Ez One Shot®

2D FIXED MOUNT SCANNER USER'S MANUAL

Version: 2019.1B
Model: MT6222

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.

Figure 1

CLONING MODE

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

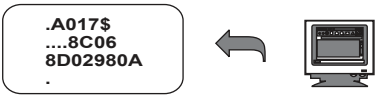
CLONING MODE

EXAMPLE :

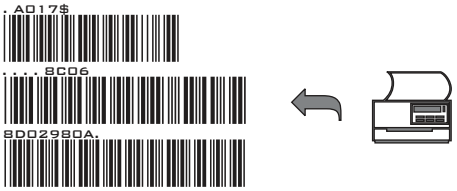
1. PROJECT ASSIGNMENTS:
1.1. Beep tone: **BEEP LOW**
1.2. Capslock Mode: **CAPSLOCK ON**
1.3. Reading Mode: **CONTINUOUS MODE**

2. SETTING PROCEDURE:
2.1. Scan **BEEP LOW (GROUP 5).**
2.2. Scan **CAPSLOCK ON (GROUP 13).**
2.3. Scan **CONTINUOUS MODE (GROUP2).**

3. Scan [.A016$] Cloning Mode. All parameters will be output in 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 from the first row to the second and so on sequentially, top to bottom, with the scanner you wish to “clone” these settings to.

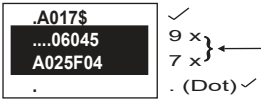
CORRECT SETTING

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

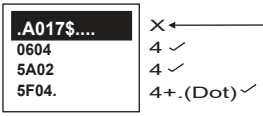
.A017$	
....06045A02	12
5F04.	4+.(Dot)

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 bar code representing the function/ parameter you want to set.
2. When you hear two beeps, the new settings have been defined or updated permanently to the scanner.

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 bar code, but a few need several different bar codes to be scanned in order to completely define a setting (i.e Multi-step Configurations). They are:

Preamble / Postamble (maximum 16 digits)
Step 1: Scan CLR PRE/POSTAMBLE.
Step 2: Scan PREAMBLE or POSTAMBLE.
Step 3: Scan 1 ~ 16 alphanumeric from Full ASCII table (Group 31-42).
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 table - Numbers (Group 39).
Step 3: Scan MIN LENGTH or MAX LENGTH.

Set Code ID (Example: Code 39)
Step 1: Scan CODE 39 SET ID from Group 9
Step 2: Scan either one or two alphanumerics (maximum 2 digits) from Full ASCII table (Group 33-39)
Step 3: Scan CODE 39 SET ID from Group 9

NOTES:

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

* Reset to factory default

CHECK VERSION

* Check firmware version

RESET/ ABORT

* Abort multi-step configuration

SETUP CODE READ

SETUP CODE ON

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!

FUNCTION CODE CONVERSION

ENABLE

DISABLE

* Caution: Once disabled, the scanner will output the original encoded data of the barcodes in Full ASCII Table - Function/Navigation/Modifier Keys (Group 40-42).

GROUP-2

READING MODE

CONTINUOUS MODE

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

AUTO SENSING MODE (IMAGER)

* Auto-Sensing Mode (Imager) uses ambient light to detect barcodes. The LED dims until a barcode is presented to the scanner, then the LED brightens to read the barcode.
* If the ambient light condition is poor, the scanner might not be working properly.

AUTO SENSING MODE (INFRARED)

* Auto-Sensing Mode (Infrared) uses Infrared Sensor to detect objects. The LED brightens when an object is detected.
* The LED turns off if no object is detected after LED Auto-off Timeout expires.

SERIAL TRIGGER MODE

* CAUTION !! Do NOT scan this configuration barcode while in USB HID interface !! Make sure your scanner is RS232 interface or switch to USB VCP interface.
* The LED will turn on after receiving serial command “{G}”, or <0x7B><0x47><0x7D> by default.
* The LED will turn off after one barcode is read or after receiving serial command “{S}”, or <0x7B><0x53><0x7D> by default.

NEAR

MIDDLE

FAR

AUTO-SENSING (INFRARED) RANGE

NOTE:

1. Near - Max. 13cm Auto-sensing Range
2. Middle - Max. 20cm Auto-sensing Range
3. Far - Max. 27cm Auto-sensing Range

GROUP-3

ADVANCED READING MODE SETTINGS

SCAN INTERVAL (CONTINUOUS, AUTO-SENSING MODE(IMAGER))

SCAN INTERVAL
(DEFAULT = 1 SEC)

NOTE:

1. Scan Interval is the timeout between two consecutive scans.

STEPS:

1. Scan SCAN INTERVAL
2. Scan 2 digits (01~60) from Full ASCII table - Numbers (Group 39)
3. Scan SCAN INTERVAL

LED AUTO-OFF TIMEOUT (ALL READING MODES)

LED AUTO OFF TIMEOUT
(DEFAULT = 0 SEC)

STEPS:

1. Scan LED AUTO-OFF TIMEOUT
2. Scan 2 digits (00~60) from Full ASCII table - Numbers (Group 39)
3. Scan LED AUTO-OFF TIMEOUT

IDENTICAL READ INTERVAL (CONTINUOUS, AUTO-SENSING MODE(IMAGER))

IDENTICAL READ INTERVAL
(DEFAULT = 2 SEC)

NOTE:

1. Identical Read Interval is the timeout between two consecutive scans on the same barcode. The interval starts counting after the barcode is removed.

STEPS:

1. Scan IDENTICAL READ INTERVAL
2. Scan 2 digits (00~60) from Full ASCII table - Numbers (Group 39)
3. Scan IDENTICAL READ INTERVAL

GROUP-4

ADVANCED READING MODE SETTINGS

NO READ STATUS (ALL READING MODE)

. D040$

NO READ STATUS DISABLE

. D041$

NO READ STATUS ENABLE

NOTE:

1. When enabled, a “No Read” message will be sent after LED Auto-Off Timeout expires.
2. For Trigger Mode and Toggle Mode, LED Auto-Off Control must also be enabled for No Read Status to be functional.

NO READ MESSAGE (ALL READING MODES)

. D042$

NO READ MESSAGE
(DEFAULT = “No Read”)

NOTE:

1. No Read Status must also be enabled for No Read Message to be functional.

STEPS:

1. Scan NO READ MESSAGE
2. Scan 0~7 alphanumerics from Full ASCII table - Numbers (Group 39)
3. Scan NO READ MESSAGE

IMAGER SENSITIVITY (AUTO-SENSING MODE (IMAGER))

. F030$

IMAGER SENSITIVITY
(DEFAULT = 10)

NOTE:

1. The less the value, the more sensitive the scanner becomes.

STEPS:

1. Scan IMAGER SENSITIVITY
2. Scan 2 digits (01~20) from Full ASCII table - Numbers (Group 39)
3. Scan IMAGER SENSITIVITY

GROUP-5

BEEP TONE, BEEP MODE, TERMINATOR

BEEP TONE

.F019$

BEEP HIGH

.F018$

BEEP MEDIUM

.F022$

BEEP LOW

. F012$

BEEP OFF

BEEP MODE

. F023$

NORMAL

. F024$

WARNING BEEP ONLY

. F025$

MUTE

TERMINATOR

. D010$

NONE

. D011$

LF

. D012$

CR

. D013$

CR+LF

. D014$

TAB

. D015$

SPACE

. D016$

ESC

NOTE:

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-6

SEND DATA LENGTH, PREAMBLE & POSTAMBLE

SEND DATA LENGTH

.DD19$

SEND DATA LENGTH ON

.DD20$

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.
STEP 4 : Scan : PREAMBLE.
STEP 5 : Scan : POSTAMBLE.
STEP 6 : Scan : " $ " twice from Full ASCII Table.
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-7

CODE ID, INVERSE BARCODE

INVERSE BARCODE

. D022$

ENABLE INVERSE BARCODE

. D021$

DISABLE INVERSE BARCODE

CODE ID / SYMBOLOGY ID

.A008$

FACTORY ID ON

.A014$

AIM ID ON

.A015$

SET ID ON

.A009$

DISABLE CODE ID

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.

DATA FORMAT:

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

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

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

OUTPUT : 145287]E0456398712345312411

GROUP-8

SYMBOLOGIES CODE IDENTIFIER

SYMBOLOGIES CODE ID IDENTIFIER					
Symbologies	Factory ID	AIM ID	Symbologies	Factory ID	AIM ID
GS1 128	T	]C1	MSI (MOD 10/CDV & send one CD)	O	]M0
Code 128	K	]C0	MSI (MOD 10/CDV & not send CD)		]M1
AIM-128		]C2	MSI (send two CD)		]M8
ISBT-128		]C4	MSI (disable CDV)		]M9
EAN (+2/+5 OFF, +2 ON, +5 ON)	S	]E4	Code 32	B	]X0
UPC-E (+2/+5 OFF)		]E0	Codabar	N	]F0
UPC-E (+2 ON)	E	]E3	Codabar (ABC Codabar)		]F1
UPC-E (+5 ON)		]E3	Codabar (CDV & send CD)		]F2
UPC-A (+2/+5 OFF)	A	]E0	Codabar (CDV & not send CD)		]F4
UPC-A (+2 ON)		]E3	UK Plessey	P	]P0
UPC-A (+5 ON)		]E3	Matrix 2 of 5	Y	]X0
EAN-13 (+2/+5 OFF)	F	]E0	Matrix 2 of 5 (disable CDV)		]X1
EAN-13 (+2 ON)		]E3	Matrix 2 of 5 (MOD 10/CDV & send one CD)		]X2
EAN-13 (+5 ON)		]E3	Matrix 2 of 5 (MOD 10/CDV & not send CD)		]X3
Code 93	L	]G0	ISBN		]X4
Code 11 (send one CD)	J	]H0	ISNN		]X5
Code 11 (send two CD)		]H1	Full ASCII Code 39(disable CDV)	D	]A4
Code 11 (not send CD)		]H3	Full ASCII Code 39(CDV & send CD)		]A5
Code 11 (disable CDV)		]H9	Full ASCII Code 39(CDV & not send CD)		]A7
IATA 2 of 5 (disable CDV)	R	]R0	Standard Code 39 (disable CDV)	M	]A0
IATA 2 of 5 (MOD 10/send one CD)		]R8	Standard Code 39 (CDV and send CD)		]A1
IATA 2 of 5 (MOD 10/send one CD)		]R9	Standard Code 39 (CDV and not send CD)		]A3
Industrial 2 of 5	V	]S0	Databar (Stacked/Omnidirectional/Truncated)	G	]e0
PDF 417	Z	]L0	Databar Limited	C	
Data Matrix (ECC000-140)	X	]d0	Databar Expanded	Q	
Data Matrix (ECC200)		]d1	Databar Expanded stacked		
Data Matrix (ECC200, FNC1 is the 1st/5th digit)		]d2	QR Code	W	]Q0
Data Matrix (ECC200, FNC1 is the 2nd/6th digit)		]d3	2005 ver., w/o ECL		]Q1
Data Matrix (ECC200, ECL)		]d4	2005 ver., w/ ECL		]Q2
Data Matrix (ECC200, FNCL is the 1st/5th digit, w/ ECL)		]d5	2005 ver., FNC1 is the 1st digit, w/o ECL		]Q3
Data Matrix (ECC200, FNCL is the 2nd/6th digit, w/ ECL)		]d6	2005 ver., FNC1 is the 1st digit, w/ ECL		]Q4
Interleaved 2 of 5, incl: ITF-6, ITF-14 (CDV & send CD)	I	]I1	2005 ver., FNC1 is the 2nd digit, w/o ECL		]Q5
Interleaved 2 of 5, incl: ITF-6, ITF-14 (CDV & not send CD)		]I3	2005 ver., FNC1 is the 2nd digit, w/ ECL		]Q6
Interleaved 2 of 5 (disable CDV)		]I0			

GROUP-9

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

GS1 128 Set ID

Code 11 Set ID

MSI Set ID

UK Plessey Set ID

Matrix 2 of 5 Set ID

Interleaved 2 of 5
Set ID

GROUP-10

SET CODE ID

Industrial 2 of 5 Set ID

Full ASCII Code39 Set ID

GS1 Databar Set ID

PDF417 Set ID

QR Code Set ID

Data Matrix Set ID

Chinese Sensible Code (Han Xin) 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 length of a Code ID is either one or two characters. If one character is set, the Code ID output will be one character. If two characters are set, the Code ID output will be two characters.

GROUP-11

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-12

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-13

CAPLOCK MODE, NUMERIC KEY, HT/CR/ESC CONVERSION

CAPITAL LOCK MODE

. A004$

CAPLOCK ON

. A005$

CAPLOCK OFF

. A006$

CAPLOCK FREE

NOTE:

1. When barcode scanner is set to Caplock 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

. D017$

NUMERIC KEY

. D018$

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.

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

. D056$

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

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-14

UTF-8 to Unicode Conversion, Interface

UTF-8 TO UNICODE CONVERSION

. C044$

DISABLE

. C045$

ENABLE

*This conversion is not supported when Keyboard Layout is set to Alt Code.

INTERFACE

. C008$

USB HID (Composite)

. C005$

USB HID (Keyboard Only)

. C006$

USB VCP

NOTE:

1. Before switching to USB VCP, please make sure you have installed proper driver on PC. The driver is available for download on website or from your local distributor.

2. USB HID (Keyboard Only) deprives the scanner of the ability to connect with Ez Utility. Do not switch to this interface unless your host device has difficulty recognizing the scanner as composite device.

GROUP-15

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-16

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-17

ENABLE/ DISABLE SYMBOLOGIES

ENABLE


ENABLE ALL CODE


UK PLESSEY CODE


INDUSTRIAL 2 OF 5


MATRIX 2 OF 5


INTERLEAVED 2 OF 5


CODE 128


CODABAR


CODE 93


GS1-128


IATA


CODE 11


MSI

DISABLE


DISABLE ALL CODE


UK PLESSEY CODE


INDUSTRIAL 2 OF 5


MATRIX 2 OF 5


INTERLEAVED 2 OF 5


CODE 128


CODABAR


CODE 93


GS1-128


IATA


CODE 11


MSI

GROUP-18

ENABLE/ DISABLE SYMBOLOGIES

ENABLE

. H001$

UPC-A

. H007$

UPC-E

. H019$

EAN-8

. H013$

EAN-13

. G008$

CODE 39

. G001$

FULL ASCII CODE 39

. N010$

GS1 Databar

.G021$

PDF417

.G025$

QR CODE

.G027$

MICRO QR CODE

.G031$

DATA MATRIX

.G059$

CHINESE SENSIBLE CODE
(HAN XIN)

DISABLE

. H002$

UPC-A

. H008$

UPC-E

. H020$

EAN-8

. H014$

EAN-13

. G009$

CODE 39

. G002$

FULL ASCII CODE 39

. N011$

GS1 Databar

.G022$

PDF417

.G026$

QR CODE

.G028$

MICRO QR CODE

.G032$

DATA MATRIX

.G060$

**CHINESE SENSIBLE CODE
(HAN XIN)**

GROUP-19

PDF417, (MICRO) QR CODE, DATA MATRIX, CHINESE SENSIBLE

PDF417

.G021$

ENABLE

.G022$

DISABLE

.G023$

MIN LENGTH (0001)

.G024$

MAX LENGTH (2710)

(MICRO) QR CODE

.G025$

QR CODE ENABLE

.G026$

QR CODE DISABLE

.G027$

MICRO QR CODE ENABLE

.G028$

MICRO QR CODE DISABLE

.G029$

MIN LENGTH (0001)

.G030$

MAX LENGTH (4000)

DATA MATRIX

.G031$

ENABLE

.G032$

DISABLE

.G033$

MIN LENGTH (0001)

.G034$

MAX LENGTH (3116)

CHINESE SENSIBLE CODE (HAN XIN)

.G059$

ENABLE

.G060$

DISABLE

.G061$

MIN LENGTH (0001)

.G062$

MAX LENGTH (4000)

GROUP-20

MSI, UK PLESSEY

MSI

. L001$

ENABLE

. L002$

DISABLE

. L004$

CDV & SEND CD

. L003$

CDV & NOT SEND CD

. L016$

DISABLE CDV

. L007$

CHECK DIGIT DOUBLE MOD 10

. L008$

CHECK DIGIT DOUBLE 10 PLUS MOD 11

. L009$

CHECK DIGIT SINGLE MOD 10

. L005$

MIN LENGTH (03)

. L006$

MAX LENGTH (48)

UK PLESSEY CODE

. L010$

ENABLE

. L011$

DISABLE

. L022$

MIN LENGTH (02)

. L012$

CDV & SEND CD

. L013$

CDV & NOT SEND CD

. L023$

MAX LENGTH (48)

GROUP-21

CODE 93, IATA

CODE 93

. G010$

ENABLE

. G011$

DISABLE

. G016$

CDV & SEND CD

. G012$

MIN LENGTH (03)

. G013$

MAX LENGTH (48)

. G017$

CDV & NOT SEND CD

IATA

. N017$

ENABLE

. N018$

DISABLE

. N019$

DISABLE CDV

. N020$

CDV & SEND CD

. N021$

CDV & NOT SEND CDV

. N022$

MIN LENGTH (06)

. N023$

MAX LENGTH (48)

GROUP-22

INTERLEAVED 2 OF 5, CODE 11

INTERLEAVED 2 OF 5

. J001$

ENABLE

. J002$

DISABLE

. J003$

DISABLE CDV

. J004$

CDV & SEND CD

. J006$

MIN LENGTH (06)

. J007$

MAX LENGTH (80)

. J005$

CDV & NOT SEND CD

CODE 11

. I 010$

ENABLE

. I 011$

DISABLE

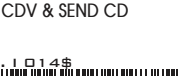
. I 012$

DISABLE CDV

. I 013$

CDV & SEND CD

. I 014$



CDV & NOT SEND CD

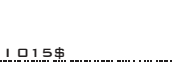
. I 043$

CDV 2 DIGITS

. I 042$

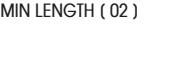
CDV 1 DIGIT

. I 015$



MIN LENGTH (02)

. I 016$



MAX LENGTH (48)

GROUP-23

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 (80)

GROUP-24

CODABAR

.1001$

ENABLE

.1002$

DISABLE

.1005$

DISABLE CDV

.1006$

CDV & SEND CD

CODABAR

.1007$

CDV & NOT SEND CD

.1008$

MIN LENGTH (02)

.1009$

MAX LENGTH (60)

.1030$

ST/SP: abcd/abcd

.1029$

ST/SP: ABCD/ABCD

.1031$

ST/SP: ABCD/TN*E

.1032$

ST/SP: abcd/tn*e

START / STOP

.1003$

SEND START / STOP

.1004$

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**

GROUP-25

STANDARD/FULL ASCII CODE 39

. G008$

ENABLE

. G009$

DISABLE

. G001$

FULL ASCII CODE 39 ENABLE

. G002$

FULL ASCII CODE 39 DISABLE

. G014$

START / STOP SEND

. G015$

START / STOP - NOT SEND

STANDARD CODE 39 & FULL ASCII 39

. G003$

DISABLE CDV

. G004$

CDV & SEND CD

. G005$

CDV & NOT SEND CD

. G006$

MIN LENGTH (02)

. G007$

MAX LENGTH (48)

GROUP-26

UPC-E, UPC-E EXPAND TO UPC-A

UPC-E

. H007$

ENABLE

. H008$

DISABLE

. H009$

LEAD DIGIT SEND

. H010$

LEAD DIGIT NOT SEND

. H011$

CHECK DIGIT SEND

. H012$

CHECK DIGIT NOT SEND

ADD ON SUPPLEMENT

. H037$

+5 ON

. H038$

+ 5 OFF

. H039$

+2 ON

. H056$

ADDENDA REQUIRED ON

. H055$

ADDENDA REQUIRED OFF

. H040$

+ 2 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.

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 in front of the bar code.

GROUP-27

UPC-A, UPC-A EXPAND TO EAN-13

UPC- A

. H001$

ENABLE

. H002$

DISABLE

. H005$

CHECK DIGIT SEND

. H006$

CHECK DIGIT NOT SEND

UPC-A EXPAND TO EAN-13

. H068$

ENABLE

. H067$

DISABLE

ADD ON SUPPLEMENT

. H033$

+5 ON

. H034$

+ 5 OFF

. H035$

+2 ON

. H060$

ADDENDA REQUIRED ON

. H059$

ADDENDA REQUIRED OFF

. H036$

+ 2 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-28

EAN-8, EAN-8 EXPAND TO EAN-13

ENABLE

DISABLE

EAN-8

CHECK DIGIT SEND

CHECK DIGIT NOT SEND

EAN-8 EXPAND TO EAN-13 (ZERO EXTEND)

ENABLE

DISABLE

+ 5 ON

+ 5 OFF

+ 2 ON

ADD ON SUPPLEMENT

ADDENDA REQUIRED ON

ADDENDA REQUIRED OFF

+ 2 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-29

EAN-13, ISBN, ISSN

. H013$

ENABLE

. H014$

DISABLE

EAN-13

. H017$

CHECK DIGIT SEND

. H018$

CHECK DIGIT NOT SEND

. H025$

+ 5 ON

. H026$

+ 5 OFF

. H027$

+ 2 ON

ADD ON SUPPLEMENT

. H058$

ADDENDA REQUIRED ON

. H057$

ADDENDA REQUIRED OFF

. H028$

+ 2 OFF

. H050$

ISBN OFF

. H073$

ISBN-10

ISBN

. H049$

ISBN ON

. H074$

ISBN-13

. H052$

ISSN OFF

ISSN

. H051$

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.

GROUP-30

GS1-128, CODE 128, GS1 DATABAR

GS1-128

. M001$

ENABLE

. M002$

DISABLE

. M019$

MIN LENGTH (01)

. M020$

MAX LENGTH (99)

CODE 128

. J010$

ENABLE

. J011$

DISABLE

. J012$

MIN LENGTH (01)

. J013$

MAX LENGTH (48)

GS1 DATABAR

. N010$

ENABLE

. N024$

SEND PREFIX

. N011$

DISABLE

. N025$

PREFIX NOT SEND

GROUP-31

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-32

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-33

FULL ASCII TABLE (CODE 39)
SYMBOLS

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

GROUP-34

FULL ASCII TABLE (CODE 39)
SYMBOLS

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

GROUP-35

FULL ASCII TABLE (CODE 39)
UPPER CASE ALPHABETS

A

B

C

D

E

F

G

H

I

J

K

L

M

GROUP-36

FULL ASCII TABLE (CODE 39)
UPPER CASE ALPHABETS

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

GROUP-37

FULL ASCII TABLE (CODE 39)
LOWER CASE ALPHABETS

a

b

c

d

e

f

g

h

i

j

k

l

m

GROUP-38

FULL ASCII TABLE (CODE 39)
LOWER CASE ALPHABETS

n 

o 

p 

q 

r 

s 

t 

u 

v 

w 

x 

y 

z 

GROUP-39

FULL ASCII TABLE (CODE 39)
NUMBERS

.30  0

.31  1

.32  2

.33  3

.34  4

.35  5

.36  6

.37  7

.38  8

.39  9

GROUP-40

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-41

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-42

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	ON
	Function Code Conversion	Enable
2	Reading Mode	Auto-sensing Mode (Infrared)
	Auto-sensing (Infrared) Range	Middle
3	Scan Interval	1 sec
	LED Auto-Off Timeout	0 sec
	Identical Read Interval	2 sec
4	No Read Status	Disable
	No Read Message	No Read
	Imager Sensitivity	10
5	Beep Tone	Medium
	Beep Mode	Normal
	Terminator	CR (USB HID) CR+LF (USB VCP/RS232)
6	Send Data Length	OFF
	Preamble	None
	Postamble	None
7	Inverse Barcode	Disable
	Code ID (Symbology ID)	Disable
9~10	Set ID	None
11	Interblock Delay	0mS
	Intercharacter Delay	140uS
12	Keyboard Layout	English (USA)
13	Capital Lock Mode	OFF
	Numeric Key	Alphanumeric Key
	HT/CR/ESC Conversion	Disable
14	UTF-8 to Unicode Conversion	Disable
	Interface	N/A (normally USB HID ouf of box)
15	Baud Rate	9600
	Data Bits & Parity	8 bits, None
16	Stop Bits	1 Stop Bit
	Handshaking	None
	ACK/NAK	OFF
	Flow Control Timeout	1 sec
	BCC	OFF
17~18	**Enable/Disable Symbologies**	
	UK Plessey	Enable
	Industrial 2 of 5	Enable
	Matrix 2 of 5	Disable
	Interleaved 2 of 5	Enable
	Code 128	Enable
	Codabar	Enable
	Code 93	Enable
	GS1-128	Enable
	IATA	Enable
	Code 11	Enable
	MSI	Enable
	UPC-A	Enable
	UPC-E	Enable
	EAN-8	Enable
	EAN-13	Enable
	Code 39	Enable
	Full ASCII Code 39	Enable
	GS1 Databar	Enable
	PDF417	Enable
	QR Code	Enable
	Micro QR Code	Enable
	DataMatrix	Enable
	Chinese Sensible Code (Han Xin)	Disable

APPENDIX 1

DEFAULT TABLE 2

GROUP	PARAMETER	DEFAULT
19	**PDF417**	
	Enable/Disable	Enable
	Min Length	1
	Max Length	2710
	(MICRO) QR Code	
	Enable/Disable	Enable (Micro/ QR Code)
	Min Length	1
	Max Length	4000
	Data Matrix	
	Enable/Disable	Enable
	Min Length	1
	Max Length	3116
	Chinese Sensible Code (Han Xin)	
	Enable/Disable	Disable
	Min Length	1
	Max Length	4000
20	**MSI**	
	Enable/Disable	Enable
	Check Digit Verification	CDV & Not Send CD
	Check Digit	Check Digit Single Mod 10
	Min Length	3
	Max Length	48
	UK Plessey Code	
	Enable/Disable	Enable
	Check Digit Verification	CDV & Not Send CD
	Min Length	2
	Max Length	48
21	**Code 93**	
	Enable/Disable	Enable
	Check Digit Verification	CDV & Not Send CD
	Min Length	3
	Max Length	48
	IATA	
	Enable/Disable	Enable
	Check Digit Verification	Disable CDV
	Min Length	6
	Max Length	48
22	**Interleaved 2 of 5**	
	Enable/Disable	Enable
	Check Digit Verification	Disable CDV
	Min Length	6
	Max Length	80
	Code 11	
	Enable/Disable	Enable
	Check Digit Verification	CDV & Not Send CD
	Check Digit	1 Digit
	Min Length	2
	Max Length	48
23	**Industrial 2 of 5**	
	Enable/Disable	Enable
	Check Digit Verification	Disable CDV
	Min Length	6
	Max Length	48
	Matrix 2 of 5	
	Enable/Disable	Disable
	Check Digit Verification	CDV & Not Send CD
	Min Length	6
	Max Length	80
24	**Codabar**	
	Enable/Disable	Enable
	Check Digit Verification	Disable CDV
	Min Length	2
	Max Length	60
	Start/Stop	ST/SP: ABCD/ABCD

APPENDIX 1

DEFAULT TABLE 3

GROUP	PARAMETER	DEFAULT
25	**Standard/Full ASCII Code 39**	
	Standard Code 39	Enable
	Full ASCII Code 39	Enable
	Check Digit Verification	Disable
	Start/Stop	Start/Stop Not Send
	Min Length	2
	Max Length	48
26	**UPC-E**	
	Enable/Disable	Enable
	Lead Digit	Send
	Check Digit	Send
	+ 5	OFF
	+ 2	OFF
	Addenda Required	OFF
	UPC-E Expand to UPC-A	Disable
27	**UPC-A**	
	Enable/Disable	Enable
	Lead Digit	Send
	Check Digit	Send
	UPC-A Expand to EAN-13	Disable
	+ 5	OFF
	+ 2	OFF
	Addenda Required	OFF
28	**EAN-8**	
	Enable/Disable	Enable
	Lead Digit	Send
	Check Digit	Send
	EAN-8 Expand to EAN-13	Disable
	+ 5	OFF
	+ 2	OFF
	Addenda Required	OFF
29	**EAN-13**	
	Enable/Disable	Enable
	Lead Digit	Send
	Check Digit	Send
	+ 5	OFF
	+ 2	OFF
	Addenda Required	OFF
	ISBN	ON
	ISBN-10/13	ISBN-13
	ISSN	OFF
30	**GS1-128**	
	Enable/Disable	Enable
	Min Length	1
	Max Length	99
	Code 128	
	Enable/Disable	Enable
	Min Length	1
	Max Length	48
	GS1 Databar	
	Enable/Disable	Enable
	Prefix	Send