

# 1 Scanner Basic Characteristics

## 1.1 Output Setting Content

Setting code content (such as "WFFD980") can be allowed to output. After scanning "Code Programming output content" and setting up successfully, when reading setting code, the setting code content will be output to the host. When the "Code Programming output content" is enabled, setting code only as an ordinary bar code can not be used to set the Scanning Engine. When reading engine re-power ,it will be resumed default setting---Code programming not output content, at this time code can be used to set the scanner engine

Code Programming output content



Default setting



## 1.2 Default Setting

Note: Please use the "Factory Default" function cautiously.

After scanning "Factory Default" ,scanning engine will lose the current parameter settings, instead of it is factory default parameters .

The factory default parameters and functions can be found in Appendix A

Factory Default



## 1.3 Communication Interface

### 1.3.1 Serial communication interface

Engine provide TTL-232 serial communication interface and USB interface to communicate with the host connection. Through the communication interface, can receive reading data, can control the instruction from the recognition engine, and also can modify the recognition engine function parameters. The recognition engine parameters can be modified through the reading setting code, but others can not be modified.

Parameters	Default
Serial Communication Type	Standard TTL-232
Baud Rate	9600
Check	None
Data bits	8
Stop bit	1
Hardware Flow Control	None

Baud Rate:

Baud Rate's unit is bit/s, The optional configuration parameters are as below:

9600



1200



WFFD9D0

2400



WFFD9D1

4800



WFFD9D2

14400



WFFD9D4

19200



WFFD9D5

38400



WFFD9D6

57600



WFFD9D7

115200



WFFD9D8

## 1.3.2 USB Interface

When reading engine connects to the host by USB cable, the system will use USB DATAPIPE MODE automatically.

### 1.3.2.1 USB DATAPIPE

DATAPIPE USB is a custom USB transport protocol. This feature requires the installation of the corresponding driver on the host.

Switch to USB DATAPIPE Mode



W030D00

### 1.3.2.2 USB HID-KBW

When using the USB interface, you can simulate the engine to read HID-KBW equipment. In this mode, reading engine will become a virtual keyboard output data to the host.

Switch to USB HID-KBW Mode



W030D01

### 1.3.2.3 Standard Keyboard Input Mode

Standard keyboard input mode is the factory default setting. EM2000 reading engine provides another two input modes: Keyboard simulation input character mode and emulation input control character mode. It can be set according to the users' needs.

Switch to Standard keyboard input mode



W066000

### 1.3.2.4 Keyboard simulation input character mode

In order to input any ASCII character (16 hexadecimal value from 0x00~0xFF) in any kind of language, the virtual Keyboard can be set as Keyboard simulation input character mode. When using this combination of characters output, because of the large output data, the speed will slow down.

After switching to “Keyboard simulation input character mode”, input the data corresponding ASCII character, the scanner will read the code with virtual keyboard as below:

(1) Keeping pressing the “ALT”

(2) According to the character code, input the number keys in the digital keyboard in turns.

(3) Release “ALT”

Switch to Keyboard Simulation Input Character Mode



Note: It is recommended that you turn Num Lock on the main numeric keypad when Enabling this mode.

### 1.3.2.5 Emulation Input Control Character Mode

The HEX from 0x00~0x1F of ASCII values could be matched to some control function keys, In emulation keyboard, the control function keys input as bellows:

(1) Keep pressing “Ctrl”

(2) Press the pointed control keys (the specific ASCII values match the keys details see below table <Emulation keyboard Input Control Characters Pairing Table>)

(3) Release the “Ctrl” and control keys

Switch to Emulation Input Control Character Mode



Emulation keyboard Input Control Characters Pairing 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	.

### 1.3.2.6 Countries/Languages Keyboard Options

The language of different countries corresponding to the keyboard layout, symbols are not the same. According to the actual needs, Recognition engine can switch to different countries' keyboard system. The default is set to the first system---US English.

1.US English



WFF6B00

3.Brasil



WFF6B02

5.Czechoslovakia



WFF6B04

7.Finland



WFF6B06

9.Austria



WFF6B08

11.Hungary



WFF6B0A

13.Italy



WFF6B0C

15.Netherlands



WFF6B0E

17.Poland



WFF6B10

2.Belgium



WFF6B01

4.Canada



WFF6B03

6.Denmark



WFF6B05

8.France



WFF6B07

10.Greece



WFF6B09

12.Israel



WFF6B0B

14.Latin America



WFF6B0D

16.Norway



WFF6B0F

18.Portugal



WFF6B11

19.Romania



WFF6B12

21.Slovakia



WFF6B15

23.Sweden



WFF6B12

25.Turkey1



WFF6B19

27.Britain



WFF6B1B

20.Russia



WFF6B13

22.Spain



WFF6B16

24.Switzerland



WFF6B18

26.Turkey2



WFF6B1A

28.Japan



WFF6B1C

### 1.3.2.7 Unknown Characters Beep

Due to the existence of language differences in the keyboard, some characters which appears in the bar code but not shown in the current emulation keyboard system can not be sent. Through the following setting to decide whether the reading engine send a error tone or not.

If you scan “no-warning”, there is no warning tone when the error happens. If you scan “warning”, there will be a warning tone when the barcode includes unknown characters.



Warning



no-warning



### 1.3.2.8 Press Key Interval Delay Setting

Press key interval is the time between release the key and press the key.

0ms



5ms



10ms



15ms



### 1.3.2.9 Caps Lock

When Scanning “Turn on Caps Lock”, reading engine will convert the lower-case and capitals in the barcode information same as the open state of Caps Lock on the host keyboard.

Turn off Caps Lock



Turn On Caps Lock



Note: When use the “Keyboard simulation input character mode” or “Uppercase and Lowercase Enforce Transformation”, this function is not valid.

For example: Turn on this function, reading engine reads the data for the "AbC" code, but host will receive "aBc".

### 1.3.2.10 Uppercase and Lowercase Enforce Transformation

If scan “All Turn to Uppercase”, no matter the letters in the barcode is capitals or lowercase, all the letters change to capitals.

If scan “All Turn to Lowercase”, no matter the letters in the barcode is capitals or lowercase, all the letters change to lowercase.

No Conversion



All Turn to Lowercase



All Turn to Uppercase



For example: After scanning “All Turn to Lowercase”, the reading information is “AbC”, the host will receive “abc”.

### 1.3.2.11 Emulation Number Mini Keyboard

Turn off this function, all output data is as big keyboard corresponding keys.

Turn on this function, when Num Lock is turned on, is the scanner decoded number is from “0-9”, the output data is as emulation number mini keyboard corresponding keys. If the scanner decoded number is excluded from “0-9”, and including the characters of “+” “\_” “\*” “/” “.”, the output data is as big keyboard corresponding keys. When Num Lock is turned off, all output data is as big keyboard corresponding keys. When Num

Lock is turned on, all output data is as emulation number mini keyboard corresponding keys.

Turn On



Turn Off



### **1.3.2.12 USB COM Port Emulation**

If you connect the engine to the Host via a USB connection, the USB COM Port Emulation feature allows the Host to receive data in the way as a serial port does. However, you need to set communication parameters on the engine to match the Host requirements. A driver is required for this feature.

USB COM Port Emulation



### **1.3.2.14 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:

- 1) HID based, no custom driver required.
- 2) 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.

HID-POS



## 2. Scan Mode

### 2.1 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.

Manual Mode



### 2.2 Continuous Mode

Continuous Mode: The engine automatically activates a decode session. The decode session continues until the barcode is decoded or the decode session timeout expires. When a decode session is completed, the engine waits until the timeout between decodes expires and then starts next session. The engine continues to work in this pattern if the following situation does not happen: no barcode is presented to the engine or passed in front of it in a decode session, the engine will automatically suspend barcode reading. Pressing the trigger can suspend/resume barcode reading.

Continuous Mode



### 2.2.1 Decode Session Timeout

This parameter sets the maximum time decode session continues during a scan attempt. It is programmable in 0.1s increments from 0.1s to 25.5s. The default timeout is 5.0s. If the parameter is set to 0, the engine scans and decodes barcode continuously. To learn how to program this parameter, see Appendix D: Parameter Programming Examples.

Decode Session Timeout



### 2.2.2 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 0.1s to 25.5s. The default timeout is 1.0s. To learn how to program this parameter, see Appendix D: Parameter Programming Examples

Timeout between Decodes



## 2.3 Sense Mode

Sense Mode: The engine waits for the image stabilization timeout to expire before activating a decode session every time it detects a change in ambient illumination. Decode session continues until the barcode is decoded or the decode session timeout expires. After a decode session ends, the engine waits for

the timeout between decodes to expire before beginning to monitor ambient illumination. If no barcode is presented to the engine or passed in front of it in a decode session, the engine will automatically suspend barcode reading and start to monitor ambient illumination.

In the Sense mode, a trigger pull can also activate a decode session. The decode session continues until the barcode is decoded or the trigger is released. When the session ends, the engine will continue to monitor ambient illumination.

Sense Mode



### 2.3.1 Decode Session Timeout

This parameter sets the maximum time decode session continues during a scan attempt. It is programmable in 0.1s increments from 0.1s to 25.5s. The default timeout is 5.0s. If the parameter is set to 0, the engine scans and decodes barcode continuously. To learn how to program this parameter, see Appendix D: Parameter Programming Examples.

Decode Session Timeout



### 2.3.2 Timeout between Decodes

After a decode session ends, the engine waits for the timeout between decodes to expire before beginning to monitor ambient illumination. This parameter is programmable in 0.1s increments

from 0.1s to 25.5s. The default timeout is 1.0s. To learn how to program this parameter, see AppendixD Parameter Programming Examples



### 2.3.3 Image Stabilization Timeout

The engine 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 0.1s to 25.5s. The default timeout is 0.4s. To learn how to program this parameter, see Appendix D: Parameter Programming Examples



### 2.3.4 Sensitivity

Sensitivity specifies the degree of acuteness of the engine’s response to changes in ambient illumination. The higher the sensitivity, the lower requirement in illumination change to trigger the engine. You can select an appropriate degree of sensitivity that fits the ambient environment. The default setting is Medium Sensitivity.

High Sensitivity



WFF0308

Medium Sensitivity



WFF0320

Low Sensitivity



WFF0340

Custom Sensitivity



M00031A

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

Users can select a desired sensitivity level that helps achieve greater efficiency. To learn how to program this parameter, see AppendixD: Parameter Programming Examples

## 2.4 Command Trigger Mode

Command Trigger Mode: Decode session is activated by a host command (i.e. set the bit0 of register 0x0002 to “1”). The decode session continues until the barcode is decoded or the decode session timeout expires.

Command Trigger Mode



W030001

### 2.4.1 Decode Session Timeout

This parameter sets the maximum time decode session continues during a scan attempt. It is programmable in 0.1s increments from 0.1s to 25.5s. The default timeout is 5.0s. If the parameter is set to 0, the engine scans and decodes barcode continuously. To learn how to program this parameter, see Appendix D: Parameter Programming Examples.





## 3. Illumination & Aiming

### 3.1 Illumination

A couple of illumination options are provided to improve the lighting conditions during every image capture:

Normal (default): Illumination LED is turned on during image capture.

Always ON: Illumination LED keeps ON after the engine is powered on.

OFF: Illumination LED is OFF all the time.

Normal



OFF



Always ON



### 3.2 Aiming

When scanning/capturing image, the engine projects an aiming beam which allows positioning the target barcode within its field of view and thus makes decoding easier.

Normal (default): The engine projects an aiming beam only during barcode scanning/capture.

Always ON: Aiming beam is constantly ON after the engine is powered on.

OFF: Aiming beam is OFF all the time.

Normal



OFF



Always ON



## 4. Notification Beeps

### 4.1 Mute Mode

Scanning the Enable Mute Mode can turn off all notification beeps. By default, mute mode is disabled.

Enable Mute Mode



Disable Mute Mode



### 4.2 Good Read Beep

Scanning the Good Read Beep Off can turn off good read beeps. Scanning the Good Read Beep On, the good read beeps will be restored.

Good Read Beep On



Good Read Beep Off



## 4.2.1 Good Read Beep Frequency

Low



WFF09DA

Medium



WFF094B

High



WFF0925

## 4.2.2 Good Read Beep Duration

40ms



WFF0A1F

80ms



WFF0A3E

120ms



WFF0A5D

## 4.3 Good Read LED

Good Read LED On



W800080

Good Read LED Off



W800000

## 4.4 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.

Note: This function is invalid under the USB DATAPIPE MODE.

Enable Decode Result Notification



Disable Decode Result Notification



## 5. Data Formatting

In many applications, barcode data needs to be edited and distinguished from one another.

Usually AIM ID and Code ID can be used as identifiers, but in some special cases terminating character suffix like Carriage Return or Line Feed can also be the alternative.

The engine can be configured to transmit barcode data in the following format:

[“F”/ “S”) + [Code ID] + [AIM ID] + [DATA] + [terminating character]

Barcode’s data must be transmitted while others are optional parts.

### 5.1 AIM ID Prefix

AIM (Automatic Identification Manufacturers) IDs define symbology identifiers and data carrier identifiers. For the details, see Appendix B: AIM ID Table. If AIM ID prefix is enabled, the engine will add the symbology identifier before the scanned data after decoding.

Enable AIM ID Prefix



Disable AIM ID Prefix



## 5.2 CODE ID Prefix

Code ID can also be used to identify barcode type. For more information, refer to Appendix C: Code ID Table

Enable CODE ID Prefix



W800280

Disable CODE ID Prefix



W800200

User can choose to transmit original CODE ID or visible CODE ID by scanning the appropriate barcode below. Refer to Appendix C: Code ID Table.

Original CODE ID



W018A00

Visible CODE ID



W018A01

## 5.3 Terminating Character Suffix

A terminating character such as carriage return (CR) or carriage return/line feed pair (CRLF) or horizontal tab (TAB) can be used to mark the end of data.

Disable Terminating Character Suffix



W616000

Append CR



W616001

Append CRLF



W616021

Append TAB



W616041

## 6. Symbolologies

### 6.1 Global Settings

### 6.1.1 Enable/Disable All Symbolologies

If all symbolologies are disabled, the engine can only identify programming barcodes.

Enable All Symbolologies



Disable All Symbolologies



### 6.1.2 Enable/Disable 1D Symbolologies

Scanning the following code set, only for all one-dimensional bar code type unified operation, or allow all reading, or total ban on reading.

Enable 1D Symbolologies



Disable 1D Symbolologies



### 6.1.3 Enable/Disable 2D Symbolologies

Scanning the following code set, only for all two-dimensional bar code type unified operation, or allow all reading, or total ban on reading.

Enable 2D Symbolologies



Disable 2D Symbolologies



### 6.1.4 Video Reverse

Regular barcode: Dark image on a bright background.

Inverse barcode: Bright image on a dark background.

The examples of regular barcode and inverse barcode are shown below.

Regular barcode



Inverse barcode



Video Reverse ON: Read both regular barcodes and inverse barcodes.

Video Reverse OFF (default): Read regular barcodes only.

The engine shows a slight decrease in scanning speed when Video Reverse is ON.

Video Reverse ON



Video Reverse OFF



## 6.2 1D Symbolologies

### 6.2.1 Code 128

#### 6.2.1.1 Restore Factory Defaults

Restore the Factory Defaults of Code 128



#### 6.2.1.2 Enable/Disable Code 128

Enable Code 128



Disable Code 128



### 6.2.1.3 UCC/EAN-128 (GS1-128)

Restore the Factory Defaults of UCC/EAN-128



Enable UCC/EAN-128



Disable UCC/EAN-128



### 6.2.1.4 AIM 128

Restore the Factory Defaults of AIM 128



Enable AIM 128



Disable AIM 128



### 6.2.2 EAN-8

#### 6.2.2.1 Restore Factory Defaults

Restore the Factory Defaults of EAN-8



#### 6.2.2.2 Enable/Disable EAN-8

Enable EAN-8



Disable EAN-8





### 6.2.2.3 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.

Transmit EAN-8 Check Digit



Do Not Transmit EAN-8 Check Digit



### 6.2.2.4 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.



Enable 2-Digit Add-On Code



Disable 2-Digit Add-On Code



Enable 5-Digit Add-On Code



Disable 5-Digit Add-On Code



Enable 2-Digit Add-On Code/ Enable 5-Digit Add-On Code:  
The engine 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 engine 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.

### 6.2.2.5 Add-On Code Required

EAN-8 Add-On Code Required



EAN-8 Add-On Code Not Required



### 6.2.2.6 EAN-8 EXTEND TO EAN-13

EAN-8 extend to EAN 13 means add five leading zeros to decoded EAN-8 barcodes to extend to 13 digits.

Enable EAN-8 Zero Extend



Disable EAN-8 Zero Extend



## 6.2.3 EAN-13

### 6.2.3.1 Restore Factory Defaults

Restore the Factory Defaults of EAN-13



### 6.2.3.2 Enable/Disable EAN-13

Enable EAN-13



Disable EAN-13



### 6.2.3.3 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.

Transmit EAN-13 Check Digit



Do Not Transmit EAN-13 Check Digit



### 6.2.3.4 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.



Enable 2-Digit Add-On Code



Disable 2-Digit Add-On Code



Enable 5-Digit Add-On Code



Disable 5-Digit Add-On Code



Enable 2-Digit Add-On Code/ Enable 5-Digit Add-On Code:  
The engine 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 engine 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.

### 6.2.3.5 Add-On Code Required

EAN-13 Add-On Code Required



W081108

EAN-13 Add-On Code Not Required



W081100

### 6.2.3.6 ISSN

Restore the Factory Defaults of ISSN



WFFD996

Enable ISSN



W401140

Disable ISSN



W401100

### 6.2.3.7 ISBN

Restore the Factory Defaults of ISBN



WFFD997

Enable ISBN



W011201

ISBN-13



W041200

Disable ISBN



W011200

ISBN-10



W041204

# 6.2.4 UPC-E

## 6.2.4.1 Restore Factory Defaults

Restore the Factory Defaults of UPC-E



## 6.2.4.2 Enable/Disable UPC-E

Enable UPC-E



Disable UPC-E



## 6.2.4.3 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.

Transmit UPC-E Check Digit



Do Not Transmit UPC-E Check Digit



## 6.2.4.4 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.



Enable 2-Digit Add-On Code



W201520

Disable 2-Digit Add-On Code



W201500

Enable 5-Digit Add-On Code



W401540

Disable 5-Digit Add-On Code



W401500

**Enable 2-Digit Add-On Code/ Enable 5-Digit Add-On Code:**

The engine 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 engine 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 barcodes without add-on codes.

### **6.2.4.5 Add-On Code Required**

UPC-E Add-On Code Required



W101510

UPC-E Add-On Code Not Required



W101500

### **6.2.4.6 Transmit System Character**

The first character of UPC-E barcode is the system character “0”.

Transmit System Character “0”



W081508

Do Not Transmit System Character “0”



W081500

## 6.2.4.7 UPC-E Extension

Enable UPC-E Extend



Disable UPC-E Extend



## 6.2.5 UPC-A

### 6.2.5.1 Restore Factory Defaults

Restore the Factory Defaults of UPC-A



### 6.2.5.2 Enable/Disable UPC-A

Enable UPC-A



Disable UPC-A



### 6.2.5.3 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.

Transmit UPC-A Check Digit



Do Not Transmit UPC-A Check Digit



### 6.2.5.4 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.



Enable 2-Digit Add-On Code



Disable 2-Digit Add-On Code



Enable 5-Digit Add-On Code



Disable 5-Digit Add-On Code



Enable 2-Digit Add-On Code/ Enable 5-Digit Add-On Code:  
The engine 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 engine 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 barcodes without add-on codes.

### 6.2.5.5 Add-On Code Required

UPC-A Add-On Code Required



UPC-A Add-On Code Not Required





## 6.2.5.6 Transmit Preamble Character

Transmit Preamble Character "0"



Do Not Transmit Preamble Character "0"



Note: The preamble character "0" usually does not appear in printed UPC-A barcodes, so the first byte of the printed barcode may be not "0".

## 6.2.6 Interleaved 2 of 5

### 6.2.6.1 Restore Factory Defaults

Restore the Factory Defaults of Interleaved 2 of 5



### 6.2.6.2 Enable/Disable Interleaved 2 of 5

Enable Interleaved 2 of 5



Disable Interleaved 2 of 5



### 6.2.6.3 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 engine will not read barcode data for verification.

**Do Not Transmit Check Digit After Verification:** The engine 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 engine 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.

Disable



Do Not Transmit Check Digit After Verification



Transmit Check Digit After Verification



### 6.2.6.4 Transmit Appended “0”

If an Interleaved 2 of 5 barcode contains an odd number of characters, a leading zero must be appended. Scan the appropriate barcode to choose whether to transmit the appended “0”.

Transmit Appended “0”



Do Not Transmit Appended “0”



### 6.2.6.5 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 the Factory Defaults of ITF-6



WFFD99B

Disable ITF-6



W011900

Enable ITF-6 But Do Not Transmit Check Digit



W051901

Enable ITF-6 and Transmit Check Digit



W051905

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

### 6.2.6.6 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 the Factory Defaults of ITF-14



WFFD99C

Disable ITF-14



W201800

Enable ITF-14 But Do Not Transmit Check Digit



WA01820

\*\* Enable ITF-14 and Transmit Check Digit



WA018A0

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

## 6.2.6.7 Matrix 2 of 5

Restore the Factory Defaults of Matrix 2 of 5



Enable Matrix 2 of 5



Disable Matrix 2 of 5



## 6.2.6.8 Check Digit Verification

Disable



Do Not Transmit Check Digit After Verification



Transmit Check Digit After Verification



## 6.2.7 Industrial 25

### 6.2.7.1 Restore Factory Defaults

Restore the Factory Defaults of Industrial 25



### 6.2.7.2 Enable/Disable Industrial 25

Enable Industrial 25



Disable Industrial 25



### 6.2.7.3 Check Digit Verification

Disable



Do Not Transmit Check Digit After Verification Transmit Check



Digit After Verification



### 6.2.8 Standard 25

#### 6.2.8.1 Restore Factory Defaults

Restore the Factory Defaults of Standard 25



#### 6.2.8.2 Enable/Disable Standard 25

Enable Standard 25



Disable Standard 25



#### 6.2.8.3 Check Digit Verification

Disable



Do Not Transmit Check Digit After Verification



Transmit Check Digit After Verification



# 6.2.9 Code 39

## 6.2.9.1 Restore Factory Defaults

Restore the Factory Defaults of Code 39



## 6.2.9.2 Enable/Disable Code 39

Enable Code 39



Disable Code 39



## 6.2.9.3 Transmit Start/Stop Character

Code 39 bar code data before and after each have a character as the start and terminator, it can be set or not be set output.

Transmit Start/Stop Character



Do Not Transmit Start/Stop Character



## 6.2.9.4 Check Digit Verification

Disable



Do Not Transmit Check Digit After Verification



Transmit Check Digit After Verification



## 6.2.9.5 Enable/Disable Code 39 Full ASCII

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

Enable Code 39 Full ASCII



Disable Code 39 Full ASCII



## 6.2.10 CODABAR

### 6.2.10.1 Restore Factory Defaults

Restore the Factory Defaults of Codabar



### 6.2.10.2 Enable/Disable Codabar

Enable Codabar



Disable Codabar



### 6.2.10.3 Check Digit Verification

Disable



Do Not Transmit Check Digit After Verification



Transmit Check Digit After Verification



### 6.2.10.4 Transmit Start/Stop Character

Codebar bar code data before and after each have a character as the start and terminator, it can be set or not be set output.

Transmit Start/Stop Character



Do Not Transmit Start/Stop Character



### 6.2.10.5 Start/Stop Character Format

The starting and ending symbols of the codabar can be set to any of the following formats.

ABCD/ABCD as the Start/Stop Character



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



abcd/abcd as the Start/Stop Character



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



## 6.2.11 Code 93

### 6.2.11.1 Restore Factory Defaults

Restore the Factory Defaults of Code 93



### 6.2.11.2 Enable/Disable Code 93

Enable Code 93



Disable Code 93





### 6.2.11.3 Check Digit Verification

Disable



\*\* Do Not Transmit Check Digit After Verification



Transmit Check Digit After Verification



### 6.2.12 Code 11

#### 6.2.12.1 Restore Factory Defaults

Restore the Factory Defaults of Code 11



#### 6.2.12.2 Enable/Disable Code 11

Enable Code 11



Disable Code 11



#### 6.2.12.3 Check Digit Verification

Disable



One Check Digit, MOD11



Two Check Digits, MOD11/MOD11



Two Check Digits, MOD11/MOD9



One Check Digit, MOD11 (Len <= 11)

One Check Digit, MOD11 (Len <= 11)

Two Check Digits, MOD11/MOD11 (Len > 11)

Two Check Digits, MOD11/MOD9 (Len > 11)



W1C1D10

Transmit Check Digit



W201D20



W1C1D14

Do Not Transmit Check Digit



W201D00

## 6.2.13 Plessey

### 6.2.13.1 Restore Factory Defaults

Restore the Factory Defaults of Plessey



WFFD9A6

### 6.2.13.2 Enable/Disable Plessey

Enable Plessey



W011F01

Disable Plessey



W011F00

### 6.2.13.3 Check Digit Verification

Disable



W021F00

\*\* Do Not Transmit Check Digit After Verification

Transmit Check Digit After Verification



W061F02



W061F06

# 6.2.14 MSI-Plessey

## 6.2.14.1 Restore Factory Defaults

Restore the Factory Defaults of MSI-Plessey



## 6.2.14.2 Enable/Disable MSI-Plessey

Enable MSI-Plessey



Disable MSI-Plessey



## 6.2.14.3 Check Digit Verification

Disable



One Check Digit, MOD10



Two Check Digits, MOD10/MOD11



Two Check Digits, MOD10/MOD11



Transmit Check Digit



Do Not Transmit Check Digit



# 6.2.15 RSS-14

## 6.2.15.1 Restore Factory Defaults

Restore the Factory Defaults of RSS-14



WFFD9A8

## 6.2.15.2 Enable/Disable RSS-14

Enable RSS-14



W011B01

Disable RSS-14



W011B00

## 6.2.15.3 Transmit Application Identifier “01”

Transmit Application Identifier “01”



W041B04

Do Not Transmit Application Identifier “01”



W041B00

## 6.2.16 RSS-Limited

### 6.2.16.1 Restore Factory Defaults

Restore the Factory Defaults of RSS-Limited



WFFD9A9

### 6.2.16.2 Enable/Disable RSS-Limited

Enable RSS-Limited



W081B08

Disable RSS-Limited



W081B00

### 6.2.16.3 Transmit Application Identifier “01”

Transmit Application Identifier “01”



W201B20

Do Not Transmit Application Identifier “01”



W201B00

### 6.2.17 RSS-Expand

#### 6.2.17.1 Restore Factory Defaults

Restore the Factory Defaults of RSS-Expand



WFFD9AA

#### 6.2.17.2 Enable/Disable RSS-Expand

Enable RSS-Expand



W401B40

Disable RSS-Expand



W401B00

### 6.3 2D Symbologies

#### 6.3.1 PDF417

##### 6.3.1.1 Restore Factory Defaults

Restore the Factory Defaults of PDF417



WFFD9B0

## 6.3.1.2 Enable/Disable PDF417

Enable PDF417



W010C01

Disable PDF417



W010C00

## 6.3.2 Data Matrix

### 6.3.2.1 Restore Factory Defaults

Restore the Factory Defaults of Data Matrix



WFFD9B1

### 6.3.2.2 Enable/Disable Data Matrix

Enable Data Matrix



W080C08

Disable Data Matrix



W080C00

### 6.3.2.3 Rectangular Barcodes

Decode Rectangular Barcodes



W034B03

Do Not Decode Rectangular Barcodes



W034B00

### 6.3.2.4 Mirror Images

Decode Unmirrored DM Only



W0C4A00

Decode Mirrored DM Only



W0C4A04

Decode Both



## 6.3.3 QR Code

### 6.3.3.1 Restore Factory Defaults

Restore the Factory Defaults of QR Code



### 6.3.3.2 Enable/Disable QR Code

Enable QR Code



Disable QR Code



## 6.3.4 Micro QR

Enable Micro QR



Disable Micro QR



### 6.3.4.1 Mirrored Micro QR

Decode Mirrored Micro QR



Do Not Decode Mirrored Micro QR



# 7 Appendix

## 7.1 Appendix A: Factory Defaults Table

Parameter		Factory Default	Remark
Programming Barcode			
Barcode Programming		Barcode Programming	Barcode Programming
Programming Barcode Data		Programming Barcode Data	Programming Barcode Data
Communication Interfaces			
TTL-232	Baud Rate	9600	
	Parity Check	None	
	Number of Data Bits	8	
	Number of Stop Bits	1	
	Hardware Flow Control	None	
USB Interface		USB DATAPIPE	Other options: USB HID-KBW, USB COM Port Emulation, HID-POS.
USB HID-KBW	Input Mode	Standard Keyboard	
	USB Country	U.S.	
	Keyboard Type		
	Beep on Unknown	Enabled	



	Character		
	Inter-Keystroke Delay	No delay	
	Caps Lock	Disabled	
	Convert Case	No conversion	
	Emulate Numeric Keypad	Disabled	
<b>Scan Mode</b>			
Scan Mode		Manual mode	Other options: Continuous Mode, Sense Mode, Command Trigger Mode.
Continuous Mode	Decode Session Timeout	3.0s	0.1-25.5s; 0: infinite.
	Timeout between Decodes	1.0s	0-25.5s
Sense Mode	Decode Session Timeout	3.0s	0.1-25.5s; 0: infinite.
	Timeout between Decodes	1.0s	0-25.5s
	Image Stabilization Timeout	0.4s	0-25.5s
	Sensitivity	Medium	

Command Trigger Mode	Decode Session Timeout	3.0s	0.1-25.5s; 0: infinite.
<b>Illumination &amp; Aiming</b>			
Illumination		Normal	Turn on when scanning barcode
Aiming		Normal	Turn on when scanning barcode
<b>Notification</b>			
Mute Mode		Disabled	
Good Read Beep	Beep on Good Read	Enabled	
	Beep Frequency	Medium	
	Beep Duration	80ms	Other options: 40ms, 120ms.
Good Read LED		Enabled	
Decode Result Notification		Disabled	“S”: Good read; “F”: No read. NOT applicable to USB DATAPIPE.
<b>Data Formatting</b>			
AIM ID Prefix		Disabled	
Code ID Prefix		Disabled	

Code ID Type	Original Code ID	
Terminating Character Suffix	Disabled	Terminating character options:CR, CRLF,TAB.
<b>Symbologies</b>		
Video Reverse	Disabled	Applicable to all symbologies.
<b>Code 128</b>		
Code 128	Enabled	
<b>UCC/EAN-128 (GS1-128)</b>		
UCC/EAN-128	Enabled	
<b>AIM 128</b>		
AIM 128	Enabled	
<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	EAN-13	
Check Digit	Check Digit	
2-Digit Add-On Code	2-Digit Add-On Code	
5-Digit Add-On Code	5-Digit Add-On Code	
Add-On Code	Add-On Code	

<b>ISSN</b>		
ISSN	Disabled	
<b>ISBN</b>		
ISBN	Enabled	
ISBN Format	ISBN-13	
<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 “0”	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 “0”	Do not transmit	
<b>Interleaved 2 of 5</b>		
Interleaved 2 of 5	Enabled	
Check Digit Verification	Disabled	
Check Digit	Do not transmit	
Appended “0”	Transmit	For Interleaved 2 of 5 barcodes that contain an

		odd number of characters
<b>ITF-6</b>		
ITF-6	Disabled	
Check Digit	Do not transmit	
<b>ITF-14</b>		
ITF-14	Enabled	
Check Digit	Transmit	
<b>Matrix 2 of 5</b>		
Matrix 2 of 5	Enabled	
Check Digit Verification	Disabled	
Check Digit	Do not transmit	
<b>Industrial 25</b>		
Industrial 25	Enabled	
Check Digit Verification	Disabled	
Check Digit	Do not transmit	
<b>Code 39</b>		
Code 39	Enabled	
Check Digit Verification	Disabled	
Check Digit	Do not transmit	
Start/Stop Character	Do not transmit	
Code 39 Full ASCII	Disabled	
<b>Codabar</b>		
Codabar	Enabled	
Check Digit Verification	Disabled	
Check Digit	Do not transmit	

Start/Stop Character	Transmit	
Start/Stop Character Format	ABCD/ABCD	
<b>Code 93</b>		
Code 93	Enabled	
Check Digit Verification	Enabled	
Check Digit	Do not transmit	
<b>Code 11</b>		
Code 11	Enabled	
Check Digit Verification	One check digit, MOD11	
Check Digit	Transmit	
<b>Plessey</b>		
Plessey	Enabled	
Check Digit Verification	Enabled	
Check Digit	Do not transmit	
<b>MSI-Plessey</b>		
MSI-Plessey	Enabled	
Check Digit Verification	One check digit, MOD10	
Check Digit	Transmit	
<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	
<b>PDF417</b>		
PDF417	Enabled	
<b>Data Matrix</b>		
Data Matrix	Enabled	
Rectangular Barcodes	Decode	
Mirror Images	Decode unmirrored DM only	
<b>QR Code</b>		
QR Code	Enabled	
Micro QR	Enabled	
Mirrored Micro QR	Do not decode	

## 7.2 Appendix B: AIM ID Table

Symbology	AIM ID	Remark
Code 128	JC0	Standard Code 128
UCC/EAN 128 (GS1-128)	JC1	FNC1 is the character right after the start character
AIM 128	JC2	FNC1 is the 2nd character after the start character
EAN-8	JE4	Standard EAN-8
	JE4....JE1...	EAN-8 + 2-Digit Add-On Code
	JE4....JE2...	EAN-8 + 5-Digit Add-On Code
EAN-13	JE0	Standard EAN-13
	JE3	EAN-13 + 2/5-Digit Add-On Code

ISSN	JX5	Standard ISSN
ISBN	JX4	Standard ISBN
UPC-E	JE0	Standard UPC-E
	JE3	UPC-E + 2/5-Digit Add-On Code
UPC-A	JE0	Standard UPC-A
	JE3	UPC-A + 2/5-Digit Add-On Code
Interleaved 2 of 5	JI0	No check digit verification
	JI1	Transmit check digit after verification
	JI3	Do not transmit check digit after verification
ITF-6	JI1	Transmit check digit
	JI3	Do not transmit check digit
ITF-14	JI1	Transmit check digit
	JI3	Do not transmit check digit
Matrix 2 of 5	JX1	No check digit verification
	JX2	Transmit check digit after verification
	JX3	Do not transmit check digit after verification
Industrial 25	JS0	Not specified
Standard 25	JR0	No check digit verification
	JR8	One check digit, MOD 7; do not transmit check digit
	JR9	One check digit, MOD 7; transmit check digit
Code 39	JA0	Transmit barcodes as is; Full ASCII disabled; no check digit verification
	JA1	One check digit, MOD 43; transmit check digit
	JA3	One check digit, MOD 43; do not transmit check



		digit
	J A4	Full ASCII enabled; no check digit verification
	J A5	Full ASCII enabled; MOD43; transmit check digit
	J A7	Full ASCII enabled; MOD43; do not transmit check digit
Codabar	J F0	Standard Codabar
	J F2	Transmit check digit after verification
	J F4	Do not transmit check digit after verification
Code 93	J G0	Not specified
Code 11	J H0	One check digit, MOD11; transmit check digit
	J H1	Two check digits, MOD11/MOD11; transmit check digit
	J H3	Do not transmit check digit after verification
	J H8	Two check digits, MOD11/MOD9; transmit check digit
	J H9	No check digit verification
Plessey	J P0	Not specified
MSI Plessey	J M0	One check digit, MOD10; transmit check digit
	J M1	One check digit, MOD10; do not transmit check digit
	J M7	Two check digits, MOD10 /MOD11; do not transmit check digit
	J M8	Two check digits, MOD10 /MOD11; transmit check digit
	J M9	No check digit verification
RSS-14	J e0	

RSS-Limited		
RSS-Expand		
PDF417	JL0	Comply with 1994 PDF417 specifications
Data Matrix	Jd0	ECC 000 - 140
	Jd1	ECC 200
	Jd2	ECC 200; FNC1 is the 1st or 5th character after the start character
	Jd3	ECC 200; FNC1 is the 2nd or 6th character after the start character
	Jd4	ECC 200, ECI protocol supported
	Jd5	ECC 200; FNC1 is the 1st or 5th character after the start character; ECI supported
	Jd6	ECC 200; FNC1 is the 2nd or 6th character after the start character; ECI supported
QR Code	JQ0	QR1 (comply with AIM ISS 97-001 specifications)
	JQ1	QR2 (2005 symbol), ECI protocol not supported
	JQ2	QR2 (2005 symbol), ECI protocol supported
	JQ3	QR2 (2005 symbol), ECI protocol not supported; FNC1 is the character right after the start character
	JQ4	QR2 (2005 symbol), ECI protocol supported; FNC1 is the character right after the start character
	JQ5	QR2 (2005 symbol), ECI protocol not supported; FNC1 is the 2nd character right after the start

		character
	JQ6	QR2 (2005 symbol), ECI protocol supported; FNC1 is the 2nd character right after the start character

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

### 7.3 Appendix C: Code ID Table

Symbology	Original Code ID	Visible Code ID
Code 128 FNC3	1	A(0x41)
Code 128	2	B(0x42)
UCC/EAN 128	3	C(0x43)
EAN-8	4	D(0x44)
EAN-13	5	E(0x45)
UPC-E	6	F(0x46)
UPC-A	7	G(0x47)
Interleaved 2 of 5	8	H(0x48)
ITF-14	9	I(0x49)
ITF-6	10	J(0x4A)
Code 39	13	M(0x4D)
Codabar	15	O(0x4F)
Standard 25	16	P(0x50)

Code 93	17	Q(0x51)
AIM 128	21	U(0x55)
MSI Plessey	22	V(0x56)
ISBN	23	W(0x57)
Industrial 25	24	X(0x58)
Matrix 2 of 5	25	Y(0x59)
RSS-14	26	Z(0x5A)
RSS Limited	27	[(0x5B)
RSS Expand	28	\(0x5C)
Code 11	29	](0x5D)
Plessey	30	^(0x5E)
ISSN	31	_(0x5F)
PDF417	32	`(0x60)
QR	33	a(0x61)
Data Matrix	35	c(0x63)

## 7.4 Appendix D: Parameter Programming Examples

The following examples show you how to program parameters by scanning programming barcodes.

### 7.4.1 Program the Decode Session Timeout

Example: Set the decode session timeout to 5.0s

1. Scan the Decode Session Timeout barcode.
2. Scan the numeric barcodes “5” and “0”.
3. Scan the Save barcode.

### 7.4.2 Program the Timeout between Decodes

Example: Set the timeout between decodes to 5.0s

1. Scan the Timeout between Decodes barcode.
2. Scan the numeric barcodes “5” and “0”.
3. Scan the Save barcode.

### 7.4.3 Program the Image Stabilization Timeout

Example: Set the image stabilization timeout to 5.0s

1. Scan the Image Stabilization Timeout barcode.
2. Scan the numeric barcodes “5” and “0”.
3. Scan the Save barcode.

### 7.4.4 Program the Sensitivity Level

Example: Set the sensitivity level to 5

1. Scan the Custom Sensitivity barcode.
2. Scan the numeric barcode “5”.
3. Scan the Save barcode.

## 7.4 Appendix E: Digit Barcodes

0~5



4



5



## 6~9

6



7



8



9



## A~F

A



B



C



D



E



F



## 7.6 Appendix 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



## 8. WIRELESS SETTING

### 8.1 Reset Configuration to Defaults

### (1) Reset Para.for Tx

After scanning 0B,scanner will perform the following operations:

The scanner parameters are set to factory defaults,detail parameters please see appendix A.

All the wireless parameters are set to original state, and stop any transceiver.

### (2) Reset Para. for Rx

After scanning 0C, receiver will preform the following operations:

Reset all the wireless parameters to factory defaults, details as appendix A.

Reset Para for Tx



Reset Para for Rx



## 8.2 Firmware Version

After scanning 0A successfully, the scanner version will be showed on the terminal; after scanning 0D success, the receiver version will be showed on the terminal.

Firmware Version(Tx)



Firmware Version(Rx)





## 8.3 Forced into Sleep Mode

After scanning 0E, scanner will enter the sleep mode no matter how the current state is. To use the setting is to reset some temporary wireless data and re-establish the connection.

Forced into Sleep Mode



## 8.4 Transmission Mode

Transmission for scanner and receiver:

Scanner has 2 wireless data transmission mode:

-Random mode will upload the data after success scanning with beep, and upload fail with alarm and data will not be stored, and it is the defaulted mode.

-Inventory mode, the user to scan the data to memory, and data will be uploaded to terminal after scan the inventory mode.

Note: Switch between any mode will clear the memory.

Random Mode



Inventory Mode



Receiver has 2 wireless data transmission mode:

USB-KBW



USB-VCOM



### 8.5 Fast Pairing

Pairing means the scanner matches to the receiver to avoid system working confusion. Scanner read the paring setting, and the receiver will be observed with indicator flashing. As the matching process is the scanner broadcasting process, please keep one receiver power on only in 10m, otherwise will broadcast to other terminal.

Once scanner cancel pairing, scanner sending data is in broadcasting state, any terminal will receive it.



### 8.6 Frequency Offset

Frequency offset is valid for scanner and terminal, to change the current frequency to avoid other interference. This system working band is 433MHz, is also factory default band. The system also provides 21 channels for setting, detail as below:

Firstly setting the channel for terminal, and waiting for the scanner to response;

Then setting the channel for scanner, make sure this channel is same as for terminal.

The following is the channel point corresponding to the setting code for scanner:

NO	FRE. (M)	BARCODE	NO	FRE. (M)	BARCODE
----	----------	---------	----	----------	---------

0	433.092	034000	10	442.092	034010
1	430.092	034001	11	445.092	034011
2	427.092	034002	12	448.092	034012
3	424.092	034003	13	451.092	034013
4	421.092	034004	14	454.092	034014
5	418.092	034005	15	457.092	034015
6	415.092	034006	16	460.092	034016
7	412.092	034007	17	463.092	034017
8	436.092	034008	18	466.092	034018
9	439.092	034009	19	469.092	034019
			20	472.092	034020

For terminal: all the channels are same as scanner's, only the first four numbers are "0390". Such as the setting code of channel 0 is 039000, setting code of channel 18 will be 039018. The following are some setting codes for scanner and terminal:

Scanner Channel 0



Scanner Channel 7



Scanner Channel 20



Terminal Channel 0



Terminal Channel 7



Terminal Channel 20



## 8.7 Inventory Options

All the inventory options will be valid in inventory mode, will be generated a error tone in other modes.

(1) Checking the total number of inventory data, Scanning “032100”, the total number of inventory data will be showed on the terminal.

(2) Uploading inventory data, Scanning “032200”, all the scanning data will be uploaded on the terminal.



(3) Inventory auto clear on and off

Inventory data mode can set to clear memory automatically after uploading.



## 8.8 Memory Options

(1) Allow uploading data after sleeping

The function can use in none lost mode and inventory mode only. If the scanner is time to sleep, before sleeping data upload unsuccessful because of bad wireless signal, it could be set to upload the unfinished data after wake up.



(2) Clear Memory

Once scan this setting, all the memory will be clear no matter when the scanner is in any mode, scanner will stop wireless transmission and waiting for new data.



## 8.9 Address Options

### (1) Setting scanner physical address

Each scanner has its own physical address, factory default is 0#, maximum is 254#. We will suggest customers to set the physical address for scanners when one terminal matches to more than one scanners.

Scanner Physical Address 1#



Scanner Physical Address 2#



Scanner Physical Address 10#



Scanner Physical Address 254#



### (2) Output Physical Address On and Off

If this function is on, scanner physical address will be showed with data on the terminal. For example, scanner 1# uploads data ABC, terminal will show 001--ABC.

Output Physical Add.On



Output Physical Add.Off



## 8.10 Transmit Speed Options

The transmit speed between characters of bar code is 10ms after scan the bar code 03C001. When the last number plus 1, the transmit speed will be add more 10ms, the longest delay is 250ms.



69



250ms



%%GZSC03C025