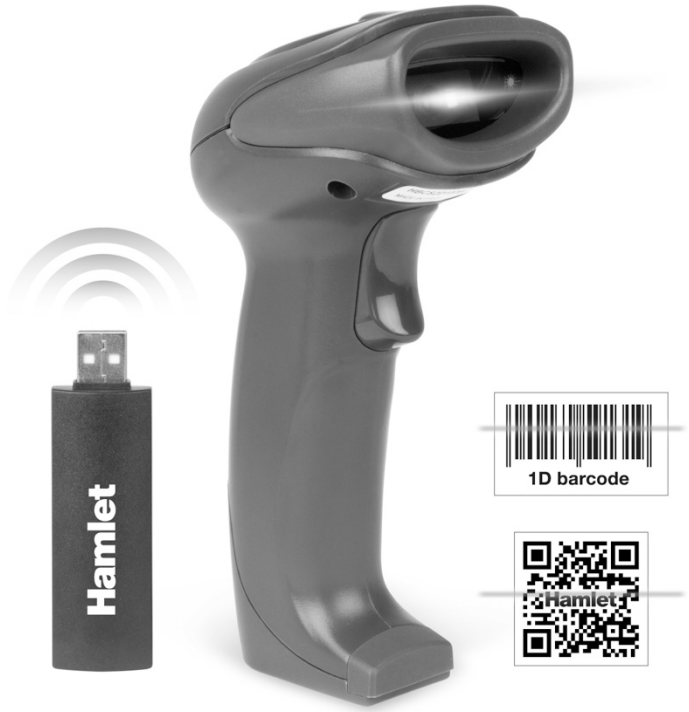
Hamlet

2D BARCODE SCANNER

BLUETOOTH INDUSTRIAL BARCODE SCANNER
FOR QR CODES AND LINEAR BARCODES



USER MANUAL

HBCS2D100W

www.hamletcom.com

Dear Customer,
thanks for choosing an Hamlet product. Please carefully follow the instructions for its use and maintenance and, once this item has run its life span, we kindly ask You to dispose of it in an environmentally friendly way, by putting it in the separate bins for electrical/electronic waste, or to bring it back to your retailer who will collect it for free.

We inform You this product is manufactured with materials and components in compliance with RoHS Directive 2011/65/EU, WEEE Directive 2002/96/CE, 2003/108/CE Italian Legislative Decree 2005/151 and RED Directive 2014/53/EU for the following standards:
EN 60950-1: 2006 + A2: 2013
EN 62479: 2010
EN 301 489-1 V1.9.2
EN 301 489-17 V2.2.1
EN 300 328 V1.8.1

CE Mark Warning
This is a Class B product. In a domestic environment, this product may cause radio interference, in which case the user may be required to take adequate measures.

The complete CE declaration of conformity of the product can be obtained by contacting Hamlet at info@hamletcom.com.
Visit www.hamletcom.com for complete information on Hamlet products and to access downloads and technical support.
Imported by: CARECA ITALIA SPA - Scandiano (RE) . Italy

LED Devices
Hamlet products using led sources comply with IEC 60825-1, EN 60825-1: 2014. The led classification is marked on one of the labels on the product. Class 1 Led devices are not considered to be hazardous when used for their intended purpose.
The following statement is required to comply with US and international regulations:
Caution: Use of controls, adjustments or performance of procedures other than those specified herein may result in hazardous led light exposure.
Class 2 Led scanners use a low power, visible light diode. As with any very bright light source, such as the sun, the user should avoid staring directly into the light beam. Momentary exposure to a Class 2 Led is not known to be harmful.
In accordance with Clause 5, IEC 60825 and EN 60825, the following information is provided to the user:
CLASS 1: CLASS 1 LED PRODUCT
CLASS 2: VISIBLE LED RADIATION - DO NOT STARE INTO BEAM - CLASS 2 LED PRODUCT

Table of Contents

Table of Contents 3
1 Pairing Instruction 5
1.1 One scanner pair with one receiver 5
1.2 Multiple scanners pair with one receiver 5
1.3 Scanner connect with Android/iOS device 5
2 Inventory Mode 6
3 Turn On/Off Settings Codes 6
4 Factory Default 6
5 Sleeping Time Settings 7
6 Users Default Settings 8
7 Interfaces 8
7.1 RS232 Port 8
7.2 USB Port 9
7.2.1 USB Virtual Port 9
8 Reading Mode 10
8.1 Manual mode 10
8.2 Continuous Mode 10
8.3 Auto-sensing Mode 12
8.4 Command Trigger mode 14
9 Lighting & Aiming 15
9.1 Lighting 15
9.2 Aiming 15
10 Beeper Sound Settings 16
10.1 All Beeper Sounds 16
10.2 Beeper Sound of Successful Reading 17
10.3 Decoding Status Prompt 17
11 Data Encoding Format 18
12 Keyboard Language Settings 19
13 Image Reverse 20
14 Reading the Information of the Version 20
15 Data Editing 21
15.1 Prefix 21
15.2 Suffix 22
16 CODE ID 22
17 Ending Character 25
18 Interception of Data Segments 25
19 RF Information 28
20 Enable / Disable Configuration for Types of Barcodes 29
20.1 All barcodes reads 29
20.2 Rotation function of barcode 29
20.3 EAN13 29
20.4 EAN8 30
20.5 UPCA 30
20.6 UPCE0 30
20.7 UPCE1 30
20.8 Code128 31
20.9 Code39 31
20.10 Code93 32
20.11 CodeBar 33
20.12 QR 33
20.13 Interleaved 2 of 5 34
20.14 Industrial 25 34
20.15 Matrix 2 of 5 35
20.16 Code11 36
20.17 MSI 36

20.18 RSS 37
20.19 DM 38
20.20 PDF417 38
Appendix A: Default Settings Table 39
Appendix B: Common Serial Commands 39
Appendix C: Code ID List 40
Appendix D: ASCII table 41
Appendix E: Data Codes 45
Appendix F: Save or Cancel 46

1 Pairing Instruction

1.1 One scanner pair with one receiver

Note: Insert receiver into PC, and scan this code within 5 minutes, the scanner will connect with PC; scan the code again, the scanner will disconnect with PC. When receiver or scanner power off and on again, they will connect again automatically. It takes about 20s for first connection, purple lights on scanner and receiver will turn on after successful connection.

1.2 Multiple scanners pair with one receiver

(1) Connect with receiver

(2) Enter mode: one with multiple

Note: If pair another scanner with the same receiver, need the scanner read barcode step (1), then use successful paired scanner read barcode step (2). In this mode, one receiver can pair with 7 scanners maximum

(3) Quit multiple scanners pair with one receiver mode

1.3 Scanner connect with Android/iOS device

Note: scan this code, then turn on Bluetooth on Android or IOS device, find Bluetooth scanner, then connect it.

iOS Keyboard On/Off

2 Inventory Mode

Enter Inventory Mode

Quit Inventory Mode

Upload All Data

Upload New Data

Upload Statistic Data

Clear All Data

3 Turn On/Off Settings Codes

By turning on the setting code function, the parameter configuration of the scanner can be carried out by scanning the setting code.

Turn ON setting code

Turn OFF setting code

Not output setting code content

Output setting code content

4 Factory Default

By scanning "Factory Default", "Wireless Settings", "Bluetooth mode" in turn, all saving the parameters of the reading module return to the Factory Default configuration.

Factory Default

Wireless Settings

Bluetooth mode

5 Sleeping Time Settings

0

1

2

3

4

5

6

7

8

9

1. Scan “Factory Default”.
2. Scan “enter into sleeping mode”.
3. Setting sleeping time (minutes).

For Example: set 10 minutes as sleeping time, scan numbers “0”, “1”, “0” in order.
Note: Sleeping time could be 1 minute to 999 minutes, it’s made of 3 numbers followed by hundreds digit, tens digit, units digit, sleeping time settings must be 3 numbers.

4. Scan “Save Sleeping Time Parameter”.

Note: after setting sleeping time parameter, the parameter must be saved. If set error, the scanner will give an alarm, and need to set again.

Sleep after 5 minutes

Sleep after 10 minutes

Sleep after 30 minutes

No Sleep

6 Users Default Settings

Except for factory default settings, users could make often used settings as default settings by reading code “Save current settings as user default settings”. If there has been an user default settings, the new operation will replace the previous user default settings. But it could be switched to previous user default settings mode by reading code “recovery user default settings”.

Save current settings as user default settings

Recovery user default settings

7 Interfaces

7.1 RS232 Port

Serial communication interface is a common way to connect scanner with host equipment (such as pc, pos etc.). The system adopts serial communication mode by default when the scanner is connected with the host computer by serial port. When the serial communication interface is used, the communication parameters must be matched between the scanner and the host device to ensure smooth communication and correct content.

RS232 Port

The serial communication interface of the scanner uses TTL level signal (TTL-232), which can be adapted to most system architectures. If the system needs to use rs-232 form of architecture, need to add external conversion circuit. The default serial communication parameters of the scanner are shown in Table 2-1. The baud rate of the read module can be modified by the serial command, but the other parameters can not be modified.

Table2-1 Default Serial Communication Paramters

Parameters	Default
Serial communication type	Standard TTL-232
Baud rate	9600
Verify	none
Digits	8
Stop Digit	1
Hardware control	none

Baud Rate

1200bps

4800bps

*** 9600bps**

14400bps

19200bps

38400bps

57600bps

115200bps

7.2 USB Port

When scanner is connected with the host computer using USB, the scanner can be configured into standard keyboard input mode by scanning “USB Port”.

*** USB Port**

7.2.1 USB Virtual Port

When scanner is connected with the host computer using USB, the scanner can be configured into standard keyboard input mode by scanning “USB Virtual Port”.

USB Virtual Port

8 Reading Mode

8.1 Manual mode

Manual mode is the default reading mode, under this mode ,reading engine start to read the barcode when press the trigger, and stop to read code when loose the trigger.

Manual mode

Under this mode, reading engine will enter into sleep mode automatically after several default min, can set with the below code.

*** Enable Sleep Mode**

Disable Sleep Mode

Reading engine enter into sleep mode automatically after 30 min, can wake up by press trigger, if quit sleeping mode, the device will be rebooted.

8.2 Continuous Mode

Under this mode, no need to press the trigger, reading engine start to read the code asap ,when the date transmitted successfully or single reading finished, the engine will start to read next code automatically after waiting some time(can be setting), if not, Reading engine will do Cycle work as the situation before, users can also press the trigger to stop reading.

Continuous mode

Single reading time

Under the continuous reading mode, it means the max time the engine read the code, if exceed this time, engine enter into the interval period not reading, single reading time range is 0.1~25.5 seconds, step size is 0.1 seconds, when it is “0”, means no limit on reading time, default time is 0.5 seconds.

1000ms

3000ms

*** 5000ms**

No limit reading time

Interval period time

The interval period time range is 0.1~25.5 seconds, size is 0.1 seconds, default time is 1seconds.

No Interval time

500ms

*** 1000ms**

1500ms

2000ms

Same codes reading delay

To avoid read same codes many times, can set the the engine in setting time to read the same codes only one time under this mode. Same codes reading delay, means if the engine read the same code, will compare the last reading time, when the interval period is longer than delay time, then can read the same code, otherwise, no output.

Same code reading delay

*** Same code reading without delay**

8.3 Auto-sensing Mode

After setting, no need to press the trigger, the engine start identify the brightness, when the situation changed, engine will start to read once it is stable, when dated transmit, the engine need some time (can set) to identify the brightness, if not, engine work as the situation before, under this mode, user can also press the trigger to start to read, once loose the trigger, engine enter into the self- conduction mode again.

Auto sensing mode

Single reading time

Under the continuous reading mode, it means the max time the engine read the code, if exceed this time, engine enter into the interval period not reading, single reading time range is 0.1~25.5 seconds, step size is 0.1seconds, when it is “0”, means no limit on reading time, default time is 0.5 seconds.

1000ms

3000ms

*** 5000ms**

No limit reading time

Interval period time

The interval period time range is 0.1~25.5 seconds, size is 0.1 seconds, default time is 1seconds.

No Interval time

500ms

*** 1000ms**

1500ms

2000ms

Image stabilization time

It means under the self- conduction mode, the Image stabilization time engine identify the environment and read the code, the time range is 0~25.5 seconds, step size is 0.1 seconds, default stabilization time is 0.4 second.

100ms

*** 400ms**

1000ms

2000ms

Sensitivity

It means the Variability to identify the environment under the self-conduction mode, when it meets the needs, will turn into read mode.

Normal Sensitivity

Low Sensitivity

High Sensitivity

Special High Sensitivity

8.4 Command Trigger mode

Under this mode, engine start to read data after receiving the scan instruction from the host (that is “1” was written into bit from zone bit 0x0002), and stop reading after data transmitted.

Command Trigger mode

Attention: under this mode, trigger command instruction is: 7E 00 08 01 00 02 01 AB CD.
The engine receive the instruction, will output 7 byte responding first and start to read at the same time (responding is :02 00 00 01 00 33 31).

Single reading time
Under this mode, it means the max time that engine identify the data, single reading time range is 0.1~25.5 second, step size is 0.1 second, when it is “0”, means no limit on reading time, default time is 5 seconds.

1000ms

3000ms

*** 5000ms**

No limit reading time

9 Lighting & Aiming

9.1 Lighting

Lighting could provide supplementary lighting for shooting to read, when light beam illuminate reading aim,to improve reading ability and adaptability in weak ligh. The user could set it to one of the following states according to the application.
Normal (Factory Default): The light is on when shooting to read, off in other time.
Always Light: The lights keep glowing after reading module is on.
No Light: The lights don't light up in any cases.

*** Normal**

Always Light

No Light

9.2 Aiming

Projected aiming beam could help users to find the best reading distance when shooting to read. The user could choose one of the following states according to the application.
Normal (Factory Default): Reading module project aiming beam when shooting to read.
Always Light: After reading module power on, always project aiming beam.
No Target: Aiming beam is off in any case.

*** Normal**

Always Light

No Target

10 Beeper Sound Settings

10.1 All Beeper Sounds

Buzzers will be set to active/passive when scanning “Buzzer Driving Frequency”, also set passive buzzer driving Frequency.

Buzzer Driving Frequency
Passive Low Frequency

Buzzer Driving Frequency
Passive Medium Frequency

Buzzer Driving Frequency
Passive High Frequency

Buzzer Driving Frequency
Active Driving

In Active Buzzer Mode, after reading “Buzzer Working Level-High”, could be set to Buzzer Free Low level and working high level. After reading” Buzzer Working Level- Low”, could be set to buzzer free high level, and working low level.

*** Buzzer Working Level-High**

Buzzer Working Level- Low

All sounds is off after reading “Enable sounds off”, Sound off setting will be canceled after reading “Disable Sound off”.

Enable sounds off

Disable Sound off

10.2 Beeper Sound of Successful Reading

Beeper sound of successful reading will be forbidden after reading " Disable Beeper sound of successful reading", beeper sound of successful reading will recover after reading " Enable Beeper Sound of Successful Reading".

Disable Beeper Sound of Successful Reading

Enable Beeper Sound of Successful Reading

To read " Sound Continuous Time" could set continuous time of beeper sound of successful reading Default 60ms.

Sound Continuous Time 30ms

Sound Continuous Time 60ms

Sound Continuous Time 90ms

Sound Continuous Time 120ms

10.3 Decoding Status Prompt

In order to let host can quickly understand whether the current decoding succeed, to open this function.
After reading "Output Decoding Status Prompt", if reading is failed, reading module will send character "F"; if succeed, to add character "S" before decoding data.

*** No Output Decoding Status Prompt**

Output Decoding Status Prompt

11 Data Encoding Format

In order to reading module enable to read all kinds of Chinese barcode encoding format, by reading “Input Data Encoding Format” could be set.

*** Input Data Encoding Format GBK**

Input Data Encoding Format UNICODE

Input Data Encoding Format AUTO

Input Data Encoding Format UTF8

In order to let the host print Chinese data according to specified encoding format, could be set through reading “Output Data Encoding Format”.
Note: GBK format could be used in notepad, UNICODE format can be used in the input box of WORD and commonly used chat tools, BIG5 format support traditional Chinese.

*** Output Data Encoding Format GBK**

Output Data Encoding Format UNICODE

Output Data Encoding Format BIG5

Output Data Encoding Format UTF8

12 Keyboard Language Settings

In order to make host of all countries user this equipment, by reading corresponding countries keyboard language could be set.

*** USA**

Czech

France

Germany

Hungary

Italy

Japanese

Spanish

13 Image Reverse

In application, we will encounter the mirror or vertical flip image, as shown in the following figure.

Original Image | Mirror Reverse

When the barcode in reverse, can be set up by scanning the corresponding code into mirror reverse mode.

Enter Mirror Reverse Mode *** Exit Mirror Reverse Mode**

Note: In Mirror Reverse Mode, only can identify the mirror flip the bar code, if you need to identify normal barcode or set code, please exit mirror reverse mode.

14 Reading the Information of the Version

In order to make main engine read apace for the information of the version, please read the code as below to confirm.

Reading the Information of the Version

15 Data Editing

In practical application, sometimes we need to edit the identified data and then output it to make the data distinguishing and data disposing more convenient.
Data Editing Including:

- Adding Prefix
- Adding Suffix
- Getting sections of the decoding information
- Output CodeID
- Output “RF” code when decoding unsuccessfully
- Adding the ending code “Tail”

The order of the treated data output is as below:
[Prefix] > [CodeID] > [Data] > [Suffix] > [Tail]

15.1 Prefix

Adding Prefix
Prefix is the character string could be changed by users, which would scan (permission of adding prefix) to add.

Permission of adding Prefix

No adding Prefix

Changing Prefix
Scan the “Changing Prefix” and combine the data installation code. User could change the contents of the prefix and use two values of HEX to represent the Prefix. The Prefix at most has 15 characters, as for change of HEX characters values, users could consult the appendix D.

Changing Prefix

For Example: User defined the prefix as “DATA”.

1. Check the characters list and get that HEX values of four characters of “DATA” are “44”, “41”, “54”, “41”.
2. Check that if the installation code is starting, if not, please scan “Starting installation” code.
3. Scan “Changing Prefix” code.
4. Scan data installation code in order “4”, “4”, “4”, “1”, “5”, “4”, “4”, “1”.
5. Scan “Save” code.

15.2 Suffix

Adding Suffix
Suffix is the character string could be changed by users, which would scan (permission of adding Suffix) to add.

Permission of adding Suffix

No adding Suffix

Changing Suffix
Scan the “Changing Suffix” and combine the data installation code. User could change the contents of the suffix and use two values of HEX to represent the suffix. The suffix at most has 15 characters, as for change of HEX characters values, users could consult the appendix D.

Changing Suffix

For Example: User defined the suffix as “DATA”.

1. Check the characters list and get that HEX values of four characters of “DATA” are “44”, “41”, “54”, “41”.
2. Check that if the installation code is starting, if not, please scan “Starting installation” code.
3. Scan “Changing suffix” code.
4. Scan data installation code in order “4”, “4”, “4”, “1”, “5”, “4”, “4”, “1”.
5. Scan “ Save” code.

16 CODE ID

Adding CODE ID
User could identify different types of codes by CODE ID, each code corresponds to the CODE ID could be changed by users, CODE ID could be identified by one character.

Permission of adding CODE ID

No adding CODE ID

CODE ID Default

Scan “CODE ID default” code, corresponding CODE ID of each code could recover to default, default CODE ID could consult Appendix C.

All codes’ CODE ID recovering default

Changing of CODE ID

User could change corresponding CODE ID of each code by scanning corresponding installation code and combining scanning data installation code. Corresponding CODE ID of each code could be represented by HEX, as for change of HEX characters values, users could consult the appendix D.

For example: corresponding CODE ID of changing CODE 128 code is “A”.

1. Check the characters list and get that HEX values of “A” is “41”.
2. Check that if the installation code is starting, if not, please scan “Starting installation” code.
3. Scan CODE ID installation code of changing CODE 128.
4. Scan data installation code in order “4”, “1”.
5. Scan “Save” code.

CODE ID installation codes list of changing different codes types

CODE ID of changing EAN13

CODE ID of changing EAN8

CODE ID of changing UPCA

CODE ID of changing UPCE0

CODE ID of changing UPCE1

CODE ID of changing CODE 128

CODE ID of changing CODE 39

CODE ID of changing CODE 93

CODE ID of changing CODE BAR

CODE ID of changing Interleaved 2 of 5

CODE ID of changing Industrial 25

CODE ID of changing Matrix 2 of 5

CODE ID of changing CODE 11

CODE ID of changing MSI

CODE ID of changing RSS

CODE ID of changing Limited RSS

CODE ID of changing Expanding RSS

CODE ID of changing QR CODE

CODE ID of changing DATA MATRIX

CODE ID of changing Limited PDF417

17 Ending Character

In order to let the host can quickly distinguish the decoding result, can open this function.
Read the "Ending character" to open this function, if read successfully, corresponding ending character is added by reading module after decoding data.

Closing ending character

Adding ending character

Adding ending character TAB

Adding ending character CRLF

18 Interception of Data Segments

This function can be enabled when the user only needs to output a part of the decoding information.
We will decode the information [Data] into three parts:
[Start] [Center] [End]

The characters of the [Start] and [End] can be controlled by scanning setting code.
The user can select the output information of the corresponding location by scanning the following setting code.

*** Transfer the entire Data segments**

Only transfer the [Start] segments

Only transfer the [End] segments

Only transfer the [Center] segments

Modify the length of [Start] M

Scan [Interception Length M before modified], and combine the relative setting code to modify the length of the start segments, the length of the start segments is up to 255 characters.

[Interception Length M before modified] is represented by a hexadecimal character, the corresponding Hexadecimal value conversion table of “Length M” refers to Appendix ID.

Interception Length M before modified

Modify the length of [End] segments N

Scan [Interception Length N after modified], and combine the relative setting code to modify the length of the segments, the length of the [End] segments is up to 255 characters.

[Interception Length N after N modified] is represented by a hexadecimal character, the corresponding Hexadecimal conversion table of “Length N” refers to Appendix ID.

Interception Length N after N modified

Only transfer the [Start] segments

Example: When the decoding information is "1234567890123ABC", output the first 13 bytes "1234567890123".

1. By checking the character table, the corresponding hexadecimal character of decimal data “13” is “0D”.
2. Ensure the setting code is enabled, if not, please scan setting code of “Enable setting code”.
3. Scan “Interception Length M before modified”.
4. Scan data setting “0”, “D” in turn.
5. Scan “Save”.
6. Scan “Only transfer the [Start] segments.

Only transfer [End] segments

Example: When the decoding information is "1234567890123ABC", output the last 13 bytes "4567890123ABC".

1. By checking the character table, the corresponding hexadecimal character of decimal data "3" is "03".
2. Ensure the setting code is enabled, if not, please scan setting code of “Enable setting code”.
3. Scan “Interception Length N after modified”.
4. Scan data setting “0”, “3” in turn.
5. Scan “Save”.
6. Scan “Only transfer the [End] segments.

Only transfer [Center] segments

Example: When the decoding information is "12345678900123ABC", output the center 4 bytes "0123".

1. By checking the character table, the corresponding hexadecimal character of decimal data “3” is “03”.
2. Ensure the setting code is enabled, if not, please scan setting code of “Enable setting code”.
3. Scan “Interception Length N after modified”.
4. Scan data setting “0”, “3” in turn.
5. Scan “Save”.
6. Scan “Interception Length M before modified”.
7. Scan data setting “0”, “A” in turn.
8. Scan “Save”.
9. Scan the "Transfer only the Center segment" setting code.

19 RF Information

RF (Read Fail) information refers that in some modes the reading module can output the information defined by the user freely. The user or program can do some adjustment or operations when detecting this information.

Send RF information

*** Do not send RF information**

Modify RF Information

Scan [Modify RF information] setting code, and combine the relative setting code to modify the RF information, every RF character is represented by two hexadecimal character, the corresponding Hexadecimal value conversion table refers to Appendix D.

Modify RF Information

Example: Modify the User-defined RF information to “FAIL”.
By checking the character table, the four hexadecimal characters of “FAIL” is “46”, “41”, “49”, “4C”.
Ensure the setting code is enabled, if not, please scan setting code of “Enable setting code”.
Scan “Modify RF information” setting code.
Scan “4”, “6”, “4”, “1”, “4”, “9”, “4”, “C”.
Scan “Save”.

20 Enable / Disable Configuration for Types of Barcodes

20.1 All barcodes reads

By scanning below setting code will enable or disable to read all the support types of barcodes.

Enable to read all the types

Disable to read all the types

*** Return to default type**

20.2 Rotation function of barcode

By scanning below setting code will enable or disable to read all the support types of barcodes after 360° rotation.

Send RF information

*** Do not send RF**

***Enable after 360 °rotation.**

Disable after 360 °rotation.

20.3 EAN13

By scanning below setting code will enable or disable to read EAN13.

*** Enable EAN13**

Disable EAN13

20.4 EAN8

By scanning below setting code will enable or disable to read EAN8.

*** Enable EAN8**

Disable EAN8

20.5 UPCA

By scanning below setting code will enable or disable to read UPCA.

*** Enable UPCA**

Disable UPCA

20.6 UPCE0

By scanning below setting code will enable or disable to read UPCE0.

*** Enable UPCE0**

Disable UPCE0

20.7 UPCE1

By scanning below setting code will enable or disable to read UPCE1.

*** Enable UPCE1**

Disable UPCE1

20.8 Code128

Enable or disable Code128 by scanning below setting code.

*** Enable Code128**

Disable Code128

Set the min. length of Code128 by scanning below setting code.

Code128 Min. Length 0

*** Code128 Min. Length 4**

Set the max. Length of Code128 by scanning below setting code.

*** Code128 Max. Length 32**

Code128 Max. Length 255

20.9 Code39

Enable or disable Code39 by scanning below setting code.

*** Enable Code39**

Disable Code39

Set the min. length of Code39 by scanning below setting code.

Code39 Min. Length 0

*** Code39 Min. Length 4**

Set the max. Length of Code39 by scanning below setting code.

*** Code39 Max. Length 32**

Code39 Max. Length 255

20.10 Code93

Enable or disable Code93 by scanning below setting code.

*** Enable Code93**

Disable Code93

Set the min. length of Code93 by scanning below setting code.

Code93 Min. Length 0

*** Code93 Min. Length 4**

Set the max. Length of Code93 by scanning below setting code.

*** Code93 Max. Length 32**

Code93 Max. Length 255

20.11 CodeBar

Enable or disable CodeBar by scanning below setting code.

*** Enable CodeBar**

Disable CodeBar

Set to send or not send CodeBar start-stop symbol by scanning below setting code.

Send CodeBar start-stop symbol

*** Not send CodeBar start-stop symbol**

Set the min. length of CodeBar by scanning below setting code.

CodeBar Min. Length 0

*** CodeBar Min. Length 4**

Set the max. Length of CodeBar by scanning below setting code.

*** CodeBar Max. Length 32**

CodeBar Max. Length 255

20.12 QR

Enable or disable QR by scanning below setting code.

*** Enable QR**

Disable QR

20.13 Interleaved 2 of 5

Enable or disable Interleaved 2 of 5 by scanning below setting code.

Enable Interleaved 2 of 5

*** Disable Interleaved 2 of 5**

Set the min. length of Interleaved 2 of 5 by scanning below setting code.

Interleaved 2 of 5 Min. Length 0

*** Interleaved 2 of 5 Min. Length 4**

Set the max. Length of Interleaved 2 of 5 by scanning below setting code.

*** Interleaved 2 of 5 Max. Length 32**

Interleaved 2 of 5 Max. Length 255

20.14 Industrial 25

Enable or disable Industrial 25 by scanning below setting code.

Enable Industrial 25

*** Disable Industrial 25**

Set the min. length of Industrial 25 by scanning below setting code.

Industrial 25 Min. Length 0

*** Industrial 25 Min. Length 4**

Set the max. Length of Industrial 25 by scanning below setting code.

*** Industrial 25 Max. Length 32**

Industrial 25 Max. Length 255

20.15 Matrix 2 of 5

Enable or disable Matrix 2 of 5 by scanning below setting code.

Enable Matrix 2 of 5

*** Disable Matrix 2 of 5**

Set the min. Length of Matrix 2 of 5 by scanning below setting code.

Matrix 2 of 5 Min. Length 0

*** Matrix 2 of 5 Min. Length 4**

Set the max. Length of Matrix 2 of 5 by scanning below setting code.

*** Matrix 2 of 5 Max. Length 32**

Matrix 2 of 5 Max. Length 255

20.16 Code11

Enable or disable Code11 by scanning below setting code.

Enable Code11

*** Disable Code11**

Set the min. Length of Code11 by scanning below setting code.

Code11 Min. Length 0

*** Code11 Min. Length 4**

Set the max. Length of Code11 by scanning below setting code.

*** Code11 Max. Length 32**

Code11 Max. Length 255

20.17 MSI

Enable or disable MSI by scanning below setting code.

Enable MSI

*** MSI Disable MSI**

Set the code that will set the minimum read length of the MSI bar code read below.

The MSI information has a minimum length of 0

*** The MSI information has a minimum length of 4**

Read the following setup code to set the maximum reading length for the MSI bar code.

*** The MSI information has a minimum length of 32**

The MSI information has a minimum length of 255

20.18 RSS

Read the following setup code to set the RSS-14 barcode enable/disable read.

Enable to read RSS-14

*** Disable to read RSS-14**

Read the following setup code to set the allowed RSS bar code to allow / disable reading.

Allow to read restricted RSS

*** Do not read restricted RSS**

Read the following setup code to set the allowable / prohibited reading for extended RSS bar codes.

Allow to read extended RSS

*** Do not read extended RSS**

Read the following setup code to set the length of the RSS bar code.

RSS information has a minimum length of 0

*** RSS information has a minimum length of 4**

Read the following setup code to set the length of the RSS bar code.

*** The minimum length of the RSS message is 32**

The minimum length of the RSS message is 255

20.19 DM

Read the following setting code to set the DM bar code enable/disable reading.

*** Allow reading DM**

Prohibit reading DM

20.20 PDF417

Read the following setup code to set the PDF417 barcode enable/disable reading.

*** Allow reading PDF417**

Prohibit reading PDF417

Appendix A: Default Settings Table

Parameter name		Default Setting	Remarks
Interface			
TTL-232	Baud rate	9600	
	Check	NO	
	Data bits	8bits	
	Stop bits	1bits	
	Hardware flow control	No hardware flow control	
Mode parameter			
Default read mode		Manual Read Mode	
Serial trigger mode	Single reading time	5s	Parameter range: 0.1-25.5 seconds, the steps of 0.1s; 0 that a single decoding time is not limited
Manual Read Mode	Trigger level	Low level trigger	Default high level

Appendix B: Common Serial Commands

Fuction	Serial command
Set the baud rate to 9600	7E 00 08 01 00 D9 D3 20 38
Save the settings to the EEPROM	7E 00 09 01 00 00 DE C8
Query baud rate	7E 00 07 01 00 2A 02 D8 0F

After the host sends a serial command to query the baud rate, the reading module will reply to the following information:

returned messages	Corresponding baud rate
02 00 00 02 C4 09 SS SS	1200
02 00 00 02 71 02 SS SS	4800
02 00 00 02 39 01 SS SS	9600
02 00 00 02 D0 00 SS SS	14400
02 00 00 02 9C 00 SS SS	19200
02 00 00 02 4E 00 SS SS	38400
02 00 00 02 34 00 SS SS	57600

Note: SS SS is the check value.

Appendix C: Code ID List

Barcode Type	Corresponding characters	Flag address
EAN-13	d	0x91
EAN-8	d	0x92
UPC-A	c	0x93
UPC-E0	c	0x94
UPC-E1	c	0x95
Code 128	j	0x96
Code 39	b	0x97
Code 93	i	0x98
Codabar	a	0x99
Interleaved 2 of 5	e	0x9A
Industrial 2 of 5	D	0x9B
Matrix 2 of 5	v	0x9C
Code 11	H	0x9D
MSI-Plessey	m	0x9E
GS1 Databar(RSS-14)	R	0x9F
GS1 Databar Limited(RSS)	R	0xA0
GS1 Databar Expanded(RSS)	R	0xA1
QR Code	Q	0xA2
Data Matrix	u	0xA3
PDF 417	r	0xA4

Appendix D: ASCII table

Hexadecimal	Decimal	Character
00	0	NUL
01	1	SOH
02	2	STX
03	3	ETX
04	4	EOT
05	5	ENQ
06	6	ACK
07	7	BEL
08	8	BS
09	9	HT
0a	10	LF
0b	11	VT
0c	12	FF
0d	13	CR
0e	14	SO
0f	15	SI
10	16	DLE
11	17	DC1
12	18	DC2
13	19	DC3
14	20	DC4
15	21	NAK
16	22	SYN
17	23	ETB
18	24	CAN
19	25	EM
1a	26	SUB
1b	27	ESC
1c	28	FS
1d	29	GS
1e	30	RS
1f	31	US
20	32	SP
21	33	!

Hexadecimal	Decimal	Character
22	34	"
23	35	#
24	36	$
25	37	%
26	38	&
27	39	`
28	40	(
29	41	)
2a	42	*
2b	43	+
2c	44	,
2d	45	-
2e	46	.
2f	47	/
30	48	0
31	49	1
32	50	2
33	51	3
34	52	4
35	53	5
36	54	6
37	55	7
38	56	8
39	57	9
3a	58	:
3b	59	;
3c	60	<
3d	61	=
3e	62	>
3f	63	?
40	64	@
41	65	A
42	66	B
43	67	C
44	68	D
45	69	E

Hexadecimal	Decimal	Character
46	70	F
47	71	G
48	72	H
49	73	I
4a	74	J
4b	75	K
4c	76	L
4d	77	M
4e	78	N
4f	79	O
50	80	P
51	81	Q
52	82	R
53	83	S
54	84	T
55	85	U
56	86	V
57	87	W
58	88	X
59	89	Y
5a	90	Z
5b	91	[
5c	92	\
5d	93	]
5e	94	^
5f	95	_
60	96	'
61	97	a
62	98	b
63	99	c
64	100	d
65	101	e
66	102	f
67	103	g
68	104	h
69	105	i

Hexadecimal	Decimal	Character
6a	106	j
6b	107	k
6c	108	l
6d	109	m
6e	110	n
6f	111	o
70	112	p
71	113	q
72	114	r
73	115	s
74	116	t
75	117	u
76	118	v
77	119	w
78	120	x
79	121	y
7a	122	z
7b	123	{
7c	124	|
7d	125	}
7e	126	~
7f	127	DEL

Appendix E: Data Codes

0 ~ 9

0

1

2

3

4

5

6

7

8

9

A – F

A

B

C

D

E

F

Appendix F: Save or Cancel

After reading the data code to scan the "Save" set code to read the data saved. If an error occurs while reading the data code, you can cancel reading the wrong data.
If you read the "read one bit of data before reading", you will cancel the last read if you read a setting code and read the data "A", "B", "C", and "D" The number "D", if the read "Cancel a string of data before reading" will cancel the read data "ABCD", if read "Cancel modify settings" will cancel the read data "ABCD" and exit the modification set up.

Save

Cancel the previous read of a data

Cancel the string of data read earlier

Cancel the settings