called symbologies. Various symbologies have been developed for particular applications. Some examples are shipping and receiving, manufacturing, retail, healthcare, transportation, document processing and tracking, and libraries.

The resolution of a barcode is dependent on the narrowest element of a barcode (X dimension), and can vary from high density (nominally less than 0.009 in./0.23 mm), medium density (between 0.009 in./0.23 mm and 0.020 in./0.50 mm), and low density (greater than 0.020 in./0.50 mm). Medium and low densities are the most common since these are the easiest to read (scan) with nearly all scanning devices. The Wasp WWS150i scanner can read barcodes with X-dimensions as low as 5 mils (0.005 in/0.13mm).

The Wasp WWS150i Scanner can read the most popular barcode symbologies including Code 39, Code 93, Code 128, Interleaved 2 of 5, UPC-A, UPC-E, EAN/JAN-8, EAN/JAN-13, Codabar, and MSI/Plessey.

Please see test chart on pages 26-27.

Quick Start

1. Unpack.
Open the box and remove all the pieces from their protective packaging.

2. Charging the WWS150i.
You must charge the scanner for 4 hours before first using it. To charge the
scanner plug the power supply in to the bottom of the scanner.

3. Setting up Bluetooth.
**If you already have Bluetooth setup on your PC or device, please continue
to the next step.**

To setup Bluetooth on your PC you will need to insert the CD with the Bluetooth software on it. Follow the instruction on the CD
for installing the Bluetooth software.

4. Connecting the scanner to a Bluetooth device.
The scanner will connect to most Bluetooth devices that support HID connection.

You will need to open your Bluetooth software and search for Bluetooth devices. The Bluetooth software can be found by clicking
the Bluetooth symbol on the start bar near the computer time. If the Bluetooth symbol is not found, there could be a problem
with the Bluetooth installation.

Once you have the Bluetooth software open you will need to scan the Set Connection barcode (pg 7). This will make the scanner
ready to be detected by the Bluetooth software.

The following screens are Microsoft's standard Bluetooth wizard.
*Most Bluetooth wizards will have similar steps. Instructions for XP users are displayed below. Instructions for Win7 users
begin on page 5

Check the "My device is setup and ready to be found." and click Next.
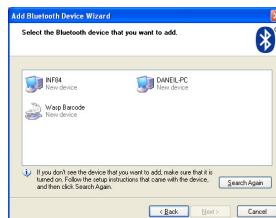
The scanner will show up in the list of Bluetooth devices found. Select the Wasp Barcode Bluetooth
Keyboard and click Next.

*If Wasp Barcode Bluetooth Keyboard does not show up in the available devices please check the
following:*
1. Make sure the scanner is on by pressing the trigger.
2. If you are using a pre-installed Bluetooth adapter, make sure the adapter supports HID.
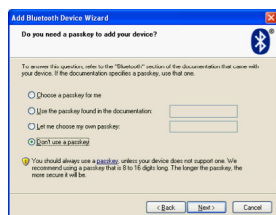
The next step will ask you to setup a passkey for the device. By default the scanner will not have a
passkey set. Please select "Don't use a passkey" and click Next.

You can set a passkey later if you prefer,see Start/Stop Pin on page 8 for details.

(XP Instructions, cont.)

The Complete Wizard screen appears. Just click Finish to complete.

Once the wizard is complete the scanner will show up as a Wasp Keyboard. Click OK to close the screen. You are now ready to use the WWS150i.

Win7 Instructions
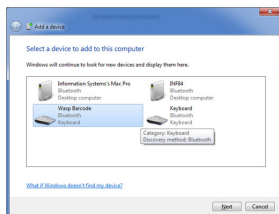
On the Add a Device screen, select Wasp Barcode. Click the Next button.
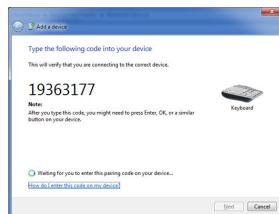
Enter the Pairing Code provided into your mobile device. Once the PC detects the pairing code has been entered and a connection has been established, the Next button will become enabled. Click
Next to contine.
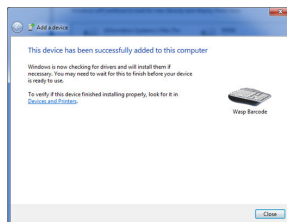
You can verify that your device has been added by clicking the Devices and Printers link on the screen. Click Close to close the connection wizard.

Scan/Wake Scanner (After Idle)

LED Light Indicator

Cable/Charge Port

Toggle Keyboard On/Off & Connect Via BT
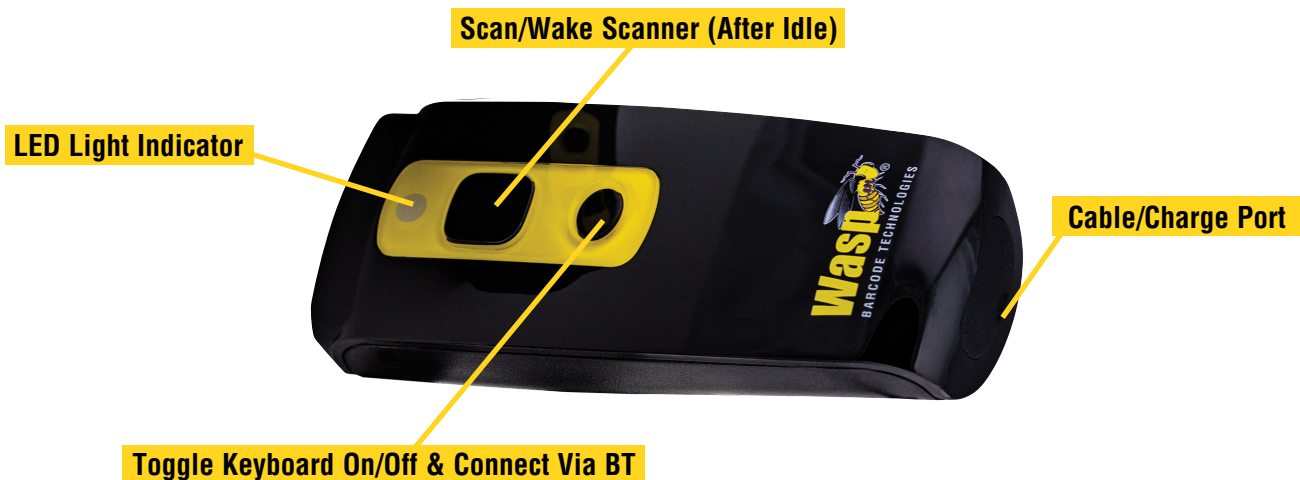
Setup & Configuration

In order to configure the Wasp WWS150i Scanner, you must familiarize yourself with the setup procedures on the following pages. The default settings of the scanners are identified on each page and clearly marked using an asterisk (*). **The default settings have been preprogrammed for the most common barcode configurations. Use the setup & configuration barcodes only to customize the WWS150i Scanner settings.** If you need to configure the Scanner, the default settings will be overwritten. All the programmed settings are stored permanently in non-volatile memory.

In order to configure the Wasp WWS150i Scanner, two basic steps need to be followed:

(1) Locate the group that contains the options to be changed.
(2) Scan the barcode representing the option to be changed. The scanner will sound two beeps.

To change Minimum/Maximum Length:

(1) Scan the Minimum or Maximum Length barcode associated with the symbology.
(2) Scan a 2 digit value from the ASCII table on pages 28-31.
(3) Scan the Minimum or Maximum Length barcode again.

Example: To have a minimum length barcode of 1, you must scan a 0 then 1, then scan the minimum barcode again. To have a maximum length barcode of 10, you must scan a 1 then 0, then scan the maximum barcode again.

Factory Default

Use the Factory Default barcode to reset the scanner to the Default settings.

Factory Default

Autosense Stand Mode

Scan this Autosense Stand Mode barcode to enable the hands-free autosense feature of the WWS150i Scanner. If you desire to turn this mode "off," please scan the default barcode above.

Autosense Flash Mode Enable

Note: Enabling this option will significantly increase the WWS150i Scanners battery consumption.

Check Version

Scan the Check Version barcode to verify your current firmware's version number.

Check Version

Link Quality On/Off

The Link Quality affects the transmission quality. When Link Quality is turned on (default setting), data transfer is more secure, but slower. If you notice that your transmissions to the host are too slow, you can try turning the Link Quality setting to off.

Link Quality On
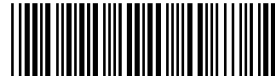
Link Quality Off

Set Connection

Scan this barcode to break your current connection and enable your device to connect to a new Bluetooth host.

Set Connection

Bluetooth SPP (Bluetooth COM)

The Bluetooth SPP (Serial Port Protocol) creates a virtual Bluetooth comport. This setting is not recommended. Only use this option if you have software capable of capturing data off of a comport.

Bluetooth SPP (Bluetooth COM)

Bluetooth HID

Use this setting (on by default) to pair with most Bluetooth connections. Bluetooth HID works just like a keyboard..

Bluetooth HID

Start and Stop Pin

Use the Start and Stop Pin barcodes when you are prompted for a password during Bluetooth pairing. To use this setting:

1. When prompted for a password, scan the Start Pin barcode

2. Scan the appropriate numbers (provided below) for your password.

3. Scan ENTER.

4. Scan the Stop Pin barcode.

Now the Pin is set and the scanner should pair to the PC.   Test the connection by scanning a barcode from WordPad, NotePad or the equivalent and verifying the scan is correct.

Start Pin   **Stop Pin**

Scan the numbers for your password, then scan ENTER.

1

2

3

4

5

6

7

8

9

0

ENTER

Scan any one of the barcodes below to reset the scanner back to the desired interface:

. E043$

BT HID

. E042$

BT SPP

. C035$

Memory Mode *

. C008$

USB HID

. C006$

USB VCP

*To retrieve stored data, connect the scanner to the host with the cable, access removable storage device "Miniscan" from which you may open or copy the file "Barcode.txt" to your computer.

To exit memory mode, scan any interface barcode in the "interface" section of the manual.

Interface Settings

Scan any one of the barcodes below to reset the scanner back to the desired interface:

. E043$

BT HID

. E042$

BT SPP

Memory Mode

. C035$

Memory Mode*

After scanning the above barcode, the scanner will be able to collect barcode data off-line. The barcode data will be stored in the format of: < Date >, < Time >, < Barcode Data > < CR > (see below to change formats)
To retrieve stored data, please connect the scanner to the host with cable.
Access removable storage device "MiniScan" from which you may open or copy the file "BARCODE.txt" to your computer.
To delete ONE stored data, please scan below barcode or press Delete Button.

Delete Last Record

. R005$
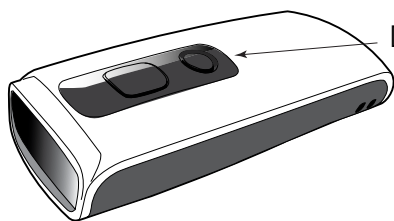
Delete Button

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

To exit memory mode, scan any interface barcode in the "interface" section of the manual.

Memory Mode

. ROO6$

SET DATE

Example: To set Date to 2014-08-01 (Year-Month-Day):
1. Scan [Set Date]
2. Scan [1], [4], [0], [8], [0], [1] on page 10. (yymmdd)
3. Scan [Set Date]

. ROO7$

SET TIME

Example: To set Time to 08:10:30 am (Hr:Min:Sec)
1. Scan [Set Time]
2. Scan [0], [8], [1], [0], [3], [0] on page 10. (hhmmss)
3. Scan [Set Time]

* To avoid Time and Date being reset to factory default due to running out of battery, please fully charge the scanner for at least 3 hours before use.

. RO11$

DATA FORMAT

The default Data Format is <Date>, <Time>, <Barcode Data>. Below are the codes for each item:

Code	Item
2	Date
3	Time
4	Barcode Data

Example:
To change Data Format to <Barcode Data>, <Date>, <Time>
1. Scan [Data Format]
2. Scan [4], [2], [3] on page 10.
3. Scan [Data Format]

. R008$
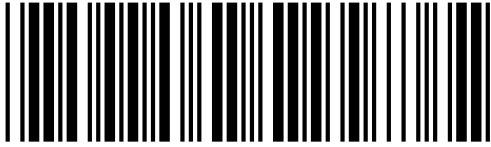
DATE FORMAT

The default Date Format is DD/MM/YYYY (Code = 09). Below is full list of available formats and their setup codes:

Code Format

01   DD-MM-YYYY
02   MM-DD-YYYY
03   DD-MM-YY
04   MM-DD-YY
05   YYYY-MM-DD
06   YY-MM-DD
07   DD-MM
08   MM-DD
09   DD/MM/YYYY
10   MM/DD/YYYY
11   DD/MM/YY
12   MM/DD/YY
13   YYYY/MM/DD
14   YY/MM/DD
15   DD/MM
16   MM/DD

Example:
To set Date Format to MM/DD/YY (Code =12)
1. Scan [Date Format]
2. Scan [1], [2] on page 11.
3. Scan [Date Format]

TIME FORMAT

. R009$
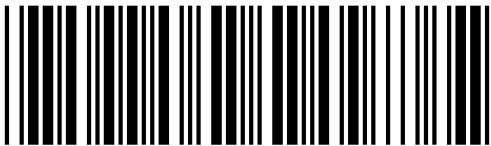
The default Time Format is HH:MM:SS (Code = 01). Below are available formats and their setup codes:

Code Format

01   HH:MM:SS
02   HH:MM

Example:
To set Time Format to HH:MM (Code = 02)
1. Scan [Time Format]
2. Scan [0], [2] on page 11 & 12.
3. Scan [TimeFormat]

The 'Beep and Delay' configuration supports the general control options for the Wasp WWS150i Scanner. These options include the volume, intercharacter delay, and interblock delay.

Interblock delay (see page 13) is the minimum time interval between two adjacent scans. If the processing speed of your host device is slower than your scanning speed, a longer interblock delay may ensure the data integrity.

Intercharacter delay (see page 13) is the time period that the scanner will wait before transmitting the next character. If data sent by the scanner has incorrect or missing characters, a longer intercharacter delay may solve the problem. The intercharacter delay should be changed only if the transfer rate cannot be maintained between the scanner and the keyboard buffer of the computer.

Note: The default for the intercharacter delay is set to '140us' and is the most common configuration; however, your PC may be different. When you scan a barcode, if some stray or scrambled characters appear, increase the intercharacter delay to slow down the transfer rate.

Beep Settings

WWS150i

Beep Off

Beep Low

Beep High

Beep High--Low

Beep Medium

Beep Low--High

Enable/Disable iOS Hotkey

Use these barcodes to enable or disable the iOS hotkey on your device.

Enable iOS Hotkey

Disable iOS Hotkey *

Set Scanner ID

Setting the scanner ID allows you to give each scanner a unique name. This unique name identifies it if you have more than one scanner in the area.

Set Scanner ID procedure:
1. Clear Scanner ID
2. Set Scanner ID
3. Scan up to 16 characters from the ASCII table on pp 28-31.
4. Set Scanner ID
5. Bluetooth HID
Note: Sometimes only 8 characters of a longer name are seen when pairing, e.g. "Wasp Bar" instead of "Wasp Barcode".

Clear Scanner ID procedure:
1. Clear Scanner ID
2. Bluetooth HID
Note: WWS150i & WWS550i: name defaults to "Wasp Barcode".

For the scanner to transmit a new name, it may need to be unpaired. When the new name is seen, set the power-off time back to a longer value.

Step 1 - Default Wireless ID

Step 2 - Set Wireless ID

Step 3 - Scan up to 16 alphanumeric characters from Full ASCII Table as your desired ID name.

Step 4 - Set Wireless ID

*Default

Interblock Delay

|||||||||||||||||||||||||
0ms *

|||||||||||||||||||||||||
10ms

|||||||||||||||||||||||||
50ms

|||||||||||||||||||||||||
100ms

|||||||||||||||||||||||||
200ms

|||||||||||||||||||||||||
500ms

Intercharacter Delay

|||||||||||||||||||||||||
140us *

|||||||||||||||||||||||||
500us

|||||||||||||||||||||||||
1ms

|||||||||||||||||||||||||
4ms

|||||||||||||||||||||||||
16ms

- Caps Lock Auto (For PC XT/AT only):
     In Auto mode, the scanner will keep track of the Caps Lock status automatically. For some PCs, the scanning performance may be compromised because of the auto tracing. If the scanning performance is poor (or cannot scan) or the scanner cannot output the upper/lower case characters correctly, try to select one of the next two choices instead of auto tracing.
- Caps Lock Off:
     When the keyboard is in the unshifted state
     (Caps Lock is not pressed), select "Lower Case."
- Caps Lock On:
     When the keyboard is in the shifted state (Caps Lock is on),
     select "Upper Case."

|||||||||||||||||||||||||
Caps Lock On

|||||||||||||||||||||||||
Caps Lock Off *

|||||||||||||||||||||||||
Caps Lock Auto

*Default

16

The 'Keyboard Language' setting controls the key codes for your keyboard's language.

U.S. *

German

French

Spanish

Italian

The 'Preamble/Postamble' configuration is used to add a prefix or suffix set of characters to the barcode value. Up to 8 characters may be added for each option separately. Preamble and postamble characters can function concurrently, but need to be configured separately.

To add preamble or postamble characters, follow the steps below:

1) Scan the 'Clear Pre/Postamble' barcode on this page.
2) Scan the 'Preamble' or 'Postamble' barcode.
3) Use Appendix B on pages 28-31 to locate the characters you want to add as preamble or postamble characters. Make sure that you scan the barcode associated with each letter before preceding to the next character. For example, to add the letter "A," scan the barcode corresponding to the letter "A". The letter "A" will always appear in your data as prefix or suffix to the barcode value.
4) Scan the corresponding 'Pre/Postamble' barcode on this page to exit this setting.

Clear Pre/Postamble

Preamble

Postamble

Terminator

The 'Terminator' option is used to specify the end-of-text message and is primarily used to denote the end of the barcode value.

CR *   **Tab**

None   **Space**

LF   **ESC**

CR + LF

Code ID

The 'Code ID' option sends a specific value when a particular barcode symbology is scanned. For example, if 'Code ID' is enabled and Code 39 is scanned, an "M" will appear in the data stream in front of the barcode value.

Code ID On

Code ID Off *

O - MSI/Plessey	T - EAN 128
S - EAN 8	K - Code 128
E - UPC E	N - Codabar
A - UPC A	D - Full ASCII Code 39
F - EAN 13	M - Std. Code 39
L - Code 93	I - Interleaved 2 of 5

*Default

Enable   *Disable*

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

Enable All

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

Disable All

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

MSI Plessey

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

MSI Plessey *

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

Interleaved 2 of 5 *

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

Interleaved 2 of 5

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

Code 128 *

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

Code 128

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

Codabar *

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

Codabar

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

Code 39 *

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

Code 39

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

UPC A *

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

UPC A

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

UPC E *

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

UPC E

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

EAN 8 *

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

EAN 8

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

EAN 13 *

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

EAN 13

||||||||||||||||||||
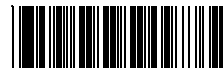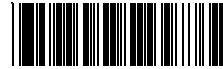
Code 93

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

Code 93 *

*Default

Code 39 is variable length and is the most frequently used symbology in industrial barcode systems today. It is extensively used within the Department of Defense (DOD). The principal feature is to encode messages using the full alphanumeric character set. Standard Code 39 contains only 43 characters (0-9, A-Z, $, /, %, +, -, ., SPACE) and can be extended to a 128 character symbology (full ASCII) by combining one of the special characters (S, /, %, +) with a letter (A-Z) to form the characters that are not present in the standard Code 39 symbology.

See page 6 for information on setting the minimum and maximum lengths.

Enable Code 39 *

Disable Code 39

Enable Code 39 Full ASCII *

Disable Code 39 Full ASCII

Check Digit Do Not Calculate *

Check Digit Calculate And Send

Check Digit Calculate But Do Not Send *

Minimum Length (1 *)

Maximum Length (48 *)

Interleaved 2 of 5 is a variable length, even numbered, numeric barcode.
It is typically used in industrial and master carton labeling and also in the automobile industry. The symbology uses bars to represent the first digit of a pair and the interleaved (white) spaces to represent the second digit of a character pair.
See page 6 for information on setting the minimum and maximum lengths.

Enable Interleaved 2 of 5 *

Disable Interleaved 2 of 5

Check Digit Do Not Calculate *

Check Digit Calculate And Send

Check Digit Calculate But Do Not Send

Minimum Length (6 *)

Maximum Length (48 *)

*Default

Code 93 encodes the full 128 ASCII character set using 9 modules arranged into 3 bars with adjacent spaces. Two of the characters are check characters. Code 93 is similar to Code 39 but encodes more characters per inch.

Enable Code 93

Disable Code 93 *

Minimum Length (6 *)

Maximum Length (48 *)

MSI Plessey is a variable length numeric symbology and is primarily used in marking retail shelves. Each character consists of four bars with intervening spaces for each encoded digit, one or two symbol check digits, and a reverse start code.

See page 6 for information on setting the minimum and maximum lengths.

Enable

Disable *
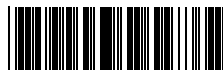
**Check Digit Verify
And Send ***
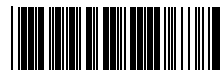
**Check Digit Verify
And Do Not Send**

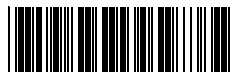**Check Digit Double
MOD 10**
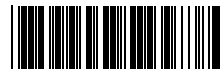
**Check Digit Double 11
Plus MOD 10**

Check Digit Single MOD 10

Minimum Length (6 *)

Maximum Length (48 *)

*Default

21
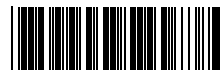
Code 128 is the most flexible of all the common linear symbologies. It supports alpha and numeric characters easily, has the highest number of characters per inch, and is variable length.

See page 6 for information on setting the minimum and maximum lengths.

Enable Code 128 *	**Minimum Length (5 *)**
Disable Code 128	**Maximum Length (48 *)**
UCC/EAN 128 Enable *	**UCC/EAN 128 Disable**
UCC/EAN 128 Code ID Enable	**UCC/EAN 128 Code ID Disable ***
Function 1 Character Send	**Function 1 Character Do Not Send ***

Define UCC/EAN 128 Group Separator

To Define UCC/EAN 128 Group Separator:

1. Scan Define UCC/EAN 128 Group Separator
2. Scan ASCII code from pages 28-31
3. Scan Define UCC/EAN 128 Group Separator

Note: Default Group Separator is GS

*Default

Codabar is a variable length symbology capable of encoding six special alphanumeric characters, capital letters A through D, T, N, *, E, and all numeric digits. Codabar is one of the oldest barcode symbologies and is still used in some library applications. It should not be considered for new applications except under unusual circumstances.

See page 6 for information on setting the minimum and maximum lengths.

Codabar Enable *

Codabar Disable

Send Start/Stop *

**Do Not Send
Start/Stop**

**Check Digit
Do Not Verify ***

**Check Digit
Verify And Send**

**Check Digit Verify
And Do Not Send**

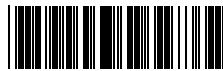**Minimum Length (6 *)**

Maximum Length (48 *)

UPC-A (Universal Product Code-A) is fixed length and is the most common UPC barcode for retail product labeling. It is seen in most grocery stores across the United States. The symbology encodes a 12-digit number. The first six digits are assigned from the Uniform Code Council (UCC). The next five digits are assigned by the manufacturer, and the final digit is a modulo 10 check digit. The nominal height for the UPC-A barcode is one inch. The reduced size is 80% of the nominal size.

UPC-A Enable *

UPC-A Disable

Send Leading Digit *

**Do Not Send
Leading Digit**

Send Check Digit *

**Do Not Send
Check Digit**

*Default

This option enables the two and five digit supplements for the UPC and EAN/JAN barcode symbologies.

**5 Digit Supplement
Enable**

**5 Digit Supplement
Disable ***

**2 Digit Supplement
Enable**

**2 Digit Supplement
Disable ***

Transmit if Present

Must Be Present *

This option expands the UPC-A barcode to EAN-13.

**UPC-A to EAN-13
Enable**

**UPC-A to EAN-13
Disable ***

UPC-E (Universal Product Code-E) is fixed length and is a compressed six digit code used for marking small packages, including magazines and paperback books. UPC-E symbols are UPC-A symbols that have been zero suppressed (i.e. consecutive zeros are not included in the symbol).
The printed value of the UPC-E code is a twelve digit code. The nominal height for the UPC-E barcode is one inch. The reduced size is 80% of the nominal size.

UPC-E Enable *

UPC-E Disable

Send Leading Digit *

**Do Not Send
Leading Digit**

Send Check Digit *

**Do Not Send
Check Digit**

**Expand to UPC-A
On**

**Expand to UPC-A
Off ***

*Default

This option enables the two and five digit supplements for the UPC and EAN/JAN barcode symbologies.

**5 Digit Supplement
Enable**

**5 Digit Supplement
Disable ***

**2 Digit Supplement
Enable**

**2 Digit Supplement
Disable ***

Transmit if Present

Must Be Present *

The EAN/JAN-8 is fixed length and is similar to the UPC-E code, but includes two more digits for the country code. The nominal height for the EAN/JAN-8 barcode is one inch. The reduced size is 80% of the nominal size.

EAN-8 Enable *

EAN-8 Disable

Send Leading Digit *

**Do Not Send
Leading Digit**

Send Check Digit *

**Do Not Send
Check Digit**

*Default

This option enables the two and five digit supplements for the UPC and EAN/JAN barcode symbologies.

5 Digit Supplement Enable

5 Digit Supplement Disable *

2 Digit Supplement Enable

2 Digit Supplement Disable *

Transmit if Present

Must Be Present *

The EAN/JAN-13 (European Article Number/Japanese Article Number) is fixed length and is similar to the UPC-A symbology, but encodes a 13th digit. The nominal height for the EAN/JAN-8 barcode is one inch. The reduced size is 80% of the nominal size.

EAN-13 Enable *

EAN-13 Disable

Send Leading Digit *

Do Not Send Leading Digit

Send Check Digit *

Do Not Send Check Digit

ISBN Enable

ISBN Disable *

ISSN Enable

ISSN Disable *

*Default

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This option enables the two and five digit supplements for the UPC and EAN/JAN barcode symbologies.

**5 Digit Supplement
Enable**

**5 Digit Supplement
Disable ***
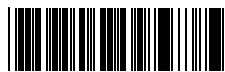
**2 Digit Supplement
Enable**

**2 Digit Supplement
Disable ***

Transmit if Present

Must Be Present *

See Chapter 3 for step-by-step setup instructions.

Connect and Disconnect

Scan the "Set Connection" barcode before pairing the WWS150i Scanner and the internal Bluetooth adaptor. Scanner LED light will turn blue when attempting to connect/reconnect via Bluetooth, LED will then turn green and blink to indicate successful pairing.

Set Connection

Bluetooth Power Off Settings

This option controls the length of time that the Bluetooth radio will stay powered on when not in use.

Set Minute (Range 00-60)   **Set Second (Range 00-60)**

The timeout is 3 minutes by default, and is programmable to the
second and minute, ranging from 10 seconds (00:10) to 60
minutes and 60 seconds (60:60)
For example, to set the timeout as 5 minutes 30 seconds:
1. Scan [Set Minute]
2. Scan [0] & [5] on below numeric barcode table.
(Range: 00-60)
(Range: 00-60)
3. Scan [Set Minute]
4. Scan [Set Second]
5. Scan [3] & [0] on below numeric barcode table.
6. Scan [Set Second]

Disable Timeout

Numeric Barcodes

1		6
2		7
3		8
4		9
5		0

Note: Make sure that the appropriate barcode symbology is configured properly and enabled before trying to scan. Use the 'Barcode Symbologies' configuration beginning on page 16 to enable specific symbologies.

Code 39*	1234	UPC-A*	1 23456 78901 2
Code 93	123456	UPC-A w/5 digit supplement	12345 / 1 23456 78901 2
Interleaved 2 of 5 *	123456	UPC-A w/2 digit supplement	12 / 1 23456 78901 2
Codabar *	123456	UPC-E*	0 123456 5
Code 128*	12345	UPC-E w/5 digit supplement	12345 / 0 123456 5
MSI/Plessey	123456	UPC-E w/2 digit supplement	12 / 0 123456 5

EAN/JAN-13*

1 234567 890128

EAN/JAN-13
w/5 digit supplement

1 234567 890128   12345

EAN/JAN-13
w/2 digit supplement

1 234567 890128   12

EAN/JAN-8*

1234 5670

EAN/JAN-8
w/5 digit supplement

1234 5670   12345

EAN/JAN-8
w/2 digit supplement

1234 5670   12

*Default

Use this ASCII Table to add preamble and postamble characters to your barcode value. Please refer to the appropriate configuration section for the number of characters that can be configured.

NUL	LF	DC4
SOH	VT	NAK
STX	FF	SYN
ETX	CR	ETB
EOT	SO	CAN
ENQ	SI	EM
ACK	DLE	SUB
BEL	DC1	ESC
BS	DC2	FS
HT	DC3	GS

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F1	F10	Cursor Right
F2	F11	Cursor Up
F3	F12	Cursor Left
F4	Tab	Cursor Down
F5	Back Tab	Page Up
F6	Esc	Page Down
F7	End	Ins
F8	Home	Enter
F9	Back Space	Del

Optic & Performance	Light Source: 525nm visible green LED, 635nm visible red LED
	Scan Rate: 200 scans/sec
	Resolution: 4mil/0.1mm (3mil readable)
	Scan Angle: 40°
	Print Contrast: 30%
	Memory: 2MB
	D.O.F. (Environment: 800 lux): 4 Mil Code39: 60 ~ 80mm, 5 Mil Code39: 50 ~ 90mm, 10 Mil Code39: 60 ~ 180mm, 15 Mil Code39: 60 ~ 250mm, 13 Mil UPC/EAN: 60 ~ 180mm
Physical Characteristics	Dimension: 1.67in W x 4.02 L x 0.85 H (W42.5xL102xH21.5 mm)
	Weight: 2.47oz. (70g)
	Cable: 5ft./1.5M (Micro USB cable)
Power	Operation Voltage: 3.7 VDC ± 5%
	Working Current: < 220mA
	Standby Current: < 85mA
	Battery: 3.7 V, 1100mAh Lithium battery
	Number of Scan (per full charge): > 10,000 scans (1 scan/5 secs, Bluetooth connected)
Connectivity	Radio: Bluetooth 2.1 + EDR (Class2)
	Range: 30ft./10m, (line of sight)
	Interface/Profile: "BT (SPP), BT (HID), USB (HID), USB (VCP)
User Environment	Operating Temperature: 14°F~-140°F (-10~60°C)
	Storage Temperature: -4°F-149°F (-20~65°C)
	Humidity: 0%~95% RH (Non-condensing)
	Drop Durability: 5ft./1.5M
	Sealing: IP55
	1D Symbologies: UPC-A/UPC-E, EAN-8/EAN-13, Industrial 2 of 5, Codabar, Matrix 2 of 5, Code 11, Code 93, Code 32, Code 128, Standard Code 39, Full ASCII Code 39, Interleaved 2 of 5, China Postal Code; MSI Plessy Code, UK Plessy Code, EAN/UCC 128, Telepen Code IATA Code, GS1 Databar
Regulatory	EMC:FCC Class B, CE
	Safety: WEEE, RoHS 2.0, IEC62471

Wasp Barcode Technologies products are warranted against defects in workmanship and materials for a period of one year from the date of shipment, provided that the product remains unmodified and is operated under normal and proper conditions.

This warranty is limited to repair or replacement at Wasp Barcode Technologies option, with reasonable promptness after being notified. These provisions do not prolong the original warranty term for any product which has been repaired or replaced by Wasp Barcode Technologies.

This warranty applies to the original owner and does not extend to any product which has been subject to misuse, neglect, accidental damage, unauthorized repair, or tampering.

No other express warranty is given. The replacement or repair of a product is your exclusive remedy. Any other implied warranty of merchantability or fitness is limited to the duration of this written warranty. Some states, provinces, and countries do not allow limits on how long an implied warranty lasts, so the above limitation may not apply to you.

In no event shall Wasp Barcode Technologies be liable for consequential damages. Some states, provinces, and countries do not allow the exclusion or limitation of incidental or consequential damages, so the above limitations may not apply to you.

Q: How do I change the terminator to a Tab?
A: Scan the "Tab" barcode on page 18.

Q: How do I remove the terminator?
A: Scan the "None" barcode on page 18.

Q: How do I enable the Full ASCII character set for the Code 39
barcode symbology?
A: Scan the "Enable Code 39 Full ASCII" barcode on page 20.

Q: What to the various LED indicators and beep tones mean?
A: *Green Light combined with beep tone:* Successful scan
Red Light: Ready to scan
5 beep tones and flashing Green Light: Out of Bluetooth range
Red and Green flash: Battery being charged
Red and Green Light on: Battery fully charged
5 beep tones: Low battery

If you experience any problems with the Wasp WWS150i Scanner that you are unable to resolve, call for technical assistance at (214) 547-4100 ext 2, Monday through Friday, 8:00 AM - 5:00 PM Central Standard Time.

Visit www.waspbarcode.com/support anytime.