

BT CCD Scanner

- FCC ID: HLEMS340BT -



User's Manual

Version 1.1

Change Log.

Date	Change Description	Version
2016/1/11	first published version	1.0
2016/1/22	Add 1.4.2 Installing the battery	1.1

Preface

About This Manual

Thank you for purchasing the unitech product.

This manual explains how to install, operate and maintain our product.

No part of this publication may be reproduced or used in any form, or by any electrical or mechanical means, such as photocopying, recording, or information storage and retrieval systems, without permission in writing from the manufacturer. The material in this manual is subject to change without notice.

Regulatory Compliance Statements

FCC Warning Statements

This device has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference with radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference with radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

1. This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.
2. This device complies with FCC RF radiation exposure limits set forth for an uncontrolled environment. To maintain compliance with FCC RF exposure requirements, avoid direct contact to the transmitting antenna during transmitting.
3. Any changes or modifications (including the antennas) made to this device that are not expressly approved by the manufacturer may void the user's authority to operate the equipment.

FCC Label Statement

This device complies with part 15 of the FCC rules. Operation is subject to the following two conditions:

1. This device may not cause harmful interference, and
2. This device must accept any interference received, including interference that may cause undesired operation.

Canadian Compliance Statement

This Class B Digital apparatus meets all requirements of the Canadian Interference-Causing Equipment Regulations.

Cet appareil numerique de la classe B respecte les exigences du Reglement sur le material brouilleur du Canada.

European Conformity Statement

unitech Electronics co., Ltd herewith declares that the unitech product is in compliance with the essential requirements and all other provisions of the R&TTE 1999/5/EC directive, the EMC 2004/108/EC directive and the Low Voltage 2006/95/EC directive.

The declaration of conformity is available for download at :

<https://portal.unitech.eu/public/Safetyregulatorystatement>

RoHS Statement



This device conforms to RoHS (Restriction of Hazardous Substances) European Union regulations that set maximum concentration limits on hazardous materials used in electrical and electronic equipment.

Waste electrical and electronic equipment (WEEE)



unitech has set up a policy and process to meet the EU directive 2002/96/EC and update 2003/108/EC concerning electronic waste disposal.

For more detailed information of the electronic waste disposal of the products you have purchased from unitech directly or via unitech's resellers, you shall either contact your local supplier or visit us at :

<https://portal.unitech.eu/public/WEEE>

Taiwan NCC Warning Statement

交通部電信總局低功率電波輻射性電機管理辦法

第十二條：經型式認證合格之低功率射頻電機，非經許可，公司、商號或使用者均不得擅自變更頻率、加大功率或變更原設計之特性及功能。

第十四條：低功率射頻電機之使用不得影響飛航安全及干擾合法通信；經發現有干擾現象時，應立即停用，並改善至無干擾時方得繼續使用。

低功率射頻電機需忍受合法通信或工業、科學及醫療用電波輻射性電機設備之干擾。

注意事項：

1. 使用過度恐傷害視力。
2. 使用30分鐘請休息10分鐘；2歲以下幼兒不看螢幕，2歲以上每天看螢幕不要超過1小時。

Laser Information

The unitech product is certified in the U.S. to conform to the requirements of DHHS/CDRH 21CFR Subchapter J and to the requirements of IEC 825-1. Class II and Class 2 products are not considered to be hazardous. The unitech product contains internally a Visible Laser Diode (VLD) whose emissions do not exceed the maximum limits as set forth in the above regulations. The scanner is designed so that there is no human access to harmful laser light during normal operation, user maintenance or prescribed service operations.

The laser safety warning label required by the DHHS/IEC for the unitech product's optional laser scanner module is located on the memory compartment cover, on the back of the unit.

* Laser information only applies to the products with laser components.

CAUTION! Use of controls or adjustments or performance of procedures other than those specified herein may result in hazardous laser light. Use of optical instruments with the scanner, including binoculars, microscopes, and magnifying glasses, will increase eye damage. This does not include eyeglasses worn by the user.

LED Information

The unitech product contains LED indicator(s) or LED ring whose luminance is not harmful to human eyes during normal operation, user maintenance or prescribed service operations.

*LED information only applies to the products with LED components.

Battery Notice

1. To guarantee optimal performance, it is recommended that rechargeable batteries be replaced every year, or after 500 charging cycles are completed. It is normal for the battery to balloon or expand after one year or 500 cycles. Although it does not cause damage, it cannot be used again and must be disposed of according to the location's safe battery disposal procedures.
2. If a battery performance decreases more than 20%, the battery is at the end of its life cycle. Stop use and ensure the battery is disposed of properly.
3. The length of time that a battery lasts depends on the battery type and how the device is used. Conserve the battery life by doing the following:
 - Avoid fully uncharging the battery because this places additional strain on it. Several partial uncharges with frequent charges are better than a fully uncharged battery. Charging a partially charged battery does not cause harm to the unit.
 - Keep the battery cool. Avoid hot vehicles. For prolonged storage, keep the battery at a 40% charge level.
 - Do not leave the battery uncharged and unused for an extended period of time, the battery will wear out and the longevity of the battery will be at least half of one with frequent charges.
4. Protect battery life by not over or under charging the battery.
5. Please do not leave battery unused for long time without charging it. Despite unitech's safety precautions, the battery pack may begin to change shape. If so, stop using it immediately. Please check to see if you are using a proper power adapter to charge the battery or contact your service provider for service.
6. If you cannot charge the battery after it has been idle for an extended period of time and it begins to heat up, please do not try to charge it. It may not be functional anymore.
7. Please only use the original battery from unitech. Using a third party battery can damage our products. Please note that when such damage occurs, it is not covered by unitech's warranty policy

CAUTION!

- RISK OF EXPLOSION IF BATTERY IS REPLACED INCORRECTLY.
DISPOSE OF USED BATTERIES ACCORDING TO THE INSTRUCTIONS..
- 如果更換不正確之電池行事會有爆炸的風險
請依製造商說明書處理用過之電池
- 如果更換不正確之電池行事會有爆炸的風險
請依製造商說明書處理用過之電池

Battery charge notice

It is important to consider temperature when the battery pack is charging. Charging is most efficient at normal room temperature or in a slightly cooler environment. It is essential that batteries are charged within the stated range of 0°C to 40°C. Charging batteries outside of the specified range could damage the batteries and shorten their life cycle.

CAUTION! Do not charge batteries at a temperature lower than 0°C. This will and make the batteries unstable and dangerous. Please use a battery temperature detecting device for a charger to ensure a safe charging temperature range.

Storage and safety notice

Although charged batteries may be left unused for several months, their capacity may be depleted due to build up of internal resistance. If this happens, they will require recharging prior to use. Batteries may be stored at temperatures between -20°C to 60°C, however they may deplete more rapidly at higher temperatures. It is recommended to store batteries at room temperature.

** The message above only applies to the usage of the removable batteries.
For the products with non-removable batteries / without batteries, please refer to the specification of each product.*

Product Operation and Storage Notice

The unitech product has applicable operation and storage temperature conditions. Please follow the limitation of suggested temperature conditions to avoid failure, damage or malfunction.

**For applicable temperature conditions, please refer to the specification of each product.*

Adapter Notice

1. Please do not leave the power adapter in the socket when it is not connected to your unitech product for charging.
2. Please remove the power adapter when the battery is fully recharged.
3. The bundled power adapter that comes with your unitech product is not meant to be used outdoors. An adapter exposed to water or rain, or a very humid environment can cause damage to both the adapter and the product.
4. Please only use the bundled power adapter or same specification of adapter to charge your unitech product. Using the wrong power adapter can damage your unitech product.

** The message above only applies to the product connected to the adapter.
For the products without using the adapters, please refer to the specification of each product.*

Hearing Damage Warning

Zx.3 Warning

The warning shall be placed on the equipment, or on the packaging, or in the instruction manual and shall consist of the following:

- the symbol of Figure 1 with a minimum height of 5 mm; and
- the following wording, or similar :

To prevent possible hearing damage, do not listen at high volume levels for long periods.



Figure 1 – Warning label (IEC 60417-6044)

Alternatively, the entire warning may be given through the equipment display during use, when the user is asked to acknowledge activation of the higher level.

Worldwide Support

unitech's professional support team is available to quickly answer questions or assist with technical-related issues. Should an equipment problem occur, please contact the nearest unitech regional service representative.

For complete contact information please visit the Web sites listed below:

Taipei, Taiwan – Headquarters Tel: +886-2-89121122 E-mail: info@hq.ute.com Address: 5F, No. 136, Lane 235, Baoqiao Road, Xindian District, New Taipei City 231, Taiwan (R.O.C.) Website: http://www.ute.com	Europe Tel: +31-13-4609292 E-mail: info@eu.ute.com Address: Kapitein Hatterasstraat 19, 5015 BB, Tilburg, the Netherlands Website: http://eu.ute.com
China Tel: +86-59-2310-9966 E-mail: info@cn.ute.com Address: Room401C, 4F, RIHUA International Mansion, Xinfeng 3rd Road, Huoju Hi-tech District, Xiamen, Fujian, China Website: http://cn.ute.com	Japan Tel: +81-3-35232766 E-mail: info@jp.ute.com Address: Kayabacho Nagaoka Building 8F.,1-5-19 Shinkawa, Chuo-Ku, Tokyo, 104-0033, Japan Website: http://jp.ute.com
Asia & Pacific / Middle East Tel: +886-2-27911556 E-mail: info@apac.ute.com info@india.ute.com info@mideast.ute.com Address: 4F., No. 236, ShinHu 2nd Rd., NeiHu Chiu, 114, Taipei, Taiwan Website: http://apac.ute.com / http://mideast.ute.com	Latin America Tel: +52-55-5171-0528 E-mail: info@latin.ute.com Address: 17171 Park Row, Suite 210 Houston, TX 77084USA (Rep.) Website: http://latin.ute.com
North America Tel: +1-714-8916400 E-mail: info@us.ute.com / info@can.ute.com Address: 6182 Katella Ave, Cypress, CA 90630, USA Website: http://us.ute.com / http://can.ute.com	

Warranty Policy

The items covered under the unitech Limited Warranty are free from defects during normal use.

The warranty period is varied from each country. Please consult with your supplier or unitech local office for actual length of warranty period to your purchased product.

Warranty becomes void if equipment is modified, improperly installed or used, damaged by accident or neglect, or if any parts are improperly installed or replaced by the user.

Table of Contents

Preface.....	i
About This Manual	i
Regulatory Compliance Statements	i
Laser Information	v
LED Information	v
Battery Notice.....	vi
Adapter Notice.....	viii
Hearing Damage Warning	viii
Worldwide Support	ix
Warranty Policy	x
Chapter 1 - Overview.....	1
1.1 Package	1
1.2 Scanner & Cradle Detail	2
1.3 Specifications	3
1.4 Getting Started	6
1.5 Battery Charging	10
1.6 LED Indicator / Beeper Sequence	11
Chapter 2 – Configuration-General	13
2.1 Flow Chart	13
2.2 Loop of Programming	14
2.3 Factory Default Settings	14
2.4 Main Page of Configuration	15
Chapter 3 –Bar Codes & Others.....	16
3.1 Symbolologies Selection	16
3.2 UPC/EAN/JAN Parameters	18
3.3 Code 39 Parameters	20
3.4 Code 128 Parameters	21
3.5 Interleave 25 Parameters	22
3.6 Industrial 25 Parameters	23
3.7 Matrix 25 Parameters	24
3.8 CODABAR/NW7 Parameters	25
3.9 Code 93 Parameters	27
3.10 Code 11 Parameters.....	28

3.11 MSI/PLESSEY Code Parameters	29
3.12 Code 2 of 6 Parameters	30
3.13 LCD25 Parameters.....	31
3.14 Telepen Parameters	32
3.15 GS1 Databar	33
3.16 Bar Code ID.....	34
Chapter 4 – Command Setting.....	37
4.1 Interface & Reading Mode Selection	37
4.2 Communication Parameters	39
4.3 Language Selection.....	42
4.4 Reading Level	43
4.5 Accuracy.....	44
4.6 Buzzer Beep Tone	44
4.7 Sensitivity of Continuous Reading Mode.....	45
4.8 Reverse Output Characters.....	46
4.9 Setup Deletion.....	46
4.10 Setup Insertion	49
4.11 PAN Configuration	52
Appendix A –Numeric Bar Codes.....	55
Appendix B –ASCII Table.....	56
Appendix C –Function Key Table.....	60
Appendix D–Numeric Bar Codes2.....	61

Chapter 1 - Overview

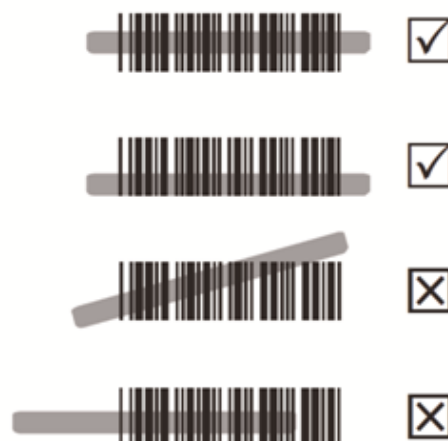
1.1 Package

Please make sure the following contents are in the MS340B gift box.
If something is missing or damaged, please contact your unitech representative.

The standard package contents:

- MS340B Scanner
- Quick Start Guide
- Regulatory Compliance Statements
- Cable
- Cradle
- Adapter

Note: To scan a barcode, make sure the aiming beam crosses every bar and space of the barcode.



1.2 Scanner & Cradle Detail



1.3 Specifications

Optical & Performance		
Sensor	Linear Imager	
Visual Indicators	Beep and LED (Good read Green)	
System Interface	USB	
Light Source	635 nm Visible Red LED	
Max. Resolution	4mil (0.1mm) PCS90%, Code39	
Scan Rate	Up to 500 scans/second	
Skew Angle	$\pm 60^\circ$ ($\pm 5^\circ$)	
Pitch Angle	$\pm 10^\circ \sim 65^\circ$ ($\pm 5^\circ$)	
Printing Contrast Scale	minimum 30%	
Decoding	Supports most standard 1D bar code, GS1 Databar linear and stacked Codes	
Depth of Field (DOF Code39 PCS=90%)	Density	Working Ranges
		Near far
	0.1mm / 4mil	80mm 120mm
	0.127mm / 5mil	70mm 140mm
	0.15mm / 6mil	60mm 170mm
	0.26mm / 10mil	40mm 220mm
	0.33mm / 13mil	40mm 330mm
	0.39mm / 15mil	40mm 370mm
	0.5mm / 20mil	40mm 400mm
Communication		
Radio Frequency	Bluetooth V2.1 EDR, (smaller 10mW)	
Frequency Band	2.402GHz~2.480 GHz	
Transmission Range	Up to 100m (328.08 FT.) line of sight	

Mechanical	
Dimensions	72 x 70 x 164 mm (length x width x height)
Weight	174g (Scanner only)
Switch life	1,000,000 times
Electrical	
Input Voltage	5VDC
Operating Power	<200mA
Standby Power	< 60mA
Battery	Li-ion 3.7V/2600 mAh
Charging time	Approx. 5 hours
Reads per charge	50,000 times
Environmental	
Light Levels	Max 100,000 Lux
Mechanical Shock	1.5m onto concrete (scanner only)
IP Rate	IP42
Operating Temperature	0°C to 50°C
Storage Temperature	-20°C to 70°C
Relative Humidity	20% to 95% non-condensing
Regulation Approvals	
CE, FCC, BSMI, VCCI, NCC, TELEC	

Readable Symbolologies

	Readable	Default Enable
All UPC/EAN/JAN	V	V
EAN128 Code	V	
Code 39	V	V
Code 39 Full ASCII	V	
Code32 / Italian Pharmacy	V	
Code 128	V	V
CODABAR/NW7	V	V
Interleave 25	V	V
Industrial 25	V	
Matrix 25	V	
MSI/PLESSEY	V	
Telepen	V	
Code 93	V	
Code 11	V	
China Postage	V	
Code 26	V	
LCD25	V	
GS1 DataBar Omnidirectional & Stacked	V	
GS1 DataBar Limited	V	
GS1 DataBar Expanded & Stacked	V	

1.4 Getting Started

Please scan below barcode to set default for BT parameter.

For configuration, please refer to [2.1 Flow Chart](#).

BT Parameter Set Default



1.4.1 Scanner Mode

There are three different scanner modes. Please follow the instructions below.

A. Setup SPP Master Mode* (Default option)	
SPP Master Mode* 	
Please follow the below steps to setup the communication between the scanner and cradle. 1) The scanner must scan "SPP Master Mode" barcode to set the scanner in master mode. 2) Scan the BT MAC address code located on the bottom of the cradle. 3) When the BT MAC address code was successfully scanned, scanner will sound 3 short beeps with green LED flash once. 4) Wait approximately five seconds for completing the connection process with up-tone. 5) If successful, blue LED of scanner will slow flash and the cradle will be continued on.	
B. Setup SPP Slave Mode	
SPP Slave Mode 	
Please follow the below steps to setup the communication between the scanner and BT application device. 1) The scanner must scan "SPP Slave Mode" barcode, to set the scanner in slave mode. 2) When control the BT device to search the scanner, enter pin code (default 00:00:00) to setup comport. 3) When scanner is successful connected, the scanner blue LED will also blink with up-tone. Blue LED will slowly flash to finish the setup.	

C. Setup HID Slave Mode

HID Slave Mode



Please follow the steps to setup the communication between **the scanner and Bluetooth HID profile application device**.

- 1) The scanner must scan "HID Slave Mode" barcode to set the scanner in HID slave mode.
- 2) When control the BT device to search the scanner, enter pin code (default 00:00:00) to setup pairing. You can scan number barcode on [Appendix D, "Numeric Bar Codes 2 "](#) number 0~9, to setup.
- 3) When scanner is successful connected, scanner blue LED will also blink with up-tone. Blue LED will slowly flash to finish the setup.

1.4.2 Installing battery

To install the scanner battery, please follow the instructions below.

1. Use screwdriver to loosen the screw on the bottom of the scanner and remove the battery cover.



2. Slide and position the battery, make sure the battery contacts are aligned with the contacts in the scanner.



3. Replace the battery cover and use the screwdriver to tighten the screw on the bottom of the scanner.

1.4.3 Switching Cable

Before removing the cable from the cradle, it is recommended that the power on the host system is off and the power supply has been disconnected from the unit.

1. Find the small "Pin-hole" on the bottom of the cradle. (Please see the photo as below)
2. Use a bended regular paperclip and insert the tip into the hole.
3. You will hear a "click", then gently pull out the strain-relief of the cable.



Pin-hole

1.5 Battery Charging

The battery is in advance loaded into the compartment of the scanner and may not be fully charged before shipment. When you receive the package and use the MS340B for the first time, you will need to fully charge the battery.

It takes approximately 5 hours to fully charge the battery.

To charge the scanner with a cradle, please follow the instructions below.

1. Plug the adapter cable into the power socket on the bottom of cradle.	
2. Plug the AC adapter cord into an electrical outlet.	
3. Place the scanner in the cradle. The scanner LED will be red to indicate charging and turn green when it is fully charged.	Scanner LED indicator 

1.6 LED Indicator / Beeper Sequence

■ Scanner LED Status

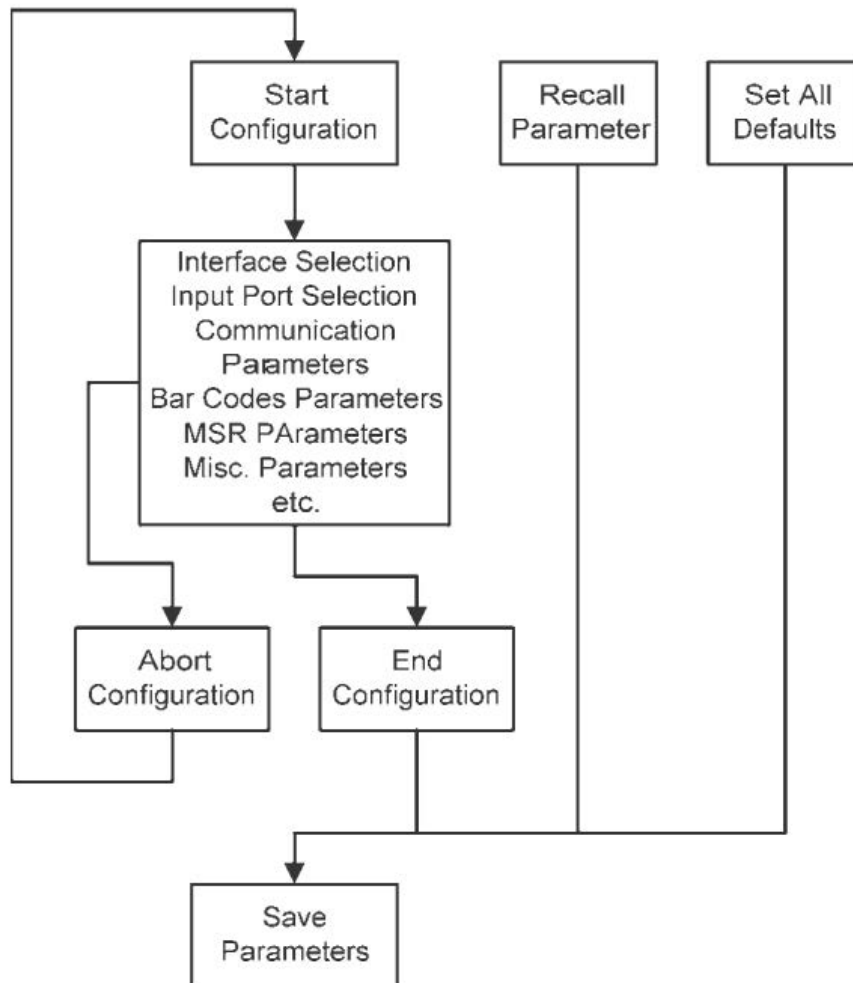
Action/Status	LED for Barcode reading & Communication	Beeper Tone
Good read and transmitted	Green light blinks once	One beep
Good read and save on memory (BT disconnect)	Green light blinks once	One beep
Good Read but Transmit Fail	Green light blinks twice	Two beeps
Battery fully charged	Solid green light	No action
Memory full	Red light blinks twice	Two beeps
Low Battery warning	Red light blinks once every 20 seconds	One beep
In charging	Solid red light	No action
BT disconnect	Blue light blinks twice (continuously)	No action
BT disconnect before sleep	No action	Low beep
BT connected	Blue light blinks once every two seconds	High beep
Setting ok	Green light blinks once	No action
Start charging	Solid red light	No action
Battery changed	Blue light blinks once then green light blinks twice	No action

■ Cradle LED Status

Action/Status	LED for Barcode reading & Communication
Good read and transmitted	Green light blinks once
BT disconnect (continuously)	Blue light blinks twice
BT connected	Solid blue light

Chapter 2 – Configuration-General

2.1 Flow Chart



**Please scan the following barcodes for configuration*

Start Configuration	
End Configuration	
Abort Configuration	
Save Parameters	

2.2 Loop of Programming

The philosophy of programming parameters has been shown on the flow chart of 2.1. Basically user should :

1. Scan Start of Configuration.
2. Scan all necessary labels for parameters that meet applications.
3. Scan End of Configuration to end the programming.
4. To permanently save the settings you programmed, just scan label for Save Parameters.
5. To go back to the Default Settings, just scan label for Set All Defaults.

(Please refer to [2.4](#) – Main Page of Configuration)

2.3 Factory Default Settings

The barcode with an asterisk (*) which appears in the following chapters indicates that it is the default option for the corresponding setting.
The barcode with two asterisks (**) indicate that it is the quick setting label.

You can make your own settings by following the procedures in this manual. If you want to save the settings permanently, you should scan the label of “Save Parameters” in chapter [2.4](#), otherwise the settings will not be saved after the decoder power is off, and all settings will go back to previous settings.
By scanning “Set All Default” label, the settings will go back to the factory default settings. *(Please refer to [2.4](#) – Main Page of Configuration)*

2.4 Main Page of Configuration

Save Parameters	
Recall Stored Parameters	
Set All Defaults**	
Start Configuration	
End Configuration	
Abort Configuration	
Version Information**	
** : Quick Setting Label	

Save Parameters -The parameter settings will be saved permanently.

Recall Stored Parameters - Replace the current parameters by the parameters you saved last time.

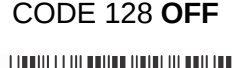
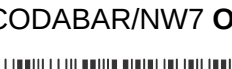
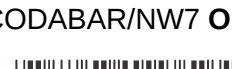
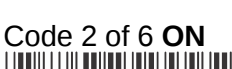
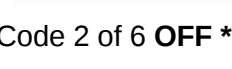
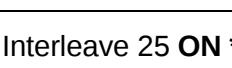
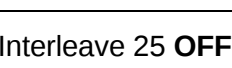
Set All Defaults - Set all the parameters to the factory default settings.

Abort Configuration - Terminate current programming status.

Version Information - Display the decoder version information and date code.

Chapter 3 –Bar Codes & Others

3.1 Symbolologies Selection

UPC-A ON * 	UPC-A OFF 	Industrial 25 ON 	Industrial 25 OFF * 
UPC-E ON * 	UPC-E OFF 	Matrix 25 ON 	Matrix 25 OFF * 
EAN-13/JAN-13/ISBN-13 ON * 	EAN-13/JAN-13/ISBN-13 OFF 	CODE 93 ON 	CODE 93 OFF * 
EAN-8/JAN-8 ON * 	EAN-8/JAN-8 OFF 	CODE 11 ON 	CODE 11 OFF * 
CODE 39 ON * 	CODE 39 OFF 	China Postage ON 	China Postage OFF * 
CODE 128 ON * 	CODE 128 OFF 	MSI/PLESSEY ON 	MSI/PLESSEY OFF * 
CODABAR/NW7 ON * 	CODABAR/NW7 OFF 	Code 2 of 6 ON 	Code 2 of 6 OFF * 
Interleave 25 ON * 	Interleave 25 OFF 	LCD25 ON 	LCD25 OFF * 

Telepen ON 	Telepen OFF * 	GS1 DataBar Omnidirectional ON 	GS1 DataBar Omnidirectional OFF * 
Reserved5 ON 	Reserved5 OFF * 	GS1 DataBar Limited ON 	GS1 DataBar Limited OFF * 
Reserved6 ON 	Reserved6 OFF * 	GS1 DataBar Expanded ON 	GS1 DataBar Expanded OFF * 
Select All Bar Codes 			

3.2 UPC/EAN/JAN Parameters

A. Reading Type		B. Supplemental Set Up
UPCA=EAN13 ON 	UPCA=EAN13 OFF * 	Not Transmit * 
ISBN-10 Enable 	ISBN-13 Enable * 	Transmit 2 Code 
ISSN Enable 	ISSN Disable * 	Transmit 5 Code 
Decode with Supplement 	Auto discriminate Supplement * 	Transmit 2&5 Code 
Expand UPC-E Enable 	Expand UPC-E Disable * 	
EAN8=EAN13 Enable 	EAN8=EAN13 Disable * 	
GTIN Format Enable 	GTIN Format Disable * 	

C. Check Digit Transmission	
UPC-A Check Digit Transmission ON * 	UPC-A Check Digit Transmission OFF 
UPC-E Check Digit Transmission ON * 	UPC-E Check Digit Transmission OFF 
EAN-8 Check Digit Transmission ON * 	EAN-8 Check Digit Transmission OFF 
EAN-13 Check Digit Transmission ON * 	EAN-13 Check Digit Transmission OFF 
ISSN Check Digit Transmission ON * 	ISSN Check Digit Transmission OFF 

3.3 Code 39 Parameters

A. Type of Code	B. Check Digit Transmission	C. Output Start/Stop Character	D. Decode Asterisk
Italian Pharmacy/ Code 32 OFF * 	Do Not Calculate Check Digit * 	Disable * 	Disable * 
Italian Pharmacy/ Code 32 ON 	Calculate Check Digit & Transmit 	Enable 	Enable 
Standard * 	Calculate Check Digit & Not Transmit 		
Full ASCII 			

E. Set Up Code Length			
To set the fixed length:			
1. Scan the “Begin” label of the desired set.			
2. Go to Numeric Bar Codes in Appendix A, scan label(s) that represents the length to be read.			
3. Scan the “Complete” label of the desired set. Repeat the steps 1 - 3 to set additional lengths.			
Variable *			
Fix Length (2 Sets Available)			
1. 1 st Set Begin 	➡	2. Numeric Bar Codes (Appendix A)	➡ 3. 1 st Set Complete 
3. 2 nd Set Begin 	➡	2. Numeric Bar Codes (Appendix A)	➡ 3. 2 nd Set Complete 
Minimum Length			
1. Begin 	➡	2. Numeric Bar Codes (Appendix A)	➡ 3. Complete 

3.4 Code 128 Parameters

A. Reading Type		B. Check Digit Transmission	C. Append FNC2
UCC/EAN-128 Disable *	UCC/EAN-128 Enable	Calculate Check Digit & Not Transmit *	OFF*
			
Enable 'J' C1 Code Format *	Disable 'J' C1 Code Format	Calculate Check Digit & Transmit	ON
			
Enable Code128 Group Separators(GS) *	Disable Code128 Group Separators(GS)	Do Not Calculate Check Digit	
			

D. Set Up Code Length

To set the fixed length:

1. Scan the "Begin" label of the desired set.
2. Go to Numeric Bar Codes in Appendix A, scan label(s) that represents the length to be read.
3. Scan the "Complete" label of the desired set. Repeat the steps 1 - 3 to set additional lengths.

Variable *



Fix Length (2 Sets Available)

1. 1st Set Begin



2. Numeric Bar Codes (Appendix A)



3. 1st Set Complete



1. 2nd Set Begin



2. Numeric Bar Codes (Appendix A)



3. 2nd Set Complete



Minimum Length

1. Begin



2. Numeric Bar Codes (Appendix A)



3. Complete



3.5 Interleave 25 Parameters

A. Check Digit Transmission	B. Set Up Number of Character	C. Brazilian Banking Code
Do Not Calculate Check Digit * 	Even * 	Disable * 
Calculate Check Digit & Transmit 	Odd 	Enable 
Calculate Check Digit & Not Transmit 		

D. Set Up Code Length

To set the fixed length:

1. Scan the "Begin" label of the desired set.
2. Go to Numeric Bar Codes in Appendix A, scan label(s) that represents the length to be read.
3. Scan the "Complete" label of the desired set. Repeat the steps 1 - 3 to set additional lengths.

Variable *



Fix Length (2 Sets Available)

1. 1st Set Begin



2. Numeric Bar Codes (Appendix A)



3. 1st Set Complete



1. 2nd Set Begin



2. Numeric Bar Codes (Appendix A)



3. 2nd Set Complete



Minimum Length

1. Begin



2. Numeric Bar Codes (Appendix A)



3. Complete



3.6 Industrial 25 Parameters

A. Reading Type	B. Check Digit Transmission
IATA25 Disable *	Do Not Calculate Check Digit *
	
IATA25 Enable	Calculate Check Digit & Transmit
	
	Calculate Check Digit & Not Transmit
	

C. Set Up Code Length

To set the fixed length:

1. Scan the “Begin” label of the desired set.
2. Go to Numeric Bar Codes in Appendix A, scan label(s) that represents the length to be read.
3. Scan the “Complete” label of the desired set. Repeat the steps 1 - 3 to set additional lengths.

Variable *



Fix Length (2 Sets Available)

1. 1st Set Begin



2. Numeric Bar
Codes (Appendix A)



3. 1st Set Complete



1. 2nd Set Begin



2. Numeric Bar
Codes (Appendix A)



3. 2nd Set Complete



Minimum Length

1. Begin



2. Numeric Bar
Codes (Appendix A)



3. Complete



3.7 Matrix 25 Parameters

A. Check Digit Transmission
Do Not Calculate Check Digit *

Calculate Check Digit & Transmit

Calculate Check Digit & Not Transmit


B. Set Up Code Length

To set the fixed length:

1. Scan the “Begin” label of the desired set.
2. Go to Numeric Bar Codes in Appendix A, scan label(s) that represents the length to be read.
3. Scan the “Complete” label of the desired set. Repeat the steps 1 - 3 to set additional lengths.

Variable *



Fix Length (2 Sets Available)

1. 1ST Set Begin



2. Numeric Bar
Codes (Appendix A)



3. 1ST Set Complete



1. 2nd Set Begin



2. Numeric Bar
Codes (Appendix A)



3. 2nd Set Complete



Minimum Length

1. Begin



2. Numeric Bar
Codes (Appendix A)



3. Complete



3.8 CODABAR/NW7 Parameters

A. Set Up Start/ Stop Characters Upon Transmission	B. Transmission Type of Start/Stop	
OFF * 	A/B/C/D Start * 	A/B/C/D Stop *
ON 	A Start 	A Stop
	B Start 	B Stop
	C Start 	C Stop
	D Start 	D Stop

C. Set Up Code Length

To set the fixed length:

1. Scan the “Begin” label of the desired set.
2. Go to Numeric Bar Codes in Appendix A, scan label(s) that represents the length to be read.
3. Scan the “Complete” label of the desired set. Repeat the steps 1 - 3 to set additional lengths.

Variable *



Fix Length (2 Sets Available)

1. 1st Set Begin



2. Numeric Bar
Codes (Appendix A)



3. 1st Set Complete



1. 2nd Set Begin



2. Numeric Bar
Codes (Appendix A)



3. 2nd Complete



Minimum Length

1. Begin



2. Numeric Bar
Codes (Appendix A)



3. Complete



3.9 Code 93 Parameters

A. Check Digit Transmission

Calculate Check 2 Digits & Not Transmit *



Do Not Calculate Check Digit



B. Set Up Code Length

To set the fixed length:

1. Scan the "Begin" label of the desired set.
2. Go to Numeric Bar Codes in Appendix A, scan label(s) that represents the length to be read.
3. Scan the "Complete" label of the desired set. Repeat the steps 1 - 3 to set additional lengths.

Variable*



Fix Length (2 Sets Available)

1. 1st Set Begin



2. Numeric Bar
Codes (Appendix A)



3. 1st Set Complete



1. 2nd Set Begin



2. Numeric Bar
Codes (Appendix A)



3. 2nd Set Complete



Minimum Length

1. Begin



2. Numeric Bar
Codes (Appendix A)



3. Complete



3.10 Code 11 Parameters

A. Check Digit Transmission	
Do Not Calculate Check Digit *	
	
Calculate Check 1 Digit & Transmit	Calculate Check 1 Digit & Not Transmit
	
Calculate Check 2 Digit & Transmit	Calculate Check 2 Digit & Not Transmit
	

B. Set Up Code Length

To set the fixed length:

1. Scan the “Begin” label of the desired set.
2. Go to Numeric Bar Codes in Appendix A, scan label(s) that represents the length to be read.
3. Scan the “Complete” label of the desired set. Repeat the steps 1 - 3 to set additional lengths.

Variable *



Fix Length (2 Sets Available)

1. 1st Set Begin



2. Numeric Bar
Codes (Appendix A)



3. 1st Set Complete



1. 2nd Set Begin



2. Numeric Bar
Codes (Appendix A)



3. 2nd Set Complete



Minimum Length

1. Begin



2. Numeric Bar
Codes (Appendix A)



3. Complete



3.11 MSI/PLESSEY Code Parameters

A. Check Digit Transmission
Calculate Check Digit & Not Transmit *

Do Not Calculate Check Digit

Calculate Check Digit & Transmit


B. Set Up Code Length

To set the fixed length:

1. Scan the “Begin” label of the desired set.
2. Go to Numeric Bar Codes in Appendix A, scan label(s) that represents the length to be read.
3. Scan the “Complete” label of the desired set. Repeat the steps 1 - 3 to set additional lengths.

Variable *



Fix Length (2 Sets Available)

1. 1st Set Begin



2. Numeric Bar
Codes (Appendix A)



3. 1st Set Complete



1. 2nd Set Begin



2. Numeric Bar
Codes (Appendix A)



3. 2nd Set Complete



Minimum Length

1. Begin



2. Numeric Bar
Codes (Appendix A)



3. Complete



3.12 Code 2 of 6 Parameters

A. Check Digit Transmission
Do Not Calculate Check Digit *

Calculate Check Digit & Transmit

Calculate Check Digit & Not Transmit


B. Set Up Code Length

To set the fixed length:

1. Scan the “Begin” label of the desired set.
2. Go to Numeric Bar Codes in Appendix A, scan label(s) that represents the length to be read.
3. Scan the “Complete” label of the desired set. Repeat the steps 1 - 3 to set additional lengths.

Variable *



Fix Length (2 Sets Available)

1. 1st Set Begin



2. Numeric Bar
Codes (Appendix A)



3. 1st Set Complete



1. 2nd Set Begin



2. Numeric Bar
Codes (Appendix A)



3. 2nd Set Complete



Minimum Length

1. Begin



2. Numeric Bar
Codes (Appendix A)



3. Complete



3.13 LCD25 Parameters

A. Check Digit Transmission
Do Not Calculate Check Digit *

Calculate Check Digit & Transmit

Calculate Check Digit & Not Transmit


B. Set Up Code Length

To set the fixed length:

1. Scan the “Begin” label of the desired set.
2. Go to Numeric Bar Codes in Appendix A, scan label(s) that represents the length to be read.
3. Scan the “Complete” label of the desired set. Repeat the steps 1 - 3 to set additional lengths.

Variable *



Fix Length (2 Sets Available)

1. 1st Set Begin



2. Numeric Bar
Codes (Appendix A)



3. 1st Set Complete



1. 2nd Set Begin



2. Numeric Bar
Codes (Appendix A)



3. 2nd Set Complete



Minimum Length

1. Begin



2. Numeric Bar
Codes (Appendix A)



3. Complete



3.14 Telepen Parameters

A. Type of Code	B. Check Digit Transmission
Full ASCII Mode * 	Calculate Check Digit & Not Transmit* 
Compressed Numeric Mode 	Do Not Calculate Check Digit 
	Calculate Check Digit & Transmit 

C. Set Up Code Length

To set the fixed length:

1. Scan the “Begin” label of the desired set.
2. Go to Numeric Bar Codes in Appendix A, scan label(s) that represents the length to be read.
3. Scan the “Complete” label of the desired set. Repeat the steps 1 - 3 to set additional lengths.

Variable *



Fix Length (2 Sets Available)

1. 1st Set Begin



2. Numeric Bar
Codes (Appendix A)



3. 1ST Set Complete



1. 2nd Set Begin



2. Numeric Bar
Codes (Appendix A)



3. 2nd Set Complete



Minimum Length

1. Begin



2. Numeric Bar
Codes (Appendix A)



3. Complete



3.15 GS1 Databar

A. GS1 DataBar Omnidirectional		B. GS1 DataBar Limited Parameters	
Transmit Check Digit * 	Don't Transmit Check Digit 	Transmit Check Digit * 	Don't Transmit Check Digit 
Transmit Application ID * 	Don't Transmit Application ID 	Transmit Application ID* 	Don't Transmit Application ID 
Don't Transmit Symbology ID * 	Transmit Symbology ID 	Don't Transmit Symbology ID * 	Transmit Symbology ID 
C. GS1 DataBar Expanded Parameters			
Don't Transmit Symbology ID * 			
Transmit Symbology ID 			

3.16 Bar Code ID

OFF *
ON
Default

With this function ON, a leading character will be added to the output string while scanning code, user may refer to the following table to know what kind of bar code is being scanned.

Please refer to the table below for matching code ID of codes read in.

Code Type	ID	Code Type	ID
UPC-A	A	UPC-E	B
EAN-8	C	EAN-13	D
CODE 39	E	CODE 128	F
Interleave 25	G	Industrial 25	H
Matrix 25	I	Codabar/NW7	J
CODE 93	K	CODE 11	L
China Postage	M	MSI / PLESSEY	N
Code 2 of 6	P	LCD 25	Q
Telepen	T	GS1 DataBar Omnidirectional	U
GS1 DataBar Limited	V	GS1 DataBar Expanded	W

User Define Code ID

To set the code ID:

1. Scan the symbologies label.
2. Go to the ASCII Tables in Appendix B, scan label that represents the desired code ID.

Note :

User define code ID will override default value. Program will not check the conflict. It is possible to have more than two symbologies which have same code ID.

UPC-A 	UPC-E 
EAN-13/JAN-13 	EAN-8/JAN-8 
CODE 39 	CODE 128 
CODABAR/NW7 	Interleave 25 
Industrial 25 	Matrix 25 
CODE 93 	CODE 11 
ChinaPostage 	MSI/PLESSEY 
Code 2 of 6 	Telepen 

LCD25 	GS1 DataBar Omnidirectional ON 
GS1 DataBar Limited ON 	GS1 DataBar Expanded ON 
Reserved5 	Reserved6 

Chapter 4 – Command Setting

4.1 Interface & Reading Mode Selection

4.1.1 Cradle Interface Selection

USB Mode * 
RS232 Mode 
Virtual COM 

4.1.2 Reading Mode Selection

Trigger ON/OFF * 	Good Read OFF 
Continuous/Trigger OFF 	Testing 
Continuous/Auto Power On 	Flash 
Flash/Auto Power On 	Presentation 

4.1.3 BT Auto Connection

Enable*	Disable
	

4.1.4 iOS Hotkey Function

When enabling iOS Hotkey, you may simply double-click the trigger to toggle the iPhone/iPad Touch Keyboard.

Note: This function is only available for iPhone/iPad.

Enable	Disable*
	

4.2 Communication Parameters

4.2.1 RS232 Communication Parameters

A. Set Up BAUD Rate	B. Set Up Data Bits	C. Set Up Stop Bits
9600 * 	8 Data Bits * 	1 Bit* 
1200 	7 Data Bits 	2 Bits 
2400 		
4800 		
19200 		
38400 		

D. Set Up Parity	E. Handshaking	
None * 	RTS/CTS Disable * 	RTS/CTS Enable
Even 	ACK/NAK Disable * 	ACK/NAK Enable
Odd 	XON/XOFF Disable * 	XON/XOFF Enable
Mark 		
Space 		

4.2.2 Output Characters Parameters

A. Select Terminator	B. Time-out Between Characters
CR* 	0 ms * 
None 	5 ms 
CR +LF 	10 ms 
LF 	25 ms 
Space 	50 ms 
HT(TAB) 	100 ms 
STX-ETX 	200 ms 
	300 ms 

4.3 Language Selection

US English *	Hungarian
	
UK English	Japanese
	
Italian	Belgium
	
Spanish	Portuguese
	
French	Denmark
	
German	Netherlands
	
Swedish	Turkey
	
Switzerland	Reserved 2
	

4.4 Reading Level

The Polarity can be sent as standard with black bars high, or reversed with white bars high.

Black Bars High *

White Bars High


4.5 Accuracy

This setting is to provide the assurance of barcode consistency and to prevent the misread outcome before the data is sent to the host. Scan the barcode below to choose how many times you would like to verify the data.

Note: It will cause the scanning process to slow down by choosing more than 1 time to verify the data.

1 Time *	
2 Times	
3 Times	
4 Times	

4.6 Buzzer Beep Tone

High *	
Medium	
Low	
Off	

4.7 Sensitivity of Continuous Reading Mode

A. Quick Setting
Fast *

Slow


B. Same Code Delay Reading Interval
Following code sequences represent the length of time before a barcode can be rescanned at continuous and flash reading mode. The value can be defined from 1-50 and they represent 100ms to 5 seconds in 100ms interval. Default value is 3 (0.3 seconds).
To setup same code delay reading interval: 1. Scan the "Begin" label 2. Go the Numeric Bar Codes in Appendix A, Scan label(s), that represents the same code delay reading interval. They are ranged from 1-50. One step is represented 0.1 second. So the interval is from 0.1 to 5 seconds. 3. Scan the "Complete" label
Repeat the steps 1-3 to set time out of same symbol
1. Begin  → 2. Numeric Bar Codes (Appendix A) → 3. Complete 

4.8 Reverse Output Characters

Disable *
Enable

4.9 Setup Deletion

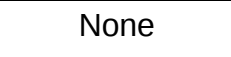
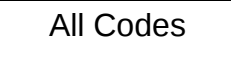
To setup the deletion of output characters:

1. Scan the label of the desired set below.
2. Scan the label of the desired symbology.
3. Go to the Numeric Bar Codes in Appendix A, scan label(s) that represents the desired position to be deleted.
4. Scan the “Complete” label of “Character Position to be Deleted”.
5. Go to the Numeric Bar Codes in Appendix A, scan label(s) that represents the number of characters to be deleted.
6. Scan the “Complete” label of “Number of Characters to be Deleted”.

Repeat the steps 1 – 6 to set additional deletion.

A. Select Deletion Set Number

1 st Set	2 nd Set	3 rd Set
4 th Set	5 th Set	6 th Set

B. Symbolologies Selection	
UPC-A 	Industrial 25 
UPC-E 	Matrix 25 
EAN-13/JAN-13/ISBN-13 	CODE 93 
EAN-8/JAN-8 	CODE 11 
CODE 39 	China Postage 
CODE 128 	MSI/PLESSEY 
CODABAR/NW7 	Code 2 of 6 
Interleave 25 	Telepen 
LCD25 	GS1 DataBar Omnidirectional 
GS1 DataBar Limited 	GS1 DataBar Expanded 
None 	All Codes 

C. Character Position to be Deleted	
1. Numeric Bar Codes (Appendix A)	2. Complete 
D. Number of Characters to be Deleted	
1. Numeric Bar Codes (Appendix A)	2. Complete 

4.10 Setup Insertion

To setup the insertion of output characters :

1. Scan the label of the desired set.
2. Scan the label of the desired symbology.
3. Go to the Numeric Bar Codes in Appendix A, scan label(s) that represents the desired position to be inserted.
4. Scan the “Complete” label of “Character Position to be Inserted”.
5. Go to the ASCII Tables in Appendix B or Function Key Tables in Appendix C, scan label(s) that represents the desired characters to be inserted. Scan the “Complete” label of “Number of Characters to be Deleted”.
6. Scan the “Complete” label of “Characters to be inserted”.

Repeat the steps 1 – 6 to set additional insertion.

A. Select Insertion Set Number

1 st Set 	2 nd Set 	3 rd Set 
4 th Set 	5 th Set 	6 th Set 

B. Symbolologies Selection	
UPC-A 	Industrial 25 
UPC-E 	Matrix 25 
EAN-13/JAN-13/ISBN-13 	CODE 93 
EAN-8/JAN-8 	CODE 11 
CODE 39 	China Postage 
CODE 128 	MSI/PLESSEY 
CODABAR/NW7 	Code 2 of 6 
Interleave 25 	Telepen 
LCD25 	GS1 DataBar Omnidirectional 
GS1 DataBar Limited 	GS1 DataBar Expanded 
None 	All Codes 

C. Character Position to be Inserted	
1. Numeric Bar Codes (Appendix A)	→ 2. Complete 
D. Characters to be Inserted	
1. ASCII Table (Appendix B)	→ 2. Complete 

4.11 PAN Configuration

4.11.1 Auto Mode

Auto Mode Enable * 	Auto Mode Disable 
When “Auto Mode” function is enabled, and the scanner is working at out of transmission range, the scanned data will be stored to out-of-range memory. Memory size is approximately 25,000 sets of EAN13 barcode type. The all stored data will be transmitted to device when the link is reconnected, and the all data stored in out-of-range memory will be cleared.	

4.11.2 Sleep Mode

Sleep Mode OFF* 
Sleep Mode 1 min. ON 
Sleep Mode 10 min. ON 
The scanner is equipped with sleep mode function to save battery energy when the scanner is not used for 1 minute or 10 minutes. During sleep mode, all the functions and connection will be halted until pressing the trigger button. The communication with cradle or Bluetooth device will be reconnected.

4.11.3 Batch Mode

Batch Mode OFF*	
Batch Mode ON	
Delete Last Data **	
Batch Data Read **	
Batch Data Clear **	
** : Quick Setting Label The function can be executed directly by scanning barcode instead of doing the general programming process.	

4.11.4 Firmware Version

Scanner Firmware Version** 
Cradle Firmware Version** 
Scanner MAC Address** 
Cradle MAC Address** 
** : Quick Setting Label Display the firmware version of the scanner, please scan above barcode.

Appendix A –Numeric Bar Codes

0



1



2



3



4



5



6



7



8



9



Appendix B –ASCII Table

NULL



ETX



ACK



HT



FF



SI



DC2



NAK



CAN



ESC



RS



STX



ENQ



BS



VT



SO



DC1



DC4



ETB



SUB



GS



SOH



EOT



BEL



LF



CR



DLE



DC3



SYN



EM



FS



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SPACE



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c	b	d
		
f	e	g
		
i	h	j
		
l	k	m
		
o	n	p
		
r	q	s
		
u	t	v
		
x	w	y
		
{	z	
		
~	}	DEL
		

Appendix C –Function Key Table

F1



F2



F3



F4



F5



F6



F7



F8



F9



F10



F11



F12



Insert



Delete



Home



Page Up



Page Down



End



Left



Right



Up



Down



Appendix D-Numeric Bar Codes2

0		1	
2		3	
4		5	
6		7	
8		9	
Enter			