

90287

Serial Commands Manual

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Introduction

This document describes the serial commands in ASCII equivalents for host parameter programming through RS232 interface. All commands can be sent via PC COM port using serial communication software.

Product Requirements

The following products, when programmed with the specified firmware, support serial commands operation via given interface:

Model	Firmware Version	Interface
90287	SM3-g-2.xx.CMD or up	RS232

Default Communication Protocols

Baud rate = 9600

Data Bits = 8

Parity = None

Stop Bit = 1

Handshaking = None

Flow Control Timeout = None

ACK/NAK = OFF

BCC = OFF

Packet Format

From Host to Scan Engine:

The following table shows the general packet format of serial commands sent from host to scan engine.

Initial Code	Order Code	State Code	Parameter	End Code
1 byte	4 bytes	2 bytes	(variable)	1 byte

Initial Code: Fixed, one ASCII character: **{** (ASCII 123, or HEX 0x7B)

Order Code: 4 bytes, operation code to identify the property of each command

State Code: 2 bytes, **RR**(Read operation) or **WT**(Write operation).

When State Code is **RR**, parameter is not needed.

When State Code is **WT**, parameter should be defined.

Parameter: Variable, specifies the detailed instruction of each command.

End Code: Fixed, one ASCII character: **}** (ASCII 125, or HEX 0x7D)

From Scan Engine to Host:

The following table shows the general packet format of response sent from scan engine to host:

Initial Code	Order Code	Division Code	Parameter	End Code
1 byte	4 bytes	1 byte	(variable)	1 byte

Initial Code: 1 byte, one fixed ASCII character: **{** (ASCII 123, or HEX 0x7B)

Order Code: 4 bytes, operation code to identify the property of each response

Division Code: 1 byte, one ASCII character: **,** (ASCII 44, or HEX 0x2C)

The purpose of this code is simply to divide the Order Code and the Parameter.

Parameter: Variable, specifies the detailed instruction of each command.

End Code: 1 byte, one fixed ASCII character: **}** (ASCII 125, or hex 0x7D)

Example1:

```
Host >> Scan Engine      {MC03RR}
Scan Engine >> Host      {MC03,0,0,0}
```

Example2:

```
Host >> Scan Engine      {MC02WT0,0,1}
Scan Engine >> Host      {MC02,OK}
```

Command Descriptions

General Commands

[Trigger Commands](#)

You can activate the scan engine with serial trigger commands. First, the scan engine must be set to Serial Trigger Mode by sending a serial command (see [Reading Mode](#)). Once the scan engine is in serial trigger mode, the trigger is activated by sending the following commands:

{G} (ASCII 123,71,125 or HEX 0x7B,0x47,0x7D)

The scan engine will keep scanning until a barcode is successful read, or until a pre-set timeout (see [LED Auto-Off Control](#)) has elapsed. Otherwise, you may also send below command to deactivate the scanning:

{S} (ASCII 123,83,125 or HEX 0x7B,0x53,0x7D)

[Read All Parameters](#)

When below command is sent, the scan engine will return "{MALL,##}", which represents all of the current settings of the scan engine:

{MALLRR}

[Reset Scanner to Default](#)

When below command is sent to the scan engine, all settings will be reset to default, including communication protocols (9600, 8, N, 1)

{MDEFWT}

[Check Firmware Version](#)

When below command is sent to the scan engine, the scan engine will return a string of data that represents current firmware version.

{MVERRR}

[Reading Mode](#)[No-Read Message Control](#)[Trigger Application Control](#)[Auto Sensing](#)

Property	Command	Option	Remark
Reading Mode	{MC01WT 7 }	1 Trigger Mode 4 Continuous Mode 5 Continuous Auto Off Mode 6 Serial Trigger Mode 7 Infrared Auto Sensing Mode 8 CCD Auto Sensing Mode	Default : Infrared Auto Sensing Mode
LED Auto-Off Control	{MC10WT 0 ,1,1,1,6 0,0,#71,#83}	0 Disable 1 Enable	Default : Disable When enabled, LED illumination will automatically turn off after No-Read Timeout elapses. For Serial Trigger mode.
No-Read Status	{MC09WT 0 ,#78,#11, #32,#82,#101,#97, #100}	0 Not send 1 Send	Default : Not send When enabled, a No-read message will be sent after Send Time elapses. Configurable after LED Auto-Off Control is enabled. For Serial Trigger mode.
No-Read Message	{MC09WT 0 ,#78, #11, #32,#82,#101,#97, #100 }	Can be a string of up to 7 digits composed of alphanumeric characters (displayed in decimal value of ASCII code) or control codes.	Default : No Read The message being sent after Send Time elapse. Configurable after No-Read Status is set as Send. For Serial Trigger mode.
No-Read Timeout	{MC10WT 0 ,1,1,1,1, 60, 0 ,#71,#83}	A number from 1~60. 0 = Continuous	Default : 0 sec (Continuous) The period of time before LED illumination being automatically turned off, or before no-read message being sent. Configurable when LED Auto-Off Control is Enable. For all reading modes.
Trigger Application	{MC10WT 0 , 1 ,1,1,1, 60,0,#71,#83}	0 Off 1 On	Default : On When enabled, the scanner can be controlled by hardware trigger signal. For Serial Trigger mode.
Identical Read Interval	{MC10WT 0 ,1, 1 ,1,6 0,0,#71,#83}	A number from 0~60.	Default : 1 sec Timeout between identical consecutive decoding (0~60 sec). For Continuous/Continuous Auto Off mode/CCD Auto Sensing mode.
Scan Interval	{MC10WT 0 ,1,1, 1 ,6 0,0,#71,#83}	A number from 1~60.	Default : 1 sec The interval between two consecutive scans. For Continuous / Continuous Auto Off Mode.

LED Auto-Off Timeout	{MC10WT0,1,1,1, 6 0,0,#71,#83}	A number from 3~60.	Default : 60 sec The period of inactivity before LED automatically turns off when scanner is set to Continuous Auto Off mode.
Start Scanning Character	{MC10WT0,0,1,60, 60,3, #71 ,#83}	Can be 0~1 digit of alphanumeric characters (displayed in decimal value of ASCII code) or function codes.	Default : G key Upon receiving the Serial Trigger Character the LED will stay on until a successful decode.
Stop Scanning Character	{MC10WT0,0,1,60, 60,3,#71, #83 }	Can be 0~1 digit of alphanumeric characters (displayed in decimal value of ASCII code) or function codes.	Default : S key Stop scanning characters.
CCD Sensor Sensitivity	{MC14WT 10 ,0,0,1}	A number from 1~24. 1~20 The smaller the value, the more sensitive. 21 Low Sensitivity 22 Normal Sensitivity 23 High Sensitivity 24 Enhanced Sensitivity	Default : 10 A numeric range that increases or decreases the scanner's reaction time to the barcode presentation. 1 is the most sensitive settings, and 20 is the least sensitive. For CCD Auto Sensing Mode.
Infrared Sensor Status	{MC14WT10, 0 ,0,1}	0 Off 1 On	Default : Off Once enabled, this function can help scanner detect barcode/object in low ambient light condition when in CCD Auto Sensing Mode. For CCD Auto Sensing Mode.
Identical Read Timeout	{MC14WT10,0,0, 0 ,1}	0 Not Configurable	The timeout(3~30 sec) between two identical barcode read. For Auto Sensing Mode.
Auto Sensing Range	{MC14WT10,0,0, 1 }	0 Short 1 Middle 2 Long	Default : Middle Auto-sensing range adjustment. For CCD Auto Sensing Mode/ Infrared Auto Sensing Mode

Code ID, Send Data Length & Label Type

Interblock Delay, Intercharacter Delay & Accuracy Adjustment

Preamble

Postamble

Terminator

Property	Command	Option	Remark
Code ID	{MC02WT 0 ,0,0,0}	0 Disable Code ID 1 Factory ID On 2 AIM ID On 3 Set ID On	Default : Disable Code ID Send Code ID before every output data.
Send Data Length	{MC02WT0, 0 ,0,0}	0 Off 1 On	Default : Off Send data length before every output data.
Label Type	{MC02WT0,0, 0 ,0}	0 Positive 1 Positive & Negative	Default : Positive Enable negative label barcode decodability.
Data Length Digits	{MC02WT0,0,0, 0 }	0 Four 1 Two or Four	Default : Four Number of digits of data length.

Interblock Delay	{MC03WT 0 ,0,0}	0 0 ms 1 10 ms 2 50 ms 3 100 ms 4 200 ms 5 500 ms	Default : 0 ms Time interval between every consecutive reads.
Intercharacter Delay	{MC03WT0, 0 ,0}	0 140 us 1 500 us 2 1 ms 3 4 ms 4 16 ms	Default : 140 us Time interval between characters in an output data.
Accuracy Adjustment	{MC03WT0,0, 0 }	0 Not Configurable	Default : 0 Accuracy Adjustment assures a more reliable decoded output. The higher the value, the greater the accuracy. However it is inversely proportional to the decoding speed.
Preamble	{MC05WT 0 ,#255,#255,#255,#255}	0 Disable 1 Enable	Default : Disable
Preamble Data	{MC05WT0, #255,#255,#255,#255 }	Can be a string up to 16 digits composed of alphanumeric characters (displayed in decimal value of ASCII code) or control codes.	Default : Null Preamble is a prefix of up to 5 alphanumeric characters/control codes added to the beginning of an output data.
Postamble	{MC06WT 0 ,#255,#255,#255,#255}	0 Disable 1 Enable	Default : Disable
Postamble Data	{MC06WT0, #255,#255,#255,#255 }	Can be a string up to 16 digits composed of alphanumeric characters (displayed in decimal value of ASCII code) or control codes.	Default : Null Postamble is a suffix of up to 5 alphanumeric characters/function keys added to the end of an output data.
Terminator	{MC04WT #13,#10 }	Can be a string up to 2 digits composed of alphanumeric characters (displayed in decimal value of ASCII code) or control codes.	Default : CR+LF Ending character(s) of an output data (before Postamble)

Baud Rate, Data Length, Parity & Stop Bits

Handshaking, ACK/ NAK, Timeout & BCC character

Property	Command	Option	Remark
Baud Rate	{MC07WT 4 ,1,0,0}	0 600 bps 1 1200 bps 2 2400 bps 3 4800 bps 4 9600 bps 5 19200 bps 6 38400 bps 7 300 bps	Default : 9600 bps The number of times a signal in transmission changes state or varies.
Data Length	{MC07WT4, 1 ,0,0}	0 7 bits 1 8 bits	Default : 8 bits The number of data bits of a frame in transmission.

Parity	{MC07WT4,1,0,0}	0 None 1 Even 2 Odd 3 Space 4 Mark	Default : None Data Parity is a bit that is added at the end of the data bits to ensure the total number of "1" in a set of bits is even or odd.
Stop Bits	{MC07WT4,1,0,0}	0 One 1 Two	Default : One The number of stop bit added to the end of data bits in transmission.
Handshaking	{MC08WT0,0,1,0}	0 None 1 RTS enabled at Power up 2 RTS enabled in Communication	Default : None Handshaking (RTS) status.
ACK / NAK	{MC08WT0,0,1,0}	0 Off 1 On	Default : Off Once enabled, the scanner will emit 3 warning beeps (via external buzzer) if the host, after receiving engine's barcode data, does not reply "ACK (0x06)" or "NAK (0x15)" after a configurable timeout (1 sec/3 sec/10 sec or unlimited). Scan engine will re-send barcode data if host replies "NAK (0x15)".
ACK / NAK Timeout	{MC08WT0,0,1,0}	0 Unlimited 1 1 sec 2 3 sec 3 10 sec	Default : 1 sec The configurable timeout that the scanner should wait before emitting 3 warning beeps when ACK / NAK is enabled.
BCC Character	{MC08WT0,0,1,0}	0 Disable 1 Enable	Default : Disable Block check character (BCC) is a character added to a transmission block to facilitate error detection.

Command Receipt (Ask State)

Beeper Control

Property	Command	Option	Remark
Command Receipt (Ask State)	{MASKWT1}	0 Not send 1 Send	Default : Send Status of acknowledgment (receipt of response) as part of the communication protocol.
Good Read LED	{MC13WT1,1,0,15}	0 Disable 1 Enable	Default : Enable Once enabled, the scanner's external indicator LED will turn on for every successful decode.
Good Read Beep	{MC13WT1,1,0,15}	0 Disable 1 Medium 2 Low 3 High	Default : Medium Once enabled, the scanner will beep for every successful decode via external buzzer.
Beeper Control	{MC13WT1,1,0,15}	0 Standard 1 Warning Beep Only 2 Mute	Default : Standard 1. Standard = Enables good read beep/ warning beep/ power-up beep/ setup beep 2. Warning Beep Only = Enables warning beep only 3. Mute = Completely silent in any condition
Good Read Beep Duration	{MC13WT1,1,0,15}	A number from 4 to 20. Unit is 10mS.	Default : 150mS The duration of good read beep.

Symbologies Commands

Code 39 & Full ASCII C39

Property	Command	Option	Remark
Code 39 Status	{MB01WT1,0,1,0,2,48,#98,#45,1,#98,#70}	0 Disable 1 Enable	Default : Enable Code 39 barcode symbology status.
Check Digit (Code 39)	{MB01WT1,0,1,0,2,48,#98,#45,1,#98,#70}	0 Off 1 On	Default : Off Code 39 Check Digit Verification status.
Send CD (Code 39)	{MB01WT1,0,1,0,2,48,#98,#45,1,#98,#70}	0 Not send CD 1 Send CD	Default : Send CD Check Digit status in a decoded Code 39 output data.
Start & Stop (Code 39)	{MB01WT1,0,1,0,2,48,#98,#45,1,#98,#70}	0 Not send 1 Send	Default : Not send Status of Start and Stop characters in a decoded Code 39 output data.
Min Length (Code 39)	{MB01WT1,0,1,0,2,48,#98,#45,1,#98,#70}	A number from 2~99	Default : 2 The minimum length of barcode to be decoded.
Max Length (Code 39)	{MB01WT1,0,1,0,2,48,#98,#45,1,#98,#70}	A number from 2~99	Default : 48 The maximum length of barcode to be decoded.
Set Code ID (Code 39)	{MB01WT1,0,1,0,2,48,#98,#45,1,#98,#70}	Can be 0~2 digits of alphanumeric characters (ASCII code).	Default : b- The Code ID shown at the beginning of an output data when Set ID (cf. Code ID) is enabled.
Full ASCII Code 39 Status	{MB01WT1,0,1,0,2,48,#98,#45,1,#98,#70}	0 Disable 1 Enable	Default : Enable Full ASCII Code 39 barcode symbology status.
Set Code ID (Full ASCII Code 39)	{MB01WT1,0,1,0,2,48,#98,#45,1,#98,#70}	Can be 0~2 digits of alphanumeric characters (ASCII code)	Default : bF The ID shown at the beginning of an output data when Set ID (cf. Code ID) is enabled.

Codabar

Property	Command	Option	Remark
Codabar Status	{MB03WT1,0,1,1,0,0,2,60,#97,#45}	0 Disable 1 Enable	Default : Enable Codabar barcode symbology status.
Check Digit (Codabar)	{MB03WT1,0,1,1,0,0,2,60,#97,#45}	0 Off 1 On	Default : Off Codabar Check Digit Verification status.
Send CD (Codabar)	{MB03WT1,0,1,1,0,0,2,60,#97,#45}	0 Not send CD 1 Send CD	Default : Send CD Check Digit status in a decoded Codabar output data.
Start & Stop (Codabar)	{MB03WT1,0,1,1,0,0,2,60,#97,#45}	0 Not send 1 Send	Default : Send Status of Start and Stop characters in a decoded Codabar output data.
Start & Stop Type (Codabar)	{MB03WT1,0,1,1,0,0,2,60,#97,#45}	0 ABCD / ABCD 1 abcd / abcd 2 ABCD / TN*E 3 abcd / tn*e	Default : ABCD / ABCD The format of Start and Stop characters in a decoded Codabar output data.
Min Length (Codabar)	{MB03WT1,0,1,1,0,0,2,60,#97,#45}	A number from 2~99.	Default : 2 The minimum length of barcode to be decoded.

Max Length (Codabar)	{MB03WT1,0,1,1,0,0,2, 60 ,#97,#45}	A number from 2~99.	Default : 60 The maximum length of barcode to be decoded.
Set Code ID (Codabar)	{MB03WT1,0,1,1,0,0,2,60, #97, #45 }	Can be 0~2 digits of alphanumeric characters(ASCII code).	Default : a- The Code ID shown at the beginning of an output data when Set ID (cf. Code ID) is enabled.

Interleaved 2/5

Property	Command	Option	Remark
Interleaved 2/5 Status	{MB05WT 1 ,0,1,0,6,80,#101,#45}	0 Disable 1 Enable	Default : Enable Interleaved 2/5 barcode symbology status.
Check Digit (Interleaved 2/5)	{MB05WT1, 0 ,1,0,6,80,#101,#45}	0 Off 1 On	Default : Off Interleaved 2/5 Check Digit Verification status
Send CD (Interleaved 2/5)	{MB05WT1,0, 1 ,0,6,80,#101,#45}	0 Not send CD 1 Send CD	Default : Send CD Check Digit status in a decoded Interleaved 2/5 output data.
Min Length (Interleaved 2/5)	{MB05WT1,0,1,0, 6 ,80,#101,#45}	A number from 4~99.	Default : 6 The minimum length of barcode to be decoded.
Max Length (Interleaved 2/5)	{MB05WT1,0,1,0,6, 80 ,#101,#45}	A number from 4~99.	Default : 80 The maximum length of barcode to be decoded.
Set Code ID (Interleaved 2/5)	{MB05WT1,0,1,0,6,80, #101,#45 }	Can be 0~2 digits of alphanumeric characters(ASCII code).	Default : e- The ID shown at the beginning of an output data when Set ID (cf. Code ID) is enabled.
ITF-14 Status	{MB27WT 0 ,1,0,0}	0 Disable 1 Enable	Default : Disable ITF-14 barcode symbology status.
Send CD (ITF-14)	{MB27WT0, 1 ,0,0}	0 Not send CD 1 Send CD	Default : Send CD Whether to send Check Digit in a decoded ITF-14 output data.
ITF-6 Status	{MB27WT0,1, 0 ,0}	0 Disable 1 Enable	Default : Disable ITF-6 barcode symbology status.
Send CD (ITF-6)	{MB27WT0,1,0, 0 }	0 Not send CD 1 Send CD	Default : Not Seend CD Whether to send Check Digit in a decoded ITF-6 output data.

[Standard\(IATA\) 2/5](#)

Property	Command	Option	Remark
Standard 2/5 Status	{MB07WT 1 ,0,1,6,48,#102,#45}	0 Disable 1 Enable	Default : Enable Standard 2/5 barcode symbology status.
Check Digit (Standard 2/5)	{MB07WT1,0, 0 ,1,6,48,#102,#45}	0 Off 1 On	Default : Off Standard 2/5 Check Digit Verification status.
Send CD (Standard 2/5)	{MB07WT1,0, 1 ,6,48,#102,#45}	0 Not send CD 1 Send CD	Default : Send CD Whether to send Check Digit in a decoded Standard 2/5 output data.
Min Length (Standard 2/5)	{MB07WT1,0,1, 6 ,48,#102,#45}	A number from 3~99.	Default : 6 The minimum length of barcode to be decoded.
Max Length (Standard 2/5)	{MB07WT1,0,1,6, 48 ,#102,#45}	A number from 3~99.	Default : 48 The maximum length of barcode to be decoded.
Set Code ID (Standard 2/5)	{MB07WT1,0,1,6,48, #102,#45 }	Can be 0~2 digits of alphanumeric characters(ASCII code).	Default : f- The ID shown at the beginning of an output data when Set ID (cf. Code ID) is enabled.

[Matrix 2/5](#)

Property	Command	Option	Remark
Matrix 2/5 Status	{MB08WT 0 ,1,0,6,80,#118,#45}	0 Disable 1 Enable	Default : Disable Matrix 2/5 barcode symbology status.
Check Digit (Matrix 2/5)	{MB08WT0, 1 ,0,6,80,#118,#45}	0 Off 1 On	Default : On Matrix 2/5 Check Digit Verification status.
Send CD (Matrix 2/5)	{MB08WT0,1, 0 ,6,80,#118,#45}	0 Not send CD 1 Send CD	Default : Not Send CD Whether to send Check Digit in a decoded Matrix 2/5 output data.
Min Length (Matrix 2/5)	{MB08WT0,1,0, 6 ,80,#118,#45}	A number from 3~99.	Default : 6 The minimum length of barcode to be decoded.
Max Length (Matrix 2/5)	{MB08WT0,1,0,6, 80 ,#118,#45}	A number from 3~99.	Default : 80 The maximum length of barcode to be decoded.
Set Code ID (Matrix 2/5)	{MB08WT0,1,0,6,80, #118,#45 }	Can be 0~2 digits of alphanumeric characters(ASCII code).	Default : v- The ID shown at the beginning of an output data when Set ID (cf. Code ID) is enabled.

Industrial 2/5

Property	Command	Option	Remark
Industrial 2/5 Status	{MB09WT1,0,1,6,48,#73,#45}	0 Disable 1 Enable	Default : Enable Industrial 2/5 barcode symbology status.
Check Digit (Industrial 2/5)	{MB09WT1,0,1,6,48,#73,#45}	0 Off 1 On	Default : Off Industrial 2/5 Check Digit Verification status.
Send CD (Industrial 2/5)	{MB09WT1,0,1,6,48,#73,#45}	0 Not send CD 1 Send CD	Default : Send CD Whether to send Check Digit in a decoded Industrial 2/5 output data.
Min Length (Industrial 2/5)	{MB09WT1,0,1,6,48,#73,#45}	A number from 3~99.	Default : 6 The minimum length of barcode to be decoded.
Max Length (Industrial 2/5)	{MB09WT1,0,1,6,48,#73,#45}	A number from 3~99.	Default : 48 The maximum length of barcode to be decoded.
Set Code ID (Industrial 2/5)	{MB09WT1,0,1,6,48,#73,#45}	Can be 0~2 digits of alphanumeric characters(ASCII code).	Default : I- The ID shown at the beginning of an output data when Set ID (cf. Code ID) is enabled.

Code 11 2/5

Property	Command	Option	Remark
Code 11 2/5 Status	{MB10WT1,1,0,0,2,48,#72,#45}	0 Disable 1 Enable	Default : Enable Code 11 2/5 barcode symbology status.
Check Digit (Code 11 2/5)	{MB10WT1,1,0,0,2,48,#72,#45}	0 Off 1 On	Default : On Code 11 2/5 Check Digit Verification status.
Send CD (Code 11 2/5)	{MB10WT1,1,0,0,2,48,#72,#45}	0 Not send CD 1 Send CD	Default : Not Send CD The number of Check Digit in a decoded Code 11 2/5 output data.
Code11 2/5 digits CD	{MB10WT1,1,0,0,2,48,#72,#45}	0 1 digit 1 2 digits	Default : 1 digit Check Digit status in a decoded Code 11 2/5 output data.
Min Length (Code 11 2/5)	{MB10WT1,1,0,0,2,48,#72,#45}	A number from 2~99.	Default : 2 The minimum length of barcode to be decoded.
Max Length (Code 11 2/5)	{MB10WT1,1,0,0,2,48,#72,#45}	A number from 2~99.	Default : 48 The maximum length of barcode to be decoded.
Set Code ID (Code 11 2/5)	{MB10WT1,1,0,0,2,48,#72,#45}	Can be 0~2 digits of alphanumeric characters(ASCII code).	Default : H- The ID shown at the beginning of an output data when Set ID (cf. Code ID) is enabled.

[MSI Plessey](#)[UK Plessey](#)

Property	Command	Option	Remark
MSI Plessey Status	{MB11WT1,0,1,3,48,#109,#45}	0 Disable 1 Enable	Default : Enable MSI Plessey barcode symbology status.
Send CD (MSI Plessey)	{MB11WT1,0,1,3,48,#109,#45}	0 Not send CD 1 Send CD	Default : Not Send CD Status of Check Digit in an output data.
MSI Plessey CDV mod10	{MB11WT1,0,1,3,48,#109,#45}	0 Mod-11 plus Mod-10 1 Single Mod-10 2 Double Mod-10 3 Disable	Default : Single Check Digit format.
Min Length (MSI Plessey)	{MB11WT1,0,1,3,48,#109,#45}	A number from 3~99.	Default : 3 The minimum length of barcode to be decoded.
Max Length (MSI Plessey)	{MB11WT1,0,1,3,48,#109,#45}	A number from 3~99.	Default : 48 The maximum length of barcode to be decoded.
Set Code ID (MSI Plessey)	{MB11WT1,0,1,3,48,#109,#45}	Can be 0~2 digits of alphanumeric characters(ASCII code).	Default : m- The ID shown at the beginning of an output data when Set ID (cf. Code ID) is enabled.
UK Plessey Status	{MB11WT1,0,1,3,48,#109,#45}	0 Disable 1 Enable	Default : Disable UK Plessey barcode symbology status.
Send CD (UK Plessey)	{MB12WT1,0,#110,#45,0,2,48}	0 Not send CD 1 Send CD	Default : Not send CD Status of Check Digit in an output data.
Min Length (UK Plessey)	{MB12WT1,0,#110,#45,0,2,48}	A number from 2~99.	Default : 2 The minimum length of barcode to be decoded.
Max Length (UK Plessey)	{MB12WT1,0,#110,#45,0,2,48}	A number from 2~99.	Default : 48 The maximum length of barcode to be decoded.
Set Code ID (UK Plessey)	{MB12WT1,0,#110,#45,0,2,48}	Can be 0~2 digits of alphanumeric characters(ASCII code).	Default : n- The ID shown at the beginning of an output data when Set ID (cf. Code ID) is enabled.

EAN-13

Property	Command	Option	Remark
EAN-13 Status	{MB14WT1,0,1,0,0,0,0,0,0,0,#100,#68}	0 Disable 1 Enable	Default : Enable EAN-13 barcode symbology status.
Send CD (EAN-13)	{MB14WT1,0,1,0,0,0,0,0,0,0,#100,#68}	0 Not send CD 1 Send CD	Default : Send CD Status of Check Digit in an output data.
ISBN (EAN-13)	{MB28WT1,0,0}	0 Off 1 On	Default : Off Convert EAN-13 to ISBN format.
ISSN (EAN-13)	{MB28WT1,0,0}	0 Off 1 On	Default : Off Convert EAN-13 to ISSN format.
Supplement_5 (EAN-13)	{MB14WT1,0,1,0,0,0,0,0,0,0,#100,#68}	0 Off 1 On	Default : Off Status of 5-digit supplement in an output data.
Supplement_2 (EAN-13)	{MB14WT1,0,1,0,0,0,0,0,0,0,#100,#68}	0 Off 1 On	Default : Off Status of 2-digit supplement in an output data.
Addenda_required (EAN-13)	{MB14WT1,0,1,0,0,0,0,0,0,0,0,#100,#68}	0 Off 1 On	Default : Off Only decodes the EAN-13 barcode with an add-on supplement.
Set Code ID (EAN-13)	{MB14WT1,0,1,0,0,0,0,0,0,0,0,#100,#68}	Can be 0~2 digits of alphanumeric characters(ASCII code).	Default : dD The ID shown at the beginning of an output data when Set ID (cf. Code ID) is enabled.

UPC-A

Property	Command	Option	Remark
UPC-A Status	{MB15WT1,0,1,0,0,0,0,0,0,#99,#65}	0 Disable 1 Enable	Default : Enable UPC-A barcode symbology status.
Send CD (UPC-A)	{MB15WT1,0,1,0,0,0,0,0,0,0,#99,#65}	0 Not send CD 1 Send CD	Default : Send CD Status of Check Digit in an output data.
UPC-A expand to EAN-13	{MB15WT1,0,1,0,0,0,0,0,0,0,#99,#65}	0 Off 1 On	Default : Off Convert UPC-A to EAN-13.
Supplement_5 (UPC-A)	{MB15WT1,0,1,0,0,0,0,0,0,0,#99,#65}	0 Off 1 On	Default : Off Status of 5-digit supplement in an output data.
Supplement_2 (UPC-A)	{MB15WT1,0,1,0,0,0,0,0,0,0,#99,#65}	0 Off 1 On	Default : Off Status of 2-digit supplement in an output data.
Addenda_required (UPC-A)	{MB15WT1,0,1,0,0,0,0,0,0,0,0,#99,#65}	0 Off 1 On	Default : Off Only decodes the UPC-A barcode with an add-on supplement.
Set Code ID (UPC-A)	{MB15WT1,0,1,0,0,0,0,0,0,0,0,#99,#65}	Can be 0~2 digits of alphanumeric characters(ASCII code).	Default : cA The ID shown at the beginning of an output data when Set ID (cf. Code ID) is enabled.

EAN-8

Property	Command	Option	Remark
EAN-8 Status	{MB16WT 1 ,0,1,0,0,0,0, #100,#56,0}	0 Disable 1 Enable	Default : Enable EAN-8 barcode symbology status.
Send CD (EAN-8)	{MB16WT0,0, 1 ,0,0,0,0, #100,#56,0}	0 Not send CD 1 Send CD	Default : Send CD Status of Check Digit in an output data.
Supplement_5 (EAN-8)	{MB16WT0,0,1, 0 ,0,0,0, #100,#56,0}	0 Off 1 On	Default : Off Status of 5-digit supplement in an output data.
Supplement_2 (EAN-8)	{MB16WT0,0,1,0, 0 ,0,0, #100,#56,0}	0 Off 1 On	Default : Off Status of 2-digit supplement in an output data.
Addenda_required (EAN-8)	{MB16WT0,0,1,0,0,0, 0 , #100,#56,0}	0 Off 1 On	Default : Off Only decodes the EAN-8 barcode with an add-on supplement.
Set Code ID (EAN-8)	{MB16WT0,0,1,0,0,0,0, #100,#56,0 }	Can be 0~2 digits of alphanumeric characters (ASCII code).	Default : n- The ID shown at the beginning of an output data when Set ID (cf. Code ID) is enabled.
Zero Extension (EAN-8)	{MB16WT0,0,1,0,0,0,0, #100,#56, 0 }	0 Off 1 On	Default : Off Zero extension status for EAN-8.

UPC-E

Property	Command	Option	Remark
UPC-E Status	{MB17WT 1 ,1,1,0,0,0,0, 0,0,0,#99,#69}	0 Disable 1 Enable	Default : Enable UPC-E barcode symbology status.
Lead digit (UPC-E)	{MB17WT1, 1 ,1,0,0,0,0, 0,0,0,#99,#69}	0 Not send 1 Send	Default : Send Status of Lead Digit in an output data.
Send CD (UPC-E)	{MB17WT1,1, 1 ,0,0,0,0, 0,0,0,#99,#69}	0 Not send CD 1 Send CD	Default : Send CD Status of Check Digit in an output data.
UPC-E expand to UPC-A	{MB17WT1,1,1,0,0,0, 0 , 0,0,0,#99,#69}	0 Off 1 On	Default : Off Convert UPC-E to UPC-A.
Supplement_5 (UPC-E)	{MB17WT1,1,1,0,0,0, 0 , 0,0,0,#99,#69}	0 Off 1 On	Default : Off Status of 5-digit supplement in an output data.
Supplement_2 (UPC-E)	{MB17WT1,1,1,0,0,0,0, 0 ,0,0,#99,#69}	0 Off 1 On	Default : Off Status of 2-digit supplement in an output data.
Addenda_required (UPC-E)	{MB17WT1,1,1,0,0,0,0, 0,0, 0 ,#99,#69}	0 Off 1 On	Default : Off Only decodes the UPC-E barcode with an add-on supplement.
Set Code ID (UPC-E)	{MB17WT1,1,1,0,0,0,0, 0,0,0, #99,#69 }	Can be 0~2 digits of alphanumeric characters(ASCII code).	Default : cE The ID shown at the beginning of an output data when Set ID (cf. Code ID) is enabled.

[Code 93](#)[Code 128](#)[EAN-128](#)

Property	Command	Option	Remark
Code 93 Status	{MB18WT 1 ,3,48,#105, #45,0}	0 Disable 1 Enable	Default : Enable Code 93 barcode symbology status.
Send CD (Code 93)	{MB18WT1,3,48,#105, #45, 0 }	0 Not send CD 1 Send CD	Default : Not Send CD Status of Check Digit in an output data.
Min Length (Code 93)	{MB18WT1,3, 48 ,#105, #45,0}	A number from 1~99.	Default : 3 The minimum length of barcode to be decoded.
Max Length (Code 93)	{MB18WT1,3, 48 ,#105, #45,0}	A number from 1~99.	Default : 48 The maximum length of barcode to be decoded.
Set Code ID (Code 93)	{MB18WT1,3,48, #105 , #45 ,0}	Can be 0~2 digits of alphanumeric characters(ASCII code).	Default : i- The ID shown at the beginning of an output data when Set ID (cf. Code ID) is enabled.
Code 128 Status	{MB19WT 1 ,1,48,#106, #67}	0 Disable 1 Enable	Default : Enable Code 128 barcode symbology status.
Min Length (Code 128)	{MB19WT1,1, 48 ,#106, #67}	A number from 1~99.	Default : 1 The minimum length of barcode to be decoded.
Max Length (Code 128)	{MB19WT1,1, 48 ,#106, #67}	A number from 1~99.	Default : 48 The maximum length of barcode to be decoded.
Set Code ID (Code 128)	{MB19WT1,1,48, #106 , #67 }	Can be 0~2 digits of alphanumeric characters(ASCII code).	Default : jC The ID shown at the beginning of an output data when Set ID (cf. Code ID) is enabled.
EAN-128 Status	{MB20WT 1 ,0,#0,#106, #71,0,1,99}	0 Disable 1 Enable	Default : Enable EAN 128 barcode symbology status.
Min Length (EAN-128)	{MB20WT1,0,#0,#106, #71,0,1, 99 }	A number from 1~99.	Default : 1 The minimum length of barcode to be decoded.
Max Length (EAN-128)	{MB20WT1,0,#0,#106, #71,0,1, 99 }	A number from 1~99.	Default : 99 The maximum length of barcode to be decoded.
Set Code ID (EAN-128)	{MB20WT1,0,#0, #106 , #71 ,0,1,99}	Can be 0~2 digits of alphanumeric characters(ASCII code).	Default : jG The ID shown at the beginning of an output data when Set ID (cf. Code ID) is enabled.

[GS1 Data Bar](#)[GS1 Data Bar -Limited](#)[GS1 Data Bar -Expanded](#)

Property	Command	Option	Remark
GS1 Databar Status	{MB21WT 1 ,0,1,0,#82,#45}	0 Disable 1 Enable	Default : Enable GS1 GS1 Databar / Truncated barcode symbology status.
Prefix number (GS1 Databar)	{MB21WT1,0, 1 ,0,#82,#45}	0 Off 1 On	Default : On Status of Prefix number (01) in a decoded GS1 Databar barcode.
Set Code ID (GS1 Databar)	{MB21WT1,0,1,0, #82,#45 }	Can be 0~2 digits of alphanumeric characters(ASCII code).	Default : R- The ID shown at the beginning of an output data when Set ID (cf. Code ID) is enabled.

[PDF417](#)[QR Code/ Micro QR Code](#)[DataMatrix](#)

Property	Command	Option	Remark
PDF417 Status	{MB24WT 1 ,1,2710,#114,#50}	0 Disable 1 Enable	Default : Enable PDF417 barcode symbology status.
Min Length (PDF417)	{MB24WT1, 1 ,2710,#114,#50}	A number from 1~2710.	Default : 1 The minimum length of barcode to be decoded.
Max Length (PDF417)	{MB24WT1,1, 2710 ,#114,#50}	A number from 1~2710.	Default : 2710 The maximum length of barcode to be decoded.
Set Code ID (PDF417)	{MB24WT1,1,2710, #114,#50 }	Can be 0~2 digits of alphanumeric characters(ASCII code).	Default : r2 The ID shown at the beginning of an output data when Set ID (cf. Code ID) is enabled.
QR Code Status	{MB25WT 1 ,1,4000,#115,#50,0}	0 Disable 1 Enable	Default : Enable QR Code barcode symbology status.
Min Length (QR Code)	{MB25WT1, 1 ,4000,#115,#50,0}	A number from 1~4000.	Default : 1 The minimum length of barcode to be decoded.
Max Length (QR Code)	{MB25WT1,1, 4000 ,#115,#50,0}	A number from 1~4000.	Default : 4000 The maximum length of barcode to be decoded.
Set Code ID (QR Code)	{MB25WT1,1,4000, #115,#50,0 }	Can be 0~2 digits of alphanumeric characters(ASCII code).	Default : s2 The ID shown at the beginning of an output data when Set ID (cf. Code ID) is enabled.

Micro QR Code Status	{MB25WT1,,1,4000,#115,#50; 0 }	0 Disable 1 Enable	Default : Enable Micro QR Code barcode symbology status.
DataMatrix Status	{MB26WT 1 ,1,3116,#117,#50}	0 Disable 1 Enable	Default : Enable DataMatrix barcode symbology status.
Min Length (DataMatrix)	{MB26WT1, 1 ,3116,#117,#50}	A number from 1~3116.	Default : 1 The minimum length of barcode to be decoded.
Max Length (DataMatrix)	{MB26WT1,1, 3116 ,#117,#50}	A number from 1~3116.	Default : 3116 The maximum length of barcode to be decoded.
Set Code ID (DataMatrix)	{MB26WT1,1,3116, #117 #50 }	Can be 0~2 digits of alphanumeric characters(ASCII code).	Default : u2 The ID shown at the beginning of an output data when Set ID (cf. Code ID) is enabled.

Appendix

Appendix 1 - ASCII Table

is displayed in decimal system

Dec	Hex	ASCII	Dec	Hex	ASCII	Dec	Hex	ASCII	Dec	Hex	ASCII
00	00	NUL	32	20	SP	64	40	@	96	60	`
01	01	SOH	33	21	!	65	41	A	97	61	a
02	02	STX	34	22	"	66	42	B	98	62	b
03	03	ETX	35	23	#	67	43	C	99	63	c
04	04	EOT	36	24	\$	68	44	D	100	64	d
05	05	ENQ	37	25	%	69	45	E	101	65	e
06	06	ACK	38	26	&	70	46	F	102	66	f
07	07	BEL	39	27	'	71	47	G	103	67	g
08	08	BS	40	28	(	72	48	H	104	68	h
09	09	HT	41	29	)	73	49	I	105	69	i
10	0A	LF	42	2A	*	74	4A	J	106	6A	j
11	0B	VT	43	2B	+	75	4B	K	107	6B	k
12	0C	FF	44	2C	,	76	4C	L	108	6C	l
13	0D	CR	45	2D	-	77	4D	M	109	6D	m
14	0E	SO	46	2E	.	78	4E	N	110	6E	n
15	0F	SI	47	2F	/	79	4F	O	111	6F	o
16	10	DLE	48	30	0	80	50	P	112	70	p
17	11	DC1	49	31	1	81	51	Q	113	71	q
18	12	DC2	50	32	2	82	52	R	114	72	r
19	13	DC3	51	33	3	83	53	S	115	73	s
20	14	DC4	52	34	4	84	54	T	116	74	t
21	15	NAK	53	35	5	85	55	U	117	75	u
22	16	SYN	54	36	6	86	56	V	118	76	v
23	17	ETB	55	37	7	87	57	W	119	77	w
24	18	CAN	56	38	8	88	58	X	120	78	x
25	19	EM	57	39	9	89	59	Y	121	79	y
26	1A	SUB	58	3A	:	90	5A	Z	122	7A	z
27	1B	ESC	59	3B	;	91	5B	[	123	7B	{
28	1C	FS	60	3C	<	92	5C	\	124	7C	|
29	1D	GS	61	3D	=	93	5D	]	125	7D	}
30	1E	RS	62	3E	>	94	5E	^	126	7E	~
31	1F	US	63	3F	?	95	5F	_	127	7F	DEL

Appendix 2 - Symbolologies Code ID Identifier

SYMBOLOGIES CODE IF IDENTIFIER					
Symbolologies	Factory ID	AIM ID	Symbolologies	Factory ID	AIM ID
EAN 128	T	JC1	MSI (MOD 10/CDV & send one CD)	O	JM0
Code 128	K	JC0	MSI (MOD 10/CDV & not send CD)		JM1
AIM-128		JC2	MSI (send two CD)		JM8
ISBT-128		JC4	MSI (disable CDV)		JM9
EAN-8 (+2/+5 OFF, +2 ON, +5 ON)	S	JE4	Code 32	B	JX0
UPC-E (+2/+5 OFF)		JE0	Codabar	N	JF0
UPC-E (+2 ON)	E	JE3	Codabar (ABC Codabar)		JF1
UPC-E (+5 ON)		JE3	Codabar (CDV & send CD)		JF2
UPC-A (+2/+5 OFF)	A	JE0	Codabar (CDV & not send CD)		JF4
UPC-A (+2 ON)		JE3	UK Plessey	P	JP0
UPC-A (+5 ON)		JE3	Matrix 2 of 5	Y	JX0
EAN-13 (+2/+5 OFF)	F	JE0	Matrix 2 of 5 (disable CDV)		JX1
EAN-13 (+2 ON)		JE3	Matrix 2 of 5 (MOD 10/CDV & send one CD)		JX2
EAN-13 (+5 ON)		JE3	Matrix 2 of 5 (MOD 10/CDV & not send CD)		JX3
Code 93	L	JG0	ISBN		JX4
Code 11 (send one CD)	J	JH0	ISSN		JX5
Code 11 (send two CD)		JH1	Full ASCII Code 39(disable CDV)	D	JA4
Code 11 (not send CD)		JH3	Full ASCII Code 39(CDV & send CD)		JA5
Code 11 (disable CDV)		JH9	Full ASCII Code 39(CDV & not send CD)		JA7
IATA 2 of 5 (disable CDV)	R	JR0	Standard Code 39 (disable CDV)	M	JA0
IATA 2 of 5 (MOD 10/send one CD)		JR8	Standard Code 39 (CDV and send CD)		JA1
IATA 2 of 5 (MOD 10/send one CD)		JR9	Standard Code 39 (CDV and not send CD)		JA3
Industrial 2 of 5	V	JS0	Databar (Stacked/Omnidirectional/Truncated)	G	Je0
PDF 417	Z	JL0	Databar Limited	C	

Data Matrix (ECC000-140)	X	jd0	Databar Expanded	Q	je0
Data Matrix (ECC200)		jd1	Databar Expanded stacked		
Data Matrix (ECC200, FNC1 is the 1st/5th digit)		jd2	QR Code	W	jQ0
Data Matrix (ECC200, FNC1 is the 2nd/6th digit)		jd3	2005 ver., w/o ECL		jQ1
Data Matrix (ECC200, w/ ECL)		jd4	2005 ver., w/ ECL		jQ2
Data Matrix (ECC200, FNCL is the 1st/5th digit, w/ ECL)		jd5	2005 ver., FNC1 is the 1st digit, w/o ECL		jQ3
Data Matrix (ECC200, FNCL is the 2nd/6th digit, w/ ECL)		jd6	2005 ver., FNC1 is the 1st digit, w/ ECL		jQ4
Interleaved 2 of 5, incl: ITF-6, ITF-14 (CDV & send CD)	I	ji1	2005 ver., FNC1 is the 2nd digit, w/o ECL		jQ5
Interleaved 2 of 5, incl: ITF-6, ITF-14 (CDV & not send CD)		ji3	2005 ver., FNC1 is the 2nd digit, w/ ECL	jQ6	
Interleaved 2 of 5 (disable CDV)		ji0			