

# **QC 1D Series :**

**QC510X , 511X**

**QC620X , 621X**

**QC630X , 631X**

**QC710X , 711X**

**QC720X , 721X**

**QC7506 , 7516**

# **User Guide**

**ADVANCODE**

## Revision History

Version	Description	Date
V1.0.0	Initial release.	June 23, 2015

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W010F01

\*\* Enter Setup

## Chapter 1 Getting Started

### Introduction

The QC 1D SERIES supports EAN-13, EAN-8, UPC-A, UPC-E, ISSN, ISBN, Codabar, Code 128, Code 93, ITF-6, ITF-14, Interleaved 2 of 5, Industrial 2 of 5, Standard 2 of 5, Matrix 2 of 5, GS1 Databar, Code 39, Code 11, MSI-Plessey, Plessey.



W010F00

Exit Setup



W010F01

\*\* Enter Setup

---

## About This Guide

This guide provides programming instructions for the QC 1D SERIES. Users can configure the scanner by scanning the programming barcodes included in this manual or by sending host commands to the device.

The QC 1D SERIES has been properly configured for most applications and can be put into use without further configuration. Users may check the **Factory Defaults Table** in Appendix for reference. Throughout the manual, programming barcodes marked with asterisks (\*\*) are factory default values.

## Barcode Scanning

The QC 1D SERIES features fast scanning and accurate decoding. Barcodes rotated at any angle can still be read with ease. When scanning a barcode, simply center the aiming beam projected by the QC 1D SERIES over the barcode.



W010F00

Exit Setup



**W010F01**

\*\* Enter Setup

## Barcode Programming

The QC 1D SERIES can be configured by scanning programming barcodes. All user programmable features/options are described along with their programming barcodes/commands in the following sections.



**W030000**

Programm Barcode

Programming Command

\*\* Manual Mode

Feature/Option

Indicates default

### Enter/Exit Setup



**W010F01**

\*\* Enter Setup



**W010F00**

Exit Setup

### Programming Barcode Data



**W060F00**

\*\* Do Not Transmit Programming Barcode Data



**W060F06**

Transmit Programming Barcode Data



**W010F00**

Exit Setup



**W010F01**

\*\* Enter Setup

---

### Factory Defaults

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

You may need to reset your scanner when:

1. scanner is not properly configured so that it fails to decode barcodes;
2. you forget previous configuration and want to avoid its impact;
3. functions that are rarely used have been enabled for the time being.



**WFFD980**

Restore All Factory Defaults



**W010F00**

Exit Setup



**W010F01**

\*\* Enter Setup

## Chapter 2 Scan Mode

### Manual Mode

**Manual Mode** (default): A trigger pull activates a decode session. The decode session continues until the barcode is decoded or the trigger is released or the decode session timeout expires.



**W030000**

\*\* Manual Mode

**Decode Session Timeout:** This parameter sets the maximum time decode session continues during a scan attempt. It is programmable in 1s increments from 1s to 255s. The default timeout is 15s. If the parameter is set to 0, the decode session timeout is infinite.



**M00031D**

Decode Session Timeout

#### Example: Set the decode session timeout to 5s

1. Scan the **Enter Setup** barcode.
2. Scan the **Decode Session Timeout** barcode.
3. Scan the numeric barcode “5”. (See the **Digit Barcodes** section in Appendix)
4. Scan the **Save** barcode. (See the **Save/Cancel Barcodes** section in Appendix)
5. Scan the **Exit Setup** barcode.



**W010F00**

Exit Setup



**W010F01**

\*\* Enter Setup

---

## Continuous Mode

**Continuous Mode:** A trigger press activates the scanner to scan and decode at user-specified intervals, i.e. the timeout between decodes. Each decode session lasts until barcode is decoded or the decode session timeout expires. To suspend/resume the operation, simply press the trigger.



**W030002**

Continuous Mode

**Decode Session Timeout:** This parameter sets the maximum time decode session continues during a scan attempt. It is programmable in 1s increments from 1s to 255s. The default timeout is 15s. If the parameter is set to 0, the decode session timeout is infinite.



**M00031D**

Decode Session Timeout

### Example: Set the decode session timeout to 5s

1. Scan the **Enter Setup** barcode.
2. Scan the **Decode Session Timeout** barcode.
3. Scan the numeric barcode “5”. (See the **Digit Barcodes** section in Appendix)
4. Scan the **Save** barcode. (See the **Save/Cancel Barcodes** section in Appendix)
5. Scan the **Exit Setup** barcode.



**W010F00**

Exit Setup



W010F01

\*\* Enter Setup

---

**Timeout between Decodes:** This parameter sets the timeout between decode sessions. When a decode session ends, next session will not happen until the timeout between decodes expires. It is programmable in 0.1s increments from 0.0s to 25.5s. The default timeout is 1.0s.



M00031C

Timeout between Decodes

**Example: Set the timeout between decodes to 5s**

1. Scan the **Enter Setup** barcode.
2. Scan the **Timeout between Decodes** barcode.
3. Scan the numeric barcodes “5” and “0”. (See the **Digit Barcodes** section in Appendix)
4. Scan the **Save** barcode. (See the **Save/Cancel Barcodes** section in Appendix)
5. Scan the **Exit Setup** barcode.



W010F00

Exit Setup



**W010F01**

\*\* Enter Setup

---

**Timeout between Decodes (Same Barcode)** can avoid undesired rereading of same barcode in a given period of time. This parameter sets the timeout between decodes for same barcode. It is programmable in 0.1s increments from 0.1s to 25.5s. The default timeout is 3.0s. If the parameter is set to 0, the timeout between decodes (same barcode) is infinite.

**Note:** This parameter is only valid when the **Disallow Rereading Same Barcode** is enabled.



**M00031E**

Timeout between Decodes (Same Barcode)

**Allow Rereading Same Barcode:** The scanner is allowed to re-read same barcode, ignoring the timeout between decodes (same barcode).

**Disallow Rereading Same Barcode:** The scanner is not allowed to re-read same barcode before the timeout between decodes (same barcode) expires.



**W100A00**

Allow Rereading Same Barcode



**W100A10**

\*\* Disallow Rereading Same Barcode

**Example: Set the timeout between decodes (same barcode) to 5s**

1. Scan the **Enter Setup** barcode.
2. Scan the **Timeout between Decodes (Same Barcode)** barcode.
3. Scan the numeric barcodes “5” and “0”. (See the **Digit Barcodes** section in Appendix)
4. Scan the **Save** barcode. (See the **Save/Cancel Barcodes** section in Appendix)
5. Scan the **Exit Setup** barcode.



**W010F00**

Exit Setup



**W010F01**

\*\* Enter Setup

---

## Sense Mode

**Sense Mode:** The scanner activates a decode session every time when it detects a change in ambient illumination and meets the requirement of the image stabilization timeout. Decode session continues until barcode is decoded or the decode session timeout expires.



**W030003**

**Sense Mode**

**Decode Session Timeout:** This parameter sets the maximum time decode session continues during a scan attempt. It is programmable in 1s increments from 1s to 255s. The default timeout is 15s. If the parameter is set to 0, the decode session timeout is infinite.



**M00031D**

**Decode Session Timeout**

### Example: Set the decode session timeout to 5s

1. Scan the **Enter Setup** barcode.
2. Scan the **Decode Session Timeout** barcode.
3. Scan the numeric barcode “5”. (See the **Digit Barcodes** section in Appendix)
4. Scan the **Save** barcode. (See the **Save/Cancel Barcodes** section in Appendix)
5. Scan the **Exit Setup** barcode.



**W010F00**

Exit Setup



W010F01

\*\* Enter Setup

---

**Image Stabilization Timeout:** The scanner waits for the image stabilization timeout to expire before activating a decode session every time it detects a change in ambient illumination. This parameter is programmable in 0.1s increments from 0.0s to 25.5s.



M00031B

Image Stabilization Timeout

**Example: Set the Image Stabilization Timeout to 5s**

1. Scan the **Enter Setup** barcode.
2. Scan the **Image Stabilization Timeout** barcode.
3. Scan the numeric barcodes “5” and “0”. (See the **Digit Barcodes** section in Appendix)
4. Scan the **Save** barcode. (See the **Save/Cancel Barcodes** section in Appendix)
5. Scan the **Exit Setup** barcode.



W010F00

Exit Setup



**W010F01**

\*\* Enter Setup

---

**Timeout between Decodes (Same Barcode)** can avoid undesired rereading of same barcode in a given period of time. This parameter sets the timeout between decodes for same barcode. It is programmable in 0.1s increments from 0.1s to 25.5s. The default timeout is 3.0s. If the parameter is set to 0, the timeout between decodes (same barcode) is infinite.

**Note:** This parameter is only valid when the **Disallow Rereading Same Barcode** is enabled.



**M00031E**

Timeout between Decodes (Same Barcode)

**Allow Rereading Same Barcode:** The scanner is allowed to re-read same barcode, ignoring the timeout between decodes (same barcode).

**Disallow Rereading Same Barcode:** The scanner is not allowed to re-read same barcode before the timeout between decodes (same barcode) expires.



**W100A00**

Allow Rereading Same Barcode



**W100A10**

\*\* Disallow Rereading Same Barcode

**Example: Set the timeout between decodes (same barcode) to 5s**

1. Scan the **Enter Setup** barcode.
2. Scan the **Timeout between Decodes (Same Barcode)** barcode.
3. Scan the numeric barcodes “5” and “0”. (See the **Digit Barcodes** section in Appendix)
4. Scan the **Save** barcode. (See the **Save/Cancel Barcodes** section in Appendix)
5. Scan the **Exit Setup** barcode.



**W010F00**

Exit Setup



**W010F01**

\*\* Enter Setup

**Sensitivity:** This parameter specifies the degree of acuteness of the scanner's response to changes in ambient illumination. The higher the sensitivity, the lower requirement in illumination change to trigger the scanner. You can select an appropriate degree of sensitivity that fits the ambient environment.



**WFF0305**

High Sensitivity



**WFF0310**

\*\* Medium Sensitivity



**WFF0330**

\*\* Medium Sensitivity



**M00031A**

Custom Sensitivity

Sensitivity levels range from 0 to 255. The smaller the number, the higher the sensitivity.

#### **Example: Set the sensitivity level to 10**

1. Scan the **Enter Setup** barcode.
2. Scan the **Custom Sensitivity** barcode.
3. Scan the numeric barcodes “1” and “0”. (See the **Digit Barcodes** section in Appendix)
4. Scan the **Save** barcode. (See the **Save/Cancel Barcodes** section in Appendix)
5. Scan the **Exit Setup** barcode.



**W010F00**

Exit Setup



W010F01

\*\* Enter Setup

## Command Trigger Mode

**Command Trigger Mode:** Decode session is activated by a host command. The decode session continues until the barcode is decoded or the decode session timeout expires.



W030001

Command Trigger Mode

**Decode Session Timeout:** This parameter sets the maximum time decode session continues during a scan attempt. It is programmable in 1s increments from 1s to 255s. The default timeout is 15s. If the parameter is set to 0, the decode session timeout is infinite.



M00031D

Decode Session Timeout

### Example: Set the decode session timeout to 5s

1. Scan the **Enter Setup** barcode.
2. Scan the **Decode Session Timeout** barcode.
3. Scan the numeric barcode “5”. (See the **Digit Barcodes** section in Appendix)
4. Scan the **Save** barcode. (See the **Save/Cancel Barcodes** section in Appendix)
5. Scan the **Exit Setup** barcode.



W010F00

Exit Setup



W010F01

\*\* Enter Setup

## Chapter 3 Notification

### Good Read Beep



W041204

\*\* Good Read Beep On



W041200

Good Read Beep Off



WFFF10DA

Low Frequency



WFFF104B

\*\* Medium Frequency



WFFF1025

High Frequency



WFFF111F

Beep Duration: 40ms



WFFF113E

\*\* Beep Duration: 80ms



WFFF115D

Beep Duration: 120ms



W010F00

Exit Setup



**W010F01**

\*\* Enter Setup

---

## Decode Result Notification

When enabled, if a barcode does not decode, “F” is transmitted; if a barcode is decoded, “S” is appended to the barcode data as the most left character.



**W203120**

Enable Decode Result Notification



**W203100**

\*\* Disable Decode Result Notification



**W010F00**

Exit Setup



**W010F01**

\*\* Enter Setup

---

## Other Settings

You can change the following parameter settings temporarily and the changes will be lost when you power down or reboot the scanner.

### Silent Mode



**W400000**

Silent Mode On



**W400040**

\*\* Silent Mode Off

**Note:** This feature is only applicable to decode beep and will be automatically disabled when the scanner is powered down or rebooted.

### Illumination



**W0C0000**

Off



**W0C0008**

Always On



**W0C0004**

\*\* On When Scanning



**W010F00**

Exit Setup



W010F01

\*\* Enter Setup

## Chapter 4 Communication Settings

The scanner provides an RS-232 interface and a USB interface to communicate with the host device. The host device can receive scanned data and send commands to control the scanner or to access/alter the configuration information of the scanner via the RS-232 or USB interface.



W010F00

Exit Setup



**W010F01**

\*\* Enter Setup

## RS-232 Interface

### Baud Rate

When the scanner is connected to a host device through its RS-232 interface, you need to set communication parameters (including baud rate) to match the host device.

Baud rate is the number of bits of data transmitted per second. Set the scanner's baud rate to match the Host requirements.



**WFFD9D3**

\*\* 9600



**WFFD9D0**

**1200**



**WFFD9D5**

**19200**



**WFFD9D1**

**2400**



**WFFD9D6**

**38400**



**WFFD9D2**

**4800**



**WFFD9D7**

**57600**



**WFFD9D4**

**14400**



**WFFD9D8**

**115200**



**W010F00**

Exit Setup



**W010F01**

\*\* Enter Setup

---

### Parity Check



**W062900**

\*\* None



**W062906**

Even Parity



**W062904**

Odd Parity

### Stop Bit



**W012900**

\*\* 1 Stop Bit



**W012901**

2 Stop Bits



**W010F00**

Exit Setup



**W010F01**

\*\* Enter Setup

---

**Data Bit**



**W082908**

8 Data Bits



**W0F2908**

\*\* 8 Data Bits, No Parity, 1 Stop Bit



**W0F290E**

8 Data Bits, Even Parity, 1 Stop Bit



**W0F290C**

8 Data Bits, Odd Parity, 1 Stop Bit



**W0F2909**

8 Data Bits, No Parity, 2 Stop Bits



**W0F290F**

8 Data Bits, Even Parity , 2 Stop Bits



**W0F290D**

8 Data Bits, Odd Parity, 2 Stop Bits



**W082900**

7 Data Bits



**W010F00**

Exit Setup



W010F01

\*\* Enter Setup

---



W0F2906

7 Data Bits, Even Parity, 1 Stop Bit



W0F2904

7 Data Bits, Odd Parity, 1 Stop Bit



W0F2907

7 Data Bits, Even Parity, 2 Stop Bits



W0F2905

7 Data Bits, Odd Parity, 2 Stop Bits



W010F00

Exit Setup



**W010F01**

\*\* Enter Setup

---

## USB Interface

### USB HID-KBW

When enabled, the scanner's transmission is simulated as USB keyboard input. It works on a Plug and Play basis and no driver is required.



**W070901**

\*\* USB HID-KBW



**W010F00**

Exit Setup



W010F01

\*\* Enter Setup

---

**Standard Keyboard**

W031A00

\*\* Standard Keyboard

**Emulate ALT+Keypad**

When **Emulate ALT+Keypad** is enabled, any ASCII character (0x00 - 0xFF) is sent over the numeric keypad no matter which keyboard type is selected. Since sending a character involves multiple keystroke emulations, this method appears less efficient.

1. ALT Make
2. Enter the number corresponding to the ASCII character on the keypad.
3. ALT Break



W031A03

Emulate ALT+Keypad

**Note:** It is recommended to turn on the Num Lock light on the host when using this feature.



W010F00

Exit Setup



W010F01

\*\* Enter Setup

---

### Function Key Mapping

When **Function Key Mapping** is enabled, function character (0x00 - 0x1F) are sent as ASCII sequences over the numeric keypad.

1. CTRL Make
2. Press function key (Refer to the **ASCII Function Key Mapping Table** on the following page)
3. CTRL Break



W031A01

Function Key Mapping



W010F00

Exit Setup



W010F01

\*\* Enter Setup

**ASCII Function Key Mapping Table**

ASCII Value (HEX)	Function Key	ASCII Value (HEX)	Function Key
00	2	10	P
01	A	11	Q
02	B	12	R
03	C	13	S
04	D	14	T
05	E	15	U
06	F	16	V
07	G	17	W
08	H	18	X
09	I	19	Y
0A	J	1A	Z
0B	K	1B	[
0C	L	1C	\
0D	M	1D	]
0E	N	1E	6
0F	O	1F	.



W010F00

Exit Setup



**W010F01**

\*\* Enter Setup

---

### **USB Country Keyboard Types**

Keyboard layouts vary from country to country. All supported keyboard types are listed below.



**WFF1900**

\*\* 1 - U.S.



**WFF1901**

2 - Belgium



**WFF1902**

3 - Brazil



**WFF1903**

4 - Canada



**WFF1904**

5 - Czech



**WFF1905**

6 - Denmark



**WFF1906**

7 - Finland



**WFF1907**

8 - France



**W010F00**

Exit Setup



**W010F01**

\*\* Enter Setup

---



**WFF1908**

9 - Austria



**WFF1909**

10 - Greece



**WFF190A**

11 - Hungary



**WFF190B**

12 - Israel



**WFF190C**

13 - Italy



**WFF190D**

14 - Latin America



**WFF190E**

15 - Netherland



**WFF190F**

16 - Norway



**WFF1910**

17 - Poland



**WFF1911**

18 - Portugal



**W010F00**

Exit Setup



**W010F01**

\*\* Enter Setup

---



**WFF1912**

19 - Romania



**WFF1913**

20 - Russia



**WFF1915**

21 - Slovakia



**WFF1916**

22 - Spain



**WFF1917**

23 - Sweden



**WFF1918**

24 - Switzerland



**WFF1919**

25 - Turkey1



**WFF191A**

26 - Turkey 2



**WFF191B**

27 - UK



**WFF191C**

28 - Japan



**W010F00**

Exit Setup



**W010F01**

\*\* Enter Setup

---

### Inter-Keystroke Delay

This parameter specifies the delay between emulated keystrokes.



**WC01A00**

\*\* No Delay



**WC01A40**

Short Delay (5ms)



**WC01A80**

Medium Delay (10ms)



**WC01AC0**

Long Delay (15ms)



**W010F00**

Exit Setup



W010F01

\*\* Enter Setup

---

### Convert Case

This parameter is valid when the **Standard Keyboard** or **Function Key Mapping** is enabled.



W381A00

\*\* No Case Conversion



W381A20

Convert All to Upper Case



W381A30

Convert All to Lower Case



W381A08

Invert Upper and Lower Case Characters

**Example:** When the **Invert Upper and Lower Case Characters** feature is enabled, barcode data “AbC” is transmitted as “aBc”.



W010F00

Exit Setup



W010F01

\*\* Enter Setup

---

### Emulate Numeric Keypad

When this feature is disabled, sending barcode data is emulated as keystroke(s) on main keyboard.

To enable this feature, scan the **Emulate Numeric Keypad** barcode. Sending a number (0-9) is emulated as keystroke on numeric keypad, whereas sending other character like “+”, “\_”, “\*”, “/” and “.” is still emulated as keystroke on main keyboard. However, this feature is influenced by the state of the Num Lock key on the host: if the Num Lock light on the host is ON, numbers are sent over numeric keypad, if it is OFF, numbers are sent over main keyboard.



W041A04

Emulate Numeric Keypad



W041A00

\*\* Do Not Emulate Numeric Keypad

**Note:** Make sure the Num Lock light of the Host is turned ON when using this feature.

**Emulate ALT+Keypad ON** prevails over **Emulate Numeric Keypad**.



W010F00

Exit Setup



**W010F01**

\*\* Enter Setup

---

## USB DataPipe

A driver is required when using this protocol to communicate with the scanner.



**W070900**

USB DataPipe

## USB COM Port Emulation

This feature allows the host to receive data in the way as a serial port does. However, you need to set communication parameters on the scanner to match the Host requirements. A driver is required for this feature.



**W070902**

USB COM Port Emulation



**W010F00**

Exit Setup



W010F01

\*\* Enter Setup

## HID-POS

The HID-POS interface is recommended for new application programs. It can send up to 56 characters in a single USB report and appears more efficient than USB HID-KBW.

Features:

- ✧ HID based, no custom driver required.
- ✧ Way more efficient in communication than USB HID-KBW and traditional RS-232 interface.

**Note:** HID-POS does not require a custom driver. However, a HID interface on Windows 98 does. All HID interfaces employ standard driver provided by the operating system. Use defaults when installing the driver.



W070903

HID-POS



W010F00

Exit Setup



**W010F01**

\*\* Enter Setup

### Access the Scanner with Your Program

1. Use CreateFile to access the scanner as a HID device.
2. Use ReadFile to deliver the scanned data to the application program.
3. Use WriteFile to send data to the scanner.

For detailed information about USB and HID interfaces, go to [www.USB.org](http://www.USB.org).

### Acquire Scanned Data

After a barcode is decoded, the scanner sends an input report as below:

Byte	Bit							
	7	6	5	4	3	2	1	0
0	Report ID = 0x02							
1	Barcode Length							
2-57	Decoded Data (1-56)							
58-61	Reserved (1-4)							
62	0x00							
63	00 (no data continued) or 01 (data continued)							

### VID/PID

USB uses VID (Vendor ID) and PID (Product ID) to identify and locate a device. The VID is assigned by USB Implementers Forum. vendor ID is 1EAB (Hex). A range of PIDs are used for each product family. Every PID contains a base number and interface type (keyboard, COM port, etc.).

Product	Interface	PID (Hex)	PID (Dec)
QC 1D SERIES	USB DataPipe	8001	32769
	USB HID-KBW	8003	32771
	USB COM Port Emulation	8006	32774
	HID-POS	8010	32784



**W010F00**

Exit Setup



W010F01

\*\* Enter Setup

## Chapter 5 Data Formatting

### Introduction

After a successful barcode read, a string containing numbers, letters or symbols will be returned.

In real applications, barcode data may be found insufficient for your needs. You may wish to include additional information such as barcode type, data acquisition time or delimiter in data being scanned.

Adding extra information to printed barcodes does not seem like a sensible solution since that will increase the barcode size and make them inflexible. Instead, we come up with the idea of appending prefix and suffix to the data without making any change to barcodes. We will show you how to conduct the configuration in the following sections.

**Note:** Customized data: <Prefix> <Data><Suffix><Terminating Character>



W010F00

Exit Setup



W010F01

\*\* Enter Setup

---

## Prefix Sequence



W013100

\*\* Code ID+Custom+AIM ID



W013101

Custom+Code ID+ AIM ID



W010F00

Exit Setup

---



**W010F01**

\*\* Enter Setup

## Custom Prefix

### Enable/Disable Custom Prefix

If custom prefix is enabled, you are allowed to append to the data a user-defined prefix that cannot exceed 5 characters.

For example, if barcode data is “123” and custom prefix is “AB”, the host will receive “AB123”.



**W043104**

Enable Custom Prefix



**W043100**

\*\* Disable Custom Prefix

### Set Custom Prefix

To set a custom prefix, scan the **Set Custom Prefix** barcode, the numeric barcodes corresponding to the hexadecimal value of a desired prefix and the **Save** barcode.

**Note:** A custom prefix cannot exceed 5 characters.



**M000100**

Set Custom Prefix

**Example: Set the custom prefix to “CODE” (its hexadecimal value is 0x43/0x4F/0x44/0x45)**

1. Scan the **Enter Setup** barcode.
2. Scan the **Set Custom Prefix** barcode.
3. Scan the numeric barcodes “4”, “3”, “4”, “F”, “4”, “4”, “4” and “5”. (See the **Digit Barcodes** section in Appendix)
4. Scan the **Save** barcode. (See the **Save/Cancel Barcodes** section in Appendix)
5. Scan the **Enable Custom Prefix** barcode.



**W010F00**

Exit Setup



**W010F01**

**\*\* Enter Setup**

---

6. Scan the **Exit Setup** barcode.



**W010F00**

**Exit Setup**



**W010F01**

\*\* Enter Setup

---

## 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.



**W186018**

Enable AIM ID Prefix



**W186000**

\*\* Disable AIM ID Prefix



**W010F00**

Exit Setup



**W010F01**

\*\* Enter Setup

## CODE ID Prefix

Code ID can also be used to identify barcode type. Unlike AIM ID, Code ID is user programmable. For the information of default Code ID, see the **Code ID Table** section in Appendix.



**W023102**

Enable CODE ID Prefix



**W023100**

\*\* Disable CODE ID Prefix

## Restore All Default Code IDs



**WFFD9C2**

Restore All Default Code IDs

## Set Code ID

Code ID can only consist of one or two English letters. To set a Code ID, scan a **Set Code ID** barcode, the numeric barcodes corresponding to the hexadecimal value of a desired ID and the **Save** barcode.

### Example: Set the Code ID of Code 128 to “p” (its hexadecimal value is 0x70)

1. Scan the **Enter Setup** barcode.
2. Scan the **Set Code 128 Code ID** barcode. (See the barcode on the following page )
3. Scan the numeric barcodes “7” and “0”. (See the **Digit Barcodes** section in Appendix)
4. Scan the **Save** barcode. (See the **Save/Cancel Barcodes** section in Appendix)
5. Scan the **Exit Setup** barcode.



**W010F00**

Exit Setup



W010F01

\*\* Enter Setup

---

**Set Code ID Barcodes**



M000200

Set Code 128 Code ID



M000201

Set UCC/EAN-128 Code ID



M000202

Set AIM 128 Code ID



M000204

Set EAN-8 Code ID



M000205

Set EAN-13 Code ID



M000206

Set ISSN Code ID



M000207

Set ISBN Code ID



M000208

Set UPC-E Code ID



W010F00

Exit Setup



W010F01

\*\* Enter Setup

---

**Set Code ID Barcodes (continued)**



M000209

Set UPC-A Code ID



M00020A

Set Interleaved 2 of 5 Code ID



M00020B

Set ITF-6 Code ID



M00020C

Set ITF-14 Code ID



M00020D

Set Deutsche 14 Code ID



M00020E

Set Deutsche 12 Code ID



M00020F

Set Matrix 2 of 5 Code ID



M000210

Set Industrial 25 Code ID



W010F00

Exit Setup

---



W010F01

\*\* Enter Setup

---

**Set Code ID Barcodes (continued)**



M000211

Set Standard 25 Code ID



M000212

Set Code 39 Code ID



M000213

Set Codabar Code ID



M000214

Set Code 93 Code ID



M000215

Set Code 11 Code ID



M000216

Set Plessey Code ID



M000217

Set MSI-Plessey Code ID



M000218

Set RSS-14 Code ID



M000219

Set RSS-Limited Code ID



M00021A

Set RSS-Expand Code ID



W010F00

Exit Setup



**W010F01**

**\*\* Enter Setup**

---

## Custom Suffix

### Enable/Disable Custom Suffix

If custom suffix is enabled, you are allowed to append to the data a user-defined suffix that cannot exceed 5 characters.

For example, if barcode data is “123” and custom suffix is “AB”, the host will receive “123AB”.



**W083108**

**Enable Custom Suffix**



**W083100**

**\*\* Disable Custom Suffix**



**W010F00**

**Exit Setup**



W010F01

\*\* Enter Setup

## Set Custom Suffix

To set a custom suffix, scan the **Set Custom Suffix** barcode, the numeric barcodes corresponding to the hexadecimal value of a desired suffix and the **Save** barcode.

**Note:** A custom suffix cannot exceed 5 characters.



M000101

Set Custom Suffix

**Example: Set the custom suffix to “CODE” (its hexadecimal value is 0x43/0x4F/0x44/0x45)**

1. Scan the **Enter Setup** barcode.
2. Scan the **Set Custom Suffix** barcode.
3. Scan the numeric barcodes “4”, “3”, “4”, “F”, “4”, “4”, “4” and “5”. (See the **Digit Barcodes** section in Appendix)
4. Scan the **Save** barcode. (See the **Save/Cancel Barcodes** section in Appendix)
5. Scan the **Enable Custom Suffix** barcode.
6. Scan the **Exit Setup** barcode.



W010F00

Exit Setup



**W010F01**

\*\* Enter Setup

---

## Terminating Character Suffix

A terminating character, such as carriage return (CR) and line feed (LF), can be used to mark the end of data, which means nothing can be added after it.

A terminating character suffix cannot exceed 5 characters.

### Enable/Disable Terminating Character Suffix

This parameter determines whether to append predefined terminating character suffix to the data.



**W103110**

Enable Terminating Character Suffix



**W103100**

\*\* Disable Terminating Character Suffix



**W010F00**

Exit Setup



**W010F01**

\*\* Enter Setup

## Set Terminating Character Suffix

The scanner provides a shortcut for setting the terminating character suffix to **0x0D (CR)** or **0x0D,0x0A (CRLF)** or **0x09 (Horizontal Tab)**, and enabling it by scanning the appropriate barcode below.



**WFFD9C3**

Terminating Character 0x0D



**WFFD9C4**

Terminating Character 0x0D,0x0A



**WFFD9C5**

Terminating Character 0x09



**M000102**

Set Terminating Character Suffix

To set a terminating character suffix, scan the **Set Terminating Character Suffix** barcode, the numeric barcodes corresponding to the hexadecimal value of a desired terminating character, and the **Save** barcode.

**Note:** A terminating character suffix cannot exceed 5 characters.

### Example: Set the terminating character suffix to 0x0A (LF)

1. Scan the **Enter Setup** barcode.
2. Scan the **Set Terminating Character Suffix** barcode.
3. Scan the numeric barcodes “0” and “A”. (See the **Digit Barcodes** section in Appendix)
4. Scan the **Save** barcode. (See the **Save/Cancel Barcodes** section in Appendix)
5. Scan the **Enable Terminating Character Suffix** barcode.
6. Scan the **Exit Setup** barcode.



**W010F00**

Exit Setup



**W010F01**

\*\* Enter Setup

## 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 barcode symbologies. It is recommended to disable those that are rarely used in order to increase the efficiency of the scanner.

### Global Settings

#### Enable/Disable All Symbologies

If all symbologies are disabled, the scanner can only identify programming barcodes.



**WFFD981**

Enable All Symbologies



**WFFD982**

Disable All Symbologies



**W010F00**

Exit Setup



W010F01

\*\* Enter Setup

---

## Code 128

**Restore Factory Defaults**



WFFD990

Restore the Factory Defaults of Code 128

**Enable/Disable Code 128**



W016101

\*\* Enable Code 128



W016100

Disable Code 128



W010F00

Exit Setup



**W010F01**

\*\* Enter Setup

### 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.

The supported maximum length is 255 characters. 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.



**M000301**

Set the Minimum Length



**M000300**

Set the Maximum Length

#### Example: Set the scanner to decode Code128 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”. (See the **Digit Barcodes** section in Appendix)
4. Scan the **Save** barcode. (See the **Save/Cancel Barcodes** section in Appendix)
5. Scan the **Set the Maximum Length** barcode.
6. Scan the numeric barcodes “1” and “2”.
7. Scan the **Save** barcode.
8. Scan the **Exit Setup** barcode.



**W010F00**

Exit Setup



**W010F01**

\*\* Enter Setup

---

## UCC/EAN-128

### Restore Factory Defaults



**WFFD991**

Restore the Factory Defaults of UCC/EAN-128

### Enable/Disable UCC/EAN-128



**W036203**

\*\* Enable UCC/EAN-128



**W036200**

Disable UCC/EAN-128



**W036201**

Decode as Code 128



**W010F00**

Exit Setup



**W010F01**

\*\* Enter 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.

The supported maximum length is 255 characters. 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.



**M000303**

Set the Minimum Length



**M000302**

Set the Maximum Length

**Example: 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”. (See the **Digit Barcodes** section in Appendix)
4. Scan the **Save** barcode. (See the **Save/Cancel Barcodes** section in Appendix)
5. Scan the **Set the Maximum Length** barcode.
6. Scan the numeric barcodes “1” and “2”.
7. Scan the **Save** barcode.
8. Scan the **Exit Setup** barcode.



**W010F00**

Exit Setup



W010F01

\*\* Enter Setup

---

## AIM 128

### Restore Factory Defaults



WFFD992

Restore the Factory Defaults of AIM 128

### Enable/Disable AIM 128



W036302

Enable AIM 128



W036300

\*\* Disable AIM 128



W036301

Decode as Code 128



W010F00

Exit Setup



**W010F01**

\*\* Enter Setup

## Set Length Range for AIM 128

The scanner can be configured to only decode AIM 128 barcodes with lengths that fall between (inclusive) the minimum and maximum lengths.

The supported maximum length is 255 characters. If minimum length is set to be greater than maximum length, the scanner only decodes AIM 128 barcodes with either the minimum or maximum length. If minimum length is same as maximum length, only AIM 128 barcodes with that length are to be decoded.



**M000305**

Set the Minimum Length



**M000304**

Set the Maximum Length

### Example: Set the scanner to decode AIM128 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”. (See the **Digit Barcodes** section in Appendix)
4. Scan the **Save** barcode. (See the **Save/Cancel Barcodes** section in Appendix)
5. Scan the **Set the Maximum Length** barcode.
6. Scan the numeric barcodes “1” and “2”.
7. Scan the **Save** barcode.
8. Scan the **Exit Setup** barcode.



**W010F00**

Exit Setup



**W010F01**

\*\* Enter Setup

---

## EAN-8

### Restore Factory Defaults



**WFFD994**

Restore the Factory Defaults of EAN-8

### Enable/Disable EAN-8



**W016501**

\*\* Enable EAN-8



**W016500**

Disable EAN-8

### Transmit Check Digit

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



**W046504**



**W046500**

---



**W010F00**

Exit Setup



W010F01

\*\* Enter Setup

---

\*\* Transmit EAN-8 Check Digit

Do Not Transmit EAN-8 Check Digit



W010F00

Exit Setup



**W010F01**

\*\* Enter Setup

### Add-On Code

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



**W106510**

Enable 2-Digit Add-On Code



**W106500**

\*\* Disable 2-Digit Add-On Code



**W206520**

Enable 5-Digit Add-On Code



**W206500**

\*\* Disable 5-Digit Add-On Code

**Enable 2-Digit Add-On Code/ Enable 5-Digit Add-On Code:** The scanner decodes a mix of EAN-8 barcodes with and without 2-digit/5-digit add-on codes.

**Disable 2-Digit Add-On Code/ Disable 5-Digit Add-On Code:** The scanner decodes EAN-8 and ignores the add-on code when presented with an EAN-8 plus add-on barcode. It can also decode EAN-8 barcodes without add-on codes.



**W010F00**

Exit Setup



**W010F01**

\*\* Enter Setup

### Add-On Code Required

This parameter is only valid when **Enable 2-Digit Add-On Code** and/or **Enable 5-Digit Add-On Code** is selected.



**W086508**

EAN-8 Add-On Code Required



**W086500**

\*\* EAN-8 Add-On Code Not Required

### EAN-8 Extension

**Disable EAN-8 Zero Extend:** Transmit EAN-8 barcodes as is.

**Enable EAN-8 Zero Extend:** Add five leading zeros to decoded EAN-8 barcodes to extend to 13 digits.

**Convert EAN-8 to EAN-13:** Add five leading zeros to decoded EAN-8 barcodes to make them compatible in format to EAN-13 barcodes.



**WC06540**

Enable EAN-8 Zero Extend



**WC06500**

\*\* Disable EAN-8 Zero Extend



**WC06580**

Convert EAN-8 to EAN-13



**W010F00**

Exit Setup



**W010F01**

\*\* Enter Setup

---

## EAN-13

### Restore Factory Defaults



**' WFFD995**

Restore the Factory Defaults of EAN-13

### Enable/Disable EAN-13



**W016601**

\*\* Enable EAN-13



**W016600**

Disable EAN-13

### Transmit Check Digit

EAN-13 is 13 digits in length with the last one as its check digit used to verify the integrity of the data.



**W046604**

\*\* Transmit EAN-13 Check Digit



**W046600**

Do Not Transmit EAN-13 Check Digit



**W010F00**

Exit Setup



**W010F01**

\*\* Enter Setup

### Add-On Code

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



**W106610**

Enable 2-Digit Add-On Code



**W106600**

\*\* Disable 2-Digit Add-On Code



**W206620**

Enable 5-Digit Add-On Code



**W206600**

\*\* Disable 5-Digit Add-On Code

**Enable 2-Digit Add-On Code/ Enable 5-Digit Add-On Code:** The scanner decodes a mix of EAN-13 barcodes with and without 2-digit/5-digit add-on codes.

**Disable 2-Digit Add-On Code/ Disable 5-Digit Add-On Code:** The scanner decodes EAN-13 and ignores the add-on code when presented with an EAN-13 plus add-on barcode. It can also decode EAN-13 barcodes without add-on codes.



**W010F00**

Exit Setup



W010F01

\*\* Enter Setup

---

### Add-On Code Required

This parameter is only valid when **Enable 2-Digit Add-On Code** and/or **Enable 5-Digit Add-On Code** is selected.



W086608

EAN-13 Add-On Code Required



W086600

\*\* EAN-13 Add-On Code Not Required



W010F00

Exit Setup



W010F01

\*\* Enter Setup

---

## ISSN

### Restore Factory Defaults



WFFD996

Restore the Factory Defaults of ISSN

### Enable/Disable ISSN



W036702

Enable ISSN



W036700

\*\* Disable ISSN



W036701

Decode as EAN-13



W010F00

Exit Setup



**W010F01**

\*\* Enter Setup

---

## ISBN

### Restore Factory Defaults



**WFFD997**

Restore the Factory Defaults of ISBN

### Enable/Disable ISBN



**W036802**

Enable ISBN



**W036800**

\*\* Disable ISBN



**W036801**

Decode as EAN-13



**W010F00**

Exit Setup



W010F01

\*\* Enter Setup

---

### Set ISBN Format



W086800

\*\* ISBN-13



W086808

ISBN-10



W010F00

Exit Setup



**W010F01**

\*\* Enter Setup

---

## UPC-E

### Restore Factory Defaults



**WFFD998**

Restore the Factory Defaults of UPC-E

### Enable/Disable UPC-E



**W016901**

\*\* Enable UPC-E



**W016900**

Disable UPC-E

### Transmit Check Digit

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



**W046904**

\*\* Transmit UPC-E Check Digit



**W046900**

Do Not Transmit UPC-E Check Digit

---



**W010F00**

Exit Setup



**W010F01**

\*\* Enter Setup

### Add-On Code

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



**W106910**

Enable 2-Digit Add-On Code



**W106900**

\*\* Disable 2-Digit Add-On Code



**W206920**

Enable 5-Digit Add-On Code



**W206900**

\*\* Disable 5-Digit Add-On Code

**Enable 2-Digit Add-On Code/ Enable 5-Digit Add-On Code:** The scanner decodes a mix of UPC-E barcodes with and without 2-digit/5-digit add-on codes.

**Disable 2-Digit Add-On Code/ Disable 5-Digit Add-On Code:** The scanner decodes UPC-E and ignores the add-on code when presented with a UPC-E plus add-on barcode. It can also decode UPC-E



**W010F00**

Exit Setup



**W010F01**

**\*\* Enter Setup**

---

barcodes without add-on codes.



**W010F00**

**Exit Setup**



W010F01

\*\* Enter Setup

### Add-On Code Required

This parameter is only valid when **Enable 2-Digit Add-On Code** and/or **Enable 5-Digit Add-On Code** is selected.



W086908

UPC-E Add-On Code Required



W086900

\*\* UPC-E Add-On Code Not Required

### Transmit System Character

The first character of UPC-E barcode is the system character.



W306A10

\*\* Do Not Transmit System Character



W306A20

Transmit System Character



W010F00

Exit Setup



W010F01

\*\* Enter Setup

---

## UPC-E Extension

**Disable UPC-E Extend:** Transmit UPC-E barcodes as is.

**Enable UPC-E Extend:** Extend UPC-E barcodes to make them compatible in length to UPC-A.

**Convert UPC-E to UPC-A:** Extend UPC-E barcodes to make them compatible in format to UPC-A.



WC06940

Enable UPC-E Extend



WC06900

\*\*Disable UPC-E Extend



WC06980

Convert UPC-E to UPC-A



W010F00

Exit Setup



W010F01

\*\* Enter Setup

---

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## UPC-A

### Restore Factory Defaults



WFFD999

Restore the Factory Defaults of UPC-A

### Enable/Disable UPC-A



W036B02

\*\* Enable UPC-A



W036B00

Disable UPC-A



W036B01

Decode as EAN-13



W010F00

Exit Setup



**W010F01**

\*\* Enter Setup

---

### Transmit Check Digit

UPC-A is 13 digits in length with the last one as its check digit used to verify the integrity of the data.



**W086B08**

\*\* Transmit UPC-A Check Digit



**W086B00**

Do Not Transmit UPC-A Check Digit

### Transmit Preamble Character

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



**W036A00**

No Preamble



**W036A01**

\*\* System Character



**W036A02**

System Character & Country Code

---



**W010F00**

Exit Setup



**W010F01**

\*\* Enter Setup

### Add-On Code

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



**W206B20**

Enable 2-Digit Add-On Code



**W206B00**

\*\* Disable 2-Digit Add-On Code



**W406B40**

Enable 5-Digit Add-On Code



**W406B00**

\*\* Disable 5-Digit Add-On Code

**Enable 2-Digit Add-On Code/ Enable 5-Digit Add-On Code:** The scanner decodes a mix of UPC-A barcodes with and without 2-digit/5-digit add-on codes.

**Disable 2-Digit Add-On Code/ Disable 5-Digit Add-On Code:** The scanner decodes UPC-A and ignores the add-on code when presented with a UPC-A plus add-on barcode. It can also decode UPC-A



**W010F00**

Exit Setup



**W010F01**

**\*\* Enter Setup**

---

barcodes without add-on codes.



**W010F00**

**Exit Setup**



W010F01

\*\* Enter Setup

---

### Add-On Code Required

This parameter is only valid when **Enable 2-Digit Add-On Code** and/or **Enable 5-Digit Add-On Code** is selected.



W106B10

UPC-A Add-On Code Required



W106B00

\*\* UPC-A Add-On Code Not Required



W010F00

Exit Setup



**W010F01**

\*\* Enter Setup

---

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## Interleaved 2 of 5

**Restore Factory Defaults**



**WFFD99A**

Restore the Factory Defaults of Interleaved 2 of 5

## Enable/Disable Interleaved 2 of 5



**W016C01**

\*\* Enable Interleaved 2 of 5



**W016C00**

Disable Interleaved 2 of 5



**W010F00**

Exit Setup



W010F01

\*\* Enter Setup

---

## Check Digit Verification

A check digit is optional for Interleaved 2 of 5 and can be added as the last digit. 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 Digit After Verification:** The scanner checks the integrity of all Interleaved 2 of 5 barcodes to verify that the data complies with the check digit algorithm. Barcodes passing the check will be transmitted except the last digit, whereas those failing it will not be transmitted.

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



W0C6C00

Disable



W0C6C04

\*\* Do Not Transmit Check Digit After Verification



W0C6C0C

Transmit Check Digit After Verification



W010F00

Exit Setup



**W010F01**

\*\* Enter Setup

### 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.

The supported maximum length is 255 characters. If minimum length is set to be greater than maximum length, the scanner only decodes Interleaved 2 of 5 barcodes with either the minimum or maximum length. If minimum length is same as maximum length, only Interleaved 2 of 5 barcodes with that length are to be decoded.



**M000307**

Set the Minimum Length



**M000306**

Set the Maximum Length

**Example: Set the scanner to decode Interleaved 2 of 5 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”. (See the **Digit Barcodes** section in Appendix)
4. Scan the **Save** barcode. (See the **Save/Cancel Barcodes** section in Appendix)
5. Scan the **Set the Maximum Length** barcode.
6. Scan the numeric barcodes “1” and “2”.
7. Scan the **Save** barcode.
8. Scan the **Exit Setup** barcode.



**W010F00**

Exit Setup



**W010F01**

\*\* Enter Setup

## ITF-6

ITF-6 is a special kind of Interleaved 2 of 5 with a length of 6 characters and the last character as the check character.

### Restore Factory Defaults



**WFFD99B**

Restore the Factory Defaults of ITF-6

### Enable/Disable ITF-6

By default, ITF-6 is decoded as Interleaved 2 of 5.



**W036D01**

Disable ITF-6



**W0B6D02**

Enable ITF-6 But Do Not Transmit Check Digit



**W0B6D0A**

Enable ITF-6 and Transmit Check Digit

**Note:** It is advised not to enable ITF-6 and Interleaved 2 of 5 at the same time.



**W010F00**

Exit Setup



**W010F01**

\*\* Enter Setup

## ITF-14

ITF-14 is a special kind of Interleaved 2 of 5 with a length of 14 characters and the last character as the check character.

### Restore Factory Defaults



**WFFD99C**

Restore the Factory Defaults of ITF-14

### Enable/Disable ITF-14

By default, ITF-14 is decoded as Interleaved 2 of 5.



**W036E01**

Disable ITF-14



**W0B6E02**

Enable ITF-14 But Do Not Transmit Check Digit



**W0B6E0A**

Enable ITF-14 and Transmit Check Digit

**Note:** It is advised not to enable ITF-14 and Interleaved 2 of 5 at the same time.



**W010F00**

Exit Setup



**W010F01**

\*\* Enter Setup

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## Deutsche 14

### Restore Factory Defaults



**WFFD99D**

Restore the Factory Defaults of Deutsche 14

### Enable/Disable Deutsche 14

By default, Deutsche 14 is decoded as Interleaved 2 of 5.



**W036F01**

Disable Deutsche 14



**W0B6F02**

Enable Deutsche 14 But Do Not Transmit Check Digit



**W0B6F0A**

Enable Deutsche 14 and Transmit Check Digit

**Note:** It is advised not to enable Deutsche 14 unless necessary, because Deutsche 14, ITF-14 and Interleaved 2 of 5 use the same encoding method and enabling them at the same time can easily cause confusion with



**W010F00**

Exit Setup



**W010F01**

\*\* Enter Setup

each other when decoding.

## Deutsche 12

### Restore Factory Defaults



**WFFD99E**

Restore the Factory Defaults of Deutsche 12

### Enable/Disable Deutsche 12

By default, Deutsche 12 is decoded as Interleaved 2 of 5.



**W037001**

Disable Deutsche 12



**W0B7002**

Enable Deutsche 12 But Do Not Transmit Check Digit



**W0B700A**

Enable Deutsche 12 and Transmit Check Digit

**Note:** It is advised not to enable Deutsche 12 unless necessary, because Deutsche 12, ITF-12 and Interleaved



**W010F00**

Exit Setup



**W010F01**

\*\* Enter Setup

---

2 of 5 use the same encoding method and enabling them at the same time can easily cause confusion with each other when decoding.

## **Matrix 2 of 5 (European Matrix 2 of 5)**

**Restore Factory Defaults**



**WFFD99F**

Restore the Factory Defaults of Matrix 2 of 5

**Enable/Disable Matrix 2 of 5**



**W017101**

\*\* Enable Matrix 2 of 5



**W017100**

Disable Matrix 2 of 5



**W010F00**

Exit Setup



W010F01

\*\* Enter Setup

## Check Digit Verification

A check digit is optional for Matrix 2 of 5 and can be added as the last digit. 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 Digit After Verification:** The scanner checks the integrity of all Matrix 2 of 5 barcodes to verify that the data complies with the check digit algorithm. Barcodes passing the check will be transmitted except the last digit, whereas those failing it will not be transmitted.

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



W0C7100

\*\* Disable



W0C7104

Do Not Transmit Check Digit After Verification



W0C710C

Transmit Check Digit After Verification



W010F00

Exit Setup



**W010F01**

\*\* Enter 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.

The supported maximum length is 255 characters. If minimum length is set to be greater than maximum length, the scanner only decodes Matrix 2 of 5 barcodes with either the minimum or maximum length. If minimum length is same as maximum length, only Matrix 2 of 5 barcodes with that length are to be decoded.



**M000309**

Set the Minimum Length



**M000308**

Set the Maximum Length

**Example: Set the scanner to decode Matrix 2 of 5 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”. (See the **Digit Barcodes** section in Appendix)
4. Scan the **Save** barcode. (See the **Save/Cancel Barcodes** section in Appendix)
5. Scan the **Set the Maximum Length** barcode.
6. Scan the numeric barcodes “1” and “2”.
7. Scan the **Save** barcode.
8. Scan the **Exit Setup** barcode.



**W010F00**

Exit Setup



**W010F01**

\*\* Enter Setup

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## Industrial 25

### Restore Factory Defaults



**WFFD9A0**

Restore the Factory Defaults of Industrial 25

### Enable/Disable Industrial 25



**W017201**

\*\* Enable Industrial 25



**W017200**

Disable Industrial 25



**W010F00**

Exit Setup



**W010F01**

\*\* Enter Setup

---

## Check Digit Verification

A check digit is optional for Industrial 25 and can be added as the last digit. 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 Digit After Verification:** The scanner checks the integrity of all Industrial 25 barcodes to verify that the data complies with the check digit algorithm. Barcodes passing the check will be transmitted except the last digit, whereas those failing it will not be transmitted.

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



**W0C7200**

\*\* Disable



**W0C7204**

**Do Not Transmit Check Digit After Verification**



**W0C720C**

**Transmit Check Digit After Verification**



**W010F00**

**Exit Setup**



**W010F01**

\*\* Enter 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.

The supported maximum length is 255 characters. 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.



**M00030B**

Set the Minimum Length



**M00030A**

Set the Maximum Length

**Example: 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”. (See the **Digit Barcodes** section in Appendix)
4. Scan the **Save** barcode. (See the **Save/Cancel Barcodes** section in Appendix)
5. Scan the **Set the Maximum Length** barcode.
6. Scan the numeric barcodes “1” and “2”.
7. Scan the **Save** barcode.
8. Scan the **Exit Setup** barcode.



**W010F00**

Exit Setup



**W010F01**

\*\* Enter Setup

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## Standard 25

**Restore Factory Defaults**



**WFFD9A1**

Restore the Factory Defaults of Standard 25

**Enable/Disable Standard 25**



**W017301**

\*\* Enable Standard 25



**W017300**

Disable Standard 25



**W010F00**

Exit Setup



**W010F01**

\*\* Enter Setup

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## Check Digit Verification

A check digit is optional for Standard 25 and can be added as the last digit. 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 Digit After Verification:** The scanner checks the integrity of all Standard 25 barcodes to verify that the data complies with the check digit algorithm. Barcodes passing the check will be transmitted except the last digit, whereas those failing it will not be transmitted.

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



**W0C7300**

\*\* Disable



**W0C7304**

Do Not Transmit Check Digit After Verification



**W0C730C**

Transmit Check Digit After Verification



**W010F00**

Exit Setup



**W010F01**

\*\* Enter Setup

## 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.

The supported maximum length is 255 characters. 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.



**M00030D**

Set the Minimum Length



**M00030C**

Set the Maximum Length

**Example: 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”. (See the **Digit Barcodes** section in Appendix)
4. Scan the **Save** barcode. (See the **Save/Cancel Barcodes** section in Appendix)
5. Scan the **Set the Maximum Length** barcode.
6. Scan the numeric barcodes “1” and “2”.
7. Scan the **Save** barcode.
8. Scan the **Exit Setup** barcode.



**W010F00**

Exit Setup



W010F01

\*\* Enter Setup

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## Code 39

### Restore Factory Defaults



WFFD9A2

Restore the Factory Defaults of Code 39

### Enable/Disable Code 39



W017401

\*\* Enable Code 39



W017400

Disable Code 39



W010F00

Exit Setup



W010F01

\*\* Enter Setup

## Check Digit Verification

A check digit is optional for Code 39 and can be added as the last digit. 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 Digit After Verification:** The scanner checks the integrity of all Code 39 barcodes to verify that the data complies with the check digit algorithm. Barcodes passing the check will be transmitted except the last digit, whereas those failing it will not be transmitted.

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



W187400

\*\* Disable



W187408

Do Not Transmit Check Digit After Verification



W187418

Transmit Check Digit After Verification



W010F00

Exit Setup



**W010F01**

\*\* Enter Setup

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### Transmit Start/Stop Character

Code 39 uses an asterisk (\*) for both the start and the stop characters. You can choose whether or not to transmit the start/stop characters by scanning the appropriate barcode below.



**W047404**

\*\* Transmit Start/Stop Character



**W047400**

Do Not Transmit Start/Stop Character

### Enable/Disable Code 39 Full ASCII

The scanner can be configured to identify all ASCII characters by scanning the appropriate barcode below.



**W207420**

\*\* Enable Code 39 Full ASCII



**W207400**

Disable Code 39 Full ASCII



**W010F00**

Exit Setup



**W010F01**

\*\* Enter 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.

The supported maximum length is 255 characters. 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.



**M00030F**

Set the Minimum Length



**M00030E**

Set the Maximum Length

**Example: 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”. (See the **Digit Barcodes** section in Appendix)
4. Scan the **Save** barcode. (See the **Save/Cancel Barcodes** section in Appendix)
5. Scan the **Set the Maximum Length** barcode.
6. Scan the numeric barcode “1”.
7. Scan the numeric barcode “2”.
8. Scan the **Save** barcode.
9. Scan the **Exit Setup** barcode.



**W010F00**

Exit Setup



95

W010F01

\*\* Enter Setup

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## Codabar

### Restore Factory Defaults



WFFD9A3

Restore the Factory Defaults of Codabar

### Enable/Disable Codabar



W017501

\*\* Enable Codabar



W017500

Disable Codabar



W010F00

Exit Setup



**W010F01**

\*\* Enter Setup

---

## Check Digit Verification

A check digit is optional for Codabar and can be added as the last digit. 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 Digit After Verification:** The scanner checks the integrity of all Codabar barcodes to verify that the data complies with the check digit algorithm. Barcodes passing the check will be transmitted except the last digit, whereas those failing it will not be transmitted.

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



**W607500**

\*\* Disable



**W607520**

Do Not Transmit Check Digit After Verification



**W607560**

Transmit Check Digit After Verification



**W010F00**

Exit Setup



**W010F01**

\*\* Enter Setup

---

**Start/Stop Character**



**W047504**

\*\* Transmit Start/Stop Character



**W047500**

Do Not Transmit Start/Stop Character



**W187500**

\*\* ABCD/ABCD as the Start/Stop Character



**W187508**

ABCD/TN\*E as the Start/Stop Character



**W187510**

abcd/abcd as the Start/Stop Character



**W187518**

abcd/tn\*e as the Start/Stop Character

---



**W010F00**

Exit Setup



**W010F01**

\*\* Enter 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.

The supported maximum length is 255 characters. 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.



**M000311**

Set the Minimum Length



**M000310**

Set the Maximum Length

**Example: Set the scanner to decode Codabar 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”. (See the **Digit Barcodes** section in Appendix)
4. Scan the **Save** barcode. (See the **Save/Cancel Barcodes** section in Appendix)
5. Scan the **Set the Maximum Length** barcode.
6. Scan the numeric barcode “1”.
7. Scan the numeric barcode “2”.
8. Scan the **Save** barcode.
9. Scan the **Exit Setup** barcode.



**W010F00**

Exit Setup



W010F01

\*\* Enter Setup

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## Code 93

### Restore Factory Defaults



WFFD9A4

Restore the Factory Defaults of Code 93

### Enable/Disable Code 93



W017601

\*\* Enable Code 93



W017600

Disable Code 93



W010F00

Exit Setup



W010F01

\*\* Enter Setup

100

## Check Digit Verification

Check digits are optional for Code 93 and can be added as the last two digits, 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 Digit After Verification:** The scanner checks the integrity of all Code 93 barcodes to verify that the data complies with the check digit algorithm. Barcodes passing the checks will be transmitted except the last two digits, whereas those failing them will not be transmitted.

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



WOC7600

Disable



WOC7604

\*\* Do Not Transmit Check Digit After Verification



WOC760C

Transmit Check Digit After Verification



W010F00

Exit Setup



W010F01

\*\* Enter 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.

The supported maximum length is 255 characters. 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.



M000313

Set the Minimum Length



M000312

Set the Maximum Length

**Example: 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”. (See the **Digit Barcodes** section in Appendix)
4. Scan the **Save** barcode. (See the **Save/Cancel Barcodes** section in Appendix)
5. Scan the **Set the Maximum Length** barcode.
6. Scan the numeric barcode “1”.
7. Scan the numeric barcode “2”.
8. Scan the **Save** barcode.
9. Scan the **Exit Setup** barcode.



W010F00

Exit Setup



W010F01

\*\* Enter Setup

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## Code 11

### Restore Factory Defaults



WFFD9A5

Restore the Factory Defaults of Code 11

### Enable/Disable Code 11



W017701

Enable Code 11



W017700

\*\* Disable Code 11



W010F00

Exit Setup



W010F01

\*\* Enter Setup

## Check Digit Verification

Check digits are optional for Code 11 and can be added as the last one or two digits, 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.



W1C7700

Disable



W1C7704

\*\* One Check Digit, MOD11



W1C7708

Two Check Digits, MOD11/MOD11



W1C770C

Two Check Digits, MOD11/MOD9



W1C7710

One Check Digit, MOD11 (Len <= 10)

Two Check Digits, MOD11/MOD11 (Len > 10)



W1C7714

One Check Digit, MOD11 (Len <= 10)

Two Check Digits, MOD11/MOD9 (Len > 10)



W207720



W207700



W010F00

Exit Setup



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W010F01

\*\* Enter Setup

Transmit Check Digit

\*\* Do Not Transmit Check Digit



W010F00

Exit Setup



W010F01

\*\* Enter 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.

The supported maximum length is 255 characters. 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.



M000315

Set the Minimum Length



M000314

Set the Maximum Length

**Example: 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”. (See the **Digit Barcodes** section in Appendix)
4. Scan the **Save** barcode. (See the **Save/Cancel Barcodes** section in Appendix)
5. Scan the **Set the Maximum Length** barcode.
6. Scan the numeric barcode “1”.
7. Scan the numeric barcode “2”.
8. Scan the **Save** barcode.
9. Scan the **Exit Setup** barcode.



W010F00

Exit Setup



**W010F01**

\*\* Enter Setup

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## Plessey

**Restore Factory Defaults**



**WFFD9A6**

Restore the Factory Defaults of Plessey

**Enable/Disable Plessey**



**W017801**

Enable Plessey



**W017800**

\*\* Disable Plessey



**W010F00**

Exit Setup



W010F01

\*\* Enter Setup

---

## Check Digit Verification

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

**Disable:** The scanner transmits Plessey barcodes as is.

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

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



W0C7800

Disable



W0C7804

\*\* Do Not Transmit Check Digit After Verification



W0C780C

Transmit Check Digit After Verification



W010F00

Exit Setup



W010F01

\*\* Enter 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.

The supported maximum length is 255 characters. If minimum length is set to be greater than maximum length, the scanner only decodes Plessey barcodes with either the minimum or maximum length. If minimum length is same as maximum length, only Plessey barcodes with that length are to be decoded.



M000317

Set the Minimum Length



M000316

Set the Maximum Length

**Example: 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”. (See the **Digit Barcodes** section in Appendix)
4. Scan the **Save** barcode. (See the **Save/Cancel Barcodes** section in Appendix)
5. Scan the **Set the Maximum Length** barcode.
6. Scan the numeric barcode “1”.
7. Scan the numeric barcode “2”.
8. Scan the **Save** barcode.
9. Scan the **Exit Setup** barcode.



W010F00

Exit Setup



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W010F01

\*\* Enter Setup

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## MSI-Plessey

### Restore Factory Defaults



WFFD9A7

Restore the Factory Defaults of MSI-Plessey

### Enable/Disable MSI-Plessey



W017901

Enable MSI-Plessey



W017900

\*\* Disable MSI-Plessey



W010F00

Exit Setup



W010F01

\*\* Enter Setup

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## Check Digit Verification

Check digits are optional for MSI-Plessey and can be added as the last one or two digits, 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.



W0C7900

Disable



W0C7904

\*\* One Check Digit, MOD10



W0C7908

Two Check Digits, MOD10/MOD10



W0C790C

Two Check Digits, MOD10/MOD11



W107910

Transmit Check Digit



W107900

\*\* Do Not Transmit Check Digit



W010F00

Exit Setup



W010F01

\*\* Enter Setup

## 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.

The supported maximum length is 255 characters. If minimum length is set to be greater than maximum length, the scanner only decodes MSI-Plessey barcodes with either the minimum or maximum length. If minimum length is same as maximum length, only MSI-Plessey barcodes with that length are to be decoded.



M000319

Set the Minimum Length



M000318

Set the Maximum Length

**Example: 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”. (See the **Digit Barcodes** section in Appendix)
4. Scan the **Save** barcode. (See the **Save/Cancel Barcodes** section in Appendix)
5. Scan the **Set the Maximum Length** barcode.
6. Scan the numeric barcode “1”.
7. Scan the numeric barcode “2”.
8. Scan the **Save** barcode.
9. Scan the **Exit Setup** barcode.



W010F00

Exit Setup



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W010F01

\*\* Enter Setup

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## RSS-14

### Restore Factory Defaults



WFFD9A8

Restore the Factory Defaults of RSS-14

### Enable/Disable RSS-14



W017A01

\*\* Enable RSS-14



W017A00

Disable RSS-14

### Transmit Application Identifier “01”



W047A04

\*\* Transmit Application Identifier “01”



W047A00

Do Not Transmit Application Identifier “01”

---



W010F00

Exit Setup



**W010F01**

\*\* Enter Setup

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## RSS-Limited

### Restore Factory Defaults



**WFFD9A9**

Restore the Factory Defaults of RSS-Limited

### Enable/Disable RSS-Limited



**W017B01**

\*\* Enable RSS-Limited



**W017B00**

Disable RSS-Limited

### Transmit Application Identifier “01”



**W047B04**

\*\* Transmit Application Identifier “01”



**W047B00**

Do Not Transmit Application Identifier “01”



**W010F00**

Exit Setup



**W010F01**

\*\* Enter Setup

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## RSS-Expand

### Restore Factory Defaults



**WFFD9AA**

Restore the Factory Defaults of RSS-Expand

### Enable/Disable RSS-Expand



**W017C01**

\*\* Enable RSS-Expand



**W017C00**

Disable RSS-Expand



**W010F00**

Exit Setup

## Appendix

### Factory Defaults Table

Parameter		Factory Default	Remark
<b>System Settings</b>			
Barcode Programming		Enabled	
Programming Barcode Data		Do not send	
Scan Mode		Manual Mode	
Manual Mode	Decode Session Timeout	15s	1-255s; 0: infinite.
Continuous Mode	Decode Session Timeout	15s	1-255s; 0: infinite.
	Timeout between Decodes	1.0s	0.0-25.5s
	Reread Same Barcode	Disallowed	
	Timeout between Decodes (Same Barcode)	3.0s	0.1-25.5s
Sense Mode	Decode Session Timeout	15s	1-255s; 0: infinite.
	Reread Same Barcode	Disallowed	
	Timeout between Decodes (Same Barcode)	3.0s	0.1-25.5s
	Sensitivity	Medium	
Command Trigger Mode	Decode Session Timeout	15s	1-255s; 0: infinite.
Security Level	0		
Good Read Beep	Enabled		
Good Read Beep Frequency	Medium		
Good Read Beep Duration	80ms		
Decode Result Notification	Disabled		
Silent Mode	Disabled	Temporary setting	
Illumination	On When Scanning	Temporary setting	

Parameter	Factory Default	Remark
<b>Communication Interfaces</b>		
RS-232 Interface	Baud Rate	9600
	Parity Check	None
	Number of Data Bits	8
	Number of Stop Bits	1
	Flow Control	None
USB Interface	USB HID-KBW	Other Options: DataPipe, USB COM Port Emulation, HID-POS
USB HID-KBW	Input Mode	Standard Keyboard
	USB Country Keyboard Type	U.S.
	Inter-Keystroke Delay	No delay
	Convert Case	No Conversion
	Emulate Numeric Keypad	Disabled
<b>Data Formatting</b>		
Prefix Sequence	Code ID+Custom+AIM ID	
Custom Prefix	Disabled	
AIM ID Prefix	Disabled	
Code ID Prefix	Disabled	
Custom Suffix	Disabled	
Terminating Character Suffix	Disabled	

Parameter	Factory Default	Remark
<b>Code 128</b>		
Code 128	Enabled	
Minimum Length	1	No less than 1 (including check digit)
Maximum Length	80	
<b>UCC/EAN-128 (GS1-128)</b>		
UCC/EAN-128	Enabled	
Minimum Length	1	No less than 1 (including check digit)
Maximum Length	80	
<b>AIM 128</b>		
AIM 128	Disabled	
Minimum Length	1	No less than 1 (including check digit)
Maximum Length	80	
<b>EAN-8</b>		
EAN-8	Enabled	
Check Digit	Transmit	
2-Digit Add-On Code	Disabled	
5-Digit Add-On Code	Disabled	
Add-On Code	Not required	
Extend to EAN-13	Disabled	
<b>EAN-13</b>		
EAN-13	Enabled	
Check Digit	Transmit	
2-Digit Add-On Code	Disabled	
5-Digit Add-On Code	Disabled	
Add-On Code	Not required	
<b>ISSN</b>		
ISSN	Disabled	
<b>ISBN</b>		
ISBN	Disabled	
ISBN Format	ISBN-13	

Parameter	Factory Default	Remark
<b>UPC-E</b>		
UPC-E	Enabled	
Check Digit	Transmit	
2-Digit Add-On Code	Disabled	
5-Digit Add-On Code	Disabled	
Add-On Code	Not required	
Extend to UPC-A	Disabled	
System Character	Do not transmit	
<b>UPC-A</b>		
UPC-A	Enabled	
Check Digit	Transmit	
2-Digit Add-On Code	Disabled	
5-Digit Add-On Code	Disabled	
Add-On Code	Not required	
Preamble Character	System Character	
<b>Interleaved 2 of 5</b>		
Interleaved 2 of 5	Enabled	
Check Digit Verification	Enabled	
Check Digit	Do not transmit	
Minimum Length	6	No less than 3 (including check digit)
Maximum Length	100	
<b>ITF-6</b>		
ITF-6	Decode as I25	
Check Digit	Transmit	
<b>ITF-14</b>		
ITF-14	Decode as I25	
Check Digit	Transmit	
<b>Deutsche 14</b>		
Deutsche 14	Decode as I25	
Check Digit	Transmit	
<b>Deutsche 12</b>		
Deutsche 12	Decode as I25	
Check Digit	Transmit	

Parameter	Factory Default	Remark
<b>Matrix 2 of 5</b>		
Matrix 2 of 5	Enabled	
Check Digit Verification	Disabled	
Check Digit	Do not transmit	
Minimum Length	6	No less than 2 (including check digit)
Maximum Length	80	
<b>Industrial 25</b>		
Industrial 25	Enabled	
Check Digit Verification	Disabled	
Check Digit	Do not transmit	
Minimum Length	6	No less than 2 (including check digit)
Maximum Length	80	
<b>Standard 25</b>		
Standard 25	Enabled	
Check Digit Verification	Disabled	
Check Digit	Do not transmit	
Minimum Length	6	No less than 2 (including check digit)
Maximum Length	80	
<b>Code 39</b>		
Code 39	Enabled	
Check Digit Verification	Disabled	
Check Digit	Do not transmit	
Start/Stop Character	Transmit	
Code 39 Full ASCII	Enabled	
Minimum Length	4	No less than 2 (including check digit)
Maximum Length	50	

Parameter	Factory Default	Remark
<b>Codabar</b>		
Codabar	Enabled	
Check Digit Verification	Disabled	
Check Digit	Do not transmit	
Start/Stop Character	Transmit	
Start/Stop Character Format	ABCD/ABCD	
Minimum Length	4	No less than 1 (including check digit)
Maximum Length	60	
<b>Code 93</b>		
Code 93	Enabled	
Check Digit Verification	Enabled	
Check Digit	Do not transmit	
Minimum Length	2	No less than 1 (including check digit)
Maximum Length	80	
<b>Code 11</b>		
Code 11	Disabled	
Check Digit Verification	One check digit, MOD11	
Check Digit	Do not transmit	
Minimum Length	4	No less than 2 (including check digit)
Maximum Length	80	
<b>Plessey</b>		
Plessey	Disabled	
Check Digit Verification	Enabled	
Check Digit	Do not transmit	
Minimum Length	4	No less than 3 (including check digit)
Maximum Length	60	

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Parameter	Factory Default	Remark
<b>MSI-Plessey</b>		
MSI-Plessey	Disabled	
Check Digit Verification	One check digit, MOD10	
Check Digit	Do not transmit	
Minimum Length	4	No less than 2 (including check digit)
Maximum Length	60	
<b>RSS-14</b>		
RSS-14	Enabled	
AI (Application Identifier)	Transmit	
<b>RSS-Limited</b>		
RSS-Limited	Enabled	
AI (Application Identifier)	Transmit	
<b>RSS-Expand</b>		
RSS-Expand	Enabled	

## AIM ID Table

Symbology	AIM ID	Remark
Code 128	]C0	Standard Code 128
UCC/EAN 128 (GS1-128)	]C1	FNC1 is the character right after the start character
AIM 128	]C2	FNC1 is the 2nd character after the start character
EAN-8	]E4	Standard EAN-8
	]E4....]E1...	EAN-8 + 2-Digit Add-On Code
	]E4....]E2...	EAN-8 + 5-Digit Add-On Code
EAN-13	]E0	Standard EAN-13
	]E3	EAN-13 + 2/5-Digit Add-On Code
ISSN	]X5	
ISBN	]X4	
UPC-E	]E0	Standard UPC-E
	]E3	UPC-E + 2/5-Digit Add-On Code
UPC-A	]E0	Standard UPC-A
	]E3	UPC-A + 2/5-Digit Add-On Code
Interleaved 2 of 5	]I0	No check digit verification
	]I1	Transmit check digit after verification
	]I3	Do not transmit check digit after verification
ITF-6	]I1	Transmit check digit
	]I3	Do not transmit check digit
ITF-14	]I1	Transmit check digit
	]I3	Do not transmit check digit
Deutsche 14 Deutsche 12	]X0	
Matrix 2 of 5	]X1	No check digit verification
	]X2	Transmit check digit after verification
	]X3	Do not transmit check digit after verification
Industrial 25	]S0	Not specified
Standard 25	]R0	No check digit verification
	]R8	One check digit, MOD 7; do not transmit check digit

Symbology	AIM ID	Remark
	]R9	One check digit, MOD 7; transmit check digit
Code 39	]A0	Transmit barcodes as is; Full ASCII disabled; no check digit verification
	]A1	One check digit, MOD 43; transmit check digit
	]A3	One check digit, MOD 43; do not transmit check digit
	]A4	Full ASCII enabled; no check digit verification
	]A5	Full ASCII enabled; MOD43; transmit check digit
	]A7	Full ASCII enabled; MOD43; do not transmit check digit
Codabar	]F0	Standard Codabar
	]F1	ABC Codabar
	]F2	Transmit check digit after verification
	]F4	Do not transmit check digit after verification
Code 93	]G0	Not specified
Code 11	]H0	One check digit, MOD11; transmit check digit
	]H1	Two check digits, MOD11/MOD11; transmit check digit
	]H3	Do not transmit check digit after verification
	]H8	Two check digits, MOD11/MOD9; transmit check digit
	]H9	No check digit verification
Plessey	]P0	Not specified
MSI Plessey	]M0	One check digit, MOD10; transmit check digit
	]M1	One check digit, MOD10; do not transmit check digit
	]M7	Two check digits, MOD10 /MOD11; do not transmit check digit
	]M8	Two check digits, MOD10 /MOD11; transmit check digit
	]M9	No check digit verification
RSS-14/RSS-Limited RSS-Expand	]e0	Standard
	]e1	User-defined
	]e2	User-defined
	]e3	User-defined

Reference: ISO/IEC 15424:2008 Information technology – Automatic identification and data capture techniques – Data Carrier Identifiers (including Symbology Identifiers)

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## Code ID Table

Symbology	Code ID
Code 128	j
UCC/EAN-128	u
AIM 128	f
SETTING 128	t
EAN-8	g
EAN-13	d
ISSN	n
ISBN	B
UPC-E	h
UPC-A	c
Interleaved 2 of 5	e
ITF-6	r
ITF-14	q
Deutsche 14	w
Deutsche 12	l
Matrix 2 of 5(European Matrix 2 of 5)	v
Industrial 25	i
Standard 25	s
Code 39	b
Codabar	a
Code 93	y
Code 11	z
Plessey	p
MSI-Plessey	m
RSS-14	D
RSS-Limited	C
RSS-Expand	R

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## 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)

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Hex	Dec	Char
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	*
2b	43	+
2c	44	,
2d	45	- (Minus / Dash)
2e	46	.
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	:
3b	59	;
3c	60	< (Less Than)
3d	61	= (Equal Sign)

Hex	Dec	Char
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)

Hex	Dec	Char
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)

---

## Digit Barcodes

0 ~ 5



D000000

0



D000001

1



D000002

2



D000003

3



D000004

4



D000005

5

---

6~9



6



7



8



9

---

---

A ~ F



D00000A

A



D00000B

B



D00000C

C



D00000D

D



D00000E

E



D00000F

F

---

## Save/Cancel Barcodes

After reading numeric barcode(s), you need to scan the **Save** barcode to save the data. If you scan the wrong digit(s), you can either scan the **Cancel the Last Digit** barcode and then the correct digit, or scan the **Cancel All Digits** barcode and then the digits you want.

For instance, after reading the **Decode Session Timeout** barcode and numeric barcodes “1”, “2” and “3”, you scan:

**Cancel the Last Digit:** The last digit “3” will be removed.

**Cancel All Digits:** All digits “123” will be removed.



Save



Cancel the Last Digit



Cancel All Digits

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## F1~F12

When the USB HID-KBW feature is enabled, scanning one of the following barcodes will send the corresponding function key.

### F1~F6



F000000

F1



F000001

F2



F000002

F3



F000003

F4



F000004

F5



F000005

F6

---

F7~F12



F000006

F7



F000007

F8



F000008

F9



F000009

F10



F00000A

F11



F00000B

F12

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