MT8200H
2D Handheld Scanner
User's Manual

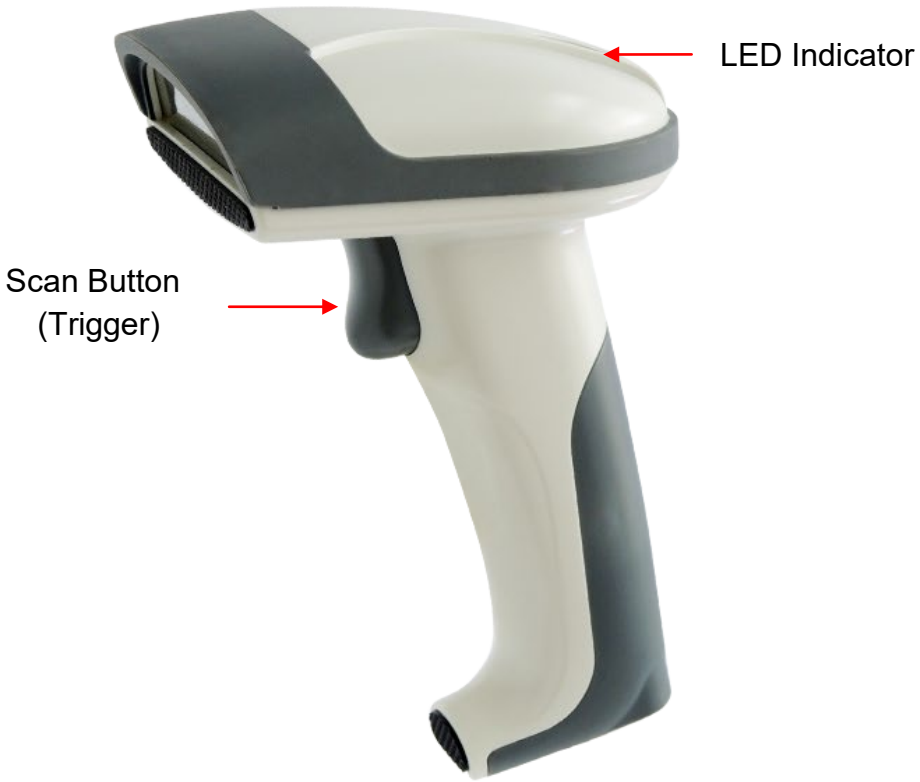
Version 2.1

DATE: 2023/11/24

Table of Content

Chapter 1 Introduction

This user's manual is dedicated to MT8200H, a powerful 2D handheld barcode scanner that delivers high scanning performance on all major 1D and 2D barcodes. With MT8200H at hand user can literally scan any barcode on any surface in any condition. MT8200H has many features that make scanning barcode easier and more comfortable such as mobile barcode readability, ambient light immunity and ergonomic design.



Specifications

Optic & Performance	
Light Source	640nm visible red LED 5000K CCT White LED
Sensor	640 x 480
Resolution	5mil (Code39/ 1D barcode) 6.67MIl (PDF417/ 2D barcode)
Scan Angle	Horizontal 37.8° Vertical 28.8°

Pitch Angle	±45°
Skew Angle	±45°
Roll Angle	360°
Print Contrast Ratio	30%
Width of Field	116mm (13Mil Code39)
Typical D.O.F (Environment: 800 lux)	5Mil Code 39: 36 ~ 159mm
	13Mil UPC: 46 ~ 325mm
	20Mil QR Code: 38 ~ 248mm
	6.67Mil PDF417: 36 ~ 132mm
	10Mil Data Matrix: 33 ~ 131mm
Physical Characteristics	
Dimension	W71 x L166 x H84 mm
Weight	172g
Color	Black or White
Material	ABS
Cable	2.1M Interchangeable USB Cable
Trigger	Scan Button
Indicator	LED, Buzzer, Vibrator
Electrical	
Operation Voltage	5 VDC ± 5%
Working Current	< 210mA
Standby Current	< 85mA
Connectivity	
Interface/ Profile	USB HID USB VCP
User Environment	
Operating Temperature	-10 ~ 40˚C
Storage Temperature	-20 ~ 65˚C
Humidity	0% ~ 95%RH (Non-condensing)
Drop Durability	1.5M
Sealing	IP42
Ambient Light	100,000 Lux (Sunlight)
1D Symbologies	Code 39, Full ASCII Code39, Code 32, Codabar, Interleaved 2 of 5, IATA 2 of 5, Matrix 2 of 5, Industrial 2 of 5, NEC 2 of 5, Code 11, MSI,EAN-8, EAN-13, UPC-A, UPC-E, Code 93, Code 128, ISBT 128, GS1-128, GS1 Databar, GS1 Composite
2D Symbologies	Codablock A, Codablock F, PDF417, MicroPDF417, Aztec, Data Matrix, MaxiCode, QR Code, Micro QR Code,

	Chinese Sensible Code (Han Xin)
Postal Codes	Australian Post, British Post, Canadian Post, China Post, Japanese Post, Korea Post, Netherlands Post, Planet Code, Postnet
Regulatory	
ESD	Functional after 4KV contact, 8KV air discharge
EMC/RF	TBA
Safety Approval	EN/IEC62471 (Exempt Group)
Environmental	RoHS 2.0

Beeper Indication

Beeper	**Status**
Single long beep	Power up
Single beep	Good read
Single short beep	The scanner reads a Code39 ASCII during multi-step configuration
Two beeps	The scanner successfully reads a configuration barcode
Three short beeps	The scanner reads a barcode while disconnected
	The scanner reads an unexpected barcode during multi-step configuration. (Please scan "**Abort**" and start over)

LED Indication

LED	**Status**
One blue flash	Good read

Chapter 2 General Settings

Barcode Configurability (Setup Code)

Scanning below configuration barcodes will allow/prohibit user to change settings by scanning configuration barcodes in this manual.

.B015$

Enable Barcode Configurability*

.B016$

Disable Barcode Configurability

Factory Default

Scanning below configuration barcode will reset all parameters to factory default settings (the ones with * asterisk mark)

.A001$

Factory Default

Check Version

To check firmware version, please scan below configuration barcode.

.A007$

Check Version

Good Read Indicator

Beep Tone

.F012$

Off

.F022$

Beep Low (2.0KHz)

.F018$

Beep Medium (2.7KHz)*

.F019$

Beep High (4.0KHz)

Vibrator

.D035$

Off*

.D034$

On

Indicator LED

.F054$

Off

.F055$

On*

Data Format

UTF-8 to Unicode Conversion

.C044$

Disable UTF-8 to Unicode*

.C045$

Enable UTF-8 to Unicode (Word)

Country Code Page

.C070$

West European Latin*

.C054$

Japanese, Shift-JIS (Notepad / Excel)

.C055$

Japanese, Shift-JIS (Word)

.C057$

Traditional Chinese, Big5 (Notepad / Excel)

.C056$

Traditional Chinese, Big5 (Word)

Note: Code pages define the mapping of character codes to characters. To display the proper characters for the barcode being scanned, please select the appropriate code page. For Shift-JIS and Big5 to output properly, please make sure to disable UTF-8 to Unicode Conversion.

HT/CR/ESC Converts to TAB/ENTER/ESCAPE

.D026$

Off*

.D025$

On

Note:

1. By default, HT [$I], CR [$M] and ESC [%A] is transmitted as <0x09>, <0x0D> and <0x1B> respectively.
2. When enabled, HT [$I], CR [$M] and ESC [%A] is transmitted as <TAB>, <ENTER> and <ESCAPE> on keyboard respectively.

Function Code Conversion

.C020$

Off

.C019$

On*

Note:

Once disabled, the scanner will output the original encoded data of the barcodes in Appendix – Function/Navigation/Modifier Keys.

Control Code Output Method

.D028$

Ctrl Mode*

.D029$

Alt Mode

.D027$

Disable Output

Note:

Control code (0x01 ~ 0x1F) can be sent by two methods:

(1) Ctrl Mode:

A barcode of "A<HT>F" (0x41/0x09/0x46) is scanned, the output sequence is:

a. Enter "A" – Press A key
b. Enter "Ctrl + I" – Since 0x09 corresponds to "Ctrl + I", virtual keyboard will press and hold Ctrl key, press I key, and release Ctrl key and I key
c. Enter "F" – Press F key

Since "Ctrl+I" is shortcut for italicizing text in some software applications, the result of above output sequence can be a regular A plus an italic F.

(2) Alt Mode:

For <HT>, the output sequence of virtual keyboard is:

Enter "Alt + 0 + 0 + 0 + 9" – Virtual keyboard will press and hold Alt key, press "0", "0", "0" and "9" on numeric keypad respectively, and release Alt key.

Control Code Table

ASCII	Hex	Dec	Ctrl Mode	Alt Mode
NUL	00	0	Ctrl+Shift+2	Alt+0+0+0+0
SOH	01	1	Ctrl+a	Alt+0+0+0+1
STX	02	2	Ctrl+b	Alt+0+0+0+2
ETX	03	3	Ctrl+c	Alt+0+0+0+3
EOT	04	4	Ctrl+d	Alt+0+0+0+4
ENQ	05	5	Ctrl+e	Alt+0+0+0+5
ACK	06	6	Ctrl+f	Alt+0+0+0+6
BEL	07	7	Ctrl+g	Alt+0+0+0+7
BS	08	8	Ctrl+h	Alt+0+0+0+8
HT	09	9	Ctrl+i	Alt+0+0+0+9
LF	0A	10	Ctrl+j	Alt+0+0+1+0
VT	0B	11	Ctrl+k	Alt+0+0+1+1
FF	0C	12	Ctrl+l	Alt+0+0+1+2

CR	0D	13	Ctrl+m	Alt+0+0+1+3
SO	0E	14	Ctrl+n	Alt+0+0+1+4
SI	0F	15	Ctrl+o	Alt+0+0+1+5
DLE	10	16	Ctrl+p	Alt+0+0+1+6
DC1	11	17	Ctrl+q	Alt+0+0+1+7
DC2	12	18	Ctrl+r	Alt+0+0+1+8
DC3	13	19	Ctrl+s	Alt+0+0+1+9
DC4	14	20	Ctrl+t	Alt+0+0+2+0
NAK	15	21	Ctrl+u	Alt+0+0+2+1
SYN	16	22	Ctrl+v	Alt+0+0+2+2
ETB	17	23	Ctrl+w	Alt+0+0+2+3
CAN	18	24	Ctrl+x	Alt+0+0+2+4
EM	19	25	Ctrl+y	Alt+0+0+2+5
SUB	1A	26	Ctrl+z	Alt+0+0+2+6
ESC	1B	27	Ctrl+[	Alt+0+0+2+7
FS	1C	28	Ctrl+\	Alt+0+0+2+8
GS	1D	29	Ctrl+]	Alt+0+0+2+9
RS	1E	30	Ctrl+Shift+6	Alt+0+0+3+0
US	1F	31	Ctrl+Shift+-	Alt+0+0+3+1

Numeric Key

.D017$

Numeric Key

.D018$

Alphanumeric Key*

Note:

1. By default, the alphanumeric key is used for 15ransmitting digits. Scan NUMERIC KEY if you want to use the keys on the numeric keypad.
2. If you select NUMERIC KEY, the Num Lock status of the physical keyboard should be ON.

OPOS

.A031$

Off*

.A030$

On

Note:
To function properly with OPOS, the host PC must be installed with OPOS driver or demo program, which is available from our website.

Capital Lock Mode

.A005$

Capslock Off*

.A004$

Capslock On

.A006$

Capslock Free

Note:
When in Capslock On, the scanner inverses case or cancels out the Capslock state of keyboard. When scanner is set to Capslock Free mode, no matter keyboard Capslock LED indicator is ON or OFF, output will be always the same as the original barcode. In other words, what you see is what output is.

Imaging Settings

Inverse Barcode

.D021$

Disable Inverse Barcode*

.D022$

Enable Inverse Barcode

Centering

.F073$

Disable Centering*

.F074$

Enable Centering

Note:
When enabled, the scanner only decodes the barcodes marked by aimer dot.

Chapter 3 Interface

USB HID

.C008$

USB HID

Keyboard Layout

.C010$

English (US)*

.C018$

English (UK)

.C027$

Danish

.C013$

Spanish

.C021$

Hungarian (QWERTZ)

.C024$

Hungarian (QWERTY)

.C025$

Canadian French

.C028$

Dutch

.C014$

Italian

.C012$

French

.C011$

German

.C016$

Swiss German

.C023$

Swiss French

.C026$

Swedish

.C022$

Czech (QWERTZ)

.C017$

Czech (QWERTY)

.C029$

Norwegian

.C030$

Belgian

.C031$

Portuguese

.C032$

Slovak

.C033$

Brazilian (QWERTY)

.C034$

Canadian (Traditional)

.C009$

Japanese

.C015$

Alt Code

Intercharacter Delay

The configurable range is from 0 to 255ms. The larger the number, the longer the delay.

.B009$

Set Intercharacter Delay
(Default = 0ms)

Example: Set Intercharacter Delay to 8ms
Step1: Scan Set Intercharacter Delay
Step2: Scan "**0**" "**0**" "**8**" in Appendix – Numbers
Step3: Scan Set Intercharacter Delay

Interblock Delay

The configurable range is from 0 to 2550ms. The larger the number, the longer the delay.

.B007$

Set Interblock Delay
(Default = 0ms)

Example: Set Interblock Delay to 20ms
Step1: Scan Set Interblock Delay
Step2: Scan "**0**" "**0**" "**2**" in Appendix – Numbers
Step3: Scan Set Interblock Delay

USB VCP

.C006$

USB VCP

Baud Rate

.E003$

1200

.E004$

2400

.E005$

4800

.E006$

9600*

.E007$

19200

.E022$

38400

.E061$

57600

.E063$

115200

Data Bits & Parity

.E009$

8 Bits Even

.E010$

8 Bits Odd

.E012$

8 Bits Space

.E011$

8 Bits Mark

.E008$

8 Bits None*

.E013$

7 Bits Even

.E014$

7 Bits Odd

.E021$

7 Bits Space

.E015$

7 Bits Mark

Stop Bits

.E016$

1 Stop Bit*

.E017$

2 Stop Bits

Handshaking

.E018$

None*

.E019$

RTS enable at Power On

.E020$

RTS enable with Communication

ACK/NAK

.E023$

On

.E024$

Off*

Chapter 4 Reading Mode

Trigger Mode

In Trigger Mode the LED will stay on when the trigger is pressed and held, and will turn off automatically once a barcode is read or LED Auto-Off timeout expires if LED Auto-Off Control is enabled.

.F002$

Trigger Mode

Continuous Mode

In Continuous Mode the LED is always on, with barcodes being read continuously. The trigger is unfunctional unless Trigger Control is enabled.

.F005$

Continuous Mode

Auto-sensing Mode

In Auto-sensing Mode the LED will turn on automatically when any image change is detected and will turn off automatically after LED Auto-Off timeout expires.

.F007$

Auto-sensing Mode*

Auto-sensing Mode – Magnetic Switch

When magnetic switch is on, the scanner automatically enters Auto-sensing Mode when placed on Auto Stand (w/ magnet), and resumes Trigger Mode when held on hand. When magnetic switch is off, the scanner will always stay in Auto-sensing Mode.

.F035$

Off

.F034$

On*

LED Auto-Off Timeout

LED Auto-Off Timeout is the maximum scanning duration. When LED Auto-Off Timeout expires, the scanning operation stops automatically.
The configurable range is 0.1 ~ 125 sec. 3 digits must be programmed during the multi-step configuration. (000 = continuous, 001 = 0.1 sec, 002 = 0.2 sec, 003 = 0.3 sec, 004 = 0.4 sec, 005 = 0.5 sec, 0.6 = 1 sec, 007 = 1.5 sec, 008 = 2.0 sec, 009 = 2.5 sec, 010 = 3 sec, ... 254 = 125 sec, 255 = unlimited)

.F043$

LED Auto-Off Timoeut
(Default = continuous)

Example: Set LED Auto-Off Timeout as 5 sec
Step1: Scan "**LED Auto-Off Timeout**"
Step2: Scan "**0**" "**1**" "**4**" in Appendix - Numbers
Step3: Scan "**LED Auto-Off Timeout**"

Chapter 4 Data Format

By default data format is as follows:

<Preamble> <Code ID> <Barcode Length> <Barcode Data> <Postamble> <Terminator>

Code ID

.A009$

Disable Code ID*

.A008$

Enable Factory ID

.A014$

Enable AIM ID

.A015$

Enable Set ID

Set ID

Set ID can be 0 ~ 2 alphanumerics for each symbology.

.P005$

Set ID – Code 39

.P007$

Set ID – Codabar

.P006$

Set ID – Interleaved 2 of 5

.P021$

Set ID – Standard 2 of 5 (IATA)

.P017$

Set ID –Matrix 2 of 5

.P018$

Set ID – Industrial 2 of 5

.P009$

Set ID – Code 11

.P014$

Set ID – MSI Plessey

.P001$

Set ID – EAN-13

.P004$

Set ID – UPC-A

.P002$

Set ID – EAN-8

.P003$

Set ID – UPC-E

.P013$

Set ID – Code 93

.P010$

Set ID – Code 128 / ISBT 128

.P016$

Set ID – GS1-128

.P024$

Set ID – GS1 DataBar

.P019$

Set ID – GS1 DataBar Limited

.P020$

Set ID – GS1 DataBar Expanded

.P028$

Set ID – NEC 2 of 5

.P046$

Set ID – GS1 Composite

.P012$

Set ID – China Post

.P035$

Set ID – Korea Post

.P036$

Set ID – Australian Post

.P037$

Set ID – British Post

.P038$

Set ID – Canadian Post

.P039$

Set ID – Japanese Post

.P040$

Set ID – KIX (Netherlands) Post

.P041$

Set ID – InfoMail Code

.P042$

Set ID – Intelligent Code

.P043$

Set ID – Planet Code

.P044$

Set ID – Postal-4i Code

.P045$

Set ID – Postnet Code

.P026$

Set ID – QR Code / Micro QR Code

.P025$

Set ID – PDF417

.P029$

Set ID – MicroPDF417

.P027$

Set ID – Data Matrix

.P030$

Set ID – MaxiCode

.P034$

Set ID – Chinese Sensible Code (Han Xin)

.P031$

Set ID – Codablock A

.P032$

Set ID – Codablock F

.P033$

Set ID – Aztec

Example: Set Code39 Set ID as XY"
Step1: Scan "**Set ID – Code39**"
Step2: Scan "**X**" "**Y**" in Appendix – Upper Case Alphabets
Step3: Scan "**Set ID – Code39**"

Data Length

.D020$

Send Data Length Off*

.D019$

Send Data Length On

Preamble

Preamble can be up to 16 bytes of data.

.A012$

Set Preamble

Example: Set XYZ123 as Preamble
Step 1: Scan "**Set Preamble**"
Step 2: Scan "**X**" "**Y**" "**Z**" "**1**" "**2**" "**3**" in Appendix – Upper Case Alphabets & Numbers
Step 3: Scan "**Set Preamble**"

Postamble

Postamble can be up to 16 bytes of data.

.A013$

Set Postamble

Example: Set XYZ123 as Postamble
Step 1: Scan "**Set Postamble**"
Step 2: Scan "**X**" "**Y**" "**Z**" "**1**" "**2**" "**3**" in Appendix – Upper Case Alphabets & Numbers
Step 3: Scan "**Set Postamble**"

Clear Preamble/Postamble

.A011$

Clear Preamble/Postamble

Terminator

.D010$

None

.D011$

<LF>

.D012$

<CR>*

.D013$

<CR><LF>

.D014$

<TAB>

.D015$

<Space>

.D016$

<ESC>

Note:

1. Default Terminator for USB HID interface = <CR> (or Enter)
2. Default Terminator for USB VCP interface = <CR><LF>
3. <CR><LF> or <LF> is treated as Enter for USB HID interface.

Chapter 6 Symbologies

General Settings

.A002$

Enable All Symbologies

.A003$

Disable All Symbologies

Note: When all symbologies are disabled, configuration barcodes are still readable.

UPC-A

Enable/Disable UPC-A

.H001$

Enable UPC-A*

.H002$

Disable UPC-A

Lead Digit (Number System)

.H004$

Not Send Lead Digit

.H003$

Send Lead Digit*

Check Digit

.H005$

Send Check Digit*

.H006$

Not Send Check Digit

UPC-A Expand to EAN-13

.H068$

Enable Expand UPC-A to EAN-13

.H067$

Disable Expand UPC-A to EAN-13*

Add On Supplement

.H033$

Enable 5-digit Supplement

.H034$

Disable 5-digit Supplement*

.H035$

Enable 2-digit Supplement

.H036$

Disable 2-digit Supplement*

.H045$

Enable Add A Space*

.H046$

Disable Add A Space

.H060$

Enable Addenda Required

.H059$

Disable Addenda Required*

Note:
When Addenda Required is enabled, the scanner will only read an UPC-A barcode that has 2-digit or 5-digit addenda/supplement.

UPC-E

Enable/Disable UPC-E

.H007$

Enable UPC-E*

.H008$

Disable UPC-E

Lead Digit (System Number)

.H010$

Not Send Lead Digit

.H009$

Send Lead Digit*

Check Digit

.H011$

Send Check Digit*

.H012$

Not Send Check Digit

UPC-E Expand to UPC-A

.H053$

Enable UPC-E Expand to UPC-A

.H054$

Disable UPC-E Expand to UPC-A*

Add On Supplement

.H037$

Enable 5-digit Supplement

.H038$

Disable 5-digit Supplement*

.H039$

Enable 2-digit Supplement

.H040$

Disable 2-digit Supplement*

.H047$

Enable Add A Space*

.H048$

Disable Add A Space

.H056$

Enable Addenda Required

.H055$

Disable Addenda Required*

Note:
When Addenda Required is enabled, the scanner will only read an UPC-E barcode that has 2-digit or 5-digit addenda/supplement.

Enable/Disable UPC-E1

.H065$

Enable UPC-E1

.H066$

Disable UPC-E1*

EAN-8

Enable/Disable EAN-8

.H019$

Enable EAN-8*

.H020$

Disable EAN-8

Check Digit

.H024$

Not Send Check Digit

.H023$

Send Check Digit*

Add On Supplement

.H029$

Enable 5-digit Supplement

.H030$

Disable 5-digit Supplement*

.H031$

Enable 2-digit Supplement

.H032$

Disable 2-digit Supplement*

.H043$

Enable Add A Space*

.H044$

Disable Add A Space

.H062$

Enable Addenda Required

.H061$

Disable Addenda Required*

Note:

When Addenda Required is enabled, the scanner will only read an EAN-8 barcode that has 2-digit or 5-digit addenda/supplement.

EAN-13

Enable/Disable EAN-13

.H013$

Enable EAN-13*

.H014$

Disable EAN-13

Check Digit

.H018$

Not Send Check Digit

.H017$

Send Check Digit*

ISBN

.H049$

Enable ISBN

.H050$

Disable ISBN*

Add On Supplement

.H025$

Enable 5-digit Supplement

.H026$

Disable 5-digit Supplement*

.H027$

Enable 2-digit Supplement

.H028$

Disable 2-digit Supplement*

.H041$

Enable Add A Space*

.H042$

Disable Add A Space

.H058$

Enable Addenda Required

.H057$

Disable Addenda Required*

Note:

When Addenda Required is enabled, the scanner will only read an EAN-13 barcode that has 2-digit or 5-digit addenda/supplement.

Code 128

Enable/Disable Code 128

.J010$

Enable Code 128*

.J011$

Disable Code 128

ISBT 128 Concatenation

.J041$

ISBT 128 Concatenation Off*

.J040$

ISBT 128 Concatenation On

Code 128 Min/Max Length

.J012$

Set Min Length
(Default = 01)

.J013$

Set Max Length
(Default = 80)

Example: Set Min Length as 8, Max Length as 12 for Code 128
Step1: Scan "**Set Min Length**"
Step2: Scan "**0**" "**8**" in Appendix – Numbers
Step3: Scan "**Set Min Length**"
Step4: Scan "**Set Max Length**"
Step5: Scan "**1**" "**2**" in Appendix – Numbers
Step6: Scan "**Set Max Length**"

Note: Configurable range for Min/Max Length is 01 ~ 80.

GS1-128

Enable/Disable GS1-128

.M001$

Enable GS1-128*

.M002$

Disable GS1-128

GS1-128 Min/Max Length

.M019$

Set Min Length
(Default = 01)

.M020$

Set Max Length
(Default = 80)

Example: Set Min Length as 8, Max Length as 12 for GS1-128
Step1: Scan "**Set Min Length**"
Step2: Scan "**0**" "**8**" in Appendix – Numbers
Step3: Scan "**Set Min Length**"
Step4: Scan "**Set Max Length**"
Step5: Scan "**1**" "**2**" in Appendix – Numbers
Step6: Scan "**Set Max Length**"

Note: Configurable range for Min/Max Length is 01 ~ 80.

Code 39

Enable/Disable Code 39

.G008$

Enable Code 39*

.G009$

Disable Code 39

Verification

.G003$

Disable CDV*

.G004$

CDV & Send CD

.G005$

CDV & Not Send CD

Start/Stop

.G015$

Not Send Start/Stop*

.G014$

Send Start/Stop

Full ASCII Code39

.G001$

Enable Full ASCII Code39*

.G002$

Disable Full ASCII Code39

Code39 Min/Max Length

.G006$

Set Min Length
(Default = 01)

.G007$

Set Max Length
(Default = 48)

Example: Set Min Length as 8, Max Length as 12 for Code 39
Step1: Scan "**Set Min Length**"
Step2: Scan "**0**" "**8**" in Appendix – Numbers
Step3: Scan "**Set Min Length**"
Step4: Scan "**Set Max Length**"
Step5: Scan "**1**" "**2**" in Appendix – Numbers
Step6: Scan "**Set Max Length**"

Note: Configurable range for Min/Max Length is 01 ~ 48.

Code 32

Enable/Disable Code 32

.K010$

Enable Code 32

.K011$

Disable Code 32*

Notw: Please make sure Code39 is enabled with verification disabled before enabling Code32.

Code 93

Enable/Disable Code 93

.G010$

Enable Code 93*

.G011$

Disable Code 93

Code 93 Min/Max Length

.G012$

Set Min Length
(Default = 01)

.G013$

Set Max Length
(Default = 80)

Example: Set Min Length as 8, Max Length as 12 for Code 93
Step1: Scan "**Set Min Length**"
Step2: Scan "**0**" "**8**" in Appendix – Numbers
Step3: Scan "**Set Min Length**"
Step4: Scan "**Set Max Length**"
Step5: Scan "**1**" "**2**" in Appendix – Numbers
Step6: Scan "**Set Max Length**"

Note: Configurable range for Min/Max Length is 01 ~ 80.

Code 11

Enable/Disable Code 11

.I010$

Enable Code 11

.I011$

Disable Code 11*

Verification

.I042$

CDV & Send CD (1 Digit)*

.I043$

CDV & Send CD (2 Digits)

Code 11 Min/Max Length

.I015$

Set Min Length
(Default = 04)

.I016$

Set Max Length
(Default = 80)

Example: Set Min Length as 8, Max Length as 12 for Code 11
Step1: Scan "**Set Min Length**"
Step2: Scan "**0**" "**8**" in Appendix – Numbers
Step3: Scan "**Set Min Length**"
Step4: Scan "**Set Max Length**"
Step5: Scan "**1**" "**2**" in Appendix – Numbers
Step6: Scan "**Set Max Length**"

Note: Configurable range for Min/Max Length is 01 ~ 80.

Codabar (NW-7)

Enable/Disable Codabar

.I001$

Enable Codabar*

.I002$

Disable Codabar

Verification

.I005$

Disable CDV*

.I006$

CDV & Send CD

.I007$

CDV & Not Send CD

Start/Stop

.I003$

Send Start/Stop

.I004$

Not Send Start/Stop*

Codabar Min/Max Length

.I008$

Set Min Length
(Default = 04)

.I009$

Set Max Length
(Default = 60)

Example: Set Min Length as 8, Max Length as 12 for Codabar
Step1: Scan "**Set Min Length**"
Step2: Scan "**0**" "**8**" in Appendix – Numbers
Step3: Scan "**Set Min Length**"
Step4: Scan "**Set Max Length**"
Step5: Scan "**1**" "**2**" in Appendix – Numbers
Step6: Scan "**Set Max Length**"

Note: Configurable range for Min/Max Length is 01 ~ 60.

Concatenation

.I032$

Contatenation Off*

.I031$

Contatenation On

.I029$

Contatenation Required

Note:
1. When you enable concatenation, the scanner looks for a Codabar symbol having a "D" start character, adjacent to a symbol having a "D" stop character. In this case the two messages are concatenated into one with the "D" characters omitted.
2. Select Required to prevent the scanner from decoding a single "D" Codabar symbol without its companion. This selection has no effect on Codabar symbols without Stop/Start D characters.

Interleaved 2 of 5

Enable/Disable Interleaved 2 of 5

.J001$

Enable Interleaved 2 of 5*

.J002$

Disable Interleaved 2 of 5

Verification

.J003$

Disable CDV*

.J004$

CDV & Send CD

.J005$

CDV & Not Send CD

Interleaved 2 of 5 Min/Max Length

.J006$

Set Min Length
(Default = 04)

.J007$

Set Max Length
(Default = 80)

Example: Set Min Length as 8, Max Length as 12 for Interleaved 2 of 5
Step1: Scan "**Set Min Length**"
Step2: Scan "**0**" "**8**" in Appendix – Numbers
Step3: Scan "**Set Min Length**"
Step4: Scan "**Set Max Length**"
Step5: Scan "**1**" "**2**" in Appendix – Numbers
Step6: Scan "**Set Max Length**"

Note: Configurable range for Min/Max Length is 01 ~ 80.

Standard 2 of 5 (IATA)

Enable/Disable Standard 2 of 5

.N017$

Enable Standard 2 of 5

.N018$

Disable Standard 2 of 5*

Standard 2 of 5 Min/Max Length

.N022$

Set Min Length
(Default = 04)

.N023$

Set Max Length
(Default = 48)

Example: Set Min Length as 8, Max Length as 12 for Standard 2 of 5
Step1: Scan "**Set Min Length**"
Step2: Scan "**0**" "**8**" in Appendix - Numbers
Step3: Scan "**Set Min Length**"
Step4: Scan "**Set Max Length**"
Step5: Scan "**1**" "**2**" in Appendix - Numbers
Step6: Scan "**Set Max Length**"

Note: Configurable range for Min/Max Length is 01 ~ 48.

Matrix 2 of 5

Enable/Disable Matrix 2 of 5

.M010$

Enable Matrix 2 of 5

.M011$

Disable Matrix 2 of 5*

Matrix 2 of 5 Min/Max Length

.M015$

Set Min Length
(Default = 04)

.M016$

Set Max Length
(Default = 48)

Example: Set Min Length as 8, Max Length as 12 for Matrix 2 of 5
Step1: Scan "**Set Min Length**"
Step2: Scan "**0**" "**8**" in Appendix – Numbers
Step3: Scan "**Set Min Length**"
Step4: Scan "**Set Max Length**"
Step5: Scan "**1**" "**2**" in Appendix – Numbers
Step6: Scan "**Set Max Length**"

Note: Configurable range for Min/Max Length is 01 ~ 48.

Industrial 2 of 5

Enable/Disable Industrial 2 of 5

.N001$

Enable Industrial 2 of 5

.N002$

Disable Industrial 2 of 5*

Industrial 2 of 5 Min/Max Length

.N006$

Set Min Length
(Default = 04)

.N007$

Set Max Length
(Default = 48)

Example: Set Min Length as 8, Max Length as 12 for Industrial 2 of 5
Step1: Scan "**Set Min Length**"
Step2: Scan "**0**" "**8**" in Appendix – Numbers
Step3: Scan "**Set Min Length**"
Step4: Scan "**Set Max Length**"
Step5: Scan "**1**" "**2**" in Appendix – Numbers
Step6: Scan "**Set Max Length**"

Note: Configurable range for Min/Max Length is 01 ~ 48.

NEC 2 of 5

Enable/Disable NEC 2 of 5

.J033$

Enable NEC 2 of 5*

.J034$

Disable NEC 2 of 5

Verification

.J035$

Disable CDV*

.J036$

CDV & Send CD

.J037$

CDV & Not Send CD

NEC 2 of 5 Min/Max Length

.J038$

Set Min Length
(Default = 04)

.J039$

Set Max Length
(Default = 80)

Example: Set Min Length as 8, Max Length as 12 for NEC 2 of 5
Step1: Scan "**Set Min Length**"
Step2: Scan "**0**" "**8**" in Appendix – Numbers
Step3: Scan "**Set Min Length**"
Step4: Scan "**Set Max Length**"
Step5: Scan "**1**" "**2**" in Appendix – Numbers
Step6: Scan "**Set Max Length**"

Note: Configurable range for Min/Max Length is 01 ~ 80.

MSI Plessey

Enable/Disable MSI Plessey

.L001$

Enable MSI Plessey

.L002$

Disable MSI Plessey*

Verification

.L003$

Disable CDV

.L004$

Single MOD10 & Not Send CD*

.L009$

Single MOD10 & Send CD

.L024$

Double MOD10 & Not Send CD

.L007$

Double MOD10 & Send CD

.L025$

MOD11/MOD10 & Not Send CD

.L008$

MOD11/MOD10 & Send CD

MSI Plessey Min/Max Length

.L005$

Set Min Length
(Default = 04)

.L006$

Set Max Length
(Default = 48)

Example: Set Min Length as 8, Max Length as 12 for MSI Plessey
Step1: Scan "**Set Min Length**"
Step2: Scan "**0**" "**8**" in Appendix – Numbers
Step3: Scan "**Set Min Length**"
Step4: Scan "**Set Max Length**"
Step5: Scan "**1**" "**2**" in Appendix – Numbers
Step6: Scan "**Set Max Length**"

Note: Configurable range for Min/Max Length is 01 ~ 48.

GS1 DataBar

Enable/Disable GS1 DataBar

.N032$

Enable GS1 DataBar*

.N033$

Disable GS1 DataBar

GS1 DataBar Limited

Enable/Disable GS1 DataBar Limited

.N010$

Enable GS1 DataBar Limited

.N011$

Disable GS1 DataBar Limited*

GS1 DataBar Expanded

Enable/Disable GS1 DataBar Expanded

.N026$

Enable GS1 DataBar Expanded

.N027$

Disable GS1 DataBar Expanded*

GS1 DataBar Expanded Min/Max Length

.N030$

Set Min Length
(Default = 04)

.N031$

Set Max Length
(Default = 74)

Example: Set Min Length as 8, Max Length as 12 for GS1 DataBar Expanded
Step1: Scan "**Set Min Length**"
Step2: Scan "**0**" "**8**" in Appendix - Numbers
Step3: Scan "**Set Min Length**"
Step4: Scan "**Set Max Length**"
Step5: Scan "**1**" "**2**" in Appendix - Numbers
Step6: Scan "**Set Max Length**"

Note: Configurable range for Min/Max Length is 01 ~ 74.

GS1 Composite

Enable/Disable GS1 Composite

.K051$

Enable Composite

.K050$

Disable Composite*

Enable/Disable UPC/EAN Version GS1 Composite

.K054$

Enable UPC/EAN Version GS1 Composite

.K055$

Disable UPC/EAN Version GS1 Composite*

UPC/EAN Version GS1 Composite Required

.K056$

UPC/EAN Version GS1 Composite Required

.K057$

UPC/EAN Version GS1 Composite Not Required*

Note:
When UPC/EAN Version GS1 Composite Required is enabled, the scanner will only read an UPC/EAN barcode with GS1 Composite format.

China Post

Enable/Disable China Post

.K001$

Enable China Post

.K002$

Disable China Post*

China Post Min/Max Length

.K006$

Set Min Length
(Default = 04)

.K007$

Set Max Length
(Default = 80)

Example: Set Min Length as 8, Max Length as 12 for China Post
Step1: Scan "**Set Min Length**"
Step2: Scan "**0**" "**8**" in Appendix - Numbers
Step3: Scan "**Set Min Length**"
Step4: Scan "**Set Max Length**"
Step5: Scan "**1**" "**2**" in Appendix - Numbers

Step6: Scan "**Set Max Length**"

Note: Configurable range for Min/Max Length is 01 ~ 80.

Korea Post

Enable/Disable Korea Post

.K018$

Enable Korea Post

.K019$

Disable Korea Post*

Check Digit

.K020$

Send Check Digit

.K021$

Not Send Check Digit*

Korea Post Min/Max Length

.K022$

Set Min Length
(Default = 04)

.K023$

Set Max Length
(Default = 48)

Example: Set Min Length as 8, Max Length as 12 for Korea Post
Step1: Scan "**Set Min Length**"
Step2: Scan "**0**" "**8**" in Appendix - Numbers
Step3: Scan "**Set Min Length**"
Step4: Scan "**Set Max Length**"
Step5: Scan "**1**" "**2**" in Appendix - Numbers

Step6: Scan "**Set Max Length**"

Note: Configurable range for Min/Max Length is 01 ~ 48.

Other Postal Codes

Enable/Disable Other Postal Codes

.K025$

Other Postal Codes

Code	Option
00	Disable Other Postal Codes
01	Austrialian
02	InfoMail
03	Japanese
04	KIX (Netherlands)
05	Planet
06	Postnet
07	British
08	InfoMail + British
09	Postal-4i
10	Intelligent Mail
11	Postnet with B Fields
12	Planet + Postnet
13	Planet + Postal-4i
14	Postnet + Postal-4i
15	Planet + Intelligent Mail
16	Postnet + Intelligent Mail
17	Postal-4i + Intelligent Mail
18	Planet + Postnet with B Fields
19	Postal-4i + Posnet with B Fields
20	Intelligent Mail + Posnet with B Fields
21	Planet + Postnet + Postal-4i

22	Planet + Postnet + Intelligent Mail
23	Planet + Postal-4i + Intelligent Mail
24	Postnet + Postal-4i + Intelligent Mail
25	Planet + Postal-4i + Posnet with B Fields
26	Planet + Intelligent Mail + Posnet with B Fields
27	Postal-4i + Intelligent Mail + Posnet with B Fields
28	Planet + Postnet + Postal-4i + Intelligent Mail
29	Planet + Postal-4i + Intelligent Mail + Posnet with B Fields
30	Canadian

Example: Enable Japanese Post
Step 1: Scan "**Other Postal Codes**"
Step 2: Scan "**0**" "**3**" in Appendix – Numbers
Step 3: Scan "**Other Postal Codes**"

Planet Code

Check Digit

.K027$

Send Check Digit

.K028$

Not Send Check Digit*

Postnet

Check Digit

.K029$

Send Check Digit

.K030$

Not Send Check Digit*

Australian Post

Interpretation

This option controls what interpretation is applied to customer fields in Australian 4-State symbols. By default, interpretation is Bar Output (Code = 0)

.K026$

Australian Post Interpretatioin

Code	Option
0	Bar Output
1	Numeric N Table
2	Alphanumeric C Table
3	Combination C and N Tables

Example: Set interpretation to Numeric N Table
Step 1: Scan "**Austrailian Post Interpretation**"
Step 2: Scan "**1**" in Appendix – Numbers
Step 3: Scan "**Austrailian Post Interpretation**"

QR Code / Micro QR Code

Enable/Disable QR Code / Micro QR Code

.G025$

Enable QR Code / Micro QR Code*

.G026$

Disable QR Code / Micro QR Code

QR Code / Micro QR Code Min/Max Length

.G029$

Set Min Length
(Default = 0001)

.G030$

Set Max Length
(Default = 4000)

Example: Set Min Length as 8, Max Length as 12 for QR Code / Micro QR Code.
Step1: Scan "**Set Min Length**"
Step2: Scan "**0**" "**0**" "**0**" "**8**" in Appendix - Numbers
Step3: Scan "**Set Min Length**"
Step4: Scan "**Set Max Length**"
Step5: Scan "**0**" "**0**" "**1**" "**2**" in Appendix - Numbers
Step6: Scan "**Set Max Length**"

Note: Configurable range for Min/Max Length is 0001 ~ 4000.

Data Matrix

Enable/Disable Data Matrix

.G031$

Enable Data Matrix*

.G032$

Disable Data Matrix

Data Matrix Min/Max Length

.G033$

Set Min Length
(Default = 0001)

.G034$

Set Max Length
(Default = 3116)

Example: Set Min Length as 8, Max Length as 12 for Data Matrix.
Step1: Scan "**Set Min Length**"
Step2: Scan "**0**" "**0**" "**0**" "**8**" in Appendix - Numbers
Step3: Scan "**Set Min Length**"
Step4: Scan "**Set Max Length**"
Step5: Scan "**0**" "**0**" "**1**" "**2**" in Appendix - Numbers
Step6: Scan "**Set Max Length**"

Note: Configurable range for Min/Max Length is 0001 ~ 3116.

PDF417

Enable/Disable PDF417

.G021$

Enable PDF417*

.G022$

Disable PDF417

PDF417 Min/Max Length

.G023$

Set Min Length
(Default = 0001)

.G024$

Set Max Length
(Default = 2750)

Example: Set Min Length as 8, Max Length as 12 for PDF417.
Step1: Scan "**Set Min Length**"
Step2: Scan "**0**" "**0**" "**0**" "**8**" in Appendix - Numbers
Step3: Scan "**Set Min Length**"
Step4: Scan "**Set Max Length**"
Step5: Scan "**0**" "**0**" "**1**" "**2**" in Appendix - Numbers
Step6: Scan "**Set Max Length**"

Note: Configurable range for Min/Max Length is 0001 ~ 2750.

MicroPDF417

Enable/Disable MicroPDF417

.G039$

Enable MicroPDF417

.G040$

Disable MicroPDF417*

MicroPDF417 Min/Max Length

.G041$

Set Min Length
(Default = 0001)

.G042$

Set Max Length
(Default = 0366)

Example: Set Min Length as 8, Max Length as 12 for MicroPDF417.
Step1: Scan "**Set Min Length**"
Step2: Scan "**0**" "**0**" "**0**" "**8**" in Appendix - Numbers
Step3: Scan "**Set Min Length**"
Step4: Scan "**Set Max Length**"
Step5: Scan "**0**" "**0**" "**1**" "**2**" in Appendix - Numbers
Step6: Scan "**Set Max Length**"

Note: Configurable range for Min/Max Length is 0001 ~ 0366.

Aztec

Enable/Disable Aztec

.G055$

Enable Aztec*

.G056$

Disable Aztec

Aztec Min/Max Length

.G057$

Set Min Length
(Default = 0001)

.G058$

Set Max Length
(Default = 3832)

Example: Set Min Length as 8, Max Length as 12 for Aztec.
Step1: Scan "**Set Min Length**"
Step2: Scan "**0**" "**0**" "**0**" "**8**" in Appendix - Numbers
Step3: Scan "**Set Min Length**"
Step4: Scan "**Set Max Length**"
Step5: Scan "**0**" "**0**" "**1**" "**2**" in Appendix - Numbers
Step6: Scan "**Set Max Length**"

Note: Configurable range for Min/Max Length is 0001 ~ 3832.

MaxiCode

Enable/Disable MaxiCode

.G043$

Enable MaxiCode*

.G044$

Disable MaxiCode

MaxiCode Min/Max Length

.G045$

Set Min Length
(Default = 0001)

.G046$

Set Max Length
(Default = 0150)

Example: Set Min Length as 8, Max Length as 12 for MaxiCode.
Step1: Scan "**Set Min Length**"
Step2: Scan "**0**" "**0**" "**0**" "**8**" in Appendix - Numbers
Step3: Scan "**Set Min Length**"
Step4: Scan "**Set Max Length**"
Step5: Scan "**0**" "**0**" "**1**" "**2**" in Appendix - Numbers
Step6: Scan "**Set Max Length**"

Note: Configurable range for Min/Max Length is 0001 ~ 3832.

Chinese Sensible Code (Han Xin)

Enable/Disable Chinese Sensible Code

.G059$

Enable Chinese Sensible Code

.G060$

Disable Chinese Sensible Code*

Chinese Sensible Code Min/Max Length

.G061$

Set Min Length
(Default = 0001)

.G062$

Set Max Length
(Default = 4000)

Example: Set Min Length as 8, Max Length as 12 for Chinese Sensible Code.
Step1: Scan "**Set Min Length**"
Step2: Scan "**0**" "**0**" "**0**" "**8**" in Appendix - Numbers
Step3: Scan "**Set Min Length**"
Step4: Scan "**Set Max Length**"
Step5: Scan "**0**" "**0**" "**1**" "**2**" in Appendix - Numbers
Step6: Scan "**Set Max Length**"

Note: Configurable range for Min/Max Length is 0001 ~ 4000.

Codablock A

Enable/Disable Codablock A

.G047$

Enable Codablock A

.G048$

Disable Codablock A*

Warning:
Once enabled, Code 39 will be automatically disabled to reduce the risks of mistakenly decoding a damaged Codablock A as a Code 39 symbol.

Codablock A Min/Max Length

.G049$

Set Min Length
(Default = 0001)

.G050$

Set Max Length
(Default = 0600)

Example: Set Min Length as 8, Max Length as 12 for Codablock A.
Step1: Scan "**Set Min Length**"
Step2: Scan "**0**" "**0**" "**0**" "**8**" in Appendix - Numbers
Step3: Scan "**Set Min Length**"
Step4: Scan "**Set Max Length**"
Step5: Scan "**0**" "**0**" "**1**" "**2**" in Appendix - Numbers
Step6: Scan "**Set Max Length**"

Note: Configurable range for Min/Max Length is 0001 ~ 0600.

Codablock F

Enable/Disable Codablock F

.G051$

Enable Codablock F

.G052$

Disable Codablock F*

Note:
When Codablock F and Code 128 are both enabled, there is some risks of mistakenly decoding a damaged Codablock F symbol as a Code 128 symbol. Therefore, whenever possible, Code 128 should be disabled when Codablock F is enabled.

Codablock F Min/Max Length

.G053$

Set Min Length
(Default = 0001)

.G054$

Set Max Length
(Default = 2048)

Example: Set Min Length as 8, Max Length as 12 for Codablock F.
Step1: Scan "**Set Min Length**"
Step2: Scan "**0**" "**0**" "**0**" "**8**" in Appendix - Numbers
Step3: Scan "**Set Min Length**"
Step4: Scan "**Set Max Length**"
Step5: Scan "**0**" "**0**" "**1**" "**2**" in Appendix - Numbers
Step6: Scan "**Set Max Length**"

Note: Configurable range for Min/Max Length is 0001 ~ 2048.

Chapter 7 Appendix

Appendix – Numbers

0

1

2

3

4

5

6

7

8

9

Appendix – Upper Case Alphabets

A

B

C

D

E

F

G

H

I

J

K

L

M

N

O

P

Q

R

S

T

U

V

W

X

Y

Z

Appendix – Lower Case Alphabets

+A

a

+B

b

+C

c

+D

d

+E

e

+F

f

+G

g

+H

h

+I

i

+J

j

+K

k

+L

l

+M

m

+N

n

+O

o

+P

p

+Q

q

+R

r

+S

s

+T

t

+U

u

+V

v

+W

w

+X

x

+Y

y

+Z

z

Appendix – Control Codes

%U

NUL

$A

SOH

$B

STX

$C

ETX

$D

EOT

$E

ENQ

$F

ACK

$G

BEL

$H

BS

$I

HT

$J

LF

$K

VT

$L

FF

$M

CR

$N

SO

$O

SI

$P

DLE

$Q

DC1

$R

DC2

$S

DC3

$T

DC4

$U

NAK

$V

SYN

$W

ETB

$X

CAN

$Y

EM

$Z

SUB

%A

ESC

%B

FS

%C

GS

%D

RS

%E

US

Appendix – Symbols

+

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%Q

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%J

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SP

%T

DEL

Appendix – Function Keys

$TA

F1

$TB

F2

$TC

F3

$TD

F4

$TE

F5

$TF

F6

$TG

F7

$TH

F8

$TI

F9

$TJ

F10

$TK

F11

$TL

F12

$TM

Home

$TN

End

$T+D

Enter (Numeric Key)

$T+O

App

Appendix – Navigation Keys

$TP

Cursor Left

$TO

Cursor Right

$TQ

Cursor Up

$TR

Cursor Down

$TS

Page Up

$TT

Page Down

$TU

Tab

$TV

Back Tab

$TW

Esc

$TX

Enter

$TY

BS

$TZ

Ins

$T%K

Del

Appendix – Modifier Keys

$T%L

Alt (Left) make *1

$T%M

Alt (Left) break

$T+E

Alt (Right) make

$T+F

Alt (Right) break

$T%N

Shift (Left) make *2

$T%O

Shift (Left) break

$T+I

Shift (Right) make

$T+J

Shift (Right) break

$T+K

Win (Left) make

$T+L

Win (Left) break

$T+M

Win (Right) make

$T+N

Win (Right) break

$T%W

Ctrl (Left) make *3

$T+A

Ctrl (Left) break

$T+G

Ctrl (Right) make

$T+H

Ctrl (Right) break

Note:
*1: When "Alt (Left) make" is programmed, please scan "Alt (Left) break" to resume barcode setting.
*2: When "Shift (Left) make" is programmed, please scan "Shift (Left) break" to resume barcode setting.
*3: When "Ctrl (Left) make" is programmed, please scan "Ctrl (Left) break" to resume barcode setting.

Appendix – Abort

If there is an error reading data barcode during multi-step configuration, you may cancel configuration by scanning below configuration barcode.

.P023$

Abort

Appendix – Default Table

Function	Default	Remark
General Settings		
Barcode Configurability (Setup Code)	ON	
Beep Tone	Medium (2.7KHz)	
Vibrator	OFF	
Indicator LED	ON	
Data Format		
UTF-8 to Unicode Conversion	OFF	
Country Code Page	West European Latin	
HT/CR/ESC Converts to TAB/ENTER/ESCAPE	OFF	
Function Code Conversion	ON	
Control Code Output Method	Ctrl Mode	
Numeric Key	OFF	
OPOS	OFF	
Capital Lock Mode	OFF	
Image Settings		
Inverse Barcode	OFF	
Centering	OFF	
Interface		
USB HID	N/A	
Keyboard Layout	English (US)	
Intercharacter Delay	0ms	
Interblock Delay	0ms	
USB VCP	N/A	
Baud Rate	9600	
Data Bits & Parity	8 Bits None	
Stop Bits	1 Stop Bit	
Handshaking	None	
ACK/NAK	OFF	
Reading Mode		
Trigger Mode	N/A	
Continuous Mode	N/A	
Auto-sensing Mode	Auto-sensing Mode	
Auto-sensing Mode – Magnetic Switch	ON	
LED Auto-Off Timeout	Continuous	
Data Format		

Code ID	Disable
Set ID	N/A
Data Length	OFF
Preamble	N/A
Postamble	N/A
Terminator	CR
Symbologies	
General Settings	N/A
UPC-A	
Enable/Disable	ON
Lead Digit (Number System)	Send
Check Digit	Send
UPC-A Expand to EAN-13	OFF
5-digit Supplement	OFF
2-digit Supplement	OFF
Add A Space	ON
Addenda Required	OFF
UPC-E	
Enable/Disable	ON
Lead Digit (Number System)	Send
Check Digit	Send
UPC-E Expand to UPC-A	OFF
5-digit Supplement	OFF
2-digit Supplement	OFF
Add A Space	ON
Addenda Required	OFF
UPC-E1	OFF
EAN-8	
Enable/Disable	ON
Check Digit	Send
5-digit Supplement	OFF
2-digit Supplement	OFF
Add A Space	ON
Addenda Required	OFF
EAN-13	
Enable/Disable	ON
Check Digit	Send
ISBN	OFF
5-digit Supplement	OFF
2-digit Supplement	OFF

Add A Space	ON
Addenda Required	OFF
Code 128	
Enable/Disable	ON
ISBT 128 Concatenation	OFF
Min Length	01
Max Length	80
GS1-128	
Enable/Disable	ON
Min Length	01
Max Length	80
Code 39	
Enable/Disable	ON
Verification	Disable CDV
Start/Stop	Not Send
Full ASCII Code39	ON
Min Length	01
Max Length	48
Code 32	
Enable/Disable	OFF
Code 93	
Enable/Disable	ON
Min Length	01
Max Length	80
Code 11	
Enable/Disable	OFF
Verification	CDV & Send CD (1 Digit)
Check Digit	Not Send
Min Length	04
Max Length	80
Codabar (NW-7)	
Enable/Disable	ON
Verification	Disable CDV
Start/Stop	Not Send
Min Length	04
Max Length	60
Concatenation	OFF
Interleaved 2 of 5	
Enable/Disable	ON
Verification	Disable CDV

Min Length	04
Max Length	80
Standard 2 of 5 (IATA)	
Enable/Disable	ON
Min Length	04
Max Length	48
Matrix 2 of 5	
Enable/Disable	OFF
Min Length	04
Max Length	48
Industrial 2 of 5	
Enable/Disable	OFF
Min Length	04
Max Length	48
NEC 2 of 5	
Enable/Disable	ON
Verification	Disable CDV
Min Length	04
Max Length	80
MSI Plessey	
Enable/Disable	OFF
Verification	Send MOD10 & Not Send CD
Min Length	04
Max Length	48
GS1 DataBar	
Enable/Disable	ON
GS1 DataBar Limited	
Enable/Disable	OFF
GS1 DataBar Expanded	
Enable/Disable	OFF
Min Length	04
Max Length	74
GS1 Composite	
Enable/Disable	OFF
UPC/EAN Version GS1 Composite	OFF
UPC/EAN Version GS1 Composite Required	Not Required
China Post	
Enable/Disable	OFF
Min Length	04

Max Length	80
Korea Post	
Enable/Disable	OFF
Check Digit	Send
Min Length	04
Max Length	48
Other Postal Codes	
Enable/Disable	OFF
Planet Code	
Check Digit	Not Send
Postnet Code	
Check Digit	Not Send
Australian Post	
Interpretation	Bar Output
QR Code / Micro QR Code	
Enable/Disable	ON
Min Length	0001
Max Length	4000
Data Matrix	
Enable/Disable	ON
Min Length	0001
Max Length	3116
PDF417	
Enable/Disable	ON
MicroPDF417	
Enable/Disable	OFF
Aztec	
Enable/Disable	ON
Min Length	0001
Max Length	3832
MaxiCode	
Enable/Disable	ON
Min Length	0001
Max Length	0150
Chinese Sensible Code (Han Xin)	
Enable/Disable	OFF
Min Length	0001
Max Length	4000
Codablock A	
Enable/Disable	OFF

Min Length	0001
Max Length	0600
Codablock F	
Enable/Disable	OFF
Min Length	0001
Max Length	2048

Appendix – Factory ID and AIM ID Table

#	Symbology	Factory ID	AIM ID	AIM ID Modifier (m)
0	Code 39 Full ASCII Code 39	M D	]Am	0,1,3,4,5,7
1	Code 32	B	]X0	
2	Codabar	N	]Fm	0,1,2,6
3	Interleaved 2 of 5	I	]Im	0,1,3
4	NEC 2 of 5	n	]X0	
5	Standard 2 of 5 (IATA)	R	]R0	
6	Matrix 2 of 5	Y	]X0	
7	Industrial 2 of 5	V	]S0	
8	Code 11	J	]H3	
9	MSI Plessey	O	]Mm	0,1,2,3,5,6,7
10	EAN-13	F	]Em	0,3
11	UPC-A	A	]Em	0,3
12	EAN-8	S	]E4	
13	UPC-E	E	]Em	0,3
14	Code 93	L	]G0	
15	Code 128	K	]C0	
16	GS1-128	T	]C1	
17	GS1 DataBar GS1 DataBar Limited GS1 DataBar Expanded	G I e	]e0	
18	GS1 Composite	N/A	]em	0,1
19	China Post	H	]X0	

20	Korea Post	k	]X0
21	Australian Post	a	]X0
22	British Post	b	]X0
23	Canadian Post	c	]X0
24	Japanese Post	j	]X0
25	KIX (Netherlands) Post	x	]X0
26	InfoMail Code	m	]X0
27	Intelligent Code	i	]X0
28	Planet Code	f	]X0
29	Postal-4i Code	4	]X0
30	Postnet Code	p	]X0
31	PDF417	Z	]L0
32	MicroPDF417	r	]L0
33	QR Code	W	]Q0
34	Data Matrix	X	]d0
35	MaxiCode	u	]U0
36	Codablock A	g	]O6
37	Codablock F	C	]O0
38	Aztec	z	]z0
39	Chinese Sensible Code (Han Xin)	Q	]X0

Appendix – ASCII Table

Note: ASCII 0~31 are non-printable characters, ASCII 32~127 are printable characters.

Hex	Dec	ASCII
00	00	NUL (Null char.)
01	01	SOH (Start of Header)
02	02	STX (Start of Text)
03	03	ETX (End of Text)
04	04	EOT (End of Transmission)
05	05	ENQ (Enquiry)
06	06	ACK (Acknowledgment)
07	07	BEL (Bell)
08	08	BS (Backspace)
09	09	HT (Horizontal Tab)
0A	10	LF (Line Feed)
0B	11	VT (Vertical Tab)
0C	12	FF (Form Feed)
0D	13	CR (Carriage Return)
0E	14	SO (Shift Out)
0F	15	SI (Shift In)
10	16	DLE (Data Link Escape)
11	17	DC1 (XON) (Device Control 1)
12	18	DC2 (Device Control 2)
13	19	DC3 (XOFF) (Device Control 3)
14	20	DC4 (Device Control 4)
15	21	NAK (Negative Acknowledgment)
16	22	SYN (Synchronous Idle)
17	23	ETB (End of Trans. Block)
18	24	CAN (Cancel)
19	25	EM (End of Medium)
1A	26	SUB (Substitute)
1B	27	ESC (Escape)
1C	28	FS (File Separator)
1D	29	GS (Group Separator)
1E	30	RS (Request to Send)
1F	31	US (Unit Separator)
20	32	SP (Space)
21	33	! (Exclamation Mark)
22	34	“ (Double Quote)

23	35	# (Number Sign)
24	36	$ (Dollar Sign)
25	37	% (Percent)
26	38	& (Ampersand)
27	39	` (Single Quote)
28	40	((Right / Closing Parenthesis)
29	41	) (Right / Closing Parenthesis)
2A	42	* (Asterisk)
2B	43	+ (Plus)
2C	44	, (Comma)
2D	45	- (Minus / Dash)
2E	46	. (Dot)
2F	47	/ (Forward Slash)
30	48	0
31	49	1
32	50	2
33	51	3
34	52	4
35	53	5
36	54	6
37	55	7
38	56	8
39	57	9
3A	58	: (Colon)
3B	59	; (Semi-colon)
3C	60	< (Less Than)
3D	61	= (Equal Sign)
3E	62	> (Greater Than)
3F	63	? (Question Mark)
40	64	@ (AT Symbol)
41	65	A
42	66	B
43	67	C
44	68	D
45	69	E
46	70	F
47	71	G
48	72	H
49	73	I
4A	74	J

4B	75	K
4C	76	L
4D	77	M
4E	78	N
4F	79	O
50	80	P
51	81	Q
52	82	R
53	83	S
54	84	T
55	85	U
56	86	V
57	87	W
58	88	X
59	89	Y
5A	90	Z
5B	91	[(Left / Opening Bracket)
5C	92	\ (Back Slash)
5D	93	] (Right / Closing Bracket)
5E	94	^ (Caret / Circumflex)
5F	95	_ (Underscore)
60	96	‘ (Grave Accent)
61	97	a
62	98	b
63	99	c
64	100	d
65	101	e
66	102	f
67	103	g
68	104	h
69	105	I
6A	106	j
6B	107	k
6C	108	l
6D	109	m
6E	110	n
6F	111	o
70	112	p
71	113	q
72	114	r

73	115	s
74	116	t
75	117	u
76	118	v
77	119	w
78	120	x
79	121	y
7A	122	z
7B	123	{ (Left/ Opening Brace)
7C	124	| (Vertical Bar)
7D	125	} (Right/Closing Brace)
7E	126	~ (Tilde)
7F	127	DEL (Delete)

Version History

Rev	Date	Description	Issued
2.0	2023.11.14	FW: HM3-h-1.00.G1 S01 Initial Release	Shaw
2.1	2023.11.24	Updated Control Code Table	Shaw