

RK 65

Fixed Mount Barcode
Scanner



User manual V1.2

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Modify the record

Version	Description	Date
V1.0	Initial version	March 28,2021
V1.1	1. adds a new intelligent debugging operation description 2. modifies the default open barcode settings 3. adds a decoded successful (Good) / failed (NG) signal output time setting	May 08,2021
V1.2	1. adds new debug button settings 2. New Added Light work locale	July 02,2021

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Chapter 1 About RK65

RK65 is a high-performance fixed industrial bar code scanner designed for industrial automation production line applications, with IP65 industrial grade and 1280 * 800 million pixel CMOS perceptron, with excellent scanning recognition, it can also maintain a good working state for a long time in the face of a wet or dust working environment.

Main characteristics of the equipment

- Smart light source system

The built-in intelligent light source adjustment function is built to meet the complex code scanning requirements of different materials such as reflective (reflective), form (curved surface), background and barcode color

- Flexible I/O expansion interface

External trigger code scanning is easily realized through the I/O expansion interface, and supporting 1-way optical dual isolation input (NPN / PN P / relay) and 2-way optical dual isolation output (Good; NG) can control the external equipment

- IP65 protection rating

Prevent external intrusion and splashing water from all directions from the equipment

Equipment parameter specifications

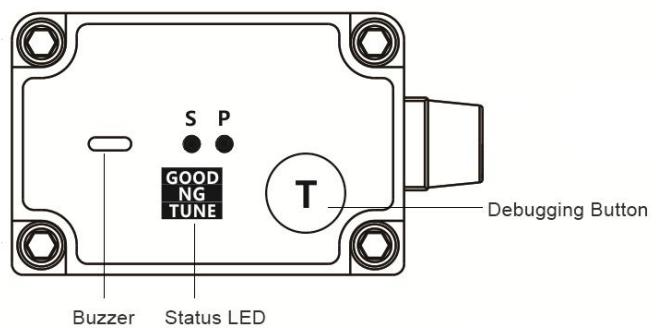
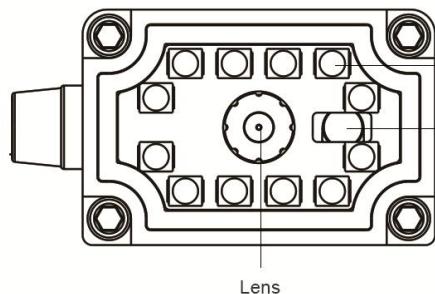
SCAN PERFORMANCE	RESOLUTION	AT 1,280 * 800 PIXELS	
	FIELD OF-VIEW ANGLE	HORIZONTAL 46 ° (H), VERTICAL 29 ° (V)	
	LIGHTING	HIGHLIGHT RED LIGHT SOURCE / HIGHLIGHT WHITE LIGHT SOURCE	
	FOCOOM	GREEN LED TARGETING	
	READ-OUT MODE	AUTOMATIC INDUCTION, EXTERNAL PULSE TRIGGER MODE, CONTINUOUS SCANNING MODE, SERIAL PORT COMMAND MODE	
	READING CODE SYSTEM	1D	UPC A,UPC E,EAN 8,EAN 13,CODE 128,CODE 39,CODE 93,CODE 32,CODE11,CODABAR,PLESSEY,MSI,INTERLEAVED 2 OF 5,IATA 2 OF 5,MATRIX 2 OF 5, STRAIGHT 2 OF 5,PHARMACODE,RSS-14,RSS-14 EXPANDED,RSS-14 LIMITED, COMPOSITE CODE-A,COMPOSITE CODE-B,COMPOSITE CODE-C
		2D	PDF 417,MICRO PDF 417,DATA MATRIX,QR,MICRO QR,AZTEC,MAXICODE
	TYPICAL READING	MODEL NUMBER	GXF-65-SR
		DEEP OF VIEW	CODE 39 (5MI L): 60 MM ~ 250 MM EAN-13 (13MI L): 50 MM ~400 MM QR (10 MI L): 35 MM ~ 130 MM
		PRECISION	1D: ≥4 MIL; 2D: ≥9 MIL
	PRINT THE CONTRAST	≥20% (UPC/EAN 100%,PCS 90%)	
MECHANICAL / ELECTRICAL PARAMETERS	APPEARANCE DIMENSIONS	36(W)×43(D)×24(H)(MM)	
	HOUSING MATERIAL	ALUMINUM ALLOY	
	HOUSING PROTECTION	IP65	
	TIP MODE	BUZZER, INDICATOR	
	COMMUNICATION	RS232,USB (HID; CDC), ETHERNET / ETHERNET (TCP / UDP / M O D B U S)	
	POWER SUPPLY	5-36 VDC	
	EXTERNAL INPUT	1. OPTICAL COUPLING ISOLATION INPUT (NPN / PNP / RELAY)	
	EXTERNAL OUTPUT	THE 2-WAY OPTICAL COUPLING ISOLATION OUTPUT (GOOD; NG)	
ENVIRONMENTAL PARAMETERS	CURRENT @5 VDC	OPERATING CURRENT 300 MA ± 5% (TYPICAL), 450 MA ± 5% (MAXIMUM) STANDBY CURRENT OF 100 MA ± 5%	
	STORAGE TEMPERATURE	-40°C~+70°C	
	OPERATING TEMPERATURE	-20°C~+50°C	

	ELECTROSTATIC PROTECTION	$\pm 20 \text{ kV}$ (AIR DISCHARGE), $\pm 8 \text{ kV}$ (DIRECT DISCHARGE)
SAFETY SPECIFICATIONS	CE EN55022, FCC PART 15 CLASS B, CE EMC CLASS B	

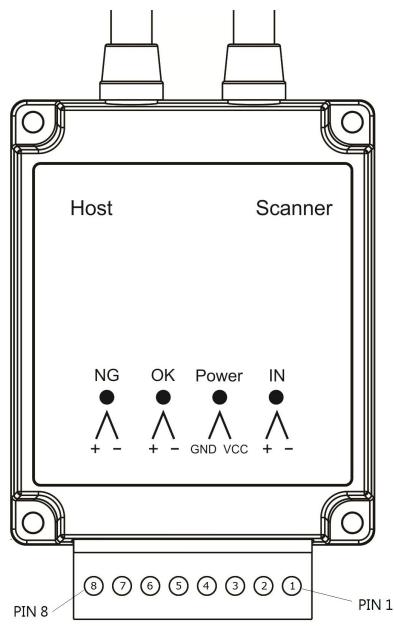
* Test conditions: ambient temperature =23°C; ambient illumination =300 LUX incandescent lamp

* Depth of field data may change due to process and applications. Subject to change without notice *

Appearance description

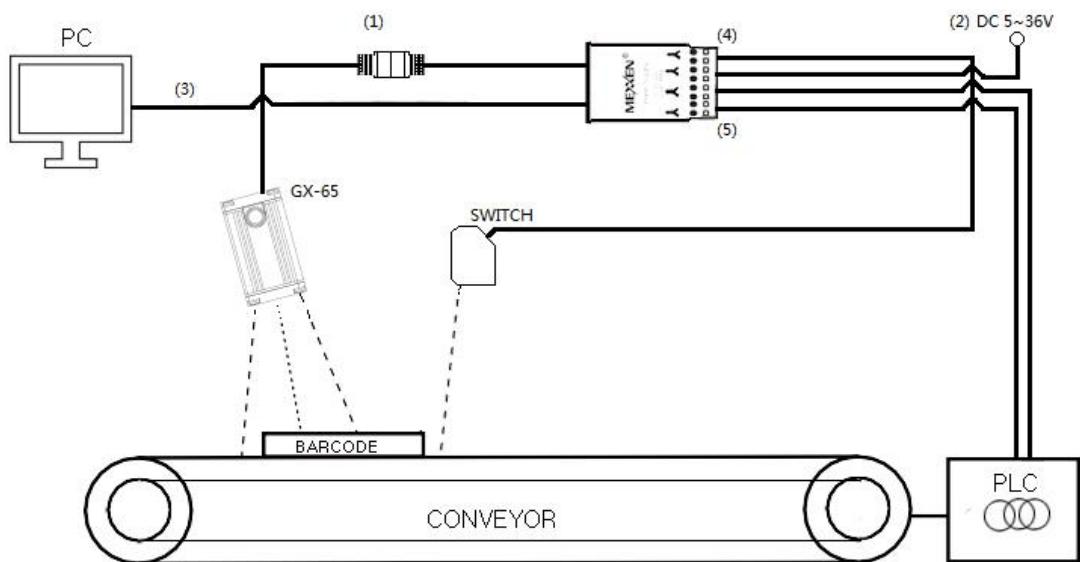


Status indicator lamp	
Status	Color
Decode the successful LED / GOOD	Green in color
Decode failure LED / NG	Red in color
Adjustment mode indicator lamp / TUNE	Blue in color



Pipe feet	Signal	Function
1	Photoswitch input (-)	Trigger the signal input
2	Photoswitch Ininput (+)	
3	Power supply to VCC (+)	5-36 VDC
4	Power supply: GND (-)	
5	Decded successfully (-)	Decode the successful signal output
6	Decded successfully (+)	
7	Decode failure (-)	Decode the failure signal output
8	Decode failure (+)	

Installation schematic diagram

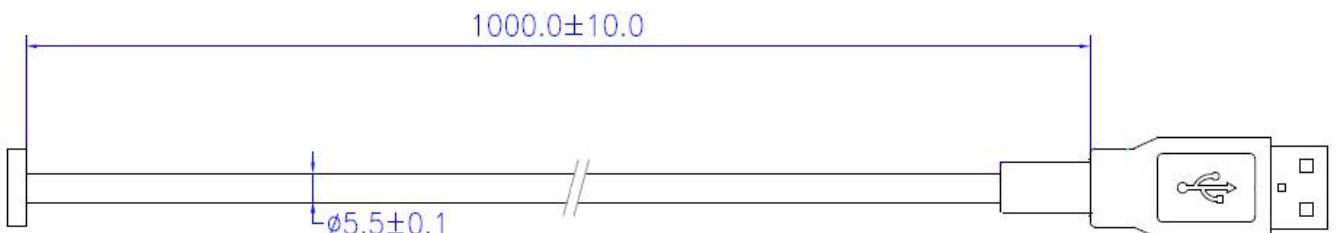


For the first time, please install the connection code reader as shown above, The (1) connects the code reader to the aviation plug connector for the wire (2) Connect 5~36V DC external power supply, if using USB communication wire can not be connected

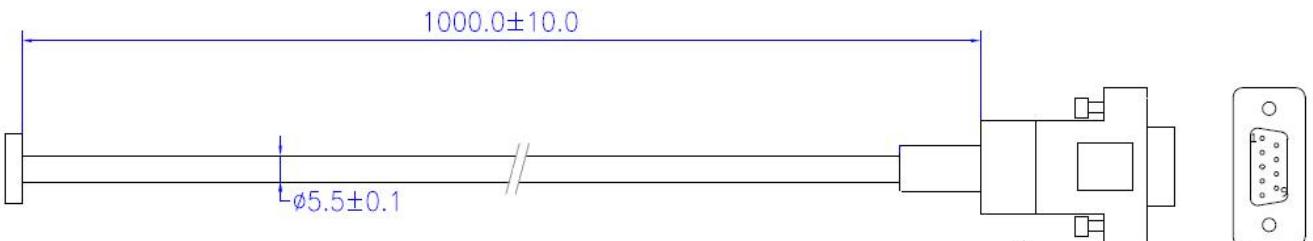
- (3) Connect the communication port to the PC or data acquisition terminal to support the 3 communication methods of RS232,USB, Ethernet
- (4) If External Trigger Input Mode is used, an external sensor / PLC is required
- (5) If the code reader is required to output the read code feedback O K signal or the N G signal, connect the 5-8Pin foot to the external device

Communication and output wire material

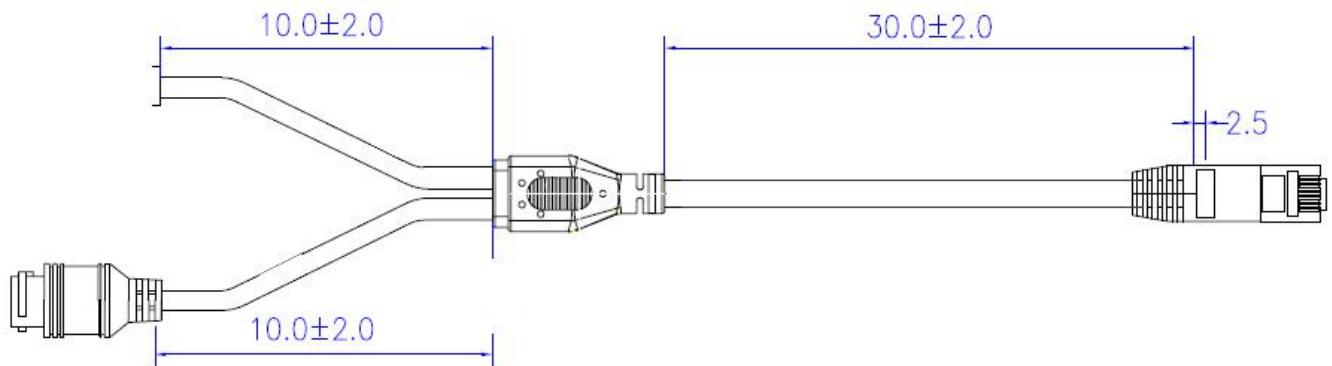
USB (HID; CDC)



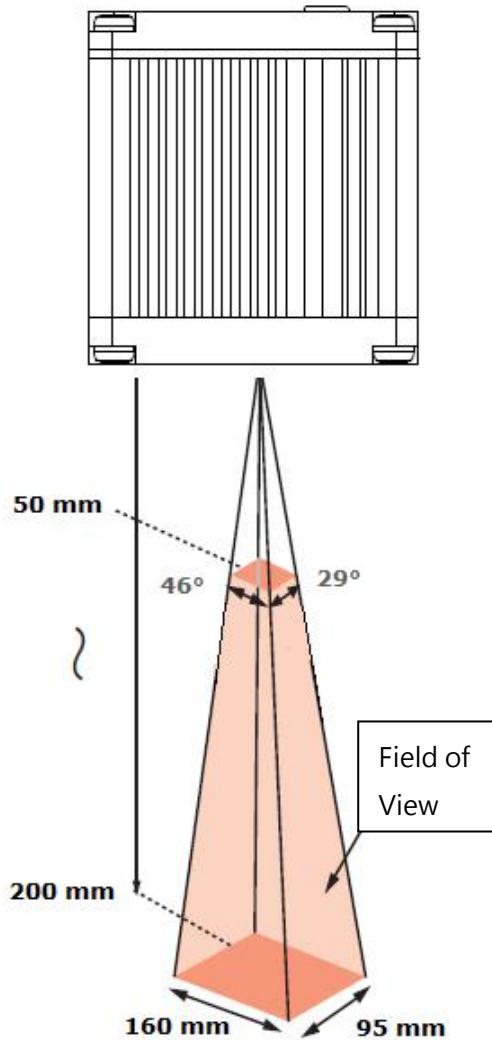
RS232 SERIAL PORT



Ethernet (TCP/UDP/MODBUS)



Field description

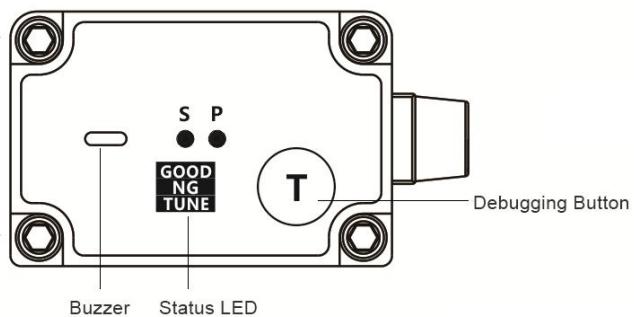


Reading Distance (mm)	Vision (mm)
-----------------------	-------------

	Horizontal (mm)	Vertical (mm)
100	85	55
150	130	70
200	160	95

Intelligent debugging operation instructions

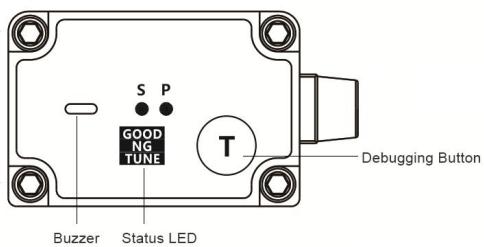
(1) Press the commissioning button to enter the commissioning mode



(2) points the scanner at the barcode to decode

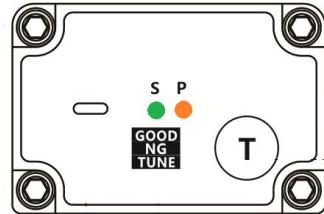


(3) presses the debug button to start the intelligent debugging



(4) debugging ends, status indicator shows the debugging results, green light means successful red light means failure,

Success will automatically remember the settings and reuse the power immediately without repeated debugging



The (5) presses the debug button to return to the scan working mode

Chapter II. System setup

Restore the default settings

Restts all the properties of the scanner to factory status



Start the setup



Restore the default settings



**End of the
settings**

Customer customization settings

Save the guest customization settings: Save the frequently used settings
Add passenger customization setting: Set the saved customer customization setting



Start the setup



Save the customer customization settings



Add passenger manufacturing setting



End of the settings

Scan mode

Continuous scan:

Read one or more bar codes (read through the same code interval setting, defining the decoding sequence) continuously, and press and release the scan key to start or end the scan

Pulse trigger / external trigger:

Start scanning when the pulse signal occurs (the default high potential changes low potential triggers the scanning, change the trigger potential

through the trigger potential setting), and end the scanning when the reading time is exceeded (the default decoding time is 3 seconds, and the decoding time can be changed through the setting)

Automatic induction:

Start the scanning when the image changes, and end the scan when the reading time is exceeded (the default decoding time is 3 seconds, which can be changed by setting)

Continuous scan mode



tart the setup



Continuous scan (by default)



End of
the
settings

Pulse trigger mode



Start the setup



Pulse trigger (external trigger)



**End of the
settings**

The pulse triggers the potential



Start the setup



Trigger a scan when the high potential becomes low potential (default)



Scan is triggered when the low potential becomes a high potential



**End of the
settings**

Automatic induction mode



Start the setup



Automatic sensing



**End of the
settings**

Automatic sensing of the sensitivity



Start the setup



Low-level sensitivity



Medium sensitivity (default)



High sensitivity



End of the settings

Same — barcode read mode

Same as barcode reading mode in automatic induction, continuous scanning, and pulse trigger mode

By default, the same bar code within 500 ms, 0~5000 ms, 0 indicates no interval

- **Do not read the same barcode in the interval**

Read the same barcode continuously within the set time, and the barcode will ignore no output and avoid reading the same code repeatedly.

No duplicate identical barcode read in 100 milliseconds

Scan for Start Settings

Scan the same bar code for no read interval

Scan the Read Time set code

Scan the appendix decimal digit, "1" setting code

Scan the appendix decimal digit, "0" setting code

Scan the appendix decimal digit, "0" setting code

Scan for End Settings

- **Do not read the last read barcode**

Do not read the last bar read barcode repeatedly

- **Do not read the last two read barcode**

Do not read the last two read barcode repeatedly

Same — barcode read mode



Start the setup



Do not read the same barcode in the interval (by default)



Do not read the last read barcode



Do not read the last two read barcode

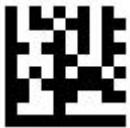


End of the settings

Same — barcode read time



Start the setup



Read the time (in milliseconds)



End of the settings

Decode time

The read time after triggering in button mode, pulse mode and automatic sensing mode, if the barcode is not read, the decoding closes into standby state. By default, 3000 milliseconds can set 0~ 3600000 milliseconds, and 0 indicates continuous decoding until read

Set the maximum read time to take for 5 seconds

Scan for Start Settings

Scan for the Decode Time set code
Scan the appendix decimal digit, "5" setting code
Scan the appendix decimal digit, "0" setting code
Scan the appendix decimal digit, "0" setting code
Scan the appendix decimal digit, "0" setting code
Scan for End Settings



Start the setup



Decode time (in milliseconds)



End of the settings

Reset the decoding time

In button mode, pulse mode and automatic induction mode, the decoding time is reset and continuous decoding. If the decoding time is 0 decoding, the decoding is closed



Start the setup



Turn off the scan immediately after successful decoding (by default)



Reset the decoding time to continuously decode the barcode of different contents



End of
the
settings

Decode the area

Full area decoding: The full area of the image (the full picture) is used for decoding

Central Area Decode: The central location of the barcode must be located in the set area to be read successfully



Start the setup



Full-area decoding (by default)

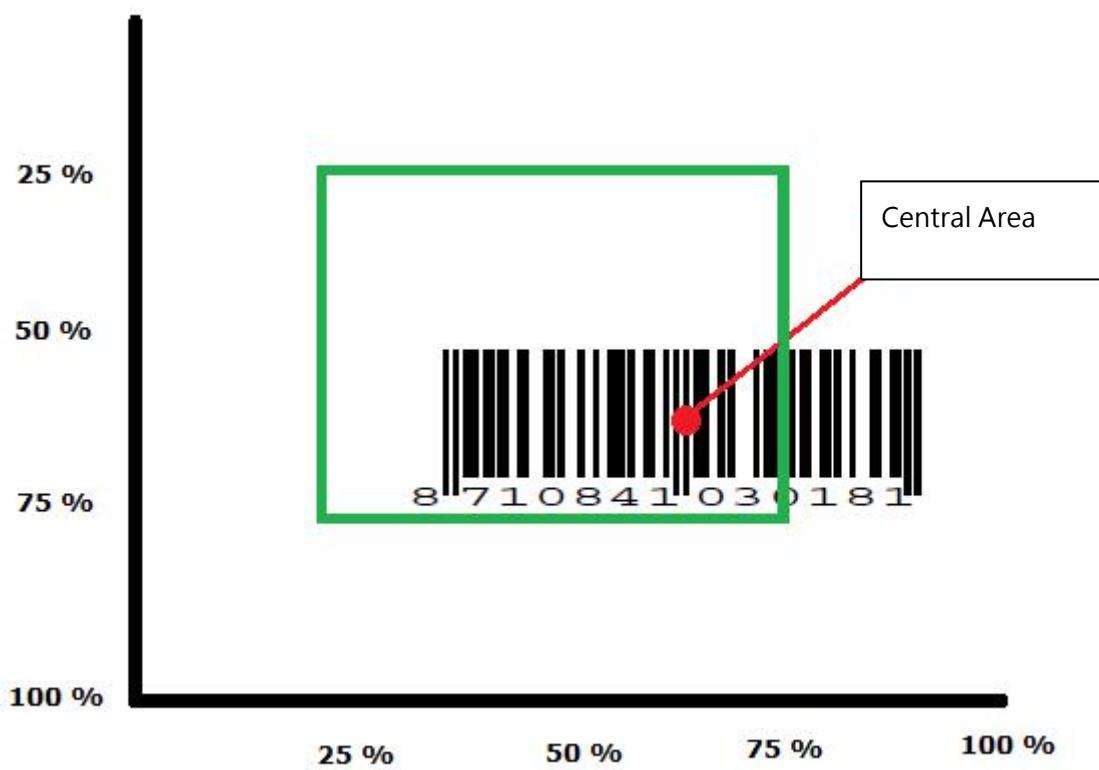


Central area decoding

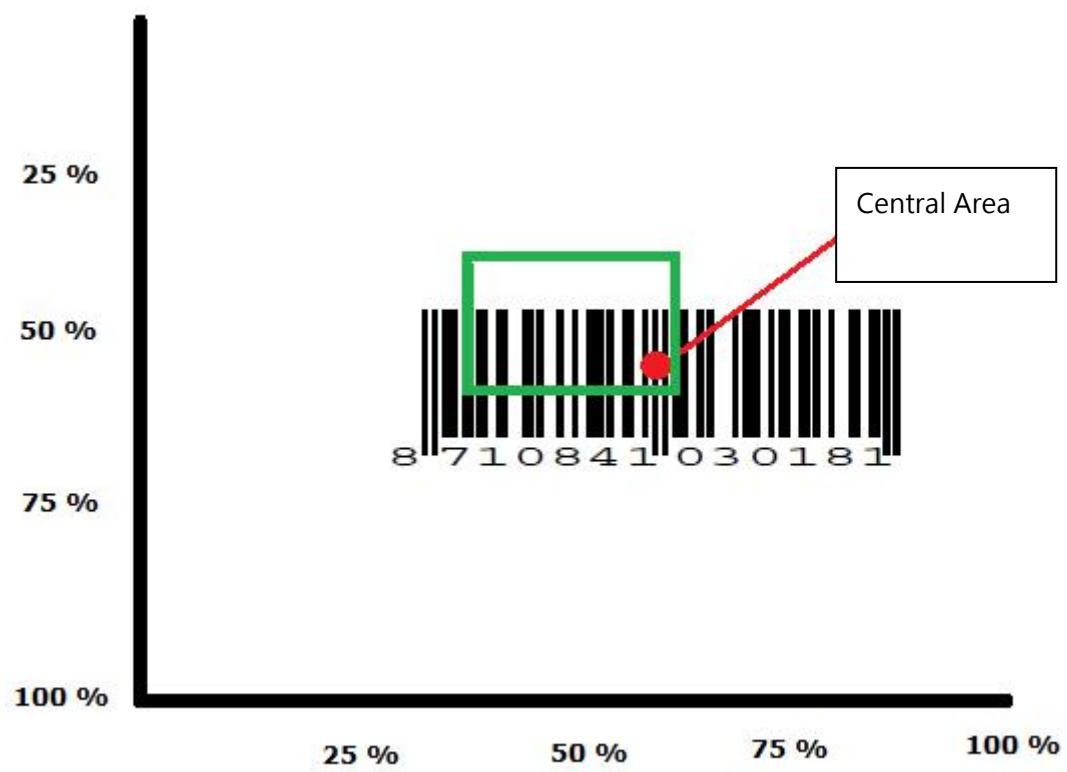
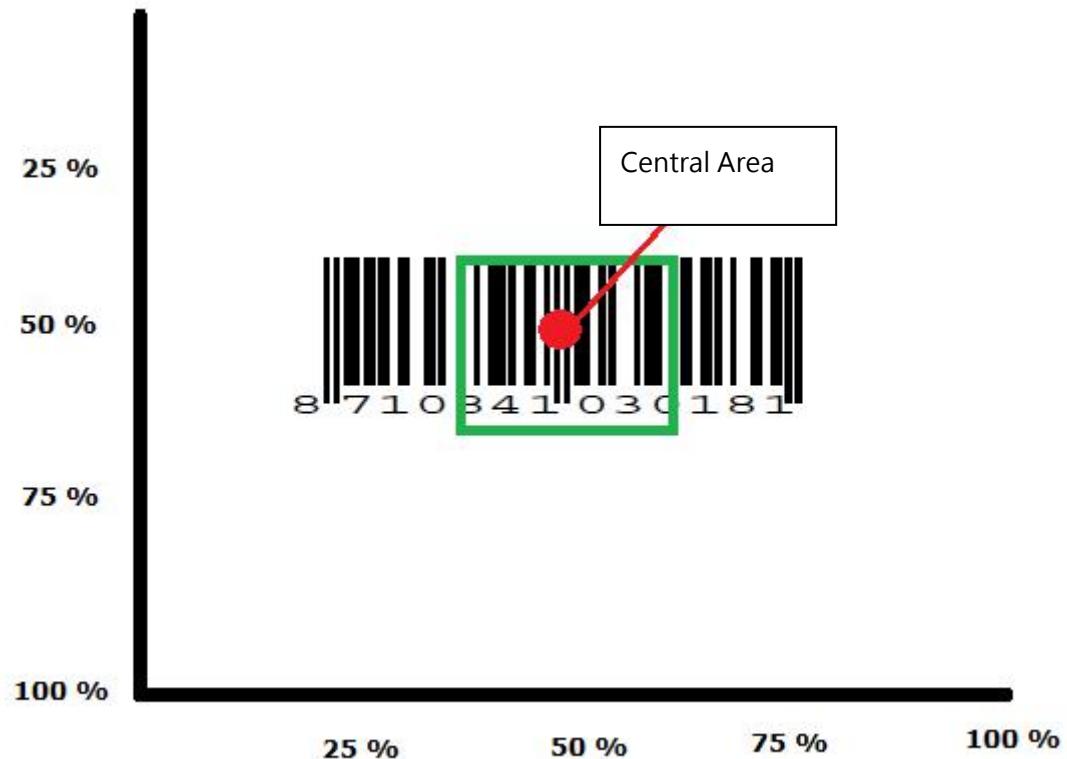


End of the settings

75% Central area



25% Central area



Central area range



Start the setup



75% Central Area (Default)



50% Central area



25% Central area



End of the settings

Decode the data check



Start the setup



Close off (by default)



Output after reading twice



Output after three readings



End of the settings

Read the failed message



Start the setup

- The failure message is output when the barcode is not read at the end of the scan in serial port mode



[Turn off the read failure message](#)

Turn on the read failed

message

- The default read failure message is "NG", can set up to 8 ASCII elements

Set the read failure message to Bad

1. Scan "Setup Read failed message"
3. scans the ASCII Code table, the B setup code
3. scans the ASCII Code ta ble, the a setup code
3. scans the ASCII Code table, the d setup code
4. Scan End Settings



Set up the read failure message



End of the settings

Decode a successful (Good) / failed (NG) signal output time

Export time for decoding successful (Good) / failure (NG) signal in key mode, pulse mode, pulse mode, automatic sensing mode, default 250 ms can set 1~ 500 milliseconds

Set the signal output time to take 500 milliseconds

Scan for Start Settings

Scan for the Decode Time set code

Scan the appendix decimal digit, "5" setting code

Scan the appendix decimal digit, "0" setting code

Scan the appendix decimal digit, "0" setting code

Scan for End Settings



Start the setup



Message output time (in milliseconds)



End of the settings

Target the light



Start the setup



Always turned on (by default)



Open when scanning



Close



End of the settings

Relamp operating mode



Start the setup



[Open when scanning \(by default\)](#)



Always turn it on



Fade Up



Close



End of the settings

Supplementary lamp intensity



Start the setup



Low brightness



Mid-order brightness



High brightness (by default)



End of the settings

Rete the working area



Start the setup



All light sources (by default)



Intermediate light source



Upper light source



Lower light source



End of the settings

Rete the working area



Start the setup



Upper + intermediate light source



Lower + intermediate light source



Upper + lower light source



End of the settings

Start on prompt



Start the setup



On (by default)



Close



End of the settings

Decoodes the prompt



Start the setup



On (by default)



Close



End of the settings

Decode the prompt sound frequency



Start the setup



Minimum of-800 Hz



Low-1,600 Hz



Medium-2730 Hz (Default)



High-4,200 Hz



End of the settings

Debug button



Start the setup



On (by default)



Close



End of the settings

Chapter 3. The output mode

The USB keyboard port



Start the setup



USB keyboard port output (default)



**End of the
settings**

USB Virtual Serial Port



Start the setup



USB virtual serial port output



**End of the
settings**

Serial port



Start the setup



Serial port output



**End of the
settings**

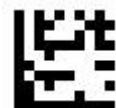
Serial-port baud rate



Start the setup



9600 (Default)



19200



38400



57600



115200



230400



End of the settings

Serial port data bit transmission



Start the setup



7 data bits



* * 8 data bits



End of the settings

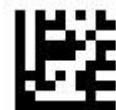
Serial port parity character



Start the setup



* * No calibration



Strange check



Duity check



End of the settings

Serial port stop bit



Start the setup



* * A stop bit



Two stop bits



End of the settings

Code Page character encoding



Start the setup



Jane In (GB2312) Unicode / Excel; Notepad



Jane Medium (GB2312) Code Page / Word



End of the settings

Chapter IV Barcode Setting

Support the code system

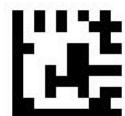
UPC A	Open by default
UPC E	Open by default
EAN 8	Open by default
EAN 13	Open by default
Code 128 / GS1-128	Open by default
Code 39	Open by default
Code 93	Close
Code 32	Close
Code 11	Close
Codabar	Close
Plessey	Close
MSI Plessey	Close
Interleaved 2 of 5	Open by default
IATA 2 of 5	Close
Matrix 2 of 5	Close

Straight 2 of 5	Close
Pharmacode	Close
GS1 DataBar 14	Close
GS1 DataBar 14 Stacked	Close
GS1 DataBar Expanded	Close
GS1 DataBar Expanded Stacked	Close
GS1 DataBar Limited	Close
Composite Code-A	Close
Composite Code-B	Close
Composite Code-C	Close
PDF417	Close
Micro PDF417	Close
Data Matrix	Open by default
QR	Open by default
Micro QR	Close
Aztec	Close
MaxiCode	Close

Open to all bar codes



Start the setup



Open to all bar codes



End of the settings

Turn on only the one-dimensional code



Start the setup



Turn on only the one-dimensional code



End of the settings

Only open the QR code



Start the setup



Only open the QR code



End of the settings

Close all barcodes



Start the setup



Close all barcodes



End of the settings

Turn off the 1-dimensional code



Start the setup



Turn off the 1-dimensional code



End of the settings

Close the QR code



Start the setup



Close the QR code



End of the settings

UPC A



Start the setup



Enable the UPC A (default)



Turn off the UPC A

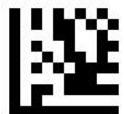


End of the settings

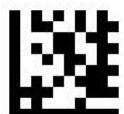
Transfer first place



Start the setup



[Transfer first place \(default\)](#)

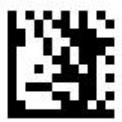


No transfer to the first place

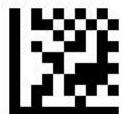


End of the settings

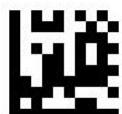
Check the code



Start the setup



[Start the check code \(by default\)](#)



Close the check code

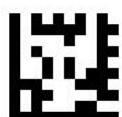


End of the settings

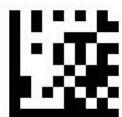
Convert to a EAN 13



Start the setup



Turn on the EAN 13 transformation



Turn off the EAN 13 conversion (by default)



End of the settings

Turn the 2 / 5-bit attach code on / off



Start the setup



Turn the UPC A 2/5-bit attach code on



Turn off the UPC A 2/5-bit attach code (by default)



End of the settings

Limit to read a 2 / 5-bit additional code



Start the setup



Read only the UPC A 2/5-bit attach code

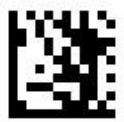


Read the UPC A and UPC A 2/5-bit additions (by default)

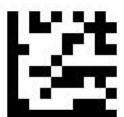


End of the settings

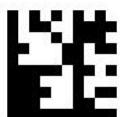
UPC E



Start the setup



Enable the UPC E (default)



Turn off the UPC A

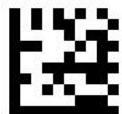


End of the settings

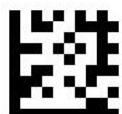
Transfer first place



Start the setup



Transfer first place (default)



No transfer to the first place

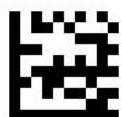


End of the settings

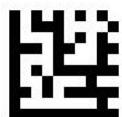
Check the code



Start the setup



[Enable the check code \(by default\)](#)



Close the check code



End of the settings

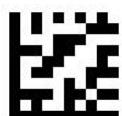
Convert to a UPC A



Start the setup



Turn on the UPC A transformation



Turn off the UPC A conversion (by default)



End of the settings

Turn the 2 / 5-bit attach code on / off



Start the setup



Turn the UPC E 2/5-bit attach code on



Turn off the UPC E 2/5-bit attach code (by default)



End of the settings

Limit to read a 2 / 5-bit additional code



Start the setup



Read only the UPC E 2/5-bit attach code



Read the UPC E and UPC E 2/5-bit additions (by default)



End of the settings

EAN 8



Start the setup



[Enable the EAN 8 \(default\)](#)



Turn off the EAN 8

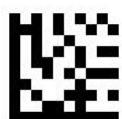


End of the settings

Transmission check bit



Start the setup



Transmission check bit (default)



Do not transfer the check bits

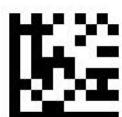


End of the settings

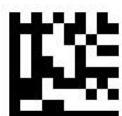
Convert to a EAN 13



Start the setup



Turn on the EAN 13 transformation



Turn off the EAN 13 conversion (by default)



End of the settings

Turn the 2 / 5-bit attach code on / off



Start the setup



Turn the EAN 8 2/5-bit attach code on



Turn off the EAN 8 2/5-bit attach code (by default)



End of the settings

Limit to read a 2 / 5-bit additional code



Start the setup



Read only the EAN 8 2/5-bit attach code



Read the EAN 8 and EAN 8 2/5-bit additions (by default)



End of the settings

EAN 13



Start the setup



[Enable the EAN 13 \(default\)](#)



Turn off the EAN 13



End of the settings

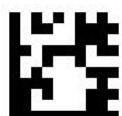
Transmission check bit



Start the setup



Transmission check bit (default)



Do not transfer the check bits

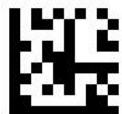


End of the settings

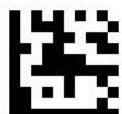
ISBN conversion



Start the setup



Turn on the ISBN transformation



Turn off the ISBN conversion (by default)

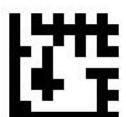


End of the settings

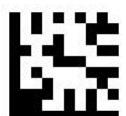
IS S N conversion



Start the setup



Turn on the IS S N transformation



Turn off the IS S N conversion (by default)



End of the settings

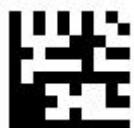
Turn the 2 / 5-bit attach code on / off



Start the setup



Turn the EAN 13 2/5-bit attach code on



Turn off the EAN 13 2/5-bit attach code (by default)



End of the settings

Limit to read a 2 / 5-bit additional code



Start the setup



Read only the EAN 13 2/5-bit attach code



Read the EAN 13 and EAN 13 2/5-bit additions (by default)



End of the settings

Code 128 / GS1-128



Start the setup



[Enable the Code 128 / GS1-128 \(default\)](#)



Turn off the Code 128 / GS1-128



End of the settings

The Code 128 decodes the length setting

Setting Up Example:

Limit C ode 128 reading of 5-18 elements

Scan start settings

Scan the C ode 128 limit length range setting code

Scan the ASCII Code table, digital 0 bar code

Scan the ASCII Code table, Digital 5 bar code

Scan the ASCII Code table, Number 1 bar code

Scan the ASCII Code table, Digital 8 bar code

Scan end settings

No limit on the length

Scan start settings

Scan the C ode 128, for any length setting code

Scan end settings

The Code 128 decodes the length setting



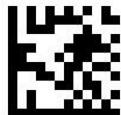
Start the setup



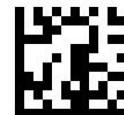
Limit a single length



Limit the two different lengths



Limit the length range



No limited length (default)



End of the settings

Code 39



Start the setup



Enable the Code 39 (default)



Turn off the Code 39

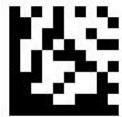


End of the settings

Full ASCII



Start the setup



Enable Code 39 Full ASCII feature



Turn off the Code 39 Full ASCII feature (by default)

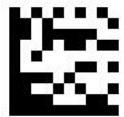


End of the settings

Start character / Terminator



Start the setup



Transfer Start / Terminator



[Start / termination is not transmitted \(default\)](#)



End of the settings

Check it



Start the setup



Not calibration (default)



Verify and transfer



Verify is not transmitted



End of the settings

The Code 39 decodes the length setting

Setting Up Example:

Limit C ode 39 reading of 5-18 elements

Scan start settings

Scan the C ode 39 limit length range setting code

Scan the ASCII Code table, digital 0 bar code

Scan the ASCII Code table, Digital 5 bar code

Scan the ASCII Code table, Number 1 bar code

Scan the ASCII Code table, Digital 8 bar code

Scan end settings

No limit on the length

Scan start settings

Scan the C ode 39, for any length setting code

Scan end settings

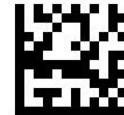
The Code 39 decodes the length setting



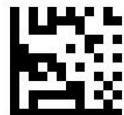
Start the setup



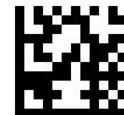
Limit a single length



Limit the two different lengths



Limit the length range



No limited length (default)

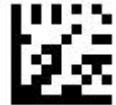


End of the settings

Code 32



Start the setup



Enable the Code 32



[Close the Code 32 \(default\)](#)



End of the settings

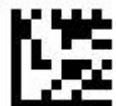
Start character / Terminator



Start the setup



Transfer Start / Terminator



[Start / termination is not transmitted \(default\)](#)



End of the settings

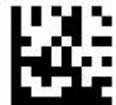
Code 93



Start the setup



Enable the Code 93



[Close the Code 93 \(default\)](#)



End of the settings

The Code 93 decodes the length setting

Setting Up Example:

Limit C ode 93 reading of 5-18 elements

Scan start settings

Scan the Code 93 limit length range setting code

Scan the ASCII Code table, digital 0 bar code

Scan the ASCII Code table, Digital 5 bar code

Scan the ASCII Code table, Number 1 bar code

Scan the ASCII Code table, Digital 8 bar code

Scan end settings

No limit on the length

Scan start settings

Scan the Code 93, for any length setting code

Scan end settings

The Code 93 decodes the length setting



Start the setup



Limit a single length



Limit the two different lengths



Limit the length range



No limited length (default)

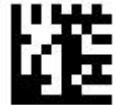


End of the settings

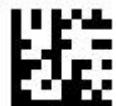
Code 11



Start the setup



Enable the Code 11



Close the Code 11 (by default)

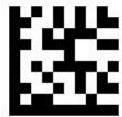


End of the settings

Transfer check bit



Start the setup



Transfer check bit (default)



Do not transfer the check bits



End of the settings

The Code 11 decodes the length setting

Setting Up Example:

Limit Code 11 reading of 5-18 elements

Scan start settings

Scan the C ode 11 limit length range setting code

Scan the ASCII Code table, digital 0 bar code

Scan the ASCII Code table, Digital 5 bar code

Scan the ASCII Code table, Number 1 bar code

Scan the ASCII Code table, Digital 8 bar code

Scan end settings

No limit on the length

Scan start settings

Scan the C ode 11, for any length setting code

Scan end settings

The Code 11 decodes the length setting



Start the setup



Limit a single length



Limit the two different lengths



Limit the length range



No limited length (default)

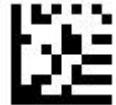


End of the settings

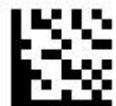
Codabar



Start the setup



Enable the Codabar



[Close the Codabar \(default\)](#)

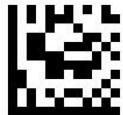


End of the settings

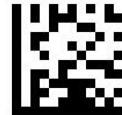
Check it



Start the setup



Not calibration (default)



Verify and transfer



Verify is not transmitted



End of the settings

Start character / Terminator



Start the setup



Transfer Start / Terminator



[Start / termination is not transmitted \(default\)](#)



End of the settings

The C odabar decodes the length setting

Setting Up Example:

Limit C odabar reading of 5-18 elements

Scan start settings

Scan the C odabar limit length range setting code

Scan the ASCII Code table, digital 0 bar code

Scan the ASCII Code table, Digital 5 bar code

Scan the ASCII Code table, Number 1 bar code

Scan the ASCII Code table, Digital 8 bar code

Scan end settings

No limit on the length

Scan start settings

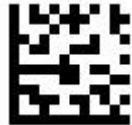
Scan the C odabar, for any length setting code

Scan end settings

The C odabar decodes the length setting



Start the setup



Limit a single length



Limit the two different lengths



Limit the length range



No limited length (default)

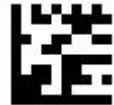


End of the settings

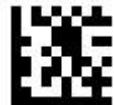
Plessey



Start the setup



Enable the Plessey



[Close the Plessey \(default\)](#)



End of the settings

The Plessey decodes the length setting

Setting Up Example:

Limit Plessey reading of 5-18 elements

Scan start settings

Scan the Plessey limit length range setting code

Scan the ASCII Code table, digital 0 bar code

Scan the ASCII Code table, Digital 5 bar code

Scan the ASCII Code table, Number 1 bar code

Scan the ASCII Code table, Digital 8 bar code

Scan end settings

No limit on the length

Scan start settings

Scan the Plessey, for any length setting code

Scan end settings

The Plessey decodes the length setting



Start the setup



Limit a single length



Limit the two different lengths



Limit the length range



No limited length (default)

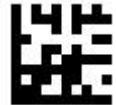


End of the settings

MSI Plessey



Start the setup



Enable the MSI Plessey



[Close the MSI Plessey \(default\)](#)

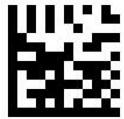


End of the settings

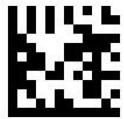
Check it



Start the setup



Not calibration



Mod 10 check (by default)



End of the settings

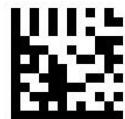
Check it



Start the setup



Mod 10/10 check



Mod 11/10 check



End of the settings

Transfer check bit



Start the setup



Transfer check bit (default)



Do not transfer the check bits



End of the settings

The MSI Plessey decodes the length setting

Setting Up Example:

Limit MSI Plessey reading of 5-18 elements

Scan start settings

Scan the MSI Plessey limit length range setting code

Scan the ASCII Code table, digital 0 bar code

Scan the ASCII Code table, Digital 5 bar code

Scan the ASCII Code table, Number 1 bar code

Scan the ASCII Code table, Digital 8 bar code

Scan end settings

No limit on the length

Scan start settings

Scan the MSI Plessey, for any length setting code

Scan end settings

The MSI Plessey decodes the length setting



Start the setup



Limit a single length



Limit the two different lengths



Limit the length range



No limited length (default)

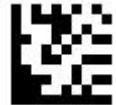


End of the settings

Interleaved 2 of 5



Start the setup



Enable the Interleaved 2 of 5 (default)



Turn off the Interleaved 2 of 5

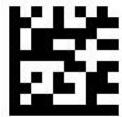


End of the settings

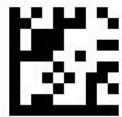
Check it



Start the setup



Not calibration (default)



Verify and transfer



End of the settings

The Interleaved 2 of 5 decodes the length setting

Setting Up Example:

Limit Interleaved 2 of 5 reading of 5-18 elements

Scan start settings

Scan the Interleaved 2 of 5 limit length range setting code

Scan the ASCII Code table, digital 0 bar code

Scan the ASCII Code table, Digital 5 bar code

Scan the ASCII Code table, Number 1 bar code

Scan the ASCII Code table, Digital 8 bar code

Scan end settings

No limit on the length

Scan start settings

Scan the Interleaved 2 of 5, for any length setting code

Scan end settings

The Interleaved 2 of 5 decodes the length setting



Start the setup



Limit a single length



Limit the two different lengths



Limit the length range



No limited length (default)

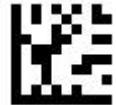


End of the settings

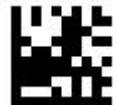
Matrix 2 of 5



Start the setup



Enable the Matrix 2 of 5



[Close the Matrix 2 of 5 \(default\)](#)



End of the settings

The Matrix 2 of 5 decodes the length setting

Setting Up Example:

Limit Matrix 2 of 5 reading of 5-18 elements

Scan start settings

Scan the Matrix 2 of 5 limit length range setting code

Scan the ASCII Code table, digital 0 bar code

Scan the ASCII Code table, Digital 5 bar code

Scan the ASCII Code table, Number 1 bar code

Scan the ASCII Code table, Digital 8 bar code

Scan end settings

No limit on the length

Scan start settings

Scan the Matrix 2 of 5, for any length setting code

Scan end settings

The Matrix 2 of 5 decodes the length setting



Start the setup



Limit a single length



Limit the two different lengths



Limit the length range



No limited length (default)



End of the settings

IATA 2 of 5



Start the setup



Enable the IATA 2 of 5



[Close the IATA 2 of 5 \(default\)](#)

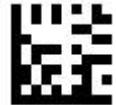


End of the settings

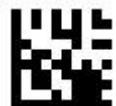
Straight 2 of 5



Start the setup



Enable the Straight 2 of 5



Close the Straight 2 of 5 (default)

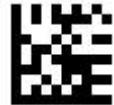


End of the settings

Pharmacode



Start the setup



Enable the Pharmacode



[Close the Pharmacode \(default\)](#)

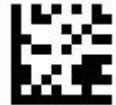


End of the settings

GS1 DataBar 14



Start the setup



Enable the GS1 DataBar 14



[Close the GS1 DataBar 14 \(default\)](#)

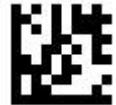


End of the settings

GS1 DataBar 14 Stacked



Start the setup



Enable the GS1 DataBar 14 Stacked



Close the GS1 DataBar 14 Stacked (default)



End of the settings

AI (01) character send settings



Start the setup



Output AI (01) characters (by default)



Do not output the AI (01) characters

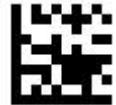


End of the settings

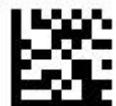
GS1 DataBar Expanded



Start the setup



Enable the GS1 DataBar Expanded



[Close the GS1 DataBar Expanded \(default\)](#)



End of the settings

GS1 DataBar Expanded Stacked



Start the setup



Enable the GS1 DataBar Expanded Stacked



[Close the GS1 DataBar Expanded Stacked \(default\)](#)



End of the settings

AI (01) character send settings



Start the setup



Output AI (01) characters (by default)



Do not output the AI (01) characters

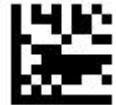


End of the settings

GS1 DataBar Limited



Start the setup



Enable the GS1 DataBar Limited



[Close the GS1 DataBar Limited \(default\)](#)



End of the settings

AI (01) character send settings



Start the setup



Output AI (01) characters (by default)



Do not output the AI (01) characters

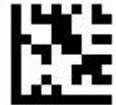


End of the settings

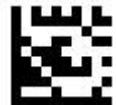
Composite Code-A



Start the setup



Enable the Composite Code-A



[Close the Composite Code-A \(default\)](#)

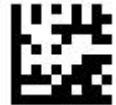


End of the settings

Composite Code-B



Start the setup



Enable the Composite Code-B



[Close the Composite Code-B \(default\)](#)

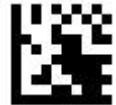


End of the settings

Composite Code-C



Start the setup



Enable the Composite Code-C



[Close the Composite Code-C \(default\)](#)



End of the settings

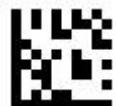
PDF417



Start the setup



Enable the PDF417



[Close the PDF417 \(default\)](#)



End of the settings

Micro PDF417



Start the setup



Enable the Micro PDF417



[Close the Micro PDF417 \(default\)](#)

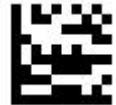


End of the settings

Data Matrix



Start the setup



Enable the Data Matrix (default)



Turn off the Data Matrix



End of the settings

Rectangular Data Matrix



Start the setup



Enable the Rectangular Data Matrix (default)



Turn off the Rectangular Data Matrix



End of the settings

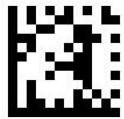
Mirror decoding



Start the setup



Open mirror decoding (default)



Turn off the mirror decoding

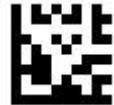


End of the settings

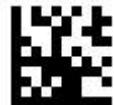
QR



Start the setup



[Enable the QR \(default\)](#)



Turn off the QR



End of the settings

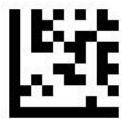
Mirror decoding



Start the setup



Open mirror decoding (default)



Turn off the mirror decoding



End of the settings

Micro QR



Start the setup



Enable the Micro QR



[Close the Micro QR \(default\)](#)

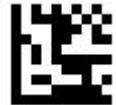


End of the settings

Aztec



Start the setup



Enable the Aztec



Close the Aztec (default)

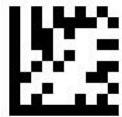


End of the settings

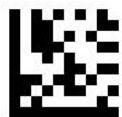
Mirror decoding



Start the setup



Open mirror decoding (default)



Turn off the mirror decoding

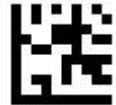


End of the settings

MaxiCode



Start the setup



Enable the MaxiCode



[Close the MaxiCode \(default\)](#)



End of the settings

Chapter V. Data editing

Export format

Below is the data output format

Barcode message (4 bytes)	Prefix (4 bytes)	AIM ID	Barcode content	Suffix (4 bytes)	Terminal characters (1 byte)
------------------------------	---------------------	--------	-----------------	---------------------	---------------------------------

Barcode message

- 1, default output is no barcode messages
- 2, turns on and off the barcode message output through serial port commands and barcode scanning
- 3, only supports serial port mode and not by the USB keyboard

The format is defined as follows:

Start flag 0x 03 (1 byte)	Barcode code (1 byte) Headecimal system	Barcode length (2 bytes) 0x0001 ~0xFFFF
---------------------------	--	--

Barcode code is as follows:

Code	Two-dimensional bar code	Code	One-dimensional barcode	Code	One-dimensional barcode
0x 41	PDF417	0x61	UPC A	0x71	Pharmacode
0x 42	Micro PDF417	0x 62	UPC E	0x72	GS1 DataBar 14
0x 43	Data Matrix	0x63	EAN 8	0x73	GS1 DataBar Expanded
0x 44	QR	0x64	EAN 13	0x74	GS1 DataBar Limited
0x 45	Micro QR	0x65	Code 128	0x75	Composite Code-A
0x 46	Aztec	0x66	Code 39	0x76	Composite Code-B
0x 47	MaxiCode	0x67	Code 93	0x77	Composite Code-C
0x 48	DotCode	0x68	Code 32		
		0x69	Code 11		
		0x6A	Codabar		
		0x6B	Plessey		
		0x6C	MSI Plessey		
		0x6D	Interleaved 2 of 5		
		0x6E	IATA 2 of 5		
		0x6F	Matrix 2 of 5		
		0x70	Straight 2 of 5		

Barcode message



Start the setup



[Close off \(by default\)](#)



Open



**End of the
settings**

Barcode ID code

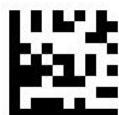


Start the setup



Turn off the barcode
identification code (by default)

Enable the AIM ID



Enable the Mexxen ID



End of the settings

Barcode identification table		
Symbology	Mexxen	AIM
UPC-A	A	E
UPC-E	E	E
EAN-8	FF	E
EAN-13	F	E
Code 128	K	C
Code 39	M	A
Code 93	L	G
Code 32	M	A
Code 11	O	H
Codabar	N	F
Plessey	P	P
MSI / Plessey	a	M
Interleaved 2 of 5	I	I
IATA 2 of 5	Z	R
Matrix 2 of 5	G	X

Straight 2 of 5	S	S
Pharmacode	H	X
GS1 DataBar 14	RS	e
GS1 DataBar Expanded	RX	e
GS1 DataBar Limited	RL	e
Composite CC-A	m	e
Composite CC-B	n	e
Composite CC-C	i	e
PDF417	r	L
Micro PDF417	s	L
Data Matrix	t	d
QR	u	Q
Micro QR	j	Q
Aztec	e	Z
MaxiCode	v	U

Prefix

Add the output elements before the barcode data, which can be set up to 4 words

Before adding the a elements to all the barcode data:

1. Scan 'Start setup'
2. Scan 'Set all code prefix'
3. Scan Appendix III ASCII Code table, a setup code
4. Scan 'End settings'

Remove the bar code prefix:

1. Scan 'Start setup'
2. Scan 'Close all code prefixes'
3. Scan 'End settings'

Add the & 1 element before the EAN 13 barcode data:

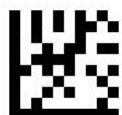
1. Scan 'Start setup'
2. Scan 'Set the bar code prefix'
3. Scan Appendix II Barcode setting code, 'EAN 13 setup code'
4. Scan Appendix III ASCII Code Table, & SetCode
5. Scan Appendix III ASCII Code Table, 1 setup code
7. Scan 'End settings'

Remove the EAN 13 prefix:

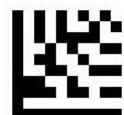
1. Scan 'Start setup'
2. Scan 'Set the bar code prefix'
3. Scan Appendix II Barcode setting code, 'EAN 13 setup code'
3. Scan 'End settings'



Start the setup



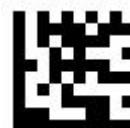
Turn off all code prefixes (by default)



Set the all-code prefix



Set the bar code prefix



Turn off the barcode prefix



End of the settings

Suffix

Add the output element after the barcode data, which can be set up to 4 words

After adding the S elements to all the barcode data:

1. Scan 'Start setup'
2. Scan 'Set all code suffixes'
3. Scan Appendix III ASCII Code table, S setup code
4. Scan 'End settings'

Remove the bar code suffix:

1. Scan 'Start setup'
2. Scan 'Close all code suffixes'
3. Scan 'End settings'

After adding the + 2 elements to the Code 128 barcode data:

1. Scan 'Start setup'
2. Scan 'Set the bar code suffix'
3. Scan Appendix II Barcode setting code, 'Code 128 setup code'
4. Scan Appendix III ASCII Code table, + setup code
5. Scan Appendix III ASCII Code Table, 2 setup code
7. Scan 'End settings'

Remove the Code 128 suffix:

1. Scan 'Start setup'
2. Scan 'Set the bar code suffix'
3. Scan Appendix II Barcode setting code, 'Code 128 setup code'
3. Scan 'End settings'



Start the setup



Turn off all code suffixes (by default)



Set all the code suffixes



Set the barcode suffix



Turn off the barcode suffix



End of the settings

Remove the front-end element

Remove the barcode front-end elements for up to 20 words

Remove all top 3 barcode data:

1. Scan 'Start setup'

2. Scan 'Remove all code front-end elements'
3. Scan Appendix 10 decimal metaderic, 3 setup code
4. Scan 'End settings'

Do not remove all barcode front-end elements:

1. Scan 'Start setup'
2. Scan 'Remove all code front-end elements'
3. Scan appendix 10 decimal metaderic, 0 setup code
4. Scan 'End settings'

Remove the front 2 bits of QR barcode data:

1. Scan 'Start setup'
2. Scan 'Remove the bar code front-end element'
3. Scan Appendix II Barcode setting code, 'QR setup code'
4. Scan appendix 10 decimal metaderic, 2 setup code
5. Scan 'End settings'

Remove the QR bar code front-end element to remove:

1. Scan 'Start setup'
2. Scan 'Remove the bar code front-end element'
3. Scan Appendix II Barcode setting code, 'QR setup code'
4. Scan appendix 10 decimal metaderic, 0 setup code
- . 5 Scan 'End settings'



Start the setup



Remove all of the code front-end elements



Remove the bar code front-end element



End of the settings

Remove the end element

Remove the barcode end elements and remove up to 20 word elements

Remove all barcode end 5-bit data:

1. Scan 'Start setup'
2. Scan 'Remove all code end elements'
3. Scan Appendix 10 decimal metaderic, 5 setup code
4. Scan 'End settings'

Do not remove all barcode end data:

1. Scan 'Start setup'
2. Scan 'Remove all code end elements'
3. Scan appendix 10 decimal metaderic, 0 setup code
4. Scan 'End settings'

Remove the Code 39 bar code data end 2-bit data:

1. Scan 'Start setup'

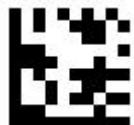
2. Scan 'Remove the bar code end element'
3. Scan Appendix II Barcode setting code, 'Code 39 setup code'
4. Scan appendix 10 decimal metaderic, 2 setup code
5. Scan 'End settings'

Remove the Code 39 bar code end bit to remove:

1. Scan 'Start setup'
2. Scan 'Remove the bar code end element'
3. Scan Appendix II Barcode setting code, 'Code 39 setup code'
4. Scan appendix 10 decimal metaderic, 0 setup code
- . 5 Scan 'End settings'



Start the setup



Remove all code end elements



Remove the barcode end element



End of the settings

Terminal characters



Start the setup



None



[Return / CR \(by default\)](#)



End of the settings

Terminal characters



Start the setup



CR / LF



TAB



End of the settings

Caps Lock



Start the setup



Close the Caps Lock (default)



Turn on the Caps Lock



End of the settings

GS element conversion

Convert the GS element to other ASCII Code s in keypad mode

Set the GS element to convert to the # output:

1. Scan 'Start setup'
2. Scan 'Convert the GS element'
3. scans the ASCII Code table, # set code
4. Scan 'End settings'

Set the GS element to convert to the return output:

1. Scan 'Start setup'
2. Scan 'Convert the GS element'
3. scans the ASCII Code table, return setup code
4. Scan 'End settings'

Restore the GS element default value

1. Scan 'Start setup'
2. Scan " Turn off the GS element conversion
3. Scan End Settings

GS element conversion



Start the setup



Turn off the GS element conversion (by default)



Convert the GS elements



End of the settings

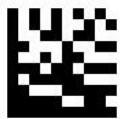
Function Key Mapping



Start the setup



Close



On (by default)



End of the settings

Function Key Mapping



Start the setup



C trl Char mode (by default)



Alt + Unicode mode



**End of the
settings**

Chapter VI Serial Port Instructions

Transfer and receive format, feedback messages

Command format:

Data length (1-bit)	Senend (1-bit)	Identificati on code (1-bit)	Instructio ns (1-bit)	Data is available (Up to 32 bits)	Check the code	
					High Yuan (1-bit)	Low-level element (1-bit)

Data length: Data length without Checksum (minimum 5 bits; maximum 36 bits)

Send der: 57 (hexadecimal) means that the terminal is sent to the decoder or 52 (hexadecimal) means that the decoder is sent to the terminal

Identification ID: Command ID code

Direcstruction: Set up the instructions

Data: Set up the content

Calculation method of check code: $0x10000 - [\text{data length}] [\text{sender}] [\text{I / N}] [\text{instruction}] [\text{D1} + \text{D2} + \text{D3} + \dots]$

Feedback back:

When the terminal transmits the instruction to the device, the device returns the following message so that the terminal to judge that the instruction is successful or failed

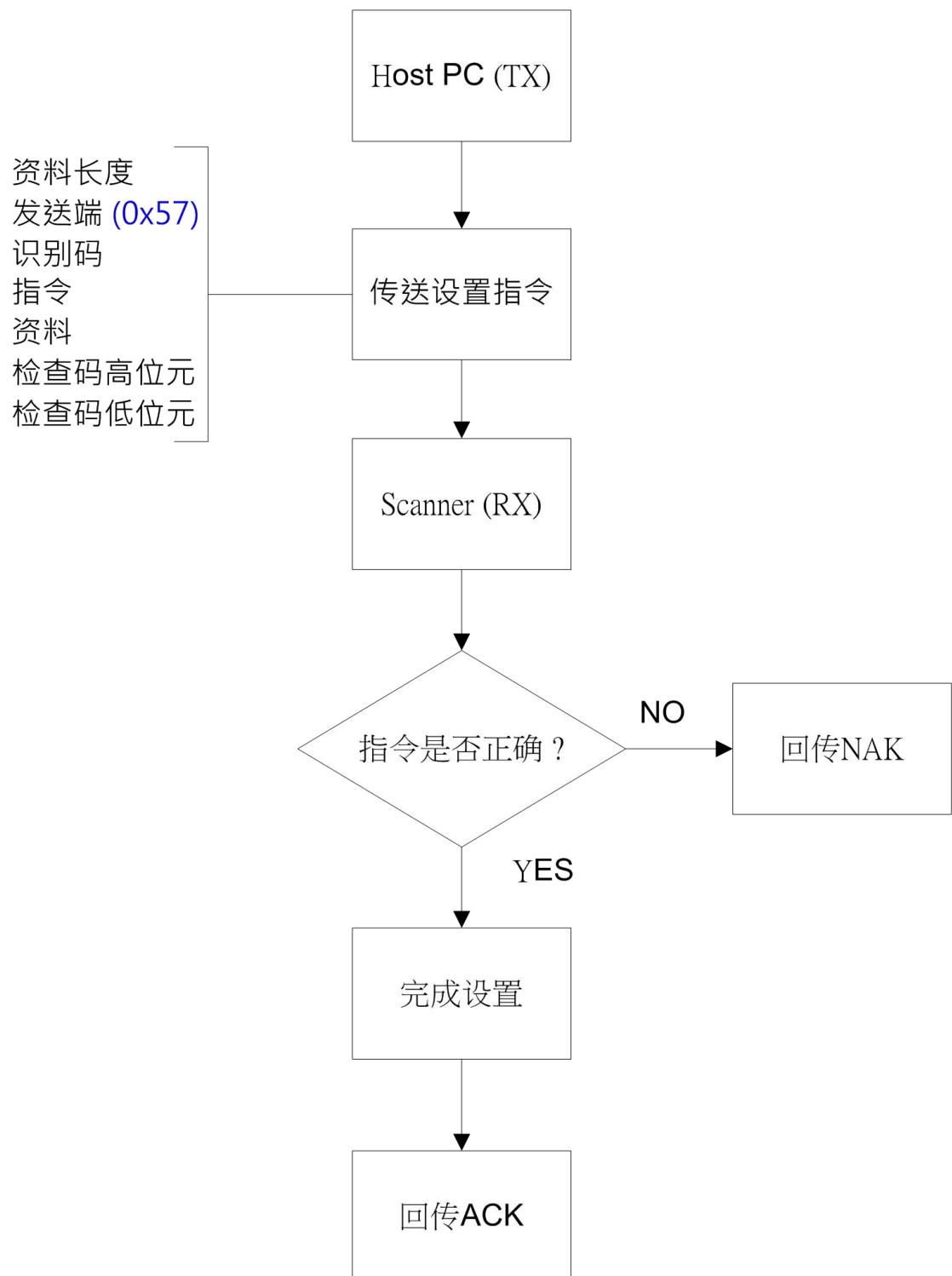
If the setting is successful, transmit the following 5 bytes (ACK) to the terminal

52	A0	EC	FE	74
----	----	----	----	----

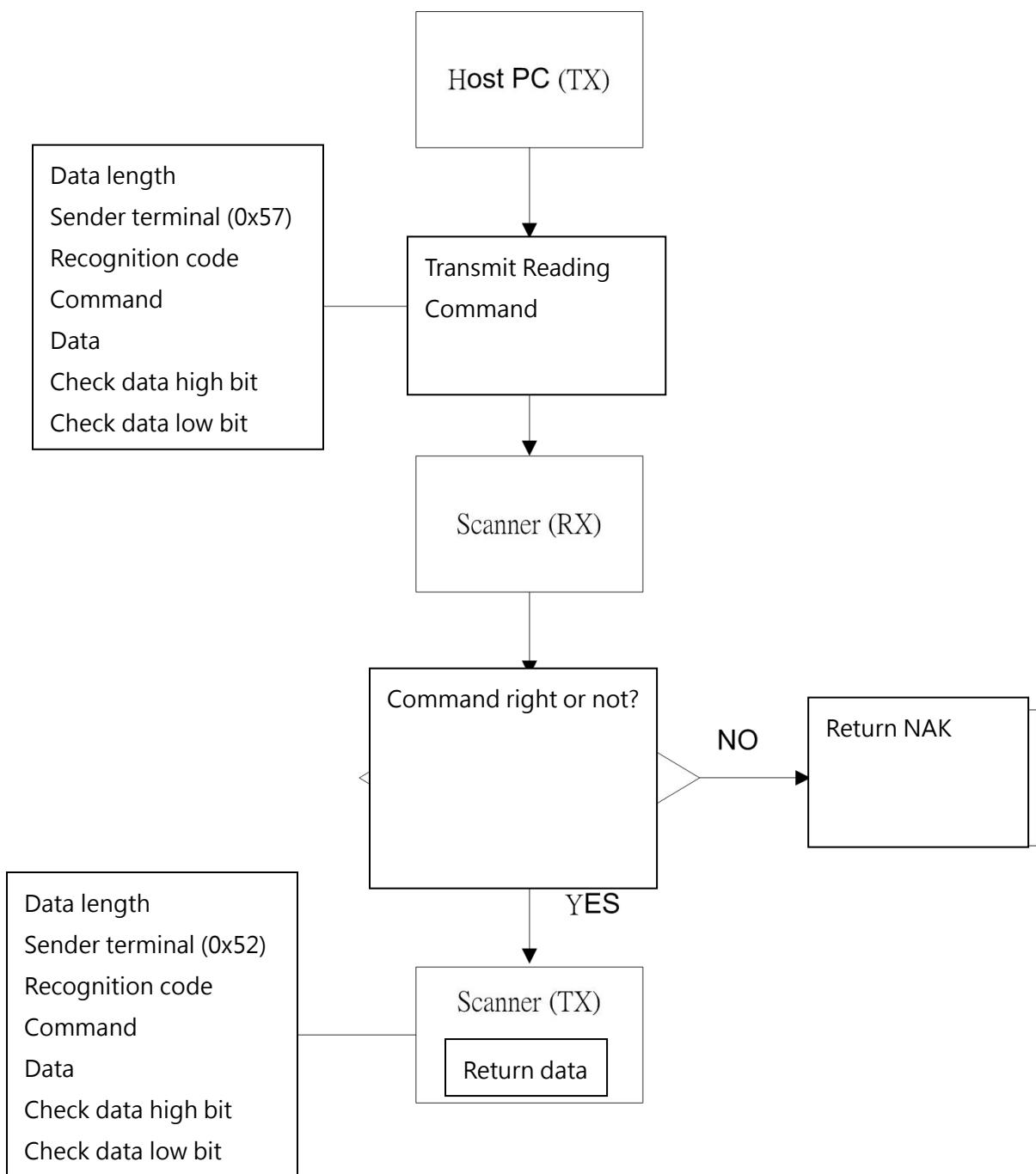
If the setting fails, sequence the following 5 bytes hexadecimal data (NAK) to the terminal

52	A0	E0	FE	80
----	----	----	----	----

Set up the process



Read the process



Command setting example

Start the scan

Data length	Senend	Identification code	Instructions	Data is available	Check the code high-level element	Check the code low-level element
05	57	A0	01	01	FF	02

Check code = 0x10000 – 0x05 – 0x057 – 0xa0 – 0x01 – 0x01 = 0xFF02 (hexadecimal)

Stop the scanning

Data length	Senend	Identification code	Instructions	Data is available	Check the code high-level element	Check the code low-level element
05	57	A0	01	00	FF	03

Check code = 0x10000 – 0x05 – 0x057 – 0xa0 – 0x01 – 0x00 = 0xFF03 (hexadecimal)

Turn on the scan command for ACK feedback

Data length	Senend	Identification code	Instructions	Data is available	Check the code high-level element	Check the code low-level element
05	57	A0	00	01	FF	03

Check code = 0x10000 – 0x05 – 0x057 – 0xa0 – 0x00 – 0x01 = 0xFF03 (hexadecimal)

Set the decoding time of 1 second (1000ms) (data length of two bits)

Data length	Senend	Identification code	Instructions	Data is available	Check the code high-level element	Check the code low-level element
06	57	A1	16	03E8 (1000 ms)	FE	01

Check code = 0x10000 – 0x06 – 0x057 – 0xa1 – 0x15 – 0x03-0xE8 = 0xFE01 (hexadecimal)

Storage settings

Data length	Senend	Identification code	Instructions	Data is available	Check the code high-level element	Check the code low-level element
05	57	A0	08	01	FE	FB

Check code = 0x10000 – 0x05 – 0x057 – 0xa0 – 0x08– 0x01 = 0xF EFB (hexadecimal)

Set up the scan trigger string



Start the setup



[Close](#)

Set ets 1~ 8 ASCII elements

Set the scan trigger string to TRG

1. Scan "Set the scan trigger string"
3. scans the ASCII Code table, the T setup code
3. scans the ASCII Code table, the R setup code
3. scans the ASCII Code table, the G setup code
4. Scan End Settings



Set up the scan trigger string



End of

the

settings

Set the stop scan string



Start the setup



[Close](#)

Set ets 1~ 8 ASCII elements

Set the scan trigger string to OFF

1. Scan "Set the interrupt scan string"
3. scans the ASCII Code table, the O setup code
3. scans the ASCII Code table, the F setup code
3. scans the ASCII Code table, the F setup code
4. Scan End Settings



Set up the scan trigger string



**End of the
settings**

Command set

Function	Identification code	Instructions	Data is available
Confirm the communication status	0E	0D	01
Read the version	0E	0D	02
Read out the scan mode	0E	0D	03
Read the scan status	0E	0D	04
Read out the decoding result	0E	0D	05
Scan for the ACK / NAK responses	Open	A0	00
	Close	A0	00
Instructions to ACK / NAK responded	Open	A0	00
	Close	A0	00
Scan control	Start the scan	A0	01
	Stop the scanning	A0	01
Storage settings		A0	08
			01
Restore the default	A1	01	0F
Save the customer customization settings	A1	01	08
Add passenger manufacturing setting	A1	01	CF
Scan mode	Press the key to scan	A1	02
	Automatic scan	A1	02
	Continuous scan	A1	02
	Pulse mode	A1	02
Automatic induction mode	Infrared line trigger	A1	02
	Image trigger	A1	02
	Image and infrared trigger	A1	02

Function		Identification code	Instructions	Data is available
Target the light	Close	A1	03	00
	Open when scanning	A1	03	01
	Always turn it on	A1	03	02
Relamp operating mode	Close	A1	04	00
	Open when scanning	A1	04	01
	Always turn it on	A1	04	02
Supplementary lamp intensity	Low brightness	A1	04	11
	Mid-order brightness	A1	04	12
	High brightness	A1	04	13
Decoode the prompt	Turn it On	A1	05	0E
	Close	A1	05	0D
Decode time (two bits of data length) 0 indicates continuous decoding until read		A1	16	00~FFFF
Same — barcode read mode	No repeat reading	A1	08	01
	Interval reading	A1	08	02
	Do not read a same barcode	A1	08	03
	Do not read a same barcode	A1	08	04
Same barcode read time (data length of two bits) The 0 indicates a no interval		A1	18	00~FFFF

Function		Identification code	Instructions	Data is available
Automatic sensing sensitivity	Low-level sensitivity	A1	0A	01
	Medium-level sensitivity	A1	0A	02
	High sensitivity	A1	0A	03
Decode the data check	Close	A1	0B	01
	Read it twice	A1	0B	02
	Read it out three times	A1	0B	03
Decdecode the message	Turn it On	A2	01	0E
	Close	A2	01	0D
Barcode ID code	Close	A2	02	00
	AIM ID	A2	02	01
	MEXXEN ID	A2	02	02
Terminal characters	None	A2	03	01
	CR /LF	A2	03	02
	CR	A2	03	03
	TAB	A2	03	04

Function	Identification code	Instructions	Data is available	
Turn on all code reading	B0	01	0E	
Close all barcodes	B0	01	0D	
Turn on only the one-dimensional code	B0	01	01	
Only open the QR code	B0	01	02	
Turn off the 1-dimensional code	B0	01	03	
Close the QR code	B0	01	04	
The UPC / EAN-bit additional code	Turn it On	B0	02	0E
	Close	B0	02	0D
UPC A	Turn it On	B 1	01	0E
	Close	B 1	01	0D
	Transfer first place	B 1	02	0E
	No transfer to the first place	B 1	02	0D
	Open the check code	B 1	03	0E
	Close the check code	B 1	03	0D
	Turn on the EAN-13 transformation	B 1	04	0E
	Close the EAN-13 conversion	B 1	04	0D

Function		Identification code	Instructions	Data is available
UPC E	Turn it On	B 2	01	0E
	Close	B 2	01	0D
	Transfer first place	B 2	02	0E
	No transfer to the first place	B 2	02	0D
	Open the check code	B 2	03	0E
	Close the check code	B 2	03	0D
	Turn on the UPC A transformation	B 2	04	0E
	Close the UPC A conversion	B 2	04	0D
EAN 8	Turn it On	B 3	01	0E
	Close	B 3	01	0D
	Transfer the check code	B 3	02	0E
	Check code is not transmitted	B 3	02	0D
	Turn on the EAN-13 transformation	B 3	03	0E
	Close the EAN-13 conversion	B 3	03	0D

Function		Identification code	Instructions	Data is available
EAN 13	Turn it On	B 4	01	0E
	Close	B 4	01	0D
	Transfer the check code	B 4	02	0E
	Check code is not transmitted	B 4	02	0D
	Turn on the ISBN transformation	B 4	03	0E
	Close the ISBN conversion	B 4	03	0D
	Turn on the ISSN transformation	B 4	04	0E
	Close the ISSN conversion	B 4	04	0D
Code 128	Turn it On	B 5	01	0E
	Close	B 5	01	0D
Code 39	Turn it On	B 6	01	0E
	Close	B 6	01	0D
	Turn on the ASCII	B 6	02	0E
	Turn off the ASCII	B 6	02	0D
	Transfer Start / Terminator	B 6	03	0E
	Start / terminator is not transmitted	B 6	03	0D

Function		Identification code	Instructions	Data is available
Code 39	Not calibration	B 6	04	01
	Verify and transfer	B 6	04	02
	Verify is not transmitted	B 6	04	03
Code 93	Turn it On	B 7	01	0E
	Close	B 7	01	0D
Code 32	Turn it On	B8	01	0E
	Close	B8	01	0D
Code 11	Turn it On	B9	01	0E
	Close	B9	01	0D
Codabar	Turn it On	B A	01	0E
	Close	B A	01	0D
	Not calibration	B A	02	01
	Verify and transfer	B A	02	02
	Verify is not transmitted	B A	02	03
	Transfer Start / Terminator	B A	03	0E
	Start / terminator is not transmitted	B A	03	0D

Function		Identification code	Instructions	Data is available
Plessey	Turn it On	BB	01	0E
	Close	BB	01	0D
MSI Plessey	Turn it On	BC	01	0E
	Close	BC	01	0D
	Not calibration	BC	02	01
	Mod 10 check	BC	02	02
	Mod 10/10 check	BC	02	03
	Mod 11/10 check	BC	02	04
	Transfer check bit	BC	03	0E
	Do not transfer the check bits	BC	03	0D
Interleaved 2 of 5	Turn it On	B D	01	0E
	Close	B D	01	0D
	Not calibration	B D	02	01
	Verify and transfer	B D	02	02
	Verify is not transmitted	B D	02	03

Function		Identification code	Instructions	Data is available
IATA 2 of 5	Turn it On	BE	01	0E
	Close	BE	01	0D
Matrix 2 of 5	Turn it On	BF	01	0E
	Close	BF	01	0D
Straight 2 of 5	Turn it On	D0	01	0E
	Close	D0	01	0D
Pharmacode	Turn it On	D1	01	0E
	Close	D1	01	0D
GS1 DataBar 14	Turn it On	D 2	01	0E
	Close	D 2	01	0D
GS1 DataBar 14 Stacked	Turn it On	D 2	02	0E
	Close	D 2	02	0D
GS1 DataBar Expanded	Turn it On	D 3	01	0E
	Close	D 3	01	0D
GS1 DataBar Expanded Stacked	Turn it On	D 3	02	0E
	Close	D 3	02	0D

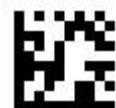
Function		Identification code	Instructions	Data is available
GS1 DataBar Limited	Turn it On	D 4	01	0E
	Close	D 4	01	0D
CC-A	Turn it On	D 5	01	0E
	Close	D 5	01	0D
CC-B	Turn it On	D 6	01	0E
	Close	D 6	01	0D
CC-C	Turn it On	D 7	01	0E
	Close	D 7	01	0D
PDF 417	Turn it On	D8	01	0E
	Close	D8	01	0D
Micro PDF 417	Turn it On	D9	01	0E
	Close	D9	01	0D
Data Matrix	Turn it On	DA	01	0E
	Close	DA	01	0D
Rectangular Data Matrix	Turn it On	DA	03	0E
	Close	DA	03	0D

Function		Identification code	Instructions	Data is available
QR	Turn it On	DB	01	0E
	Close	DB	01	0D
Micro QR	Turn it On	DC	01	0E
	Close	DC	01	0D
Aztec	Turn it On	DD	01	0E
	Close	DD	01	0D
MaxiCode	Turn it On	D E	01	0E
	Close	D E	01	0D

Appendix I decimal digits



0



1



2



3



4



5



6



7



8

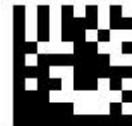


9

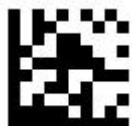
Appendix II Barcode Setting Code



UPC A



UPC E



EAN 8



EAN 13



Code 128



Code 39



Code 93



Code 32

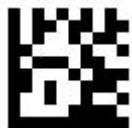
Appendix II Barcode Setting Code



Code 11



Codabar



Plessey



MSI Plessey



Interleaved 2 of 5



IATA 2 of 5

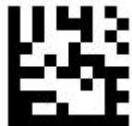


Matrix 2 of 5



Straight 2 of 5

Appendix II Barcode Setting Code



Pharmacode



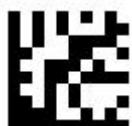
GS1 DataBar 14



GS1 DataBar Expanded



GS1 DataBar Limited



GS1 DataBar 14 Stacked



GS1 DataBar Expanded Stacked



Composite Code-A



Composite Code-B

Appendix II Barcode Setting Code



Composite Code-C



PDF417



Micro PDF417



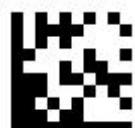
Data Matrix



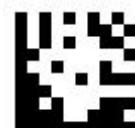
QR



Micro QR



Aztec

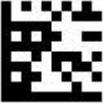
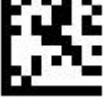


MaxiCode

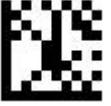
Appendix III ASCII Code Table

HEX	Decimal	ASCII	Function Key Mapping		
			Close	Ctrl Char	Alt+Unicode
00 (NUL)	0	 NUL	Close	Ctrl+@	Alt + 000
01 (SOH)	1	 SOH	Home	Ctrl+A	Alt + 001
02 (STX)	2	 STX	End	Ctrl+B	Alt + 002
03 (ETX)	3	 ETX	Up Arrow	Ctrl+C	Alt + 003

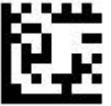
Hex	Decimal	ASCII	Function Key Mapping		
			Close	Ctrl Char	Alt+Unicode
04 (EOT)	4	 EOT	Down Arrow	Ctrl+D	Alt + 004
05 (ENQ)	5	 ENQ	Left Arrow	Ctrl+E	Alt + 005
06 (ACK)	6	 ACK	Right Arrow	Ctrl+F	Alt + 006
07 (BEL)	7	 BEL	Null	Ctrl+G	Alt + 007

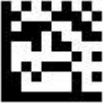
HEX	Decimal	ASCII	Function Key Mapping		
			Close	Ctrl Char	Alt+Unicode
08	8	 BS	Backspace	Backspace	Alt + 008
09	9	 TAB	TAB	TAB	Alt + 009
0A (LF)	10	 LF	Null	Ctrl+J	Alt + 010
0B (VT)	11	 VT	Null	Ctrl+K	Alt + 011

HEX	Decimal	ASCII	Function Key Mapping		
			Close	Ctrl Char	Alt+Unicode
0C (FF)	12	 FF	Null	Ctrl+L	Alt + 012
0D (CR)	13	 CR	Enter	Enter	Enter
0E (SO)	14	 SO	Page Up	Ctrl+N	Alt + 014
0F (SI)	15	 SI	Page Down	Ctrl+O	Alt + 015

HEX	Decimal	ASCII	Function Key Mapping		
			Close	Ctrl Char	Alt+Unicode
10 (DLE)	16	 DLE	F11	Ctrl+P	Alt + 016
11 (DC1)	17	 DC1	Null	Ctrl+Q	Alt + 017
12 (DC2)	18	 DC2	Null	Ctrl+R	Alt + 018
13 (DC3)	19	 DC3	Null	Ctrl+S	Alt + 019

HEX	Decimal	ASCII	Function Key Mapping		
			Close	Ctrl Char	Alt+Unicode
14 (DC4)	20	 DC4	Null	Ctrl+T	Alt + 020
15 (NAK)	21	 NAK	F12	Ctrl+U	Alt + 021
16 (SYN)	22	 SYN	F1	Ctrl+V	Alt + 022
17 (ETB)	23	 ETB	F2	Ctrl+W	Alt + 023

HEX	Decimal	ASCII	Function Key Mapping		
			Close	Ctrl Char	Alt+Unicode
18 (CAN)	24	 CAN	F3	Ctrl+X	Alt + 024
19 (CAN)	25	 EM	F4	Ctrl+Y	Alt + 025
1A (SUB)	26	 SUB	F5	Ctrl+Z	Alt + 026
1B (ESC)	27	 ESC	F6	Ctrl+[Alt + 027

HEX	Decimal	ASCII	Function Key Mapping		
			Close	Ctrl Char	Alt+Unicode
1C (FS)	28	 FS	F7	Ctrl+\	Alt + 028
1D (GS)	29	 GS	F8	Ctrl+]	Alt + 029
1E (US)	30	 RS	F9	Ctrl+^	Alt + 030
1F (US)	31	 US	F10	Ctrl+_	Alt + 031

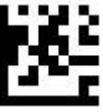
HEX	Decimal	ASCII	
20	32	SPACE	
21	33	!	
22	34	"	
23	35	#	

HEX	Decimal	ASCII	
24	36	\$	
25	37	%	
26	38	&	
27	39	'	

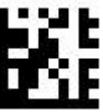
HEX	Decimal	ASCII	
28	40	(
29	41)	
2A	42	*	
2B	43	+	

HEX	Decimal	ASCII	
2C	44	,	
2D	45	-	
2E	46	.	
2F	47	/	

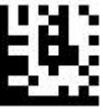
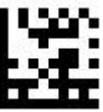
HEX	Decimal	ASCII	
30	48	0	
31	49	1	
32	50	2	
33	51	3	

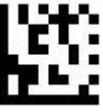
HEX	Decimal	ASCII	
34	52	4	
35	53	5	
36	54	6	
37	55	7	

HEX	Decimal	ASCII	
38	56	8	
39	57	9	
3A	58	:	
3B	59	;	

HEX	Decimal	ASCII	
3C	60	<	
3D	61	=	
3E	62	>	
3F	63	?	

HEX	Decimal	ASCII	
40	64	@	
41	65	A	
42	66	B	
43	67	C	

HEX	Decimal	ASCII	
44	68	D	
45	69	E	
46	70	F	
47	71	G	

HEX	Decimal	ASCII	
48	72	H	
49	73	I	
4A	74	J	
4B	75	K	

HEX	Decimal	ASCII	
4C	76	L	
4D	77	M	
4E	78	N	
4F	79	O	

HEX	Decimal	ASCII	
50	80	P	
51	81	Q	
52	82	R	
53	83	S	

HEX	Decimal	ASCII	
54	84	T	
55	85	U	
56	86	V	
57	87	W	

HEX	Decimal	ASCII	
58	88	X	
59	89	Y	
5A	90	Z	
5B	91	[

HEX	Decimal	ASCII	
5C	92	\	
5D	93]	
5E	94	^	
5F	95	_	

HEX	Decimal	ASCII	
60	96	'	
62	97	a	
62	98	b	
63	99	c	

HEX	Decimal	ASCII	
64	100	d	
65	101	e	
66	102	f	
67	103	g	

HEX	Decimal	ASCII	
68	104	h	
69	105	i	
6A	106	j	
6B	107	k	

HEX	Decimal	ASCII	
6C	108	l	
6D	109	m	
6E	110	n	
6F	111	o	

HEX	Decimal	ASCII	
70	112	p	
71	113	q	
72	114	r	
73	115	s	

HEX	Decimal	ASCII	
74	116	t	
75	117	u	
76	118	v	
77	119	w	

HEX	Decimal	ASCII	
78	120	x	
79	121	y	
7A	122	z	
7B	123	{	

HEX	Decimal	ASCII	
7C	124		
7D	125	}	
7E	126	~	
7F	127	Delete	

Appendix IV Functions Key



Insert



Delete



Home



End



Up Arrow



Down Arrow



Left Arrow



Right Arrow



Shift



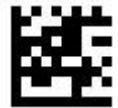
ESC



Ctrl



Alt



Page Up



Page Down



F1



F2



F3



F4



F5



F6



F7



F8



F9



F10



F11



F12