Ez One Shot®

1D WIRELESS SCANNER USER'S MANUAL





Version: 2019.1

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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

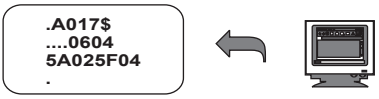
CLONING MODE

EXAMPLE :

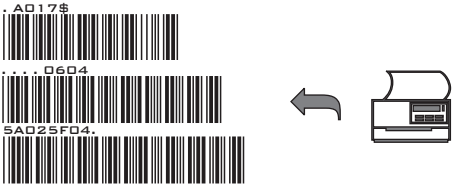
1. PROJECT ASSIGNMENTS:
1.1. Beep tone: **BEEP LOW**
1.2. Capslock Mode: **CAPSLOCK ON.**
1.3. Reading Mode: **CONTINUOUS AUTO OFF.**

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

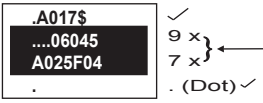
.A017$	
....	4
0604	4
5A02	4
5F04	4
.	. (Dot)

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

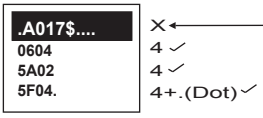
WRONG SETTING



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 49-60
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 57
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 51-57
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 51-57
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!

VIBRATOR

.D035$

VIBRATOR OFF

.D034$

VIBRATOR ON

NOTE:

1. Not supported by BS100A, BS3000LB

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 (for BS110(M), BS110L(M), BS300L)

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

STEPS (for BS1297, BS100A, BS3000LB)

1. Scan IDENTICAL READ TIMEOUT
2. Scan two digits (1~5) from Full ASCII Code39 numeric table (Group 46) (unit = 1 sec, range = 1 sec ~ 5 sec, Default = 1 sec)
3. Scan IDENTICAL READ TIMEOUT

GROUP-5

LASER BRIGHTNESS, ILLUMINATION

LASER BRIGHTNESS

. F045$



DIM

. F044$



BRIGHT

NOTE:

1. Supported by BS110L(M), BS300L, BS3000LB 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 BS110L(M), BS300L, BS3000LB only

GROUP-6

BEEP TONE, BEEP MODE, TERMINATOR

BEEP TONE


BEEP HIGH


BEEP MEDIUM


BEEP OFF


BEEP LOW

BEEP MODE


NORMAL


MUTE


WARNING BEEP ONLY

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/BT HID interface the default terminator is CR.
2. For the USB VCP/BT SPP 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 51)
STEP 4 : Scan : PREAMBLE.
STEP 5 : Scan : POSTAMBLE.
STEP 6 : Scan : " $ " twice from FULL ASCII Table (Group 51)
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



Preamble	CODE ID	BARCODE / DATA
145287	AIM ID :]E0	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

. E043$



BT HID

Emulates a **Bluetooth HID keyboard** that transmits each barcode data to the host after decode.

. E042$



BT SPP

Emulates a **Bluetooth SPP device** that transmits each barcode data in serial communication to the host after decode.

. C035$



Memory Mode

Emulates a **USB mass storage device** that saves each barcode data during off-line data collection.

NOTE:

Not supported by BS100A

. C008$



USB HID

Emulates a **USB keyboard** that transmits each barcode data to the host after decode.

. C006$



USB VCP

Emulates a **USB virtual com device** that transmit each barcode data to the host after decode. Driver is available on CD and our official website.

Function Support Matrix

Mode	Interface	On-line Operation	Off-line Operation	Ez Utility
Wireless	BT HID	✓		
	BT SPP	✓		
Tethered	Memory		✓	
	USB HID	✓		✓
	USB VCP	✓		✓

NOTE:

Ez Utility(PC-based software utility) is available from your local distributor or our website.

GROUP-18

BLUETOOTH PROFILE

BLUETOOTH PROFILE

. E043$



(Recommanded)

BT HID

1. Press the trigger for 1 second to activate the scanner.
2. Scan [**DISCONNECT**]
3. Scan [**BT HID**]; the scanner will emit several beeps.
4. Select "Wireless Scanner" from discovered device list. (For PC, please click "Create a pairing code for me")
5. If Bluetooth application prompt you to enter a pincode, please follow the steps in **PINCODE SETUP** section the on next page.
6. The scanner will beep twice to verify the connection.

. E042$



BT SPP

1. Press the trigger for 1 second to activate the scanner.
2. Scan [**DISCONNECT**]
3. Scan [**BT SPP**]; the scanner will emit several beeps.
4. Select "Wireless Scanner" from discovered device list. (For PC, please click "Enter the device's pairing code")
6. If Bluetooth application prompt your to enter a pincode, enter "1234" from the host.
7. Open serial communication software with com port (see Device Manager) properly set up.
8. The scanner will beep twice to verify the connection.

. E031$



Disconnect

PINCODE SETUP

STEP 1

Pincode Start

. E032$



STEP 2

Scan numeric barcodes (see **NUMERIC BARCODES** below) based on the pincode generated by the Bluetooth application.

NUMERIC BARCODES



1



6



2



7



3



8



4



9



5



0

STEP 3

Enter

$TX



STEP 4

Pincode Stop

. E033$



GROUP-20

GETTING CONNECTED, TOUCH KEYBOARD

Getting Connected - iOS & Android

1. Press the trigger for 1 second to power up the scanner.
2. Scan below configuration barcode to clear last pairing record.

. E031$

Disconnect

3. Scan below configuration barcode; the scanner will emit several beeps.

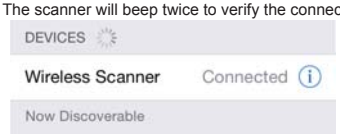
. E043$

BT HID

4. Select “Wireless Scanner” from discovered device list.

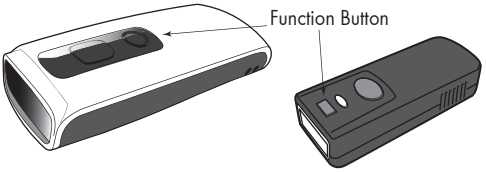


5. The scanner will beep twice to verify the connection.



Touch Keyboard - iOS

While connected with the scanner, the Touch Keyboard on the iOS device might disappear. To resolve this issue, please simply press the function button to toggle iOS Touch Keyboard.

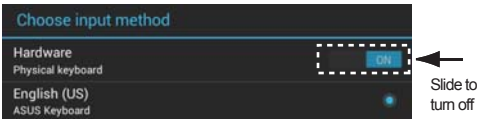


For scanner with only one button, please refer to iOS Hotkey in the next page.

Touch Keyboard - Android

While connected with the scanner, the Touch Keyboard on the Android smartphone or tablet might disappear. To resolve this issue, please change settings on Android device with below steps:

1. Enter “Settings”
2. Enter “Language & input”
3. Tap on “Default keyboard”
4. Turn off “Physical keyboard”, or Turn on “On-screen keyboard” and the Touch Keyboard will function properly again.



GROUP-21

iOS HOTKEY, SET FUNCTION BUTTON

iOS HOTKEY

. E047$

ENABLE iOS HOTKEY

. E048$

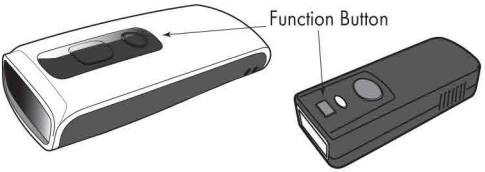
DISABLE iOS HOTKEY

NOTE:

1. After enabling iOS Hotkey(disabled by default), you may simply double-click the trigger to toggle the iPhone/iPad Touch Keyboard.
2. Only supported by BS100A, BS3000LB

SET FUNCTION BUTTON

You may define the data to be sent to the host when function button is pressed during connection.



. E060$

SET FUNCTION BUTTON
(DEFAULT = iOS Hotkey)

STEPS:

1. Scan SET FUNCTION BUTTON
2. Scan 1~16 alphanumerics from Full ASCII table
   (range = 0x00 ~ 0x7F for BT SPP
   = 0x00 ~ 0x7F & Funtion/Navigation/Modifier Keys for BT HID,
   Default = iOS Hotkey)
3. Scan SET FUNCTION BUTTON

. E062$

DEFAULT FUNCTION BUTTON

NOTE:

1. If you would like to reset function button to iOS Hotkey, simply scan Default Function Button.

GROUP-22

POWER OFF TIMEOUT

Variable Timeout

. B030$



SET MINUTE
(DEFAULT = 03 MIN)

. B029$



SET SECOND
(DEFAULT = 00 SEC)

The timeout is 3 minutes & 0 second by default, and is programmable from minimum of 10 seconds (00:10) to maximum of 60 minutes and 60 seconds (60:60)
For example, to set the timeout as 5 minutes 30 seconds:

1. Scan [Set Minute]
2. Scan [0] & [5] on below numeric barcode table.
3. Scan [Set Minute]
4. Scan [Set Second]
5. Scan [3] & [0] on below numeric barcode table.
6. Scan [Set Second]

No Timeout (Scanner Always On)

. B021$



DISABLE
TIMEOUT

NUMERIC BARCODES



1

6





2

7





3

8





4

9





5

0



GROUP-23

SET BLUETOOTH DEVICE ID

To customize your own Bluetooth device name for the wireless scanner, please follow below steps:

STEP 1

Default Wireless ID

. B022$



STEP 2

Set Wireless ID

. B023$



STEP 3

Scan up to 16 alphanumeric characters from Full ASCII Table (Group 51-57) as your desired Device ID.

STEP 4

Set Wireless ID

. B023$



STEP 5

Scan a desired BT mode in **BLUETOOTH PROFILE** (Group 18) to complete the configuration.

NOTE:

1. If you have connected the scanner with the host BEFORE customizing your Bluetooth device name, please remove the device and create a new connection to make sure device name is refreshed. For PC, it is recommended to restart the Bluetooth adaptor in order to refresh device name.
2. At Step 3, the scanner will beep three times as an alert that more than 16 characters are entered.
3. To reset the Bluetooth device name to default ("Wireless Scanner"), please simply do Step1 & Step 5, skipping Step 2 to Step 4.

GROUP-24

SET SPP PINCODE

By default, the pincode under SPP profile for the scanner is “1234”. You may customize this pincode with below steps:

STEP 1

. B024$

Set SPP Pincode

STEP 2

Scan numeric barcodes (see **NUMERIC BARCODES** below)
Up to 8 numbers can be set as SPP Pincode.

NUMERIC BARCODES

1 6

2 7

3 8

4 9

5 0

STEP 3

. B024$

Set SPP Pincode

STEP 4

Scan a desired BT mode in **BLUETOOTH PROFILE** (Group 21) to complete the configuration.

GROUP-25

SCANLINK (SPP/HID MASTER MODE)

SCANLINK

ScanLink is a connection method that turns the scanner into a master device, which initiates the Bluetooth connection with the target host device (now a slave device). This, as a result, saves user the trouble of going through numerous setup procedures on the host device to establish connection.

There are two types of ScanLink operation:

SCANLINK via Bluetooth HID/SPP Profile

First, please generate one ScanLink barcode for the target slave device in below methods:
1. The barcode must be Code 39 with no checksum
2. Barcode data format: HID(or SPP) + device's MAC address

For example, the target slave device's MAC address is 001583522C3B.

Please encode:
HID001583522C3B in Code39 barcode.
or
SPP001583522C3B in Code39 barcode.

Now, you may establish Bluetooth conneciton with only one scan on the ScanLink barcode.

*Note: Please check the your host device's compatibility before using ScanLink function via either of the profiles.

SCANLINK with Wireless Dongle

Wireless Dongle, authorized or manufactured by our company, usually have a ScanLink barcode on its product label or on its extra Set Connection label. Simply scanning the ScanLink barcode on either one of the labels will create Bluetooth connection.



<Set Connection label>



<Product Label>

GROUP-26

SPP REMOTE CONTROL, SHUT DOWN

SPP REMOTE CONTROL

You may control/interact with scanner using below commands over SPP profile.

Aloha

Host sends:	CR,LF,{,A,L,},CR,LF	(8 bytes)
Scanner replys:	O,K,CR,LF	(4 bytes)

Beep

Host sends:	CR,LF,{,M,1,},CR,LF	(8 bytes)
or Host sends:	CR,LF,{,BEL,},CR,LF	(7 bytes)
Scanner reacts:	Emits a short beep for 80mS	

Vibration

Host sends:	CR,LF,{,B,Z,},CR,LF	(8 bytes)
Scanner reacts:	Vibrates for 200mS	

NOTE:
1. Not supported by BS100A, BS3000LB

Good Read LED Indication

Host sends:	CR,LF,{,G,L,},CR,LF	(8 bytes)
Scanner reacts:	Turns on good read LED for 200mS	

Start Scanning

Host sends:	CR,LF,{,T,G,},CR,LF	(8 bytes)
Scanner reacts:	Starts scanning (LED Illumination On)	

NOTE:
1. Only applicable for Trigger & Toggle Mode.

Stop Scanning

Host sends:	CR,LF,{,T,S,},CR,LF	(8 bytes)
Scanner reacts:	Stops scanning (LED Illumination Off)	

NOTE:
1. Only applicable for Trigger & Toggle Mode.

SHUT DOWN

This configuration barcode will shut down the scanner immediately but still reserve the pairing record.

. E255$



SHUT DOWN

GROUP-27

BATCH MODE, BINARY CHECK CHARACTER

BATCH MODE

ENABLE



DISABLE



When out of range, the scanner will temporarily keep scanned data in its memory buffer(2K RAM) until the buffer is full. When back in range, the scanner will send all stored data back to the host.

NOTE:
1. Batch Mode will not function when Memory Mode is enabled, or no connection is made beforehand.
2. Not supported by BS1297

BINARY CHECK CHARACTER



ENABLE



DISABLE

Once enabled, a checksum will be added to the end of each data to conduct Xor calculation. For Bluetooth SPP & USB-VCP, the BCC is 1 byte. For Bluetooth HID, the BCC are 2 bytes.

Example:
The barcode data is “TEST” with terminator <CR><LF>

1. Bluetooth SPP & USB-VCP:
Data Format = <T> + <E> + <S> + <T> + <CR> + <LF> + <BCC>.
BCC = 54h ^ 45h ^ 53h ^ 54h ^ 0Dh ^ 0Ah = 11h

2. Bluetooth HID:
Data Format = <T> + <E> + <S> + <T> + <Enter> + <BCC>
BCC = 54h ^ 45h ^ 53h ^ 54h ^ E7h = F1h

However, since control character cannot be displayed in Bluetooth HID, BCC will be converted into 2 bytes of characters. As a result, the data will be: TEST + <Enter> + F + 1

GROUP-28

MEMORY MODE, DELETE RECORD

MEMORY MODE

. C035$



MEMORY MODE

After scanning the above barcode, the scanner will be able to collect barcode data off-line. The barcode data will be stored in the format of:
< **Date** >, < **Time** >, < **Barcode Data** > < **CR** >

To retrieve stored data, please connect the scanner to the host with cable, access removable storage device "**MiniScan**" from which you may open or copy the file "**BARCODE.txt**" to your computer.

To exit Memory Mode, simply scan any interface barcode in **INTERFACE** (Group 17)

NOTE:

Memory Mode (Group 28-30) is not supported by BS100A

DELETE LAST RECORD

. R005$



DELETE LAST RECORD

To delete ONE stored data, please scan below barcode or press the function button.

CLEAR ALL RECORD

To delete ALL stored data, simply delete the file "**BARCODE.txt**" in the removable storage device "**MiniScan**" until you hear two beeps.

GROUP-29

DATA FORMAT, DATE & TIME SETUP

DATA FORMAT

. R011$

DATA FORMAT

The default Data Format is <Date>, <Time>, <Barcode Data>
below are items and their setup codes:

Code	Item	Code	Item
2	Date	4	Barcode Data
3	Time		

Example:
To change Data Format to <Barcode Data>, <Date>, <Time>
1. Scan [Data Format]
2. Scan [4], [2], [3] from Full ASCII numeric table (Group 57)
3. Scan [Data Format]

. R010$

FIELD SEPARATOR

Default is comma (,) . You may replace it with any alphanumeric characters from the full ASCII table.

Example: To change Field Separator to Semicolon (;)
1. Scan [Field Separator]
2. Scan [;] from the full ASCII table (Group 51)
3. Scan [Field Separator]

DATE & TIME SETUP

SET DATE

. R006$

Example: To set Date to 2012-08-01 (Year-Month-Day):
1. Scan [Set Date]
2. Scan [1], [2], [0], [8], [0], [1] from Full ASCII numeric table (Group 57)
3. Scan [Set Date]

SET TIME

. R007$

Example: To set Time to 08:10:30 am (Hr:Min:Sec)
1. Scan [Set Time]
2. Scan [0], [8], [1], [0], [3], [0] from Full ASCII numeric table (Group 57)
3. Scan [Set Time]

* To avoid Time and Date being reset to factory default due to running out of battery, please fully charge the scanner for at least 3 hours before use.

GROUP-30

DATE FORMAT, TIME FORMAT

DATE FORMAT

. R008$



DATE FORMAT

The default Date Format is DD/MM/YYYY (Code = 09), below is full list of available formats and their setup codes:

Code	Format	Code	Format
01	DD-MM-YYYY	09	DD/MM/YYYY
02	MM-DD-YYYY	10	MM/DD/YYYY
03	DD-MM-YY	11	DD/MM/YY
04	MM-DD-YY	12	MM/DD/YY
05	YYYY-MM-DD	13	YYYY/MM/DD
06	YY-MM-DD	14	YY/MM/DD
07	DD-MM	15	DD/MM
08	MM-DD	16	MM/DD

Example:
To set Date Format to MM/DD/YY (Code =12)
1. Scan [Date Format]
2. Scan [1], [2] from Full ASCII numeric table (Group 57)
3. Scan [Date Format]

TIME FORMAT

TIME FORMAT

. R009$



The default Time Format is HH:MM:SS (Code = 01), below are available formats and their setup codes:

Code	Format	Code	Format
01	HH:MM:SS	02	HH:MM

Example:
To set Time Format to HH:MM (Code = 02)
1. Scan [Time Format]
2. Scan [0], [2] from Full ASCII numeric table (Group 57)
3. Scan [Time Format]

GROUP-31

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-32

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-33

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-34

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-35

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-36

INTERLEAVED 2 OF 5, CODE 11

.J001$



ENABLE

.J002$



DISABLE

.J003$



DISABLE CDV

.J004$



CDV & SEND CD

.J005$



CDV & NOT SEND CD

INTERLEAVED 2 OF 5

.J008$



First digit suppressed

.J009$



Last digit suppressed

.J014$



NO suppressed

.J006$



MIN LENGTH (06)

.J007$



MAX LENGTH (48)

.I010$



ENABLE

.I011$



DISABLE

.I012$



DISABLE CDV

.I013$



CDV & SEND CD

.I014$



CDV & NOT SEND CD

CODE 11

.I042$



CDV & SEND CD
(1 DIGIT)

.I043$



CDV & SEND CD
(2 DIGITS)

.I015$



MIN LENGTH (06)

.I016$



MAX LENGTH (32)

GROUP-37

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-38

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-39

ABC- CODABAR, CX- CODABAR

ABC- CODABAR



ON



OFF



SET INSERT DATA*



INSERT DATA- ON



INSERT DATA- OFF

The data can be any alphanumerics of FULL ASCII Table (GROUP 51-57)

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.

CX CODE- CODABAR



ON



OFF



SET INSERT DATA*



INSERT DATA- ON



INSERT DATA- OFF

The data can be any alphanumerics of FULL ASCII Table (GROUP 51-57)

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-40

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 51-57)*

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-41

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-42

UPC-E



ENABLE



DISABLE



LEAD DIGIT SEND

UPC-E



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 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-43

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-44

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-45

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-46

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-47

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 51-57)

String format:

]C1	DATA CHARACTERS	<GS>	DATA CHARACTERS

STEPS:

1. Scan DEFINE FNC1.
2. Scan one ASCII Code (Group 51-57)
3. Scan DEFINE FNC1.

CODE 128

. J010$



ENABLE

. J011$



DISABLE

. J012$



MIN LENGTH (05)

. J013$



MAX LENGTH (48)

GROUP-48

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-49

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-50

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-51

FULL ASCII TABLE (CODE 39)
SYMBOLS

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

GROUP-52

FULL ASCII TABLE (CODE 39)
SYMBOLS

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

GROUP-53

FULL ASCII TABLE (CODE 39)
UPPER CASE ALPHABETS

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

GROUP-54

FULL ASCII TABLE (CODE 39)
UPPER CASE ALPHABETS

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

GROUP-55

FULL ASCII TABLE (CODE 39)
LOWER CASE ALPHABETS



a



b



c



d



e



f



g



h



i



j



k



l



m

GROUP-56

FULL ASCII TABLE (CODE 39)
LOWER CASE ALPHABETS

n



o



p



q



r



s



t



u



v



w



x



y



z



GROUP-57

FULL ASCII TABLE (CODE 39)
NUMBERS


0


1


2


3


4


5


6


7


8


9

GROUP-58

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-59

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-60

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
	Beep Mode	Normal
	Terminator	CR(HID); CR+LF(VCP/SPP)
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	Bluetooth Profile	N/A (not affected by Default)
19	Pincode Setup	N/A
21	iOS Hotkey	Disable
	Set Function Button	iOS Hotkey
22	Power Off Timeout	3 minutes & 0 second
23	Set Wireless ID	Wireless Scanner
24	Set SPP Pincode	1234
27	Batch Mode	Disable
	Binary Check Character	Disable
28	Memory Mode	N/A (not affected by Default)
29	Data Format	<Date><Time><Barcode Data>
	Field Separator	,
30	Date Format	DD/MM/YYYY
	Time Format	HH:MM:SS
31~33	**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
33	**China Post Code (Toshiba Code)**	
	Enable/Disable	Disable
	Check Digits	Disable CDV
	Min Length	11 digits
	Max Length	48 digits
34	**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
35	**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
36	**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
37	**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
38	**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
39	**ABC-Codabar**	
	ON/OFF	Off
	Insert Data	Off
	CX-Codabar	
	ON/OFF	Off
	Insert Data	Off
40	**Codabar-Coupling**	
	ON/OFF	Off
	Insert Data	Off
	Adjacent Required	Off

APPENDIX 1

DEFAULT TABLE 3

GROUP	PARAMETER	DEFAULT
41	**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
42	**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
43	**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
44	**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
45	**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
46	**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
47	**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
48	**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