Ez One Shot®

1D HANDHELD SCANNER USER'S MANUAL

Version: 2019.1

CONTENTS

CLONING MODE

WHAT IS CLONING MODE?

CLONING duplicates a scanners settings in other scanners. It can save time when a number of scanners must be programmed to the same settings.

HOW SHOULD CLONING WORK?

1. Using this guide, make all the necessary settings for one wand.
2. Scan the CLONING MODE bar code shown below.
3. When CLONING MODE is scanned, all setup parameters will be converted to alphanumeric characters and shown on the monitor.
4. Using a bar code printer, print out all the setup parameters as Code 39 bar code labels.
5. Scan the printed labels sequentially with each wand to be programmed.

CLONING MODE

Figure 1

NOTES:

1. All cloning strings are upper case.
2. All cloning strings printed on labels should be the same as those on the monitor sequentially from first to last.
3. Cloning mode works in Word Note Pad only.
4. Never edit the data on the first row (.A017$). It is an entry command for cloning.
5. The cloning string's length can be adjusted by combining multiple strings into one, or by breaking one string into multiple strings starting from the second row after "....". Length must be in sequences of four, such as 4, 8, 12, 16, 20 (MAX).
6. Be sure to print the dots exactly where they are shown on the monitor.

FORMAT OF CLONING

* Format of Cloning:

1st row >>> ".A017$" (never edit any data of the first row)

2nd row >>> "....XXXX" you can adjust the String's Length starting from the dots "...." forward. The length of the string should be in 4, 8, 12, 16 or 20 (MAX)digits.

3rd row ~ so on >>> XXXX

End row - A dot "." Is the ending of cloning.

XXXX Stands for any string

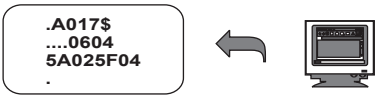
CLONING MODE

EXAMPLE :

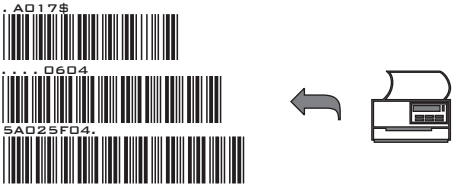
1. PROJECT ASSIGNMENTS:
1.1. Beep tone: **BEEP LOW**
1.2. Capslock Mode: **CAPSLOCK ON.**
1.3. Reading Mode: **CONTINUOUS AUTO OFF.**

2. SETTING PROCEDURE:
2.1. Scan **BEEP LOW (GROUP 6).**
2.2. Scan **CAPSLOCK ON (GROUP 16).**
2.3. Scan **CONTINUOUS AUTO OFF (GROUP2).**

3. All parameters will be converted to alphanumeric characters and shown on the monitor.



4. Print the results shown on the monitor as bar codes with a bar code printer. The bar codes should be in the Code 39 symbology.



5. Scan these labels with any of the wands that must be programmed with the same settings as the first wand. Be sure to scan from the first row to the second and so on sequentially, top to bottom.

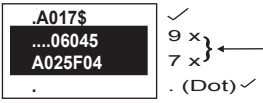
CORRECT SETTING

.A017$	
....	4
0604	4
5A02	4
5F04	4
.	. (Dot)

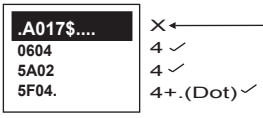
.A017$	
....06045A02	12
5F04.	4+.(Dot)

WRONG SETTING

Wrong Setting: The string "...." consists of 4 Dots, located at the beginning of second row; do not break the "...." into multiple strings.



Wrong Setting: The string lengths of the second and third row do not match the length requirements, because rows should be in length of four digits.



Wrong Setting because you add "...." after .A017$:
The .A017$ is a FIXED parameter to enter setup procedure. It is an unchangeable parameter. **Never add, delete or rearrange data from the FIRST row.**

HOW TO SET PARAMETERS

How do you program a scanner with this user's guide?

1. Use the scanner to scan at the barcode representing the function/ parameter you want to set.
2. When you hear two beeps, the new settings have been defined or updated into the memory processor.

Default parameters are indicated in bold type and underlined characters. The character font is ARIAL BLACK. CD = Check Digit. CDV = Check Digit Verification.

Most settings require only a single barcode, but a few need several different barcodes (multi-step configuration) to be scanned in order to completely define a setting. They are:

Preamble / Postamble (maximum 16 digits)
Step 1: Scan CLR PRE/POSTAMBLE.
Step 2: Scan PREAMBLE or POSTAMBLE.
Step 3: Scan any alphanumeric from Full ASCII table in Group 38-49
Step 4: Scan PREAMBLE or POSTAMBLE.

Min Length / Max Length
Step 1: Scan MIN LENGTH or MAX LENGTH.
Step 2: Scan two digits from Full ASCII numeric table in Group 46
Step 3: Scan MIN LENGTH or MAX LENGTH.

Accuracy Adjustment
Step 1: Scan ACCURACY ADJUSTMENT.
Step 2: Scan one digit from GROUP 8
Step 3: Scan ACCURACY ADJUSTMENT.

Set Code ID (Example: Code 39)
Step 1: Scan CODE 39 SET ID from Group 11
Step 2: Scan either one or two alphanumerics (maximum 2 digits) from Full ASCII table in Group 40-46
Step 3: Scan CODE 39 SET ID from Group 11

Set A Data - (CX-Codabar, ABC Codabar, Codabar Coupling).
Step 1: Scan SET INSERT DATA.
Step 2: Scan one alphanumeric character from Full ASCII Table in Group 40-46
Step 3: Scan SET INSERT DATA.

NOTE:

1. The scanner will beep three times as indication that a setting is not yet complete or unexpected barcode is scanned during multi-step configuration.
2. If you make a mistake, forget a step, etc., and want to abort the multi-step configuration, scan RESET/ABORT and start over again.

RESET / ABORT

GROUP-1

GENERAL SETTINGS

DEFAULT

.A001$

*Reset to factory default

CHECK VERSION

.A007$

*Check firmware version

RESET/ ABORT

.P023$

*Abort multi-step configuration

SETUP CODE READ

.B015$

SETUP CODE ON

.B016$

SETUP CODE OFF

*Caution: Scanning SETUP CODE OFF will turn the scanner into unprogrammable state and the scanner will not react to any configuration barcode!

GROUP-2

READING MODE

CONTINUOUS MODE

* LED is always on.
* The trigger does not function in Continuous Mode.

FLASH MODE

* The LED is on steady if a barcode is close to the scanner, but starts flashing if no barcode is detected after 60 seconds.
* The trigger does not function in Flash Mode.

TRIGGER MODE

* The LED will turn on when the trigger is pressed.
* The LED will turn off when the trigger is released.

CONTINUOUS AUTO OFF

* The LED is always on when the trigger is pressed.
* The LED will go off if no barcode has been detected after 60 seconds.

TOGGLE MODE

* The LED is always on when the trigger is pressed.
* The LED will go off if one barcode is read.

TEST MODE

* Factory Scanability Test Use Only

GROUP-3

ADVANCED READING MODE SETTINGS

LED AUTO-OFF CONTROL (TRIGGER & TOGGLE MODE)

. F038$

LED AUTO OFF DISABLE

. F039$

LED AUTO OFF ENABLE

NOTE:

1. When enabled, LED will automatically go off after LED Auto-Off Timeout elapses.

LED AUTO-OFF TIMEOUT (TRIGGER, TOGGLE, FLASH, CONTINUOUS AUTO OFF MODE)

. F043$

LED AUTO OFF TIMEOUT
(DEFAULT = 60 SEC)

STEPS:

1. Scan LED AUTO-OFF TIMEOUT
2. Scan two digits (01~60) from Full ASCII Code39 numeric table (unit = 1 sec, range = 1 sec ~ 60 sec, Default = 60 sec)
3. Scan LED AUTO-OFF TIMEOUT

FLASH TIMEOUT (FLASH MODE)

. F041$

FLASH TIMEOUT
(DEFAULT = 60 SEC)

STEPS:

1. Scan FLASH TIMEOUT
2. Scan two digits (03~60) from Full ASCII Code39 numeric table (unit = 1 sec, range = 3 sec ~ 60 sec, Default = 60 sec)
3. Scan FLASH TIMEOUT

LED AUTO-OFF TIMEOUT (CONTINUOUS AUTO OFF MODE)

. F042$

LED AUTO OFF TIMEOUT
(DEFAULT = 60 SEC)

STEPS:

1. Scan LED AUTO OFF TIMEOUT
2. Scan two digits (03~60) from Full ASCII Code39 numeric table (unit = 1 sec, range = 3 sec ~ 60 sec, Default = 60 sec)
3. Scan LED AUTO OFF TIMEOUT

GROUP-4

ADVANCED READING MODE SETTINGS

TRIGGER CONTROL (FLASH, CONTINUOUS & TEST MODE)

. F036$

TRIGGER CONTROL DISABLE

. F037$

TRIGGER CONTROL ENABLE

NOTE:

1. When enabled, LED can be switched on/off by pressing trigger.

IDENTICAL READ INTERVAL (FLASH, CONTINUOUS & CONTINUOUS AUTO OFF MODE)

. F040$

IDENTICAL READ INTERVAL
(DEFAULT = 1.0 SEC)

NOTE:

1. The interval will start counting only after the scanned barcode is removed from the aimer of scanner. If you want to read the same barcode continuously without any timeout, please use Test Mode.

STEPS:

1. Scan IDENTICAL READ TIMEOUT
2. Scan two digits (01~50) from Full ASCII Code39 numeric table (Group 46) (unit = 100mS, range = 100mS ~ 5000mS, Default = 1000mS)
3. Scan IDENTICAL READ TIMEOUT

GROUP-5

LASER BRIGHTNESS, ILLUMINATION

LASER BRIGHTNESS

. F045$

DIM

. F044$

BRIGHT

NOTE:

1. Supported by MT2000L, MT3000L only.

ILLUMINATION

. F059$

LASER ALWAYS ON,
LED ON AFTER 1 SEC

. F049$

LASER ALWAYS ON,
LED AUTO-ADAPTIVE

. F048$

LASER ALWAYS ON,
LED ALWAYS ON

. F047$

LASER ALWAYS ON,
LED OFF

. F046$

LASER OFF,
LED ALWAYS ON

NOTE:

1. Supported by MT2000L, MT3000L only.

GROUP-6

BEEP TONE, TERMINATOR

BEEP TONE


BEEP HIGH (2.7KHz)


BEEP MEDIUM (2.7KHz)


BEEP HIGH (2KHz)


BEEP OFF


BEEP LOW (2.7KHz)


BEEP MEDIUM (2KHz)


BEEP LOW (2KHz)

NOTE:

1. MT8010 supports Beep Low/Medium/High (2KHz)
2. MT2000(L), MT3000(L), MT1095 supports Beep Low/ Medium/High (2.7KHz)

TERMINATOR


NONE


LF


CR


CR+LF


TAB


SPACE


ESC

NOTES:

Below is the position of Terminator among output data string:

[Preamble] [Symbology ID] [Barcode Length] [Barcode Data] [Postamble] **[Terminator]**

By default, with Preamble, Postamble, Barcode Length and Symbology ID disabled, the scanner data output will be:

[Barcode Data] **[Terminator]**

1. For the USB HID interface the default terminator is CR.
2. For the USB VCP/RS232 interface the default terminator is CR+LF.

GROUP-7

SEND DATA LENGTH, PREAMBLE & POSTAMBLE

SEND DATA LENGTH

.D019$

SEND DATA LENGTH ON

.D020$

SEND DATA LENGTH OFF

PREAMBLE & POSTAMBLE (PREFIX AND SUFFIX)

.A011$

CLEAR PRE/ POSTAMBLE

.A012$

PREAMBLE (16)

.A013$

POSTAMBLE (16)

EXAMPLE:

Set PREAMBLE String as " ## "
POSTAMBLE String as " $$ "

SETTING PROCEDURE:

STEP 1 : Scan : CLEAR PRE/ POSTAMBLE.
STEP 2 : Scan : PREAMBLE.
STEP 3 : Scan : " # " twice from FULL ASCII Table (Group 40)
STEP 4 : Scan : PREAMBLE.
STEP 5 : Scan : POSTAMBLE.
STEP 6 : Scan : " $ " twice from FULL ASCII Table (Group 40)
STEP 7 : Scan : POSTAMBLE.

DATA FORMAT:

[Preamble] [Symbology ID] [Barcode Length] [Barcode Data] **[Postamble]** [Terminator]

NOTES:

1. A PREAMBLE is a string of up to 16 characters added to the beginning of a scanned barcode.
2. A POSTAMBLE is a string of up to 16 characters added to the end of a scanned barcode.
3. Default value for both: None.

GROUP-8

ACCURACY ADJUSTMENT

0

1

2

3

4

5

6

7

8

9

ACCURACY ADJUSTMENT

.AD10$

Accuracy Adjustment assures a more reliable decoded output. Enabling the feature and setting a number from 1 to 9 subjects the decoded output a higher standard of accuracy. The higher the number, the greater the accuracy.

STEPS:

1. Scan ACCURACY ADJUSTMENT.
2. Scan one digit (0~9) from barcode menu above. (Default = 1)
3. Scan ACCURACY ADJUSTMENT.

NOTE:

1. The scanner will beep three times as indication that a setting is not yet complete or unexpected barcode is scanned during multi-step configuration.
2. If you make a mistake, forget a step, etc., and want to abort the multi-step configuration, scan RESET/ABORT and start over again.

RESET / ABORT

.P023$

GROUP-9

INVERSE BARCODE, CODE ID

ENABLE INVERSE BARCODE

.D021$

DISABLE INVERSE BARCODE
(READS POSITIVE BARCODE ONLY)

.D022$

ENABLE INVERSE BARCODE
(READS POSITIVE & NEGATIVE BARCODES)

ENABLE CODE ID

.A008$

FACTORY ID ON

.A014$

AIM ID ON

.A015$

SET ID ON

DISABLE CODE ID

.A009$

NOTES:

1. Only ONE code ID will be sent.
2. The code ID is located at the position before the barcode data and after the preamble.

EXAMPLE :
1.Preamble 145287,
2.Code ID: enable AIM ID,
3.Bar code symbologies : EAN 13+5

145287	]E0	4563987123453 12411
Preamble 145287	CODE ID AIM ID :]E0	BARCODE / DATA EAN 13 +5

OUTPUT : 145287]E0456398712345312411

GROUP-10

SYMBOLOGIES CODE IDENTIFIER

Symbologies			Factory ID	AIM ID
1D	Code 39	Disable CDV	M	]A0
		CDV & Send CD		]A1
		CDV & Not Send CD		]A3
	Full ASCII Code 39	Disable CDV	D	]A4
		CDV & Send CD		]A5
		CDV & Not Send CD		]A7
	Code 32		B	]X0
	Codabar		N	]F0
		ABC Codabar		]F1
		CDV & Send CD		]F2
		CDV & Not Send CD		]F4
	Interleaved 2 of 5	Disable CDV	I	]I0
		CDV & Send CD		]I1
		CDV & Not Send CD		]I3
	UK Plessey		P	]P0
	IATA 2 of 5		R	]R0
	Matrix 2 of 5		Y	]X0
	Industrial 2 of 5		V	]S0
	Code 11	Disable CDV	J	]H0
		CDV & Send CD-1		]H0
		CDV & Send CD-2		]H1
		CDV & Not Send CD		]H3
	MSI	Disable CDV	O	]M0
		Mod 10 / CDV & Not Send CD		]M1
	Telepen	ASCII	U	]B0
		Numeric		]B1
	China Postal Code		H	]X0
	EAN-13	+2/+5 OFF	F	]E0
		+2/+5 ON		]E3
	UPC-A	+2/+5 OFF	A	]E0
		+2/+5 ON		]E3
	EAN-8	+2/+5 OFF	S	]E4
		+2/+5 ON		]E4
	UPC-E	+2/+5 OFF	E	]E0
		+2/+5 ON		]E3
	Code 93		L	]G0
	Code 128		K	]C0
	GS1 128		T	]C1
	GS1 Databar		G	]e0

GROUP-11

SET CODE ID

EAN 13 Set ID

EAN 8 Set ID

UPC E Set ID

UPC A Set ID

Code 39 Set ID

Code 93 Set ID

Codabar Set ID

IATA Set ID

Code 128 Set ID

EAN 128 Set ID

Telepen Set ID

Code 11 Set ID

STEPS:

1. Scan the SET ID barcode for a particular symbology.
2. Scan one or two alphanumeric characters from the Full ASCII Table.
3. Scan the SET ID barcode again.

NOTE:

1. The scanner will beep three times as indication that a setting is not yet complete or unexpected barcode is scanned during multi-step configuration.
2. If you make a mistake, forget a step, etc., and want to abort the multi-step configuration, scan RESET/ABORT and start over again.

RESET / ABORT

GROUP-12

SET CODE ID

MSI Code Set ID

UK Plessey Set ID

Matrix 2 of 5 Set ID

Interleaved 2 of 5
Set ID

Industrial 2 of 5 Set ID

Full ASCII Code39
Set ID

GS1 Databar (RSS-14)
Limited Set ID

GS1 Databar (RSS-14)
Expanded Set ID

GS1 Databar (RSS-14)
Set ID

China Post Code
(TOSHIBA Code) Set ID

Code 32 Set ID

STEPS:

1. Scan the SET ID barcode for a particular symbology.
2. Scan one or two alphanumeric characters from the Full ASCII Table.
3. Scan the SET ID barcode again.

NOTE:

1. The scanner will beep three times as indication that a setting is not yet complete or unexpected barcode is scanned during multi-step configuration.
2. If you make a mistake, forget a step, etc., and want to abort the multi-step configuration, scan RESET/ABORT and start over again.

RESET / ABORT

GROUP-13

INTERBLOCK DELAY, INTERCHARACTER DELAY

INTERBLOCK DELAY

.B001$  0mS

.B002$  10mS

.B003$  50mS

.B004$  100mS

.B005$  200mS

.B006$  500mS

INTERCHARACTER DELAY

.B010$  140uS

.B011$  500uS

.B012$  1mS

.B013$  4mS

.B014$  16mS

GROUP-14

FUNCTION CODE, HT/CR/ESC CONVERSION

FUNCTION CODE CONVERSION

. C019$

ENABLE

. C020$

DISABLE

*Once disabled, the scanner will output the original encoded data of the barcodes in Full ASCII Table - Function/Navigation/Modifier Keys (Group 48-50).

HT/CR/ESC CONVERTS TO TAB/ENTER/ESCAPE

. D025$

HT/CR/ESC CONVERTS TO TAB/ENTER/ESCAPE ENABLE

. D026$

HT/CR/ESC CONVERTS TO TAB/ENTER/ESCAPE DISABLE

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.

GROUP-15

KEYBOARD LAYOUT

KEYBOARD LAYOUT

. C010$

ENGLISH (USA)

. C018$

ENGLISH (UK)

. C012$

FRENCH

. C011$

GERMAN

. C014$

ITALIAN

. C013$

SPANISH

. C017$

CZECH (QWERTY)

. C022$

CZECH (QWERTZ)

. C021$

HUNGARIAN (QWERTZ)

. C024$

HUNGARIAN (101 KEY)

. C016$

SWISS (GERMAN)

. C023$

SWISS (FRENCH)

. C009$

JAPAN (106 key)

. C025$

CANADIAN (FRENCH)

. C034$

CANADIAN (TRADITIONAL)

. C029$

NORWEGIAN

. C026$

SWEDISH

. C031$

PORTUGUESE

. C030$

BELGIAN (AZERTY)

. C028$

DUTCH

. C027$

DANISH

. C032$

SLOVAK

. C033$

BRAZILIAN (PORTUGUESE)

. C015$

ALT CODE

GROUP-16

CAPITAL LOCK MODE, NUMERIC KEY

CAPITAL LOCK MODE

CAPSLOCK ON

CAPSLOCK OFF

CAPSLOCK FREE

NOTE:

1. When barcode 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.(CODABAR is the exception)
2. If ABCD/ ABCD, abcd/ abcd, ABCD/T*E, abcd/tn*e are on, they work independently according to their rules.

NUMERIC KEY

NUMERIC KEY

ALPHANUMERIC KEY

NOTE:

1. By default, the alphanumeric key is used for trasmitting 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.

GROUP-17

INTERFACE

INTERFACE

. C008$

USB HID

. C006$

USB VCP

. C002$

RS232

NOTE:

1. This scanner is designed to switch easily between interface options. To switch from one interface to another, the appropriate cable must be installed. After changing to a new cable, be sure to reset the interface setting as appropriate.
2. Before switching to USB VCP, please make sure you have installed proper driver on PC. The driver is available either on our website or from your local distributor.

GROUP-18

RS232 SETTINGS

BAUD RATE

. E003$

1200

. E004$

2400

. E005$

4800

. E006$

9600

. E007$

19200

. E022$

38400

. E061$

57600

. E065$

76800

. E063$

115200

DATA BITS & PARITY

. E008$

8 Bits None

. E009$

8 Bits EVEN

. E010$

8 Bits ODD

. E011$

8 Bits MARK

. E012$

8 Bits SPACE

. E013$

7 Bits EVEN

. E014$

7 Bits ODD

. E015$

7 Bits MARK

. E021$

7 Bits SPACE

GROUP-19

RS232 SETTINGS

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

FLOW CONTROL: TIME OUT

.E025$

1 Sec

.E026$

3 Sec

.E027$

10 Sec

.E028$

Unlimited

BCC

.E029$

RS232 BCC Char On

.E030$

RS232 BCC Char Off

GROUP-20

ENABLE/ DISABLE SYMBOLOGIES

ENABLE

.A002$

ENABLE ALL CODE

.K010$

CODE 32

.K001$

CHINA POSTAL CODE

.L010$

UK PLESSEY CODE

.N001$

INDUSTRIAL 2 OF 5

.M010$

MATRIX 2 OF 5

.J001$

INTERLEAVED 2 OF 5

.J010$

CODE 128

.I001$

CODABAR

.L014$

TELEPEN

DISABLE

.A003$

DISABLE ALL CODE

.K011$

CODE 32

.K002$

CHINA POSTAL CODE

.L011$

UK PLESSEY CODE

.N002$

INDUSTRIAL 2 OF 5

.M011$

MATRIX 2 OF 5

.J002$

INTERLEAVED 2 OF 5

.J011$

CODE 128

.I002$

CODABAR

.L015$

TELEPEN

GROUP-21

ENABLE/ DISABLE SYMBOLOGIES

ENABLE

. H001$

UPC-A

. H007$

UPC-E

. H019$

EAN-8

. H013$

EAN-13

. L001$

MSI

. G008$

CODE 39

. I 010$

CODE 11

. G010$

CODE 93

. M001$

EAN/UCC/GS1-128

. N017$

IATA

DISABLE

. H002$

UPC-A

. H008$

UPC-E

. H020$

EAN-8

. H014$

EAN-13

. L002$

MSI

. G009$

CODE 39

. I 011$

CODE 11

. G011$

CODE 93

. M002$

EAN/UCC/GS1-128

. N018$

IATA

GROUP-22

ENABLE/DISABLE SYMBOLOGIES, CHINA POSTAL CODE

ENABLE

. N032$

GS1 DATABAR

. N038$

GS1 DATABAR STACKED

. N010$

GS1 DATABAR LIMITED

. N026$

GS1 DATABAR EXPANDED

. N028$

GS1 DATABAR EXPANDED STACKED

DISABLE

. N033$

GS1 DATABAR

. N039$

GS1 DATABAR STACKED

. N011$

GS1 DATABAR LIMITED

. N027$

GS1 DATABAR EXPANDED

. N029$

GS1 DATABAR EXPANDED STACKED

CHINA POSTAL CODE [TOSHIBA CODE]

. K004$

CDV & SEND CD

. K005$

CDV & NOT SEND CD

. K006$

MIN LENGTH (11)

. K007$

MAX LENGTH (48)

. K001$

ENABLE

. K002$

DISABLE

. K003$

DISABLE CDV

GROUP-23

MSI CODE, UK PLESSEY CODE

MSI

. L001$

ENABLE

. L002$

DISABLE

. L004$

CDV & SEND CD

. L003$

CDV & NOT SEND CD

. L007$

CHECK DIGIT DOUBLE MOD 10

. L008$

CHECK DIGIT DOUBLE 11 PLUS MOD 10

. L009$

CHECK DIGIT SINGLE MOD 10

. L005$

MIN LENGTH (06)

. L006$

MAX LENGTH (48)

UK PLESSEY CODE

. L010$

ENABLE

. L011$

DISABLE

. L012$

CDV & SEND CD

. L013$

CDV & NOT SEND CD

GROUP-24

CODE 93, IATA, TELEPEN

. G010$

ENABLE

. G011$

DISABLE

CODE 93

. G012$

MIN LENGTH (06)

. G013$

MAX LENGTH (48)

. N017$

ENABLE

. N018$

DISABLE

. N019$

DISABLE CDV

. N020$

CDV & SEND CD

IATA

. N021$

CDV & NOT SEND CDV

. N022$

MIN LENGTH (06)

. N023$

MAX LENGTH (48)

. L014$

ENABLE TELEPEN

. L015$

DISABLE TELEPEN

TELEPEN

. L020$

TELEPEN ASCII

. L021$

TELEPEN NUMBER

GROUP-25

INTERLEAVED 2 OF 5, CODE 11

ENABLE

DISABLE

DISABLE CDV

CDV & SEND CD

CDV & NOT SEND CD

INTERLEAVED 2 OF 5

First digit suppressed

Last digit suppressed

NO suppressed

MIN LENGTH (06)

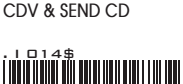
MAX LENGTH (48)

ENABLE

DISABLE

DISABLE CDV

CDV & SEND CD

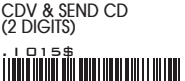


CDV & NOT SEND CD

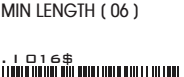
CODE 11

CDV & SEND CD
(1 DIGIT)

CDV & SEND CD
(2 DIGITS)



MIN LENGTH (06)



MAX LENGTH (32)

GROUP-26

INDUSTRIAL 2 OF 5, MATRIX 2 OF 5

INDUSTRIAL 2 OF 5

. N001$

ENABLE

. N002$

DISABLE

. N003$

DISABLE CDV

. N004$

CDV & SEND CD

. N005$

CDV & NOT SEND CD

. N006$

MIN LENGTH (06)

. N007$

MAX LENGTH (48)

MATRIX 2 OF 5

. M010$

ENABLE

. M011$

DISABLE

. M012$

DISABLE CDV

. M013$

CDV & SEND CD

. M014$

CDV & NOT SEND CD

. M015$

MIN LENGTH (06)

. M016$

MAX LENGTH (48)

GROUP-27

CODABAR

.I001$

ENABLE

.I002$

DISABLE

.I005$

DISABLE CDV

.I006$

CDV & SEND CD

CODABAR

.I007$

CDV & NOT SEND CD

.I008$

MIN LENGTH (06)

.I009$

MAX LENGTH (48)

.I030$

ST/SP: abcd/abcd

.I029$

ST/SP: ABCD/ABCD

.I031$

ST/SP: ABCD/TN*E

.I032$

ST/SP: abcd/tn*e

START / STOP

.I003$

SEND START / STOP

.I004$

Not Send START / STOP

Example of ST (Start) / SP (Stop)

123456	**Not Transmit ST/SP**
A123456B	**ST/SP: ABCD/ABCD**
a123456b	**ST/SP: abcd/abcd**
A123456N	**ST/SP: ABCD/TN*E**
a123456n	**ST/SP: abcd/tn*e**

.I027$

CLSI FORMAT ON

.I028$

CLSI FORMAT OFF

CLSI FORMAT

CLSI - Enable library space insertion. If you enable the CLSI format, this option inserts spaces in position 2, 7, 13 of the data string for use in library systems.

GROUP-28

ABC- CODABAR, CX- CODABAR

.I017$

ON

.I018$

OFF

.I035$

SET INSERT DATA*

ABC- CODABAR

.I039$

INSERT DATA- ON

.I036$

INSERT DATA- OFF

The data can be any alphanumerics of FULL ASCII Table (GROUP 40-46)

NOTE:

ABC-CODABAR (American Blood Commission). The ABC Code is an acronym for American Blood Commission. This bar code is a variant of the CODABAR Code developed for the use in the blood bank. This Code consists of two bar codes which are decoded in one read cycle. The code is concatenated when the stop character of the first bar code and the start character of the second bar code is a " D ", these two " D " are not transmitted.

.I022$

ON

.I023$

OFF

.I037$

SET INSERT DATA*

CX CODE- CODABAR

.I040$

INSERT DATA- ON

.I038$

INSERT DATA- OFF

The data can be any alphanumerics of FULL ASCII Table (GROUP 40-46)

NOTE:

The CX-Code consists of two bar codes which are decoded in one read cycle, the code is concatenated when the stop character of the first bar code is a C, and the start character of the second bar code is a B. The B and C characters are not transmitted.

GROUP-29

CODABAR COUPLING, ADJACENT REQUIRED

.I019$

ON

.I020$

OFF

.I021$

SET INSERT DATA*

CODABAR COUPLING

.I041$

INSERT DATA - ON

.I026$

INSERT DATA- OFF

ABC-Codabar and CX-Codabar have certain rules regarding the Stop Character of first bar code and the stop character of second bar code while in conjunction, while Codabar-Coupling is enabled, the data from any two Codabar bar codes can be coupled into one set of data without any limitations between the Stop character of first bar code and the Start character of second bar code. The Start and Stop characters associated with each bar code will be sent.

* *The data can be any alphanumerics of FULL ASCII Table (GROUP 40-46)*

ADJACENT REQUIRED

If CODABAR ADJACENT is enabled, the scanner will only read two adjacent Codabar bar codes; a single barcode will not be read.

.I033$

ON

.I034$

OFF

NOTE:

1. Both ABC-Codabar and CX-Codabar can be enabled together, except when Codabar-Coupling is also enabled.
2. If ABC-Codabar, CX-Codabar, and Codabar-Coupling are all enabled at the same time, the scanner will read only Codabar-Coupling, that is, ABC-Codabar, CX-Codabar will be considered coupling formats.

STEPS:

1. Scan SET INSERT DATA.
2. Scan any combination of alphanumeric characters from FULL ASCII Table.
3. Scan SET INSERT DATA.

NOTE:

1. The scanner will beep three times as indication that a setting is not yet complete or unexpected barcode is scanned during multi-step configuration.
2. If you make a mistake, forget a step, etc., and want to abort the multi-step configuration, scan RESET/ABORT and start over again.

RESET / ABORT

.P023$

GROUP-30

STANDARD & FULL ASCII CODE 39, CODE 32

STANDARD CODE 39 & FULL ASCII 39

. G008$

ENABLE

. G009$

DISABLE

. G001$

FULL ASCII CODE 39 ENABLE

. G002$

FULL ASCII CODE 39 DISABLE

. G014$

START / STOP - SEND

. G003$

DISABLE CDV

. G004$

CDV & SEND CD

. G005$

CDV & NOT SEND CD

. G006$

MIN LENGTH (01)

. G007$

MAX LENGTH (48)

. G015$

START / STOP Not SEND

NOTE:
The default for Code 39 is Standard Code 39. If Full ASCII Code 39 is enabled, Standard Code 39 will be automatically disabled.

. K010$

ENABLE

. K011$

DISABLE

. K012$

LEADING SEND

CODE 32

. K013$

LEADING NOT SEND

. K014$

TAILING SEND

. K015$

TAILING NOT SEND

GROUP-31

UPC-E

. H007$

ENABLE

. H008$

DISABLE

. H009$

LEAD DIGIT SEND

UPC-E

. H010$

LEAD DIGIT NO SEND

. H011$

CHECK DIGIT SEND

. H012$

CHECK DIGIT NO SEND

. H037$

+5 ON

. H038$

+ 5 OFF

. H039$

+2 ON

. H040$

+ 2 OFF

ADD ON SUPPLEMENT

. H047$

ADD A SPACE ON

. H048$

ADD A SPACE OFF

. H056$

ADDENDA REQUIRED ON

. H055$

ADDENDA REQUIRED OFF

NOTE:

If ADDENDA REQUIRED is set to ON, the scanner will only read an UPC-E barcode that has an addenda. At the same time please also scan +5 ON or +2 ON so the scanner will output a 5-digit or 2-digit addendum.

GROUP-32

UPC-E SYSTEM NUMBER, UPC-E EXPAND TO UPC-A

UPC-E0

E (0) OFF

E (0) ON

UPC-E1

E (1) ON

E (1) OFF

NOTE:

Most UPC bar codes lead with 0 number systems, for these bar codes use UPC E(0) selection. For the bar codes that lead with the 1 number, use UPC E(1) selection.

UPC-E EXPAND TO UPC-A

ENABLE

DISABLE

NOTE:

1. If UPC-E EXPAND TO UPC-A FORMAT is enabled, the output of UPC-A will be 12 digits.
2. The default output of UPC-A is 12 digits, if UPC-A EXPAND TO EAN13 is enabled, a zero will be added to the front of the barcode.

GROUP-33

UPC- A

. H001$

ENABLE

. H002$

DISABLE

. H003$

LEAD DIGIT SEND

UPC- A

. H004$

LEAD DIGIT NO SEND

. H005$

CHECK DIGIT SEND

. H006$

CHECK DIGIT NO SEND

UPC-A EXPAND TO EAN-13

. H068$

ENABLE

. H067$

DISABLE

. H033$

+5 ON

. H034$

+ 5 OFF

. H035$

+2 ON

. H036$

+ 2 OFF

ADD ON SUPPLEMENT

. H045$

ADD A SPACE ON

. H046$

ADD A SPACE OFF

. H060$

ADDENDA REQUIRED ON

. H059$

ADDENDA REQUIRED OFF

NOTE:

If ADDENDA REQUIRED is set to ON, the scanner will only read an UPC-A barcode that has an addenda. At the same time please also scan +5 ON or +2 ON so the scanner will output a 5-digit or 2-digit addendum.

GROUP-34

EAN 8

. H019$

ENABLE

. H020$

DISABLE

. H021$

LEAD DIGIT SEND

EAN-8

. H022$

LEAD DIGIT NO SEND

. H023$

CHECK DIGIT SEND

. H024$

CHECK DIGIT NO SEND

. H029$

+ 5 ON

. H030$

+ 5 OFF

. H031$

+ 2 ON

. H032$

+ 2 OFF

ADD ON SUPPLEMENT

. H043$

ADD A SPACE ON

. H044$

ADD A SPACE OFF

. H062$

ADDENDA REQUIRED ON

. H061$

ADDENDA REQUIRED OFF

NOTE:

If ADDENDA REQUIRED is set to ON, the scanner will only read an EAN-8 barcode that has an addenda. At the same time please also scan +5 ON or +2 ON so the scanner will output a 5-digit or 2-digit addendum.

GROUP-35

EAN13, ISBN, ISSN, ISMN

ENABLE

DISABLE

LEAD DIGIT SEND

EAN-13

LEAD DIGIT NO SEND

CHECK DIGIT SEND

CHECK DIGIT NO SEND

+ 5 ON

+ 5 OFF

+ 2 ON

+ 2 OFF

ADD ON SUPPLEMENT

ADD A SPACE ON

ADD A SPACE OFF

ADDENDA REQUIRED ON

ADDENDA REQUIRED OFF

ISBN OFF

ISBN

ISBN ON

NOTES:

1. If ADDENDA REQUIRED is set to ON, the scanner will only read an EAN-13 bar code that has an addenda.
2. Either ISSN or ISBN will be considered as an extension of EAN-13. If ISSN or ISBN needs to be read, EAN-13 must be enabled. If ISSN and ISBN need to be read with addenda, EAN-13 must be enabled with ADDENDA REQUIRED set to ON, and +2 ON or +5 ON must be enabled as well.

ISSN OFF

ISSN

ISSN ON

NOTE:

Both ISSN and ISBN are the extension codes of EAN-13. If scanner is required to read either ISSN or ISBN, EAN-13 must be enabled. Otherwise the scanner will not be able to read ISSN or ISBN.

ISMN OFF

ISMN

ISMN ON

GROUP-36

EAN/UCC/GS1-128, CODE 128

. M001$

ENABLE

. M002$

DISABLE

. M003$

CODE ID ENABLE

. M004$

CODE ID DISABLE

EAN/UCC/GS1-128

. M005$

FUNC 1 CHAR SEND

. M006$

FUNC 1 CHAR NOT SEND

. M007$

DEFINE FNC1

The first FNC1 character is translated to]c1, and the second FNC1 character is translated to an ASCII <GS> character (scan from Group 40-46)

String format:

]C1	DATA CHARACTERS	<GS>	DATA CHARACTERS

STEPS:

1. Scan DEFINE FNC1.
2. Scan one ASCII Code (Group 40-46)
3. Scan DEFINE FNC1.

CODE 128

. J010$

ENABLE

. J011$

DISABLE

. J012$

MIN LENGTH (05)

. J013$

MAX LENGTH (48)

GROUP-37

GS1 DATABAR, LIMITED, EXPANDED

GS1 DataBar (RSS-14) - OMNI & STACKED

. N032$
GS1 DataBar ENABLE

. N033$
GS1 DataBar DISABLE

. N034$
GS1 DataBar CHECK DIGIT SEND

. N035$
GS1 DataBar CHECK DIGIT NOT SEND

. N036$
GS1 DataBar PREFIX SEND

. N037$
GS1 DataBar PREFIX NOT SEND

. N038$
GS1 DataBar STACKED ENABLE

. N039$
GS1 DataBar STACKED DISABLE

GS1 DataBar (RSS-14) - LIMITED

. N010$
GS1 DataBar LIMITED ENABLE

. N011$
GS1 DataBar LIMITED DISABLE

. N012$
GS1 DataBar LIMITED CHECK DIGIT SEND

. N013$
GS1 DataBar LIMITED CHECK DIGIT NOT SEND

. N024$
GS1 DataBar LIMITED PREFIX SEND

. N025$
GS1 DataBar LIMITED PREFIX NOT SEND

GS1 DataBar (RSS-14) - EXPANDED

. N026$
GS1 DataBar EXPANDED ENABLE

. N027$
GS1 DataBar EXPANDED DISABLE

. N028$
GS1 DataBar EXPANDED STACKED ENABLE

. N029$
GS1 DataBar EXPANDED STACKED DISABLE

. N030$
GS1 DataBar EXPANDED
MIN LENGTH (01)

. N031$
GS1 DataBar EXPANDED
MAX LENGTH (74)

GROUP-38

FULL ASCII TABLE (CODE 39)
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

GROUP-39

FULL ASCII TABLE (CODE 39)
CONTROL CODES

DLE	$P
DC1	$Q
DC2	$R
DC3	$S
DC4	$T
NAK	$U
SYN	$V
ETB	$W
CAN	$X
EM	$Y
SUB	$Z
ESC	%A
FS	%B
GS	%C
RS	%D
US	%E
SP	

GROUP-40

FULL ASCII TABLE (CODE 39)
SYMBOLS

+

-

.

$

%

/

\

!

@

#

^

~

&

*

-

=

|

GROUP-41

FULL ASCII TABLE (CODE 39)
SYMBOLS

{	%P 
}	%R 
[	%K 
]	%M 
(	/ H 
)	/ I 
<	%G 
>	%I 
`	%W 
"	/ B 
'	/ G 
,	/ L 
;	%F 
:	/ Z 
?	%J 
DEL	%T

GROUP-42

FULL ASCII TABLE (CODE 39)
UPPER CASE ALPHABETS

	A
	B
	C
	D
	E
	F
	G
	H
	I
	J
	K
	L
	M

GROUP-43

FULL ASCII TABLE (CODE 39)
UPPER CASE ALPHABETS

N	
O	
P	
Q	
R	
S	
T	
U	
V	
W	
X	
Y	
Z	

GROUP-44

FULL ASCII TABLE (CODE 39)
LOWER CASE ALPHABETS

a

b

c

d

e

f

g

h

i

j

k

l

m

GROUP-45

FULL ASCII TABLE (CODE 39)
LOWER CASE ALPHABETS

n

o

p

q

r

s

t

u

v

w

x

y

z

GROUP-46

FULL ASCII TABLE (CODE 39)
NUMBERS


0


1


2


3


4


5


6


7


8


9

GROUP-47

FULL ASCII TABLE (CODE 39)
FUNCTION KEYS

F1 $TA

F2 $TB

F3 $TC

F4 $TD

F5 $TE

F6 $TF

F7 $TG

F8 $TH

F9 $TI

F10 $TJ

F11 $TK

F12 $TL

Home $TM

End $TN

Enter (Numeric Key) $T+D

App $T+O

GROUP-48

FULL ASCII TABLE (CODE 39)
NAVIGATION KEYS

$TO

Cursor Right

$TP

Cursor Left

$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

GROUP-49

FULL ASCII TABLE (CODE 39)
MODIFIER KEYS

$T%L

Alt (Left) make*1

$T+E

Alt (Right) make

$T%N

Shift (Left) make *2

$T+I

Shift (Right) make

$T+K

Win (Left) make

$T+M

Win (Right) make

$T%W

Ctrl (Left) make *3

$T+G

Ctrl (Right) make

$T%M

Alt (Left) break

$T+F

Alt (Right) break

$T%O

Shift (Left) break

$T+J

Shift (Right) break

$T+L

Win (Left) break

$T+N

Win (Right) break

$T+A

Ctrl (Left) break

$T+H

Ctrl (Right) break

For UK Keyboard Special Character

$T+B

¬

$T+C

£

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 1

DEFAULT TABLE 1

GROUP	PARAMETER	DEFAULT
1	Setup Code Read	On
2	Reading Mode	Trigger Mode
3	LED Auto-Off Control	Disable
	LED Auto-Off Timeout (Trigger, Toggle, Flash...)	60 sec
	Flash Timeout	60 sec
	LED Auto-Off Timeout (Continuous Auto Off)	60 sec
4	Trigger Control	Disable
	Identical Read Interval	1.0 sec
5	Laser Brightness	Dim
	Illumination	Laser Always ON, LED ON After 1 Sec
6	Beep Tone	Beep Medium
	Terminator	CR(USB HID); CR+LF(USB VCP/RS232)
7	Send Data Length	Off
	Preamble & Postamble	None
8	Accuracy Adjustment	1
9	Inverse Barcode	Disable
	Code ID	Disable
11~12	Set Code ID	None
13	Interblock Delay	0 ms
	Intercharacter Delay	140 us
14	Function Code Conversion	Enable
	HT/CR/ESC Conversion	Disable
15	Keyboard Layout	English (USA)
16	Capital Lock Mode	Off
	Numeric Key	Alphanumeric Key
17	Interface	N/A (not affected by Default)
18	Baud Rate	9600
	Data Bits & Parity	8 Bits, None
19	Stop Bits	1 Stop Bit
	Handshaking	None
	ACK/NAK	Off
	Flow Control Timeout	1 Sec
	BCC	Off
20~22	**Enable and Disable Symbologies**	
	Code 32	Disable
	China Postal Code	Disable
	UK Plessey Code	Disable
	Industrial 2 of 5	Disable
	Matrix 2 of 5	Disable
	Interleaved 2 of 5	Enable
	Code 128	Enable
	Codabar	Enable
	Telepen	Disable
	UPC-A	Enable
	UPC-E	Enable
	EAN-8	Enable
	EAN-13	Enable
	MSI	Disable
	Code 39	Enable
	Code 11	Disable
	Code 93	Disable
	EAN/UCC/GS1-128	Enable
	IATA	Disable
	GS1 Databar	Disable
	GS1 Databar Stacked	Enable
	GS1 Databar Limited	Disable
	GS1 Databar Expanded	Disable
	GS1 Databar Expanded Stacked	Enable

APPENDIX 1

DEFAULT TABLE 2

GROUP	PARAMETER	DEFAULT
22	**China Post Code (Toshiba Code)**	
	Enable/Disable	Disable
	Check Digits	Disable CDV
	Min Length	11 digits
	Max Length	48 digits
23	**MSI**	
	Enable/Disable	Disable
	Check Digits	CDV & send CD
	Check Digits Mode	Single Mod 10
	UK Plessey Code	
	Enable/Disable	Disable
	Check Digits	CDV & not send CD
24	**Code 93**	
	Enable/Disable	Disable
	Min Length	6 digits
	Max Length	48 digits
	IATA	
	Enable/Disable	Disable
	Check Digits	Disable CDV
	Min Length	6 digits
	Max Length	48 digits
	Telepen	
	Enable/Disable	Disable
	Telepen ASCII/Number	ASCII
25	**Interleaved 2 of 5**	
	Enable/Disable	Enable
	Check Digits	Disable CDV
	First/ last digit suppressed	No suppressed
	Min Length	6 digits
	Max Length	48 digits
	Code 11	
	Enable/Disable	Disable
	Check Digits	Disable CDV
	CDV & Send CD (1 Digit/2 Digits)	1 digit
	Min Length	6 digits
	Max Length	32 digits
26	**Industrial 2 of 5**	
	Enable/Disable	Disable
	Check Digits	Disable CDV
	Min Length	6 digits
	Max Length	48 digits
	Matrix 2 of 5	
	Enable/Disable	Disable
	Check Digits	Disable CDV
	Min Length	6 digits
	Max Length	48 digits
27	**Codabar**	
	Enable/Disable	Enable
	Check Digits	Disable CDV
	Min Length	6 digits
	Max Length	48 digits
	ST/SP; Abcd/abcd, abcd/tn*c, ABCD/ABCD,ABCD/TN*C	ABCD/ABCD
	Send Start/Stop	Send
	CLSI Format	Off
28	**ABC-Codabar**	
	ON/OFF	Off
	Insert Data	Off
	CX-Codabar	
	ON/OFF	Off
	Insert Data	Off
29	**Codabar-Coupling**	
	ON/OFF	Off
	Insert Data	Off
	Adjacent Required	Off

APPENDIX 1

DEFAULT TABLE 3

GROUP	PARAMETER	DEFAULT
30	**Code 39**	
	Full ASCII 39 Enable/Disable	Enable
	Check Digits	Disable CDV
	Start/Stop	Not Send
	Min Length	1 digit
	Max Length	48 digits
	Code 32	
	Enable/Disable	Disable
	Leading	Send
	Tailing	Send
31	**UPC-E**	
	Enable/Disable	Enable
	Check Digits	Send
	Lead Digits	Send
	Add a space	Off
	Addenda required	Off
	+5 On/Off	Off
	+2 On/Off	Off
32	**UPC-E System Number, UPC-E Expand to UPC-A**	
	UPC E(0) On/Off	On
	UPC E(1) On/Off	Off
	UPC-E expand to UPC-A	Disable
33	**UPC-A, UPC-A Expand to EAN-13**	
	Enable/Disable	Enable
	Check Digits	Send
	Lead Digits	Send
	UPC-A expand to EAN-13	Disable
	Add a space	Off
	Addenda required	On
	+5 On/Off	Off
	+2 On/Off	Off
34	**EAN-8**	
	Enable/Disable	Enable
	Check Digits	Send
	Lead Digits	Send
	Add a space	Off
	Addenda required	On
	+5 On/Off	Off
	+2 On/Off	Off
35	**EAN-13**	
	Enable/Disable	Enable
	Check Digits	Send
	Lead Digits	Send
	Add a space	Off
	Addenda required	On
	+5 On/Off	Off
	+2 On/Off	Off
	ISBN	Off
	ISSN	Off
	ISMN	Off
36	**EAN/UCC/GS1-128**	
	Enable/Disable	Enable
	Code ID	Disable
	Func 1 Char Send	Not Send
	Code 128	
	Enable/Disable	Enable
	Check Digits	Disable CDV
	Min Length	5 digits
	Max Length	48 digits

APPENDIX 1

DEFAULT TABLE 4

GROUP	PARAMETER	DEFAULT
37	**GS1 Databar**	
	GS1 Databar	Disable
	GS1 Databar Check Digit	Not Send
	GS1 Databar Prefix	Not Send
	GS1 Databar Stacked	Enable
	GS1 Databar Limited	Disable
	GS1 Databar Limited Check Digit	Not Send
	GS1 Databar Limited Prefix	Not Send
	GS1 Databar Expanded	Disable
	GS1 Databar Expanded Stacked	Enable
	GS1 Databar Expanded Min Length	1 digit
	GS1 Databar Expanded Max Length	74 digits