

Ez One Shot[®]

PEN/SLOT
READER
USER'S
MANUAL



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CLONING MODE

WHAT IS CLONING MODE?

CLONING duplicates a scanner's 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.



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 "...". Length must be in sequences of four, such as 4, 8, 12, 16, 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 :

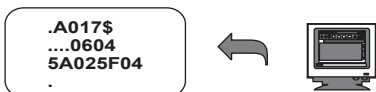
1. PROJECT ASSIGNMENTS:

- 1.1. Beep tone: **BEEP LOW**
- 1.2. Capslock Mode: **CAPSLOCK ON.**

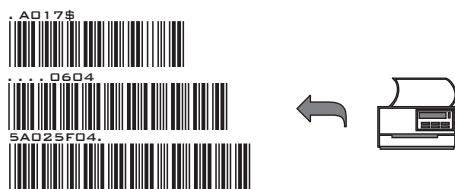
2. SETTING PROCEDURE:

- 2.1. Scan **BEEP LOW (GROUP 2).**
- 2.2. Scan **CAPSLOCK ON (GROUP 11).**

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\$ 0604 5A02 5F04 .	4 4 4 4 . (Dot)	.A017\$06045A02 5F04.	12 4+.(Dot)
--	-----------------------------	----------------------------------	----------------

WRONG SETTING

.A017\$..0604 5A02 5F04 .	←	Wrong Setting: The string "..." consists of 4 Dots, located at the beginning of second row; do not break the "..." into multiple strings.
.A017\$06045 A025F04 .	✓ 9 x } ← 7 x } ← . (Dot) ✓	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.
.A017\$.... 0604 5A02 5F04.	X ← 4 ✓ 4 ✓ 4+.(Dot) ✓	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 33-44

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 41

Step 3: Scan MIN LENGTH or MAX LENGTH.

Set Code ID (Example: Code 39)

Step 1: Scan CODE 39 SET ID from Group 6

Step 2: Scan either one or two alphanumerics (maximum 2 digits) from Full ASCII table in Group 35-41

Step 3: Scan CODE 39 SET ID from Group 6

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 35-41

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

BEEP TONE, TERMINATOR

BEEP TONE

.F019\$



BEEP HIGH (2.7KHz)

.F018\$



BEEP MEDIUM (2.7KHz)

.F014\$



BEEP HIGH (2KHz)

.F012\$



BEEP OFF

.F022\$



BEEP LOW (2.7KHz)

.F013\$



BEEP MEDIUM (2KHz)

.F017\$



BEEP LOW (2KHz)

NOTE:

1. MT412 does not support Beep Low/Medium/High (2.7KHz)

TERMINATOR

.D010\$



NONE

.D011\$



LF

.D012\$



CR

.D013\$



CR+LF

.D014\$



TAB

.D015\$



SPACE

.D016\$



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-3

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-4

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	JE0	4563987123453	12411
Preamble 145287	CODE ID AIM ID : JE0	BARCODE / DATA EAN 13 +5	
OUTPUT : 145287JE0456398712345312411			

GROUP-5

SYBBOLOGIES CODE IDENTIFIER

Symbologies		Factory ID	AIM ID	
ID	Code 39	Disable CDV	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-6

SET CODE ID

. P001\$



EAN 13 Set ID

. P002\$



EAN 8 Set ID

. P003\$



UPC E Set ID

. P004\$



UPC A Set ID

. P005\$



Code 39 Set ID

. P013\$



Code 93 Set ID

. P007\$



Codabar Set ID

. P021\$



IATA Set ID

. P010\$



Code 128 Set ID

. P016\$



EAN 128 Set ID

. P022\$



Telepen Set ID

. P009\$



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.

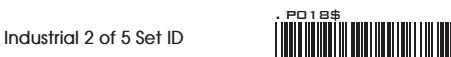
RESET / ABORT

. P023\$



GROUP-7

SET CODE 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-8

INTERBLOCK DELAY, INTERCHARACTER DELAY

INTERBLOCK DELAY

. B001\$ 	<u>0mS</u>
. B002\$ 	10mS
. B003\$ 	50mS
. B004\$ 	100mS
. B005\$ 	200mS
. B006\$ 	500mS

INTERCHARACTER DELAY

. B010\$ 	<u>140uS</u>
. B011\$ 	500uS
. B012\$ 	1mS
. B013\$ 	4mS
. B014\$ 	16mS

GROUP-9

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 42-44).

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-10

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-11

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 transmitting 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-12

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-13

RS232 SETTINGS

BAUD RATE

.E003\$



1200

.E004\$



2400

.E005\$



4800

.E006\$



9600

.E007\$



19200

.E022\$



38400

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-14

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-15

ENABLE/ DISABLE SYMBOLOGIES

ENABLE



ENABLE ALL CODE



CODE 32



CHINA POSTAL CODE



UK PLESSEY CODE



INDUSTRIAL 2 OF 5



MATRIX 2 OF 5



INTERLEAVED 2 OF 5



CODE 128



CODABAR



TELEPEN

DISABLE



DISABLE ALL CODE



CODE 32



CHINA POSTAL CODE



UK PLESSEY CODE



INDUSTRIAL 2 OF 5



MATRIX 2 OF 5



INTERLEAVED 2 OF 5



CODE 128



CODABAR



TELEPEN

GROUP-16

ENABLE/ DISABLE SYMBOLOGIES

ENABLE



UPC-A



UPC-E



EAN-8



EAN-13



MSI



CODE 39



CODE 11



CODE 93



EAN/UCC/GS1-128



IATA

DISABLE



UPC-A



UPC-E



EAN-8



EAN-13



MSI



CODE 39



CODE 11



CODE 93



EAN/UCC/GS1-128



IATA

GROUP-17

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

. K004\$



CDV & SEND CD

. K005\$



CDV & NOT SEND CD

. K006\$



MIN LENGTH (11)

. K007\$



MAX LENGTH (48)

CHINA POSTAL CODE

[TOSHIBA CODE]

. K001\$



ENABLE

. K002\$



DISABLE

. K003\$



DISABLE CDV

GROUP-18

MSI CODE, UK PLESSEY CODE

. L001\$



ENABLE

. L002\$



DISABLE

. L004\$



CDV & SEND CD

. L003\$



CDV & NOT SEND CD

. L007\$



CHECK DIGIT DOUBLE
MOD 10

MSI

. L008\$



CHECK DIGIT DOUBLE 11
PLUS MOD 10

. L009\$



CHECK DIGIT SINGLE
MOD 10

. L005\$



MIN LENGTH (06)

. L006\$



MAX LENGTH (48)

. L010\$



ENABLE

. L011\$



DISABLE

UK PLESSEY CODE

. L012\$



CDV & SEND CD

. L013\$



CDV & NOT SEND CD

GROUP-19

CODE 93, IATA, TELEPEN



CODE 93



IATA



TELEPEN



GROUP-20

INTERLEAVED 2 OF 5, CODE 11



INTERLEAVED 2 OF 5



CODE 11



GROUP-21

INDUSTRIAL 2 OF 5, MATRIX 2 OF 5

. N001\$



ENABLE

. N002\$



DISABLE

. N003\$



DISABLE CDV

. N004\$



CDV & SEND CD

INDUSTRIAL 2 OF 5

. N005\$



CDV & NOT SEND CD

. N006\$



MIN LENGTH (06)

. N007\$



MAX LENGTH (48)

. M010\$



ENABLE

. M011\$



DISABLE

. M012\$



DISABLE CDV

. M013\$



CDV & SEND CD

MATRIX 2 OF 5

. M014\$



CDV & NOT SEND CD

. M015\$



MIN LENGTH (06)

. M016\$



MAX LENGTH (48)

GROUP-22

CODABAR



ENABLE



DISABLE



DISABLE CDV



CDV & SEND CD

CODABAR



CDV & NOT SEND CD



MIN LENGTH (06)



MAX LENGTH (48)



ST/SP: abcd/abcd



ST/SP: ABCD/ABCD



ST/SP: ABCD/TN*E



ST/SP: abcd/tn*e

START / STOP



SEND START / STOP



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



CLSI FORMAT ON



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-23

ABC- CODABAR, CX- CODABAR

. I 017\$



ON

. I 018\$



OFF

. I 035\$



SET INSERT DATA*

ABC- CODABAR

. I 039\$



INSERT DATA- ON

. I 036\$



INSERT DATA- OFF

* The data can be any alphanumerics of FULL ASCII Table (GROUP 35-41)

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.

. I 022\$



ON

. I 023\$



OFF

. I 037\$



SET INSERT DATA*

CX CODE- CODABAR

. I 040\$



INSERT DATA- ON

. I 038\$



INSERT DATA- OFF

* The data can be any alphanumerics of FULL ASCII Table (GROUP 35-41)

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-24

CODABAR COUPLING, ADJACENT REQUIRED



ON



OFF



SET INSERT DATA*

CODABAR COUPLING



INSERT DATA - ON



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 alphanumeric of FULL ASCII Table (GROUP 35-41)*

ADJACENT REQUIRED

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

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.



ON



OFF

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



GROUP-25

STANDARD & FULL ASCII CODE 39, CODE 32

STANDARD CODE 39 & FULL ASCII 39



NOTE:

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



CODE 32



GROUP-26

UPC-E

. H007\$



ENABLE

. H008\$



DISABLE

. H009\$



LEAD DIGIT SEND

. H010\$



LEAD DIGIT NO SEND

. H011\$



CHECK DIGIT SEND

. H012\$



CHECK DIGIT NO SEND

UPC-E

. 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-27

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

UPC-E0

. H064\$



E (0) OFF

. H063\$



E (0) ON

UPC-E1

. H065\$



E (1) ON

. H066\$



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

. H053\$



ENABLE

. H054\$



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-28

UPC- A



ENABLE



DISABLE



LEAD DIGIT SEND



LEAD DIGIT NO SEND



CHECK DIGIT SEND



CHECK DIGIT NO SEND

UPC-A EXPAND TO EAN-13



ENABLE



DISABLE



+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

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-29

EAN 8



ENABLE



DISABLE



LEAD DIGIT SEND



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

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-30

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

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.

ISBN



ISBN ON



ISSN OFF

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.

ISSN



ISSN ON



ISMN OFF

ISMN



ISMN ON

GROUP-31

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 FNC 1

The first FNC1 character is translated to Jc1, and the second FNC1 character is translated to an ASCII <GS> character (scan from Group 35-41)

String format:

Jc1	DATA CHARACTERS	<GS>	DATA CHARACTERS
-----	-----------------	------	-----------------

STEPS:

1. Scan DEFINE FNC1.
2. Scan one ASCII Code (Group 35-41)
3. Scan DEFINE FNC1.

CODE 128

. J010\$



ENABLE

. J011\$



DISABLE

. J012\$



MIN LENGTH (05)

. J013\$



MAX LENGTH (48)

GROUP-32

GS1 DATABAR, LIMITED, EXPANDED

. N032\$ GS1 DataBar (RSS-14) - OMNI & STACKED



GS1 DataBar (RSS-14) - LIMITED



GS1 DataBar (RSS-14) - EXPANDED



GROUP-33

FULL ASCII TABLE (CODE 39)
CONTROL CODES

%L		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-34

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-35

FULL ASCII TABLE (CODE 39) SYMBOLS

+		+
-		-
.		.
\$		\$
%		%
/		/
%L		\
/ A		!
%V		@
/ C		#
%N		^
%S		~
/ F		&
/ J		*
%□		-
%H		=
%□		

GROUP-36

FULL ASCII TABLE (CODE 39) SYMBOLS

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

GROUP-37

FULL ASCII TABLE (CODE 39)
UPPER CASE ALPHABETS



A



B



C



D



E



F



G



H



I



J



K



L



M


GROUP-38


FULL ASCII TABLE (CODE 39)
UPPER CASE ALPHABETS


N 

O 


P 

Q 

R 

S 

T 

U 

V 

W 

X 

Y 

Z 

GROUP-39

FULL ASCII TABLE (CODE 39) 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

GROUP-40

FULL ASCII TABLE (CODE 39) LOWER CASE ALPHABETS

n 

o 

p 

q 

r 

s 

t 

u 

v 

w 

x 

y 

z 

GROUP-41

FULL ASCII TABLE (CODE 39) NUMBERS



0



1



2



3



4



5



6



7



















8



9














GROUP-42

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+□	

GROUP-43

FULL ASCII TABLE (CODE 39)
NAVIGATION KEYS

\$TQ		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-44

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%Q



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	Beep Tone	Beep Medium
	Terminator	CR(USB HID); CR+LF(USB VCP/RS232)
3	Send Data Length	Off
	Preamble & Postamble	None
4	Inverse Barcode	Disable
	Code ID	Disable
6~7	Set Code ID	None
8	Interblock Delay	0 ms
	Intercharacter Delay	140 us
9	Function Code Conversion	Enable
	HT/CR/ESC Conversion	Disable
10	Keyboard Layout	English (USA)
11	Capital Lock Mode	Off
	Numeric Key	Alphanumeric Key
12	Interface	N/A (not affected by Default)
13	Baud Rate	9600
	Data Bits & Parity	8 Bits, None
14	Stop Bits	1 Stop Bit
	Handshaking	None
	ACK/NAK	Off
	Flow Control Timeout	1 Sec
	BCC	Off
15~17	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
17	China Post Code (Toshiba Code)	
	Enable/Disable	Disable
	Check Digits	Disable CDV
	Min Length	11 digits
	Max Length	48 digits
18	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
19	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
20	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	
21	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
22	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	
23	ABC-Codabar	
	ON/OFF	Off
	Insert Data	Off
	CX-Codabar	
	ON/OFF	Off
	Insert Data	Off
24	Codabar-Coupling	
	ON/OFF	Off
	Insert Data	Off
	Adjacent Required	Off

APPENDIX 1

DEFAULT TABLE 3

GROUP	PARAMETER	DEFAULT
25	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	
26	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
27	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
28	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	
29	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
30	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
31	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
32	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