

EM1365-EX

OEM Scan Engines

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Table of Contents

Chapter 1 Beginning	1
Introduction	1
About this Manual	2
Connect the EVK to PC.....	2
Barcode Reading Operation	2
Set up the EM1365-EX	3
Use serial port instruction.....	3
Read Register Instruction.....	3
Write Register Instruction.....	6
EEPROM writes enable on/off command	10
EEPROM performs write command.....	12
EEPROM reads command.....	16
List of registers	20
Use the setting barcode.....	39
Turn on/off Setup Code	39
Send the setup code message.....	39
Factory Reset	40
Chapter 2 Reading Patterns	41
Manual reading mode	41
Continuous reading mode.....	42
Inductive reading mode	45
Host command triggers the reading mode.....	49
Chapter 3 Prompt Sending.....	50
The reading success tone is set to.....	50
Decode status prompt	51
Other settings.....	52
Mute setting	52
Lighting set	52
Chapter 4 Communication Setup.....	54
Serial communication interface.....	55
Baud rate	55
Check	57

Stop bit.....	57
Data bit.....	58
USBinterface	60
USB HID-KBW	60
USB DATAPIPE	70
USB COM Port Emulation	70
HID-POS.....	71

Chapter 5 Data Editing..... 73

Introduction	73
The prefix order is set to.....	73
Custom prefix	74
Custom prefix 68 is prohibited or allowed	74
Set the custom prefix	74
AIM IDprefix.....	75
CODE IDprefix	76
Code ID factory default value is	76
Modify the code ID.....	76
Custom suffix	81
Adding a custom suffix 74 is prohibited or allowed.....	81
Set the custom suffix.....	82
Ending character suffix.....	83
The addition of the terminator suffix 76 is prohibited or allowed.....	83
Set the end character suffix.....	84

Chapter 6 Barcode Parameter Setting 86

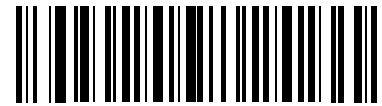
Introduction	86
Global setting.....	86
Allow/Disallow reading of all barcodes	86
Code 128.....	87
Restore factory default.....	87
Reading Code 128 79 is allowed/disallowed.....	87
Set the reading length limit.....	88
UCC/EAN-128	89
Factory reset.....	89
Enable/Disable readingUCC/EAN-128	89
Set a reading length limit.....	90
AIM 128	91
Restore factory default.....	91

Reading of AIM 128 83 is allowed/prohibited	91
Set a reading length.....	92
EAN-8.....	93
Restore factory default.....	93
Reading of EAN-8 85 is allowed/prohibited	93
Set whether to send the check digit	93
Set whether to allow the reading of additional code.....	94
Set whether or not there must be additional code.....	96
Extended Setup	96
EAN-13.....	97
Restore factory default to.....	97
Reading of EAN-13 88 is allowed/prohibited	97
Set whether to send check digit	97
Set whether to allow the reading of additional code.....	99
Set whether there must be an additional code.....	101
ISSN	102
Restore factory default to.....	102
Reading ISSN 91 is allowed/prohibited.....	102
ISBN	103
Restore factory default to.....	103
Reading ISBN 92 is allowed/disallowed	103
The ISBN data bit is set to	103
UPC-E.....	104
Restore factory default to.....	104
Reading UPC-E 93 is allowed/disabled.....	104
Set whether to send check digit	104
Set whether to allow the reading of additional code.....	106
Set whether or not there must be additional code.....	108
Set whether to send the system character	108
Extended Setup	109
UPC-A.....	110
Restore factory default to.....	110
Reading of UPC-A 97 is allowed/disabled	110
Set whether to send check digit	111
The prefix character sending setting is 98	111
Set whether to allow the reading of additional code.....	112
Set whether there must be an additional code.....	114
Interleaved 2 of 5.....	115
Restore factory defaults	115

Enable/Disable Interleaved 2 of 5.....	115
Verify the settings.....	116
Set a reading length limit.....	117
ITF-6.....	118
Restore factory defaults.....	118
Reading of ITF-6 is allowed/disallowed.....	118
ITF-14.....	119
Restore factory defaults.....	119
Reading of ITF-14 is allowed/prohibited.....	119
Germans 14.....	120
Restore factory defaults.....	120
Disable/Enable Deutsche 14.....	120
Germans 12.....	121
Restore factory defaults.....	121
Enable/Disable Deutsche 12.....	121
Matrix 2 of 5 (European Matrix 2 of 5).....	122
Restore factory defaults.....	122
Enable/Disable Matrix 2 of 5.....	122
Verify the settings.....	123
Set a reading length limit.....	124
Industrial 25.....	125
Restore factory defaults.....	125
Enable/Disable Industrial 25.....	125
Verify the settings.....	126
Set a reading length limit.....	127
Standard 25.....	128
Restore factory defaults.....	128
Enable/Disable Standard 25.....	128
Verify the settings.....	129
Set a reading length limit.....	130
Code 39.....	131
Restore factory defaults.....	131
Allow/Disable reading of Code 39.....	131
Verify the settings.....	132
Set whether to send a start and end symbol.....	133
Full ASCII support.....	133
Set a reading length limit.....	134
Codabar.....	135
Restore factory defaults.....	135

Enable/Disable Codabar.....	135
Verify the settings.....	136
Start and stop settings.....	137
Set a reading length limit.....	138
Code 93.....	139
Restore factory defaults.....	139
Enable/Disable reading of Code 93.....	139
Verify the settings.....	140
Set a reading length limit.....	141
Code 11.....	142
Restore factory defaults.....	142
Code 11 is allowed/disallowed.....	142
Verify the settings.....	143
Set a reading length limit.....	145
Plessey.....	146
Restore factory defaults.....	146
Enable/Disable Plessey.....	146
Verify the settings.....	147
Set a reading length limit.....	148
MSI-Plessey.....	149
Restore factory defaults.....	149
Enable/Disable MSI-Plessey.....	149
Verify the settings.....	150
Set a reading length limit.....	151
RSS-14.....	152
Restore factory defaults.....	152
RSS-14 reading is allowed/disabled.....	152
Specify whether to send AI characters.....	152
RSS-Limited.....	153
Restore factory defaults.....	153
Enable/Disable RSS-Limited.....	153
Specify whether to send AI characters.....	153
RSS-Expand.....	154
Restore factory defaults.....	154
Enable/Disable RSS-Expanded.....	154
Appendix.....	155
The default setting table.....	155
List of AIM IDs.....	165

List of code IDs	167
ASCII Table.....	168
Data code	172
Save or cancel.....	175
F1~F12	176



W010F01

** Activate the setting code

Chapter 1

Brief introduction

The EM1365-EX barcode reading engine applies the world's leading chip-based Newland **UIMG** intelligent image recognition technology to create a new era of one-dimensional barcode reading engine.

Newland's 1D decoding chip perfectly integrates advanced **UIMG** image recognition algorithms with advanced chip design and manufacturing technology, greatly simplifying the design complexities of 1D barcode reading products, and setting an excellent benchmark for high performance, high reliability and low power consumption for the automatic identification industry.

The EM1365-EX can read all major 1D barcodes, including EAN-13, EAN-8, UPC-A, UPC-E, ISSN, ISBN, Codabar,

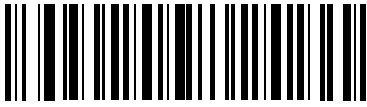
Code 128, Code 93, ITF-6, ITF-14, Interleaved 2 of 5, Industrial 2 of 5, Standard 2 of 5, Matrix 2 of 5, GS1 Databar, Code 39, Code 11, MSI-Plessey, Plessey.

The EM1365-EX has a compact design that can be embedded in most devices, and at just 5.7 grams, it's almost imperceptible. The instantaneous start-up function of the EM1365-EX allows an application to completely switch off power, especially useful for battery operated applications, while instantaneous start up for barcode recognition when needed, brings convenience and speed to an application with ultra-low operating power consumption.



W010F00

Turn off the setup



W010F01

** Turn on the setup code

About this manual

This manual mainly provides instructions for setting various functions of the EM1365-EX reading engine. By scanning the barcode or sending instructions in this manual, you can change the functional parameters of the EM1365-EX, such as communication interface parameters, reading mode, prompt mode, etc.

The EM1365-EX product is supplied with a parameter configuration suitable for most common application functions at the factory. In most cases the scan engine can be used without further configuration. The default functions and parameters of the EM1365-EX are listed in the appendix of this manual for reference. Options marked with "***" in the settings code also indicate the default function or parameter.

Connect the EVK to the PC

The EVK is an auxiliary tool that can be used for rapid application development of EM1365-EX product. The EM1365-EX can be connected to the EVK using a 12-pin flexible cable with same or opposite side contacts, while the EVK can be connected to a PC using the USB or RS-232 connections. After installing the driver, the EVK will be able to communicate directly with the EM1365-EX and receive reading data through the virtual serial port.

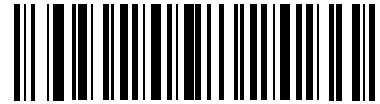
Barcode reading operation

Thanks to the 1D imaging technology and Newland's advanced decoders, the EM1365-EX **UING** can easily and accurately read barcodes, even if the barcode is tilted $\pm 65^\circ$ and deflected $\pm 60^\circ$. To read, aim the aim indicator beam projected by the EM1365-EX at the barcode to be read.



W010F00

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W010F01

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Set up the EM1365-EX

The user can set the reading engine using the setting barcodes in this manual or via or serial port command.

Use serial port commands

The user can send serial port commands from the host to set the reading engine. The communication parameters between the reading engine and the host device must be fully matched in order to achieve normal communication. The default serial communication parameters of the reading engine: baud rate 9600bps, no check, 8-bit data bit, 1-bit stop bit, no flow control. The reading engine uses 8-bit registers.

Read register instructions

For the read operation of the device registers, up to 256 consecutive registers can be read at a time.

Command format:

input: {Prefix1} {Types} {Lens} {Address} {Datas} {FCS}

thereinto Prefix1 : 0x7E 0x00 (2 bytes)

Types : 0x07 (1 byte)

Lens: indicates the number of bytes of Data in this command, and it is recommended to set the 0x01

Address: 0x0000~0xFFFF (2 bytes), indicating the start address of the register to be read

Data: 0x00~0xFF (1 byte), indicates the number of registers to be read consecutively, and 0x00 indicates 256

FCS: CRC_CCITT check value (2 bytes). The calculation range: Types, Lens, Address, and Datas are calculated by CRC_CCITT, and the feature polynomial: $X^{16}+X^{12}+X^5+1$, that is, the polynomial coefficient is 0x1021, the initial value is all 0, and the highest bit is calculated first for a single byte.

There is no need to negate and send directly. The reference code for C is as follows:



W010F00

Turn off the setup



W010F01

** Turn on the setup code

```

unsigned int crc_cal_by_bit(unsigned char* ptr, unsigned int len)
{
  unsigned int crc = 0;
  while(len-- != 0)
  {
    for(unsigned char i = 0x80; i != 0; i /= 2)
    {
      crc *= 2;
      if((crc&0x10000) != 0) //After multiplying the previous CRC by 2, if the first digit is 1, divide by 0x11021
        crc ^= 0x11021;
      if((*ptr&i) != 0) // If the base is 1, then CRC = CRC of the previous digit + base /CRC_CCITT
        crc ^= 0x1021;
    }
    ptr++;
  }
  return crc;
}

```

Return: {Prefix2} {Types} {Lens} {Datas} {FCS}

1) The read is successful and the read data is returned

where Prefix2 :0x02 0x00

Types: 0x00 (read successfully).

Lens: indicates the number of bytes of uploaded datas, and 0x00 indicates 256 bytes

Datas: 0x00~0xFF, which indicates the data that is read

FCS: CRC_CCITT check value.

2) Failed to deliver FCS verification

where Prefix2: 0x02 0x00

types: 0x01 (Failed to deliver FCS verification).



W010F00

Turn off the setup code



W010F01

** Activate the setting code

Lens : 0x01

Datas: 0x00, meaningless (1 byte).

FCS: 0x04 0x01 (CRC_CCITT checksum)

3) Unknown command failed

A packet at the beginning of the 0x7e 0x00 was detected, but the content was not long enough or of the wrong type.

where Prefix2: 0x02 0x00

Types : 0x03 (Unknown command failed).

Lens : 0x01

Datas: 0x00, meaningless (1 byte).

FCS : 0x6A 0x61 (CRC_CCITT Check digit)

Example:

Reads registers with a start address of 0x0005 three consecutive addresses.

1) The read is successful and the data is returned, and the returned data is 0x35 0x36 0x37

Enter: 0x7e 0x00 0x07 0x01 0x00 0x05 0x03 0xde 0xf6

Return: 0x02 0x00 0x00 0x03 0x35 0x36 0x37 0x2a 0xba

2) The FCS error is delivered

Enter: 0x7e 0x00 0x07 0x01 0x00 0x05 0x03 0x33 0x34

Return: 0x02 0x00 0x01 0x01 0x00 0x04 0x01

3) Unknown command failed

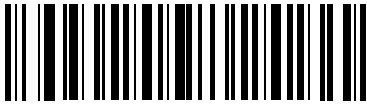
Enter: 0x7e 0x00 0x07 0x01 0x00 0x05 0x03 0x33

Return: 0x02 0x00 0x03 0x01 0x00 0x6A 0x61



W010F00

Turn off the setup



W010F01

** Turn on the setup code

Write register instructions

Writes to device registers can be accomplished up to 256 consecutive registers at a time.

Command format:

Input: {Prefix1} {Types} {Lens} {Address} {Datas} {FCS}

Prefix1 : 0x7E 0x00 (2 bytes)

Types : 0x08 (1 byte)

Lens: 0x00~0xFF (1 byte), which indicates the number of bytes in the Datas field in the command, and also indicates the number of consecutive write operations, while the 0x00 indicates that there are 256 bytes

Address: 0x0000~0xFFFF (2 bytes), indicates the starting address of the register to be written

Datas: 0x00~0xFF (1~256 bytes), which indicates the data written to the register

FCS: CRC_CCITT check value (2 bytes). The calculation range: Types, Lens, Address, and Datas are calculated by CRC_CCITT, and the feature polynomial: $X^{16}+X^{12}+X^5+1$, that is, the polynomial coefficient is 0x1021, the initial value is all 0, and the highest bit is calculated first for a single byte.

There is no need to negate and send directly. The reference code for C is as follows:

```

unsigned int crc_cal_by_bit(unsigned char* ptr, unsigned int len)
{
    unsigned int crc = 0;
    while(len-- != 0)
    {
        for(unsigned char i = 0x80; i != 0; i /= 2)
        {
            crc *= 2;
            if((crc&0x10000) != 0) //After multiplying the previous CRC by 2, if the first digit is 1, divide by 0x11021
                crc ^= 0x11021;
            if((*ptr&i) != 0) // If the base is 1, then CRC = CRC of the previous digit + base /CRC_CCITT
                crc ^= 0x1021;
        }
        ptr++;
    }
}

```



W010F00

Turn off the setup code



W010F01

** Activate the setting code

```
return crc;
```

```
}
```



W010F00

Turn off the setup



W010F01

** Turn on the setup code

Return: {Prefix2} {Types} {Lens} {Datas} {FCS}

1) Write successfully

where Prefix2: 0x02 0x00

types: 0x00 (write successful).

Lens : 0x01

Data : 0x00

FCS: 0x33 0x31 (CRC_CCITT checksum)

2) Failed to deliver FCS verification

where Prefix2 :0x02 0x00

types: 0x01 (Failed to deliver FCS verification).

Lens : 0x01

Datas : 0x00

FCS: 0x04 0x01 (CRC_CCITT checksum)

3) Unknown command failed

A packet at the beginning of the 0x7e 0x00 was detected, but the content was not long enough or of the wrong type.

where Prefix2: 0x02 0x00

Types : 0x03 (Unknown command failed).

Lens : 0x01

Datas : 0x00

FCS : 0x6A 0x61 (CRC_CCITT check sum)



W010F00

Turn off the setup code



W010F01

** Activate the setting code

Example:

Write 31, 32, 33, 34 to registers with 0x000a start address and 4 consecutive addresses.

1) The setting is successful

Input: 0x7e 0x00 0x08 0x04 0x00 0x26 0x31 0x32 0x33 0x34 0xcd 0xa4

Return: 0x02 0x00 0x00 0x01 0x00 0x33 0x31

2) The FCS error is delivered

Input: 0x7e 0x00 0x08 0x04 0x00 0x26 0x31 0x32 0x33 0x34 0x33 0x34

Return: 0x02 0x00 0x01 0x01 0x00 0x04 0x01

3) Unknown command failed

Input: 0x7e 0x00 0x08 0x04 0x00 0x26 0x31 0x32 0x33 0x34 0x33

Return: 0x02 0x00 0x03 0x01 0x00 0x6A 0x61



W010F00

Turn off the setup



W010F01

** Turn on the setup code

EEPROM write enable on/off commands

By default, the write enable is turned off after the EEPROM is powered on, and the write enable must be enabled before the EEPROM is written, and it is best to turn this feature off after the write is completed to prevent miswriting.

Command format:

Input: {Prefix1} {Types} {Lens} {Address} {Datas} {FCS}

where Prefix1: 0x7E 0x00

Types: 0x03 (on)/0x00 (off).

Lens: indicates the number of bytes of Datas in this command, and it is recommended to set the 0x01

Address: There is no real meaning here

Datas: There is no practical point here

FCS: the CRC_CCITT check value (2 bytes). The calculation range: Types, Lens, Address, and Datas are calculated by CRC_CCITT, and the feature polynomial: $X^{16}+X^{12}+X^5+1$, that is, the polynomial coefficient is 0x1021, the initial value is all 0, and the highest bit is calculated first for a single byte. There is no need to negate and send directly. The reference code for C is as follows:

```

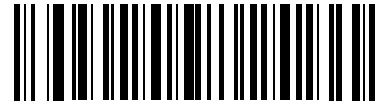
unsigned int crc_cal_by_bit(unsigned char* ptr, unsigned int len)
{
    unsigned int crc = 0;
    while(len-- != 0)
    {
        for(unsigned char i = 0x80; i != 0; i /= 2)
        {
            crc *= 2;
            if((crc&0x10000) != 0) //After multiplying the previous CRC by 2, if the first digit is 1, divide by 0x11021
                crc ^= 0x11021;
            if((*ptr&i) != 0) // If the base is 1, then CRC = CRC of the previous digit + base /CRC_CCITT
                crc ^= 0x1021;
        }
        ptr++;
    }
}

```



W010F00

Turn off the setup code



W010F01

** Activate the setting code

```
return crc;  
}
```

Return: {Prefix2} {Types} {Lens} {Datas} {FCS}

1) Write successfully

where Prefix2: 0x02 0x00

types: 0x00 (write successful).

Lens : 0x01

Datas: 0x00 (1 byte).

FCS: 0x33 0x31 (CRC_CCITT checksum)

2) Failed to deliver FCS verification

where Prefix2: 0x02 0x00

types: 0x01 (Failed to deliver FCS verification).

Lens : 0x01

Datas: 0x00, meaningless (1 byte).

FCS: 0x04 0x01 (CRC_CCITT checksum)

3) Unknown command failed

A packet starting with 0x7e 0x00 was detected, but the content was not long enough or of the wrong type.

where Prefix2: 0x02 0x00

Types : 0x03 (Unknown command failed).

Lens : 0x01

Datas: 0x00, meaningless (1 byte).

FCS : 0x6A 0x61 (CRC_CCITT Check sum)



W010F00

Turn off the setup



W010F01

** Turn on the setup code

EEPROM writes commands

This operation is basically the same as the write operation on the register, the address length of EEPROM is 512, and it can support up to 256 consecutive write operations, and the internal address is automatically added to 1 after the write is completed. However, if the write operation is not enabled, an error will not be returned, so you should read back data to after writing to ensure correctness.

Command format:

Input: {Prefix1} {Types} {Lens} {Address} {Datas} {FCS}

where Prefix1: 0x7E 0x00

Types : 0x04

Lens: 0x00~0xff, which indicates the number of bytes in the Datas field in this command, and 0x00

indicates 256 bytes

Address: 0x0000~0xFFFF, indicates the starting address to be written

Datas: 0x00~0xff, which indicates the data to be written to the register

FCS: the CRC_CCITT check value (2 bytes). The calculation range: Types, Lens, Address, and Datas are calculated by CRC_CCITT, and the feature polynomial: $X^{16}+X^{12}+X^5+1$, that is, the polynomial coefficient is 0x1021, the initial value is all 0, and the highest bit is calculated first for a single byte.

There is no need to negate and send directly. The reference code for C is as follows:

```

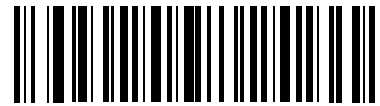
unsigned int crc_cal_by_bit(unsigned char* ptr, unsigned int len)
{
    unsigned int crc = 0;
    while(len-- != 0)
    {
        for(unsigned char i = 0x80; i != 0; i /= 2)
        {
            crc *= 2;
            if((crc&0x10000) != 0) //After multiplying the previous CRC by 2, if the first digit is 1, divide by 0x11021
                crc ^= 0x11021;
            if((*ptr&i) != 0) // If the base is 1, then CRC = CRC of the previous digit + base /CRC_CCITT
                crc ^= 0x1021;
        }
        ptr++;
    }
}

```



W010F00

Turn off the setup code



W010F01

** Activate the setting code

```

}
return crc;
}

```

Return: {Prefix2} {Types} {Lens} {Datas} {FCS}

1) Write successfully

where Prefix2 :0x02 0x00

types: 0x00 (write successful).

Lens : 0x01

Datas: 0x00, meaningless (1 byte).

FCS: 0x33 0x31 (CRC_CCITT checksum)

2) Failed to deliver FCS verification

where Prefix2: 0x02 0x00

types: 0x01 (Failed to deliver FCS verification).

Lens : 0x01

Datas: 0x00, meaningless (1 byte).

FCS: 0x04 0x01 (CRC_CCITT checksum)

3) Write failed, EEPROM gave no response

where Prefix2 :0x02 0x00

Types : 0x02 (Write Failure)

Lens : 0x01

Datas: 0x00, meaningless (1 byte).

FCS:0x5d 0x51(CRC_CCITT Check sum)

4) Unknown command failed

A packet starting with 0x7e 0x00 was detected, but the content was not long enough or of the wrong type.

where Prefix2: 0x02 0x00

Types : 0x03 (Unknown command failed).

Lens : 0x01



W010F00

Turn off the setup



W010F01

**** Turn on the setup code**

Datas: 0x00, meaningless (1 byte).

FCS : 0x6A 0x61 (CRC_CCITT check sum)



W010F00

Turn off the setup code



W010F01

** Activate the setting code

Example:

Write 51, 52, 53, and 54 to four consecutive addresses with 0x0000 addresses in the EEPROM.

1) The setting is successful

Input: 0x7e 0x00 0x04 0x04 0x00 0x00 0x51 0x52 0x53 0x54 0xbc 0x17

Return: 0x02 0x00 0x00 0x01 0x00 0x33 0x31

2) The FCS error is delivered

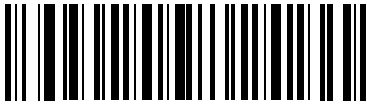
Input: 0x7e 0x00 0x04 0x03 0x00 0x00 0x51 0x52 0x53 0x54 0x33 0x34

Return: 0x02 0x00 0x01 0x01 0x00 0x04 0x01



W010F00

Turn off the setup



W010F01

** Turn on the setup code

EEPROM reads commands

This operation is the same as the read operation on the register, the address length of the EEPROM is 512, and it can support up to 256 consecutive read operations, and the internal address is automatically added by 1 after the read is completed.

Command format:

Input: {Prefix1} {Types} {Lens} {Address} {Datas} {FCS}

where Prefix1: 0x7E 0x00

Types : 0x05

Lens: indicates the number of bytes of Datas in this command, and it is recommended to set the 0x01 here, 0x00 256 bytes

Address: 0x0000~0xFFFF, indicates the starting address of the data to be read

Datas: 0x00~0xff, the first byte of data represents the number of bytes that need to be read out of the register data, and up to 256 bytes of continuous read are supported. Other bytes are meaningless

FCS: the CRC_CCITT check value (2 bytes). The calculation range: Types, Lens, Address, and Datas are calculated by CRC_CCITT, and the feature polynomial: $X^{16}+X^{12}+X^5+1$, that is, the polynomial coefficient is 0x1021, the initial value is all 0, and the highest bit is calculated first for a single byte.

There is no need to negate and send directly. The reference code for C is as follows:

```

unsigned int crc_cal_by_bit(unsigned char* ptr, unsigned int len)
{
    unsigned int crc = 0;
    while(len-- != 0)
    {
        for(unsigned char i = 0x80; i != 0; i /= 2)
        {
            crc *= 2;
            if((crc&0x10000) != 0) //After multiplying the previous CRC by 2, if the first digit is 1, divide by 0x11021
                crc ^= 0x11021;
            if((*ptr&i) != 0) // If the base is 1, then CRC = CRC of the previous digit + base /CRC_CCITT
                crc ^= 0x1021;
        }
    }
}

```



W010F00

Turn off the setup code



W010F01

** Activate the setting code

```
ptr++;  
}  
return crc;  
}
```

Return: {Prefix2} {Types} {Lens} {Datas} {FCS}

1) The read is successful and the read data is returned

where Prefix2 :0x02 0x00

Types: 0x00 (read successfully).

Lens: indicates the number of bytes of uploaded data

Datas: 0x00~0xff, which indicates the data that is read

FCS: CRC_CCITT check value

2) Failed to deliver FCS verification

where Prefix2: 0x02 0x00

types: 0x01 (Failed to deliver FCS verification).

Lens : 0x01

Datas: 0x00, meaningless (1 byte).

FCS: 0x04 0x01 (CRC_CCITT checksum)

3) Write failure, EEPROM does not respond

where Prefix2 :0x02 0x00

Types : 0x02(Write Failure)

Lens : 0x01

Datas: 0x00, meaningless (1 byte).

FCS:0x5d 0x51(CRC_CCITT check sum)

4) Unknown command failed

A packet starting with 0x7e 0x00 was detected, but the content was not long enough or of the wrong type.

where Prefix2: 0x02 0x00

Types : 0x03 (Unknown command failed).

Lens : 0x01



W010F00

Turn off the setup



W010F01

**** Turn on the setup code**

Datas: 0x00, meaningless (1 byte).

FCS : 0x6A 0x61 (CRC_CCITTcheck sum)



W010F00

Turn off the setup code



W010F01

** Activate the setting code

Example:

Reads 3 consecutive addresses with 0x0005 addresses in the EEPROM

1) The read is successful and the data is returned, and the returned data is 0x35 0x36 0x37

Input: 0x7e 0x00 0x05 0x01 0x00 0x05 0x03 0x9a 0x75

Return: 0x02 0x00 0x00 0x03 0x35 0x36 0x37 0x2a 0xba

2) The FCS error is delivered

Input: 0x7e 0x00 0x05 0x01 0x00 0x05 0x03 0x33 0x34

Return: 0x02 0x00 0x01 0x01 0x00 0x04 0x01



W010F00

Turn off the setup



W010F01

** Turn on the setup code

List of registers

register	<i>0x0000</i>
Data bits	function
Bit 7	retain
Bit 6	1: Mute off 0: Initiates mute
Bit 5-4	retain
Bit 3-2	Lighting Settings: 00: No lighting 01: Normal 10/11: Solid on
Bit 1-0	Reading Mode Settings: 00: Manual mode 01: Command trigger mode 10: Continuous mode 11: Induction mode
register	<i>0x0003</i>
Data bits	function
Bit 7-0	Sensitivity settings: 0x00~0xFF: 0-255 levels. The lower the value, the higher the sensitivity.
register	<i>0x0004</i>
Data bits	function
Bit 7-0	Stabilization Duration Setting: 0x00-0xFF:0.0-25.5 Seconds
register	<i>0x0005</i>
Data bits	function
Bit 7-0	Reading interval setting: 0x00-0xFF:0.0-25.5 Seconds
register	<i>0x0006</i>
Data bits	function
Bit 7-0	Single barcode reading time setting: 0x00: infinitely long; 0x01-0xFF: 1-255 seconds
register	<i>0x0007</i>
Data bits	function
Bit 7-0	Same reading delay setting: 0x00: infinitely long; 0x01-0xFF: 0.1-25.5 seconds



W010F00

Turn off the setup code



W010F01

** Activate the setting code

register	<i>0x0009</i>		
Data bits	function		
Bit 7-5	retain		
Bit 4	0: serial communication		
3-2 bit	retain		
1-0 bit	00:USB DATAPIPE 01:USB HID-KBW 10:USB VCOM 11:USB HID-POS		
register	<i>0x000A</i>		
Data bits	function		
Bit 7-5	retain		
Bit 4	0: No delay for the same code reading 1: Requires the same code reading delay		
3-2 bit	retain		
1-0 bit	Security Level Settings: 00-03: Level 0-3. The higher the number, the lower the bit error rate and efficiency.		
register	<i>0x000F</i>		
Data bits	function		
Bit 7-3	retain		
Bit 2-1	00: Do not send the setting code message 11: Send the setting code information		
Bit 0	0: Disable the setup code 1: Activate the setup code		
register	<i>0x0010</i>		
Data bits	function		
Bit 7-0	Audio rate setting prompts for successful reading: 0xDA: Low Frequency 0x4B: Mid Frequency 0x25: High Frequency		
register	<i>0x0011</i>		
Data bits	function		
Bit 7-0	Reading success sound duration setting: 0x1F: 40ms 0x3E: 80ms 0x5D: 120ms		
register	<i>0x0012</i>		
Data bits	function		
Bit 7-3	retain		
Bit 2	1: Enable the reading success prompt 0: Turn off the reading success prompt		
1-0 bit	retain		



W010F00

Turn off the setup



W010F01

** Activate the setting code

register	
<i>0x0029</i>	
Data bits	function
Bit 7-4	retain
Bit 3	1: 8 data bits 0: 7 data bits
2-1 bit	Verify: 00/01: No check 10: Odd check 11: Even check
Bit 0	1: 2 stop digits 0: 1 stop bit
register	
<i>0x002B, 0x2A</i>	
Data bits	function
Bit 15-13	retain
Bit 12-0	0x09C4: The baud rate of the serial port is 1200 bps 0x04E2: The baud rate of the serial port is 2400 bps 0x0271: The baud rate of the serial port is 4800 bps 0x0139: The baud rate of the serial port is 9600 bps 0x00D0: The baud rate of the serial port is 14400 bps 0x009C: The baud rate of the serial port is 19200 bps 0x004E: The baud rate of the serial port is 38400 bps 0x0034: The baud rate of the serial port is 57600 bps 0x001A: The baud rate of the serial port is 115200 bps
register	
<i>0x0031</i>	
Data bits	function
Bit 7-6	retain
Bit 5	1: Send decoding status prompt 0: Do not send decoding status prompt
Bit 4	1: Allow to add terminator suffix 0: Prohibit adding terminator suffix
Bit 3	1: Allow adding custom suffixes 0: Prohibit adding custom suffixes
Bit 2	1: Allow adding custom prefixes 0: Disable adding custom prefixes
Bit 1	1: Allow CODE ID prefixes 0: Disable CODE ID prefixes
Bit 0	Prefix Order Setting: 1: Custom prefix + Code ID + AIM ID 0: Code ID + custom prefix + AIM ID



W010F00

Turn off the setup



W010F01

** Turn on the setup code

register	<i>0x0037-0x33</i>		
Data bits	function		
39-0 bit	Set a custom prefix value		
register	<i>0x0042-0x3E</i>		
Data bits	function		
39-0 bit	Set a custom suffix value		
register	<i>0x004D-0x49</i>		
Data bits	function		
39-0 bit	Set the end character suffix value		
register	<i>0x0061</i>		
Data bits	function		
Bit 7-1	retain		
Bit 0	1: Allowed to read Code 128 0: Forbidden to read Code 128		
register	<i>0x0062</i>		
Data bits	function		
Bit 7-2	retain		
1-0 bit	00: Disable UCC/EAN 128	01: Read as Code 128	10/11: Enable UCC/EAN 128
register	<i>0x0063</i>		
Data bits	function		
Bit 7-2	retain		
1-0 bit	00: Forbidden to read AIM 128	01: Identified as Code 128	10/11: Allowed to read AIM 128
register	<i>0x0065</i>		
Data bits	function		
Bit 7-6	00: EAN-8 barcode information is not extended 01: EAN-8 barcode information is extended to EAN-13 10/11: EAN-8 barcode information and type converted to EAN-13		
Bit 5	1: The 5-digit additional code of EAN-8 is allowed to be read		0: The 5-digit additional code of EAN-8 is not allowed to be read
Bit 4	1: The 2-digit additional code of EAN-8 is allowed to be read		0: The 2-digit additional code of EAN-8 is not allowed to be read
Bit 3	1: EAN-8 must have an additional code 0: EAN-8 does not require an additional code		



W010F00

Turn off the setup code



W010F01

** Activate the setting code

Bit 2	1: Send EAN-8 check digit	0: Do not send EAN-8 check digit
Bit 1	retain	
Bit 0	1: Enable EAN-8	0: Disable EAN-8



W010F00

Turn off the setup



W010F01

** Turn on the setup code

register	0x0066	
Data bits	function	
Bit 7-6	retain	
Bit 5	1: The 5-digit additional code of EAN-13 is allowed to be read 0: The 5-digit additional code of EAN-13 is not allowed to be read	
Bit 4	1: The 2-digit additional code of EAN-13 is allowed to be read 0: The 2-digit additional code of EAN-13 is not allowed to be read	
Bit 3	1: EAN-13 must have an additional code 0: EAN-13 does not require an additional code	
Bit 2	1: Send EAN-13 check digit 0: Do not send EAN-13 check digit	
Bit 1	retain	
Bit 0	1: Enable EAN-13	0: Disable EAN-13
register	0x0067	
Data bits	function	
Bit 7-2	retain	
1-0 bit	00: Disable ISSN	01: Identified as EAN-13 10/11: Enable ISSN
register	0x0068	
Data bits	function	
Bit 7-3	retain	
Bit 2	ISBN Formatting: 1: ISBN-10 0: ISBN-13	
1-0 bit	00: Disable ISBN	01: Transmit as EAN-13 10/11: Enable ISBN
register	0x0069	
Data bits	function	
Bit 7-6	00: UPC-E barcode information is not extended 01: UPC-E barcode information is extended to UPC-A 10/11: UPC-E barcode information and type converted to UPC-A	
Bit 5	1: The 5-digit additional code of UPC-E is allowed to be read	0: The 5-digit additional code of UPC-E is not allowed to be read
Bit 4	1: The 2-digit additional code of UPC-E is allowed to be read	0: The 2-digit additional code of UPC-E is not allowed to be read
Bit 3	1: UPC-E must have an additional code 0: UPC-E does not require an additional code	
Bit 2	1: Send UPC-E check digit	0: Do not send UPC-E check digit
Bit 1	retain	



W010F00

Turn off the setup code



W010F01

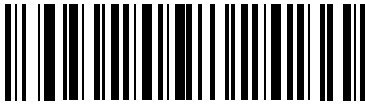
** Activate the setting code

Bit 0	1: Enable UPC-E 0: Disable UPC-E
-------	----------------------------------



W010F00

Turn off the setup



W010F01

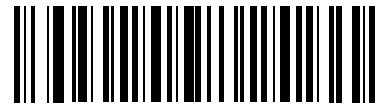
** Turn on the setup code

register	0x006A	
Data bits	function	
Bit 7-6	retain	
Bit 5-4	UPC-E System Character Sending Settings: 01: Do not send system characters 10/11: Send system characters	
Bit 3-2	retain	
1-0 bit	UPC-A Prefix Character Sending Settings: 00: No prefix 01: System character 10/11: System character and country code	
register	0x006B	
Data bits	function	
Bit 7	retain	
Bit 6	1: The 5-digit additional code of UPC-A is allowed to be read 0: The 5-digit additional code of UPC-A is not allowed to be read	
Bit 5	1: The 2-digit additional code of UPC-A is allowed to be read 0: The 2-digit additional code of UPC-A is not allowed to be read	
Bit 4	1: UPC-A must have an additional code 0: UPC-A does not require an additional code	
Bit 3	1: Send UPC-A check digit 0: Do not send UPC-A check digit	
Bit 2	retain	
Bit 1-0	00: Forbidden to read UPC-A 01: Identified as EAN-13 10/11: Allowed to read UPC-A	
register	0x006C	
Data bits	function	
Bit 7-4	retain	
Bit 3	1: Transmit Interleaved 2 of 5 check digit. 0: Do not transmit Interleaved 2 of 5 check digit	
Bit 2	1: Interleaved 2 of 5 Enable check digit verification 0: Interleaved 2 of 5 Disable check digit verification	
Bit 1	retain	
Bit 0	1: Enable Interleaved 2 of 5 0: Disable Interleaved 2 of 5	
register	0x006D	
Data bits	function	
Bit 7-4	retain	
Bit 3	1: ITF-6 check digit is sent 0: ITF-6 check digit is not sent	
Bit 2	retain	
Bit 1-0	00: Disable ITF-6 01: Transmit as Interleaved 2 of 5 10/11: Enable ITF-6	



W010F00

Turn off the setup code



W010F01

** Activate the setting code

register	0x006E	
Data bits	function	
Bit 7-4	retain	
Bit 3	1: ITF-14 check digit is sent 0: ITF-14 check digit is not sent	
Bit 2	retain	
Bit 1-0	00: Disable ITF-14 01: Transmit as Interleaved 2 of 5 10/11: Enable ITF-14	
register	0x006F	
Data bits	function	
Bit 7-4	retain	
Bit 3	1: Send Deutsche 14 check digit 0: Do not send Deutsche 14 check digit	
Bit 2	retain	
Bit 1-0	00: Disable Deutsche 14 01: Transmit as Interleaved 2 of 5 10/11: Enable Deutsche 14	
register	0x0070	
Data bits	function	
Bit 7-4	retain	
Bit 3	1: Send Deutsche 12 check digit 0: Do not send Deutsche 12 check digit	
Bit 2	retain	
Bit 1-0	00: Disable Deutsche 12 01: Transmit as Interleaved 2 of 5 10/11: Enable Deutsche 12	
register	0x0071	
Data bits	function	
Bit 7-4	retain	
Bit 3	1: Matrix 2 of 5 check digits are sent 0: Matrix 2 of 5 check digits are not sent	
Bit 2	1: Matrix 2 of 5 is verified , 0: Matrix 2 of 5 is not verified	
Bit 1	retain	
Bit 0	1: Enable Matrix 2 of 5 0: Disable Matrix 2 of 5	
register	0x0072	
Data bits	function	
Bit 7-4	retain	
Bit 3	1: Send Industrial 25 check digit 0: Do not send Industrial 25 check digit	
Bit 2	1: Industrial 25 is calibrated 0 : Industrial 25 is not calibrated	
Bit 1	retain	
Bit 0	1: Enable Industrial 25 0: Disable Industrial 25	



W010F00

Turn off the setup



W010F01

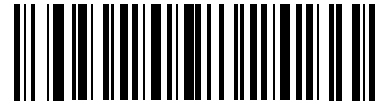
** Turn on the setup code

register	0x0073	
Data bits	function	
Bit 7-4	retain	
Bit 3	1: Send Standard 25 check digit	0: Do not send Standard 25 check digit
Bit 2	1: Standard 25 is verified 0 : Standard 25 is not verified	
Bit 1	retain	
Bit 0	1: Enable Standard 25	0: Disable Standard 25
register	0x0074	
Data bits	function	
Bit 7-6	retain	
Bit 5	1: Enable Code 39 Full ASCII	0: Disable Code 39 Full ASCII
Bit 4	1: Send Code 39 check digit	0: Do not send Code 39 check digit
Bit 3	1: Code 39 is verified 0: Code 39 is not verified	
Bit 2	1: Send Code 39 start/stop 0: Do not send Code 39 start/stop characters	
Bit 1	retain	
Bit 0	1: Allowed to read Code 39 0: Forbidden to read Code 39	
register	0x0075	
Data bits	function	
Bit 7	retain	
Bit 6	1: Send the Codabar check digit	0: Do not send the Codabar check digit
Bit 5	1: Codabar is verified 0: Codabar is not verified	
4-3 bit	Codabar start/terminator format: 00:ABCD/ABCD 01:ABCD/TN*E 10:ABCD/ABCD 11:ABCD/TN*E	
Bit 2	1: Transmit Codabar stop/start characters	0: Do not transmit Codabar stop/start characters
Bit 1	retain	
Bit 0	1: Enable Codabar	0: Disable Codabar



W010F00

Turn off the setup code



W010F01

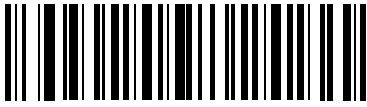
** Activate the setting code

register	0x0076	
Data bits	function	
Bit 7-4	retain	
Bit 3	1: Send Code 93 check digit	0: Do not send Code 93 check digit
Bit 2	1: Code 93 is verified 0 : Code 93 is not verified	
Bit 1	retain	
Bit 0	1: Allowed to read Code 93 0: Forbidden to read Code 93	
register	0x0077	
Data bits	function	
Bit 7-6	retain	
Bit 5	1: Send Code 11 check digit	0: Do not send Code 11 check digit
Bit 4-2	Code 11 check settings: 000: does not verify 001: One digit, MOD11 010: Two Digit check sum, MOD11/MOD11 011: Two Digit Check sum, MOD11/MOD9 100:MOD11 Single digit Check sum (Len <= 11);MOD11/MOD11, Double check digit (Len > 11) 101:MOD11 Single digit Check sum (Len <= 11));MOD11/MOD9, Double Check Sum (Len > 11)	
Bit 1	retain	
Bit 0	1: Allowed to read Code 11 0: Forbidden to read Code 11	
register	0x0078	
Data bits	function	
Bit 7-4	retain	
Bit 3	1: Send Plessey check digit	0: Do not send Plessey check digit
Bit 2	1: Plessey does the verification 0: Plessey does not verify the verification	
Bit 1	retain	
Bit 0	1: Enable Plessey	0: Disable Plessey



W010F00

Turn off the setup



W010F01

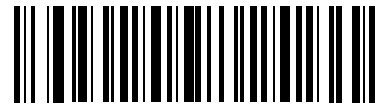
** Turn on the setup code

register <i>0x0079</i>	
Data bits	function
Bit 7-5	retain
Bit 4	1: Send MSI-Plessey check digit 0: Do not send MSI-Plessey check digit
3-2 bit	MSI-Plessey calibration: 00: No check 01: One digit check, MOD10 10: Two Digit verification , MOD10/MOD10 11: Two Digit verification, MOD10/MOD11
Bit 1	retain
Bit 0	1: Enable MSI-Plessey 0: Enable MSI-Plessey
register <i>0x007A</i>	
Data bits	function
Bit 7-3	retain
Bit 2	1: Send RSS-14 AI characters 0: Do not send RSS-14 AI characters
Bit 1	retain
Bit 0	1: Allow RSS-14 reading 0: Prohibit reading RSS-14
register <i>0x007B</i>	
Data bits	function
Bit 7-3	retain
Bit 2	1: Transmit RSS-Limited AI characters 0:Do not transmit RSS-Limited AI characters
Bit 1	retain
Bit 0	1: Enable RSS-Limited 0: Disable RSS-Limited
register <i>0x007C</i>	
Data bits	function
Bit 7-1	retain
Bit 0	1: Disable RSS-Expand 0: Enable RSS-Expand



W010F00

Turn off the setup code



W010F01

** Activate the setting code

register	<i>0x0080</i>	
Data bits		function
7-0 Bit	Set the maximum decoding length of Code 128	
register	<i>0x0081</i>	
Data bits		function
7-0 Bit	Set the minimum decoding length of Code 128	
register	<i>0x0082</i>	
Data bits		function
7-0 Bit	Set the maximum decoding length of the UCC/EAN-128	
register	<i>0x0083</i>	
Data bits		function
7-0 Bit	Set the minimum decoding length of UCC/EAN-128	
register	<i>0x0084</i>	
Data bits		function
7-0 Bit	Set the maximum decode length for AIM 128	
register	<i>0x0085</i>	
Data bits		function
7-0 Bit	Set the AIM 128 minimum decode length	
register	<i>0x0086</i>	
Data bits		function
7-0 Bit	Set the maximum decoding length of Interleaved 2 of 5	
register	<i>0x0087</i>	
Data bits		function
7-0 Bit	Set the Interleaved 2 of 5 minimum decode length	
register	<i>0x0088</i>	
Data bits		function
7-0 Bit	Set the maximum decoding length of Matrix 2 of 5	
register	<i>0x0089</i>	
Data bits		function
7-0 Bit	Set the Matrix 2 of 5 minimum decode length	



W010F00

Turn off the setup



W010F01

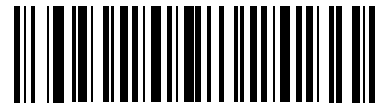
** Turn on the setup code

register	<i>0x008A</i>
Data bits	function
7-0 Bit	Set the maximum decode length for Industrial 25
register	<i>0x008B</i>
Data bits	function
7-0 Bit	Set the Industrial 25 minimum decode length
register	<i>0x008C</i>
Data bits	function
7-0 Bit	Set the maximum decode length of Standard 25
register	<i>0x008D</i>
Data bits	function
7-0 Bit	Set the Standard 25 minimum decode length
register	<i>0x008E</i>
Data bits	function
7-0 Bit	Set the maximum decoding length of Code 39
register	<i>0x008F</i>
Data bits	function
7-0 Bit	Set the Code 39 minimum decoding length
register	<i>0x0090</i>
Data bits	function
7-0 Bit	Set the maximum decoding length of the Codabar
register	<i>0x0091</i>
Data bits	function
7-0 Bit	Set the minimum decoding length of the Codabar
register	<i>0x0092</i>
Data bits	function
7-0 Bit	Set the maximum decoding length of Code 93
register	<i>0x0093</i>
Data bits	function
7-0 Bit	Set the minimum decoding length of Code 93



W010F00

Turn off the setup code



W010F01

** Activate the setting code

register	<i>0x0094</i>	
Data bits		function
7-0 Bit	Set the maximum decoding length of Code 11	
register	<i>0x0095</i>	
Data bits		function
7-0 Bit	Set the minimum decoding length of Code 11	
register	<i>0x0096</i>	
Data bits		function
7-0 Bit	Set the maximum Plessey decode length	
register	<i>0x0097</i>	
Data bits		function
7-0 Bit	Set the Plessey minimum decode length	
register	<i>0x0098</i>	
Data bits		function
7-0 Bit	Set the maximum decoding length of MSI-Plessey	
register	<i>0x0099</i>	
Data bits		function
7-0 Bit	Set the MSI-Plessey minimum decode length	
register	<i>0x00A1, 0x00A0</i>	
Data bits		function
15-0 bit	Set Code 128 Code ID: ASCII values for one or two English letters (lowercase or uppercase).	
register	<i>0x00A3, 0x00A2</i>	
Data bits		function
15-0 bit	Set UCC/EAN-128 Code ID: ASCII values for one or two English letters (lowercase or uppercase).	
register	<i>0x00A5, 0x00A4</i>	
Data bits		function
15-0 bit	Set AIM 128 Code ID: ASCII values for one or two English letters (lowercase or uppercase).	



W010F00

Turn off the setup



W010F01

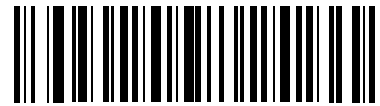
** Turn on the setup code

register	<i>0x00A9, 0x00A8</i>
Data bits	function
15-0 bit	Set EAN-8 Code ID: ASCII values for one or two English letters (lowercase or uppercase).
register	<i>0x00AB, 0x00AA</i>
Data bits	function
15-0 bit	Set EAN-13 Code ID: ASCII values for one or two English letters (lowercase or uppercase).
register	<i>0x00AD, 0x00AC</i>
Data bits	function
15-0 bit	Set ISSN Code ID: ASCII values for one or two English letters (lowercase or uppercase).
register	<i>0x00B1, 0x00B0</i>
Data bits	function
15-0 bit	Set UPC-E Code ID: ASCII values for one or two English letters (lowercase or uppercase).
register	<i>0x00B3, 0x00B2</i>
Data bits	function
15-0 bit	Set UPC-A Code ID: ASCII values for one or two English letters (lowercase or uppercase).
register	<i>0x00B5, 0x00B4</i>
Data bits	function
15-0 bit	Set Interleaved 2 of 5 Code ID: ASCII values for one or two English letters (lowercase or uppercase).
register	<i>0x00B7, 0x00B6</i>
Data bits	function
15-0 bit	Set ITF-6 Code ID: ASCII values for one or two English letters (lowercase or uppercase).



W010F00

Turn off the setup code



W010F01

** Activate the setting code

register	<i>0x00B9, 0x00B8</i>
Data bits	function
15-0 bit	Set ITF-14 Code ID: ASCII values for one or two English letters (lowercase or uppercase).
register	<i>0x00BB, 0x00BA</i>
Data bits	function
15-0 bit	Set Deutsche 14 Code ID: ASCII values for one or two English letters (lowercase or uppercase).
register	<i>0x00BD, 0x00BC</i>
Data bits	function
15-0 bit	Set Deutsche 12 Code ID: ASCII values for one or two English letters (lowercase or uppercase).
register	<i>0x00BF, 0x00BE</i>
Data bits	function
15-0 bit	Set Matrix 2 of 5 Code ID: ASCII values for one or two English letters (lowercase or uppercase).
register	<i>0x00C1, 0x00C0</i>
Data bits	function
15-0 bit	Set Industrial 25 Code ID: ASCII values for one or two English letters (lowercase or uppercase).
register	<i>0x00C3, 0x00C2</i>
Data bits	function
15-0 bit	Set Standard 25 Code ID: ASCII values for one or two English letters (lowercase or uppercase).
register	<i>0x00C5, 0x00C4</i>
Data bits	function
15-0 bit	Set Code 39 Code ID: ASCII values for one or two English letters (lowercase or uppercase).



W010F00

Turn off the setup



W010F01

** Turn on the setup code

register	<i>0x00C7, 0x00C6</i>	
Data bits	function	
15-0 bit	Set Codabar Code ID: ASCII values for one or two English letters (lowercase or uppercase).	
register	<i>0x00C9, 0x00C8</i>	
Data bits	function	
15-0 bit	Set Code 93 Code ID: ASCII values for one or two English letters (lowercase or uppercase).	
register	<i>0x00CB, 0x00CA</i>	
Data bits	function	
15-0 bit	Set Code 11 Code ID: ASCII values for one or two English letters (lowercase or uppercase).	
register	<i>0x00CD, 0x00CC</i>	
Data bits	function	
15-0 bit	Set Plessey Code ID: ASCII values for one or two English letters (lowercase or uppercase).	
register	<i>0x00CF, 0x00CE</i>	
Data bits	function	
15-0 bit	Set MSI-Plessey Code ID: ASCII values for one or two English letters (lowercase or uppercase).	
register	<i>0x00D1, 0x00D0</i>	
Data bits	function	
15-0 bit	Set RSS-14 Code ID: ASCII values for one or two English letters (lowercase or uppercase).	
register	<i>0x00D3, 0x00D2</i>	
Data bits	function	
15-0 bit	Set RSS-Limited Code ID: ASCII values for one or two English letters (lowercase or uppercase).	
register	<i>0x00D5, 0x00D4</i>	
Data bits	function	
15-0 bit	Set RSS-Expand Code ID: ASCII values for one or two English letters (lowercase or uppercase).	



W010F00

Turn off the setup code



W010F01

** Activate the setting code

Use the setup barcode

The reading engine can set options and functions by reading one or more setting barcodes. The following sections describe in detail the parameters and functions that can be set by the user, as well as the corresponding barcodes and commands.



W030000

Programming Barcode

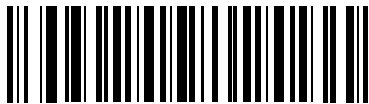
Parameter and Value

Denotes Default

**[Manual Reading].

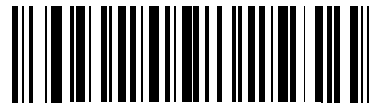
Value Name

Turn on/off the setup code



W010F01

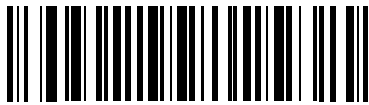
**[Open Setup Code]



W010F00

【Disable Setup Code】

Send a setup code message



W060F00

**[Do not send setting code information]



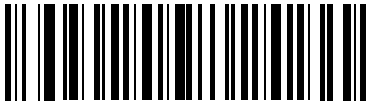
W060F06

【Sending Setting Code Information】



W010F00

Turn off the setup



W010F01

** Turn on the setup code

Restore factory defaults

All reading engines have a factory default setting, and reading the "Restore to Factory Default" barcode will restore all the attribute settings of the reading engine to the factory state.

You are most likely to use this barcode in the following situations:

1. There is an error in the setting of the reading engine, such as the barcode cannot be read.
2. You have forgotten what you have set up the reading engine before, and you don't want to be affected by the previous settings.
3. Set up the reading engine to use a function that is not commonly used, but then reset the engine after this.



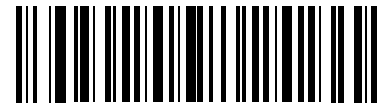
WFFD980

Restore to factory default



W010F00

Turn off the setup code



W010F01

** Activate the setting code

Chapter 2 Reading Patterns

Manual reading mode

The manual reading mode is the silent reading mode. In this mode, the reading engine starts reading the code after pressing the trigger button, and stops reading the code when the code reading is successful or the trigger button is released or the reading time is over.



W030000

**[Manual Reading].

In the manual reading mode, the reading engine can set the duration of a single code reading. The reading time can be set to 0~255s, and the default is 15s. When set to 0, it indicates an infinite amount of time.



M00031D

[Set the duration of a single code reading]

Example: Set the duration of a single barcode reading to 5 seconds

1. Read "Turn on the setting code"
2. Read the "Set Single Reading Duration" code
3. Read the data code "5" (see Appendix).
4. Read the "Save" code (see Appendix).
5. Read "Turn off the setting code"



W010F00

Turn off the setup



W010F01

** Turn on the setup code

Continuous reading mode

After setting, press the trigger button, and the reading engine will automatically start the next code reading after a certain interval (configurable) after the completion of the first code reading; Until you click the trigger button again, the reading engine stops reading the code. By default, there is no delay in reading the same barcode repeatedly.



W030002

[Continuous Reading].

In continuous reading mode, the reading engine can set the duration of a single code reading. The reading time can be set to 0~255s, and the default is 15s. When set to 0, it indicates an infinite amount of time.



M00031D

[Set the duration of a single code reading]

Example: Set the duration of a single barcode reading to 5 seconds

1. Read "Turn on the setting code"
2. Read the "Set Single Reading Duration" code
3. Read the data code "5" (see Appendix).
4. Read the "Save" code (see Appendix).
5. Read "Turn off the setting code"



W010F00

Turn off the setup code



W010F01

** Activate the setting code

In continuous reading mode, the reading engine can also set the reading interval duration, which is in units of 100ms, which can be set to 0~25.5s, and the default is 1.0s.



M00031C

【Set Reading Interval】

Example: Set the reading interval to 5 seconds

1. Read "Turn on the setting code"
2. Read the "Set Reading Interval" code
3. Read the data code "5" and "0" (see Appendix).
4. Read the "Save" code (see Appendix).
5. Read "Turn off the setting code"



W010F00

Turn off the setup



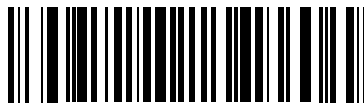
W010F01

** Turn on the setup code

In continuous reading mode, select "No delay for the same code reading", and the reading engine will automatically start the next code reading after the first code reading is completed. Until you click the trigger button again, the reading engine stops reading the code.

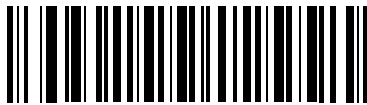
If the barcode is exactly the same as the last barcode that was successfully read, the reading engine will continue to wait until the same reading delay ends. When the barcode is not repeated, the reading engine will continue to read the code until the trigger button is clicked again and the reading engine stops reading the code.

The same reading delay is 100ms and can be set to 0.1~25.5s; If this parameter is set to 0, it will not allow the same barcode to be read repeatedly.



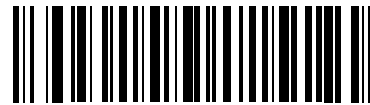
M00031E

[Set the same code reading delay]



W100A00

**[No delay for reading the same code].



W100A10

[Require the same code reading delay]

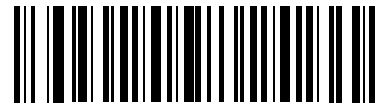
Example: Set the same reading delay to 5s

1. Read "Turn on the setting code"
2. Read the "Set Same Reading Delay" code
3. Read the data code "5" and "0" (see Appendix).
4. Read the "Save" code (see Appendix).
5. Read "Turn off the setting code"



W010F00

Turn off the setup code



W010F01

** Activate the setting code

Inductive reading mode

Once set, the reading engine will trigger upon detecting changes in the ambient light levels immediately in front of the engine. After the reading is complete, the read session ends and returns to the monitoring state, waiting for the next change in ambient brightness. In this mode, using the trigger line can also initiate the barcode reading. The sensitivity of the device to ambient light levels is configurable. By default, there is no delay in reading the same barcode repeatedly.



W030003

[Inductive Reading].

In the inductive reading mode, the reading engine can set the single code reading time, which can be set to 0~255s, while the default is 15s. When set to 0, it indicates an infinite amount of time.



M00031D

[Set the duration of a single code reading]

Example: Set the duration of a single barcode reading to 5 seconds

1. Read "Turn on the setting code"
2. Read the "Set Single Reading Duration" code
3. Read the data code "5" (see Appendix).
4. Read the "Save" code (see Appendix).
5. Read "Turn off the setting code"



W010F00

Turn off the setup



W010F01

** Turn on the setup code

In the inductive reading mode, the reading engine can also set the image stabilization duration. This parameter is in units of 100ms, which can be set to 0~25.5s, and the default is 0.4s.



M00031B

【Set Image Stabilization Duration】

Example: Set the image stabilization duration to 5 seconds

1. Read "Turn on the setting code"
2. Read the "Set Image Stabilization Duration" code
3. Read the data code "5" and "0" (see Appendix).
4. Read the "Save" code (see Appendix).
5. Read "Turn off the setting code"



W010F00

Turn off the setup code



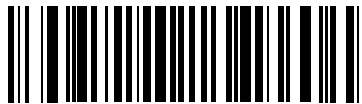
W010F01

** Activate the setting code

In the inductive reading mode, select "No delay for the same code reading", and the reading engine will automatically start the next code reading after the first code reading is completed. If the trigger line is asserted momentarily, the engine will stop reading.

If the barcode is exactly the same as the last barcode that was successfully read, the reading engine will continue to wait until the same reading delay ends. When the barcode is not repeated, the reading engine will continue to read the code until the trigger line is asserted momentarily again and the reading engine stops reading the code.

The same reading delay is 100ms, which can be set to 0.1~25.5s, and the default is 3.0s. If this parameter is set to 0, it will not allow the same barcode to be read repeatedly.



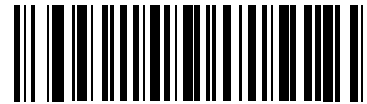
M00031E

[Set the same code reading delay]



W100A00

**[No delay for reading the same code].



W100A10

[Require the same code reading delay]

Example: Set the same reading delay to 5s

1. Read "Turn on the setting code"
2. Read the "Set Same Reading Delay" code
3. Read the data code "5" and "0" (see Appendix).
4. Read the "Save" code (see Appendix).
5. Read "Turn off the setting code"



W010F00

Turn off the setup



W010F01

** Turn on the setup code

Sensitivity is the degree to which the reading engine senses the drastic changes in the surrounding environment in the inductive barcode reading mode. Users can select the sensitivity according to the actual usage environment to improve the efficiency of code reading. The higher the sensitivity, the smaller the scene/ambient light change required to initiate reading; Conversely, the lower the sensitivity, the greater the change in the scene/ambient light required to initiate reading.



WFF0305

【High Sensitivity】



WFF0310

** 【Medium Sensitivity】



WFF0330

[Low sensitivity]



M00031A

【Custom Sensitivity】

The sensitivity can be set from 0 to 255 in the sensing mode, and the lower the value, the higher the sensitivity level.

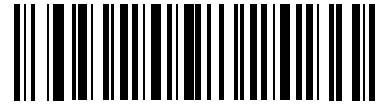
Example: Set the sensitivity level to 10

1. Read "Turn on the setting code"
2. Read the "Custom Sensitivity" code
3. Read the data code "1" and "0" (see Appendix).
4. Read the "Save" code (see Appendix).
5. Read "Turn off the setting code"



W010F00

Turn off the setup code



W010F01

** Activate the setting code

Command to trigger the reading mode

In this mode, the host computer needs to trigger the reading engine for decoding.



W030001

【Command Trigger Reading】

In the command-triggered reading mode, the reading engine can set the reading duration of a single time, which can be set to 0~255s. The default is 15s. When set to 0, it indicates an infinite amount of time.



M00031D

[Set the duration of a single code reading]

Example: Set the duration of a single barcode reading to 5 seconds

1. Read "Turn on the setting code"
2. Read the "Set Single Reading Duration" code
3. Read the data code "5" (see Appendix).
4. Read the "Save" code (see Appendix).
5. Read "Turn off the setting code"



W010F00

Turn off the setup



W010F01

** Turn on the setup code

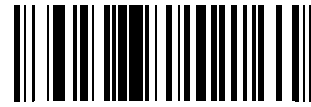
Chapter 3 Prompt Sending

Reading success sound setting



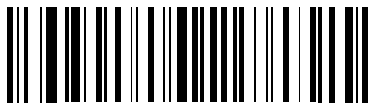
W041204

**[Turn on the reading success prompt]



W041200

[Turn off the reading success prompt]



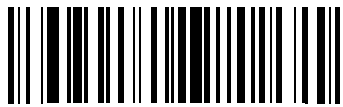
WFF10DA

[Low frequency]



WFF104B

** 【Medium Frequency】



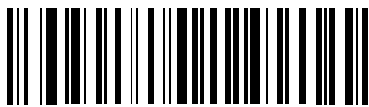
WFF1025

【High Frequency】



WFF111F

[Tone duration: 40ms]



WFF113E

**[Tone length: 80ms]



WFF115D

[Pitch length: 120ms]



W010F00

Turn off the setup code



W010F01

** Activate the setting code

Decode status prompt

This function can be enabled to let the host quickly know whether the current decoding is successful.

After this function is enabled, if the reading is unsuccessful, the reading engine will send the prompt character "F".

If the recognition is successful, add the prompt character "S" before decoding the data.



W203120

【Send Decode Status Prompt】



W203100

**[Do not send decoding status prompt].



W010F00

Turn off the setup



W010F01

** Turn on the setup code

Other settings

The following parameters are set temporarily. After the device is restarted or shut down, these parameters will automatically be restored to factory default settings.

Mute settings



W400000

【Turn on silent mode】

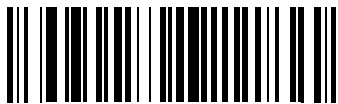


W400040

**【Turn off silent mode】.

Tip: This setting is only valid for the sound of successful reading.

Lighting settings



W0C0000

【Off】



W0C0008

【Solid】



W0C0004

**【Bright when reading the code】.



W010F00

Turn off the setup code



W010F01

** Activate the setting code



W010F00

Turn off the setup

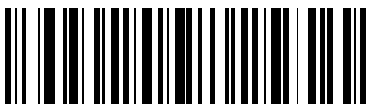


W010F01

** Turn on the setup code

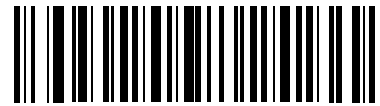
Chapter 4 Communication Settings

The EM1365-EX engine provides a TTL-232 serial communication interface to communicate with the host computer. Through the communication interface, it can receive reading data, control the reading engine to issue commands, and change the functional parameters of the reading engine.



W010F00

Turn off the setup code



W010F01

** Activate the setting code

Serial communication interface

baud rate

When the reading engine is connected to the host using a serial cable, both parties need to set the same communication parameters to ensure the normal communication, and the baud rate (i.e., transmission rate) during communication needs to be set.

The baud rate is the number of bits per second (8 bits per byte) transmitted during 232 data communication, and the baud rate used by the reading engine and the data receiving host must be consistent to ensure accurate data transmission. The reading engine supports the following baud rates in bits/s.



WFFD9D3

** 【9600】



WFFD9D5

【19200】



WFFD9D0

【1200】



WFFD9D6

【38400】



WFFD9D1

【2400】



WFFD9D7

【57600】



W010F00

Turn off the setup



W010F01

** Turn on the setup code



WFFD9D2

【4800】



WFFD9D8

【115200】



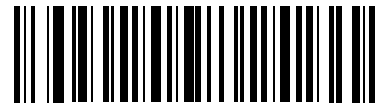
WFFD9D4

【14400】



W010F00

Turn off the setup code



W010F01

** Activate the setting code

verify



W062900

**No checksum



W062906

【Even Check】



W062904

【Odd Check】

Stop bits



W012900

** [1 stop bit].



W012901

【2 stop bits】



W010F00

Turn off the setup



W010F01

** Turn on the setup code

Data bits



W082908

[8 data bits].



W0F2908

**[8 data bits, no check, 1 stop bit].



W0F290E

[8 data bits, even check, 1 stop bit]



W0F290C

[8 data bits, odd check, 1 stop bit]



W0F2909

[8 data bits, no checksum, 2 stop bits]



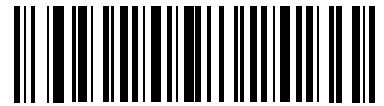
W0F290F

[8 data bits, even check, 2 stop bits]



W010F00

Turn off the setup code



W010F01

** Activate the setting code



W0F290D

[8 data bits, odd check, 2 stop bits]



W082900

[7 data bits]



W0F2906

[7 data bits, even check, 1 stop bit]



W0F2904

[7 data bits, odd check, 1 stop bit]



W0F2907

[7 data bits, even check, 2 stop bits]



W0F2905

[7 data bits, odd check, 2 stop bits]



W010F00

Turn off the setup



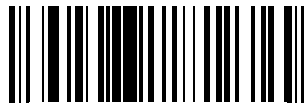
W010F01

** Turn on the setup code

USB interface

USB HID-KBW

When using the USB communication interface, the reading engine can be simulated as a HID-KBW device. In this mode, the reading engine becomes a virtual keyboard that sends data to the host.



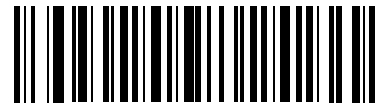
W070901

**[Switch to USB HID-KBW mode].



W010F00

Turn off the setup code



W010F01

** Activate the setting code

Standard keyboard input mode



W031A00

**[Switch to standard keyboard input mode]

The keyboard emulates the input character pattern

In order for the reading engine to be able to input any ASCII characters in any language standard (0x00~0xFF in hexadecimal values), the virtual keyboard can be set to the keyboard to emulation input character mode. When you send characters using this combination, the speed slows down because more data is sent.

After switching to the "Keyboard Emulation Input Character Mode", read the data code corresponding to the ASCII character you want to enter in turn, and the reading engine will use the following virtual keyboard operation after the decoding is successful:

1. Press and hold the "ALT" button
2. According to the character code, press the number keys in the numeric keypad in turn
3. Release the "ALT" button



W031A03

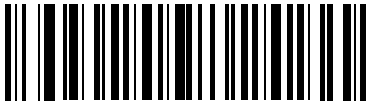
[Switch to keyboard emulation input character mode]

Note: To enable this mode, it is recommended to turn on Num Lock on the console's numeric keypad.



W010F00

Turn off the setup



W010F01

** Turn on the setup code

The keyboard emits input control character patterns

The ASCII value of the hexadecimal value between 0x00~0x1F can be escaped as a control function key. The operation of the input of control function keys in the virtual keyboard is as follows:

1. Hold down the "Ctrl" key
2. Press the specified control function key (the correspondence between the ASCII value and the control function key can be referred to the "Keyboard Simulation Input Control Character Correspondence Table" on the next page).
3. Release the "Ctrl" key and the control function key



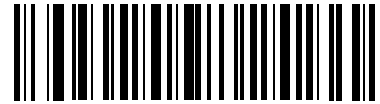
W031A01

[Switch to keyboard emulation input control character mode]



W010F00

Turn off the setup code



W010F01

** Activate the setting code

The keyboard emits a table of control character correspondence inputs

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	And	15	In the
06	F	16	V
07	G	17	In
08	H	18	X
09	I	19	And
0A	J	1A	With
0B	K	1B	[
0C	L	1C	\
0D	M	1D]
0E	N	1E	6
0F	Or	1F	.



W010F00

Turn off the setup



W010F01

** Turn on the setup code

Country/language keyboard layout selection

Different national languages have different keyboard key layouts, symbols, etc. The reading engine can be virtualized into keyboard standards in different countries according to actual needs.



WFF1900

**1 - American Keyboard



WFF1901

【2 - Belgium】



WFF1902

【3 - Brazil】



WFF1903

【4 - Canada】



WFF1904

【5 - Czech/Slovak】



WFF1905

【6 - Denmark】



WFF1906

【7 - Finland】



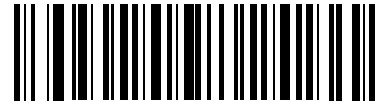
WFF1907

【8 - France】



W010F00

Turn off the setup code



W010F01

** Activate the setting code



WFF1908

【9 - Austria】



WFF1909

【10 - Greece】



WFF190A

[11 - Hungary].



WFF190B

【12 - Israel】



WFF190C

【13 - Italy】



WFF190D

【14 - Latin America】



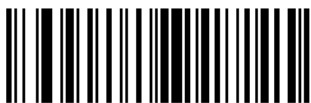
WFF190E

【15 - Netherlands】



WFF190F

【16 - Norway】



WFF1910

【17 - Poland】



WFF1911

【18 - Portugal】



W010F00

Turn off the setup



W010F01

** Turn on the setup code



WFF1912

【19 - Romania】



WFF1913

【20 - Russia】



WFF1915

[21 - Slovakia].



WFF1916

【22 - Spain】



WFF1917

【23 - Sweden】



WFF1918

【24 - Switzerland】



WFF1919

【25 - Turkey 1】



WFF191A

【26 - Turkey 2】



WFF191B

【27 - United Kingdom】



WFF191C

【28 - Japan】



W010F00

Turn off the setup code



W010F01

** Activate the setting code

Delay setting between keys

The key time interval between the virtual keyboard's continuous key presses, from the last key release to the next key press.



WC01A00

**[No delay].



WC01A40

【delay 5ms】



WC01A80

【delay 10ms】



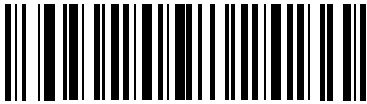
WC01AC0

【delay 15ms】



W010F00

Turn off the setup



W010F01

** Turn on the setup code

Force letter case conversion

This parameter is only valid in standard keyboard input mode and keyboard emulation input control character mode.



W381A00

**[Do not convert].



W381A20

Convert all to uppercase



W381A30

[Convert all to lowercase]



W381A08

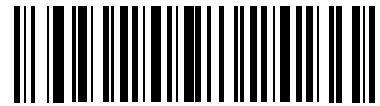
【Case reversal】

Example: If you set "Case Inversion", when reading a barcode with "AbC" content data, the host computer will get the keyboard input of "aBc".



W010F00

Turn off the setup code



W010F01

** Activate the setting code

Analog numeric keypad

If this function is not enabled, all transmissions will be sent according to the corresponding key value of the keypad.

After this function is enabled, if the decoded data obtained by the reading engine contains the digits "0~9", the virtual keyboard will send the digits according to the corresponding key values of the numeric keypad. If the obtained decoded data contains "+", "_", "*****"/"****" in addition to "0~9", it is also included in the numeric keypad. For other symbols, data is still sent according to the corresponding key value of the main keyboard. The analog numeric keypad function is affected by the Num Lock status of the host keypad: if the Num Lock status of the host keypad is off (the Num Lock light is off), the decoded data is still sent according to the corresponding key value of the keypad; If the Num Lock status of the host keypad is on (the Num Lock light is on), the decoded data is sent according to the key value corresponding to the numeric keypad.



W041A04

[Analog numeric keypad].



W041A00

**[No analog numeric keypad].

Note: Before enabling this feature, make sure that Num Lock is enabled on the console at this time. This feature does not work if the "Keyboard Emulation Input Character Mode" is turned on.



W010F00

Turn off the setup

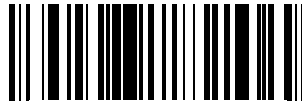


W010F01

** Turn on the setup code

USB DATAPIPE

This feature requires the appropriate driver to be installed on the host.

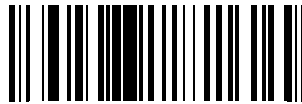


W070900

【SWITCH TO USB DATAPIPE MODE】

USB COM Port Emulation

When the reading engine uses the USB communication interface, but the host application uses serial communication to receive data, the reading engine can be set to the USB virtual serial communication mode. This feature requires the appropriate driver to be installed on the host.



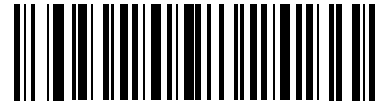
W070902

【Switch to USB COM Port Emulation mode】



W010F00

Turn off the setup code



W010F01

** Activate the setting code

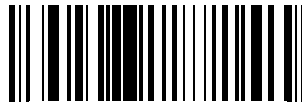
HID-POS

The HID-POS interface is recommended for use with new applications. It can send up to 56 characters in a single USB message and is faster than an analog keyboard interface.

Features:

- ✧ Based on the HID interface, there is no need to install the driver.
- ✧ The communication speed is much faster than that of both the analog keyboard interface and the traditional RS-232 interface.

Note: The HID-POS interface does not require a custom driver to be installed. However, the HID interface requires a driver to be installed on Windows. When the device is plugged into Windows for the first time, it will ask to install the driver. All HID interfaces use standard drivers provided by the operating system.



W070903

【Switch to HID-POS mode】



W010F00

Turn off the setup



W010F01

** Turn on the setup code

The software programs a method of accessing the device

1. Use CreateFile to open the device as a HID device.
2. The ReadFile is then used to pass the scanned data to the application.
3. Use WriteFile to send data to the device.

For complete USB and HID interface information, please refer to: www.USB.org

Get the scan data

After scanning and decoding a barcode, the device sends the following input packet:

Byte	Bit							
	7	6	5	4	3	2	1	0
0	Packet ID = 02							
1	The length of the barcode data							
2-57	Barcode Data (1-56)							
58-61	Reserved (1-4)							
62	00							
63	00 (no data) or 01 (data still available)							

VID and PID tables

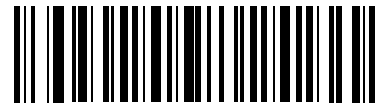
USB uses 2 numbers to identify the device and find the right one. The first number is the VID (Vendor ID), which is assigned by the USB Implementers Forum. Newland Automatic Identification Company's Vendor ID (VID) is 1EAB (hexadecimal). The second number is the PID (Device ID). Each Newland automatically identified product has a range of PIDs, and each PID number contains a base number and interface type of the product type.

The name of the device	Interface type	PID (Hexadecimal)	PID (Decimal)
EM1365-EX	USB DATAPIPE	8001	32769
	USB HID-KBW	8003	32771
	USB COM Port Emulation	8006	32774
	HID-POS	8010	32784



W010F00

Turn off the setup code



W010F01

** Activate the setting code

Chapter 5 Data Editing

Brief introduction

After the reading engine is successfully decoded, a string of data is obtained, which can be numbers and letters, etc., This string of data is the data information contained in the barcode.

In practical applications, we may not want all the data in the barcode to be transmitted to the host, or the data information contained in the barcode may not meet your needs. Additional data can be added to the transmitted barcode data for a variety of reasons, e.g for code type identification, or to simply conform to a required data format for host compatibility.

Data can be added to the beginning of a code (prefix) or the end of a code (suffix) . Additionally, these configuration settings make it possible to elect what prefix/suffix characters are added.

Tip: Edit Barcode Data:<prefix><barcode data><suffix><end characters>

Prefix order setting



W013100

** 【Code ID+Custom+AIM ID】



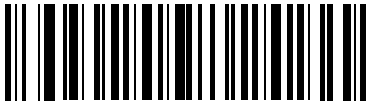
W013101

【Custom+Code ID+AIM ID】



W010F00

Turn off the setup



W010F01

** Turn on the setup code

Custom prefixes

Custom prefixes are prohibited or allowed

Custom prefix: A user-defined string is added before the information is decoded. For example, you can add a custom prefix and set the prefix to the string "AB", and after reading a barcode with data of "123", the reading engine adds the "AB" string before the "123" string, and the host receives "AB123".



W043104

Allow custom prefixes



W043100

**Do not add custom prefixes

Set a custom prefix

Custom first reads "Set Custom Prefix", then reads the hexadecimal value of each byte in the prefix string to be set sequentially, and finally reads "Save" to complete the setting of the custom prefix. Note: The total length of a custom prefix string cannot exceed 5 characters.



M000100

Set custom prefix

Example: Set the custom prefix to "CODE" (0x43/0x4F/0x44/0x45 in hexadecimal value).

1. Read "Turn on the setting code".
2. Read the "Set custom prefix" code
3. Read the following data code: "4", "3", "4", "F", "4", "4", "4", "5" (see Appendix).
4. Read the "Save" code (see Appendix).
5. Read the "Allow custom prefixes" code



W010F00

Turn off the setup code



W010F01

** Activate the setting code

6. Read "Turn off the setup code".

7.

AIM ID prefix

AIM is an abbreviation for Automatic Identification Manufacturers, and AIM defines identification numbers for each standard barcode, as defined in the Appendix. After decoding, the reading engine can add this identification number before the barcode data, i.e., the AIM ID prefix.



W186018

【Enable AIM ID Prefix】



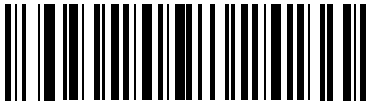
W186000

**[AIM ID prefix is prohibited].



W010F00

Turn off the setup



W010F01

** Turn on the setup code

CODE ID Prefix

In addition to the AIM ID prefix that can be used to identify different barcode types, users can also use the Code ID prefix to identify the barcode type. Unlike the AIM ID prefix, the Code ID prefix for each barcode type can be customized. All barcodes have a CodeID of 1 or 2 characters, and must be letters, not numbers, invisible characters, or punctuation marks.



W023102

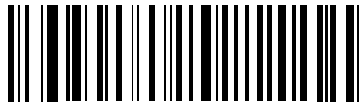
[CODE ID prefix is allowed].



W023100

**[CODE ID prefix is prohibited].

Code ID is the factory default



WFFD9C2

[All Barcode Code IDs are restored to factory defaults]

Modify the code ID

For details on how to modify a code ID, see the following examples.

Example: Modify the code IDo "p" (hexadecimal value is 0x70) of Code 128

1. Read "Turn on the setting code".
2. Read the code "Modify Code 128 Code ID".
3. Read the following data codes: "7", "0" (see Appendix).
4. Read the "Save" code (see Appendix).



W010F00

Turn off the setup code



W010F01

** Activate the setting code

5. Read the code "Allow code ID prefix".
6. Read "Turn off the setup code".



W010F00

Turn off the setup



W010F01

** Turn on the setup code

Modify the Code ID setting code list for each barcode type:



M000200

【revise Code 128 Code ID】



M000201

【revise UCC/EAN-128 Code ID】



M000202

【revise AIM 128 Code ID】



M000204

【revise EAN-8 Code ID】



M000205

【revise EAN-13 Code ID】



M000206

【revise ISSN Code ID】



M000207

【revise ISBN Code ID】



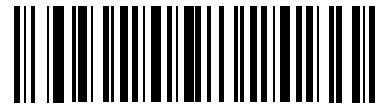
M000208

【revise UPC-E Code ID】



W010F00

Turn off the setup code



W010F01

** Activate the setting code

Modify the Code ID setting code list for each barcode type (continued).



M000209

【revise UPC-A Code ID】



M00020A

【revise Interleaved 2 of 5 Code ID】



M00020B

【revise ITF-6 Code ID】



M00020C

【revise ITF-14 Code ID】



M00020D

【revise Deutsche 14 Code ID】



M00020E

【revise Deutsche 12 Code ID】



M00020F

【revise Matrix 2 of 5 Code ID】



M000210

【revise Industrial 25 Code ID】



W010F00

Turn off the setup



W010F01

** Turn on the setup code

Modify the Code ID setting code list for each barcode type (continued).



M000211

【revise Standard 25 Code ID】



M000212

【revise Code 39 Code ID】



M000213

【revise Codabar Code ID】



M000214

【revise Code 93 Code ID】



M000215

【revise Code 11 Code ID】



M000216

【revise Plessey Code ID】



M000217

【revise MSI-Plessey Code ID】



M000218

【revise RSS-14 Code ID】



M000219

【revise RSS-Limited Code ID】



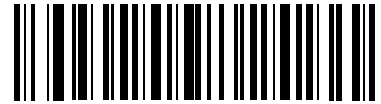
M00021A

【revise RSS-Expand Code ID】



W010F00

Turn off the setup code



W010F01

** Activate the setting code

Custom suffix

Adding custom suffixes is prohibited or allowed

A custom suffix is a user-defined string added after decoding the information.

For example, you can add a custom suffix and set the suffix to the string "AB", and after reading a barcode with data of "123", the reading engine adds the string "AB" after the "123" string, and the host receives "123AB".

Note: The total length of a custom suffix string cannot exceed 5 characters.



W083108

Allow adding custom suffixes



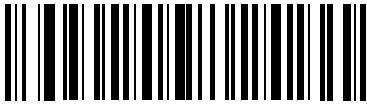
W083100

**Do not add custom suffixes



W010F00

Turn off the setup



W010F01

** Turn on the setup code

Set a custom suffix

First read "Set Custom Suffix", then read the hexadecimal value of each byte in the suffix string to be set in order, and finally read "Save" to complete the setting of the custom suffix. Note: The total length of a custom suffix string cannot exceed 5 characters.



M000101

【Set a custom suffix】

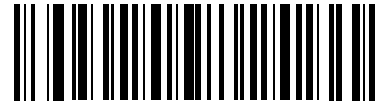
Example: Set the custom suffix to "CODE" (the hexadecimal value is 0x43/0x4F/0x44/0x45).

1. Read "Turn on the setting code".
2. Read the "Set custom suffix" code
3. Read the following data code: "4", "3", "4", "F", "4", "4", "4", "5" (see Appendix).
4. Read the "Save" code (see Appendix).
5. Read the code "Allow custom suffixes to be added".
6. Read "Turn off the setup code".



W010F00

Turn off the setup code



W010F01

** Activate the setting code

Terminator suffix

Terminator suffixes (e.g., carriage return, line break) can be used to mark the end of a piece of complete data. The terminator suffix must be the last thing a piece of data is sent and there will be no appended data after it.

Note: The total length of the terminator suffix string cannot exceed 5 characters.

Terminator suffixes are prohibited or allowed

By selecting to read the following setting codes, you can have the reading engine add an end character, or no end character at all.



W103110

**[Allow adding terminator suffix].



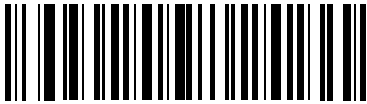
W103100

[Prohibition of adding terminator suffix]



W010F00

Turn off the setup



W010F01

** Turn on the setup code

Set the end character suffix

By reading the following setting code, you can quickly set the end character to 0x0D (Carriage Enter) or 0x0D, 0x0A (Carriage Return) or 0x09 (Tab), and allow you to add an end character for sending.



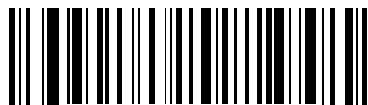
WFFD9C3

[End character is set to 0x0D and send is enabled]



WFFD9C4

**[End character is set to 0x0D, 0x0A, and enable send].



WFFD9C5

[The end character is set to 0x09 and send is enabled]



M000102

【Set End Character Suffix】

Users can also customize the terminator suffix: first read "Set Terminator Suffix", then read the hexadecimal value of the terminator suffix to be set in order and finally read "Save".

Note: The total length of the terminator suffix string cannot exceed 5 characters.

Example: Set the terminator suffix to 0x0A

1. Read "Turn on the setting code".
2. Read the "Set End Character Suffix" code
3. Read the following data code: "0", "A" (see Appendix).
4. Read the "Save" code (see Appendix).
5. Read the code "Allow the addition of terminator suffixes".
6. Read "Turn off the setup code".



W010F00

Turn off the setup code



W010F01

** Activate the setting code



W010F00

Turn off the setup



W010F01

** Turn on the setup code

Chapter 6 Barcode parameter setting

Brief introduction

Each type of barcode has its own unique properties. The setting codes in this chapter allow you to adjust the reading engine to accommodate these changes.

The fewer barcode types with "Allow Reading" enabled, the faster the reading engine will read. You can disable the reading engine from reading barcode types that are not used to improve the performance of the reading engine.

Global settings

Allow/disallow all barcodes to be read

If you read "Disable all barcodes", the reading engine will only be able to read the setting code, and all barcodes except the setting code will not be read.



WFFD981

[Allows all barcodes to be read]



WFFD982

[It is forbidden to read all barcodes]



W010F00

Turn off the setup code



W010F01

** Activate the setting code

Code 128

Restore factory defaults



WFFD990

Restore the default value of Code 128 related settings

Code 128 is allowed/disallowed



W016101

**Code 128 is allowed



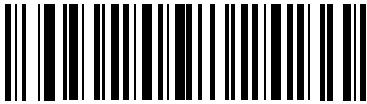
W016100

Code 128 is prohibited



W010F00

Turn off the setup



W010F01

** Turn on the setup code

Set a reading length limit

Used to set the valid read length of Code 128. If the reading length of the barcode does not match the set valid length, the reading engine will not send the barcode content to the host.

Code 128 reads are made up of "minimum length" and "maximum length". The maximum length limit of any 1D barcode must not exceed 255, if the maximum length is less than the minimum length, only those two lengths of the barcode will be read. If the maximum length is equal to the minimum length, only this length is supported.



M000301

Set a minimum length limit



M000300

Set a maximum length limit

Example: The reading engine restricts the reading engine to read only Code128 barcodes with a minimum of 8 bytes and a maximum of 12 bytes

1. Read "Turn on the setting code".
2. Read the "Set minimum length limit" code
3. Read data code "8" (see Appendix)
4. Read the "Save" code (see Appendix)
5. Read the "Set maximum length limit" code
6. Read the data codes "1" and "2".
7. Read the "Save" code
8. Read "Turn off the setting code"



W010F00

Turn off the setup code



W010F01

** Activate the setting code

UCC/EAN-128

Restore factory defaults



WFFD991

Restore the default value of UCC/EAN-128 related settings

Enable/Disable UCC/EAN-128



W036203

** 【Enable UCC/EAN-128】



W036200

【Disable UCC/EAN-128】



W036201

[Recognized as Code 128]



W010F00

Turn off the setup



W010F01

** Turn on the setup code

Set a reading length limit

Used to set the effective read length of the UCC/EAN-128. If the reading length of the barcode does not match the set valid length, the reading engine will not send the barcode content to the host.

The UCC/EAN-128 read length consists of a "minimum length" and a "maximum length". The maximum length limit of any 1D barcode must not exceed 255, if the maximum length is less than the minimum length, only those two lengths of the barcode will be read. If the maximum length is equal to the minimum length, only this length is supported.



M000303

【Set minimum length limit】



M000302

[Set the maximum length limit]

Example: The reading engine restricts the reading engine to only read UCC/EAN-128 barcodes with a minimum of 8 characters and a maximum of 12 characters.

1. Read "Turn on the setting code".
2. Read the "Set minimum length limit" code
3. Read data code "8" (see Appendix)
4. Read the "Save" code (see Appendix)
5. Read the "Set maximum length limit" code
6. Read the data codes "1" and "2".
7. Read the "Save" code
8. Read "Turn off the setting code"



W010F00

Turn off the setup code



W010F01

** Activate the setting code

AIM 128

Restore factory defaults



WFFD992

Restore the default value of AIM 128 related settings

Reading of AIM 128 is allowed/prohibited



W036302

[Permission to read AIM 128].



W036300

**[Prohibition of reading AIM 128].



W036301

[Recognized as Code 128]



W010F00

Turn off the setup



W010F01

** Turn on the setup code

Set a reading length limit

Used to set the effective reading length of the AIM 128. If the reading length of the barcode does not match the set valid length, the reading engine will not send the barcode content to the host.

The AIM 128 reading length consists of a "minimum length" and a "maximum length". The maximum length limit of any 1D barcode must not exceed 255, if the maximum length is less than the minimum length, only those two lengths of the barcode will be read. If the maximum length is equal to the minimum length, only this length is supported.



M000305

【Set minimum length limit】



M000304

[Set the maximum length limit]

Example: The reading engine restricts the reading engine to only read AIM 128 barcodes with a minimum of 8 characters and a maximum of 12 characters.

1. Read "Turn on the setting code".
2. Read the "Set minimum length limit" code
3. Read data code "8" (see Appendix)
4. Read the "Save" code (see Appendix)
5. Read the "Set maximum length limit" code
6. Read the data codes "1" and "2".
7. Read the "Save" code



W010F00

Turn off the setup code



W010F01

** Activate the setting code

8. Read "Turn off the setting code"

EAN-8

Restore factory defaults



WFFD994

Restore EAN-8 settings to default

Reading of EAN-8 is allowed/disabled



W016501

** 【Enable EAN-8】



W016500

[Forbidden to read EAN-8]

Set whether to send the check digit

EAN-8 barcode data is fixed as 8 characters, and the 8th character is the check bit, which is used to verify the correctness of all 8 characters.



W046504

Send check digits



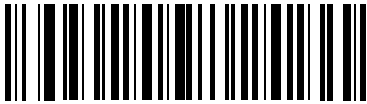
W046500

[Do not send the check digit]



W010F00

Turn off the setup



W010F01

** Turn on the setup code

Set whether to allow the reading of additional codes

Additional code refers to the 2-digit or 5-digit barcode added after the standard barcode, as shown in the figure below, in which the blue wireframe on the left is the standard barcode, and the red wireframe on the right is the additional code.



W106510

【Read 2-digit additional code】



W106500

**[Do not read the 2-digit additional code].



W206520

[Read the 5-digit additional code]



W206500

**[Do not read the 5-digit additional code].



W010F00

Turn off the setup code



W010F01

** Activate the setting code

After setting to "read 2-digit additional code" or "read 5-digit additional code", the reading engine can read the new barcode composed of a standard barcode and additional code; It is also possible to read ordinary barcodes without additional codes. If you set it to "Do not read 2-digit additional code" or "Do not read 5-digit additional code", the part of the additional code in the new barcode composed of the standard barcode and the additional code will not be read, and the part of the standard barcode can still be read normally.



W010F00

Turn off the setup



W010F01

** Turn on the setup code

Set whether or not there must be an additional code

This parameter is valid only if the reading engine is set to "read 2-digit additional code" or "read 5-digit additional code".



W086508

[Must have].



W086500

**Not required

Extended settings

"Barcode information is not expanded", that is, the original type and data bits of the barcode are maintained, and no expansion is made.

"Expand the barcode information to EAN-13", that is, the data bit of the barcode is expanded (0 is added in front), but the barcode type does not change.

"Barcode information and type converted to EAN-13", that is, the barcode type and data bits are expanded.



WC06540

[Barcode information is extended to EAN-13]



WC06500

**[Barcode information is not expanded].

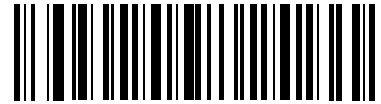


WC06580



W010F00

Turn off the setup code



W010F01

** Activate the setting code

[Barcode information and type conversion to EAN-13]

EAN-13

Restore factory defaults



WFFD995

[Restore the default value of EAN-13 related settings].

Reading of EAN-13 is allowed/prohibited



W016601

** 【Enable EAN-13】



W016600

[Forbidden to read EAN-13]

Set whether to send the check digit

EAN-13 barcode data is fixed to 13 characters, and the 13th character is the check bit, which is used to verify the correctness of all 13 characters.



W010F00

Turn off the setup



W010F01

** Turn on the setup code



W046604

Send check digits



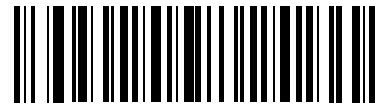
W046600

[Do not send the check digit]



W010F00

Turn off the setup code



W010F01

** Activate the setting code

Set whether to allow the reading of additional codes

Additional code refers to the 2-digit or 5-digit barcode added after the standard barcode, as shown in the figure below, in which the blue wireframe on the left is the standard barcode, and the red wireframe on the right is the additional code.



W106610

【Read 2-digit additional code】



W106600

**[Do not read the 2-digit additional code].



W206620

[Read the 5-digit additional code]



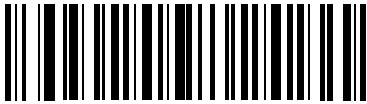
W206600

**[Do not read the 5-digit additional code].



W010F00

Turn off the setup



W010F01

**** Turn on the setup code**

After setting to "read 2-digit additional code" or "read 5-digit additional code", the reading engine can read the new barcode composed of standard barcode and additional code; It is also possible to read standard barcodes without additional codes. If you set it to "Do not read 2-digit additional code" or "Do not read 5-digit additional code", the part of the additional code in the new barcode composed of the normal barcode and the additional code will not be read, and the part of the normal barcode can still be read normally.



W010F00

Turn off the setup code



W010F01

** Activate the setting code

Set whether or not there must be an additional code

This parameter is valid only if the reading engine is set to "read 2-digit additional code" or "read 5-digit additional code".



W086608

[Must have].



W086600

**Not required



W010F00

Turn off the setup



W010F01

** Turn on the setup code

ISSN

Restore factory defaults



WFFD996

Restore the default value of ISSN-related settings

Reading the ISSN is allowed/disallowed



W036702

[Permission to read ISSN]



W036700

**[Forbidden to read ISSN].



W036701

[Identified as EAN-13]



W010F00

Turn off the setup code



W010F01

** Activate the setting code

ISBN

Restore factory defaults



WFFD997

Restore the default value of ISBN settings

Allow/Disallow ISBN reading



W036802

[Permission to read ISBN]



W036800

** 【Identified as ISBN】



W036801

[Identified as EAN-13]

ISBN data bit setting



W086800

**[13-bit].



W086808

[10 digits]



W010F00

Turn off the setup



W010F01

** Turn on the setup code

UPC-E

Restore factory defaults



WFFD998

Restore the default value of UPC-E related settings

Reading of UPC-E is allowed/disabled



W016901

** 【 Enable UPC-E】



W016900

[Prohibition of reading UPC-E]

Set whether to send the check digit

The UPC-E barcode data is fixed at 8 characters, and the 8th character is the check bit, which is used to verify the correctness of all 8 characters.



W010F00

Turn off the setup code



W010F01

** Activate the setting code



W046904

Send check digits



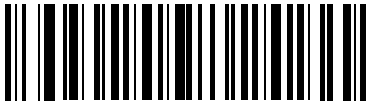
W046900

[Do not send the check digit]



W010F00

Turn off the setup



W010F01

** Turn on the setup code

Set whether to allow the reading of additional codes

Additional code refers to the 2-digit or 5-digit barcode added after the standard barcode, as shown in the figure below, in which the blue wireframe on the left is the standard barcode, and the red wireframe on the right is the additional code.



W106910

【Read 2-digit additional code】



W106900

**[Do not read the 2-digit additional code].



W206920

[Read the 5-digit additional code]



W206900

**[Do not read the 5-digit additional code].



W010F00

Turn off the setup code



W010F01

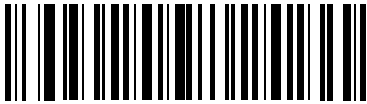
** Activate the setting code

After setting to "read 2-digit additional code" or "read 5-digit additional code", the reading engine can read the new barcode composed of standard barcode and additional code; It is also possible to read standard barcodes without additional codes. If you set it to "Do not read 2-digit additional code" or "Do not read 5-digit additional code", the part of the additional code in the new barcode composed of the standard barcode and the additional code will not be read, and the part of the standard barcode can still be read normally.



W010F00

Turn off the setup



W010F01

** Turn on the setup code

Set whether or not there must be an additional code

This parameter is valid only if the reading engine is set to "read 2-digit additional code" or "read 5-digit additional code".



W086908

【Required】



W086900

**Not required

Specify whether to send system characters

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



W306A10

[Do not send system characters]



W306A20

Send System Characters



W010F00

Turn off the setup code



W010F01

** Activate the setting code

Extended settings

"Barcode information is not expanded", that is, the original type and data of the barcode are maintained, and no expansion is made.

"Expand the barcode information to UPC-A", that is, the data of the barcode is expanded, but the barcode type does not change.

"Barcode information and type converted to UPC-A", that is, the barcode type and data bits are expanded.



WC06940

[Barcode information is extended to UPC-A]



WC06900

**[Barcode information is not expanded].



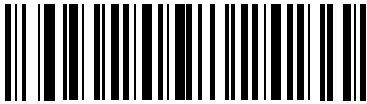
WC06980

[Barcode information and type converted to UPC-A]



W010F00

Turn off the setup



W010F01

** Turn on the setup code

UPC-A

Restore factory defaults



WFFD999

Restore UPC-A related setting defaults

Reading of UPC-A is allowed/disabled



W036B02

** 【 Enable UPC-A 】



W036B00

[Prohibition of reading UPC-A]



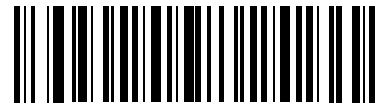
W036B01

[Identified as EAN-13]



W010F00

Turn off the setup code



W010F01

** Activate the setting code

Set whether to send the check digit

The UPC-A barcode data is fixed at 13 characters, and the 13th character is the check bit, which is used to verify the correctness of all 13 characters.



W086B08

Send check digits



W086B00

[Do not send the check digit]

Prefix character sending settings

The country code of the UPC-A barcode is the leading character, which is generally not displayed in the identification character below the barcode, and the "0" represents USA. The first character in the human identification character is the system character.



W036A00

[No prefix]



W036A01

**[System Characters].



W036A02

【System Characters and Country Codes】



W010F00

Turn off the setup



W010F01

** Turn on the setup code

Set whether to allow the reading of additional codes

Additional code refers to the 2-digit or 5-digit barcode added after the standard barcode, as shown in the figure below, in which the blue wireframe on the left is the standard barcode, and the red wireframe on the right is the additional code.



W206B20

【Read 2-digit additional code】



W206B00

**[Do not read the 2-digit additional code].



W406B40

[Read the 5-digit additional code]



W406B00

**[Do not read the 5-digit additional code].



W010F00

Turn off the setup code



W010F01

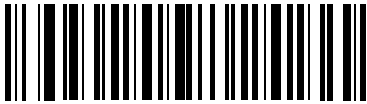
** Activate the setting code

After setting to "read 2-digit additional code" or "read 5-digit additional code", the reading engine can read the new barcode composed of standard barcode and additional code; It is also possible to read standard barcodes without additional codes. If you set it to "Do not read 2-digit additional code" or "Do not read 5-digit additional code", the part of the additional code in the new barcode composed of the standard barcode and the additional code will not be read, and the part of the normal barcode can still be read normally.



W010F00

Turn off the setup



W010F01

** Turn on the setup code

Set whether or not there must be an additional code

This parameter is valid only if the reading engine is set to "read 2-digit additional code" or "read 5-digit additional code".



W106B10

【Required】



W106B00

**Not required



W010F00

Turn off the setup code



W010F01

** Activate the setting code

Interleaved 2 of 5

Restore factory defaults



WFFD99A

Restore Interleaved 2 of 5 related settings defaults

Enable/Disable Interleaved 2 of 5



W016C01

** 【 Enable Interleaved 2 of 5 】



W016C00

【 Disable Interleaved 2 of 5 】



W010F00

Turn off the setup



W010F01

** Turn on the setup code

Verify the settings

Interleaved 2of 5 barcode data is not mandatory to include a checksum, but if there is a checksum, it is the last 1 character of the data. A checksum is a value calculated from all the data to verify that the data is correct.

If this parameter is set to No Check, the reading engine will transmit all barcode data as normal.

If it is set to "check but do not send checksum", the reading engine will verify the last 1 digit of the barcode, and if the verification passes, it will transmit normal data except for the checkman, and the code reading failure will be prompted if the verification fails.

If the verification is passed, the checksum will be transmitted together as the last digit of normal data, and the code reading failure will be prompted if the verification fails.



W0C6C00

No checksum



W0C6C04

Verify but do not send checksums



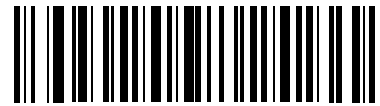
W0C6C0C

Verify and send checksum



W010F00

Turn off the setup code



W010F01

** Activate the setting code

Set a reading length limit

Used to set the effective read length of Interleaved 2 of 5. If the reading length of the barcode does not match the set valid length, the reading engine will not send the barcode content to the host.

The Interleaved 2 of 5 reading length consists of a "minimum length" and a "maximum length". The maximum length limit of any 1D barcode must not exceed 255, if the maximum length is less than the minimum length, only those two lengths of the barcode will be read. If the maximum length is equal to the minimum length, only this length is supported.



M000307

【Set minimum length limit】



M000306

[Set the maximum length limit]

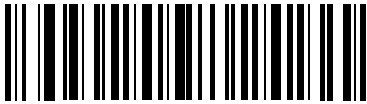
Example: The reading engine restricts the reading engine to only 8 bytes and 12 bytes of Interleaved 2 of 5 barcodes

1. Read "Turn on the setting code".
2. Read the "Set minimum length limit" code
3. Read data code "8" (see Appendix)
4. Read the "Save" code (see Appendix)
5. Read the "Set maximum length limit" code
6. Read the data codes "1" and "2".
7. Read the "Save" code
8. Read "Turn off the setting code"



W010F00

Turn off the setup



W010F01

** Turn on the setup code

ITF-6

ITF-6 is a special Interleaved2 of 5 barcode, that is, the barcode data is 6 characters long and the last 1 character data is the check digit of Interleaved2 of 5 code.

Restore factory defaults



WFFD99B

Restore the default value of ITF-6 related settings

Reading of ITF-6 is allowed/disallowed

Enable ITF-6, Disable Interleaved 2 of 5.



W036D01

[Prohibition of reading ITF-6]



W0B6D02

[ITF-6 reading is allowed but checksums are not sent]



W0B6D0A

[Allows ITF-6 to be read and checksums to be sent]



W010F00

Turn off the setup code



W010F01

** Activate the setting code

Note: It is recommended to prohibit ITF-6 when using ordinary interleaved two-five codes; or when the use of ITF-6 is required, it is forbidden to read ordinary interleaved two or five codes.

ITF-14

ITF-14 is a special Interleaved 2 of 5 barcode, that is, the barcode data length is 14 characters and the last character data is the check digit of Interleaved2 of 5 code.

Restore factory defaults



WFFD99C

Restore the default value of ITF-14 related settings

Reading of ITF-14 is allowed/prohibited

Enable ITF-14, Disable Interleaved 2 of 5.



W036E01

[Prohibition of reading ITF-14]



W0B6E02

[ITF-14 is allowed to be read but checksums are not sent]



W0B6E0A

[Allows reading of ITF-14 and sending checksums]



W010F00

Turn off the setup



W010F01

** Turn on the setup code

Note: It is recommended to prohibit ITF-14 when using ordinary interleaved two-five codes; or when the use of ITF-14 is required, it is forbidden to read the ordinary interleaved 25 codes.

Germans 14

Restore factory defaults



WFFD99D

[Restore the default value of Deutsche 14 related settings].

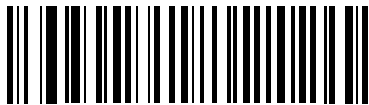
Enable/Disable Deutsche 14

Enable Deutsche 14, Disable Interleaved 2 of 5.



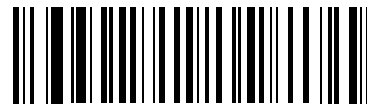
W036F01

【Disable Deutsche 14】



W0B6F02

[Deutsche 14 is allowed to be read but no check digit is sent].



W0B6F0A

[Allows Deutsche 14 to be read and the check digit is sent].



W010F00

Turn off the setup code



W010F01

** Activate the setting code

Note: Since Deutsche 14 uses the same encoding method as ITF-14 and ordinary ITF, if you use several at the same time, it will misunderstand the function setting and decoding. It is recommended to turn off Deutsche14 when it is not in use.

Germans 12

Restore factory defaults



WFFD99E

[Restore the default value of Deutsche 12 related settings].

Enable/Disable Deutsche 12

By default, transmit Deutsche 12 as Interleaved 2 of 5.



W037001

【Disable Deutsche 12】



W0B7002

[Deutsche 12 is allowed to be read but no checksums are sent].



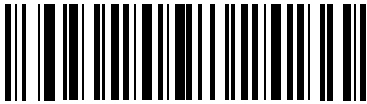
W0B700A

【Enable Deutsche 12, send checksum】



W010F00

Turn off the setup



W010F01

** Turn on the setup code

Note: Since Deutsche 12 uses the same encoding method as ITF-12 and ordinary ITF, if you use several at the same time, it will misunderstand the function setting and decoding. It is recommended to turn off Deutsche12 when it is not in use.

Matrix 2 of 5 (European Matrix 2 of 5)

Restore factory defaults



WFFD99F

Restore the default value of Matrix 2 of 5 related settings

Enable/Disable Matrix 2 of 5



W017101

** 【Enable Matrix 2 of 5】



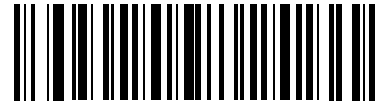
W017100

【Disable Matrix 2 of 5】



W010F00

Turn off the setup code



W010F01

** Activate the setting code

Verify the settings

Matrix 2 of 5 barcode data does not require a check digit, if there is a check digit, it is the last 1 character of the data. The check digit is a value calculated from all the data to verify that the data is correct.

If this parameter is set to No Check, the reading engine will transmit all barcode data as normal.

Set to "check but do not send check digit", the reading engine will verify the last 1 digit of the barcode, if the verification passes, the normal data except the check digit will be transmitted, and the code reading failure will be prompted if the verification fails.

If the verification is passed, the check digit will be transmitted together as the last 1 digit of normal data, and the code reading failure will be prompted if the verification fails.



W0C7100

**No checksum



W0C7104

Check but do not send check digits



W0C710C

Verify and send check digits



W010F00

Turn off the setup



W010F01

** Turn on the setup code

Set a reading length limit

Used to set the effective read length of the Matrix 2 of 5. If the reading length of the barcode does not match the set valid length, the reading engine will not send the barcode content to the host.

Matrix 2 of 5 reads are made up of "minimum length" and "maximum length". The maximum length limit of any 1D barcode must not exceed 255, if the maximum length is less than the minimum length, only those two lengths of the barcode will be read. If the maximum length is equal to the minimum length, only this length is supported.



M000309

【Set minimum length limit】



M000308

[Set the maximum length limit]

Example: The reading engine restricts the reading engine to only a Matrix 2 of 5 barcode with a minimum of 8 bytes and a maximum of 12 bytes

1. Read "Turn on the setting code".
2. Read the "Set minimum length limit" code
3. Read data code "8" (see Appendix)
4. Read the "Save" code (see Appendix)
5. Read the "Set maximum length limit" code
6. Read the data codes "1" and "2".
7. Read the "Save" code
8. Read "Turn off the setting code"



W010F00

Turn off the setup code



W010F01

** Activate the setting code

Industrial 25

Restore factory defaults



WFFD9A0

Restore Industrial 25 related settings defaults

Enable/Disable Industrial 25



W017201

** 【Enable Industrial 25】



W017200

【Disable Industrial 25】



W010F00

Turn off the setup



W010F01

** Turn on the setup code

Verify the settings

The check digit is not mandatory to include the check digit in the Industrial 25 barcode data, and if there is a check digit, it is the last 1 character of the data. The check digit is a value calculated from all the data to verify that the data is correct.

If this parameter is set to No Check, the reading engine will transmit all barcode data as normal.

Set to "check but do not send check digit", the reading engine will verify the last 1 digit of the barcode, if the verification passes, the normal data except the check digit will be transmitted, and the code reading failure will be prompted if the verification fails.

If the verification is passed, the check digit will be transmitted together as the last 1 digit of normal data, and the code reading failure will be prompted if the verification fails.



W0C7200

**No checksum



W0C7204

Check but do not send check digits



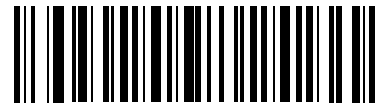
W0C720C

Verify and send check digits



W010F00

Turn off the setup code



W010F01

** Activate the setting code

Set a reading length limit

Used to set the effective reading length of the Industrial 25. If the reading length of the barcode does not match the set valid length, the reading engine will not send the barcode content to the host.

The Industrial 25 readout length consists of a "minimum length" and a "maximum length". The maximum length limit of any 1D barcode must not exceed 255, if the maximum length is less than the minimum length, only those two lengths of the barcode will be read. If the maximum length is equal to the minimum length, only this length is supported.



M00030B

【Set minimum length limit】



M00030A

[Set the maximum length limit]

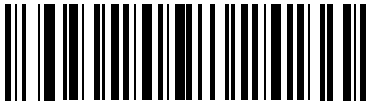
Example: The reading engine restricts the reading engine to only read Industrial 25 barcodes with a minimum of 8 bytes and a maximum of 12 bytes

1. Read "Turn on the setting code".
2. Read the "Set minimum length limit" code
3. Read data code "8" (see Appendix)
4. Read the "Save" code (see Appendix)
5. Read the "Set maximum length limit" code
6. Read the data codes "1" and "2".
7. Read the "Save" code
8. Read "Turn off the setting code"



W010F00

Turn off the setup



W010F01

** Turn on the setup code

Standard 25

Restore factory defaults



WFFD9A1

Restore Standard 25 related setting defaults

Enable/Disable Standard 25



W017301

** 【Enable Standard 25】



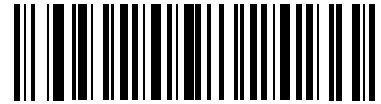
W017300

【Disable Standard 25】



W010F00

Turn off the setup code



W010F01

** Activate the setting code

Verify the settings

Standard 25 barcode data does not have to include a check digit. If there is a check digit, it is the last encoded character of the data. The check digit is a value calculated from all encoded data to verify data integrity.

If this parameter is set to No Check, the reading engine will transmit all barcode data as normal.

Set to "check but do not send check digit", the reading engine will verify the last 1 digit of the barcode, if the verification passes, the normal data except the check digit will be transmitted, while the code reading failure will be prompted if the verification fails.

If the verification is passed, the check digit will be transmitted together as the last 1 digit of normal data, while the code reading failure will be prompted if the verification fails.



W0C7300

**No checksum



W0C7304

Check but do not send check digits



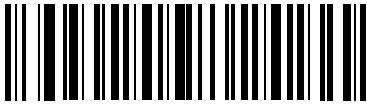
W0C730C

Verify and send check digits



W010F00

Turn off the setup



W010F01

** Turn on the setup code

Set a reading length limit

Used to set the effective reading length of Standard 25. If the reading length of the barcode does not match the set valid length, the reading engine will not send the barcode content to the host.

The Standard 25 reading length consists of a "minimum length" and a "maximum length". The maximum length limit of any 1D barcode must not exceed 255, if the maximum length is less than the minimum length, only those two lengths of the barcode will be read. If the maximum length is equal to the minimum length, only this length is supported.



M00030D

【Set minimum length limit】



M00030C

[Set the maximum length limit]

Example: The reading engine restricts the reading of standard 25 barcode with a minimum of 8 characters and a maximum of 12 characters

1. Read "Turn on the setting code".
2. Read the "Set minimum length limit" code
3. Read data code "8" (see Appendix)
4. Read the "Save" code (see Appendix)
5. Read the "Set maximum length limit" code
6. Read the data codes "1" and "2".
7. Read the "Save" code
8. Read "Turn off the setting code"



W010F00

Turn off the setup code



W010F01

** Activate the setting code

Code 39

Restore factory defaults



WFFD9A2

Restore the default value of Code 39 related settings

Enable/Disable reading of Code 39



W017401

**Enable Code 39



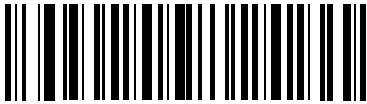
W017400

[Disable reading Code 39]



W010F00

Turn off the setup



W010F01

** Turn on the setup code

Verify the settings

It is not mandatory to include a check digit with encoded Code 39 data. If there is a check digit, it is the last character of the data. The check digit is a value calculated from all the encoded data to verify data integrity.

If this parameter is set to No Check, the reading engine will transmit all barcode data as normal.

Set to "check but do not send check digit", the reading engine will verify the last digit of the barcode. If the verification passes, the normal data except the check digit will be transmitted, while the code reading failure will be prompted if the verification fails.

If the verification is passed, the check digit will be transmitted together as the last 1 digit of normal data, and the code reading failure will be prompted if the verification fails.



W187400

**No checksum



W187408

Check but do not send check digits



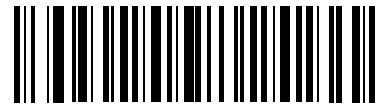
W187418

Verify and send check digits



W010F00

Turn off the setup code



W010F01

** Activate the setting code

Set whether to send a start and end symbol

Code39 barcode data is preceded and followed by a character "*" as the start and stop characters, you can set whether to transmit the start and stop characters with the barcode data after the code reading is successful.



W047404

【Send Start and Stop Characters】



W047400

**Do not send start and stop characters

Full ASCII support

Code 39 encoding methods can include representations of all ASCII characters and can be set up so that the reading engine can support barcodes with the full ASCII character set.



W207420

** 【Enable Full ASCII】



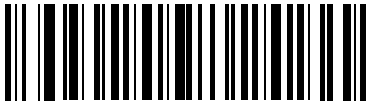
W207400

【Disable Full ASCII】



W010F00

Turn off the setup



W010F01

** Turn on the setup code

Set a reading length limit

Used to set the valid read length of Code 39. If the reading length of the barcode does not match the set valid length, the reading engine will not send the barcode content to the host.

Code 39 reads length consists of "minimum length" and "maximum length". The maximum length limit of any 1D barcode must not exceed 255, if the maximum length is less than the minimum length, only those two lengths of the barcode will be read. If the maximum length is equal to the minimum length, only this length is supported.



M00030F

【Set minimum length limit】



M00030E

[Set the maximum length limit]

Example: The reading engine restricts the reading engine to only read Code 39 barcodes with a minimum of 8 bytes and a maximum of 12 bytes

1. Read "Turn on the setting code".
2. Read the "Set minimum length limit" code
3. Read data code "8" (see Appendix)
4. Read the "Save" code (see Appendix)
5. Read the "Set maximum length limit" code
6. Read the data codes "1" and "2".
7. Read the "Save" code
8. Read "Turn off the setting code"



W010F00

Turn off the setup code



W010F01

** Activate the setting code

Codabar

Restore factory defaults



WFFD9A3

Restore the default value of Codabar-related settings

允许/禁止识读 Codabar



W017501

** 【Enable Codabar】



W017500

【Disable Codabar】



W010F00

Turn off the setup



W010F01

** Turn on the setup code

Verify the settings

The check digit is not mandatory to include the check digit in the Codabar barcode data, and if there is a check digit, it is the last 1 character of the data. The check digit is a value calculated from all the data to verify that the data is correct.

If this parameter is set to No Check, the reading engine will transmit all barcode data as normal.

Set to "check but do not send check digit", the reading engine will verify the last 1 digit of the barcode, if the verification passes, the normal data except the check digit will be transmitted, and the code reading failure will be prompted if the verification fails.

If the verification is passed, the check digit will be transmitted together as the last 1 digit of normal data, and the code reading failure will be prompted if the verification fails.



W607500

**No checksum



W607520

Check but do not send check digits



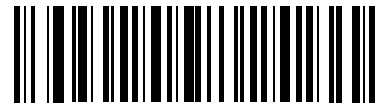
W607560

Verify and send check digits



W010F00

Turn off the setup code



W010F01

** Activate the setting code

Start and stop settings



W047504

** 【Send start and stop characters】



W047500

[Do not send start and stop characters]



W187500

**[ABCD/ABCD as the start and end characters].



W187508

[ABCD/TN*E as the start and end characters]



W187510

[Use ABCD/ABCD as the start and end characters]



W187518

[abcd/tn*e as the start and end characters]



W010F00

Turn off the setup



W010F01

** Turn on the setup code

Set a reading length limit

Used to set the effective reading length of the Codabar. If the reading length of the barcode does not match the set valid length, the reading engine will not send the barcode content to the host.

The Codabar readout length consists of a "minimum length" and a "maximum length". The maximum length limit of any 1D barcode must not exceed 255, if the maximum length is less than the minimum length, only those two lengths of the barcode will be read. If the maximum length is equal to the minimum length, only this length is supported.



M000311

【Set minimum length limit】



M000310

[Set the maximum length limit]

Example: The reading engine restricts the reading engine to only read Codabar barcodes with a minimum of 8 characters and a maximum of 12 characters.

1. Read "Turn on the setting code".
2. Read the "Set minimum length limit" code
3. Read data code "8" (see Appendix)
4. Read the "Save" code (see Appendix)
5. Read the "Set maximum length limit" code
6. Read the data codes "1" and "2".
7. Read the "Save" code
8. Read "Turn off the setting code"



W010F00

Turn off the setup code



W010F01

** Activate the setting code

Code 93

Restore factory defaults



WFFD9A4

Restore the default value of Code 93 related settings

Allow/Disallow reading of Code 93



W017601

**Code 93 is allowed



W017600

[Prohibition of reading Code 93]



W010F00

Turn off the setup



W010F01

** Turn on the setup code

Verify the settings

Code 93 barcode data is not mandatory to include a check digit, if there is a check digit, it is the last 2 characters of the data. The check digit is a value calculated from all the data to verify that the data is correct.

If this parameter is set to No Check, the reading engine will transmit all barcode data as normal.

Set to "check but do not send check digit", the reading engine will verify the last 2 digits of the barcode, if the verification passes, the normal data except the check digit will be transmitted, and the code reading failure will be prompted if the verification fails.

If the verification is passed, the check digit will be transmitted together as the last 2 digits of normal data, and the code reading failure will be prompted if the verification fails.



W0C7600

No checksum



W0C7604

Verify but do not send check digits



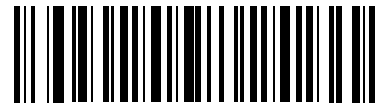
W0C760C

Verify and send check digits



W010F00

Turn off the setup code



W010F01

** Activate the setting code

Set a reading length limit

Used to set the valid read length of Code 93. If the reading length of the barcode does not match the set valid length, the reading engine will not send the barcode content to the host.

Code 93 reads are made up of "minimum length" and "maximum length". The maximum length limit of any 1D barcode must not exceed 255, if the maximum length is less than the minimum length, only those two lengths of the barcode will be read. If the maximum length is equal to the minimum length, only this length is supported.



M000313

【Set minimum length limit】



M000312

[Set the maximum length limit]

Example: The reading engine restricts the reading engine to only read Code 93 barcodes with a minimum of 8 characters and a maximum of 12 characters

1. Read "Turn on the setting code".
2. Read the "Set minimum length limit" code
3. Read data code "8" (see Appendix)
4. Read the "Save" code (see Appendix)
5. Read the "Set maximum length limit" code
6. Read the data codes "1" and "2".
7. Read the "Save" code
8. Read "Turn off the setting code"



W010F00

Turn off the setup



W010F01

** Turn on the setup code

Code 11

Restore factory defaults



WFFD9A5

Restore the default value of Code 11 related settings

Code 11 is allowed/disallowed



W017701

[Code 11 is allowed]



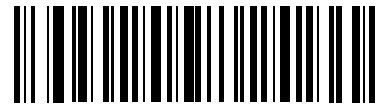
W017700

**Do not read Code 11



W010F00

Turn off the setup code



W010F01

** Activate the setting code

Verify the settings

Code 11 barcode data is not mandatory to include a check digit, if there is a check digit, it is the last 1 or 2 characters of the data. The check digit is a value calculated from all the data to verify that the data is correct.

If this parameter is set to No Check, the reading engine will transmit all barcode data as normal.



W1C7700

[No check]



W1C7704

**[One bit check, MOD11].



W1C7708

【2-Digit Verification MOD11/MOD11】



W1C770C

【2 Digit Verification MOD11/MOD9】



W1C7710

【MOD11single check digit (Len<=11))
MOD11/MOD11Dual Check Digit (Len>11)】



W1C7714

【MOD11 Dual check digit (Len<=11)
MOD11/MOD9 Dual Check digit (Len>11)】



W207720



W207700



W010F00

Turn off the setup



W010F01

**** Turn on the setup code**

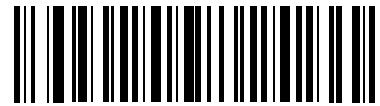
[Do not send the check digit]

Send check digits



W010F00

Turn off the setup code



W010F01

** Activate the setting code

Set a reading length limit

Used to set the valid read length of Code 11. If the reading length of the barcode does not match the set valid length, the reading engine will not send the barcode content to the host.

Code 11 reads are made up of "minimum length" and "maximum length". The maximum length limit of any 1D barcode must not exceed 255, if the maximum length is less than the minimum length, only those two lengths of the barcode will be read. If the maximum length is equal to the minimum length, only this length is supported.



M000315

【Set minimum length limit】



M000314

[Set the maximum length limit]

Example: The reading engine restricts the reading engine to only code 11 barcodes with a minimum of 8 characters and a maximum of 12 characters

1. Read "Turn on the setting code".
2. Read the "Set minimum length limit" code
3. Read data code "8" (see Appendix)
4. Read the "Save" code (see Appendix)
5. Read the "Set maximum length limit" code
6. Read the data codes "1" and "2".
7. Read the "Save" code
8. Read "Turn off the setting code"



W010F00

Turn off the setup



W010F01

** Turn on the setup code

Plessey

Restore factory defaults



WFFD9A6

Restore Plessey Settings Defaults

允许/禁止识读 Plessey



W017801

【Reading is permitted Plessey】



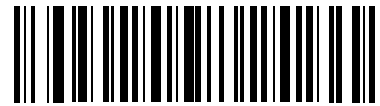
W017800

** 【Reading is prohibited Plessey】



W010F00

Turn off the setup code



W010F01

** Activate the setting code

Verify the settings

Plessey barcode data does not require a check digit, if there is a check digit, it is the last 2 characters of the data. The check digit is a value calculated from all the data to verify that the data is correct.

If this parameter is set to No Check, the reading engine will transmit all barcode data as normal.

Set to "check but do not send check digit", then the reading engine will do the verification according to the last 2 digits of the barcode, if the verification passes, then transmit the normal data except the check digit, and the verification failure will prompt the code reading failure.

If the verification is passed, the check digit will be transmitted together as the last 2 digits of normal data, and the code reading failure will be prompted if the verification fails.



W0C7800

No checksum



W0C7804

Verify but do not send check digits



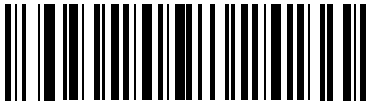
W0C780C

Verify and send check digits



W010F00

Turn off the setup



W010F01

** Turn on the setup code

Set a reading length limit

Used to set the effective reading length of the Plessey. If the reading length of the barcode does not match the set valid length, the reading engine will not send the barcode content to the host.

The Plessey reading length consists of a "minimum length" and a "maximum length". The maximum length limit of any 1D barcode must not exceed 255, if the maximum length is less than the minimum length, only those two lengths of the barcode will be read. If the maximum length is equal to the minimum length, only this length is supported.



M000317

【Set minimum length limit】



M000316

[Set the maximum length limit]

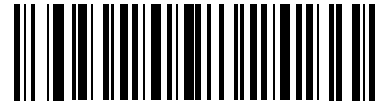
Example: The reading engine restricts the reading engine to only Plessey barcodes with a minimum of 8 characters and a maximum of 12 characters.

1. Read "Turn on the setting code".
2. Read the "Set minimum length limit" code
3. Read data code "8" (see Appendix)
4. Read the "Save" code (see Appendix)
5. Read the "Set maximum length limit" code
6. Read the data codes "1" and "2".
7. Read the "Save" code
8. Read "Turn off the setting code"



W010F00

Turn off the setup code



W010F01

** Activate the setting code

MSI-Plessey

Restore factory defaults



WFFD9A7

Restore the default value of MSI-Plessey related settings

Allowed/Forbidden Reading MSI-Plessey



W017901

【Reading is permitted MSI-Plessey】



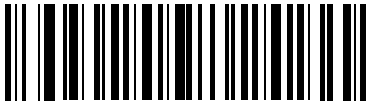
W017900

** 【Reading is prohibited MSI-Plessey】



W010F00

Turn off the setup



W010F01

** Turn on the setup code

Verify the settings

MSI-Plessey barcode data is not mandatory to include a check digit, if there is a check digit, it is the last 1 or 2 characters of the data. The check digit is a value calculated from all the data to verify that the data is correct.

If this parameter is set to No Check, the reading engine will transmit all barcode data as normal.



W0C7900

[No check]



W0C7904

**[Single Check MOD10]



W0C7908

【Dual checksumMOD10/MOD10】



W0C790C

【Dual checksumMOD10/MOD11】



W107910

【Send check digit】



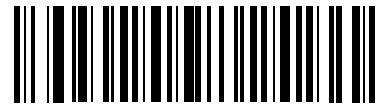
W107900

**[Do not send the check digit]



W010F00

Turn off the setup code



W010F01

** Activate the setting code

Set a reading length limit

Used to set the effective read length of the MSI-Plessey. If the reading length of the barcode does not match the set valid length, the reading engine will not send the barcode content to the host.

The MSI-Plessey read length consists of a "minimum length" and a "maximum length". The maximum length limit of any 1D barcode must not exceed 255, if the maximum length is less than the minimum length, only those two lengths of the barcode will be read. If the maximum length is equal to the minimum length, only this length is supported.



M000319

【Set minimum length limit】



M000318

[Set the maximum length limit]

Example: The reading engine is restricted to reading only MSI-Plessey barcodes with a minimum of 8 characters and a maximum of 12 characters

1. Read "Turn on the setting code".
2. Read the "Set minimum length limit" code
3. Read data code "8" (see Appendix)
4. Read the "Save" code (see Appendix)
5. Read the "Set maximum length limit" code
6. Read the data codes "1" and "2".
7. Read the "Save" code
8. Read "Turn off the setting code"
- 9.



W010F00

Turn off the setup



W010F01

** Turn on the setup code

RSS-14

Restore factory defaults



WFFD9A8

Restore the default value of RSS-14 related settings

RSS-14 reading is allowed/disabled



W017A01

**[RSS-14 reading allowed]



W017A00

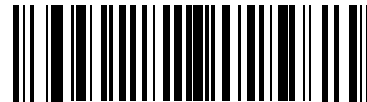
[Do not read RSS-14].

Specify whether to send AI characters



W047A04

** 【Send AI character】



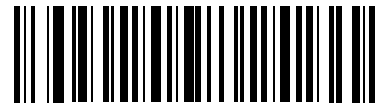
W047A00

[Do not send AI characters]



W010F00

Turn off the setup code



W010F01

** Activate the setting code

RSS-Limited

Restore factory defaults



WFFD9A9

Restore the default value of RSS-Limited settings

允许/禁止识读 RSS-Limited



W017B01

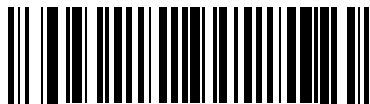
** 【Reading is permittedRSS-Limited】



W017B00

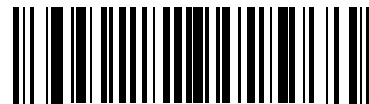
【Reading is prohibitedRSS-Limited】

Specify whether to send AI characters



W047B04

** 【Send AI character】



W047B00

[Do not send AI characters]



W010F00

Turn off the setup



W010F01

** Turn on the setup code

RSS-Expand

Restore factory defaults



WFFD9AA

Restore the default value of RSS-Expand related settings

Allowed/Forbidden ReadingRSS-Expand



W017C01

** 【Reading is permitted RSS-Expand】



W017C00

【Reading is prohibited RSS-Expand】



W010F00

Turn off the setup code

Appendix

The default setting table

The name of the parameter		Default settings	remark
System settings			
Set code function		Open	If this parameter is set to off, a setting code message will be sent
Set code information		Do not send	
Reading mode		Manual mode	
Manual mode	The duration of a single barcode read	15 seconds	1-255 seconds, 0: infinitely long, in steps of 1 second
Continuous mode	The duration of a single barcode read	15 seconds	1-255 seconds, 0: infinitely long, in steps of 1 second
	The length of the reading interval	1.0 seconds	0.0-25.5 seconds in 0.1 seconds
	Read the same barcode repeatedly	No time lag	You can select "Require the same code reading delay", and when the duration is set to 0, the delay will be infinite, that is, the same barcode cannot be read repeatedly.
Induction mode	The duration of a single barcode read	15 seconds	1-255 seconds, 0: infinitely long, in steps of 1 second
	Image stabilization duration	0.4 seconds	0.0-25.5 seconds in 0.1 seconds
	Read the same barcode repeatedly	No time lag	You can select "Require the same code reading delay", and when the duration is set to 0, the delay will be infinite, that is, the same barcode cannot be read repeatedly.
	sensitivity	Medium sensitivity	

Command-triggered mode	The duration of a single barcode read	15 seconds	1-255 seconds, 0: infinitely long, in steps of 1 second
Security level		Level 0	
Recognize the success tone		Open	
Reads successfully indicates the audio rate		intermediate frequency	
The duration of the reading success tone		80ms	
Decode the status prompt		Do not send	
Silent mode		Shut down	Temporary settings
illuminating		Reading is on	Temporary settings

The name of the parameter		Default settings	remark
Communication settings			
Serial communication	baud rate	9600	
	verify	No checksum	
	Data bits	8 pcs	
	Stop bits	1 pc	
	Flow control	No flow control	
USB communication		USB HID-KBW	Other: DataPipe、USB COM Port Emulation、HID-POS
USB HID-KBW	Input mode	Standard keyboard	
	Country/language keyboard layout	Type 1, American English keyboard	
	Delay between keys	No time lag	
	Force letter case conversion	Do not convert	
	Numeric keypad	Not simulated	
Data formatting			
Prefix order setting		CODE ID + Custom + AIMID	
Add the AIMID prefix		Off	] Cm identification
Add a CODE ID		Off	1 or 2 characters, uppercase or lowercase letters
Add a custom prefix		Off	The maximum number of prefix characters is 5
Add a custom suffix		Off	There is a maximum of 5 suffix characters
Add a terminator suffix		On-0x0D.0x0A	Allowed, carriage return to wrap

The name of the parameter	Default settings	remark
<i>Code 128</i>		
Enable	On	
Minimum length	1	shall not be less than 1 (including verification).
Maximum length	80	
<i>UCC/EAN-128(GS1-128)</i>		
Enable	On	
Minimum length	1	shall not be less than 1 (including verification).
Maximum length	80	
<i>AIM 128</i>		
Enable	Off	
Minimum length	1	shall not be less than 1 (including verification).
Maximum length	80	
<i>EAN-8</i>		
Enable	On	
Checksum	Send	
2-digit additional code	Illiterate	
5-digit additional code	Illiterate	
There must be an additional code	Not requirement	
Expanded to EAN-13	Not extensive	
<i>EAN-13</i>		
Enable	On	
Checksum	Send	
2-digit additional code	Illiterate	
5-digit additional code	Illiterate	
There must be an additional code	Not requirement	
<i>ISSN</i>		
Enable	Off	
<i>ISBN</i>		

Enable	Off	
ISBN format	13-bit	

The name of the parameter	Default settings	remark
<i>UPC-E</i>		
Enable	On	
Checksum	Send	
2-digit additional code	Illiterate	
5-digit additional code	Illiterate	
There must be an additional code	Not requirement	
Expanded to UPC-A	Not extensive	
System characters	Send	
<i>UPC-A</i>		
Enable	On	
Checksum	Send	
2-digit additional code	Illiterate	
5-digit additional code	Illiterate	
There must be an additional code	Not requirement	
Prefix characters are sent	System characters	
<i>Interleaved 2 of 5</i>		
Enable	On	
verify	On	
Checksum	Do not send	
Minimum length	6	Not less than 3 (including verification)
Maximum length	100	
<i>ITF-6</i>		
Enable	Identified as I25	
Checksum	Send	
<i>ITF-14</i>		
Enable	Identified as I25	
Checksum	Send	
<i>Deutsche 14</i>		
Enable	Identified as I25	
Checksum	Send	
<i>Deutsche 12</i>		
Enable	Identified as I25	

The name of the parameter	Default settings	remark
Checksum	Send	
Matrix 2 of 5		
Enable	On	
verify	Off	
Checksum	Do not send	
Minimum length	6	Not less than 2 (including check)
Maximum length	80	
Industrial 25		
Enable	On	
verify	Off	
Checksum	Do not send	
Minimum length	6	Not less than 2 (including check)
Maximum length	80	
Standard 25		
Enable	On	
verify	Off	
Checksum	Do not send	
Minimum length	6	Not less than 2 (including check)
Maximum length	80	
Code 39		
Enable	On	
verify	Off	
Checksum	Do not send	
Start/Terminator	Do not send	
In the tankFull ASCII	On	
Minimum length	4	Not less than 2 (including check)
Maximum length	50	
Codabar		
Enable	On	
verify	Off	
Checksum	Do not send	
Start/Terminator	Send	
Start/Stop Format	ABCD/ABCD	
Minimum length	4	Not less than 1 (including verification)

Maximum length	60	
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The name of the parameter	Default settings	remark
Code 93		
Enable	On	
verify	On	
Checksum	Do not send	
Minimum length	2	Not less than 1 (including verification)
Maximum length	80	
Code 11		
Enable	Off	
verify	One digit, MOD11	
Checksum	Do not send	
Minimum length	4	Not less than 2 (including check)
Maximum length	80	
Plessey		
Enable	Off	
verify	On	
Checksum	Do not send	
Minimum length	4	Not less than 3 (including verification)
Maximum length	60	
MSI-Plessey		
Enable	Off	
verify	One bit checksum, MOD10	
Checksum	Do not send	
Minimum length	4	Not less than 2 (including check)
Maximum length	60	
RSS-14		
Enable	On	
AI characters	Send	
RSS-Limited		
Enable	On	

AI characters	Send	
<i>RSS-Expand</i>		
Enable	On	

List of AIM IDs

Barcode type	AIM ID	illustrate
Code 128	]C0	Normal Code 128
UCC/EAN 128 (GS1-128)	]C1	FNC1 is in the 1st code word position
AIM 128	]C2	FNC1 is in the 2nd code word position
EAN-8	]E4	Ordinary EAN-8 data
	]E4....]E1...	EAN-8 data plus a 2-digit additional code
	]E4....]E2...	EAN-8 data plus a 5-digit additional code
EAN-13	]E0	Ordinary EAN-13 data
	]E3	EAN-13 data plus a 2/5-digit additional code
ISSN	]X5	
ISBN	]X4	
UPC-E	]E0	Ordinary UPC-E data
	]E3	UPC-E data plus 2/5 digit additional code
UPC-A	]E0	Normal UPC-A data
	]E3	UPC-A data plus 2/5 digit additional code
Interleaved 2 of 5	]I0	No checksum
	]I1	Verify and send the check character
	]I3	Checks but does not send check characters
ITF-6	]I1	Send a check character
	]I3	Check characters are not sent
ITF-14	]I1	Send a check character
	]I3	Check characters are not sent
Germans 14 Germans 12	]X0	
Matrix 2 of 5	]X1	No checksum
	]X2	There is a check and the check character is sent
	]X3	There is a check and the check character is not sent
Industrial 25	]S0	There are no specific designations at this time
Standard 25	]R0	No checksum

Barcode type	AIM ID	illustrate
	JR8	MOD 7 checks but does not send check characters
	JR9	MOD 7 checks and sends the check character
Code 39	JA0	No checksums, no Full ASCII extensions. All data is sent as it was originally sent
	JA1	MOD 43 and send the check character
	JA3	MOD 43 checksum, but does not send check characters
	JA4	Full ASCII extension is performed, but there is no validation
	JA5	Extension, MOD43 validation, and sending the verification character
	JA7	Extended MOD43 checks, but does not send check characters
Codabar	JF0	Standard packets, no special handling
	JF1	Used in the management of American blood centers
	JF2	check, and send the check character
	JF4	Check, but does not send the check character
Code 93	JG0	There is currently no specific designation
Code 11	JH0	MOD11 single-character check, and send the check character
	JH1	MOD11/MOD11 double character check, and send check character
	JH3	Check, but does not send the check character
	JH8	MOD11/MOD9 double-character check, and send the check character
	JH9	No checksum
Plessey	JP0	There is currently no specific designation
MSI Plessey	JM0	MOD10 and send the check character
	JM1	MOD10 check, but does not send the check character
	JM7	MOD10 /MOD11 and does not send a check character
	JM8	MOD10 /MOD11 and send the check character
	JM9	No checksum
RSS-14/RSS-Limited RSS-Expand	je0	Standard packets
	je1	Other uses
	je2	Other uses
	je3	Other uses

Reference: ISO/IEC 15424-2008 Information technology – Automatic identification and data acquisition technology – Data carrier identifiers (including symbolic identifiers).

List of code IDs

Barcode type	Code ID
Code 128	j
UCC/EAN-128	in the
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	and
ITF-6	r
ITF-14	q
Germans 14	in
Germans 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	and
Code 11	with
Plessey	p
MSI-Plessey	m
RSS-14	D
RSS-Limited	C
RSS-Expand	R

ASCII Table

hexadecimal	decimal	character
00	0	NULL (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)

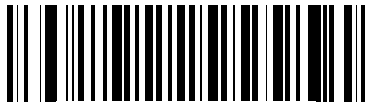
hexadecimal	decimal	character
1e	30	RS (Request to Send)
1f	31	US (Unit Separator)
20	32	SP (Space)
21	33	! (Exclamation Mark)
22	34	" (Double Quote)
23	35	# (Number Sign)
24	36	\$ (Dollar Sign)
25	37	% (Percent)
26	38	& (Ampersand)
27	39	` (Single Quote)
28	40	((Right / Closing Parenthesis)
29	41	) (Right / Closing Parenthesis)
2a	42	* (asterisk)
2b	43	+ (Plus)
2c	44	, (Paragraph)
2d	45	- (Minus / Dash)
2e	46	. (Dot)
2f	47	/ (Forward Slash)
30	48	0
31	49	1
32	50	2
33	51	3
34	52	4
35	53	5
36	54	6
37	55	7
38	56	8
39	57	9
3a	58	: (Colon)
3b	59	; (Semi-colon)
3c	60	< (Less Than)
3d	61	= (Equal Sign)

hexadecimal	decimal	character
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	And
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	Or
50	80	P
51	81	Q
52	82	R
53	83	S
54	84	T
55	85	In the
56	86	V
57	87	In
58	88	X
59	89	And
5a	90	With
5b	91	[(Left / Opening Bracket)
5c	92	\ (Back Slash)
5d	93	] (Right / Closing Bracket)

hexadecimal	decimal	character
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	and
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	or
70	112	p
71	113	q
72	114	r
73	115	s
74	116	t
75	117	in the
76	118	v
77	119	in
78	120	x
79	121	and
7a	122	with
7b	123	{ (Left/ Opening Brace)
7c	124	| (Vertical Bar)
7d	125	} (Right/Closing Brace)
7e	126	~ (Tilde)
7f	127	DEL (Delete)

Data code

0~5



D000000

【0】



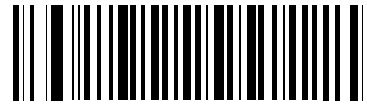
D000001

【1】



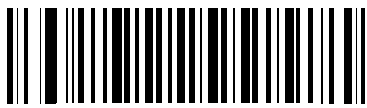
D000002

【2】



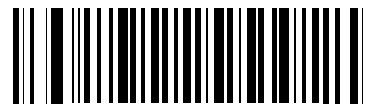
D000003

【3】



D000004

【4】



D000005

【5】

6~9



【6】



【7】



【8】



【9】

A~F



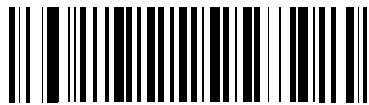
D00000A

【A】



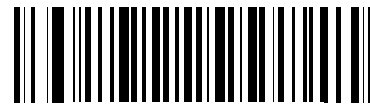
D00000B

【B】



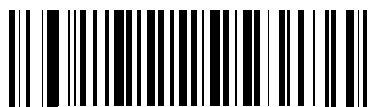
D00000C

【C】



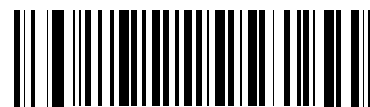
D00000D

【D】



D00000E

【E】



D00000F

【F】

Save or cancel

After reading the data code, you need to read the "Save" code to save the read data. If an error occurs while reading the data code, you can cancel the reading of the incorrect data.

If you read a setting code and read the data "1", "2", and "3" in turn, if you read "Cancel the previous digit of data", the last read digit will be canceled. 3", if you read "Cancel the string of data read earlier", the read data "123" will be canceled.



Save



Cancel the last read digit of data



[Cancel the string of data read earlier].

F1~F12

In USB HID-KBW mode, it is convenient for users to output F1~F12 function key values, and output them through the following barcodes.

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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