

# NEO Hand-Held Computer With Windows Mobile 6.1 Classic (Model No. PX750) User Manual

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Part No. 8100202.A



*ISO 9001 Certified  
Quality Management System*



**This user manual supports Model Numbers:**

- PX750BT
- PX750BT8
- FCC ID: GM3PX750BT and GM3PX750BT8

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# TABLE OF CONTENTS

## Chapter 1: Introduction

1.1	About This Manual .....	3
1.2	Text Conventions .....	4
1.3	NEO Features .....	4
1.3.1	NEO Hand-Helds .....	5

## Chapter 2: Basic Checkout

2.1	Preparing NEO for Operation .....	11
2.1.1	The Main Battery .....	11
2.1.1.1	Charging the Main Battery .....	11
2.1.2	Backup Power .....	11
2.2	Switching NEO On and Off .....	11
2.2.1	Installing the Battery and Switching the Unit On .....	11
2.2.2	Switching the Unit Off (Suspend) .....	12
2.3	Connecting NEO to a PC .....	12
2.4	Wireless Networking – Wi-Fi Config .....	12
2.4.1	Status Tab .....	13
2.4.2	Wi-Fi Configuration Tab .....	14
2.4.2.1	Authentication Modes .....	15
2.4.2.2	EAP .....	16
2.4.2.3	Encryption .....	17
2.4.2.4	Connecting the Wireless Network .....	18
2.4.3	Configuring TCP/IP .....	19
2.4.3.1	IP Address and Name Servers .....	19
2.4.4	Advanced Tab .....	20
2.5	Checking The Scanner .....	20
2.6	Data Transfer Between the PC & the Hand-Held .....	20
2.6.1	Using Microsoft ActiveSync® .....	21
2.6.2	Using Microsoft Windows Mobile Device Center .....	21
2.7	Aligning (Calibrating) the Touchscreen .....	21
2.8	The Getting Started Centre .....	22
2.9	Resetting NEO Hand-Held .....	22
2.9.1	Performing a Warm Reset .....	22

2.9.2 Performing a Cold Reset to the Windows Mobile 6.1 OS ..... 23

### Chapter 3: Get To Know NEO

3.1 Features of NEO ..... 27

3.2 The Batteries ..... 28

    3.2.1 Battery Safety ..... 28

    3.2.2 Removing the Battery Pack ..... 29

    3.2.3 Battery Swap Time ..... 29

    3.2.4 Charging The Battery ..... 29

        3.2.4.1 Charging Options ..... 29

3.3 Switching the Hand-Held On and Off ..... 30

3.4 The Keyboards ..... 31

    3.4.1 Modifier Keys ..... 31

        3.4.1.1 Activating Modifier Keys & the Shift-State Indicator ..... 31

        3.4.1.2 Locking Modifier Keys ..... 32

    3.4.2 The Keys ..... 33

    3.4.3 48-Key Alpha-Numeric Keyboard – Accessing Keys ..... 35

    3.4.4 26-Key Numeric Keyboard – Accessing Alpha Keys ..... 35

        3.4.4.1 Choosing a Single Alpha Character ..... 35

        3.4.4.2 Creating Uppercase Letters ..... 36

        3.4.4.3 Choosing Multiple Alpha Characters ..... 36

3.5 The Display ..... 36

    3.5.1 Adjusting the Backlight ..... 36

    3.5.2 Aligning (Calibrating) the Touchscreen ..... 37

    3.5.3 Screen Orientation ..... 38

3.6 Indicators ..... 38

    3.6.1 LED Indicator ..... 38

    3.6.2 Audio Indicators ..... 39

        3.6.2.1 Adjusting The Receiver Volume ..... 39

3.7 Monitoring the Battery and Maximizing Run Time ..... 40

    3.7.1 Storing Batteries ..... 40

3.8 Uploading Data in a Docking Station ..... 41

3.9 *Bluetooth* Radio ..... 41

    3.9.1 Pairing a *Bluetooth* Device ..... 42

3.10 The microSD Card ..... 45

    3.10.1 Inserting The Card ..... 45

3.11 General Maintenance ..... 47

    3.11.1 Caring For The Touchscreen ..... 47

3.11.2 Cleaning NEO .....47

**Chapter 4: Working With Windows Mobile 6.1 Classic**

4.1 Navigating in Windows Mobile 6.1 and Applications ..... 51

4.1.1 Navigating Using a Touchscreen and Stylus ..... 51

4.2 Windows Mobile 6.1 Classic Desktop – Today Screen ..... 51

4.2.1 Windows Mobile 6.1 Navigation Bar ..... 52

4.2.2 Today’s Date, Clock and Alarm ..... 53

4.2.3 Ownership Information ..... 55

4.2.4 E-mail Notification ..... 56

4.2.5 Task Notification ..... 56

4.2.6 Calendar of Upcoming Appointments ..... 59

4.2.6.1 Creating and Editing Appointments ..... 59

4.2.6.2 Adding Reminders ..... 60

4.2.6.3 Using Categories ..... 61

4.2.6.4 Deleting Appointments ..... 62

4.3 Start Menu ..... 63

4.3.1 Customising the Start Menu ..... 63

4.4 Managing Files and Folders ..... 64

4.4.1 Creating a New Folder ..... 65

4.4.2 Renaming a File ..... 65

4.4.3 Copying a File ..... 65

4.4.4 Deleting a File ..... 65

4.5 Using Menus ..... 66

4.5.1 Pop-Up Menus ..... 66

4.6 The Softkey Bar ..... 67

4.7 Programs – Using Applications ..... 69

4.8 Settings ..... 70

4.9 Help ..... 71

4.10 Entering Text ..... 71

4.10.1 Soft Keyboard ..... 72

4.10.2 The Transcriber ..... 72

4.10.3 Block Recognizer and Letter Recognizer ..... 73

**Chapter 5: Programs**

5.1 Programs ..... 79

5.2 Games ..... 79

5.3 ActiveSync® ..... 79

## Contents

5.3.1	Synchronization .....	80
5.4	Calculator .....	80
5.5	Office Mobile.....	80
5.5.1	Excel Mobile.....	80
5.5.1.1	Workbook Components .....	81
5.5.2	OneNote Mobile .....	82
5.5.3	Word Mobile.....	86
5.5.3.1	Data Entry Modes.....	87
5.5.3.2	Sharing Documents with Your PC.....	87
5.5.4	PowerPoint Mobile.....	87
5.6	Demo Scanner.....	88
5.7	File Explorer.....	88
5.8	Getting Started.....	89
5.9	Imager Demo .....	89
5.10	Internet Sharing.....	89
5.10.1	Creating an Internet Connection.....	89
5.10.2	Using Internet Sharing.....	90
5.11	Notes.....	91
5.11.1	Creating a Note.....	91
5.11.2	Converting Handwritten Notes to Text .....	92
5.11.3	Renaming a Note.....	93
5.11.4	Recording Notes .....	93
5.11.5	Synchronizing a Note .....	95
5.12	Pictures & Videos.....	95
5.12.1	Moving Photos to NEO.....	95
5.12.2	Opening a Photo.....	96
5.12.3	Deleting a Photo.....	96
5.12.4	Editing a Photo.....	96
5.12.5	Creating a Slide Show .....	96
5.13	Internet Explorer.....	97
5.13.1	Browsing Web Sites.....	97
5.14	Messaging .....	98
5.14.1	Folders.....	98
5.14.2	Synchronizing E-mail with Outlook .....	99
5.14.3	Changing Synchronization Settings.....	100
5.15	Remote Desktop Mobile .....	101
5.15.1	Connecting to a Terminal Server .....	101
5.15.2	Disconnecting without Ending a Session.....	101



5.15.3	Ending a Session .....	101
5.16	Search .....	102
5.17	Task Manager .....	102
5.18	Tasks .....	102
5.19	Wi-Fi Config .....	103
5.20	Windows Live .....	103
5.21	Windows Media .....	103

## Chapter 6: Settings

6.1	Settings .....	109
6.2	Personal Settings .....	109
6.3	App Launch Keys .....	110
6.4	Buttons Icon .....	112
6.4.1	Up/Down Control .....	112
6.4.2	One Shots .....	113
6.4.3	Keyboard Macro Keys .....	114
6.4.4	Unicode Mapping .....	116
6.4.5	Scancode Remapping .....	117
6.4.6	Lock Sequence .....	120
6.5	Input .....	121
6.5.1	Input Method Tab .....	121
6.5.1.1	Word Completion .....	125
6.5.2	Options – Additional Choices .....	125
6.6	Lock .....	126
6.7	Menus .....	127
6.7.1	Start Menu Tab .....	127
6.8	Owner Information .....	127
6.9	Sound & Notifications .....	128
6.9.1	Sounds .....	128
6.9.2	Notifications .....	128
6.10	Today Screen .....	129
6.10.1	Appearance .....	129
6.10.2	Items .....	130
6.11	System Tab Settings .....	130
6.12	About .....	131
6.13	About Device .....	131
6.14	Backlight .....	132

## Contents

6.14.1	Battery Power	132
6.14.2	External Power	133
6.14.3	Intensity	133
6.15	Certificates	134
6.15.1	Choosing A Certificate	136
6.16	Clock & Alarms	136
6.17	Customer Feedback	136
6.18	Dr. Debug	136
6.18.1	Status	137
6.18.2	Settings	137
6.18.3	Utilities	138
6.19	Encryption	138
6.20	Error Reporting	139
6.21	GPS (Global Positioning System)	139
6.22	Manage Triggers	141
6.22.1	Trigger Mappings	142
6.22.1.1	Add and Edit Trigger Mapping	143
6.23	Managed Programs	144
6.24	Memory	145
6.24.1	Main Tab	146
6.24.2	Storage Card	146
6.25	Power Icon	146
6.25.1	Battery Tab	147
6.25.2	Advanced Tab	147
6.25.3	Battery Details	148
6.25.4	Built-In Devices	149
6.25.5	Card Slots	149
6.25.6	Suspend Threshold	150
6.25.6.1	Suspend Threshold and Estimated Battery Backup	150
6.26	Regional Settings	151
6.27	Remove Programs	152
6.28	Screen	152
6.29	Task Manager	153
6.30	Teklogix Imagers Settings	155
6.30.1	Imager Demo	155
6.31	Teklogix Scanners Settings	156
6.31.1	Bar Code Settings – The Scanner Menu	157

6.31.2	Options Tab .....	157
6.31.2.1	Double Click Parameters .....	157
6.31.2.2	Display Parameters .....	158
6.31.2.3	Data Handling .....	159
6.31.3	Translations Tab .....	159
6.31.3.1	Case Rules .....	161
6.32	Total Recall .....	162
6.32.1	Creating A Backup Profile .....	163
6.32.2	Restoring A Profile .....	166
6.32.3	Viewing a Profile .....	167
6.32.4	Deleting a Profile .....	168
6.33	TweakIT .....	169
6.33.1	Advanced Interface And Network Settings .....	170
6.33.2	Advanced Services Settings .....	171
6.33.3	Radio Features .....	172
6.33.4	User System Setting .....	173
6.33.5	Registry Editor .....	174
6.34	Windows Update .....	174
6.35	Connections Tab .....	174
6.36	Beam .....	177
6.37	<b>Bluetooth</b> Setup .....	177
6.37.1	Paired Tab .....	178
6.37.2	Device Tab .....	180
6.37.2.1	Discovering and Removing Devices .....	180
6.37.2.2	Filtering By Class of Device (COD) .....	181
6.37.2.3	Device Pop-up Menu .....	181
6.37.2.4	Pairing a Device .....	182
6.37.3	Servers Tab .....	184
6.37.4	Mode Tab .....	185
6.37.5	About Tab .....	185
6.37.6	The <b>Bluetooth</b> GPRS Phone .....	186
6.38	Connection Properties .....	187
6.38.1	Port Settings .....	188
6.38.2	Call Options .....	189
6.39	Connections – Connecting to the Internet .....	189
6.39.1	Modem Connection Setup .....	190
6.39.1.1	Advanced Modem Settings .....	193
6.40	Wireless Manager Icon .....	194
6.40.1	Flight Mode – Disabling Wireless Components .....	194

## Contents

6.40.2	Setting Up A Network Card .....	195
6.40.3	Network Adaptor Cards .....	195
6.40.4	Changing Network Card Settings .....	196
6.40.5	VPN Connection Setup.....	196
6.40.6	Managing an Existing Connection .....	197
6.40.6.1	Editing a Connection.....	197
6.40.6.2	Changing a Connection Setting Name .....	198
6.40.7	Selecting a Network .....	199
6.40.8	Proxy Server Setup .....	200
6.40.8.1	Changing Advanced Proxy Server Settings .....	201
6.41	Wireless Statistics.....	202

## Chapter 7: Peripheral Devices & Accessories

7.1	Carrying Accessories .....	205
7.1.1	Attaching the Hand Strap .....	206
7.1.2	Belt Clip Installation .....	208
7.1.3	The Expansion Port .....	210
7.1.4	The Pistol Grip With Stylus .....	210
7.2	The Battery .....	211
7.3	Adaptor/Cable Options .....	212
7.3.1	RS-232 Adaptor – Model No. PX3050 .....	212
7.3.2	Micro-USB Adaptor – Model No. PX3054 .....	214
7.4	Charging Options .....	215
7.4.1	Installation – Docking Stations .....	216
7.4.2	Power Consumption Considerations .....	216
7.4.3	Operator Controls .....	216
7.5	Desktop Docking Station – PX3001.....	216
7.5.1	Desktop Docking Station Setup.....	217
7.5.2	Charging a Battery Installed in NEO.....	217
7.5.3	Charging a Spare Battery .....	218
7.5.4	Battery Charge Duration.....	218
7.5.5	Docking Station Charger LED Indicators .....	219
7.5.6	Troubleshooting the Charging Operation of the Dock.....	219
7.5.6.1	Indicator Solid Red.....	219
7.5.6.2	NEO Power LED Does Not Light Up .....	219
7.5.6.3	Indicator Does Not Light When Battery Installed.....	220
7.5.7	Linking a NEO to a PC.....	220
7.5.8	Linking NEO to an Ethernet Network .....	220
7.5.8.1	Network Access.....	220

7.5.9	Troubleshooting USB Operations .....	221
7.6	AC Wall Adaptor – Model No. PX3012 .....	221
7.7	Cigarette Lighter Adaptor — Model PX3056 .....	222
7.8	Quad Docking Station – PX3004 PC & PX3004 NPC .....	222
7.8.1	Quad Docking Station Setup .....	223
7.8.2	Quad Docking Station Indicators .....	223
7.8.3	Inserting a NEO in the Quad Docking Station .....	223
7.8.4	Network Access .....	223
7.8.4.1	Network Addressing .....	224
7.8.5	Battery Charging – LED Behaviour .....	224
7.8.6	Troubleshooting .....	224
7.8.6.1	Network Link Unsuccessful .....	224
7.8.6.2	NEO LED Does Not Light When Docked .....	224
7.9	Scanners and Imagers .....	225
7.9.1	Basic Scanner Operations .....	225
7.9.2	Scanning Techniques .....	225
7.9.3	Troubleshooting .....	226
7.10	<i>Bluetooth</i> Peripherals .....	226

## Chapter 8: Specifications

8.1	NEO Hand-Held Specifications .....	229
8.1.1	Hardware .....	229
8.1.2	Software .....	230
8.1.3	Wireless Communication .....	231
8.1.4	Bar Code Applications .....	231
8.2	NEO Radio Specifications .....	232
8.2.1	802.11b/g Radio .....	232
8.2.2	<i>Bluetooth</i> Radio .....	232
8.3	Scanner/Imager Specifications .....	233
8.3.1	SE 955HP Specifications .....	233
8.3.1.1	SE 955HP Decode Zone .....	234
8.3.2	EV15 Imager Specifications .....	234
8.3.2.1	EV15 Imager Decode Zone .....	235
8.3.3	HHP 5000 Imager Performance .....	235
8.3.3.1	HHP 5000 Decode Zone .....	236

## Appendix A: Pinouts

A.1	Docking Connector Pinout .....	A-1
A.2	Battery Connector .....	A-2

A.3 Expansion Port Pinout ..... A-2

**Appendix B: Teklogix Imagers Applet**

B.1 Required Applets ..... B-1

B.2 Presets ..... B-1

    B.2.1 Predefined Presets ..... B-2

    B.2.2 Bar Code Predefined Presets ..... B-2

    B.2.3 Bar Code Decoding Camera Predefined Presets ..... B-3

    B.2.4 Image Capture Predefined Presets ..... B-3

B.3 Using the Teklogix Imagers Applet ..... B-4

    B.3.1 Configuring the Image Capture Presets ..... B-4

    B.3.2 Selecting a Camera ..... B-5

    B.3.3 Setting the Active Preset ..... B-5

    B.3.4 Viewing a Preset ..... B-5

    B.3.5 Creating a Custom Preset ..... B-5

    B.3.6 Modifying a Custom Preset ..... B-7

    B.3.7 Removing a Custom Preset ..... B-8

B.4 Configuring the Bar Code Decoding Camera Presets ..... B-8

    B.4.1 Selecting a Camera ..... B-9

    B.4.2 Setting the Active Preset ..... B-9

    B.4.3 Viewing a Preset ..... B-10

    B.4.4 Creating a Custom Preset ..... B-10

    B.4.5 Modifying a Custom Preset ..... B-11

    B.4.6 Removing a Custom Preset ..... B-12

    B.4.7 Configuring the Bar Code Decoding Symbologies ..... B-12

    B.4.8 Setting the Active Preset ..... B-13

    B.4.9 Viewing a Preset ..... B-13

    B.4.10 Creating a Custom Preset ..... B-14

    B.4.11 Modifying a Custom Preset ..... B-15

    B.4.12 Removing a Custom Preset ..... B-16

    B.4.13 Bar Coding Tab – Configuring Symbologies ..... B-16

    B.4.14 Filter Tab – Manipulating Bar Code Data ..... B-18

    B.4.15 Translation Tab – Configuring Rules ..... B-20

    B.4.16 Advanced Tab ..... B-21

B.5 Bar Code Symbologies – Descriptions ..... B-23

    B.5.1 Options ..... B-24

    B.5.2 Code 39 ..... B-24

    B.5.3 Trioptic Code ..... B-25

    B.5.4 Code 128 ..... B-26

B.5.5	EAN 13 .....	B-26
B.5.6	EAN 8 .....	B-27
B.5.7	UPC-A .....	B-27
B.5.8	UPC-E Settings .....	B-28
B.5.9	UPC/EAN Shared Settings .....	B-29
B.5.10	Code 93 .....	B-29
B.5.11	Codabar .....	B-29
B.5.12	MSI Plessey .....	B-30
B.5.13	Code 11 .....	B-31
B.5.14	Interleaved 2 of 5 .....	B-31
B.5.15	Matrix 2 of 5 .....	B-32
B.5.16	IATA 2 of 5 .....	B-32
B.5.17	Discrete 2 of 5 .....	B-32
B.5.18	Telepen .....	B-32
B.5.19	GS1 DataBar .....	B-33
B.5.20	Posi Code (Reduced Space Symbology) .....	B-33
B.5.21	Composite .....	B-34
B.5.22	TLC-39 .....	B-34
B.5.23	2D PDF-417 .....	B-34
B.5.24	2D Micro PDF-417 .....	B-34
B.5.25	Code 16K .....	B-34
B.5.26	Code 49 .....	B-35
B.5.27	Codablock .....	B-35
B.5.28	2D Data Matrix .....	B-36
B.5.29	2D QR Code .....	B-36
B.5.30	2D Maxicode .....	B-36
B.5.31	2D Aztec .....	B-36
B.5.32	Postal: PlaNET .....	B-37
B.5.33	Postal: PostNET .....	B-37
B.5.34	Postal: Australian .....	B-37
B.5.35	Postal: Canadian .....	B-37
B.5.36	Postal: China .....	B-37
B.5.37	Postal: Japanese .....	B-38
B.5.38	Postal: Kix .....	B-38
B.5.39	Postal: Korean .....	B-38
B.5.40	Postal: Royal .....	B-38
B.5.41	VeriCode® .....	B-38

## Appendix C: Bar Code Settings

C.1	Scanner Menu .....	C-1
C.2	Decoded (Internal) Scanner .....	C-2
C.2.1	Options – Decoded (Internal) Scanner .....	C-2
C.2.2	Advanced Options – Decoded (Internal) .....	C-2
C.2.3	Decoded (Internal) 2D Scanning Options .....	C-5
C.2.4	Data Options — Decoded (Internal) Scanner .....	C-5
C.2.5	Code 39 .....	C-6
C.2.6	Code 128 .....	C-9
C.2.7	EAN 13 .....	C-10
C.2.8	EAN 8 .....	C-10
C.2.9	UPC A .....	C-11
C.2.10	UPC E .....	C-11
C.2.11	UPC/EAN Shared Settings .....	C-12
C.2.12	Code 93 .....	C-13
C.2.13	Codabar .....	C-13
C.2.14	MSI Plessey .....	C-14
C.2.15	Interleaved 2 of 5 .....	C-15
C.2.16	Discrete 2 of 5 .....	C-16
C.2.17	GS1 DataBar .....	C-17
C.2.18	Composite .....	C-17
C.2.19	PDF-417 .....	C-18
C.2.20	Micro PDF-417 .....	C-18
C.3	Decoded (ISCP) .....	C-19
C.3.1	Options – Decoded Scanner .....	C-19
C.3.2	Advanced Options – Decoded Scanner .....	C-20
C.3.3	Code 39 .....	C-21
C.3.4	Code 128 .....	C-22
C.3.5	EAN 13 .....	C-24
C.3.6	EAN 8 .....	C-24
C.3.7	UPCA .....	C-25
C.3.8	UPC E .....	C-25
C.3.9	UPC/EAN Shared .....	C-26
C.3.10	Code 93 .....	C-27
C.3.11	Codabar .....	C-27
C.3.12	MSI Plessey .....	C-28
C.3.13	Code 11 .....	C-29
C.3.14	Interleaved 2 of 5 .....	C-30



C.3.15	Matrix 2 of 5.....	C-31
C.3.16	Discrete 2 of 5.....	C-31
C.3.17	Telepen.....	C-32
C.3.18	GS1 DataBar.....	C-32
C.3.19	Composite.....	C-33
C.3.20	TLC-39.....	C-33
C.3.21	PDF-417.....	C-34
C.3.22	Micro PDF-417.....	C-34
C.3.23	Codablock.....	C-35



# INTRODUCTION

# 1

1.1 About This Manual . . . . .	3
1.2 Text Conventions . . . . .	4
1.3 NEO Features. . . . .	4
1.3.1 NEO Hand-Helds. . . . .	5



## 1.1 About This Manual

This manual describes how to configure, operate and maintain NEO, a light-weight, versatile hand-held computer.

### ***Chapter 1: Introduction***

provides a basic overview of NEO.

### ***Chapter 2: Basic Checkout***

describes the steps required to get the unit ready for operation.

### ***Chapter 3: Get To Know NEO***

describes the features and outlines how to charge and maintain the battery. This chapter also provides information about indicators, SD/MMC card installation and general maintenance.

### ***Chapter 4: Working With Windows Mobile 6.1 Classic***

describes the Microsoft® Windows Mobile 6.1 Today screen and how to use it. This chapter also outlines basics like moving around a window, displaying menus, and so on.

### ***Chapter 5: Programs***

provides a description of the Windows Mobile 6.1 Classic Programs options and how to use them.

### ***Chapter 6: Settings***

provides details about Windows Mobile 6.1 Settings options and how to use them.

### ***Chapter 7: Peripheral Devices & Accessories***

describes the peripherals and accessories available for your hand-held.

### ***Chapter 8: Specifications***

details radio, hand-held computer, scanner, imager and battery specifications.

### ***Appendix A: Pinouts***

provides port pinouts.

### ***Appendix B: Teklogix Imagers Applet***

describes the Teklogix Imagers applet and how to use it.

### ***Appendix C: Bar Code Settings***

describes the bar codes supported by the scanners and imagers available for the hand-held.

## 1.2 Text Conventions



*Note: Notes highlight additional helpful information.*



**Important:** *These statements provide particularly important instructions or additional information that is critical to the operation of the equipment.*



**Warning:** *These statements provide critical information that may prevent physical injury, equipment damage or data loss.*

## 1.3 NEO Features



**Important:** *For all safety, regulatory and warranty information, refer to the ‘NEO Hand-Held Computer Regulatory & Warranty Guide’, PN 8000175.*

NEO is a ruggedized hand-held personal computer running the Windows Mobile 6.1 Classic operating system. This hand-held is intended for use in commercial and light industrial applications with a focus on real time wireless data transactions. All possible bar code input methodologies are supported by one of a variety of scanners and imagers available. Optimization for specific operational environments is supported with a wide range of peripheral options and carrying accessories.

The unique tilted screen design on this hand-held computer makes the display content readily visible. This means that the operator can scan a bar code and view the results on the display in one movement – no need to manually tilt the unit to view the results after each scan. In addition, the tilted screen in conjunction with the protective rib at the base of the keyboard allows the unit to be placed facedown safely with no danger of an accidental key press.



*Note: For a complete list of NEO specifications, refer to “NEO Hand-Held Specifications” on page 229.*

### 1.3.1 NEO Hand-Helds

Figure 1.1 NEO Hand-Held Computer - Numeric & Alpha-Numeric



#### Model Variants

#### Connected NEO Standard Features:

- 2.7 inch Colour Touchscreen
- Windows Mobile 6.1 Classic
- microSD slot
- 3300 mAh Battery
- Discrete VoIP (Push-To-Talk)
- WiFi and *Bluetooth* Radios

**Additional Connected Options:**

- 1D Imager
- 1D Laser Scanner
- 2D Imager
- Keyboard Variants: 48-Key Alpha-Numeric or 26-Key Numeric

**Batch NEO Standard Features:**

- 2.7 inch Colour Touchscreen
- Windows® Mobile 6.1 Classic
- microSD Slot
- 3300 mAh Battery

**Additional Batch Options:**

- *Bluetooth* Radio
- *Bluetooth* Radio and 1D Imager
- *Bluetooth* Radio and 1D Laser Scanner
- *Bluetooth* Radio and 2D Imager
- Keyboard Variants: 48-Key Alpha-Numeric or 26-Key Numeric

**Platform**

- PXA270M @ 624 MHz, 32 bit RISC CPU
- 128 MB Flash ROM, 128 MB RAM

**Operating System**

- Microsoft Windows Mobile 6.1 Classic

**Wireless Communications**

- On-board IEEE 802.11b/g (CCX Certified)
- On-board *Bluetooth* radio (10 metre range)

**Application Software**

- Internet Explorer® 6
- Office Mobile
- ActiveSync
- Open TekTerm
- ANSI



- TESS terminal emulations
- IBM 3270, IBM 5250, HP 2392
- MCC
- Naurtech
- Stay-Linked
- PTX Connect
- MCL

### **Bar Code Applications**

- 1D Standard Laser Scanner Option – SE955
- 1D Standard Imager Option – EV15
- 2D Imager Option – HHP 5000

### **Internal Expansion Slots**

- One microSD slot

### **Expansion Port**

- Battery Output Power
- USB Signalling
- Scanner Trigger Input

### **Docking Port**

- RS-232
- USB
- DC Input

### **Power Management**

- 3.7 V @ 3300 mAh lithium-ion rechargeable battery
- 10 hour battery operation at 5 scans, transmit and receive per minute
- Built-in gas gauge and performance monitor
- System backup (up to 10 minutes) during battery swap
- 3 day real time clock backup
- Adjustable battery allocation between system backup and runtime

## Accessories

- Desktop charger
- Quad charger
- Pistol grip
- Holster
- Hand Strap
- Shoulder Strap
- Additional miscellaneous adaptors and cables (a complete list of accessories is available at [www.pSIONteklogix.com](http://www.pSIONteklogix.com))

# BASIC CHECKOUT

# 2

2.1 Preparing NEO for Operation . . . . .	11
2.1.1 The Main Battery . . . . .	11
2.1.1.1 Charging the Main Battery . . . . .	11
2.1.2 Backup Power . . . . .	11
2.2 Switching NEO On and Off . . . . .	11
2.2.1 Installing the Battery and Switching the Unit On . . . . .	11
2.2.2 Switching the Unit Off (Suspend) . . . . .	12
2.3 Connecting NEO to a PC. . . . .	12
2.4 Wireless Networking – Wi-Fi Config . . . . .	12
2.4.1 Status Tab. . . . .	13
2.4.2 Wi-Fi Configuration Tab . . . . .	14
2.4.2.1 Authentication Modes. . . . .	15
2.4.2.2 EAP . . . . .	16
2.4.2.3 Encryption. . . . .	17
2.4.2.4 Connecting the Wireless Network . . . . .	18
2.4.3 Configuring TCP/IP . . . . .	19
2.4.3.1 IP Address and Name Servers. . . . .	19
2.4.4 Advanced Tab . . . . .	20
2.5 Checking The Scanner . . . . .	20
2.6 Data Transfer Between the PC & the Hand-Held . . . . .	20
2.6.1 Using Microsoft ActiveSync® . . . . .	21
2.6.2 Using Microsoft Windows Mobile Device Center. . . . .	21
2.7 Aligning (Calibrating) the Touchscreen . . . . .	21
2.8 The Getting Started Centre . . . . .	22
2.9 Resetting NEO Hand-Held . . . . .	22
2.9.1 Performing a Warm Reset . . . . .	22
2.9.2 Performing a Cold Reset to the Windows Mobile 6.1 OS . . . . .	23



## 2.1 Preparing NEO for Operation

### 2.1.1 The Main Battery

NEO is powered with a high-capacity, lithium-ion battery pack – Model No. WA3006.

#### 2.1.1.1 Charging the Main Battery



**Warning:** *Before charging the battery, it is critical that you review the safety guidelines in the ‘NEO Hand-Held Computer (Model No. PX750) Regulatory & Warranty Guide’, PN 8000175.*

Battery packs shipped from the factory are charged to approximately 40% and must be fully charged prior to use. Batteries can be charged using a variety of chargers and docking stations along with a NEO internal charger. When using the internal charger, a suitable power source is required. All chargers and docking stations are described in Chapter 7: “Peripheral Devices & Accessories” beginning on page 203 for details.



**Note:** *If you are powering up a new unit, a warning message may appear on the screen indicating that the backup battery capacity is low. To recharge the internal battery, you must fully charge NEO with the main battery installed in the unit.*

### 2.1.2 Backup Power

A super capacitor provides a minimum of 10 minutes of *suspend mode* backup power to NEO to protect data while you swap in a new battery; all unnecessary draws on power such as the display and CPU are shut down to preserve power.



**Important:** *When you initially power up the hand-held, leave the battery in the unit for a minimum of 2 minutes to allow the super capacitor to reach full capacity.*

## 2.2 Switching NEO On and Off

### 2.2.1 Installing the Battery and Switching the Unit On



**Important:** *Before opening the battery cover on your hand-held, press [FN/BLUE] [ENTER] to turn off the hand-held.*

- Push in the release latch at the base of the battery cover to unlatch it. Remove the battery cover.

- Insert a *charged* battery into the unit, making certain that the connectors on the battery are aligned with those in the NEO battery compartment.
- Replace the battery cover, and snap it into place.



*Note: If you are using a docking station or an external power supply, you can insert an uncharged battery, dock the unit and switch it on.*

To switch NEO on:

- Press and hold down the **[ENTER]** key for at least one second.
- When the LED flashes green, release the **[ENTER]** button.

The desktop screen is displayed.



*Note: If the unit was already in use – the unit may be off (suspend state) – pressing [ENTER] ‘wakes’ the unit from this state. The screen in which you were working prior to the suspend state is displayed.*

## 2.2.2 Switching the Unit Off (Suspend)

- Press the **[FN/BLUE]** key, and then press the **[ENTER]** key.

## 2.3 Connecting NEO to a PC



*Note: Refer to “Linking a NEO to a PC” on page 220 for more details about the desktop docking station and how to link to a PC.*

NEO can be connected to a PC using the desktop docking station.

- Insert the unit in the desktop docking station.
- Use a Client USB connector to complete the communication link between the hand-held and the PC.

## 2.4 Wireless Networking - Wi-Fi Config

NEO contains an integrated 802.11b/g radio module. The *Wi-Fi Config* application is used to configure NEO for one or more wireless network profiles. A network profile contains settings for SSID (Service Set Identifier) and security options.



*Note: In most situations, the configuration of your 802.11 radio will require parameter setting and access keys from a network administrator.*

To launch the *Wi-Fi Config* application:

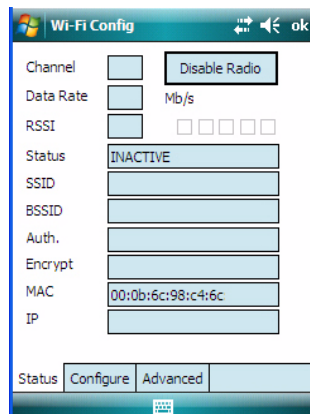
- Tap on **Start>Programs>Wi-Fi Config**.



The *Wi-Fi Config* screen is displayed.

### 2.4.1 Status Tab

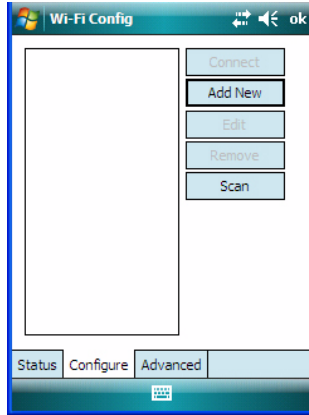
The *Status* tab displays information about the wireless network to which NEO is configured to connect. When there are no network profiles configured, this tab is not populated.



**Disable/Enable Radio:** This button toggles between *Disable Radio* and *Enable Radio* depending on whether the radio is turned off or on.

## 2.4.2 Wi-Fi Configuration Tab

- To configure the radio for a wireless network, tap on the **Configure** tab.



**Connect:** Used to connect to an already existing wireless network configuration.

**Add New:** Used to create a new wireless network configuration.

**Edit:** Used to change values in an already existing wireless network configuration.

**Remove:** Used to delete a wireless network configuration.

**Scan:** Used to detect and list available wireless networks. You can highlight a network in the list, and tap on *Add New* to activate the network.

There are two methods available when configuring a radio network – you can either scan for an existing network or manually create a network. If you tap on the **Scan** button, a list of networks detected by the radio is displayed. Highlighting one of the listed networks and tapping on the *Add New* button creates a new profile that is completed based on the security capabilities detected by the radio. You may need to add additional information, depending on your network requirements.

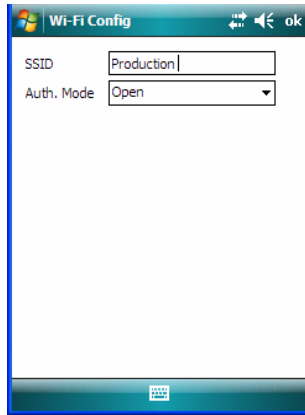
If you tap on the **Add New** button rather than the *Scan* button, you can create a network manually.



**Important:** *The steps below describe how to manually create a network. Keep in mind that this is intended only as an example and may vary from your own network requirements. If, for example, you are using a different type of security for your network, the fields you complete may not match those described here.*

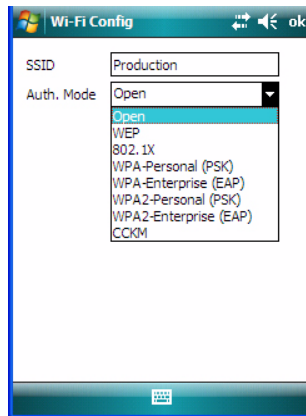


- Enter the **SSID** (Service Set Identifier) for your network.



### 2.4.2.1 Authentication Modes

NEO supports four classes of authentication – *Open*, *WEP*, *WPA PSK* and *802.1x with EAP*. Tapping on the *Auth. Mode* menu displays your authentication options.



*Note: Each Auth. Mode has a unique **Configure Profile** screen attached to it with fields appropriate to the authorization mode you've chosen.*

### Open Authentication

*Open* authentication does not provide security. When this option is chosen, NEO will connect to wireless networks which do not use authentication or encryption.

## WEP (Wired Equivalent Privacy)

WEP provides static security to prevent others from accidentally accessing your network. If you choose this option, you can specify the type of WEP authentication – *Open* or *Shared*, the WEP security key length – *64 bit* or *128 bit* and the key type – *ASCII* or *Hex*. WEP Key fields are also provided where you can specify a 5 or 13 ASCII character sequence or an equivalent 10 or 26 Hexadecimal digit sequence that matches the active WEP key on the access point.

## 802.1X, WPA & WPA2 Enterprise And CCKM

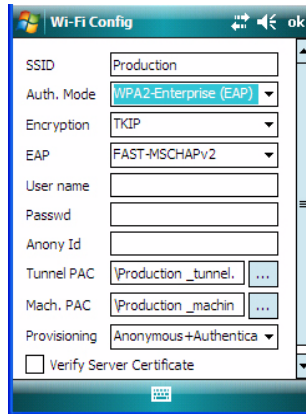
These authentication modes use *802.1X* and with *EAP* authentication. When *802.1X* is selected, NEO uses *WEP* encryption with automatic (as opposed to static) keying. For the others, the user may choose *TKIP*, *AES* or *TKIP+AES* encryption.

## WPA & WPA2 Personal PSK (Pre-Shared Key)

When PSK is selected, either *WPA Personal PSK* or *WPA2 Personal PSK* – a shared key must be configured on both the access point and the hand-held computer. One of the following can be chosen from the *Encryption* dropdown menu: *TKIP*, *AES* or *TKIP+AES*.

### 2.4.2.2 EAP

This menu allows you to choose the *EAP* (Extensible Authentication Protocol) type used for 802.1x authentication to an access point.



The following EAP types are supported by *Wi-Fi Config*:

- **FAST-MSCHAPv2:** Is a successor to LEAP and does not require strong passwords to protect against off-line dictionary attacks. Like LEAP, EAP-FAST does not require the use of server or client certificates and supports Windows Active Directory and domains.

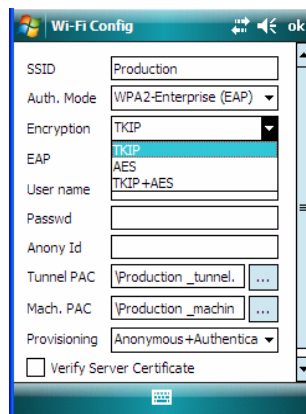
- **LEAP:** Is an authentication method for use with Cisco WLAN access points. LEAP does not require the use of server or client certificates. LEAP supports Windows Active Directory and domains but requires the use of strong passwords to avoid vulnerability to off-line dictionary attacks.
- **PEAPv0-MSCHAPv2:** Provides secure user authentication by using a TLS tunnel to encrypt EAP traffic. *MSCHAPv2* is used as the inner authentication method. This is appropriate for use against Windows Active Directory and domains.
- **PEAPv1-GTC:** PEAP authentication using GTC as the inner method which utilizes one time passwords (OTPs) for authentication against OTP data bases such as SecureID.
- **TLS:** Provides strong security via the use of client certificates for user authentication.

### Server Certificate Verification

When the *Verify Server Certificate* box is checked, NEO will verify the certificate provided by the authentication server during the authentication process. This requires that an appropriate certificate be manually installed on NEO for the verification.

### 2.4.2.3 Encryption

The *Encryption* menu allows you to choose the type of encryption that will be used to protect transmitted data. Choose an *Encryption* method valid for your network from the dropdown menu. Only the *Encryption* options that are compatible with the type of *Auth. Mode* you've chosen will be listed. In fact, in some cases, this menu will not be available at all.

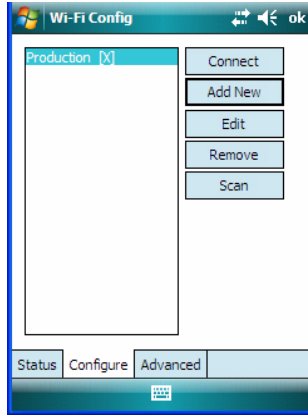


- Complete the fields in the **Configure Profile** screen. If you're uncertain about some of the options, your system administrator will be able to provide the correct information for your wireless network.

- Once you've completed the necessary fields, tap on **OK**.

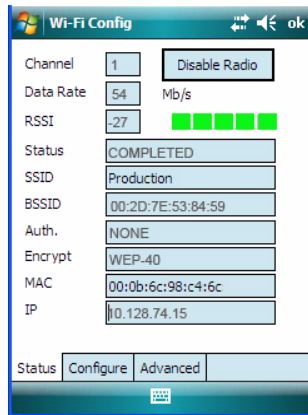
#### 2.4.2.4 Connecting the Wireless Network

Your configured network is listed in the *Configure* tab. An *[X]* next to a network indicates that this is the network to which NEO will connect.



- Tap on the **Connect** button to activate your network.

The *Status* tab is displayed. The *Status field* displays *ASSOCIATING* while the 802.11b/g radio attempts to connect to the network. Once the association is complete, the *Status* tab is populated with the appropriate information about your network.



### 2.4.3 Configuring TCP/IP

If your network is not using a DHCP server, you will need to assign an IP address.

#### 2.4.3.1 IP Address and Name Servers

To assign an *IP address* for NEO:

- Tap on **Start>Settings>Connections** tab>**Wireless Manager** icon.
- In the *Wireless Manager* dialog box, tap on the **Settings** button.

In the *Configure Network Adapters* dialog box:

- Tap on **Marvell SDIO8686 Wireless Card** in the adaptor list.

The *Marvell SDIO8686 Wireless Card* dialog box offering two options: a server-assigned IP address or a user-assigned IP address.

If you want an address assigned automatically:

- Tap on **Use server-assigned IP address** to have an address assigned automatically, *or*

If you want to define your own IP address:

- Tap on **Use specific IP address**.
- Type the preferred **IP address**, **Subnet mask** and **Default gateway**

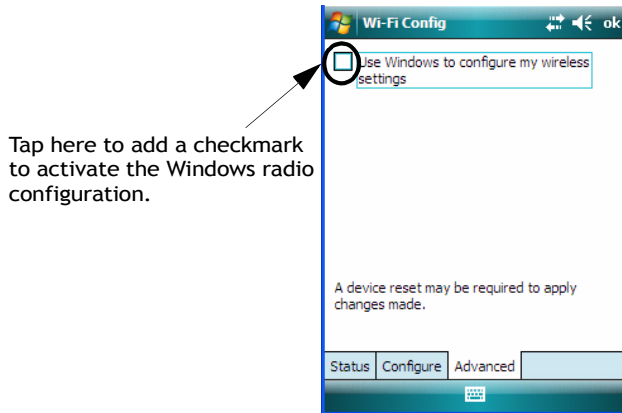
#### Name Servers

If you tap on the *Name Servers* tab, you can statically configure the DNS servers; however, if you use *DHCP* for IP address assignment, DNS is usually supplied by the same server that supplied the IP addresses.

## 2.4.4 Advanced Tab

If you prefer to use *Wireless Zero Config*, the Windows native supplicant, to configure the radio:

- Tap on the **Advanced** tab, and tap on the checkbox to the left of **Use Windows to configure my wireless settings** to add a check mark and activate this option.



- Press **[FN/BLUE][ENTER]** to reset NEO.
- A dialog box lets you know that you will lose all unsaved data. Tap on **OK**.

Once the reset is complete, the *Wireless Zero Config* screen is displayed on NEO.

The following radio and security options must be defined: *SSID*, *Auth Type*, *EAP Type* and *Encryption*.

## 2.5 Checking The Scanner

If your hand-held is equipped with an internal scanner, you can test it to ensure that it is operating properly. Point the scanner window at a bar code that your scanner was designed to decode. Press the **[SCAN]** key or the pistol trigger, and check for a valid decode on the hand-held screen.

Performance is improved if you disable all unneeded bar codes in the *Bar Codes* screen. Review Appendix C: “Bar Code Settings” for details about bar codes.

## 2.6 Data Transfer Between the PC & the Hand-Held

Data transfer options vary slightly depending on the type of operating system installed in your PC. Microsoft® ActiveSync® is PC connectivity software that can be used to connect

your hand-held to PCs running this software. ActiveSync works only with the Windows XP SP2 operating system or earlier.

If the Windows® Vista® operating system is installed in your PC, ActiveSync is not required to transfer data between your hand-held and your PC.

By connecting NEO to a PC with a cable, you can:

- View NEO files from Windows Explorer.
- Drag and drop files between NEO and the PC in the same way that you would between PC drives.
- Back up NEO files to the PC, then restore them from the PC to the hand-held again, if needed, and so on.

### 2.6.1 Using Microsoft ActiveSync®

If you are using Windows XP or earlier, your data transfers require Active Sync®. To install ActiveSync®, follow the step-by-step instructions provided at this website: <http://www.microsoft.com/windowsmobile/en-us/help/synchronize/default.aspx>

### 2.6.2 Using Microsoft Windows Mobile Device Center

If you have *Windows Vista* or *Windows 7*, your data transfers do not require ActiveSync. Instead, you will need to download *Windows Mobile Device Center*. Follow the instructions at the following website: <http://www.microsoft.com/windowsmobile/en-us/help/synchronize/default.aspx>

To transfer data between your PC and your hand-held:

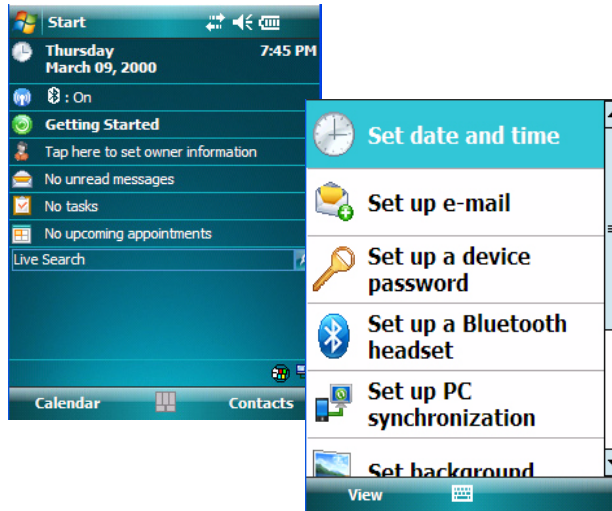
- Tap on **Start>Computer** to display the drives. NEO will be visible there.
- Open drives, files and folders as you would on your PC.

## 2.7 Aligning (Calibrating) the Touchscreen

Refer to “Aligning (Calibrating) the Touchscreen” on page 37 for details.

## 2.8 The Getting Started Centre

The *Getting Started* centre outlines how to perform basic tasks when initially setting up NEO. You can access the *Getting Started* centre from the **Today** screen, or you can tap on **Start>Programs**, and then tap on the **Getting Started** icon.



Tapping on *Getting Started* displays a list of the basic setup options you may need to get NEO ready for operation.

- To get instructions about an operation, tap on an option in the *Getting Started* list. Follow the instructions provided.
- Where applicable, a link to an associated screen is provided. Tap on the link to display the screen and complete your task.
- To go back to the *Getting Started* menu, tap on the **Back** softkey in the taskbar at the bottom of the screen.

## 2.9 Resetting NEO Hand-Held

There are two types of reset available: *warm* reset and *cold* reset.

### 2.9.1 Performing a Warm Reset

On NEOs running the Windows Mobile operating system, a *warm* reset completely reloads and restarts the operating system. Registry settings, installed programs and any data files that reside in flash memory are all preserved through the reset.



Files and data stored in the RAM Drive partition are *not* preserved during a reset. To protect files stored in the RAM Drive through a reset procedure, you must create a Total Recall profile (refer to “Total Recall” on page 162) and store it on the flash (“My Device”) file system.

- Press and hold down the [FN/BLUE] key and the [ENTER] key simultaneously for a minimum of two seconds. When the screen goes blank, release the keys.



*Note: You do not need to reset NEO after configuring the radio.*

## 2.9.2 Performing a Cold Reset to the Windows Mobile 6.1 OS

A *cold* reset in Windows Mobile is almost identical to a warm reset, except that some lower level hardware (PCon) is also reset before the operating system boots. For this reason, a cold reset should only be used in rare, critical situations.

To perform a cold reset and launch the Windows Mobile 6.1 operating system (bypassing the BooSt menu):

- Press and hold down the [SCAN] [FN/BLUE] and [ENTER] keys simultaneously for a minimum of two seconds.

After a cold reset, the BooSt menu appears, listing possible BooSt commands.

- Type **1** to load the Windows Mobile 6.1 operating system.



3.1 Features of NEO . . . . .	27
3.2 The Batteries . . . . .	28
3.2.1 Battery Safety . . . . .	28
3.2.2 Removing the Battery Pack . . . . .	29
3.2.3 Battery Swap Time . . . . .	29
3.2.4 Charging The Battery. . . . .	29
3.2.4.1 Charging Options . . . . .	29
3.3 Switching the Hand-Held On and Off . . . . .	30
3.4 The Keyboards . . . . .	31
3.4.1 Modifier Keys . . . . .	31
3.4.1.1 Activating Modifier Keys & the Shift-State Indicator . . . . .	31
3.4.1.2 Locking Modifier Keys . . . . .	32
3.4.2 The Keys . . . . .	33
3.4.3 48-Key Alpha-Numeric Keyboard – Accessing Keys . . . . .	35
3.4.4 26-Key Numeric Keyboard – Accessing Alpha Keys . . . . .	35
3.4.4.1 Choosing a Single Alpha Character. . . . .	35
3.4.4.2 Creating Uppercase Letters . . . . .	36
3.4.4.3 Choosing Multiple Alpha Characters . . . . .	36
3.5 The Display . . . . .	36
3.5.1 Adjusting the Backlight . . . . .	36
3.5.2 Aligning (Calibrating) the Touchscreen . . . . .	37
3.5.3 Screen Orientation . . . . .	38
3.6 Indicators . . . . .	38
3.6.1 LED Indicator . . . . .	38
3.6.2 Audio Indicators . . . . .	39
3.6.2.1 Adjusting The Receiver Volume . . . . .	39
3.7 Monitoring the Battery and Maximizing Run Time . . . . .	40
3.7.1 Storing Batteries . . . . .	40
3.8 Uploading Data in a Docking Station . . . . .	41
3.9 Bluetooth Radio . . . . .	41

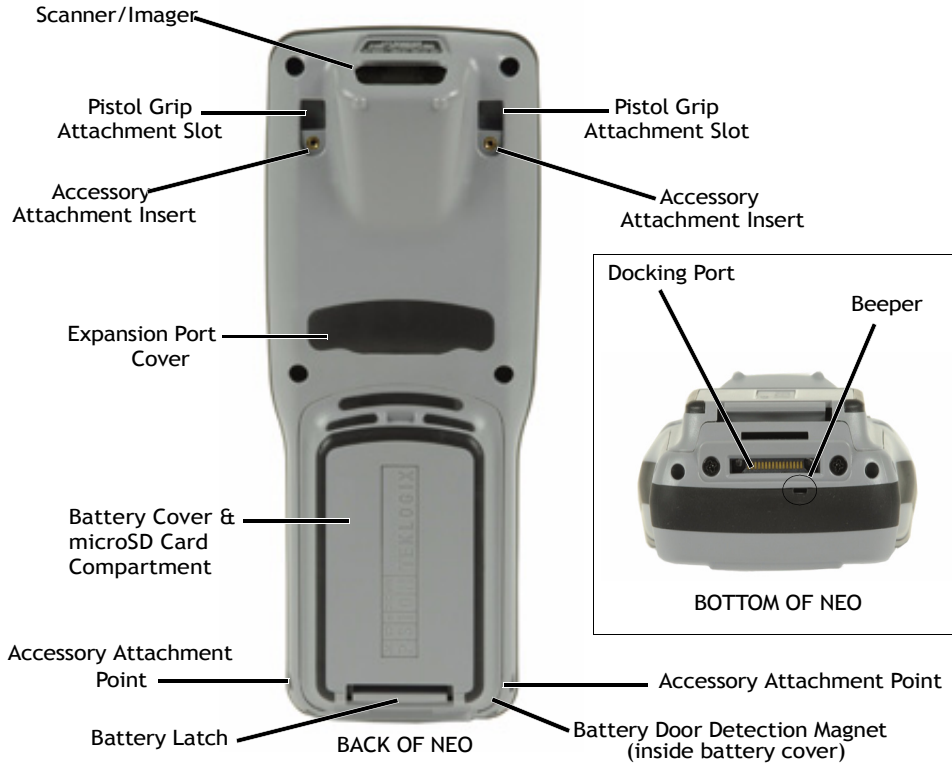
- 3.9.1 Pairing a Bluetooth Device . . . . . 42
- 3.10 The microSD Card . . . . . 45
  - 3.10.1 Inserting The Card . . . . . 45
- 3.11 General Maintenance. . . . . 47
  - 3.11.1 Caring For The Touchscreen. . . . . 47
  - 3.11.2 Cleaning NEO . . . . . 47

### 3.1 Features of NEO

Figure 3.1 Front View



Figure 3.2 Back View



## 3.2 The Batteries

The hand-held operates with a lithium-ion battery pack – Model No. WA3006. Preparing the unit for operation requires that a battery pack be charged and installed in NEO.

### 3.2.1 Battery Safety



**Important:** *Before attempting to install, use or charge the battery pack, it is critical that you review and follow the important safety guidelines in the quick reference guide entitled ‘NEO Hand-Held Computer Regulatory & Warranty Guide’, PN 8000175.*

## 3.2.2 Removing the Battery Pack



**Important:** *To protect against data loss, NEO is equipped with a sensor; this sensor detects when the battery door is opened and automatically places the hand-held computer into suspend mode so that you can safely remove the battery.*

Refer to “Installing the Battery and Switching the Unit On” on page 11.

## 3.2.3 Battery Swap Time

Assuming the default power saving parameters and battery reserve level have not been altered, battery swap time is 10 minutes—you will not lose data if the battery is replaced within this time frame.

The *Suspend Threshold* feature allows you to determine the battery capacity at which the hand-held will be shut down. If left at the default value, *Maximum Operating Time*, the unit will run until the battery is completely empty; the RAM is only backed up for a short period of time. If you choose *Maximum Back Time*, the hand-held shuts off with more energy left in the battery so RAM can be backed up for a longer period of time.

(Refer to “Suspend Threshold” on page 150 for details about reserving battery power for data backup purposes.)

## 3.2.4 Charging The Battery

Batteries shipped from the factory are charged to approximately 40% of capacity. They must be fully charged prior to use.

### 3.2.4.1 Charging Options



**Important:** *FOR DETAILED INFORMATION about charging options, refer to Chapter 7: “Peripheral Devices & Accessories”.*

Lithium-ion batteries must be charged before use. These batteries can be charged with a variety of adaptors and docking stations. These include:

- AC Wall Adaptor (Model No. PX3012) – operates as an AC power source and when used in conjunction with PX3001 or PX3054, also charges the battery installed in the unit.
- Cigarette Lighter Adaptor (Model No. PX3056) – when used with a USB/DC Power Adaptor (Model No. PX3054).

- Desktop Docking Station (Model No. PX3001) – operates as both a charger and a docking station. Operating as a charger, both the battery installed in the hand-held and a spare battery can be charged simultaneously.
- Desktop Docking Station with Integrated V.92 Analog Modem (Model No. PX3008) – integrates docking and analog modem functionality. Operating as a charger, both the battery installed in the hand-held and a spare battery can be charged simultaneously. Operating as a modem, this dock provides USB connectivity and data connections over a PSTN line.
- Quad Docking Station (Model No. PX3004) – can charge the battery of up to four NEOs inserted in the docking station.

The charge time required to make NEO ready for use varies depending on the type of docking station used. A hand-held inserted in docking station requires 3 hours to charge the battery to 75% capacity. NEO is equipped with an intelligent charging system that protects the battery from over-charging by terminating the charge process when the battery is at maximum capacity.



*Note: The specified battery charge times are based on NEO in suspend mode. Additional peripherals and other power consumption features will alter the specified charge time.*



*Note: Refer to “Monitoring the Battery and Maximizing Run Time” on page 40 for additional information about the battery.*



**Important:** *To avoid damaging the battery, the charge process will not begin until the battery temperature is between 0°C to 45°C (32°F to 113°F).*

## 3.3 Switching the Hand-Held On and Off

### Switching On NEO

- To switch the unit on, press and hold down the [ENTER] key for at least one second.
- When the LED flashes green, release the [ENTER] key.

The startup *Today* screen is displayed.



*Note: If NEO is in suspend state, pressing [ENTER] ‘wakes’ the unit from this state. The screen in which you were working before the computer entered suspend state is displayed.*



## Switching Off NEO (Suspend)



**Important:** *Keep in mind that turning off NEO does not result in a complete reboot; rather, the unit enters a power-saving, “suspend” state. When the unit is turned on from suspend state, operation resumes within a few seconds.*

To switch off the unit:

- Press [FN/BLUE] [ENTER].

## 3.4 The Keyboards

Two keyboard options are available:

- 48-key alpha-numeric keyboard.
- 26-key numeric keyboard.

These keyboard options are available for both variants of NEO – *connected* hand-helds equipped with 802.11b/g radios and *batch (unconnected)* hand-helds *not* equipped with 802.11b/g radios.

Most of the keys on these keyboards operate much like a desktop computer. Where a key or key function is not consistent with the PC keyboard, the differences are noted.

The [FN/BLUE] and [FN/ORANGE] modifier keys provide access to additional keys and system functions. These functions are colour coded in *orange* and *blue* print on the keyboard keys.

### 3.4.1 Modifier Keys

The [SHIFT], [CTRL], [ALT], [FN/BLUE] and [FN/ORANGE] keys are *modifier* keys. Pressing a modifier key changes the function of the next key pressed.

The [SHIFT], [CTRL] and [ALT] keys operate much like a desktop keyboard except that they are not chorded (two keys held down simultaneously). The modifier key must be pressed first followed by the key whose function you want modified.

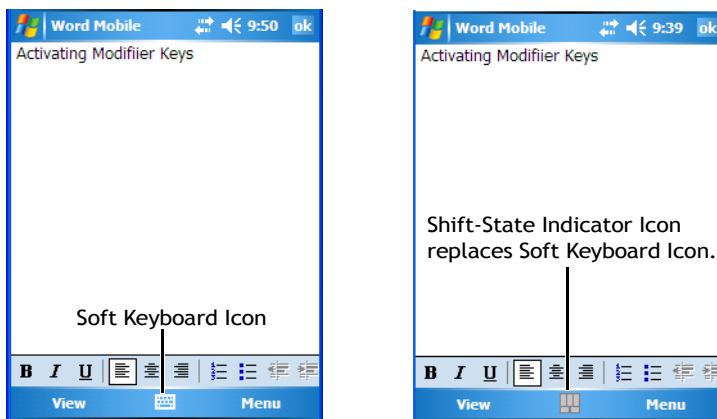
#### 3.4.1.1 Activating Modifier Keys & the Shift-State Indicator

When a modifier key is pressed, it is represented in the shift-state indicator icon in the *softkey bar* at the bottom of the screen, making it easier to determine whether or not a modifier key is active. If the shift-state indicator icon is not visible (you can only see the soft keyboard icon), you may need to take a few steps to display the shift-state indicator icon.

- Tap on **Start>Settings** followed by the **Buttons** icon.

- Tap on the **One Shots** tab at the bottom of the screen.
- Tap in the check box next to *Show modifier key state* to display the shift-state indicator icon.

Figure 3.3 Shift-State Indicator Icon



### 3.4.1.2 Locking Modifier Keys



*Note: The locking behaviour of the modifier keys can be changed so that, for example, pressing a modifier key **once** will lock the key 'on'. Refer to "One Shots" on page 113 for details. Note too that by default, the [FN/ORANGE] key is locked 'on' when pressed only once.*

When a modifier key is locked 'on', it will remain active until it is pressed again to unlock or turn it off.

To help you identify when a modifier key is locked 'on', the key is represented in the shift-state indicator icon with a black frame around it.

Figure 3.4 Shift-State Indicator Icon - Locked Modifier Key



Once a modifier key is unlocked or turned off, it is no longer displayed in the shift-state indicator icon.

## 3.4.2 The Keys

### The [SHIFT] Key

The [SHIFT] key is used to display uppercase alpha characters and provide access to the symbols above the numeric keys. You can lock this key ‘on’ so that when you press an alpha key, an upper case character is displayed. When you press a numeric key, the associated symbol on the numeric key is displayed on the screen.

If you press the [SHIFT] key twice, it is locked ‘on’ essentially acting as a [CAPS] key, displaying uppercase characters. In this state, if you type a numeric key, the number rather than the symbol above it is displayed. Press [SHIFT] again to turn the [CAPS] function off. Refer to “One Shots” on page 113 if you need to adjust the behaviour of this key.

### The Arrow Keys

The [Arrow] keys move the cursor around the screen in the direction of the arrow: up, down, left and right. The cursor is the flashing box or underline character that indicates where the next character you type will appear.

### The [←/DEL] Key

This key allows access to both the backspace and the delete function. The backspace function represented by an arrow [←] (sometimes referred to as destructive backspace) moves the cursor one character to the left, erasing the incorrectly entered key stroke.

The delete function ([FN/BLUE] [←/DEL]) erases the character at the cursor position.

### The [CTRL] And [ALT] Key

The [CTRL] and [ALT] keys modify the function of the next key pressed and are application-dependent.

### The [TAB] Key

Typically, the [TAB] key moves the cursor to the next field to the right or downward.

### The [ESC] Key

Generally, this key is used as a keyboard shortcut to close the current menu, dialog box or activity and return to the previous one.

### The Windows [START] Key

This key displays the *Start* menu.



## The [SPACE] Key

Pressing this key inserts a blank space between characters. In a Windows dialog box, pressing the [SPACE] key enables or disables a checkbox.

## The [SCAN] Key

All units are equipped with a yellow [SCAN] key. For units that *do not have* internal scanners, this key can be re-mapped to another function.



## Volume Keys - [UP ARROW] and [DOWN ARROW]

The volume keys are located on the [UP ARROW] and [DOWN ARROW]. The [UP ARROW] key – the increase volume key – is labelled with a plus symbol . The [DOWN ARROW] key – the decrease volume key – is labelled with a minus symbol .

Press the [FN/BLUE] key followed by the [UP ARROW] and/or [DOWN ARROW] keys to adjust the volume.

## Backlight Keys - [LEFT ARROW] and [RIGHT ARROW]

The backlight keys are located on the [LEFT ARROW] and [RIGHT ARROW] keys.

The [LEFT ARROW] key – the decrease backlight key – is labelled with a minus symbol . The [RIGHT ARROW] key – the increase backlight key – is labelled with a plus symbol .

Press the [FN/BLUE] key followed by the [LEFT ARROW] and [RIGHT ARROW] keys to adjust the backlight.

## The Function Keys

The hand-held keyboard is equipped with a total of 10 function keys colour coded in *blue* print on the numeric keys; these keys are accessed by executing a key combination, [FN/BLUE] followed by the appropriate numeric key.



*Note: The [TAB], [ALT], [CTRL] and [ESC] keys have [F1] through [F4] printed on them; these are only labels and are provided so that the operator can create direct-press function keys using the keyboard remapping feature. Refer to “Scancode Remapping” on page 84 for details about mapping keys.*

For example, to access function key [F7]:

- Press the [FN/BLUE] key followed by the [7] key—the numeric key to which function key [F7] is mapped.
- To access function key [F8], press [FN/BLUE] [8], and so on.

## The Macro Keys

While macro keys are not physically stamped on the keyboard, up to 15 macro functions can be added using the *Scancode Remapping* function. Refer to “Scancode Remapping” on page 117 for details about mapping keys. Refer to “Keyboard Macro Keys” on page 114 for details about programming characters in a Macro key.

### 3.4.3 48-Key Alpha-Numeric Keyboard - Accessing Keys

The alpha and numeric keys on an alpha-numeric keyboard are directly accessible from the keyboard – no key combination is required.

### 3.4.4 26-Key Numeric Keyboard - Accessing Alpha Keys

On numeric 26-key keyboards, numeric keys are directly accessible, and all alpha characters are printed on the keys in orange characters. An indicator in the left corner of the taskbar displays the currently selected character. To access an alpha character, first press the [FN/ORANGE] key and then press the numeric key above which the alpha character you want to type is printed.

#### 3.4.4.1 Choosing a Single Alpha Character

The examples below illustrate how to access, A, B and C, all of which are printed in orange characters above the numeric key [2].



**Important:** *The letters you choose appear in the softkey bar, providing a visual indicator of which letter will be displayed on the screen.*

To choose the letter **a**:

- Press the [FN/ORANGE] key, and press the numeric key [2].



**Note:** *To choose the second, third or fourth alpha character assigned to a numeric key, you may want to lock the [FN/ORANGE] key ‘on’. By default, the [FN/ORANGE] key is locked ‘on’ when pressed once. However, depending on how your unit is set up in the ‘One Shots’ tab, you may find that you need to press the [FN/ORANGE] key twice to lock it ‘on’. Refer to “One Shots” on page 113 for details.*

To choose the **second** letter in the sequence—in this example, the letter **b**:

- Lock the [FN/ORANGE] key ‘on’. A shift-state indicator icon in the *softkey bar* represents the orange key with a black frame around it to indicate that this key is locked ‘on’.
- Press numeric key [2] **twice** to display the letter *b*.

To choose the *third* letter in the sequence—in this example, the letter *c*:

- Lock the [FN/ORANGE] key ‘on’.
- Press numeric key [2] *three times* to display the letter *c*.



*Note: Keep in mind that there is a timeout if you pause for one second between key presses when selecting the second, third or fourth letters on a key. For example, suppose you want to type the letter ‘c’ – you would need to press the [2] key three times. With the [FN/ORANGE] key locked ‘on’, if you press [2] twice and then pause between key presses for 1 second, the letter ‘b’ will be selected automatically.*

### 3.4.4.2 Creating Uppercase Letters

To display capital letters, you need to first lock the [SHIFT] key ‘on’.

- Lock the [SHIFT] key ‘on’.

All alpha keys are displayed in uppercase until you press the [SHIFT] key again to ‘unlock’ (switch off) the function of this key.

### 3.4.4.3 Choosing Multiple Alpha Characters

- Lock the [FN/ORANGE] key ‘on’.

Each time you press a numeric key from [2] through [9], an alpha character will be displayed on the screen. Remember that you can refer to the *softkey bar* for a visual indication of which alpha key will be displayed on the screen.



**Important:** *Once you have finished typing alpha characters, remember to turn off or unlock the [FN/ORANGE] key. Check the shift-state indicator icon (refer to Figure 3.3 on page 32) to make certain that the key is turned off.*

## 3.5 The Display

NEO is equipped with display backlighting to improve character visibility in low light conditions. The backlight switches on when a key is pressed or the screen is tapped.

### 3.5.1 Adjusting the Backlight

To set the backlight intensity and the duration of time that the backlight will remain on, you’ll need to choose the *Backlight* icon.

- Tap on **Start**>**Settings** and then, tap on **System tab**>**Backlight** icon.

Refer to “Backlight” on page 132 for details.

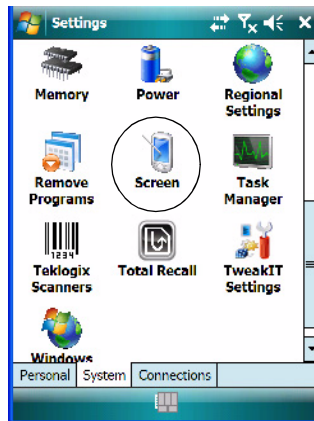


*Note: The backlight can also be adjusted directly from the keyboard. Refer to “Backlight Keys - [LEFT ARROW] and [RIGHT ARROW]” on page 34 for a description.*

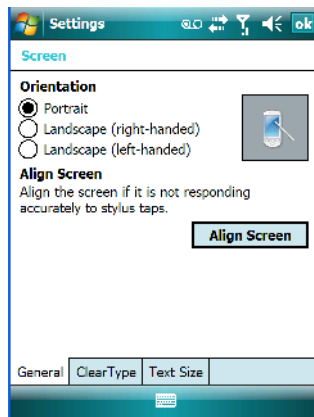
### 3.5.2 Aligning (Calibrating) the Touchscreen

If your touchscreen has never been aligned (calibrated) or if you find that the stylus pointer is not accurate when you tap on an item, follow the steps below.

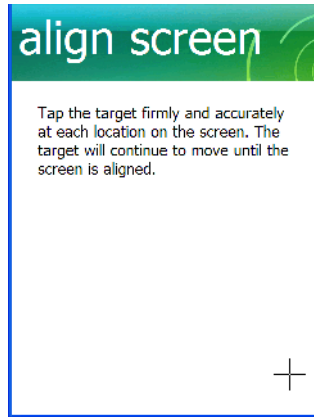
- Tap on **Start>Settings**. Tap on the **System** tab to display the **Screen** icon.



- Tap on the **Screen** icon to display the *Alignment* tab.



- Tap on the **Align Screen** button, and follow the directions on the screen to align (calibrate) the screen.



*Note: This window provides two additional tabs: ClearType and Text Size. Tapping on the ClearType tab allows you to enable the ClearType option to smooth screen font appearance. The Text Size tab allows you to increase or decrease the size of the font displayed on the screen.*

### 3.5.3 Screen Orientation

In addition to screen calibration, the *Screen* icon allows you to determine how your screen will be oriented – *portrait* or *landscape (right- or left-handed)*.

- Tap on **Start>Settings>System**.
- Tap on the **Screen** icon.
- In the *General* tab, tap on the orientation that best suits the way in which you use NEO.

## 3.6 Indicators

NEO uses an LED (Light Emitting Diode), onscreen messages and audio tones to indicate the various conditions of the hand-held, the batteries, the scans and so on.

### 3.6.1 LED Indicator

A tri-coloured LED – yellow, green or red – is located on the upper-left side of the unit, above the screen.

Keep in mind that the application running on NEO can dictate how the LED operates. Review the documentation provided with your application to determine LED behaviour.



The scanner also overrides LED behaviour. The table below describes what the various LED colours indicator when a scan is activated – a scanner button is pressed or the scanner trigger is pulled.

Table 3.1 NEO Scanner LED Behaviour

LED Behaviour	Scan Status
Solid Red	Indicates the scanner is firing.
Blinking Red	Unsuccessful decode.
Solid Green	Successful decode.



*Note: During the first two minutes of a battery charge, the LED remains solid yellow while the hand-held computer status is assessed.*

If the unit is attached to an external power supply, the hand-held LED reflects the battery charge status.



Table 3.2 NEO Charge LED Behaviour

LED Behaviour	Charge Status
Solid Yellow	Battery charged to less than 75% capacity.
Flashing Green	Battery charged to between 75% and 95% of capacity.
Solid Green	Fully charged.
Flashing Yellow	Temperature outside charge range (0°C to 45°C).
Solid Red	Battery is not charging. Battery fault warning.

## 3.6.2 Audio Indicators

The audio speaker provides a variety of sounds when a key is pressed, a keyboard character is rejected, scan input is accepted or rejected, an operator’s entry does not match in a match field or the battery is low. To specify how you want NEO to respond under various conditions, refer to “Sound & Notifications” on page 128.

### 3.6.2.1 Adjusting The Receiver Volume

The volume can be adjusted using the [UP ARROW] and [DOWN ARROW]. The *increase* volume key  is labelled with a plus symbol and the *decrease* volume key  is labelled with a minus symbol.

- Lock the [FN/BLUE] key ‘on’ and then, press [UP ARROW], the increase volume key or [DOWN ARROW], the decrease volume key until the volume meets your requirements.
- When you’re done, you will need to unlock (turn ‘off’) the [FN/BLUE] key. Press [FN/BLUE] again to unlock the key.

## 3.7 Monitoring the Battery and Maximizing Run Time



*Note: When the main battery is at 50% capacity, a ‘low battery’ warning is displayed. When the battery is at approximately 10% capacity, a ‘very low main battery’ notification bubble appears.*

As lithium-ion batteries age, their capacity decreases gradually, and they are generally considered depleted after approximately 2 years of use (less than 60% of original capacity remaining). Keep in mind however that heavy usage or operating the unit at temperature extremes will shorten the battery life.

Lithium-ion batteries do not require conditioning cycles and NEO battery system (including chargers) requires no user interaction to maintain peak performance.

To maximize the run time of your batteries, consider the following:

- The display backlight is the largest drain on the battery. Try to keep its brightness as low as possible.
- The hand-held is ‘event’ driven—that is, when the unit is not in use, it reverts to *sleep* mode (even when it appears to be running), saving battery power. Events include a key press, touchscreen taps and scan triggers. Power consumption is reduced if you avoid unnecessary events, and allow the unit to sleep as much as possible.
- Tapping on the *Power* icon under *Start>Settings>System* tab displays a dialog box that provides detailed information about the battery status of the main battery installed in your unit.
- When the hand-held is switched off, it goes into a low-power, suspend state but continues to draw a small amount of power from the battery. This should not be an issue unless the unit is left in suspend state for more than a week—for long-term storage, the battery should be removed from the unit. Leaving the battery in a charger for extended periods may shorten the overall life of the battery.

### 3.7.1 Storing Batteries

Long term battery storage is not recommended. If storage is necessary:

- Always try to use a ‘first-in first-out’ approach to minimize storage time.
- Lithium-ion batteries age much faster at elevated temperatures. Store batteries at temperatures between 0 °C and 20 °C (32 °F and 68 °F).
- Always charge batteries to at least 40 to 60% before storing them. Batteries can be damaged by an over-discharge phenomenon that occurs when an empty battery is stored for a long period of time such that the cell voltage drops below a lower limit.
- To minimize storage degradation, recharge stored batteries to 40 to 60% every 4 or 6 months to prevent over-discharge damage.
- A ‘never used’ lithium-ion battery that has been stored for 3 years may have limited or no useful life remaining once put into service. Think of batteries as perishable goods.

## 3.8 Uploading Data in a Docking Station



**Important:** Review the documentation provided with the user application installed in NEO before performing data uploads.

The desktop docking station and quad docking station are typically used to upload transaction data to a server computer when a radio link is not available.



*Note:* Charging options are described beginning on page 215 for more details.

The desktop docking station can complete batch uploads to a Client USB connected PC or server. An optional 10/100 Base-T Ethernet connection can be used via the USB to Ethernet cable (Model No. PX3052).

Unlike the desktop docking station, the quad docking station supports only TCP/IP connections to a PC or server through a 10/100 Base-T Ethernet connection.

When NEO is properly inserted in a docking station, a dock icon is displayed in the navigation bar at the top of the screen. The unit also detects the presence of the Ethernet network.

## 3.9 Bluetooth Radio



*Note:* Integrated **Bluetooth** Class 2 radios are standard on ‘connected’ NEOs – that is, units equipped with 802.11 radios. On ‘batch’ (unconnected) units, **Bluetooth** is an optional feature.

The *Bluetooth* radio enables short range data communication between devices. In addition, it provides the capability to use a *Bluetooth*-enabled cellular phone as a data modem, ex-

changing information with other *Bluetooth* devices and providing network access. You can also pair your hand-set with a *Bluetooth* headset. Refer to “The Bluetooth GPRS Phone” on page 186 for setup details.

### 3.9.1 Pairing a *Bluetooth* Device



*Note:* Headset pairing information is also available in the **Getting Started Centre** in the **Today** screen on NEO.

#### Turning the *Bluetooth* Radio On

Before pairing a headset or any other *Bluetooth* device with NEO, make certain that the *Bluetooth* device power is enabled; it is *enabled* by default. If, for some reason, it has been disabled:

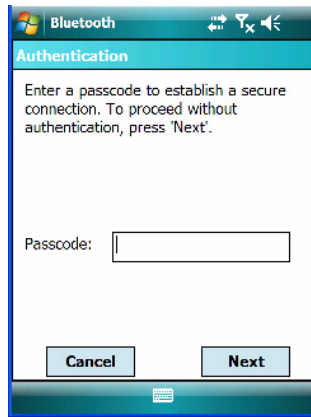
- Tap on **Start>Settings>System** tab and then, tap on the **Power** icon to display the *Power* dialog box.
- Tap on the **Built-in Devices** tab, and tap in the checkbox next to **Enable Bluetooth**.
- Next, tap on **Start>Settings>Connections tab>Bluetooth** icon.
- Tap on the **Mode** tab, and check **Turn on Bluetooth**. Tap **OK**.
- Turn your *Bluetooth* device on and place it within a few feet of NEO.
- If needed, set your *Bluetooth* device to visible (discoverable) so that the hand-held can detect it and establish a connection.

#### Pairing a Device

To pair devices:

- Follow the manufacturer’s instructions to place the remote device in pairing mode.
- Choose the **Devices** tab, and tap on the **Scan** button to scan for devices in the area.
- When the scan is complete, tap and hold the stylus on the **device** to which you want to pair.
- In the pop-up *Device* menu, tap on **Pair**.

An *Authentication* dialog box is displayed.



- If the remote device has authentication enabled, type the PIN in this dialog box.
- To proceed *without* authentication, tap on **Next**.



*Note: If a remote device has authentication enabled and you've skipped the authentication process, a pop-up screen will ask if you want to allow the remote device to connect to NEO. Tap on **Yes** and type the PIN. When authentication is complete, tap on **Done**.*

After entering the device *PIN*, the *Services* dialog appears with a list of services available for that device.

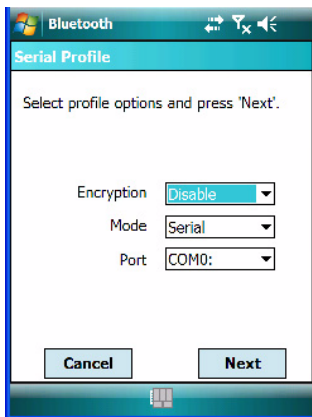


- Click in the checkbox to the left of the service to activate it.
- Click on **Done**.



*Note: If you choose a service requiring additional information, a dialog box is automatically displayed where further details can be completed.*

The sample dialog box below is an example of a service requiring additional information – in this case, the *Serial Port Service*.



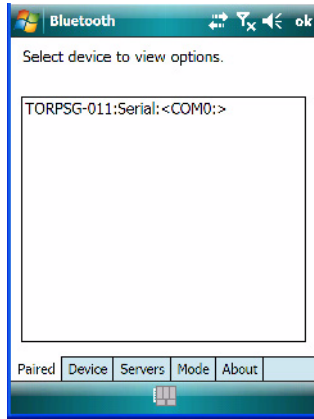
This dialog box offers a number of additional options such as enabling *Encryption* and selecting three different *modes*: *Serial*, *ActiveSync* and *Scanner*

- *Serial* is used for simple serial port communication.
- *ActiveSync* is for ActiveSync-over-Bluetooth.
- *Scanner* is used to create a seamless connection between the incoming *Bluetooth* bar code and NEO.

Once you've completed the information:

- Tap on **Next** and then in the *Services* screen, click on **Done**.

The device you paired is listed in the *Pair* tab.



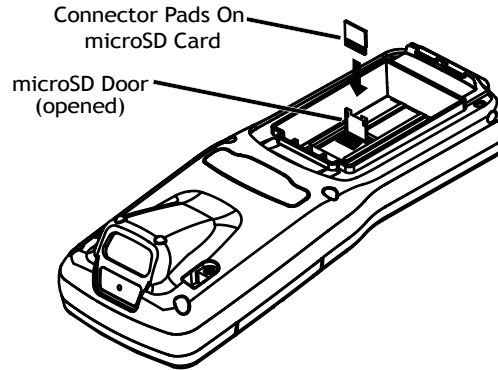
## 3.10 The microSD Card

A microSD card slot is available in the battery compartment. microSD cards provide additional, non-volatile memory to your hand-held.

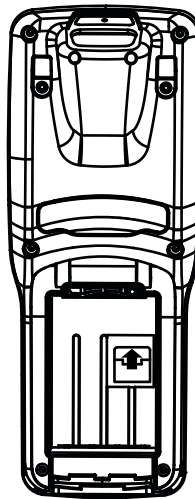
### 3.10.1 Inserting The Card

- Switch off NEO.
- Remove the battery cover and the battery.
- Gently slide the SD door down and then flip it forward.

- Slide the microSD card onto the guides on the SD door – position the card with the connector pads at the bottom so that when the door is closed, they make contact with the connectors in the unit.



- Carefully flip the SD door down, and slide it upward to lock it in place. Do *not* force it.





## 3.11 General Maintenance

### 3.11.1 Caring For The Touchscreen

The top of the touchscreen is a thin, flexible polyester plastic sheet with a conductive coating on the inside. The polyester can be permanently damaged by harsh chemicals and is susceptible to abrasions and scratches. NEO is equipped with a stylus that is designed to safely select items on the touchscreen. Use *only* the stylus on the touchscreen; using sharp objects on the touchscreen can scratch or cut the plastic, or crack the internal conductive coating.

The chemicals listed below must not come into contact with the touchscreen:

- sodium hydroxide,
- concentrated caustic solutions,
- benzyl alcohol, and
- concentrated acids.



*Note: An optional protective cover (PN 1081366) is available to help protect the touchscreen. Follow the installation instructions shipped with the cover.*

### 3.11.2 Cleaning NEO



***Important: Do not immerse the unit in water. Dampen a soft cloth with mild detergent to wipe the exterior of the unit clean.***

- Use *only* mild detergent or soapy water to clean the hand-held unit.
- Avoid abrasive cleaners, solvents or strong chemicals. The plastic case is susceptible to harsh chemicals; it is partially soluble in oils, mineral spirits and gasoline. The plastic slowly decomposes in strong alkaline solutions.
- To clean ink marks from the keyboard and touchscreen, use isopropyl alcohol.
- When using a dampened cloth to clean NEO, make certain that the battery cover is in place to protect the battery compartment from moisture.



4.1 Navigating in Windows Mobile 6.1 and Applications . . . . .	51
4.1.1 Navigating Using a Touchscreen and Stylus . . . . .	51
4.2 Windows Mobile 6.1 Classic Desktop – Today Screen . . . . .	51
4.2.1 Windows Mobile 6.1 Navigation Bar . . . . .	52
4.2.2 Today’s Date, Clock and Alarm . . . . .	53
4.2.3 Ownership Information. . . . .	55
4.2.4 E-mail Notification . . . . .	56
4.2.5 Task Notification . . . . .	56
4.2.6 Calendar of Upcoming Appointments . . . . .	59
4.2.6.1 Creating and Editing Appointments. . . . .	59
4.2.6.2 Adding Reminders . . . . .	60
4.2.6.3 Using Categories . . . . .	61
4.2.6.4 Deleting Appointments . . . . .	62
4.3 Start Menu . . . . .	63
4.3.1 Customising the Start Menu . . . . .	63
4.4 Managing Files and Folders . . . . .	64
4.4.1 Creating a New Folder . . . . .	65
4.4.2 Renaming a File . . . . .	65
4.4.3 Copying a File . . . . .	65
4.4.4 Deleting a File . . . . .	65
4.5 Using Menus . . . . .	66
4.5.1 Pop-Up Menus . . . . .	66
4.6 The Softkey Bar . . . . .	67
4.7 Programs – Using Applications . . . . .	69
4.8 Settings . . . . .	70
4.9 Help. . . . .	71
4.10 Entering Text . . . . .	71
4.10.1 Soft Keyboard. . . . .	72
4.10.2 The Transcriber . . . . .	72

4.10.3 Block Recognizer and Letter Recognizer . . . . . 73

## 4.1 Navigating in Windows Mobile 6.1 and Applications

Graphic user interfaces like Windows Mobile 6.1 Classic for portable devices or desktop Windows (2000, XP, etc.) utilize ‘point and click’ navigation. On NEO, this is accomplished using a touchscreen and stylus rather than a mouse.

### 4.1.1 Navigating Using a Touchscreen and Stylus



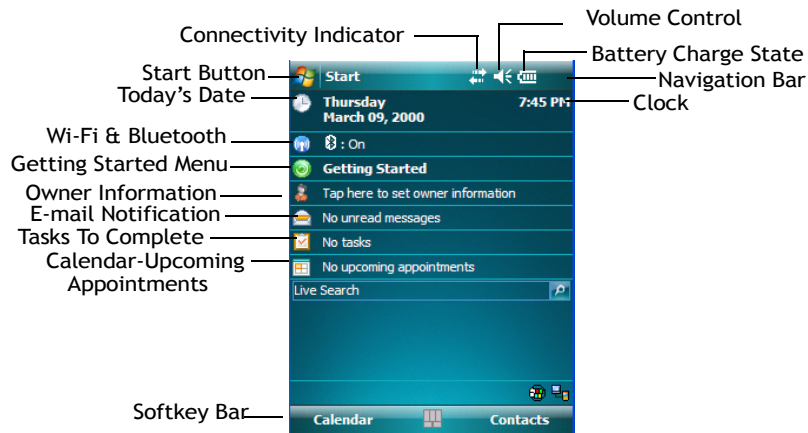
*Note: If the touchscreen is not registering your screen taps accurately, it may need recalibration. Refer to “Aligning (Calibrating) the Touchscreen” on page 37.*

NEO is equipped with a stylus—a pointing tool that looks like a pen. The stylus is used to select objects on the touchscreen.

- Use the stylus to tap on the appropriate icon to open files and folders, launch applications and programs, make selections, and so on.

## 4.2 Windows Mobile 6.1 Classic Desktop - Today Screen

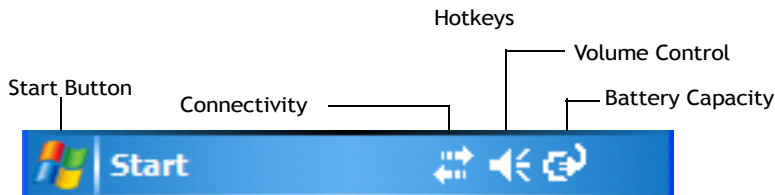
Units running *Windows Mobile 6.1 Classic* provide a *Calendar* option in the *Softkey Bar*; phone options are not available with this version of Windows Mobile 6.1 operating system.



The *Today* screen displays all your important information – tasks, unread e-mails and upcoming appointments – all in one place. The *Start* menu provides access to everything else you'll need.

## 4.2.1 Windows Mobile 6.1 Navigation Bar

The navigation bar along the top of the screen provides icons that, when tapped, open their associated programs.



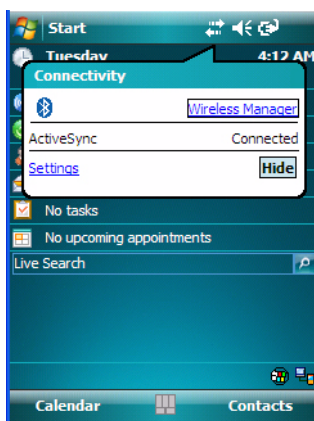
Windows Mobile 6.1 Classic Navigation Bar

### Start Button

Tapping on the **Start** button displays the *Start* menu.

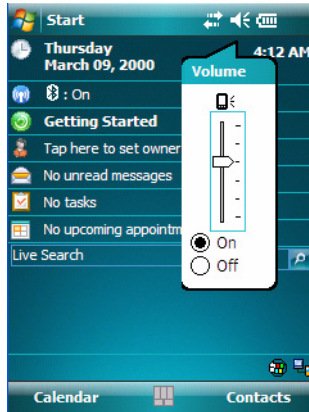
### Connectivity

The *Connectivity* hotkey provides a shortcut to the *Connections* tab in the *Settings* window. This tab provides access to Bluetooth, network, network card and internet connection setups.



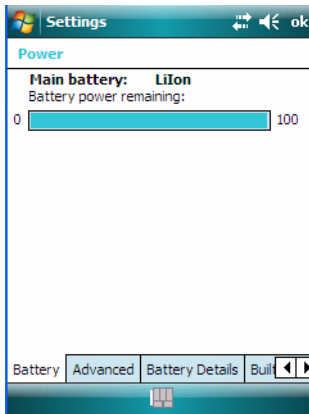
## Volume Control

Tapping on this icon displays a sliding tab that allows you to adjust the speaker volume or turn the speaker on and off.



## Battery Capacity

Tapping on the *Battery* hotkey displays the *Battery* tab allowing you to view the remaining battery capacity in the main battery.

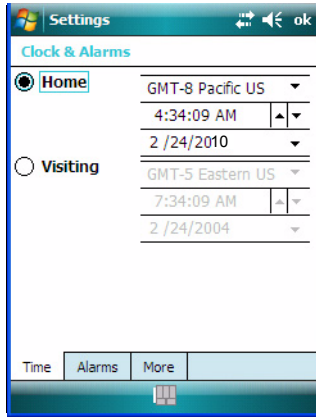


### 4.2.2 Today's Date, Clock and Alarm

This option displays the current date. If you need to adjust the date or set an alarm:

- In the *Today* screen, tap on **today's date**.

The *Clock & Alarms* screen is displayed.



### Time Tab

- Tap on the **Time Zone** drop-down menu to set the GMT.
- Next, tap in the **Date** and **Time** drop-down menus to set the current date and time.

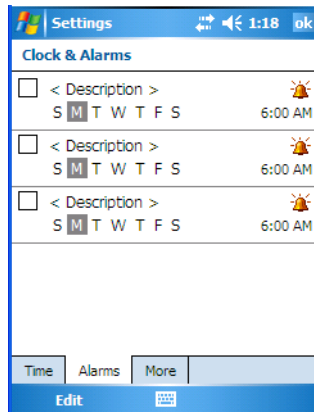


*Note: A checkmark next to **Sync to current time zone** automatically adjusts to the time zone, and a checkmark next to **Notify me when time is updated** displays a notification message if the time is adjusted.*

### Alarms Tab

To set an alarm:

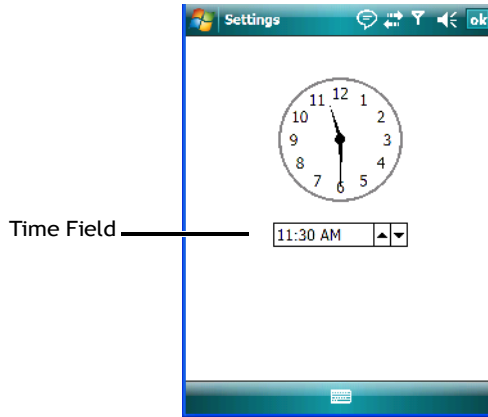
- Tap on the **Alarms** tab.





You can set a maximum of three alarms.

- Tap in the **checkbox** to enable an alarm.
- Tap the **day** on which you want the alarm to go off – **Sunday** through **Saturday**.
- Tap on the **time** to display the clock.



- To set the time, in the *time* field below the clock, tap on the **hour** to highlight it, and type the hour at which you want the alarm to ring. To set the minutes, highlight the **minutes**, and type the appropriate minutes, *or*  
You can also assign the alarm activation time using the clock graphic. Position the stylus on the **hour hand** of the clock, and drag it to the correct hour. Do the same for the **minute hand**.
- Tap on **OK** to save your changes.



*Note: Tapping on the **More** tab displays a dialog box in which you can choose to **Display the clock on the title bar in all programs** and/or to **Sound alarms even when the device is set to silent or vibrate**.*

### 4.2.3 Ownership Information

This option allows you to add your personal information to NEO. Some of this information will be displayed in the desktop *Today* screen.

- Tap on **Owner** to display a screen in which you can type information.



- Type your **name, company name, address, telephone number** and **e-mail address**.



*Note: You can type information using hand-held keyboard, or you can tap on the soft keyboard icon in the bottom right corner of the softkey bar to display an onscreen keyboard.*

The *Ownership* screen has two additional tabs – *Notes* where you can add any pertinent, additional information and *Options* where you can specify whether you want the desktop to display your ‘identification’ information or your ‘note’ information.

#### 4.2.4 E-mail Notification

If you have any e-mail, it will be indicated in the *Today* desktop screen. To view your e-mail, tap on the **E-mail Notification** option.

Refer to “Messaging” on page 98 for details about setting up your *Inbox*.

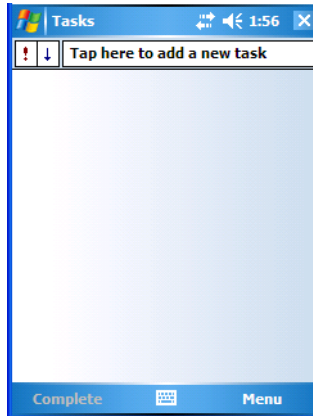
#### 4.2.5 Task Notification

*Tasks* lets you create lists of entries representing your responsibilities, upcoming projects, and so on. If you’ve assigned any tasks, this option lets you know how many active tasks you have.



*Note: You can synchronize the Task Notification option using ActiveSync so that any tasks are displayed on NEO as well as your PC. Refer to “Synchronization” on page 80 for details.*

- Tap on the **Tasks** option to display a list of tasks.



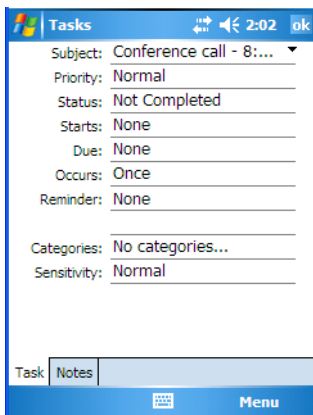
### Creating a Task

- Tap in the field labelled **Tap here to add a new task**. The text is replaced with a blinking cursor. If you prefer to type the task using the soft keyboard, tap on the *soft keyboard* icon in the softkey bar.
- Type your task description.
- Tap anywhere in the blank part of the screen, or press **[ENTER]** to add the task to your list.

### Editing a Task

- Tap on a **task** in the task list to highlight it. Tap **Edit** in the *softkey bar* to display a detailed task screen where you can define task characteristics.

Figure 4.1 Task Details Screen



Each of the items in this screen, when tapped, displays a drop-down menu where you can choose from a list of options.

- Once you've completed all the appropriate fields, tap on **OK** to save your changes.



*Note: You can also tap on the Notes tab to add additional information about the task you are defining.*

### Deleting a Task

- Press and hold the stylus on a task until a pop-up menu is displayed.
- Tap on **Delete Task**.

### Marking a Task as Completed

- In the **Tasks** list, tap the **checkbox** next to the items that are completed.

### Sorting Tasks

- Tap on the **Menu** option in the lower-right corner of the softkey bar, and tap on **Sort By**. You can choose from **Status**, **Priority**, **Subject**, **Start Date** or **Due Date**. The tasks are arranged in the list according to the criterion you chose.

### Limiting the Tasks Displayed in the Task Screen

- Tap on **Menu** in the lower-right corner of softkey bar, and tap on **Filter**.

You can choose **All Tasks**, **Recently Viewed**, **No Categories**, **Active Tasks** or **Completed Tasks**. The tasks are displayed on the screen according to the preference you chose.

## 4.2.6 Calendar of Upcoming Appointments

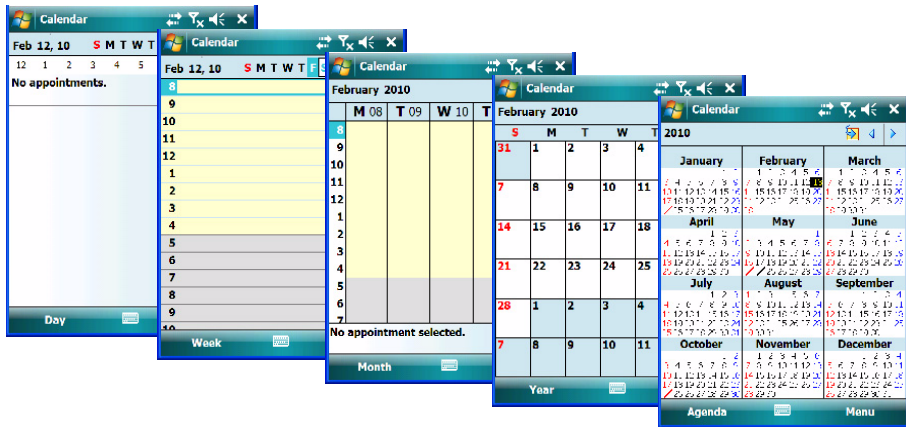
This option is used to map out all your upcoming appointments, meetings and so on in the weeks, months and years ahead.



*Note: You can synchronize the Calendar using ActiveSync so that any meetings, appointments and so on are displayed on your Today screen as well as on your PC. Refer to “Synchronization” on page 80 for details.*

- Tap on the **Upcoming Appointments** option in the *Today* screen, or tap on **Start>Calendar** to display the calendar.

You can also tap on **Calendar** in the *softkey bar*.

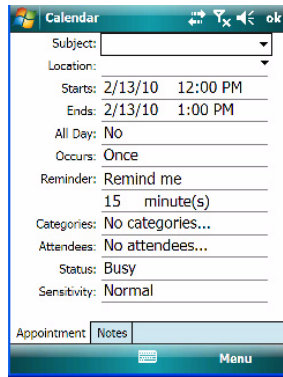


The default calendar displays an *Agenda* of appointments for the week, divided into days. You can choose to leave the calendar as is, or you can tap on the *Day* softkey to reflect the *Week*, *Month* or *Year*.

### 4.2.6.1 Creating and Editing Appointments

- In the *Calendar* screen, tap on **Menu** in the softkey bar, and then tap on **New Appointment**.

Figure 4.2 Appointment Detail Screen



- In the *Subject* field, name the appointment.
- Complete the remaining fields to reflect your appointment details.

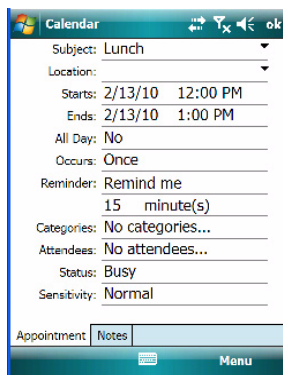


*Note: Refer to “Adding Reminders” for details. Refer to “Using Categories” on page 61 for information about this option.*

- Tap on **OK** to save your changes and close the screen.

#### 4.2.6.2 Adding Reminders

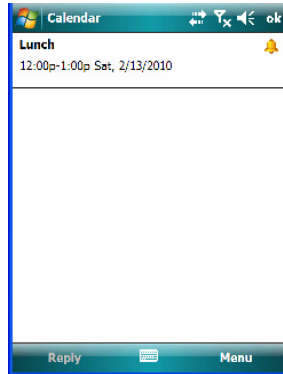
- In the *Today* screen, tap on the **appointment** for which you’d like a reminder. In the next screen, tap on the **appointment title**. Finally, in the summary screen, tap on the **Menu** softkey and then, choose the **Edit** command.



If you want to be reminded in advance of an appointment:

- In the *Reminder* field, choose **Remind me** from the drop-down menu.

- In the second *Reminder* field, tap on the number in the field to display a drop-down menu where you can define a numeric value of 1, 5, 10, 15, 30. Tap on **minute(s)** to display a drop-down menu from which you can choose the time unit for your reminder – minute(s), hour(s), day(s) or week(s).
- Tap **OK** to finish. You are returned to the view you were in before adding the reminder.
- Tap on the appointment in the **Calendar** screen to display it in a summary screen. The reminder is indicated by the small, bell icon.



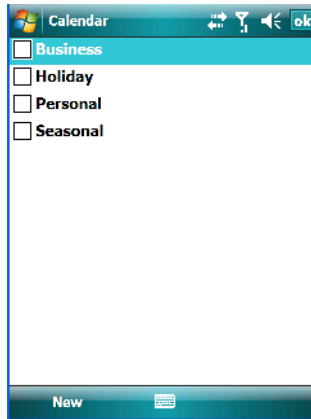
### 4.2.6.3 Using Categories

*Categories* help you organize and track the different types of data you keep on your handheld.

To assign an appointment to a category:

- Tap on an **appointment** in the *Today* screen. In the *Calendar* screen, tap on the **appointment** again.

- Tap the **Categories** field to display the *Categories* screen.



- Tap in the **checkbox next to the category** to which you want to assign the appointment.
- Tap **OK**. Your appointment is assigned to the category or categories you chose.



*Note: You can create a new category by tapping on **New** in the softkey bar at the bottom of the screen.*

#### 4.2.6.4 Deleting Appointments

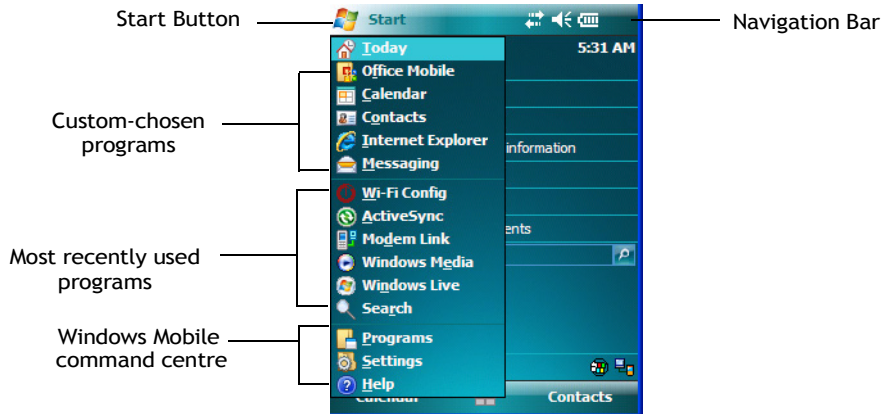
- Tap and hold the stylus on the **appointment** you want to delete.
- Tap on **Delete Appointment** in the pop-up menu.



## 4.3 Start Menu

To display the **Start** menu:

- Tap on the **Start** button in the upper-left corner of the *Navigation Bar*.

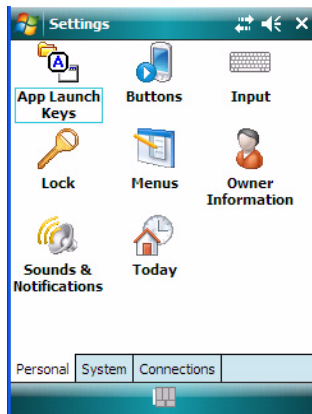


- Tap on the **Start** menu item with which you want to work.

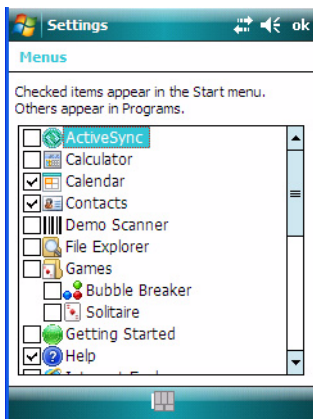
### 4.3.1 Customising the Start Menu

You can choose the items you want to appear in the *Start* menu – items you use most often.

- Tap on **Start>Settings**.



- In the *Personal* tab, tap on the **Menus** icon.

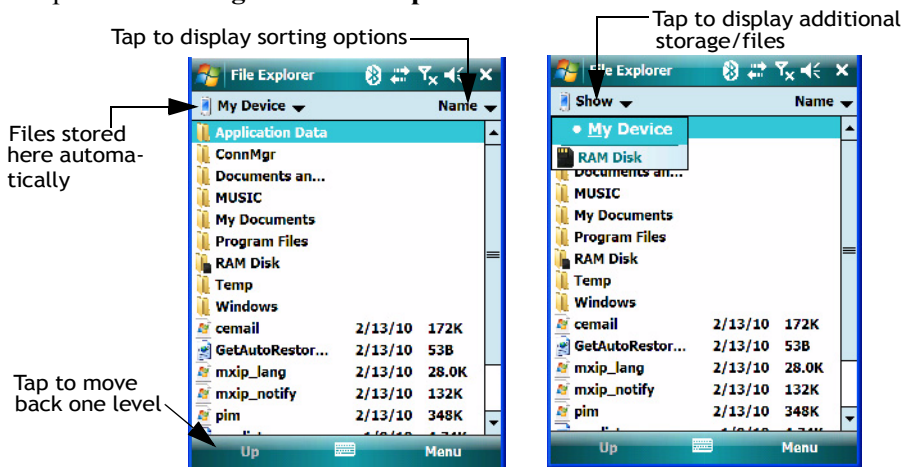


- Tap the **checkboxes** next to the items you would like to appear in your *Start* menu. When you've finished your selections, tap on **OK**.

## 4.4 Managing Files and Folders

Windows Mobile 6.1 files are stored in folders and sub-folders that are accessible with *File Explorer*. You can open, save, rename, copy and paste files in the same manner as you would on any desktop PC.

- Tap on **Start>Programs>File Explorer**.



#### 4.4.1 Creating a New Folder

- Tap **Start>Programs>File Explorer**.
- Tap **Menu>New Folder** in the *softkey bar* at the bottom of the screen.
- Use NEO's keyboard or the soft keyboard to assign a name to the folder.

#### 4.4.2 Renaming a File

- Press and hold the stylus on the file you want to rename. A ring of dots is displayed followed by a pop-up menu.
- Tap **Rename**. The file name is highlighted. Type a new name.

#### 4.4.3 Copying a File

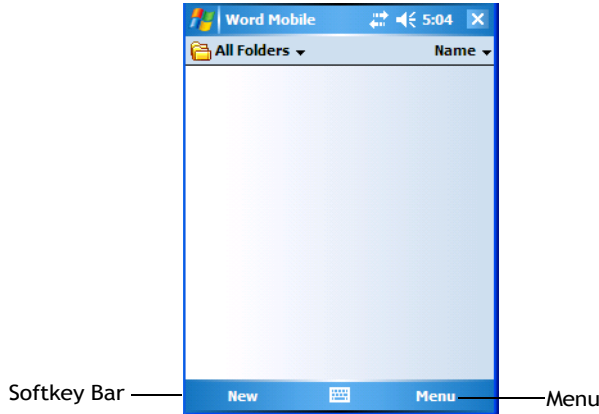
- Press and hold the stylus on the file you want to copy. A ring of dots is displayed followed by a pop-up menu.
- Tap on **Copy** in the pop-up menu.
- Navigate to the location where you want to copy the file.
- Press and hold the stylus in a blank area of the screen—away from other icons—until a pop-up menu is displayed.
- Tap on **Paste** to copy the file to the new location.

#### 4.4.4 Deleting a File

- Press and hold the stylus on the file or folder you want to delete until a pop-up menu is displayed.
- Tap **Delete** to remove the file.

## 4.5 Using Menus

In *Windows Mobile 6.1 Classic*, the menu is located in the *softkey bar* at the bottom of the screen.



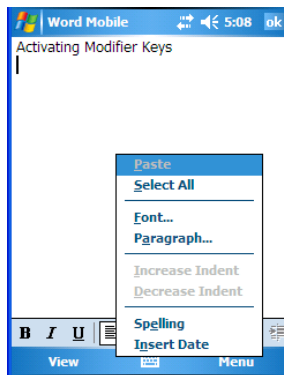
To execute a command:

- Tap on **Menu** to display the commands associated with it, and then tap on the command you want to execute.

### 4.5.1 Pop-Up Menus

Pop-up menus are available in many screens and programs. They offer quick access to a group of useful commands in addition to those available in the menu bar.

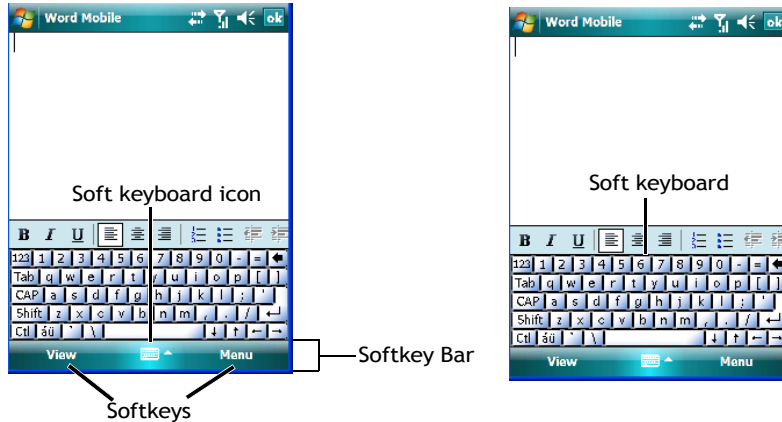
- To display this menu, gently press and hold the stylus on the screen. A ring of dots is displayed on the screen followed by a pop-up menu.



- Tap on the **command** you want to execute.

## 4.6 The Softkey Bar

NEO is equipped with a *softkey bar* at the bottom of the screen. It displays *softkeys* that allow you to access menus and commands. It also displays the *soft keyboard* icon.



### Softkey

Tapping on a softkey displays information associated with the softkey – for example, in the sample screen above, the *Menu* softkey displays the commands associated with Word Mobile. The *View* softkey lets you to tailor how the Word document will be displayed.

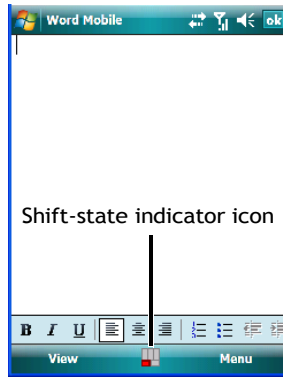
### The Soft Keyboard

Tapping on the *soft keyboard* icon displays an onscreen keyboard you can use as an alternative to the hand-held keyboard.

### Shift-State Indicator Icon

The *softkey bar* can also display the shift-state indicator icon. This icon indicates active modifier keys – [SHIFT], [ALT], [CTRL], [FN/ORANGE] and [FN/BLUE].

- Tap on **Start>Settings>Buttons>One Shots**. Tap in the checkbox next to *Show modifier key state*, to replace the *soft keyboard* icon with the *shift-state indicator* icon.



When a modifier key is pressed, it is displayed in the *shift-state indicator* icon. In the example above, the [FN/ORANGE] key is active.

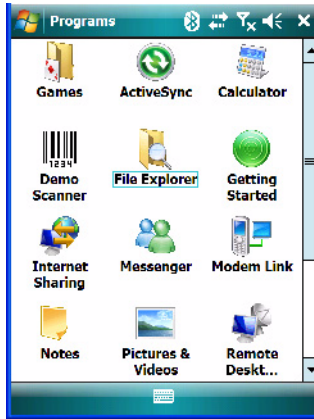
To distinguish a 'locked' modifier key – a key that has been locked 'on' – from a modifier key that is only active until the next key is pressed, 'locked' keys are encircled in a black frame in the *shift-state indicator* icon. Refer to “Activating Modifier Keys & the Shift-State Indicator” on page 31 for details.



*Note: You can still access the soft keyboard while the shift-state indicator icon is displayed. Tapping on this icon displays the soft keyboard. Tapping on the shift-state indicator icon again removes the soft keyboard.*

## 4.7 Programs - Using Applications

- Tap **Start>Programs** to display the programs installed on NEO.



### Opening an Application

- Tap on an icon in this screen to launch the associated program.

### Minimizing an Application

- Tap on the **X** button in the upper-right corner of an application screen to minimize the application. Note that sometimes, an [OK] button is displayed.

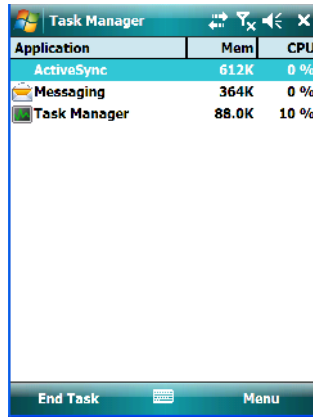


*Note: Although it looks like the application is closed, it is only minimized. To close the application, you'll need to tap on **Start>Settings>System tab>Task Manager** icon. Follow the steps in 'Switching Between and Closing Applications' below.*

### Switching Between and Closing Applications

The *Task Manager* lists all running tasks (applications).

- Tap on **Start>Settings**. Tap on the **System** tab and then the **Task Manager** icon – the *Task Manager* screen is opened.



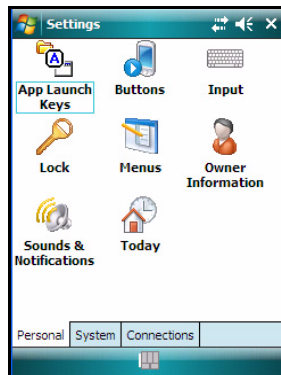
This applet provides a number of options to manage your opened applications.

- **End Task:** To shut down an application, **highlight the program** in the list and tap on the **End Task** softkey in the taskbar at the bottom of the screen.
- **End All Tasks:** To shut down *all* applications, tap on the **Menu** softkey and choose **End All Tasks**.
- **Switch To:** To make an application listed in this screen active, highlight the application and tap on **Menu>Switch To**.

For additional information about this applet, refer to “Task Manager” on page 153.

## 4.8 Settings

- Tap **Start>Settings** to display the setting options for your hand-held.

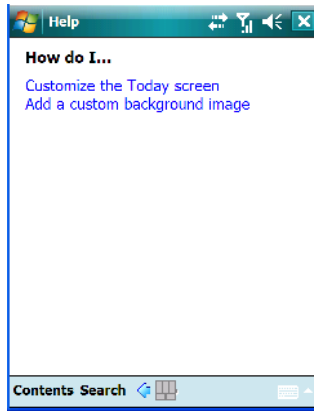




Settings are divided into three tabs – *Personal*, *System* and *Connections*. Refer to Chapter 6: “Settings” for details about the options available to you.

## 4.9 Help

Tapping on *Start>Help* displays a screen of help topics that are content-specific; if for example, the *Today* screen is displayed and you tap on *Start>Help*, the help screen will provide topics about the *Today* screen. You can perform a help content search by tapping on the *Contents* or *Search* softkeys. Keep in mind that help is not always available.



## 4.10 Entering Text



*Note: For additional information about tailoring text entry using the soft keyboard, the transcriber, the block recognizer and the letter recognizer, refer to “Input” on page 121.*

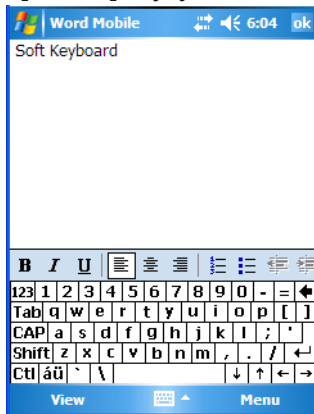
You can enter text using either the soft keyboard or the hand-held unit keyboard. You can also use the Transcriber to handwrite information directly on the touchscreen using your stylus.

- Open an existing document or create a new one – tap **Start>Office Mobile>Word Mobile**, and tap on **New** in the *softkey bar* to create a new document.

If you’re using the hand-held keyboard to enter text, there are no special steps. Just begin typing – the text, spaces, etc. will appear in the document.

## 4.10.1 Soft Keyboard

The soft keyboard is laid out just like the keypad on a PC keyboard. By tapping the stylus on letters and modifier keys like the [SHIFT] key, you can enter text in a document.



If the soft keyboard is not already displayed:

- Tap on the **soft keyboard** icon in the softkey bar.
- Tap on the letters in the keyboard to enter text in your document.

To switch to a numeric keyboard:

- Tap on the **123** key in the upper-left corner of the soft keyboard.
- Tap on this key again to return to the standard keyboard.

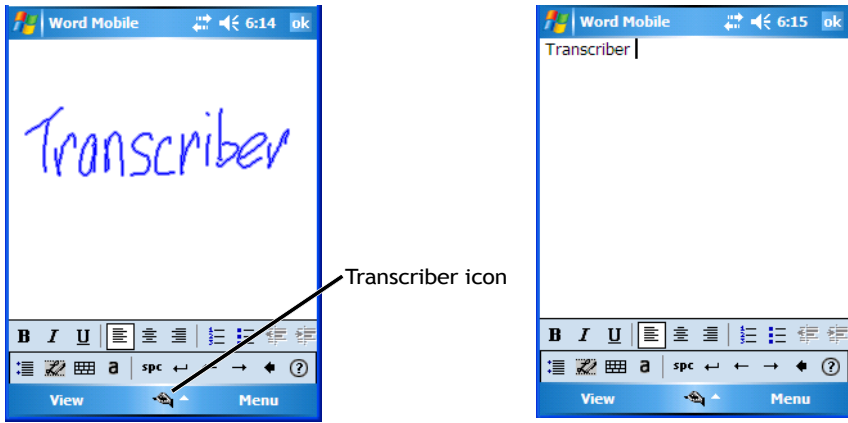
## 4.10.2 The Transcriber

To access the *Transcriber*, with your document opened:

- Tap on the **arrow** next to the *soft keyboard* icon, and choose **Transcriber** from the pop-up menu.
- Review the introductory screen. It provides some shortcut symbols you can draw on your screen to work with the *Transcriber*.
- When you've finished reading the introductory screen, tap **OK**.

The *Transcriber* menu and icon bars are displayed at the bottom of the document.

Figure 4.3 Transcriber Screen



- Use your stylus to write a few words anywhere on the screen. After a few seconds, your words are recognized (or not) and are transcribed into typed text.



*Note: Character recognition is more successful if you write using large letters.*

### Editing Text within the Transcriber

With your document open, make certain that you are in *transcriber* mode – the *Transcriber* icon should be displayed in the lower-right corner of the softkey bar.

- Double-tap to select a word or triple-tap to select a paragraph, *or*

Draw a line through the text you want to select and wait a few seconds until the Transcriber highlights the text.

- Once the text is highlighted, write the new text that is to replace the highlighted information, *or*

Press and hold the stylus on the selected text to display a pop-up menu. Choose **Cut**, **Copy**, **Paste** or **Clear** (delete).



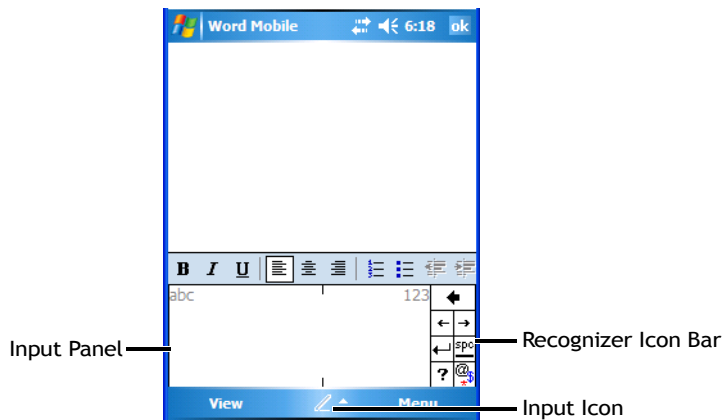
*Note: You can also use the softkey bar tools or the shortcuts listed in the introductory screen to help you edit a document within the Transcriber.*

## 4.10.3 Block Recognizer and Letter Recognizer

While the *Transcriber* attempts to recognize natural handwriting and transcribe it, *Block Recognizer* and *Letter Recognizer* attempt to teach you how to conform your handwriting to what the hand-held can recognize.

## Block Recognizer

- Open a document, and tap on the arrow next to the *input* icon. Choose **Block Recognizer**.

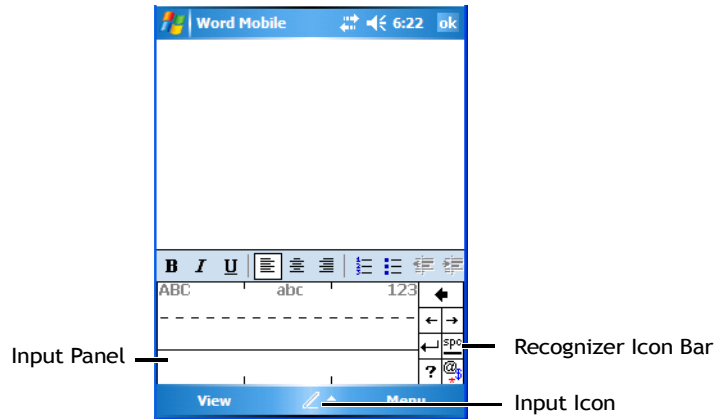


There are two points to remember when using Block Recognizer. First, limit your writing to the **Block Recognizer input panel** – do not write in the body of the document. Second, write only **uppercase letters** with your stylus.

- Tap on the ? icon in the *Recognizer Icon Bar* to display the *Character Recognizer* screen. This screen provides a visual demonstration of how to enter letters that will be recognized. Tap on a character in the soft keyboard for a demonstration of how to form a recognizable letter.
- In the *Block Recognizer* panel, write letters to the left (abc) and numbers to the right (123) on the input panel. **Remember to write using uppercase letters** – they will be printed on the screen as lowercase unless you follow the step below to create an uppercase letter.
- To create an uppercase character, draw a line straight up the 'abc' panel.
- Use the *Recognizer Icon Bar* to move around the screen, add spaces, special characters, and so on.

## Letter Recognizer

- Open a document, and tap on the arrow next to the *input* icon. Choose **Letter Recognizer**.



There are two points to remember when using *Letter Recognizer*. First, limit your writing to the **Letter Recognizer Input Panel** – do not write in the body of the document. Second, write only **lowercase letters** with your stylus.

- Tap on the ? icon in the *Recognizer Icon Bar* to display the *Character Recognizer* screen. This screen provides a visual demonstration of how to enter letters that will be recognized. Tap on a character in the soft keyboard for a demonstration of how to form a recognizable letter.
- To create an uppercase character, write a lowercase letter on the left side (ABC) of the input panel.
- To create a lowercase character, write a lowercase letter in the middle (abc) of the input panel.
- Write numbers on the right side (123) of the input panel.



5.1 Programs . . . . .	79
5.2 Games . . . . .	79
5.3 ActiveSync® . . . . .	79
5.3.1 Synchronization . . . . .	80
5.4 Calculator . . . . .	80
5.5 Office Mobile . . . . .	80
5.5.1 Excel Mobile . . . . .	80
5.5.1.1 Workbook Components . . . . .	81
5.5.2 OneNote Mobile . . . . .	82
5.5.3 Word Mobile . . . . .	86
5.5.3.1 Data Entry Modes . . . . .	87
5.5.3.2 Sharing Documents with Your PC . . . . .	87
5.5.4 PowerPoint Mobile . . . . .	87
5.6 Demo Scanner . . . . .	88
5.7 File Explorer . . . . .	88
5.8 Getting Started . . . . .	89
5.9 Imager Demo . . . . .	89
5.10 Internet Sharing . . . . .	89
5.10.1 Creating an Internet Connection . . . . .	89
5.10.2 Using Internet Sharing . . . . .	90
5.11 Notes . . . . .	91
5.11.1 Creating a Note . . . . .	91
5.11.2 Converting Handwritten Notes to Text . . . . .	92
5.11.3 Renaming a Note . . . . .	93
5.11.4 Recording Notes . . . . .	93
5.11.5 Synchronizing a Note . . . . .	95
5.12 Pictures & Videos . . . . .	95
5.12.1 Moving Photos to NEO . . . . .	95
5.12.2 Opening a Photo . . . . .	96

5.12.3	Deleting a Photo . . . . .	96
5.12.4	Editing a Photo . . . . .	96
5.12.5	Creating a Slide Show . . . . .	96
5.13	Internet Explorer . . . . .	97
5.13.1	Browsing Web Sites . . . . .	97
5.14	Messaging . . . . .	98
5.14.1	Folders . . . . .	98
5.14.2	Synchronizing E-mail with Outlook . . . . .	99
5.14.3	Changing Synchronization Settings . . . . .	100
5.15	Remote Desktop Mobile . . . . .	101
5.15.1	Connecting to a Terminal Server. . . . .	101
5.15.2	Disconnecting without Ending a Session . . . . .	101
5.15.3	Ending a Session . . . . .	101
5.16	Search . . . . .	102
5.17	Task Manager . . . . .	102
5.18	Tasks . . . . .	102
5.19	Wi-Fi Config. . . . .	103
5.20	Windows Live . . . . .	103
5.21	Windows Media . . . . .	103



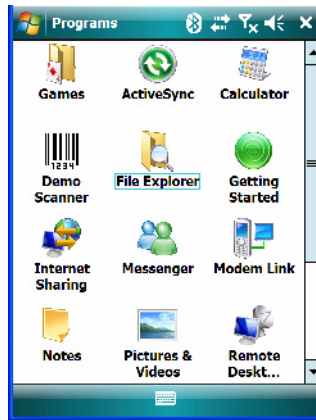
## 5.1 Programs

The *Programs* menu provides access to all the applications available on your hand-held.

- Tap on **Start>Programs** to display this screen.

Tapping on an icon in this screen launches the associated applet.

Figure 5.1 Programs Tabs

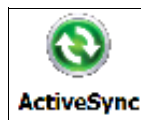


## 5.2 Games



NEO is equipped with a few standard games – Bubble Breaker and Solitaire – should you feel the need to pass the time.

## 5.3 ActiveSync®



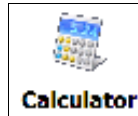
For PCs using the Microsoft Windows XP operating system, ActiveSync® – Microsoft PC connectivity software – can be used to connect NEO to PCs running this software. By connecting the hand-held to a PC through your desktop docking station and running ActiveSync on the PC, you can view NEO files, drag and drop files between the hand-held and the PC, connect to the Internet, and so on.

If you need to install ActiveSync, go to the website below and navigate to the ActiveSync download information: <http://www.microsoft.com/windowsmobile/en-us/help/synchronize/default.aspx>

### 5.3.1 Synchronization

For details about synchronizing your PC with your hand-held, visit the Internet site identified above.

## 5.4 Calculator



Tapping on *Start>Programs>Calculator* displays a standard calculator with regular functions.

- Use your stylus to tap on the calculator buttons.

## 5.5 Office Mobile



This icon contains the following abridged Microsoft programs: Excel Mobile, OneNote Mobile, PowerPoint Mobile and Word Mobile. Keep in mind that if *Office Mobile* is listed in your *Start* menu, this icon will not be displayed in the *Programs* window.

### 5.5.1 Excel Mobile



*Excel Mobile* is an abridged version of Microsoft Excel, an electronic spreadsheet program. If you're familiar with the Excel application on your PC, you'll be able to navigate *Excel Mobile*.

In addition to providing the tools to manipulate text and numeric values, create formulas, and so on, this program can also include graphics such as pie charts.

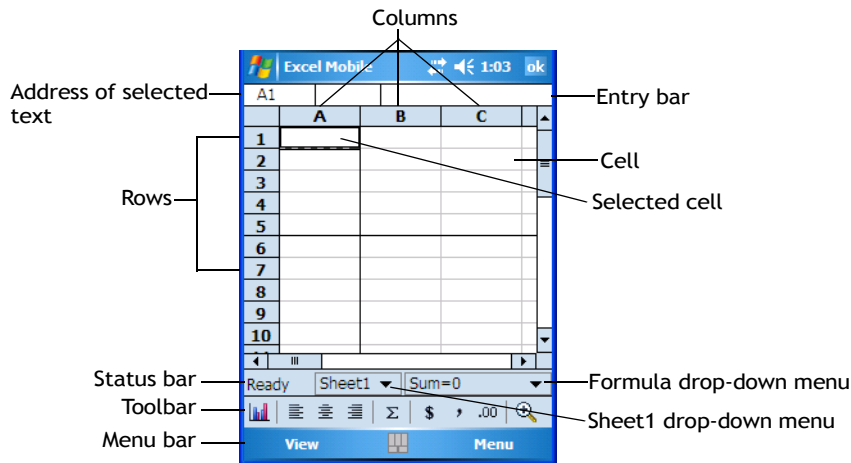
Excel Mobile allows you to copy Excel workbooks from your PC onto NEO and update them while you're away from your desk.

- Tap on **Start>Programs>Office Mobile>Excel Mobile**.

If *Office Mobile* is listed in your *Start* menu, tap on **Start>Office Mobile** and then tap on **Excel Mobile**.

- If a list of workbooks is displayed rather than a new sheet, you'll need to create a new workbook. To create a workbook:
- In *Excel Mobile*, tap **Menu>File>New**.

### 5.5.1.1 Workbook Components



- If the toolbar is not visible, tap on **View>Toolbar**.

You can enter data, work with rows and columns and create formulas as you would when working with Excel on your PC.

### Using Excel Mobile Help

If you need help using this application, you can review the instructions in the associated help files. To display Excel Mobile help files:

- Launch the *Excel Mobile* program.
- Tap on **Start>Help**, and review the instructions provided.

## 5.5.2 OneNote Mobile



You can use *OneNote Mobile* to take notes wherever you are and then synchronize your notes with a notebook section in the OneNote version on your PC. For example, you can:

- Create short text notes and voice recordings on NEO to remind you about important meetings, ideas, etc. and synchronize them with your notes.
- Prepare information in *OneNote* on your PC and then transfer it to NEO where it will be available to you wherever you and your hand-held go.



**Important:** *Remember that you must have Microsoft Office OneNote 2007 and the latest version of ActiveSync installed on your PC before you can set up a partnership between NEO and your PC.*

### Setting Up a Partnership

- Start **Office OneNote** and **ActiveSync** on your PC.
- Connect NEO to your PC; you can use a USB cable or a *Bluetooth* connection.

When a connection is established between NEO and your PC, ActiveSync displays a *New Partnership* screen.



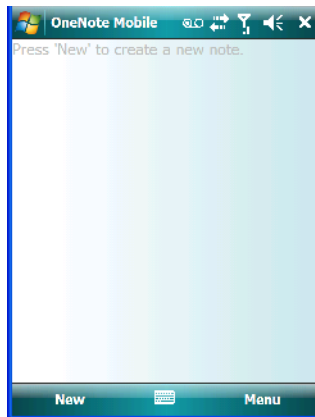
- Choose **Standard partnership**, and tap on **Next**.

- To share information between *OneNote Mobile* and *Office OneNote 2007* on your PC, tap **Synchronize with this desktop computer**, and then tap on **Next**.
- Tap on **Finish** to begin the partnership between NEO and the PC. Now you'll be able to pass notes back and forth between your PC and hand-held.

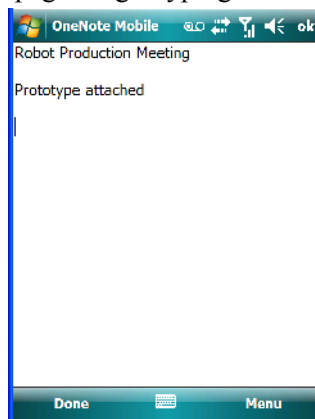
### Creating A Note

- If *Office Mobile* is listed in your *Start* menu, tap on **Start>Office Mobile>OneNote Mobile** icon.

If this is not the case, tap on **Start>Programs>Office Mobile** icon. Tap on the **OneNote Mobile** icon.



- Tap on **New** to create a note page. Begin typing.



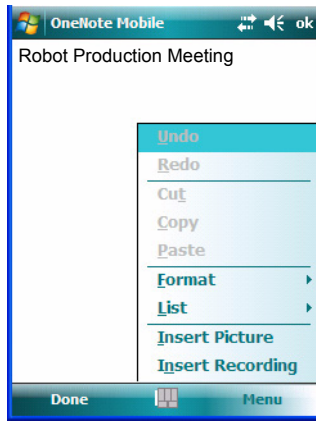
- When you complete your note, tap on **Done**.



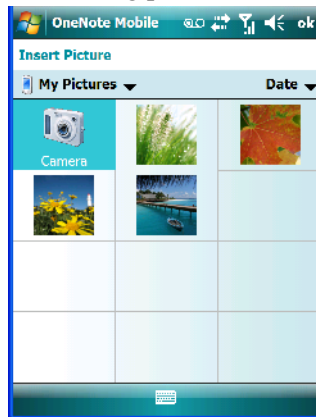
*Note: Remember that you can tap on the Menu softkey to Undo typing, add Formats (Bold, Italic, Underline, Strikethrough), and include Lists (Numbered, Bulleted, Clear).*

## Using the OneNote Menu

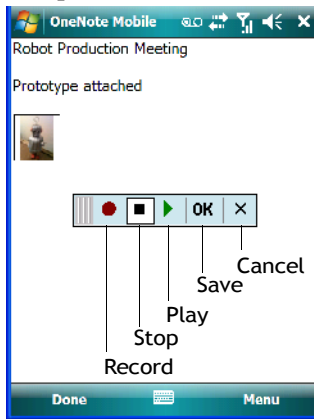
Tapping on *Menu* displays a list of options to help you work with the *OneNote Mobile* applet.



- **Undo, Redo, Cut, Copy and Paste:** These commands operate in the same way as they do in any Windows Office application.
- **Format:** Tapping on this command lists the formatting options you can apply to your note: *Bold, Italic, Underline, Strikethrough* and *Clear All*.
- **Insert Picture:** Tapping on this command automatically displays your *My Pictures* folder where you can tap on an existing picture to insert it into your note.



- **Insert Recording:** When you tap on this command, a recording panel is displayed.



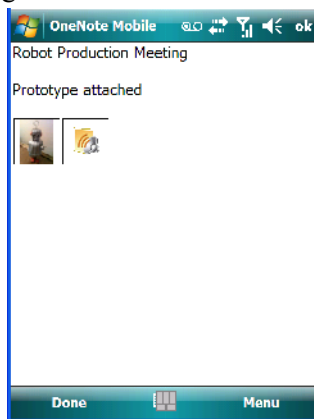
Tap on the **Record** button to *record* your message.

Tap on **Stop** when you've completed your message.

Tap on **Play** to *listen* to your voice message.

To *discard* your message, tap on **X** – the **Cancel** button.

To *save* your message, tap on **OK**. An audio icon is displayed in your note. You can tap on it to listen to your message.



### **Synchronizing NEO One Note With PC OneNote**

- Insert NEO in a docking station, and use either a **USB cable** or **Bluetooth** to connect NEO to your PC.

When the connection is complete, take one of the following steps:

- In *Microsoft ActiveSync* on your *PC*, choose **Sync**.

or

On NEO, tap on **Start>ActiveSync**, and then tap on **Sync**.

During synchronization, the notes you created on NEO are copied to a new Office OneNote 2007 notebook called *OneNote Mobile* on your PC. When synchronization is done, you can drag the transferred notes into any other sections and other notebooks on your PC.



*Note: If you prefer to synchronize NEO notes automatically, you can set up ActiveSync so that synchronization is continuous or occurs on a schedule. In ActiveSync on your PC, in the **Tools** menu, tap **Options**, and then tap on the **Schedule** tab.*

### 5.5.3 Word Mobile



If you've used Microsoft Word on your Mac or PC, Word Mobile will be familiar to you. Keep in mind however that *Word Mobile* is designed for a small screen and limited memory.

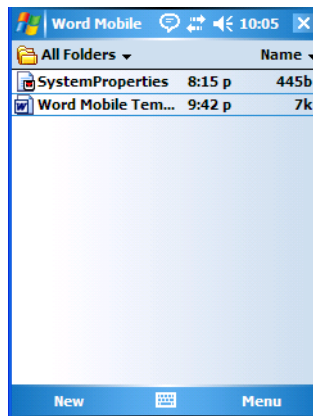


*Note: Keep in mind also that a Word document created on your PC can lose key formatting features such as styles and tables if you make changes to it on NEO.*

- Tap on **Start>Programs>Office Mobile>Word Mobile**.

If *Office Mobile* is listed in your *Start* menu, tap on **Start>Office Mobile** and then tap on **Word Mobile**.

If you've already create a *Word Mobile* document, it will be listed in the *Word Mobile* window.





- Tap on **New** in the *softkey bar* to create a new Word document.

### Using Word Mobile Help

If you need help using this application, you can review the instructions in the associated help files. To display Word Mobile help files:

- Launch the *Word Mobile* program.
- Tap on **Start>Help**, and review the instructions provided.

#### 5.5.3.1 Data Entry Modes

In addition to the soft keyboard, you can enter text using Block Recognizer, Letter Recognizer or Transcriber. Refer to “Entering Text” on page 71 for details.

You can also use NEO’s keyboard for data entry.

#### 5.5.3.2 Sharing Documents with Your PC

Documents created on a PC are recognized by NEO. However, some formatting is lost when a Word document is converted to a Word Mobile document. This loss also occurs when you open a .doc file and change it on NEO.



**Important:** *To avoid translation problems, you can work on copies of .doc files. In addition, keep in mind that you can use the Terminal Services Client program to log onto a desktop PC that is also running Terminal Services, and then you can use any program on your PC, including Microsoft Word (rather than Word Mobile). Refer to “Remote Desktop Mobile” on page 101 for details.*

#### 5.5.4 PowerPoint Mobile



*PowerPoint Mobile* works just like the desktop version that may be installed on your PC. To launch this program on your hand-held:

- Tap on **Start>Programs>Office Mobile>PowerPoint Mobile**.

If *Office Mobile* is listed in your *Start* menu, tap on **Start>Office Mobile** and then tap on **PowerPoint Mobile**.

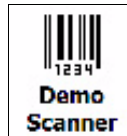
## Using PowerPoint Mobile Help

If you need help using this application, you can review the instructions in the associated help files. To display PowerPoint help files:

- Launch the *PowerPoint Mobile* program as described above.
- Tap on **Start>Help**, and review the instructions provided.

## 5.6 Demo Scanner

If a scanner is installed in your unit, you can use the *Demo Scanner* applet to set up and test your scanner.

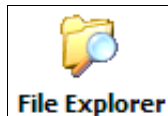


- Tap on **Start>Programs>Demo Scanner** icon.  
A *Demo Scanner* dialog box is displayed.
- Tap on the **Settings** button to display the *Scanner Settings* dialog box. Use this dialog box to tailor the scanner settings for your hand-held.
- Tap on the **Scan** button to test the scanner.



**Important:** For details about the Scanner Settings, refer to Appendix C: “Bar Code Settings”.

## 5.7 File Explorer



Windows Mobile 6.1 files are stored in folders and sub-folders that are accessible through *File Explorer*. You can open, save, rename, copy and paste files in the same manner as you would on any desktop PC.



**Important:** Refer to “Managing Files and Folders” on page 64 for details about this program.

## 5.8 Getting Started

For information about the *Getting Started* applet, refer to “The Getting Started Centre” on page 22.

## 5.9 Imager Demo



*Note: This icon is only available when an HHP 5000 imager is installed in your unit.*

To run a demonstration of the *Teklogix Imager* applet features:

- Tap on **Start>Programs>Imager** icon.



**Important:** For details about this applet, refer to Appendix B: “Teklogix Imagers Applet”.

## 5.10 Internet Sharing



This option allows you to use NEO to connect your PC to the Internet. Before you can use *Internet Sharing*, you must make certain that you have established a data connection on NEO.

### 5.10.1 Creating an Internet Connection

Follow the steps in this section only if you have not already setup an Internet connection. You'll need the following information before you begin:

**From your cellular service provider:** data connectivity information, access point name and PAP/CHAP security settings.

**From your Internet service provider (ISP) or wireless service provider:** access point name and password and any additional security information.

For a GPRS, 1xRTT or dialup connection:

- Tap on **Start>Settings>Connections** tab. Tap on the **Connections** icon.
- Under *My Work Network*, tap **Add a new modem connection**.
- Type a **name** for the connection, and choose **Cellular Line (GPRS)**, or for 1xRTT connections, choose **Cellular Line**. Tap on **Next**.
- Type the **phone number** or **access point name** provided by your service provider, and tap **Next**.
- Type the **credentials** supplied by your service provider, and tap **Finish**.

### 5.10.2 Using Internet Sharing

- Make certain that your data connect is running, and that you can access the Internet from NEO.

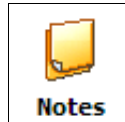
If you are using a USB cable to connect to your PC, you will need to disable the ActiveSync USB connection.

- On your PC, open the **ActiveSync** window, and click on **File>Connection Settings**.
- Disable **Allow USB connection** by clicking in the checkbox to the left of this option.
- Connect NEO to your PC using *Bluetooth* or a *USB cable*.
- On NEO, tap **Start>Programs>Internet Sharing**.
- Choose the **PC Connection** type – USB or Bluetooth.
- Choose the **network connection** that NEO should use to connect to the Internet.
- Tap **Connect**. It takes approximately 30 seconds to establish a connection. (If you are prompted to turn on *Bluetooth*, tap **Yes**.)

If you are using a *Bluetooth* connection, execute the following steps *on your PC*:

- Click **Start>Control Panel>Network Connections**.
- Right-click on **Bluetooth Network Connections**, and click on **View Bluetooth Network Devices**.
- If NEO is listed as a *Network Access Point*, click **Connect**. If it is not listed, click **Create a new connection** and use the *New Connection Wizard* to add NEO to the list.

## 5.11 Notes



The *Notes* application is an electronic notepad you can use to jot down your ideas quickly. You can enter text using the soft keyboard, NEO's keyboard, or you can write on the screen using your stylus. You can also record a message.


Notes can also be shared through e-mail and synchronization with your PC.


- Tap on **Start>Programs>Notes** to launch this application.
- If a blank *Note* like the sample screen here is not displayed, tap on **New** in the softkey bar.



### 5.11.1 Creating a Note

- Choose an entry mode for your note.

To enter text with the soft keyboard, Transcriber or the Block or Letter Recognizer, tap the stylus on the arrow to the right on the soft keyboard icon  to choose your text input method.

To use your stylus to handwrite on the screen, tap on the pen icon .



**Important:** Refer to “Entering Text” on page 71 for text entry details.


- Compose your note using the method you've chosen.
- Tap on **OK** when you're done.

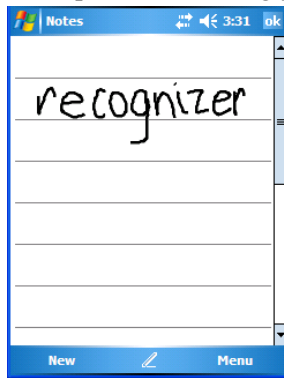
Your note is automatically saved. The file name is the first line of the note if you used the keyboard – otherwise, it's named Note1, Note2 and so on.

### 5.11.2 Converting Handwritten Notes to Text

When you use the pen tool, you can write notes in your own handwriting and keep them as is, if you like. You can also teach NEO to recognize your handwriting and convert it into printed text.

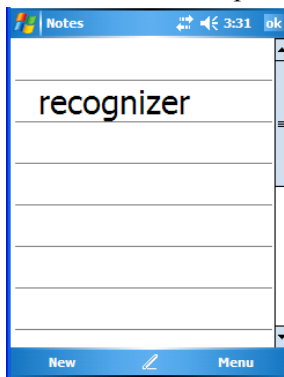
To convert handwriting into text:

- Tap on the pen tool  and compose a note using your stylus.



- Tap on **Menu>Tools>Recognize**.

The text in the note is converted from handwritten to printed text.



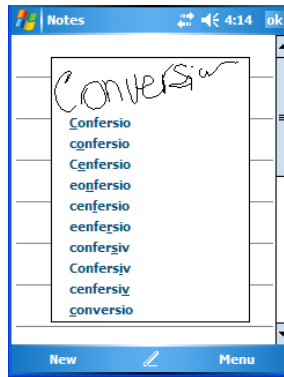
*Note: To convert only a specific portion of your handwritten note into printed type, tap the stylus just before the first letter of the text, pause for a second, and then drag your stylus across the text you want to select. Then, tap on **Tools>Recognize** to convert only the highlighted text.*


## Failed Conversions

The *Recognize* tool sometimes gets the conversion wrong. If some words are not converted properly:

- Press and hold the stylus on the incorrectly converted word.
- In the pop-up menu, choose **Alternative** to display a list of possible alternatives to the incorrectly converted word. Your handwritten version is displayed along the top of the menu.

Figure 5.2 Incorrect Conversions



- Tap on the correct word in the list.
- If the correct word is not listed, as is the case in the sample screen above, tap on the soft keyboard icon  to display the soft keyboard, and type the correct word.

### 5.11.3 Renaming a Note

- Press and hold the stylus on the file name in the *Notes* screen that you want to rename. In the pop-up menu, choose **Rename/Move, or**

Tap the file name to select it, and tap on **Menu>Rename/Move**.

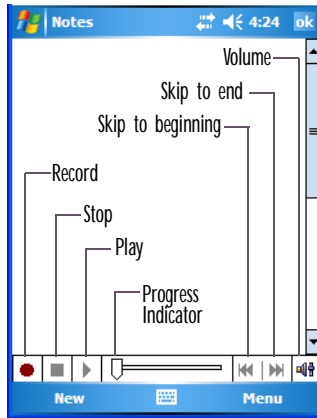
- In the *Name* field, type the new name, and tap **OK**.

### 5.11.4 Recording Notes

It's sometimes easier to record a note than to write it down just to make certain that you've captured an idea before it drifts away. To make an audio recording:

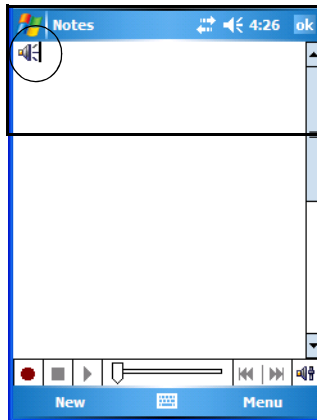
- Tap on **New** to open a fresh note.

- Tap on **Menu>View Recording Toolbar**.



- Tap on the **Record** button – a beep alerts you that your device is now ready to record.
- Begin speaking into the microphone on NEO, or move the hand-held to within a few feet of the source of the sound you want to record.
- Tap on the **Stop** button when you've completed your recording.
- Tap on **OK** to save the note.

A speaker icon is displayed in the note indicating the presence of a recording within the note.



- To play the recorded note, tap on the speaker icon.



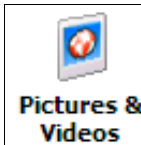
### 5.11.5 Synchronizing a Note

Like *Tasks*, *Contacts* and so on, the *Notes* program can be synchronized with Outlook on your PC. In this way, all notes, recordings and drawings created in the *Notes* program are copied to your PC and can be edited in Outlook's Notes module.

- To review the steps required to synchronize a note, with a *Note page opened*, tap on **Start>Help**.

Follow the steps in NEO help file to synchronize your note.

## 5.12 Pictures & Videos



*Pictures & Videos* is a photo and video viewing program. This program also provides a number of tools that allow you to crop, adjust picture contrast and brightness, zoom in and out of photos and save your adjustments.



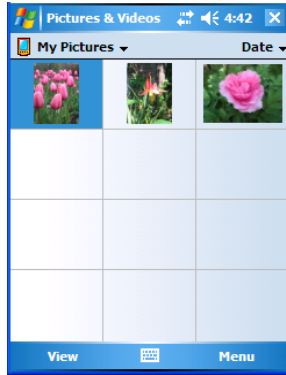
***Important:*** *The Pictures & Videos program can only display .bmp or .jpg formats. Photos in other formats will need to be converted on your PC before they are transferred to NEO.*

### 5.12.1 Moving Photos to NEO

- Connect your device to your PC with ActiveSync.
- On your PC, using Windows Explorer (right-click *My Computer* and click on *Explorer*), drag photos from their folder to the Mobile Device, My Pictures folder.

## 5.12.2 Opening a Photo

- Tap on **Start>Programs>Pictures & Videos**. You'll see a thumbnail of your photos.



*Note: If you've stored your photos on a storage card, you'll need to tap on the storage card icon to display your photos.*

- Tap on a thumbnail to open a photo.

## 5.12.3 Deleting a Photo

- Press and hold the stylus on the thumbnail photo you want to delete to display a pop-up menu. Tap on **Delete**.
- Confirm your choice when prompted.

## 5.12.4 Editing a Photo

- Tap a thumbnail photo to open it.
- Tap on **Menu>Edit**.

The *Rotate* command is now displayed in the softkey bar. Additional editing tools are now listed in the *Menu*.

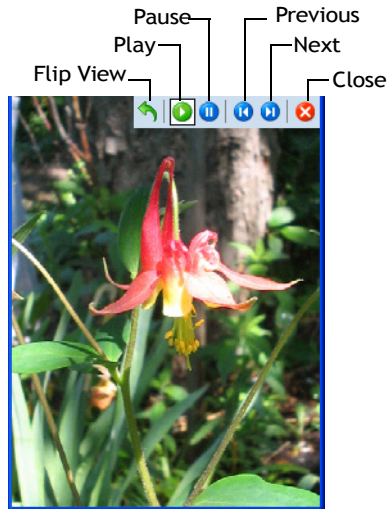
## 5.12.5 Creating a Slide Show

To view a slide show:

- Tap on the **Menu>Play Slide Show**.

The slide show begins – in slide show mode, photos are displayed for about five seconds, one after the other.

- To display the slide show tool bar, tap anywhere on the photo.



## 5.13 Internet Explorer



You can connect to *Internet Explorer* in two ways: by connecting NEO directly to the Internet or by connecting through your PC while the hand-held is attached via ActiveSync (see “ActiveSync®” on page 79).

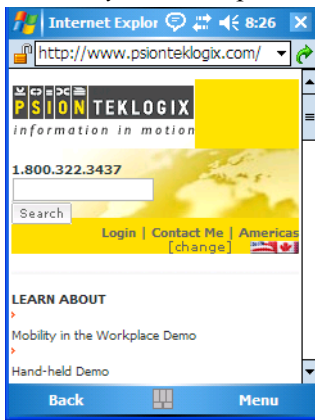
### 5.13.1 Browsing Web Sites

There is little difference between the standard Internet Explorer found on your PC and that found on NEO, sometimes referred to as *Pocket Internet Explorer*. You can enter URLs, set a ‘home page’, turn images on and off, e-mail links to friends, and so on.

To go to a web site:

- Connect NEO to the Internet. (If you’re not certain how to do this, tap on **Start>Internet Explorer** to display a blank window. Next, tap on **Start>Help** and follow the steps listed.)
- Tap on **Start>Programs>Internet Explorer** to open Internet Explorer.

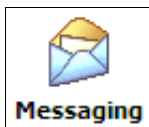
If *Internet Explorer* is also from the *Today* screen, tap on **Start>Internet Explorer**.



- Tap on the address bar – the field near the top of the screen where URLs are entered – to highlight the current URL.
- Type a new URL in the address bar.

Tapping on the *softkeys* in the *softkey bar* at the bottom of the screen display *Internet Explorer* commands like those you find on your PC.

## 5.14 Messaging



The *Messaging* program is used to send and receive e-mail on NEO. To send and receive e-mail, you'll need to synchronize your PC or connect to a Post Office Protocol 3 (POP3) or Internet Message Access Protocol 4 (IMAP4) mail server.

For each of these methods, you need to set up an e-mail account with one exception – Outlook e-mail accounts are set up by default.

### 5.14.1 Folders

If you use an *Outlook e-mail account*, messages in the Inbox folder in Outlook are automatically synchronized with NEO. You can use ActiveSync on your PC to synchronize additional folders. The folders and messages you move are mirrored on the server.

For *POP3 accounts*, if you move e-mail messages to a folder you create, the link between the messages on NEO and the copies on the mail server are broken. When you next connect, the mail server will recognize that the messages are missing from NEO's Inbox folder and delete them from the server, preventing duplication of messages. Keep in mind however that you will not have further access to messages that you moved to folders from anywhere except with the hand-held.

For *IMAP4 accounts*, the folders you create and the messages you move are reflected on the server, making messages available any time whether you connect to your mail server from NEO or your PC.

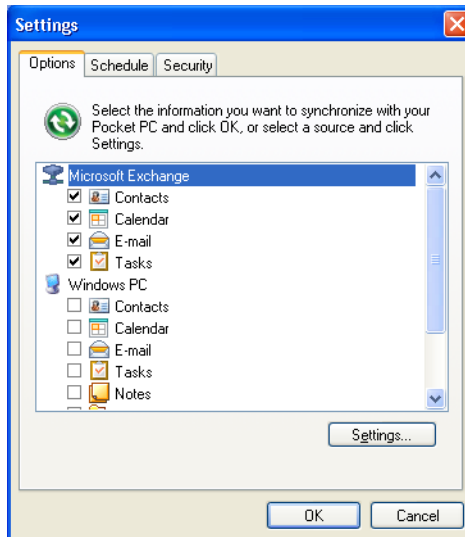
### 5.14.2 Synchronizing E-mail with Outlook

By synchronizing NEO's *Messaging* program with Outlook on your PC, your e-mail is available on both the hand-held and on your PC.



*Note: Synchronizing e-mail does not require that NEO have an independent connection to the Internet.*

- In *ActiveSync* on your PC, tap on **Tools>Options** in the tool bar at the top of the screen.

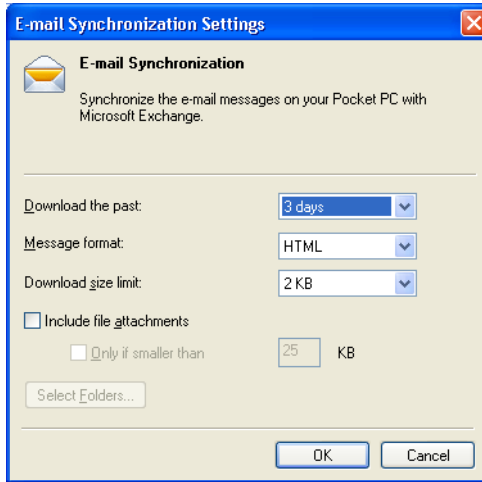


- Make certain that a check mark is displayed in the checkbox next to *E-mail*. Tap on **OK**. Once you check *E-mail* for synchronization, Outlook e-mail messages are synchronized as part of the general synchronization process. The next time you synchronize with Active-

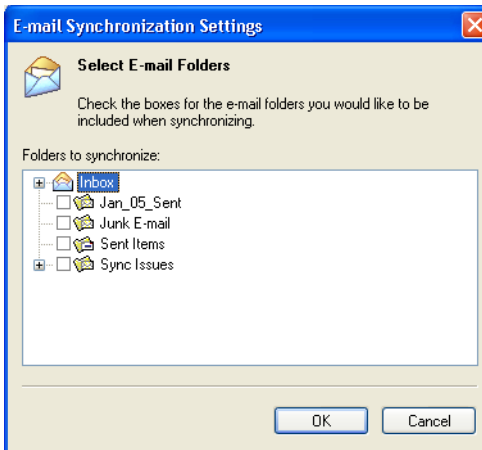
Sync, the e-mail in Outlook on your PC will be transferred to the Messaging program on NEO.

### 5.14.3 Changing Synchronization Settings

- In *ActiveSync* on your PC, double-tap the **E-mail** item in the *Sync Options* tab.



- Tap on the **Select Folder** button.

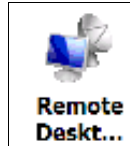


- Add a checkmark next to the folders in this screen that you want to synchronize with NEO, and tap on **OK**.

The *E-mail Synchronization* screen is displayed again.

- If you want to accept file attachments, add a check mark next to *Include file attachments*. To limit the size, tap on **Only if smaller than**, and specify a size in the KB box.
- Tap on **OK**.

## 5.15 Remote Desktop Mobile



This program allows you to log onto a Windows Terminal Server and run the desktop programs from the server on NEO.

### 5.15.1 Connecting to a Terminal Server

- Tap on **Start>Programs>Remote Desktop Mobile**
- In the *Server* dialog box, type the **Terminal Server name** or **TCP/IP address**, or choose a server from the drop-down menu.
- Tap on **Connect**.
- In the *Remote Desktop Connection* window, type your **user name**, **password**, and **domain** (if required). Tap on **OK**.

### 5.15.2 Disconnecting without Ending a Session



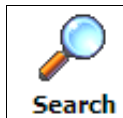
**Important:** *These commands are accessed from the Start menu in the Terminal Services screen used to access the PC commands. Do NOT use the Start menu on NEO.*

- In the *Remote Desktop Connection* window, tap on **Start>Shutdown**.
- Tap on **Disconnect>OK**

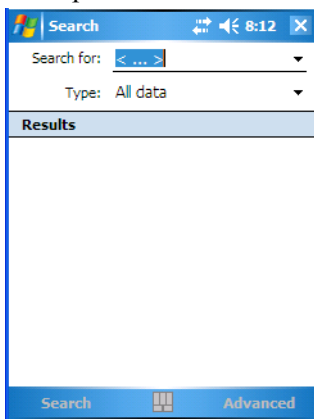
### 5.15.3 Ending a Session

- In the *Terminal Services Client* screen, tap on **Start>Shutdown**.
- Tap on **Log Off>OK**.

## 5.16 Search

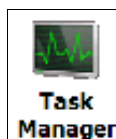


- Tap **Start>Programs**, and then tap on the **Search** icon.



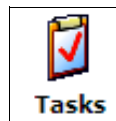
- In the *Search* for field, type the item for which you're looking.
- To narrow your search, tap on the **Type** drop-down menu and choose from a list of pre-existing programs. To search through all files, leave this option at *All Data*.

## 5.17 Task Manager



The *Task Manager* lists all running tasks (applications) or processes. This applet provides a number of options to manage these. Refer to “Task Manager” on page 153 for details.

## 5.18 Tasks





This program helps you stay ahead of your schedule by managing your tasks, appointments, and so on. For details about Tasks, refer to “Task Notification” on page 56.

## 5.19 Wi-Fi Config



Refer to “Wireless Networking – Wi-Fi Config” on page 12 for details about setting up your radio.

## 5.20 Windows Live



This applet provides access to a group of *Windows Live* services from NEO such as Hotmail, Messenger, Maps, and so on. Tapping on this icon displays a setup wizard that will walk you through setting up a *Windows Live ID*.

## 5.21 Windows Media



*Windows Media Player Mobile* allows you to play music and videos on NEO. You can use Windows Media to play digital audio and video files that are stored on your device or on the Web.

- To work with this applet, tap on **Start>Programs>Windows Media**.
- To find detailed instructions about this option, tap on **Start>Help**.



6.1 Settings . . . . .	109
6.2 Personal Settings . . . . .	109
6.3 App Launch Keys . . . . .	110
6.4 Buttons Icon . . . . .	112
6.4.1 Up/Down Control . . . . .	112
6.4.2 One Shots. . . . .	113
6.4.3 Keyboard Macro Keys . . . . .	114
6.4.4 Unicode Mapping . . . . .	116
6.4.5 Scancode Remapping. . . . .	117
6.4.6 Lock Sequence . . . . .	120
6.5 Input . . . . .	121
6.5.1 Input Method Tab. . . . .	121
6.5.1.1 Word Completion . . . . .	125
6.5.2 Options – Additional Choices . . . . .	125
6.6 Lock . . . . .	126
6.7 Menus. . . . .	127
6.7.1 Start Menu Tab . . . . .	127
6.8 Owner Information . . . . .	127
6.9 Sound & Notifications . . . . .	128
6.9.1 Sounds . . . . .	128
6.9.2 Notifications . . . . .	128
6.10 Today Screen . . . . .	129
6.10.1 Appearance . . . . .	129
6.10.2 Items. . . . .	130
6.11 System Tab Settings. . . . .	130
6.12 About . . . . .	131
6.13 About Device . . . . .	131
6.14 Backlight . . . . .	132

6.14.1 Battery Power . . . . .	132
6.14.2 External Power . . . . .	133
6.14.3 Intensity . . . . .	133
6.15 Certificates . . . . .	134
6.15.1 Choosing A Certificate. . . . .	136
6.16 Clock & Alarms . . . . .	136
6.17 Customer Feedback . . . . .	136
6.18 Dr. Debug . . . . .	136
6.18.1 Status . . . . .	137
6.18.2 Settings. . . . .	137
6.18.3 Utilities. . . . .	138
6.19 Encryption . . . . .	138
6.20 Error Reporting. . . . .	139
6.21 GPS (Global Positioning System) . . . . .	139
6.22 Manage Triggers . . . . .	141
6.22.1 Trigger Mappings . . . . .	142
6.22.1.1 Add and Edit Trigger Mapping . . . . .	143
6.23 Managed Programs. . . . .	144
6.24 Memory . . . . .	145
6.24.1 Main Tab . . . . .	146
6.24.2 Storage Card . . . . .	146
6.25 Power Icon . . . . .	146
6.25.1 Battery Tab . . . . .	147
6.25.2 Advanced Tab . . . . .	147
6.25.3 Battery Details . . . . .	148
6.25.4 Built-In Devices . . . . .	149
6.25.5 Card Slots . . . . .	149
6.25.6 Suspend Threshold. . . . .	150
6.25.6.1 Suspend Threshold and Estimated Battery Backup . . . . .	150
6.26 Regional Settings. . . . .	151
6.27 Remove Programs . . . . .	152
6.28 Screen . . . . .	152
6.29 Task Manager . . . . .	153

6.30	Teklogix Imagers Settings . . . . .	155
6.30.1	Imager Demo . . . . .	155
6.31	Teklogix Scanners Settings . . . . .	156
6.31.1	Bar Code Settings – The Scanner Menu . . . . .	157
6.31.2	Options Tab . . . . .	157
6.31.2.1	Double Click Parameters . . . . .	157
6.31.2.2	Display Parameters . . . . .	158
6.31.2.3	Data Handling . . . . .	159
6.31.3	Translations Tab. . . . .	159
6.31.3.1	Case Rules . . . . .	161
6.32	Total Recall . . . . .	162
6.32.1	Creating A Backup Profile . . . . .	163
6.32.2	Restoring A Profile . . . . .	166
6.32.3	Viewing a Profile . . . . .	167
6.32.4	Deleting a Profile . . . . .	168
6.33	TweakIT. . . . .	169
6.33.1	Advanced Interface And Network Settings. . . . .	170
6.33.2	Advanced Services Settings. . . . .	171
6.33.3	Radio Features . . . . .	172
6.33.4	User System Setting. . . . .	173
6.33.5	Registry Editor . . . . .	174
6.34	Windows Update . . . . .	174
6.35	Connections Tab. . . . .	174
6.36	Beam . . . . .	177
6.37	Bluetooth Setup . . . . .	177
6.37.1	Paired Tab. . . . .	178
6.37.2	Device Tab . . . . .	180
6.37.2.1	Discovering and Removing Devices. . . . .	180
6.37.2.2	Filtering By Class of Device (COD). . . . .	181
6.37.2.3	Device Pop-up Menu . . . . .	181
6.37.2.4	Pairing a Device . . . . .	182
6.37.3	Servers Tab . . . . .	184
6.37.4	Mode Tab . . . . .	185
6.37.5	About Tab . . . . .	185
6.37.6	The Bluetooth GPRS Phone . . . . .	186

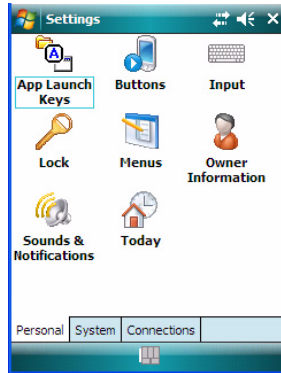
6.38	Connection Properties . . . . .	187
6.38.1	Port Settings . . . . .	188
6.38.2	Call Options . . . . .	189
6.39	Connections – Connecting to the Internet . . . . .	189
6.39.1	Modem Connection Setup . . . . .	190
6.39.1.1	Advanced Modem Settings . . . . .	193
6.40	Wireless Manager Icon. . . . .	194
6.40.1	Flight Mode – Disabling Wireless Components . . . . .	194
6.40.2	Setting Up A Network Card . . . . .	195
6.40.3	Network Adaptor Cards . . . . .	195
6.40.4	Changing Network Card Settings . . . . .	196
6.40.5	VPN Connection Setup . . . . .	196
6.40.6	Managing an Existing Connection. . . . .	197
6.40.6.1	Editing a Connection . . . . .	197
6.40.6.2	Changing a Connection Setting Name . . . . .	198
6.40.7	Selecting a Network . . . . .	199
6.40.8	Proxy Server Setup. . . . .	200
6.40.8.1	Changing Advanced Proxy Server Settings . . . . .	201
6.41	Wireless Statistics . . . . .	202

## 6.1 Settings

The *Settings* screen is divided into three tabs – **Personal**, **System** and **Connections**.

- Tap on **Start>Settings** to display this screen.

Figure 6.1 Settings Tabs

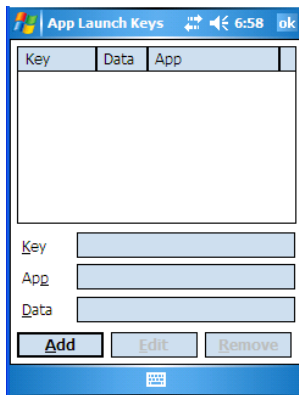


## 6.2 Personal Settings

The *Personal* tab allows you to tailor the general behaviour of NEO such as defining input methods, *Start* menu options, owner information, password assignment, sound specifications, and so on.

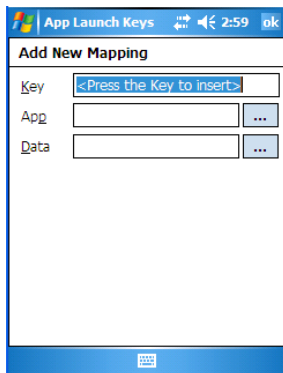
## 6.3 App Launch Keys

This icon allows you to map a key to an application so that you can then launch the application from a single key-press.



To assign an application key:

- Tap the **Add** button.

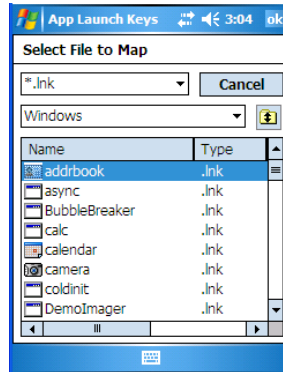


- Press the key you want to use to launch an application. (If an unsupported key is pressed, a message appears on this screen letting you know.)

The cursor moves to the *App* field and a new screen is displayed where you can choose the application to which you want to assign the application key. If you need to, you can *Browse*



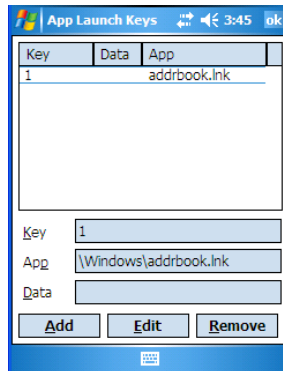
through the information in your hand-held until you locate the application you want to launch.



- Once you've selected the file you want to map, tap on **OK**.

The cursor moves to the *Data* field. You can use this field if you need to define special parameters to your application launch key. If you don't want to assign any parameters, you can leave the *Data* field blank. If, for example, you want to assign an application launch key to launch the *Word Mobile* application, you can leave this field blank. If you want to assign an application launch key that will open a specific document in the *Word Mobile* application, you need to browse to and choose that document while the cursor is in the *Data* field.

- Tap on **OK**.



- If you need to *Edit*, *Remove* or *Add* another *App Launch Key*, you can do it from this final screen. Otherwise, tap on **OK** to save your *Application Launch Key*.
- To launch the application you chose, press the application key you assigned.

## 6.4 Buttons Icon

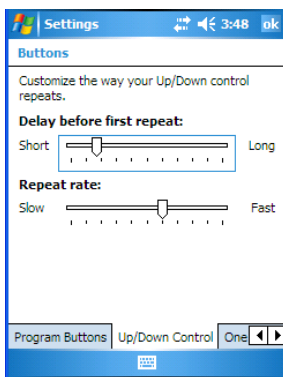


- Tap on this icon to display your options.



*Note: The 'Program Buttons' option is not available on this unit.*

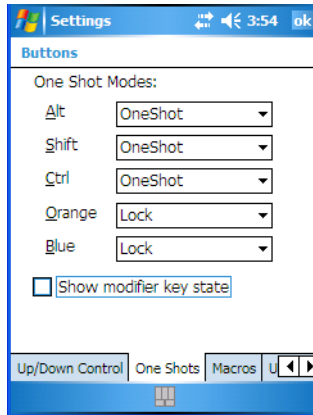
### 6.4.1 Up/Down Control



Sliding the *Delay before first repeat* bar to the left decreases the amount of time an [Up/Down] key must be held before it starts repeating; sliding the bar to the right increases this delay time.

Sliding the *Repeat rate* bar to the left slows the rate at which an [Up/Down] button repeats when pressed. Sliding the bar to the right increases the key repeat rate.

## 6.4.2 One Shots



The options in this tab allow you to determine how modifier keys on NEO behave. For each modifier key – [ALT], [SHIFT], [CTRL], [FN/ORANGE] and [FN/BLUE] – you have the following options in the drop-down menu: Lock, OneShot, and OneShot/Lock.



**Important:** *Once you've assigned a One Shot mode to a modifier key, you need to tap on the OK button at the top of the tab to activate your selection.*

### Lock

If you choose *Lock* from the drop-down menu, pressing a modifier key once locks it 'on' until you press the modifier key a second time to unlock or turn it off.

### OneShot


If you choose OneShot, the modifier key remains active only until the next key is pressed.

### OneShot/Lock

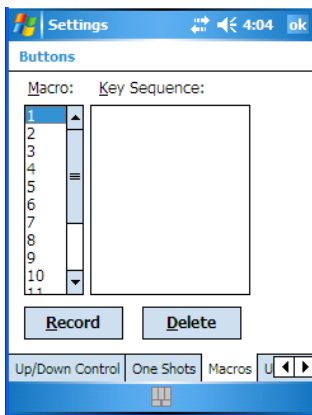
*OneShot/Lock* allows you to combine these functions. When you choose this option and you press the modifier key **once**, it remains active only until the next key is pressed.

If you *press the modifier key twice*, it is locked 'on', remaining active until the modifier key is pressed a third time to turn it 'off'.

### Show Modifier Key State

When you enable *Show modifier key state*, a *shift-state indicator* icon  replaces the soft keyboard icon in the *sofikey bar* at the bottom of the screen. When a modifier key is pressed, a square in this icon is highlighted. A 'locked' modifier key is displayed in the *shift-state indicator* icon with a black frame around it.

### 6.4.3 Keyboard Macro Keys



The *Macro* tab is used to define up to 15 macros. Macros can be created to replace frequently used keystrokes, along with the function of executable keys including [ENTER], [BKSP] and [DEL] ([FN/BLUE]-[BKSP]), function keys and arrow keys. Each macro can have up to 200 programmable characters (or “positions”).



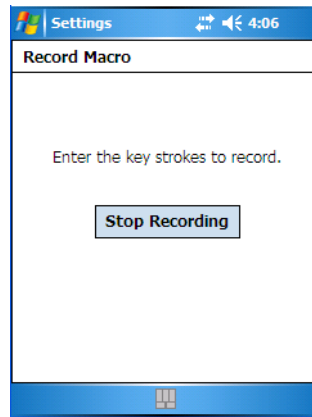
**Important:** *Macro keys are not physically stamped on this hand-held; ‘Scancode Remapping’ must be used to remap keyboard keys into macro keys so you can execute the macros created here. Refer to “Scancode Remapping” on page 117 for details about mapping keys.*

To create a macro:

#### Recording and Saving a Macro

- In the *Macro:* menu highlight a macro key number, for example macro 1. Tap on the **Record** button.

A *Record Macro* screen is displayed.



- Type the macro sequence you want to assign to the Macro key. You can type text and numbers, and you can program the function of special keys into a macro.
- When you've finished recording your macro sequence, tap on the **Stop Recording** button.

A new screen – *Verify Macro* – displays the macro sequence you created.

- Tap on the **Save** button to save your macro. Your macro key sequence is listed in the *Macro* screen.
- Tap on **OK** to save your macro key assignment.

### Executing A Macro

To execute a macro:

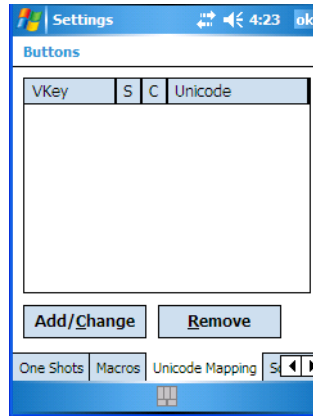
- Remember that you need to remap a key to act as a macro key using *Scancode Mapping*. Press the **mapped macro key(s)** to execute the macro.

### Deleting a Macro

- In the *Macros* tab, highlight the macro number you want to delete.
- Tap on the **Delete** button.

## 6.4.4 Unicode Mapping

- Tap on the **Unicode Mapping** tab to display this screen.



The *Unicode Mapping* tab is used to map combinations of virtual key values and [CTRL] and [SHIFT] states to Unicode™ values. This tab shows the configured Unicode character along with the Unicode value. For example, “a (U+0061)” indicates that the character “a” is represented by the Unicode value “0061”, and so on. Keep in mind that Unicode configurations are represented as hexadecimal rather than decimal values.

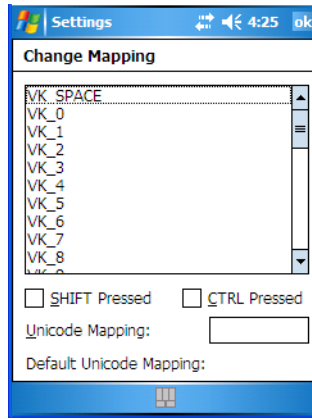
All user-defined Unicode mappings are listed in the *Unicode Mapping* tab in order of virtual key value, and then by order of the shift state. If a Unicode mapping is not listed, the Unicode mapping is mapped to the default Unicode value.

### Adding and Changing Unicode Values



**Important:** *Changes to Unicode mappings are not saved until you exit the Unicode Mapping tab by tapping on [OK].*

- Tap on the **Add/Change** button.



- Highlight a value in the Unicode mapping list.
- Position the cursor in the **Unicode Mapping** field near the bottom of the screen, and type a Unicode value for the highlighted key.



*Note: To add a shifted state – [SHIFT] and/or [CTRL], tap on the checkbox next to ‘SHIFT Pressed’ and/or ‘CTRL Pressed’.*

### Removing Unicode Values

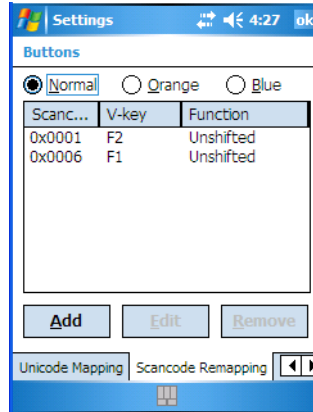
- In the *Unicode Mapping* tab, highlight the item you want to delete, and tap on the **Remove** button.

## 6.4.5 Scancode Remapping

A scancode is a number that is associated with a physical key on a keyboard. Every key has a unique scancode that is mapped to a virtual key, a function, or a macro. Scancode Remapping allows you to change the functionality of any key on the keyboard. A key can be remapped to send a virtual key (e.g. VK\_F represents the ‘F’ key; VK\_RETURN represents the [ENTER] key, etc.), perform a function (e.g. turn the scanner on, change volume/contrast, etc.) or run a macro.

There are three different tables of scancode mappings: the *Normal* table, the *Blue* table and the *Orange* table. The *Normal* table defines unmodified key presses; the *Blue* table defines key presses that occur when the [FN/BLUE] modifier is on; the *Orange* table defines key

presses that occur when the [FN/ORANGE] modifier is on. The default mappings of these scancodes can be overwritten for each of these three tables using *Scancode Remapping*.



The first column in the *Scancode Remapping* tab displays the Scancodes in hexadecimal. If the scancode is remapped to a virtual key, that virtual key is displayed in the next column labelled 'V-Key'. A virtual key that is 'Shifted' or 'Unshifted' is displayed in the third column labelled 'Function'.

If the scancode is remapped to a function or a macro, the first and second columns remain blank while the third column contains the function name or macro key number (e.g., Macro 2).

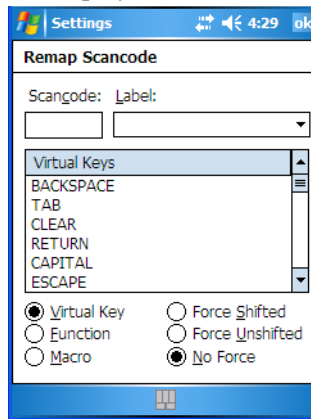
### Adding a Remap

To add a new remapping:

- Tap the **Add** button at the bottom of the dialog box.



The *Remap Scancode* dialog box is displayed.



- Type the scan code in hexadecimal in the field labelled **Scancode**.



*Note:* The 'Label' field displays the default function of the scancode you are remapping.

### Virtual Key, Function and Macro

The radio buttons at the bottom of the dialog box allow you to define to what the scan code will be remapped to: *Virtual Key*, *Function* or *Macro*.

When *Virtual Key* is selected, you can choose to force [SHIFT] to be on or off when the virtual key is sent. If *No Force* is selected, the shift state is dependent on whether the shift state is on or off at the time the virtual key is sent.

When *Function* is selected, a list of valid functions appears in the dialog box.

When *Macro* is selected, the macro keys available on your unit are listed in the dialog box.

- Choose **Virtual Key**>**Function** or **Macro**.
- Choose a function from the *Function list*, and tap on **OK**.

### Editing a Scancode Remap

- In the *Scancode Remapping* tab, tap on the remap you want to edit.
- Tap on the **Edit** button, and make the appropriate changes.
- Tap on **OK** to save your changes.

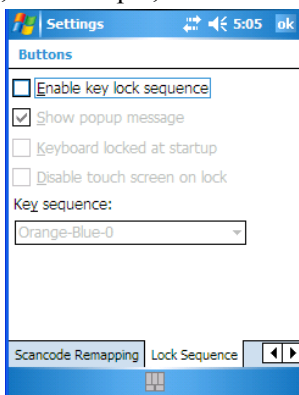
### Removing a Remap

- In the *Scancode Remapping* tab, highlight the scancode you want to delete, and tap on the **Remove** button.

- Tap on **OK**.

## 6.4.6 Lock Sequence

The *Lock Sequence* tab allows you to lock the hand-held keyboard to prevent keys from being pressed accidentally when, for example, the unit is inserted in a holster.

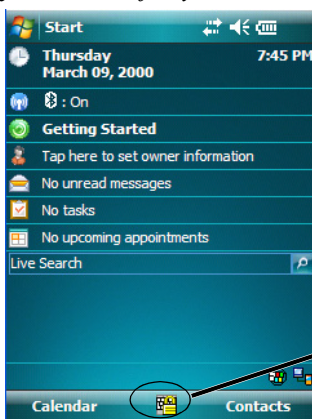


- To lock the keyboard, tap in the checkbox next to *Enable key lock sequence*.
- Tap in the checkbox next to *Keyboard locked at startup*.
- In the *Key sequence* drop-down menu, choose the key sequence you need to type to unlock the keyboard.



*Note: It is useful to leave the 'Show popup message' enabled (default) so that anyone attempting to use the NEO keyboard will see the key sequence they will need to enter to unlock the keyboard displayed on the screen.*

A *locked keyboard icon* is displayed in the *softkey bar* when the keyboard is locked.



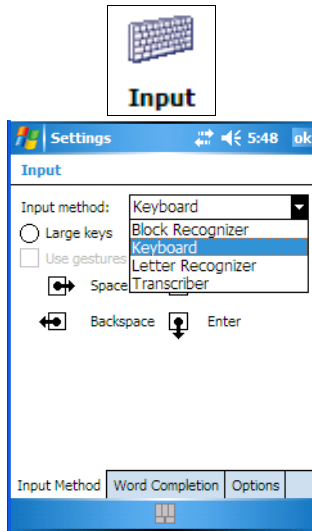
Locked Keyboard  
Icon

- Type the key sequence to unlock the keyboard.

## 6.5 Input

The *Input* applet provides access to text input options you can use to tailor the soft keyboard, block recognizer, letter recognizer and transcriber along with voice recording options.

### 6.5.1 Input Method Tab



A drop-down menu next to *Input method* allows you to tailor your methods of input – *Block Recognizer*, *Keyboard*, *Letter Recognizer* and *Transcriber*.

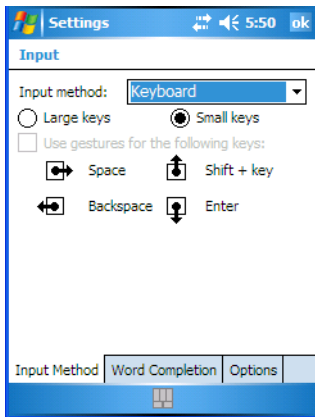
#### Block Recognizer

*Block Recognizer* teaches you how to conform your handwriting to what the hand-held can recognize.



**Important:** Refer to “*Block Recognizer and Letter Recognizer*” on page 73 for additional details.

## Keyboard Options



This screen is displayed when you choose *Keyboard* in the *Input method* drop-down menu. You can use it to customize the soft keyboard. You can choose *Large Keys* or *Small Keys* to increase or decrease the size of the keys displayed on the soft keyboard.

If you enable *Use gestures for the following keys* – these keys are removed from the soft keyboard. Gestures are handwriting shortcuts for the keyboard keys.

### Letter Recognizer Options

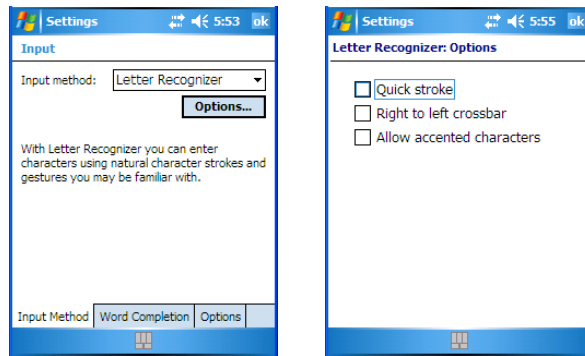
*Letter Recognizer* teaches you how to conform your handwriting to what the hand-held can recognize.



**Important:** Refer to “*Block Recognizer and Letter Recognizer*” on page 73 for additional details.

To display additional letter recognition options, tap on the **Options** button in the *Letter Recognizer* screen.

Figure 6.2 Letter Recognizer Quick Settings



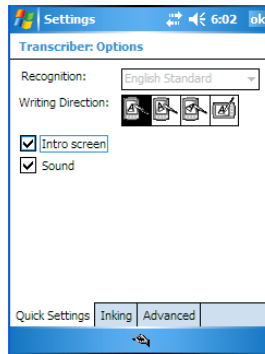
These options allow the *Letter Recognizer* to better interpret any specialized strokes and accents you may wish to use.

### Transcriber Options



*Note: Before you can display the Options for Transcriber, you need to select Transcriber as the active input method. Tap on the arrow to the right of the keyboard icon in the taskbar, and choose Transcriber.*

When you choose *Transcriber* as the input method, three tabs of options are available to you – *Quick Settings*, *Inking* and *Advanced*.

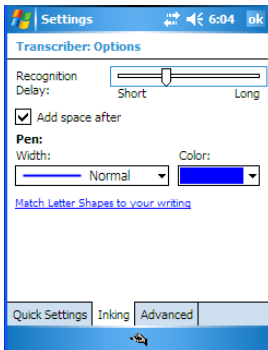


### Quick Settings

The *Quick Settings* tab allows you choose the writing direction – the icons indicate direction. In addition, you can choose to enable or disable the display of the Intro screen and the sound each time you launch the *Transcriber*.

## Inking

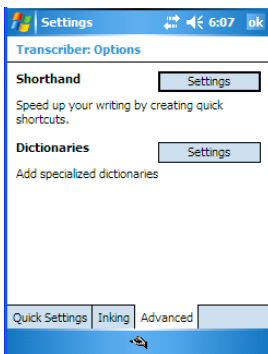
In the *Inking* tab, you are presented with a number of options. *Recognition Delay* allows you to determine the time delay between writing something on the *Transcriber* screen and its recognition into printed text.



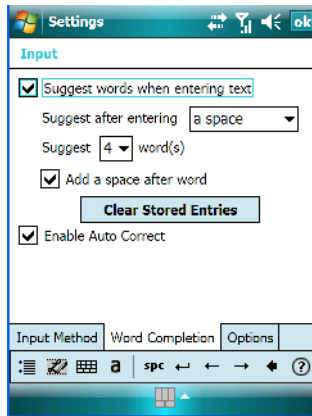
Enabling *Add space after* automatically adds a space after each word you write. The *Pen* option allows you to choose the line *Width* and *Colour*. Finally, tapping on *Match Letter Shapes to your writing* displays a screen in which you can learn how to form letters to help the hand-held to recognize the most often used characters.

## Advanced

In this tab, *Shorthand* allows you to create a shortened word that the *Transcriber* will recognize and expand into a complete word automatically. You can also insert data such as a date or run a program.

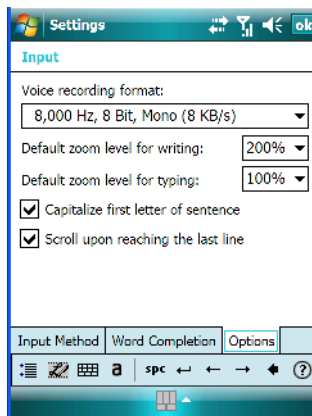


### 6.5.1.1 Word Completion



This tab speeds the writing process regardless of the input method chosen. When you begin entering a word, this option displays what it assumes is the complete word, saving you having to type the word in its entirety. You can also tailor how and when you want word suggestions made.

### 6.5.2 Options - Additional Choices

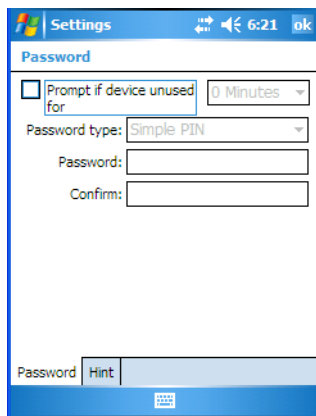


This tab offers a few choices including choosing a voice recording format, zoom percentage for writing and typing, automatic capitalization of the first letter in a sentence and automatic scrolling when you've reached the bottom of the screen.

## 6.6 Lock

To protect the data stored in NEO, you can assign a password that must be entered each time the unit is switched on.

- Tap on **Start>Settings**, and then tap on the **Lock** icon.



It is critical that you store your password in a safe place. If you forget it, a ‘clean start’ must be performed by certified Psion Teklogix personnel. A clean start returns the hand-held to factory settings. Only the data stored in a CF or SD memory card are preserved.

- Tap in the checkbox next to *Prompt if device unused* to turn on password protection.
- Choose the amount of time that the unit can remain idle before you are prompted to enter your password.
- In the *Password type* drop-down menu, choose the type of password you prefer to assign. *Simple PIN* allows you to enter a minimum of four numeric characters. *Strong alphanumeric* requires a minimum of 7 characters and must contain at least three of the following: uppercase and lowercase alpha characters, numbers and punctuation.
- Tap on the **Hint** tab to enter a word or phrase that will remind you of your password. NEO will display the hint after the wrong password is entered five times.
- Tap on **OK**. A dialog box asks whether or not you want to save your password settings. Tap on **YES** to save your password assignment.

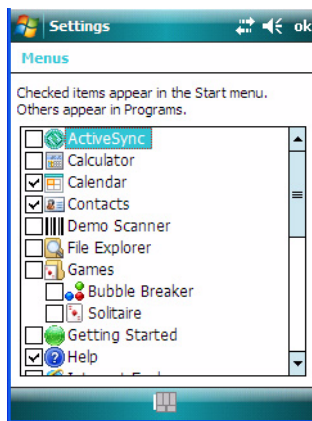
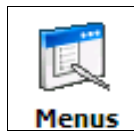


## 6.7 Menus

- Tap on **Start>Settings>Menu** icon to display options to help customise menus.

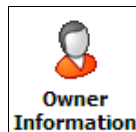
### 6.7.1 Start Menu Tab

This tab allows you to define the items that will be listed in your *Start* menu.



- In the *Start Menu* dialog box, tap on the items you want to appear in your *Start* menu. The checked items will be listed in your *Start* menu.

## 6.8 Owner Information



This icon allows you to add your personal information to NEO. Some of this information will be displayed in the desktop *Today* screen.

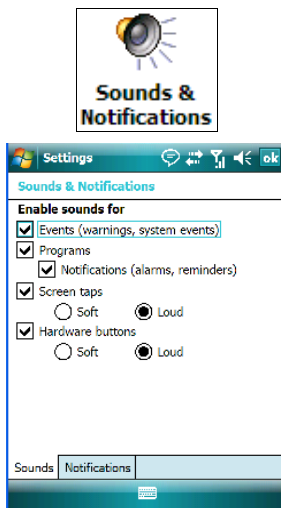


**Important:** Refer to “Ownership Information” on page 55 for details about this option.

## 6.9 Sound & Notifications

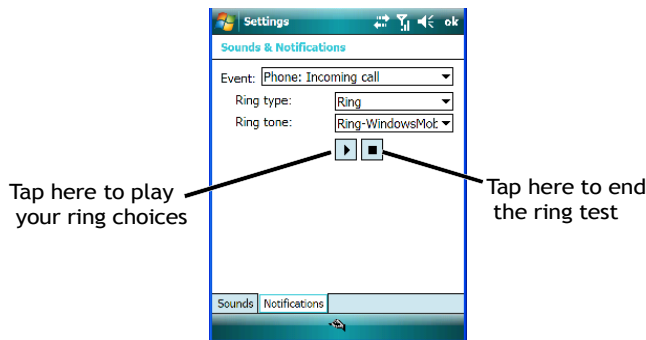
This icon allows you to specify when NEO will emit sounds.

### 6.9.1 Sounds



- Tap on **Start>Settings**.
- Tap on the **Sounds & Notifications** icon.
- Tap in the checkboxes and radio buttons to enable the event(s) that will cause your unit to emit a sound.

### 6.9.2 Notifications



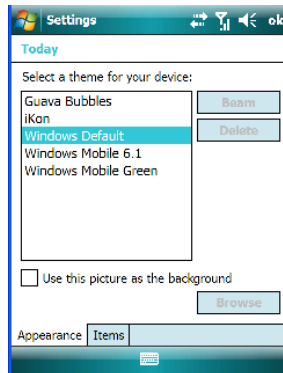
This tab allows you to determine how you are notified about different events.

- Choose an event from the *Events* drop-down menu.
- Choose the type of reminder – a special sound, a message or a flashing light – from the drop-down menu next to *Play sound*.

## 6.10 Today Screen

This option allows you to tailor the appearance of the *Today* screen – the desktop screen.

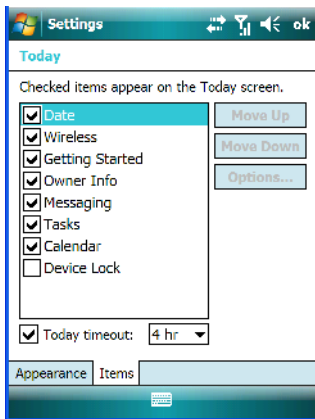
### 6.10.1 Appearance



This screen allows you to customize the background displayed on the *Today* screen.

- Choose the background you want to use from the list.

## 6.10.2 Items



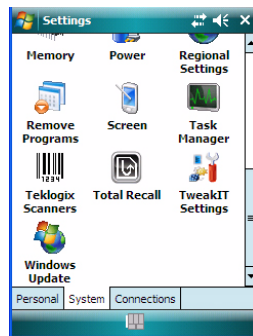
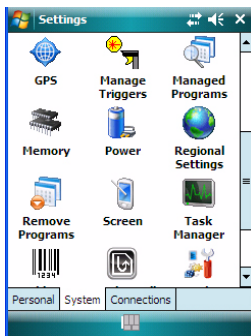
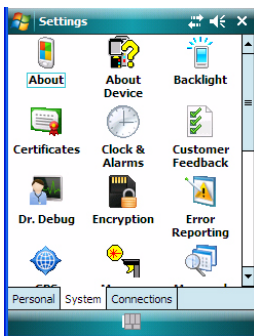
This tab allows you to choose and to sort the item(s) that you want listed in the *Today* screen.

- Tap in the checkbox to the left of the item(s) you want displayed in the *Today* screen.
- To rearrange the list of items, highlight the item you want to move up or down, and tap on the **Move Up** or **Move Down** button. Keep in mind that the *Date* cannot be moved.

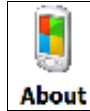
## 6.11 System Tab Settings

To display the icons grouped in the System tab:

- Tap on **Start>Settings**, and tap on the **System** tab.



## 6.12 About



Tapping on *Start*>*Settings*>*System* tab, and then the *About* icon displays a grouping of tabs that provide device information.

### Version Tab

This tab outlines the Windows Mobile 6.1 Classic version, processor information, memory size and a description of the expansion card, if one is in use.

### Device ID Tab

This tab provides fields in which you can assign a Device name and Description (optional) for NEO. This name is used by NEO to identify itself to other devices.

Keep in mind that this must be a unique name across a network. If you are unable to connect to a network because another device with the same name is already connected, you'll need to assign a new name here.

### Copyrights

The *Copyright* tab lists the copyright information for the software loaded on NEO.

## 6.13 About Device



Tapping on the *About Device* icon under *Settings*>*System* tab provides access to three tabs related to NEO.

The *Properties* tab lists hardware information related to NEO. When the *Properties* tab is opened, the properties are written to a text file called *SystemProperties[mlbserialno].txt*.

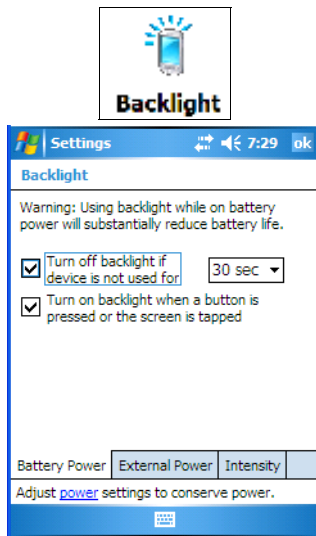
The *Copyrights* tab lists the copyrights that apply to your hand-held.

The *Experience* tab allows you to choose a category to help you define your Experience. These categories include *Microsoft settings*, *Psion Teklogix settings* and *Custom settings* in a drop-down menu. Each category contains a group of default settings. If you change a default setting, the category is automatically changed to *Custom settings*.

## 6.14 Backlight

Tapping on *Start*>*Settings*>*System* tab followed by the *Backlight* icon allows you to determine the power properties of NEO.

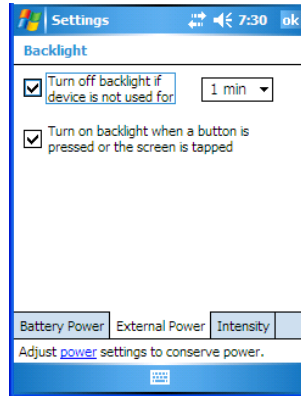
### 6.14.1 Battery Power



This tab allows you to tailor NEO backlight behaviour to best preserve battery life.

- To define how long the backlight should stay on when NEO is not in use, tap in the checkbox to the left of **Turn off backlight if device is not used for**.
- Tap on the drop-down menu, and choose the number of seconds or minutes the backlight will remain on when the hand-held is idle.
- To **Turn on backlight when a button is pressed or the screen is tapped**, tap in the checkbox to the left of this option.

## 6.14.2 External Power

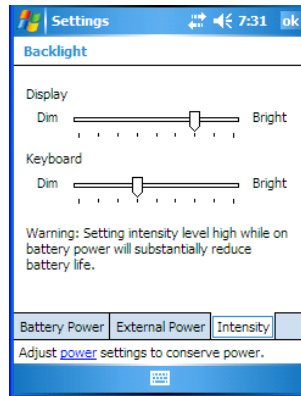


This tab determines the behaviour of the backlight when the hand-held is using external rather than battery power.



**Important:** Refer to “Battery Power” on page 132 for details.

## 6.14.3 Intensity



This tab is used to adjust the light intensity of the display backlight and the keyboard backlight. Sliding the bar to the left lowers the light intensity, and sliding it to the right raises the intensity.

## 6.15 Certificates

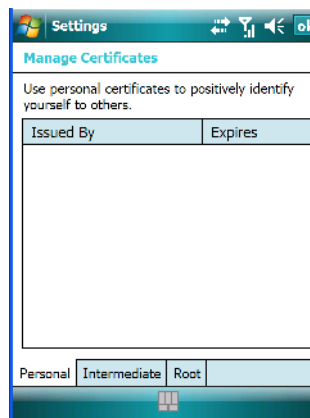
- Tap on **Start>Settings**, and then tap on the **System** tab.
- Tap on the **Certificates** icon.



A public key is transmitted as part of a certificate. The certificates listed in the Certificates tabs ensure that the submitted public key is, in fact, the public key that belongs to the submitter. The hand-held checks that the certificate has been digitally signed by a certification authority that the hand-held explicitly trusts.

NEO has certificates already preinstalled in the unit. *Personal* certificates establish your identity, *intermediate* certificates, as the name suggests, identifies intermediate certification authorities and *root* certificates establish the identity of the servers with which you can connect.

### Personal Tab



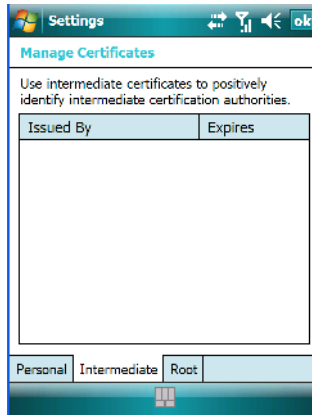
The *Personal* tab lists the name of the certificate issuer and the expiration date.

- To view additional information about a personal certificate, tap on a certificate in the list.
- To delete a certificate, tap and hold the stylus on the item you want to delete until a pop-up menu is displayed. Tap on the **Delete** command.

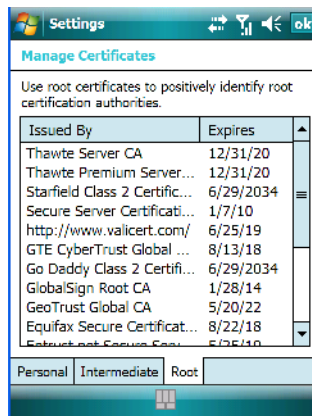


## Intermediate Certificates

The items in this list help identify intermediate certification authorities.



## Root Certificates



- To view details about a certificate—who issued the certificate, to whom it was issued, the issue date and the expiry date—tap on a certificate in the list.
- To delete a certificate, tap and hold the stylus on a certificate.
- In the pop-up menu, tap on the **Delete** command.

### 6.15.1 Choosing A Certificate

Normally, certificates already configured for your network are chosen automatically by NEO. If a certificate cannot be chosen automatically, you must choose it from the *Certificates* list.

- To choose a certificate, tap the desired certificate. NEO will connect automatically.

### 6.16 Clock & Alarms

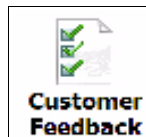
Located under *Start>Settings>System* tab, the *Clock & Alarm* icon allows you to set the current date and time, and it allows you to set up to three alarms.



**Important:** Refer to “Today’s Date, Clock and Alarm” on page 53 for details about these options.

### 6.17 Customer Feedback

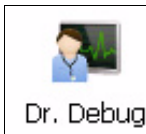
This applet allows you to participate in a Microsoft *Customer Experience Improvement* program. Choosing *Send Feedback* allows Microsoft to track how you use Windows Mobile.



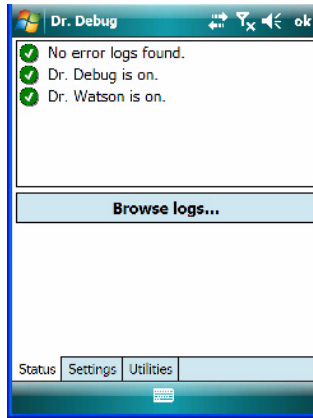
### 6.18 Dr. Debug

*Dr. Debug* is an error diagnostic tool.

- Tap on **Start>Settings**. Tap on **System** tab>**Dr. Debug** icon.

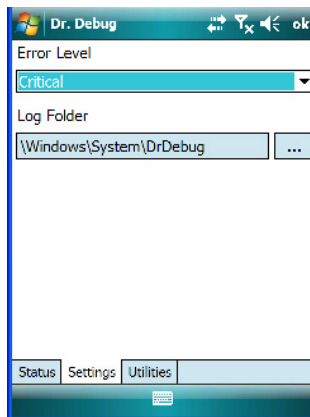


## 6.18.1 Status



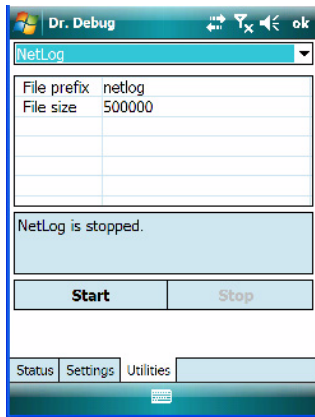
This tab indicates the status (on/off) of the tools. Tapping on *Browse logs* displays error logs for your review.

## 6.18.2 Settings



- Choose an **Error Level** from the drop down menu.
- To change the location where debug information will be stored, tap on the button to the right of the *Log Folder* option.

### 6.18.3 Utilities

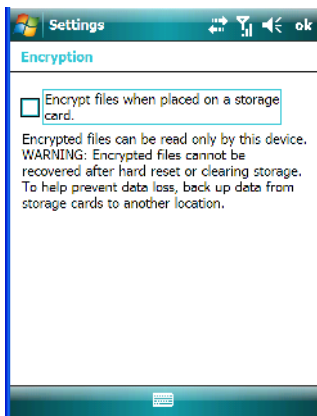


The *NetLog* utility is used to log network traffic. When you tap on the *Start* button, debug data is collected so that, if necessary, it can be forwarded to a Psion Teklogix technician for evaluation.

### 6.19 Encryption

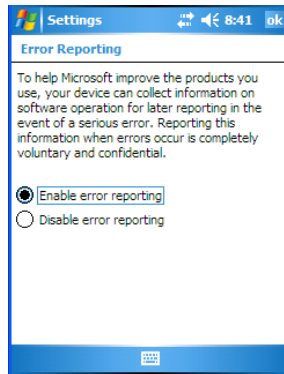
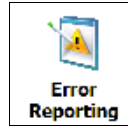
This option allows you to encrypt the data on your storage card.

- Tap on **Start>Settings>System tab>Encryption** icon.



## 6.20 Error Reporting

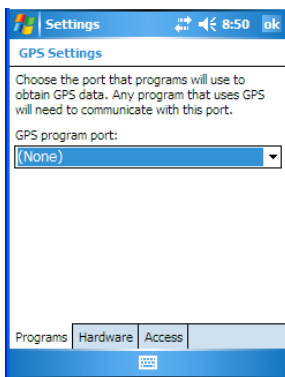
*Error Reporting* allows you to enable or disable Microsoft error reporting prompts.



## 6.21 GPS (Global Positioning System)

With a *Global Positioning System* (GPS) receiver, you can locate your exact position on a map. However, even without a GPS receiver, several different mapping programs can run on your hand-held.

- Tap on **Start>Settings>System>GPS**.

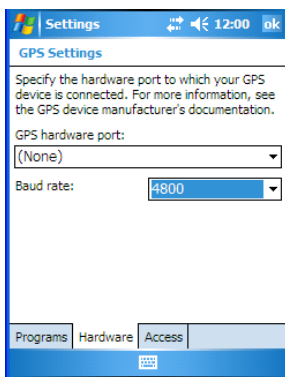


- Tap on the *GPS program port* drop-down menu and choose the communication (COM) port that the GPS software will use to communicate with the GPS receiver.



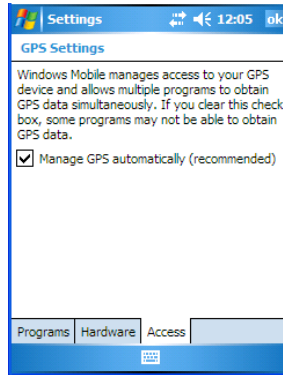
*Note: NEO may automatically detect the GPS receiver that you are using and enter the settings in the Hardware tab. If not, you'll need to enter this information yourself. You can find this information in the user manual of the GPS receiver.*

- Tap on the **Hardware** tab, and choose a **GPS hardware port** and the appropriate **Baud rate**.



Windows Mobile 6.1 automatically manages access to the GPS receiver. However, some programs may not work with automatic configuration. If this is the case:

- Tap on the **Access** tab, and disable *Manage GPS automatically (recommended)*.

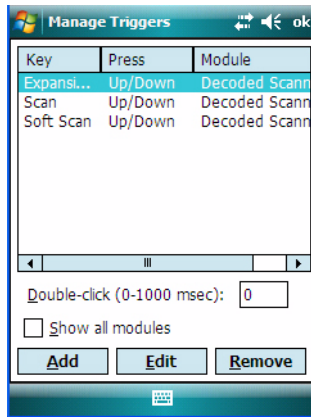


You can go to [www.windowsmarketplace.com](http://www.windowsmarketplace.com). if a map-viewing program is not included with your hand-held.

## 6.22 Manage Triggers

*Manage Triggers* allows you to configure how bar code scanners and other devices such as RFID readers are triggered. You can configure the trigger ID for each trigger button for both single- and double-click, and the double-click time.

- Tap on **Start>Settings>Manage Triggers**.



In the *Manage Triggers* screen you'll see a list of trigger mappings.

## 6.22.1 Trigger Mappings

A ‘trigger mapping’ is an association between a particular key on the keyboard and a driver or application, the module(s) – sometimes referred to as “trigger consumer(s)” – of the trigger source. Along with keyboard keys, trigger sources can also be grip triggers, external hardware triggers or software-based. When the specified key is pressed, the trigger consumer (for example, a decoded scanner) is sent a message.



**Important:** *It is not possible to have two or more identical mappings—for example [F1] cannot be mapped to the Decoded Scanner twice—even if the trigger type is different.*

*A keyboard key that is used as a trigger source will no longer generate key data or perform its normal function. For example, if the space button is used as a trigger source, it will not be able to send space characters to applications.*

### Double-Click

When a key is pressed and released, then pressed again within the configured time (between 0 to 1000 milliseconds), a double-click occurs. See also “Trigger- Press Type” on page 144.

### Show All Modules

By default, the trigger mapping list only shows active mappings. Mappings for drivers or applications that are not currently active are not normally displayed. By checking this checkbox, all mappings, both active and inactive, are displayed.

### Add

Tapping this button brings up the *Add* mapping dialog (see below), so that you can add new trigger mappings.

### Edit

Tapping this button brings up the *Edit* mapping dialog, so that you can edit existing trigger mappings.

### Remove

Tapping this button removes an existing mapping.

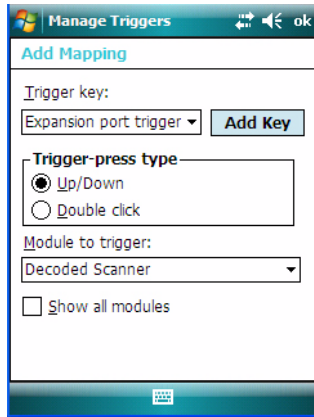
### OK

The *OK* button in the top right of the *Manage Triggers* screen saves all changes made. If the [ESC] key is pressed, all changes made will be discarded.



### 6.22.1.1 Add and Edit Trigger Mapping

- Tap on **Add** to add a new trigger map, or tap on **Edit** to edit an existing trigger map.



#### Trigger Key

This drop-down list allows you to specify the source of the trigger events, such as the *Expansion port trigger*, *Soft Scan* and *Scan* for the trigger module selected.

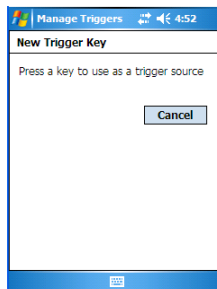


*Note: It is possible to map the same source to different modules (trigger consumers—for example, to both the Imager and Decoded Scanner. If so, both devices/operations will occur simultaneously. This is not recommended in most cases, especially with devices such as Imagers or RFID Readers.*

*It is also possible to map different sources to the same module (trigger consumer).*

#### Add Key

Only existing trigger sources are shown in the Source combo-box. To add a new source to this list, tap on the **Add Key** button. A dialog box pops up, allowing you to select the keyboard key to use as a trigger source.



### Trigger- Press Type

You can enable either an **Up/Down** or **Double Click** response to a trigger press. Normally, when a trigger (keyboard key, etc.) is pressed and released, a “trigger down” event is sent to the “owner” — that is, the application receiving the trigger press information—followed by a “trigger up”. If *Double Click* is chosen in this menu, when the trigger is pressed, released, and then pressed again, a “double-click” event will occur. If a mapping with the *Up/down* type has also been configured for the same source, it will only receive the first set of trigger events.

### Module To Trigger

This identifies the driver or application receiving the trigger presses.

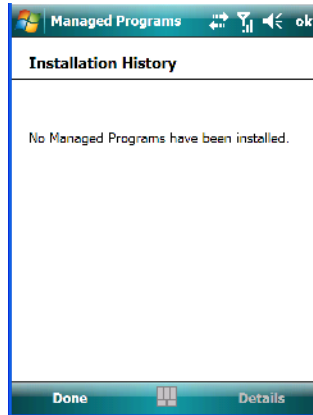
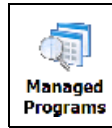
### Show All Modules

By default, inactive owners are not shown. By checking this checkbox, all owners, both active and inactive, are displayed.

## 6.23 Managed Programs

*Managed Programs* lets you view, download and install applications that are deployed by the *System Center Mobile Device Manager* (a server-side solution that enables IT to have control of their device deployment with respect to security, management and access to the corporate network). To access *Managed Program*:

- Tap on **Start>Settings>System tab>Managed Programs** icon.

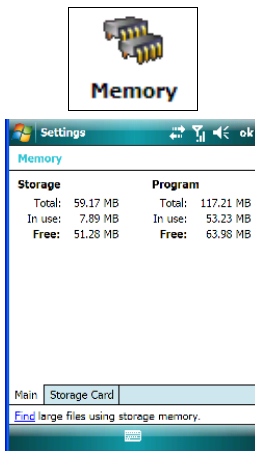


*Note: Your system administrator can provide the details you'll need to use Managed Programs effectively.*

## 6.24 Memory

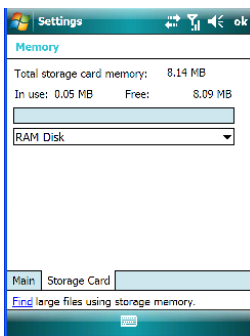
This applet allows you to view memory use and storage card memory allocation.

## 6.24.1 Main Tab



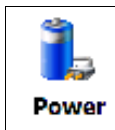
This tab lists the memory allocated for file and data storage and for program storage.

## 6.24.2 Storage Card



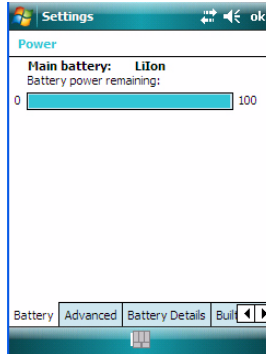
The *Storage Card* screen indicates the total storage card or RAM disk memory along with the amount in use.

## 6.25 Power Icon



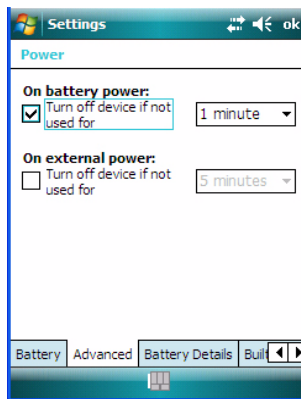
This icon allows you to view and manage battery use.

## 6.25.1 Battery Tab



This tab allows you to view the remaining battery capacity of the main battery.

## 6.25.2 Advanced Tab



The *Advanced* tab allows you to manage battery consumption.

### On Battery Power

When NEO is operating on battery power, this option allows you to determine how long the unit will remain on when it is not in use.

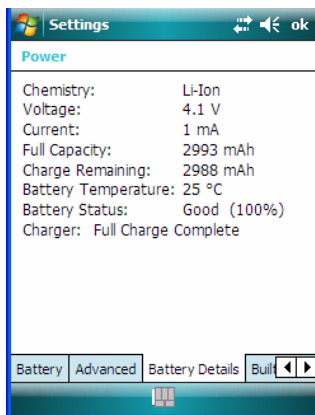
- Tap in the checkbox to the left of **On battery power** to enable this option. Tap in the drop-down menu to choose the number of minutes your unit can remain idle before it shuts down.

## On External Power

When the hand-held is drawing external rather than battery power, this option allows you to determine the number of minutes the unit will remain on when not in use.

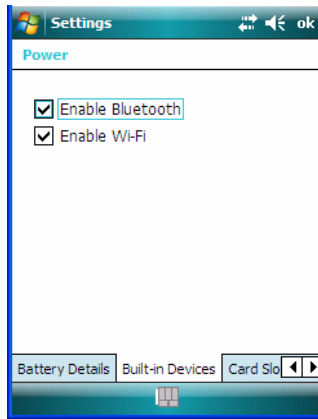
- Tap in the checkbox to the left of **On external power** to enable this option. Tap in the drop-down menu to choose the number of minutes your unit can remain idle before it shuts down.

### 6.25.3 Battery Details



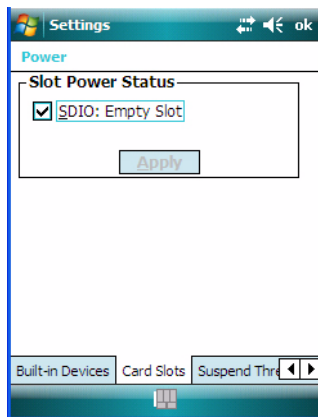
This tab lists the specifications and battery capacity status of the battery installed in NEO. This is a view-only screen.

## 6.25.4 Built-In Devices



This dialog box allows you to enable (provide power) to the device(s) installed in your unit. Tapping on **OK** activates your selections.

## 6.25.5 Card Slots

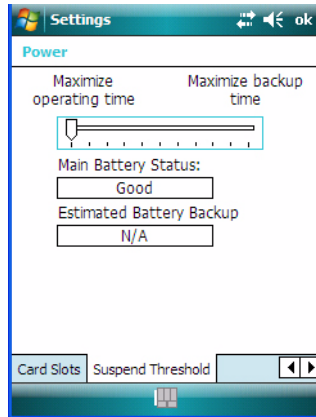


### Slot Power Status

Selecting the card slot listed in this dialog box supplies power to the enabled slot. Clicking on the *Apply* button activates your selection. If the *Apply* button is greyed out, the slot has already been enabled.

## 6.25.6 Suspend Threshold

This applet allows you to determine the amount of battery power that you want to reserve in the main battery to protect the data stored in NEO.



### 6.25.6.1 Suspend Threshold and Estimated Battery Backup

The *Suspend Threshold* lets you determine when NEO will shut down. If the slider is left at the default value, *Maximum Operating Time*, the hand-held will run until the battery is completely empty; the RAM is only backed up for a short period of time. If you choose *Maximum Backup Time*, the hand-held will shut off with more energy left in the battery so RAM can be backed up for a longer period of time.



**Important:** *Selecting ‘Maximum backup time’ reserves approximately 20% of the battery capacity for memory backup. Once the battery is drained, the system RAM memory is lost and the unit must reboot.*

*In most real-time transaction environments, this is not a problem (it only takes a few seconds to boot). However, batch transaction environments, where data is not saved to non-volatile memory (a microSD FLASH card), may need to pay particular attention to this parameter. Psion Teklogix does not recommend the storage of any valuable data in system RAM.*

*NEO’s Windows environment does not store any critical data in RAM (such as the registry or file system).*

*If the user’s application does not save data to RAM, Psion Teklogix recommends keeping the Suspend Threshold setting as low as possible to maximize battery run time.*

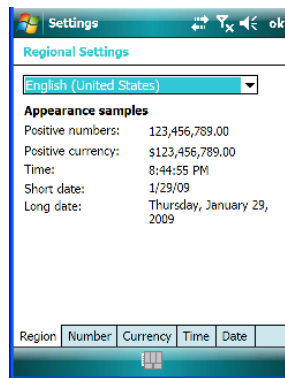




**Important:** *Once the main battery is removed, the super capacitor will preserve the data stored on NEO for approximately 10 minutes. It is critical that you install a charged main battery before this time elapses.*

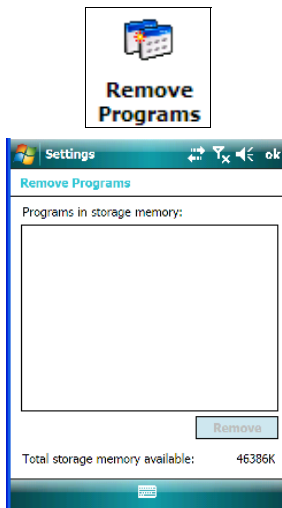
## 6.26 Regional Settings

- To display the *Regional Settings* screen, tap on **Start>Settings**, and then tap on the **System** tab followed by the **Regional Settings** icon.



- Tap on the drop-down menu to choose your language and region.  
Once you've selected a language and region, you may need to adjust the way numbers, currency, the time and the date appear in NEO.
- Tap on the tab associated with each of the items and choose how each item will be displayed on your hand-held.

## 6.27 Remove Programs

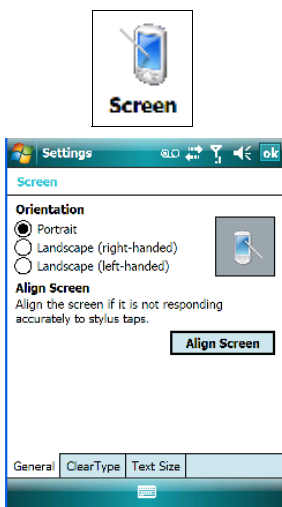


Tapping on the *Remove Programs* icon displays a screen listing the programs that can be removed from your unit.

- To remove a program, highlight it and then click on the **Remove** button.

## 6.28 Screen

This icon allows you to change *screen orientation*, *align* (calibrate) your touchscreen, turn *ClearType* on and off and adjust the size of the text displayed on the hand-held screen.



- Tap **Start>Settings>System** tab, and then tap on the **Screen** icon.

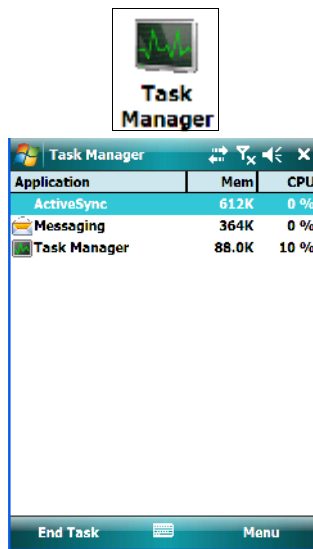


**Important:** Refer to “Aligning (Calibrating) the Touchscreen” on page 37 for details.

## 6.29 Task Manager

The *Task Manager* screen lists all running tasks (applications) or processes. This applet provides a number of options to manage these.

- Tap on **Start>Settings**. Tap on the **System** tab and then the **Task Manager** icon – the *Task Manager* screen is opened.

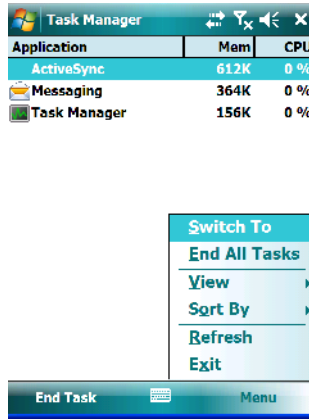


- To shut down an application, **highlight the program** in the list, and tap on the **End Task** softkey in the taskbar at the bottom of the screen.

### Task Manager Menu

The *Task Manager* menu provides additional options to help you manage your applications.

- Tap on the **Menu** softkey in the taskbar.



- **Switch To:** Makes the highlighted application active.
- **End All Tasks:** Shuts down all applications listed.
- **View:** Allows you to list either all running applications or all processes.
- **Sort By:** Allows you to sort active applications or processes based on *Memory size*, *CPU* or application or process *Name*.
- **Refresh:** Updates the list of applications or processes.
- **Exit:** Closes the *Task Manager*.

## 6.30 Teklogix Imagers Settings

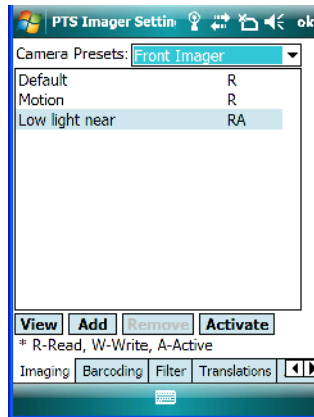
The *Teklogix Imagers* applet is used to create, modify, delete and activate imager settings. The principal uses of the applet are to decode bar codes and to capture images.



*Note: This icon is only displayed when the appropriate imager is installed in your hand-held.*

To launch this applet:

- Tap on **Start>Settings>System** tab, and then tap on the **Teklogix Imagers** icon.

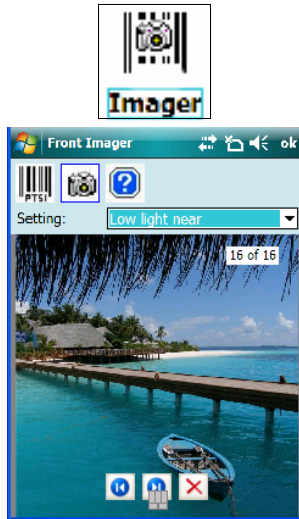


**Important:** Refer to Appendix B: “Teklogix Imagers Applet” for details about this applet.

### 6.30.1 Imager Demo

An *Imager* demo applet is also provided to illustrate how the imager works.

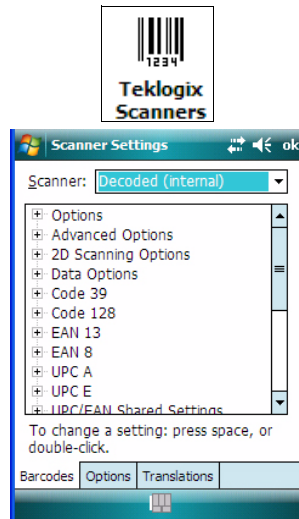
- Tap on **Start>Programs**, and then tap on the **Imager** icon.



### 6.31 Teklogix Scanners Settings

The *Teklogix Scanners* icon in the *Settings* menu provides access to dialog boxes in which you can tailor bar code options and choose the bar codes your scanner will recognize.

- Tap on **Start>Settings**, and then tap on the **System** tab followed by the **Teklogix Scanner** icon.



### 6.31.1 Bar Code Settings - The Scanner Menu

The drop-down menu to the right of the *Scanner* option allows you to choose from one of the following: *Decoded (internal)* and *Decoded (Intermec ISCP)*. If an HHP 5000 imager is installed in your unit, refer to Appendix B: “Teklogix Imagers Applet” for details about setting up your imager.

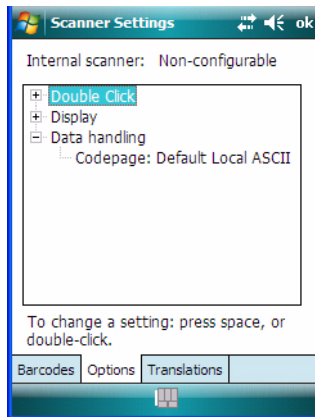
The symbologies listed change to reflect the scanner you choose and the bar codes it supports.



**Important:** *Appendix C: “Bar Code Settings” provides descriptions of the bar codes listed in the scanner menus.*

### 6.31.2 Options Tab

This tab allows you to tailor the double-click parameters and the display options associated with your scanner.



#### 6.31.2.1 Double Click Parameters

##### Click Time (msec)

This parameter controls the maximum gap time (in milliseconds) for a double-click. If the time between the first and second clicks of the scanner trigger is within this time, it is considered a double-click. The allowable range is 0 to 1000. A value of zero disables this feature.

A double-click produces different results depending on whether or not a value is assigned in the “Click Data” parameter. When a value is not assigned for the “Click Data”, double-clicking the scanner trigger overrides the target dot delay set in the “Dot Time” parameter and

initiates a normal scan sweep. If a value is assigned for the “Click Data” parameter, double-clicking the scanner trigger inserts the “Click Data” value rather than initiating a scan.

### Click Data

For both integrated and external scanners, this parameter determines which character is sent to the application installed in your hand-held following a double-click. A dialog box appears, asking that you press the key you want to insert. The ASCII/Unicode key value of the keypress is displayed.

## 6.31.2.2 Display Parameters

### Scan Result

When this parameter is enabled, the type of bar code and the result of the scan appear on the screen. Note that this information is only displayed after a successful decode and is visible only while the scanner trigger is pressed. When the trigger is released, this information is cleared from the screen.

### Scan Indicator

When this parameter is enabled, the laser warning logo appears on the display whenever the scanner is activated.

### Scan Result Time (sec)

The value assigned to the “Scan Result Time (sec)” parameter determines how long the scan results of a successful scan are displayed on the screen. Time is measured in seconds, and a value of “0” (zero) disables the parameter. When you choose this option, a dialog box appears where you can enter a value.



*Note: To remove the scan result from the screen before the “Result Time” has expired, point the scanner away from the bar code and press the trigger.*

### Good Scan Beep And Bad Scan Beep

These parameters determine whether or not the hand-held emits an audible scanner ‘beep’ when a good (successful) scan or a bad (unsuccessful) scan is performed. Set these parameters to either *on* to enable the beeper or *off* to disable it.

### Soft Scan Timeout

This parameter is used by the SDK “Scan” function (soft-scan: starting a scan session via the SDK function, instead of a physical user trigger press). The value assigned to this parameter determines the soft-scan timeout from 1 to 10 sec. (default is 3 sec.).



## Scan Log File

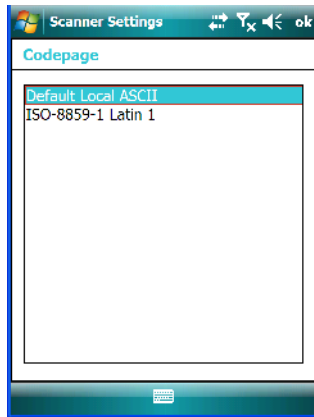
If this parameter is enabled, the input bar code and the modified/translated output bar code are logged in the file \Flash Disk\ScanLog.txt. Keep in mind that if the “Scan Log File” is enabled, there is a slight performance effect when performing multiple scans since the log file is written to persistent storage.

### 6.31.2.3 Data Handling

This option allows you to choose the code page NEO will use to display scanned data – *Default Local ASCII* or *ISO-8859-1 Latin 1*.

#### Codepage:

Tapping on this option displays a window in which you can define the code page NEO will use.



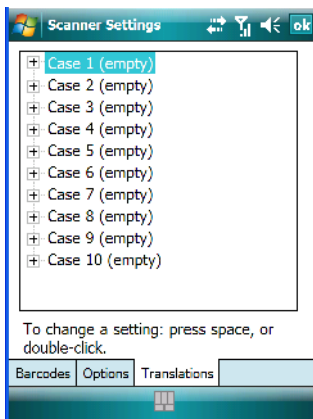
If you choose *Default Local ASCII*, the code page of the local OS is used. For example, if the local OS uses double-byte Chinese characters, choosing this option will filter data through the local ASCII of *that* OS and display it accurately, in this example, using double-byte characters.

If you choose *ISO-8859-1 Latin 1*, data will be displayed according to the character mapping of this Latin 1 code page, ignoring the local OS code page.

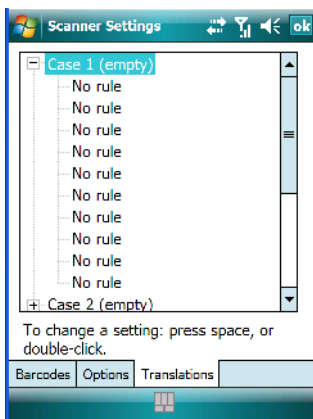
### 6.31.3 Translations Tab

The *Translations* tab allows you to define up to 10 cases, each consisting of up to 10 rules in sequential order. Only one case will be applied to a bar code and a case will only be applied

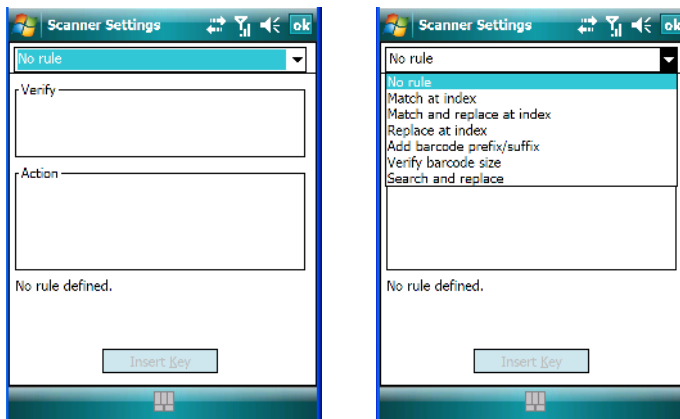
if all rules specified in the case are successful – if a rule within a case fails, the entire case fails.



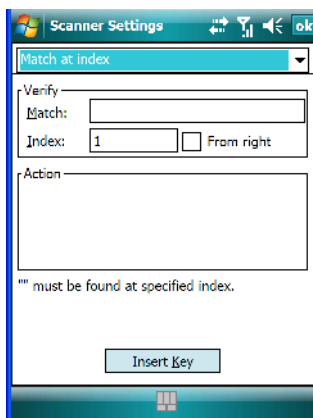
- In the *Translation* tab, tap on the **Case #** to create rules.



- Tap on the **No rule** drop-down menu to display the rules.



When you choose a rule, an associated screen is displayed in which you can define the rule.



### 6.31.3.1 Case Rules

The case rules are defined as follows:

- No rule – ignored.
- Match at index – matches the match string at a specified index.
- Match and replace at index – matches the match string at a specified index and replaces/changes it.
- Replace at index – replaces/changes unspecified data in a given range.
- Add barcode prefix/suffix – adds a global prefix or suffix.

- Verify barcode size – verifies the bar code size. This rule should generally be assigned first, before creating subsequent rules.
- Search and replace – replaces all instances of the match string. (Note that this rule cannot fail.)



*Note: Keep in mind that the effects of previously applied rules must be taken into account when creating subsequent rules. For example, if the bar code size is important, it should be checked before any rules that might change the size are applied.*

Translation information about the status of each case/rule is displayed in the scan log file (see “Scan Log File” on page 159) when enabled. This is useful if a case fails, and you are trying to determine why a rule is failing.

## 6.32 Total Recall

*Total Recall* is a Psion Teklogix utility developed to back up/restore applications and settings.

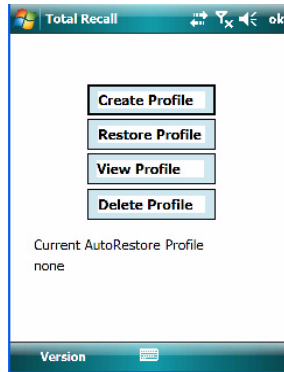


*Note: In Windows Mobile 6.1, the registry and installed programs are stored in the Flash file system and are not lost on reset. However, in special cases where Psion Teklogix personnel find it necessary to perform a clean start, this will reset not only the registry settings to factory defaults, but will also erase any files or applications stored or installed on the built-in Flash file system, including any Total Recall profiles. This is why any data that needs to be protected must be stored on a SD/MMC card or externally to the device on a USB memory stick or on a PC.*

- Tap on **Start>Settings>System** tab. Tap on the **Total Recall** icon.



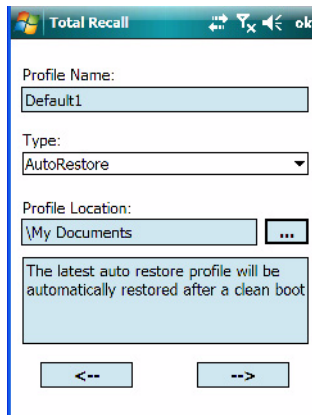
## 6.32.1 Creating A Backup Profile



In the start up screen, you can choose from four options: *Create Profile*, *Restore Profile*, *View Profile* and *Delete Profile*.

- Tap on the **Create Profile** button to begin the process.

### Profile Information

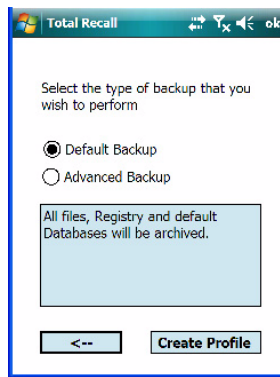


This dialog box displays the default profile name, the type of restore – *AutoRestore* or *ManualRestore*, and the possible storage destination for the profile file.

- To change the *Profile Name* (optional), tap on the [...] button to the right of the *Profile Location* field.
- In the *Name* field, type a new name. (You may need to move the onscreen keyboard down to make the *Name* field visible.)
- Tap on **OK** to save the new profile name.

- Next, choose the profile **Type** you want to create:
  - *AutoRestore* – creates a profile that automatically restores itself following a cold reset or a clean reset.
  - *ManualRestore* – creates a backup that is manually restored by the operator.
- Finally, if you want to choose another location for your backup file (optional), tap on the [...] button to the right of the *Profile Location* field.
- Navigate to the new location, and tap on **OK** to save it.
- Tap on the [->] (Next) button.

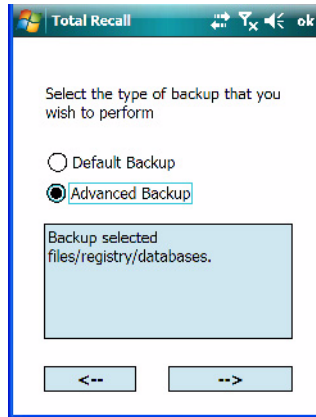
### Defining the Type of Backup



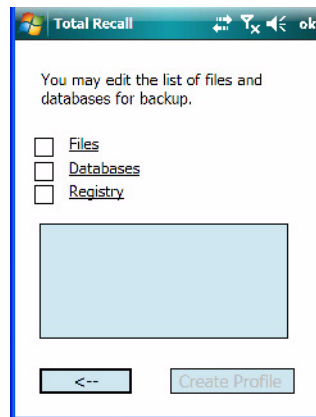
#### **Default Backup**

*Default Backup* is selected so that all installed or copied files, database entries, and the Registry are saved. Choose *Advanced Backup* only if you want to tailor your backup.

## Advanced Backup



Choosing *Advanced Backup* allows you to define what you would like to include in your backup profile.

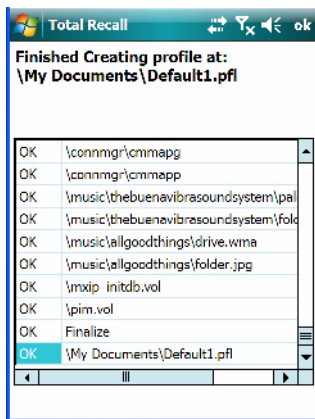


- Tap in the checkbox next to the option(s) listed here to tailor what you want included in the backup.

Once you've defined the type of profile you want to create:

- Tap on the **Create Profile** button.

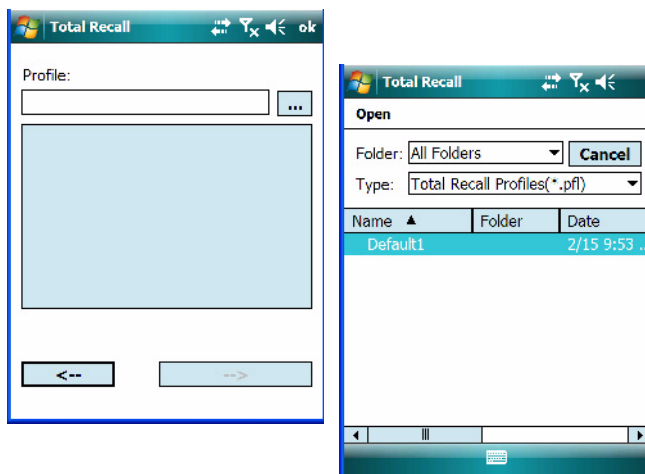
The options you chose to back up appear in on the screen as the backup progresses. When the backup is complete, the last item in the list indicates the location and name of the backup profile.



### 6.32.2 Restoring A Profile

To manually restore a profile:

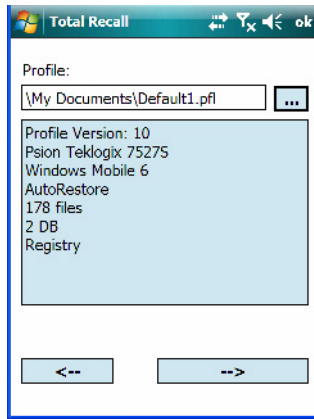
- In the *Total Recall* home screen, tap on **Restore Profile**.
- Tap on the [...] button to the right of the *Profile* field, and locate your backup file.



- Tap on the backup profile you want to restore.



- In the *Profile* restore screen, click on the [->] (Next) button.

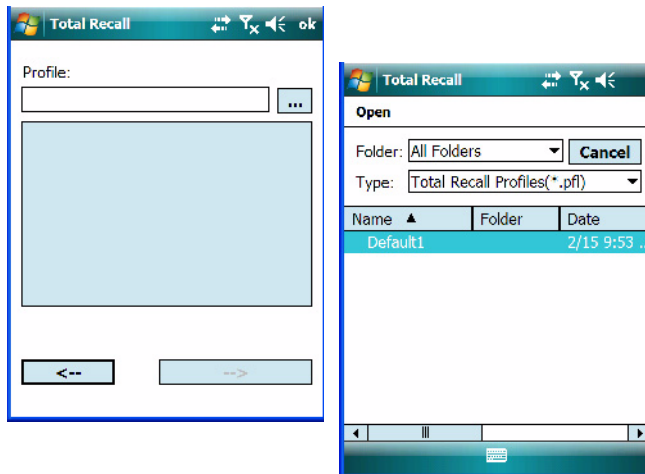


- In the final screen, click on **Restore Profile** to restore the files to NEO.

### 6.32.3 Viewing a Profile

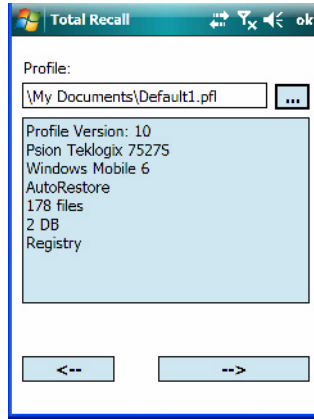
To view a profile:

- In the *Total Recall* home screen, tap on **View Profile**.
- Tap on the [...] button to the right of the *Profile* field, and locate your backup file.



- Tap on the backup profile you want to view.

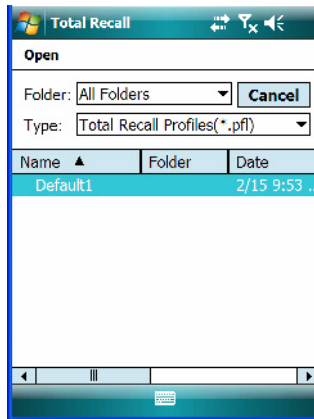
- In the *Profile* view screen, click on the [->] (Next) button.



In the final screen, click on **View Details** to display the backup file on your hand-held.

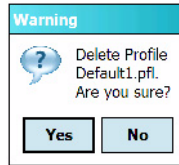
### 6.32.4 Deleting a Profile

- In the *Total Recall* home screen, tap on **Delete Profile**.



- Locate your backup file, and tap on it.

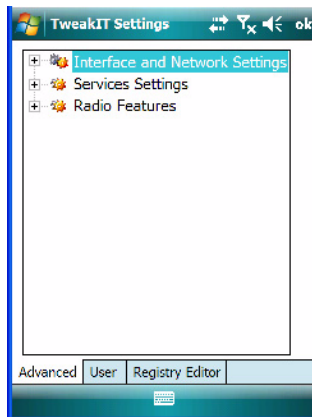
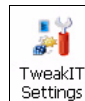
A warning pop-up screen appears asking if you're certain that you want to delete this file.



- Tap on **Yes** to delete the file.

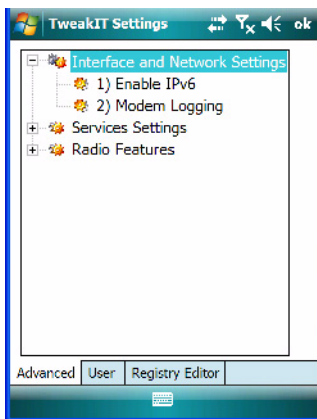
## 6.33 TweakIT

- Tap on **Start>Settings>System** tab.
- Tap on the **TweakIT Settings** icon.

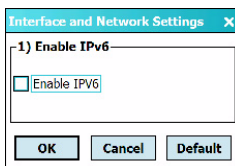


This utility allows you to ‘tweak’ or adjust *Advanced* system settings (interface, network and servers), *User* settings (font size and docking port message), and provides a *Registry Editor*.

### 6.33.1 Advanced Interface And Network Settings

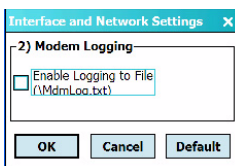


#### Enable IPv6



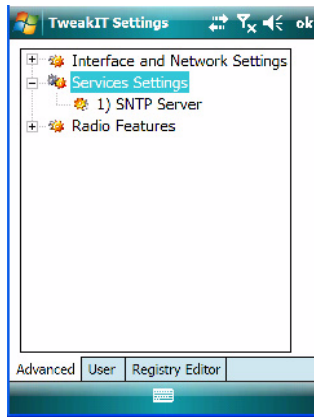
This option allows you to enable Internet Protocol, version 6, that has been published to use 128-bit IP address (replacing version 4).

#### Modem Logging

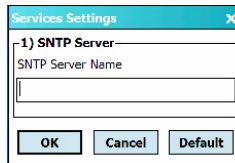


When this option is enabled, NEO logs AT commands (e.g., dial-out information, password string, etc.) that the administrator can monitor for debugging purposes. Modem commands are stored in: \MdmLog.txt.

## 6.33.2 Advanced Services Settings

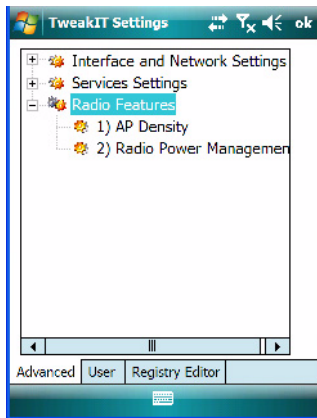


### SNTP (Simple Network Time Protocol) Server

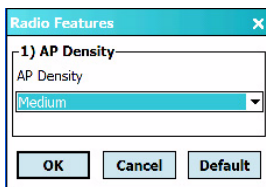


The *SNTP Server Name* typed in this dialog box is used to synchronize NEO time with that of the time server. A warm reset must be performed once the server name has been entered.

### 6.33.3 Radio Features



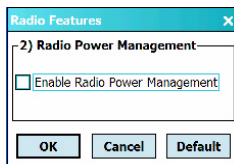
#### AP Density



This option allows you to determine the signal strength at which NEO's radio will begin searching for a new Access Point (AP): *High*, *Medium* or *Low*. If this option is set to *High*, the radio will begin searching for a new Access Point while still at a fairly strong signal strength. Setting *AP Density* to *Low* will cause the radio to wait until the signal strength is significantly low before attempting to connect to another Access Point.

Depending on your site configuration – for example, the shelving, the Access Point coverage, etc. – a higher setting may improve through-put, increase and maintain signal strength, and reduce missed transmissions.

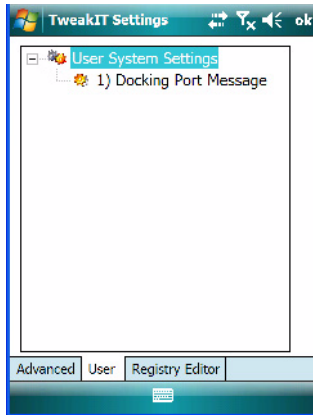
#### Radio Power Management



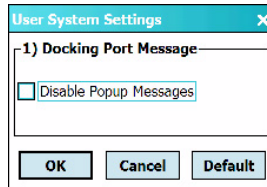
When this option is enabled, access points that support it will use *Radio Power Management* guidelines to control the hand-held radio. Access points determine how often NEO radio

enters sleep mode when no activity is detected to reduce power consumption. Another benefit is that when *Radio Power Management* is enabled, even when no activity is detected, the access point does not disassociate the hand-held.

### 6.33.4 User System Setting

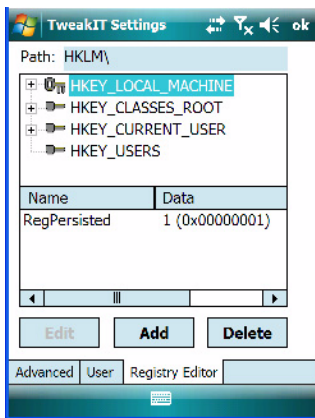


#### Docking Port Message



Checking this box blocks the message that normally pops up on the display when the hand-held is docked.

### 6.33.5 Registry Editor



This option is reserved for senior administrators who have a strong understanding of registry keys and values. Careless registry editing can cause irreversible damage to NEO.

### 6.34 Windows Update



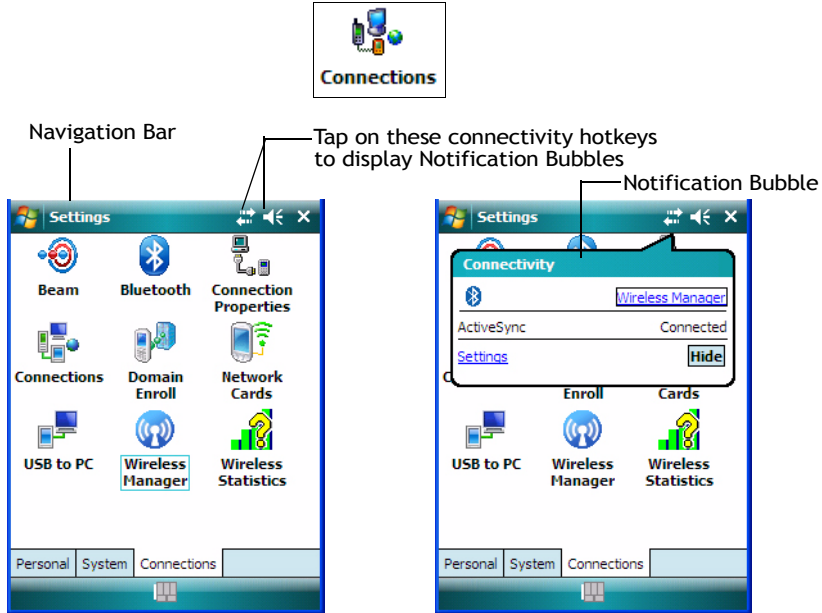
This program checks for software updates, and if found, downloads updates to NEO. You can choose to have updates checked automatically, or if you prefer, you can determine when your unit will check for updates.

### 6.35 Connections Tab

This tab is used to set up connections using *Bluetooth* and 802.11 radios.



- Tap on **Start>Settings>Connections** tab to display your connection options.

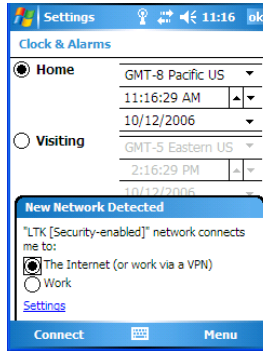


### Navigation Bar Connectivity Hotkeys

Some of the connectivity icons in the *Navigation Bar* along the top of the screen are *hotkeys* that offer shortcuts to connection setups. Tapping on a hotkey displays a bubble that provides information about your connections and provides a shortcut to the *Wireless Manager* applet where you can set up your connections.

## Automatic Network Detection

If a wireless network is available when you switch on your unit, a *notification bubble* may appear letting you know which networks have been found. You can choose a network from here.



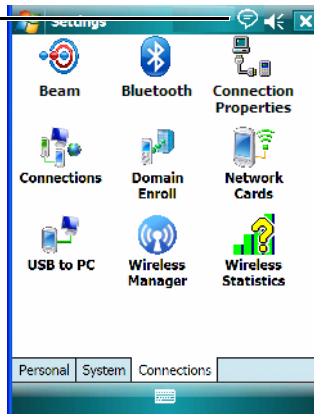
Tapping on *Connect* in the *softkey bar* at the bottom of the screen will automatically connect to a network that's already been set up. Tapping on *Settings* in the *network bubble* will launch the *Wireless Manager* applet.

If you prefer not see this *notification bubble*, you can tap on the *Menu* button in the softkey bar, and choose not to display the *notification bubble*.

## Multiple Notifications

If more than one item is detected, all the items can be accessed by tapping on the small *multiple notification* icon shaped like a word bubble in the *Navigation Bar*. Tapping on it displays a group of notification icons.

Multiple Notification Icon



Tapping on any of these icons displays an associated *notification bubble* with information about and access to the missed call(s) or voice message(s).

## 6.36 Beam



If your unit is equipped with an IrDA end-cap, tapping on *Beam* allows you to enable *Receive all incoming beams* so that your unit can accept incoming data from other IrDA devices.

## 6.37 Bluetooth Setup



*Bluetooth* is a global standard for wireless connectivity for digital devices and is intended for Personal Area Networks (PAN). The technology is based on a short-range radio link that operates in the ISM band at 2.4 GHz. When two *Bluetooth*-equipped devices come within range of each other, they can establish a connection. Because *Bluetooth* utilizes a radio-based link, it does not require a line-of-sight connection in order to communicate.



*Note:* The **Bluetooth** radio uses an internal antenna.

### Switching On the Bluetooth Radio

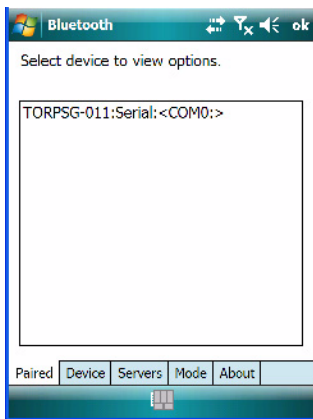
Before pairing a headset or any other *Bluetooth* device with NEO, make certain that the *Bluetooth* device power is enabled and that the radio is switched on; it is *enabled* by default. If, for some reason, it has been disabled:

- Tap on **Start>Settings>System** tab and then, tap on the **Power** icon to display the *Power* dialog box.
- Tap on the **Built-in Devices** tab, and tap in the checkbox next to **Enable Bluetooth**.
- Next, tap on **Start>Settings>Connections tab>Bluetooth** icon.
- Tap on the **Mode** tab, and check **Turn on Bluetooth**. Tap **OK**.
- Turn your *Bluetooth* device on and place it within a few feet of NEO.

- If needed, set your *Bluetooth* device to visible (discoverable) so that the hand-held can detect it and establish a connection.

### 6.37.1 Paired Tab

This tab lists all paired devices and their corresponding services. The format of the name is <Device Name>:<Service Name>. Additional information may appear in this screen such as the Port Numbers for Serial Profiles service.

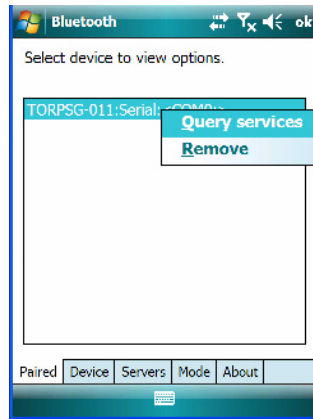


To learn how to scan for devices that will appear in this tab, review “Device Tab” on page 180.



*Note: If a service is actively paired and connected, the device and its services are displayed in bold typeface in this list.*

- Tap and hold down the stylus on an item in the *Paired* tab to display an associated pop-up menu.



This is a service-dependent menu – that is, it varies slightly depending on the service chosen in the *Servers* tab. Refer to “Servers Tab” on page 184 for more details.

### Query Services and Remove Commands



*Note: The **Query Services** and **Remove** commands are available in all service-dependent menus, regardless of the type of service chosen.*

- *Query Services* displays a *Services* dialog box where a pairing service is chosen.
- *Remove* unpairs the highlighted service and deletes the entry from the tab.

### OBEX OPP (Object Exchange-Object Push Profile) Commands

The *OPP* defines two roles – a *Push Server* and a *Push Client*. *Push Server* is the device that provides an object exchange server. *Push Client* is the device that pushes and pulls objects to and from the *Push Server*.

*OBEX OPP* contains the following unique menu option:

- *Send File* displays an *Open File* dialog box where the file to be sent can be selected. When the transmission begins, another dialog box tracks the progress of the file transmission.

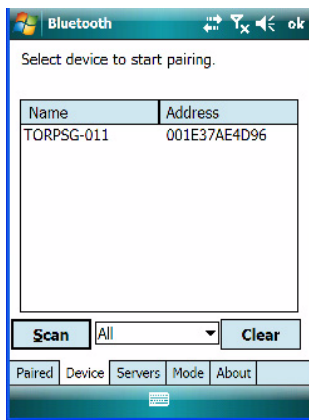
### HSP/HFP (Headset Profile/Hands-Free Profile) Service Commands

The *HSP (Headset Profile)* allows users to connect their device to *Bluetooth* enabled headsets and other audio devices.

*HSP/HFP services* provide the following unique menu options:

- *Connect Audio* establishes an audio connection to the *Bluetooth* headset.
- *Disconnect Audio* disconnects the audio connection from the *Bluetooth* headset.
- *Volume Control* displays a dialog box where the headset and microphone volume can be adjusted.

## 6.37.2 Device Tab



This tab discovers and displays *Bluetooth* devices.

### 6.37.2.1 Discovering and Removing Devices

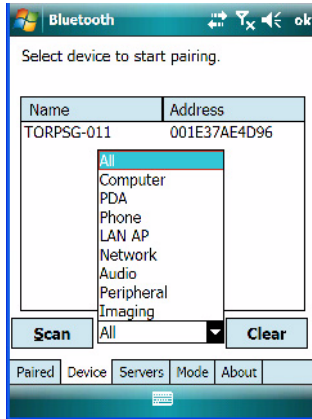
*Scan* discovers *Bluetooth* devices in range of NEO and lists them in this tab. Any existing devices previously discovered and listed will also be displayed.

*Clear* removes all *Bluetooth* devices listed except those with currently paired and connected services.



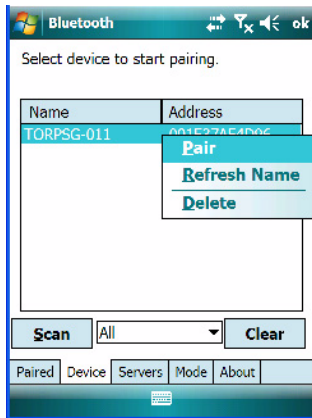
*Note:* To limit the scope of the scan to a particular type of device, refer to “*Filtering By Class of Device (COD)*” on page 181.

### 6.37.2.2 Filtering By Class of Device (COD)



This menu allows you to limit the scope of the scan to a particular type of device. If, for example, you choose *Computer* from this menu, only computers within range of NEO are listed in the *Device* tab. Choosing *All* lists all detected devices.

### 6.37.2.3 Device Pop-up Menu



The *Device* pop-up menu allows you to pair a device, update a device name or delete a device from the list.

*Pair* begins the pairing process by inquiring the services and profiles of the discovered device. An *authentication* dialog box is displayed the first time a *Bluetooth* device is paired.

*Refresh Name* repeats the device name inquiry, updating the name. This command is useful if a device is listed without a name (unknown), or if a device name has been changed remotely.

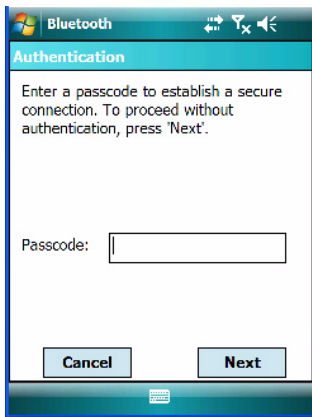
*Delete* removes this device from the list.

#### 6.37.2.4 Pairing a Device

To pair devices:

- Follow the manufacturer's instructions to place the remote device in pairing mode.
- Choose the **Devices** tab and **Scan** for devices in your area.
- When the scan is complete, tap on the **device** to which you want to pair.
- In the pop-up *Device* menu, tap on **Pair**.

An *Authentication* dialog box is displayed.



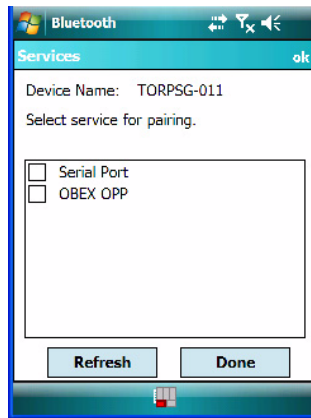
- If the remote device has authentication enabled, type the PIN in this dialog box.
- To proceed *without* authentication, tap on **Next**.



*Note:* If a remote device has authentication enabled and you've skipped the authentication process, a pop-up screen will ask if you want to allow the remote device to connect to NEO. Tap on **Yes** and type the PIN. When authentication is complete, tap on **Done**.



After entering the device *PIN*, the *Services* dialog appears with a list of services available for that device.

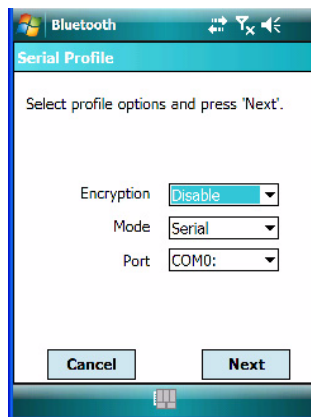


- Click in the checkbox to the left of the service to activate it.
- Click on **Done**.



*Note: If you choose a service requiring additional information, a dialog box is automatically displayed where further details can be completed.*

The sample dialog box below is an example of a service requiring additional information – in this case, the *Serial Port Service*.



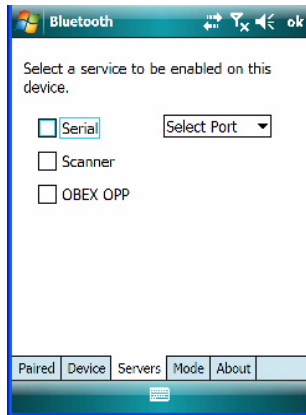
This dialog box offers a number of additional options such as enabling *Encryption* and selecting three different *modes*: *Serial*, *ActiveSync* and *Scanner*

- *Serial* is used for simple serial port communication.
- *ActiveSync* is for ActiveSync-over-Bluetooth.
- *Scanner* is used to create a seamless connection between the incoming *Bluetooth* bar code and NEO.

Once you've completed the information:

- Tap on **Next** and then in the *Services* screen, click on **Done**.

### 6.37.3 Servers Tab



When a remote *Bluetooth* device initiates a *Bluetooth* connection to NEO, the remote device is considered the '*Bluetooth* master' and the hand-held, the '*Bluetooth* slave'. In order for the remote device to connect to NEO, the hand-held must offer a service in the form of a server. The *Servers* tab allows these services to be enabled and configured. There are three server services available: *Serial*, *Scanner* and *OBEX OPP*.

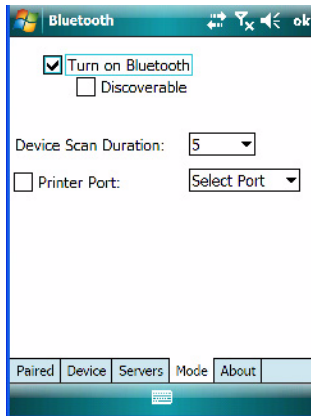
***Serial*** server enables the Serial Port Profile server; a Serial Port can be selected from the drop-down menu. Keep in mind that when a port is chosen, an application must be open (connected) to the chosen port for a remote device to be able to connect.

***Scanner*** server enables a Serial Port Profile server and then relays it to the Scanner Service (SCS). This is used for *Bluetooth* bar code scanners that operate in client mode. SCS opens the server port and handles the scanner input.

***OBEX OPP*** server enables the Object Push Profile server. A warm reset must be performed on NEO after a change is made to this option. The OPP Server allows other *Bluetooth* devices to send files to this device.

- Tap on the checkbox to activate the server – the associated port name is displayed beside the server name.

### 6.37.4 Mode Tab

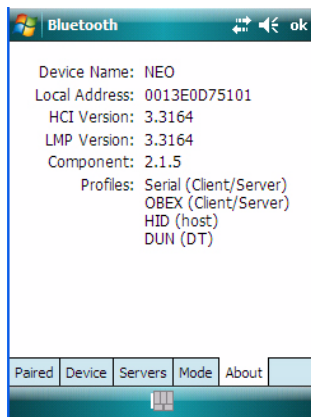


*Turn on Bluetooth* allows you to enable or disable the *Bluetooth* radio. *Discoverable* determines whether the hand-held is visible to other devices.

*Device Scan Duration* can be used to control the duration in which NEO scans for other devices. The higher the value assigned, the greater the scan duration.

*Printer Port* allows you to choose a port for the printer. Keep in mind that you need to choose a port from the *Select Port* drop-down menu before you can enable *Printer Port*.

### 6.37.5 About Tab



*Device Name* displays the broadcasted name of NEO. The name can be changed in the *About* applet – tap on *Start*>*Settings*>*System tab*>*About icon*. Tap on the *Device ID*, and change the name.

*Local Address* displays the MAC address (BD\_Addr) of the *Bluetooth* chip.

*HCI Version & LMP Version* display the version of the chip firmware.

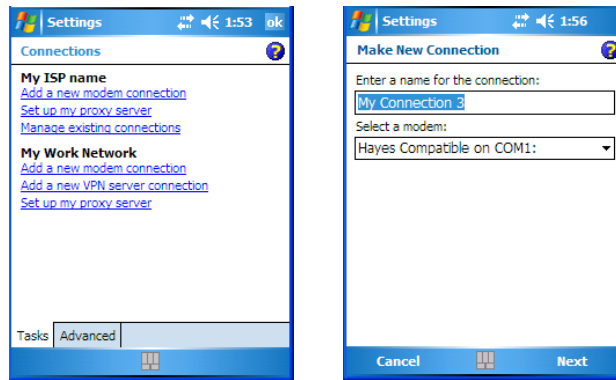
*Component* indicates the version of the Psion Teklogix *Bluetooth* Subsystem (the manager, drivers, etc).

*Profiles* lists the supported profiles on this specific NEO.

### 6.37.6 The Bluetooth GPRS Phone

Once you've completed the *Bluetooth* settings, you can go ahead and set up communication through your *Bluetooth*-equipped phone.

Before you begin, make certain that the *Bluetooth* phone is turned on, that the *Bluetooth* radios in NEO and your phone are enabled (turned on), and that the hand-held and phone are within 10 metres of each other. Both should be discoverable.



1. Tap on **Start>Settings**, and then tap on the **Connections** tab.
2. Tap on the **Connections** icon. Tap on **Add a new modem connection**.
3. Type a name for the connection.
4. Tap on the **Select a modem** drop-down menu, and choose **Bluetooth**. Tap on **Next**.
5. Make certain that the phone is discoverable. Some phones also need to be pairable in order to accept a bonding request. Refer to your phone documentation for additional information.
6. If the phone appears in the *My Connections* list, skip to step 13.
7. In the list, tap the **phone** and then tap on the **Next** button.
8. In the *PIN* screen, type a personal identification number (PIN) – you can enter up to 16 characters.
9. Enter the *same* PIN on the phone.

10. If you wish, you can edit the name of the phone in the *Name* field.
11. Tap on the **Finish** button.
12. In the *My Connections* list, tap on the phone and then on **Next**.
13. Enter the dial-up phone number for this connection, and tap on **Next**.
14. In the *User name*, *Password* and *Domain* fields, enter the logon information for this connection, and tap on **Finish**.

You're ready to use the *Bluetooth* phone connection, for example, to send and receive e-mail, browse the Internet with Internet Explorer, and so on.

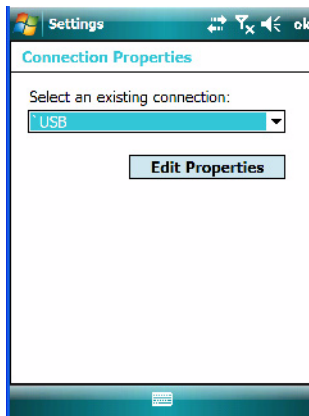
## 6.38 Connection Properties

This applet is used to set up serial modem connections.

- Tap **Start>Settings**, and then tap on the **Connections** tab.

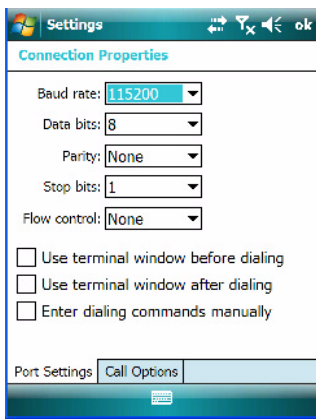


- Tap on **Start>Settings>Connections>Connection Properties** icon.



- Choose a **connection** from the drop-down menu, and tap on **Edit Properties**.

## 6.38.1 Port Settings



### Baud Rate

In the **Baud rate** drop-down menu, choose a new baud rate. Check your modem documentation for the appropriate baud rate.

### Data Bits

This parameter determines the number of bits for the data going through this port. Possible values are: 4, 5, 6, 7, 8.

### Parity

This parameter determines the type of parity checking used on the data going through the port. The options are: *none*, *odd*, *even*, *mark* and *space*.

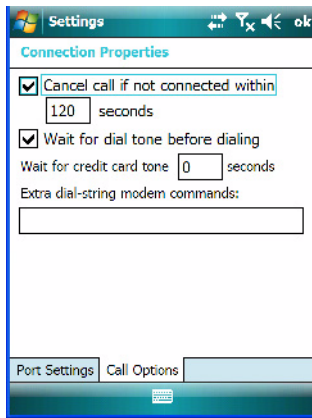
### Stop Bits

This parameter specifies the number of stop bits – 1, 1.5, 2 – used for asynchronous communication.

### Flow Control

This parameter selects the type of flow control used in your hand-held. NEO can perform *Software* or *Hardware* handshaking, or you can choose *None*.

## 6.38.2 Call Options



### Cancel Call If Not Connected Within

Tap in the checkbox to enable this option to make certain that NEO does not stay online too long while waiting to connect with a network.

Enter the number of seconds after which the call will be cancelled.

### Wait For Dial Tone Before Dialing

To speed connection when using a modem, disable this option – tap in the checkbox to the left of this option.

### Wait For Credit Card

If you are paying for calls with a credit card, enter the number of seconds you want NEO to wait for a credit card prompt.

### Extra Dial-String Modem Commands

Type your credit card number in this field.

## 6.39 Connections - Connecting to the Internet

To activate a connection, make certain that any necessary equipment (e.g., radio) is enabled in NEO.

You'll need the following information from your ISP to make an Internet connection:

- ISP server phone number,
- user name, *and*
- password.

1. Tap **Start>Settings**, and then tap on the **Connections** tab.



2. Tap on the **Connections** icon.



*Note: In the Connections window, the **Tasks** tab is used to create new connections and manage existing ones. The **Advanced** tab allows you to choose a network. If you need to change these settings, contact your ISP or network administrator before making changes.*

3. Under **My ISP**, tap on **Add a new modem connection**.
4. In the **Select a modem** drop-down menu, choose a modem connection. If you haven't already created a modem connection, refer to "Modem Connection Setup" on page 190.
5. To connect to the Internet, launch the program you want to use. For example, launch Internet Explorer on NEO to browse the Internet. Your hand-held automatically connects.



*Note: To set up a network card or wireless network connection to your ISP, add a new connection under My Work Network.*

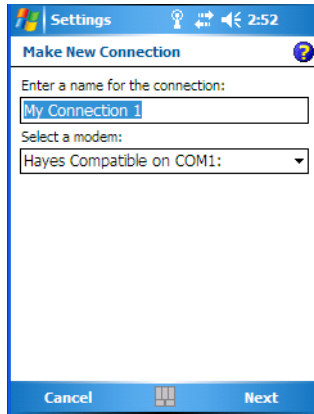
### 6.39.1 Modem Connection Setup

Before you begin, you'll need the following information from your ISP or network administrator: telephone number, password, domain name, and TCP/IP settings.

If your hand-held unit does not have access to a mobile phone network, insert a modem card in the unit.

1. Tap **Start>Settings**. Tap on the **Connections** tab followed by the **Connections** icon.
2. To create a new connection in either My ISP or My Work Network, tap on **Add a new modem connection**.
3. In the *Make New Connection* screen, type a name for the connection.



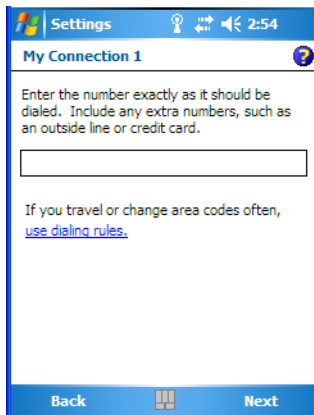


4. In the drop-down menu under *Select a modem*, tap on your modem type.

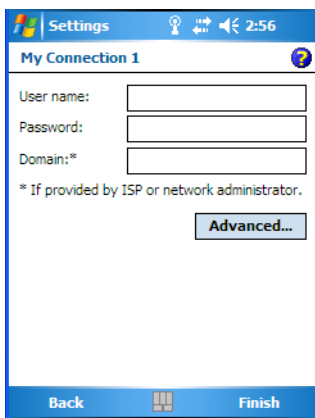


*Note: If your modem is not listed in the drop-down menu, choose Hayes Compatible on COM1.*

5. Tap on the **Next** button.



6. In the next screen, enter the phone number *exactly* as you want it dialed. If, for example, you need to dial **9** for an outside line, enter 9 at the beginning of the phone number.
7. Tap on the **Next** button.



8. Type the **User Name**, **Password** and **Domain Name** as provided by your ISP or network administrator.



*Note: Generally, you will **not** need to change any of the Advanced settings. For information about the Advanced settings, refer to “Advanced Modem Settings” on page 193.*

*Changes to Advanced settings are only required in the following instances:*

*To change the baud rate settings, dialing string commands or credit card options.*

*To change port settings.*

*To enter TCP/IP settings because the server to which you are connecting does not dynamically assign addresses.*

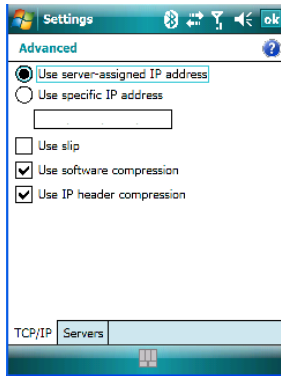
9. Tap on the **Finish** button.

If you need to edit the *Advanced* settings, refer to “Advanced Modem Settings” in the next section.

### 6.39.1.1 Advanced Modem Settings

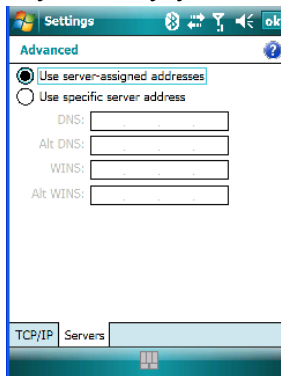
#### TCP/IP Settings Tab

If your server assigns IP addresses dynamically, you will not need to change these settings. If you need to make changes, contact your ISP or network administrator for addresses.



#### Server Settings Tab

If your server assigns IP addresses dynamically, you will not need to change these settings.



Servers requiring assigned IP addresses may also need a way to map computer names to IP addresses. NEO supports a variety of name resolution options: *DNS*, *Alt DNS*, *WINS* and *Alt WINS*.

Your ISP or network administrator can determine which name resolution you need, and can also provide the server address. In addition, you will want to ask if alternate addresses are available. An alternate address may allow you to connect when the primary server is not available.

## 6.40 Wireless Manager Icon

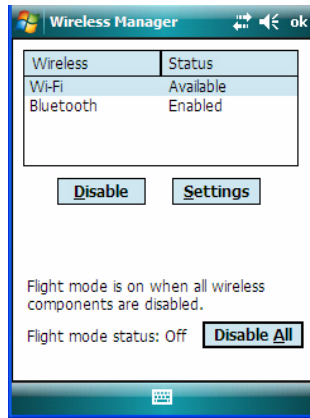
The *Wireless Manager* icon acts as a connection manager, providing access to *Wi-Fi* and *Bluetooth* connections.



**Important:** *The ‘Wireless Manager’ option provides detailed Help files to assist you in setting up your hand-held. Help is available from the Connections tab – not from within the Wireless Manager dialog box.*

*To access Wireless Manager help files, tap on Start>Settings>Connections tab. Tap on Start>Settings>Help.*

- Tap on **Start>Settings>Connections>Wireless Manager** icon.



### 6.40.1 Flight Mode - Disabling Wireless Components

To disable all wireless components when, for example, you are taking your hand-held onto a plane where wireless connections need to be shut down:

- Tap on the **Disable All** button.

To enable wireless components:

- Tap on **Enable All**.

To disable a particular radio connection rather than all connections:

- Highlight an *Available* (enabled) radio listed in this dialog box, and then tap on the **Disable** button.

## 6.40.2 Setting Up A Network Card

Network (802.11) cards are used to connect to a network so that you can browse the Internet, download e-mail and so on. You can connect to an existing network or you can set up a new connection on NEO.

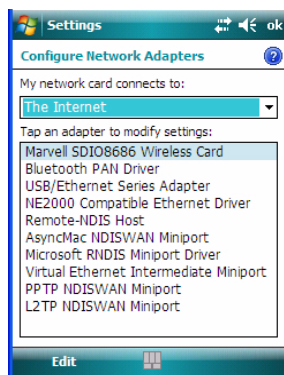


**Important:** *NEO is equipped with context sensitive Help Files. If you find that you're unsure how to proceed with a network connection at any point during setup, tap on the question mark icon in the navigation bar at the top of the screen.*

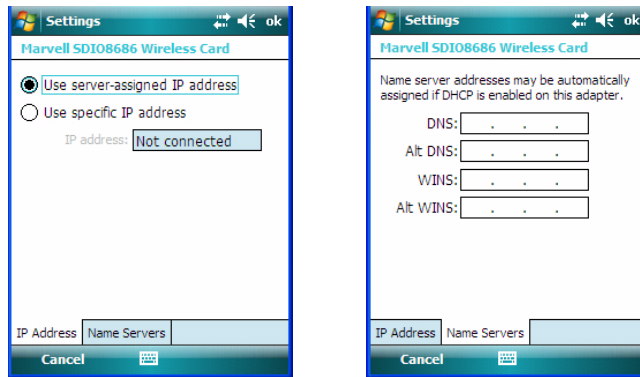
## 6.40.3 Network Adaptor Cards

When the network card is inserted in your unit for the first time, the Network Settings screen is displayed automatically so that you can configure the card. If it does not appear, or if you want to change settings:

- Tap on **Start>Settings>Connections**.
- Tap on the **Network Cards** icon.



- If you need to specify server information, double-tap on the appropriate **adaptor**, and then tap on the **IP Address** and/or **Name Servers** tab.



*Note: Because most networks use DHCP, you should not need to change these settings unless instructed to do so by your network administrator.*

- If necessary, use a network cable to connect the network card to your network. Refer to the documentation shipped with your network card for details.
- To activate the connection, launch the desired program (e.g., Internet Explorer). NEO will connect automatically.

#### 6.40.4 Changing Network Card Settings

- If you use your network card in two locations like work and home, you'll need to change the network to which the network card connects.
- Tap on **Start>Settings>Connections>Network Cards**.
- In the *Configure Network Adapters* dialog box, tap on the drop-down menu below *My network card connects to*, choose either **The Internet** or **Work**.

#### 6.40.5 VPN Connection Setup

A VPN connection provides a secure connection to servers through the Internet.

Before you begin, you need the following information from your network administrator: password, domain name, TCP/IP settings and a host name or IP address of the VPN server.

- Tap on **Start>Settings**. Tap on the **Connections** tab followed by the Connections icon.
- Under *My Work Network*, tap on **Add a new VPN server connection**.
- In the *Name* field, type a name for this connection.
- In Host name/IP, type the **VPN server name** or **IP address**.

- Tap on the *VPN type* radio button next to the type of authentication for NEO: **IPSec/L2TP** or **PPTP**. Your network administrator will let you know which option applies to your unit.
- Tap on **Next**.
- Choose the type of authentication in this screen. If you choose *a pre-shared key*, type the key provided by your network administrator.
- Tap on **Next**.
- Type your **user name**, **password** and **domain name**. If a domain name was not provided to you, try the connection without entering a domain name.



*Note: Normally, you will not need to change any advanced settings. You will need to make changes only under only the following circumstances:*

*The server to which you are connecting does not dynamically assign addresses, and TCP/IP settings need to be entered.*

*Server DNS or WINS settings need to be changed.*

If you need to edit the *Advanced* settings, refer to “Advanced Modem Settings” on page 193 for details about this tab.

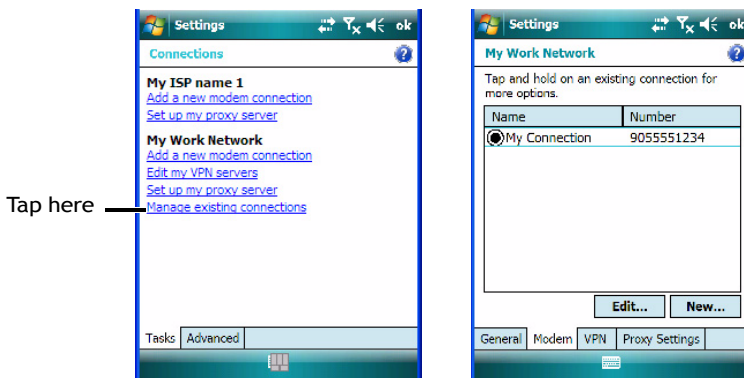
- Tap on **Finish**.
- Launch a program like Internet Explorer to activate the connection. The VPN connection will start automatically.

## 6.40.6 Managing an Existing Connection

Once you’ve defined a connection, a new option appears in the first Connections screen – *Manage existing connections*.

### 6.40.6.1 Editing a Connection

- Tap on **Settings>Connections** tab. Tap on the **Connections** icon.
- Tap on **Manage existing connections**.



- To launch a connection from this screen, press and hold the stylus on the connection you want to activate. Choose **Connect** from the pop-up menu.
- To delete a connection, press and hold the stylus on the connection you want to delete. Choose **Delete** from the pop-up menu.



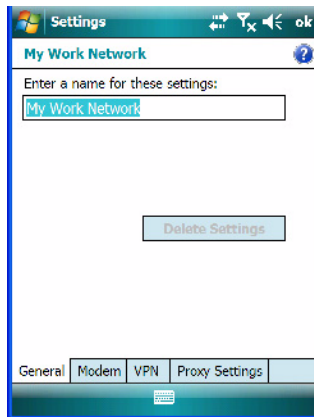
*Note: You can also create a new connection by tapping on the **New** button. To make changes to the settings for this connection, tap on **Edit**.*

#### 6.40.6.2 Changing a Connection Setting Name

Your hand-held has two sets of connection settings: *My ISP* and *My Work Network*. If you want to change one or both of these options to something more familiar to you, follow these steps.

- Tap on **Start>Settings**. Tap on the **Connections** tab followed by the **Connections** icon.
- Under *My Work Network* or *My ISP*, tap on **Manage existing connections**.
- Tap on the **General** tab.





- Type the name you prefer in the field below *Enter a name for these settings*.
- Tap on **OK**.

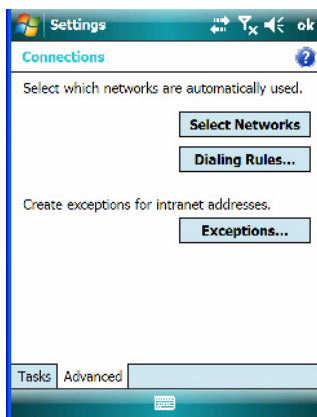
### 6.40.7 Selecting a Network



**Important:** *Normally, you will not need to change these settings. Contact your ISP or network administrator before making any changes.*

Private networks are used for work-related activities. Internet networks are used for home connection to your ISP. The *My Work Network* settings are used for private network connections (corporate networks), while *My ISP* settings are used for Internet network connections. When you use programs such as *Internet Explorer*, NEO automatically connects using private network settings under *My Work Network* or Internet settings under *My ISP*, depending on specifications. You can determine how your hand-held connects.

- Tap **Start>Settings**. Tap on the **Connections** tab followed by the **Connections** icon.
- Tap on the **Advanced** tab.



- Tap on **Select Networks**.
- In the appropriate lists, choose **My ISP** or **My Work Network**.

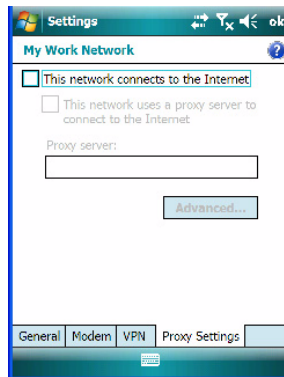
### 6.40.8 Proxy Server Setup



*Note: If you are connected to your ISP or private network during synchronization, NEO will download the appropriate settings from your PC. If these settings are not on your PC, or if they need to be changed, you'll need to set up the proxy server connection manually.*

To set up the proxy server connection manually, you'll need the following information: proxy server name, server type, port, type of Socks protocol used and the user name and password.

- Tap **Start>Settings**. Tap on the **Connections** tab followed by the **Connections** icon.
- Under *My Work Network*, tap on **Set up my proxy server**.



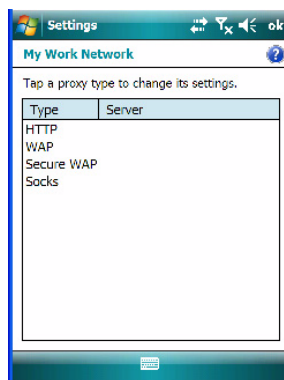
- Add a checkmark next to **This network connects to the Internet** and **This network uses a proxy server to connect to the Internet**.
- In the *Proxy server* field, type the proxy server name.
- Tap on **OK** to save your changes.



*Note: If you need to change advanced settings such as a port number or proxy server type, you'll need to tap on the **Advanced** button rather than tapping on **OK**. Advanced settings are described in “Changing Advanced Proxy Server Settings” on page 201.*

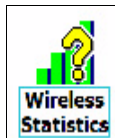
#### 6.40.8.1 Changing Advanced Proxy Server Settings

- To change advanced settings such as the port number or proxy server type, tap on the **Advanced** button.



- Tap on the proxy type you want to change. For the appropriate server type, type the proxy server name and port.
- Tap on **OK**.

## 6.41 Wireless Statistics



- Tap on **Start>Settings>Connections>Wireless Statistics** icon to display the communication statistics of your wireless connection along with the radio card name, MAC address, driver version and NDIS Compliance information.
- Tap on the **Zero** button to reset the statistics.

# PERIPHERAL DEVICES & ACCESSORIES

# 7

7.1 Carrying Accessories . . . . .	205
7.1.1 Attaching the Hand Strap . . . . .	206
7.1.2 Belt Clip Installation . . . . .	208
7.1.3 The Expansion Port. . . . .	210
7.1.4 The Pistol Grip With Stylus . . . . .	210
7.2 The Battery . . . . .	211
7.3 Adaptor/Cable Options . . . . .	212
7.3.1 RS-232 Adaptor – Model No. PX3050 . . . . .	212
7.3.2 Micro-USB Adaptor – Model No. PX3054 . . . . .	214
7.4 Charging Options. . . . .	215
7.4.1 Installation – Docking Stations. . . . .	216
7.4.2 Power Consumption Considerations . . . . .	216
7.4.3 Operator Controls . . . . .	216
7.5 Desktop Docking Station – PX3001 . . . . .	216
7.5.1 Desktop Docking Station Setup . . . . .	217
7.5.2 Charging a Battery Installed in NEO. . . . .	217
7.5.3 Charging a Spare Battery. . . . .	218
7.5.4 Battery Charge Duration . . . . .	218
7.5.5 Docking Station Charger LED Indicators . . . . .	219
7.5.6 Troubleshooting the Charging Operation of the Dock . . . . .	219
7.5.6.1 Indicator Solid Red . . . . .	219
7.5.6.2 NEO Power LED Does Not Light Up . . . . .	219
7.5.6.3 Indicator Does Not Light When Battery Installed . . . . .	220
7.5.7 Linking a NEO to a PC. . . . .	220
7.5.8 Linking NEO to an Ethernet Network . . . . .	220
7.5.8.1 Network Access . . . . .	220
7.5.9 Troubleshooting USB Operations . . . . .	221
7.6 AC Wall Adaptor – Model No. PX3012 . . . . .	221
7.7 Cigarette Lighter Adaptor — Model PX3056 . . . . .	222
7.8 Quad Docking Station – PX3004 PC & PX3004 NPC . . . . .	222

7.8.1 Quad Docking Station Setup . . . . .	223
7.8.2 Quad Docking Station Indicators . . . . .	223
7.8.3 Inserting a NEO in the Quad Docking Station . . . . .	223
7.8.4 Network Access . . . . .	223
7.8.4.1 Network Addressing . . . . .	224
7.8.5 Battery Charging – LED Behaviour. . . . .	224
7.8.6 Troubleshooting . . . . .	224
7.8.6.1 Network Link Unsuccessful . . . . .	224
7.8.6.2 NEO LED Does Not Light When Docked. . . . .	224
7.9 Scanners and Imagers . . . . .	225
7.9.1 Basic Scanner Operations . . . . .	225
7.9.2 Scanning Techniques . . . . .	225
7.9.3 Troubleshooting . . . . .	226
7.10 Bluetooth Peripherals . . . . .	226

## 7.1 Carrying Accessories

There are a variety of carrying accessories to help the operator work safely and comfortably with NEO.

Table 7.1 Carrying Accessories

Carrying Accessory	Model Number
Hand Strap	PX3024
Wrist Strap (with stitched stylus holder)	PX3028
Carrying Holster (compatible with pistol grip)	PX3020
Carrying Case (leather with protective key cover and clip)	PX3029
Shoulder Strap	PX3022
Belt Kit (includes Belt Clip, Adaptor Plate and screws)	PX3025
Pistol Grip	PX3030

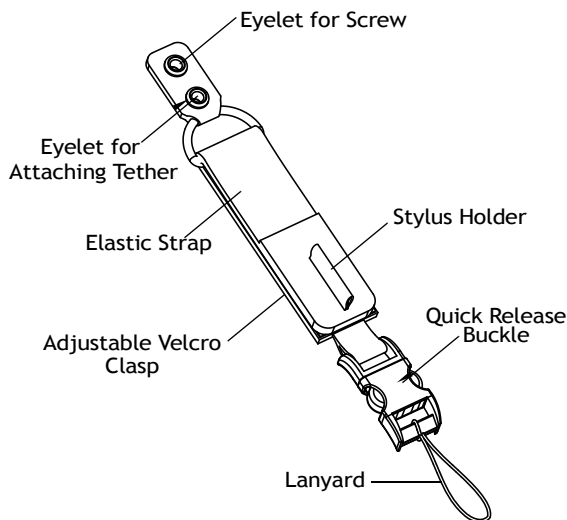


***Important: Carrying accessory screws have adhesive pre-applied to them. Do not add adhesives to secure screws on carrying accessories; these chemicals may damage the plastic casing.***

### 7.1.1 Attaching the Hand Strap

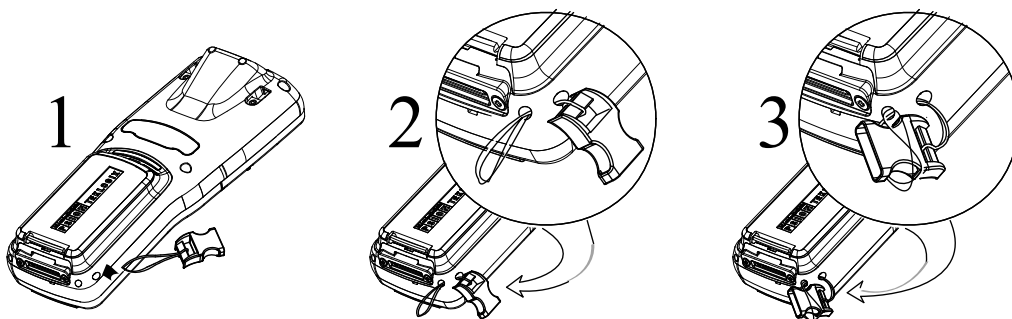
The hand strap provides a secure means for operators to carry NEO.

Figure 7.1 The Hand Strap



- Thread the lanyard attached to the quick release buckle through one of the accessory attachment points – the eyelets on either side of the base of the unit. You may find Figure 7.2 useful as a reference.

Figure 7.2 Attaching The Quick Release Buckle

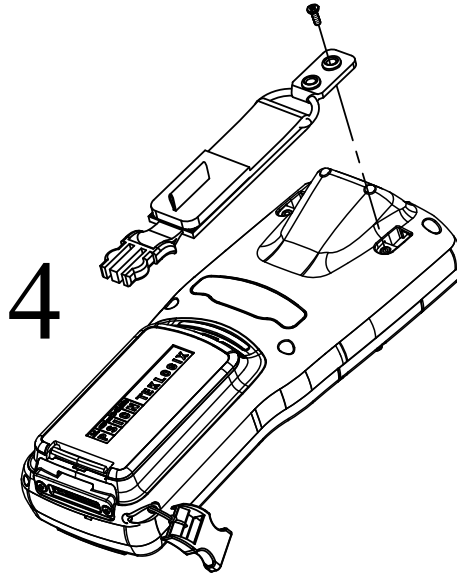


- Guide the quick release buckle through the lanyard loop to secure it to the unit.

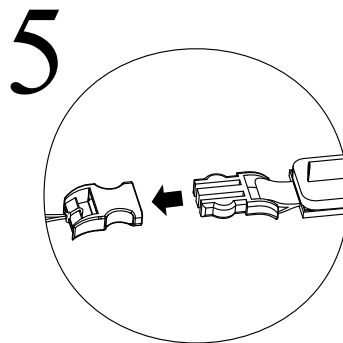


- To attach the hand strap, align the eyelet at the top of the hand strap with the threaded insert near the corner of the hand-held, and secure it in place using the M2x6 screw included with the hand strap.

Figure 7.3 Attaching the Hand Strap

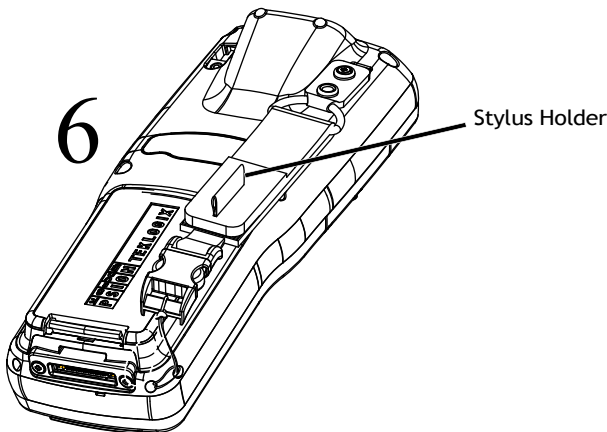


- Snap the hand-strap buckle into the lanyard quick release buckle.



**Belt Clip Installation**

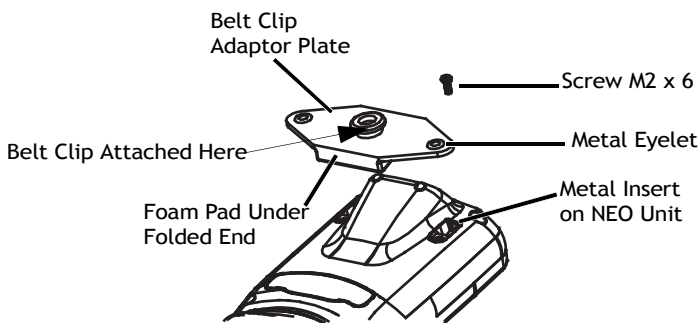
- Pull up the velcro clasp to adjust the hand strap to fit your hand as required.



*Note: In addition to the hand strap, the lanyard with quick release buckle is also used to attach the wrist strap (shipped with the hand-held) and the optional shoulder strap to NEO.*

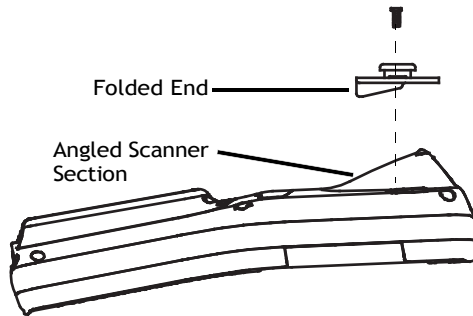
### 7.1.2 Belt Clip Installation

Figure 7.4 Belt Clip Installation Kit



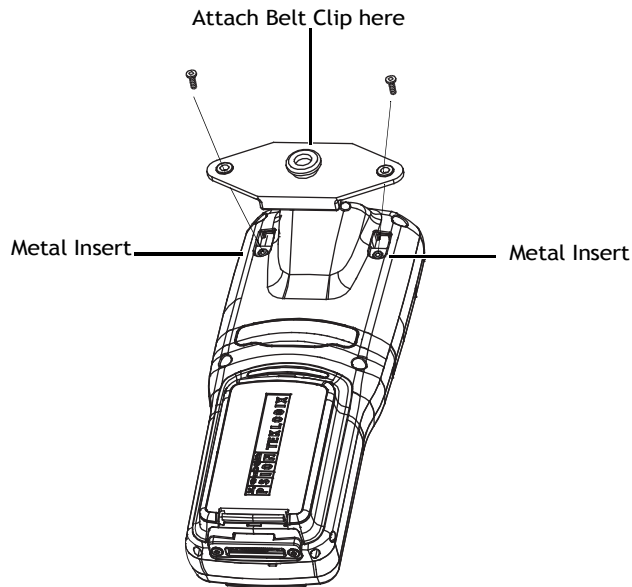
- Position the **belt clip adaptor plate** so that the thicker, folded end aligns with the angled scanner section on the back of NEO as illustrated in Figure 7.5.

Figure 7.5 Aligning the Belt Clip Adaptor Plate for Installation



- To attach the belt clip adaptor plate to NEO, thread the screws through the eyelets into the metal inserts on NEO.

Figure 7.6 Attaching The Adaptor Plate



- With the adaptor plate attached to NEO, join the plastic belt clip (included in your kit) to the adaptor plate.

### 7.1.3 The Expansion Port

NEO is equipped with an expansion port so that customised modules (e.g., RFID) can be easily added to your hand-held computer as they are required.



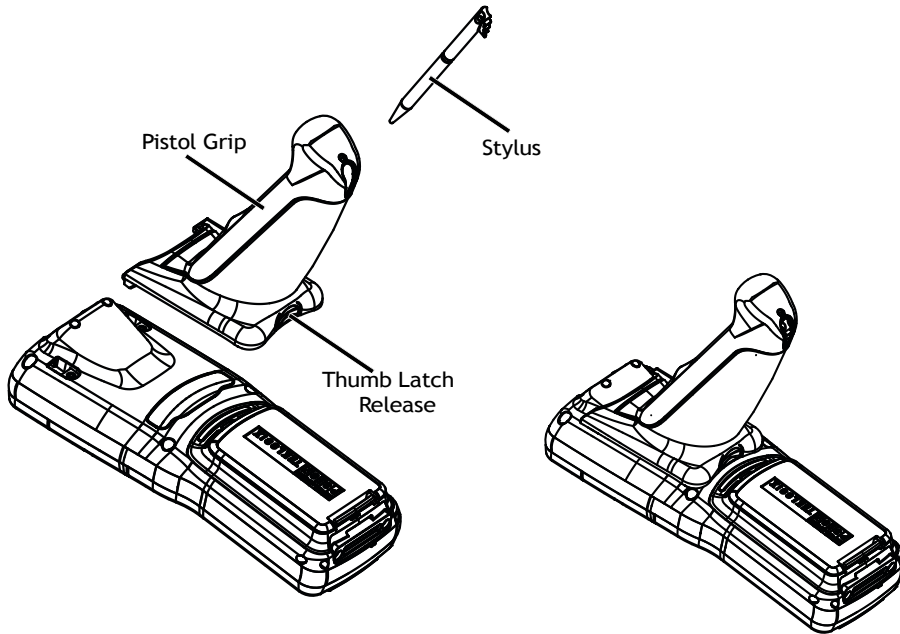
***Important: Do not remove the expansion port cover unless an expansion module is being installed.***

### 7.1.4 The Pistol Grip With Stylus

The pistol grip has been designed to easily attach to NEO without tools or screws. For added convenience, the pistol grip is equipped with a stylus inserted in the handle.

- Remove the expansion port cover on the back of NEO. Store the cover in the underside of the pistol grip – you'll see an indent in the shape of the port cover in the pistol plastic.
- Position the pistol grip over the slots moulded into the back of NEO, and snap it into place – no screws required.

Figure 7.7 Attaching the Pistol Grip



To release the pistol grip:

- Press the thumb latch release, and lift the pistol grip out.



*Note: To maintain proper operation, ensure that the expansion port and the pistol grip contacts are dry and free of debris. If necessary, use a soft cloth moistened with alcohol to clean the contacts.*

## 7.2 The Battery



***Important: Carefully review the “NEO Hand-Held Computer Regulatory & Warranty Guide”, PN 8000175, before handling a battery.***

NEO operates on a 3300 mAh lithium-ion battery pack – Model No. WA3006.



*Note: Review Chapter 8: “Specifications” for detailed information.*

## 7.3 Adaptor/Cable Options

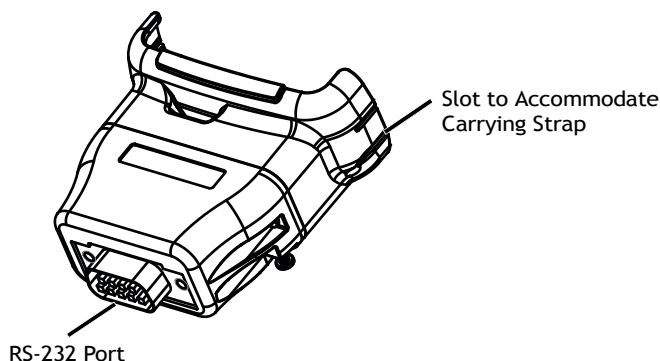
The following are adaptors that can be ordered for NEO:

Table 7.2 Adaptor/Cable Model Numbers And Descriptions

Model Number	Adaptor/Cable Description
PX3052	Cable/Dongle – Micro-USB to Ethernet
PX3053	Cable – Micro-USB to USB ‘A’ Receptacle
PX3058	Cable – Micro-USB to USB ‘A’
PX3050	Adaptor – Hand-Held to RS232 Connector
PX3054	Adaptor – Hand-held to Micro-USB with DC Jack
PX3056	Adaptor – Cigarette Lighter

### 7.3.1 RS-232 Adaptor - Model No. PX3050

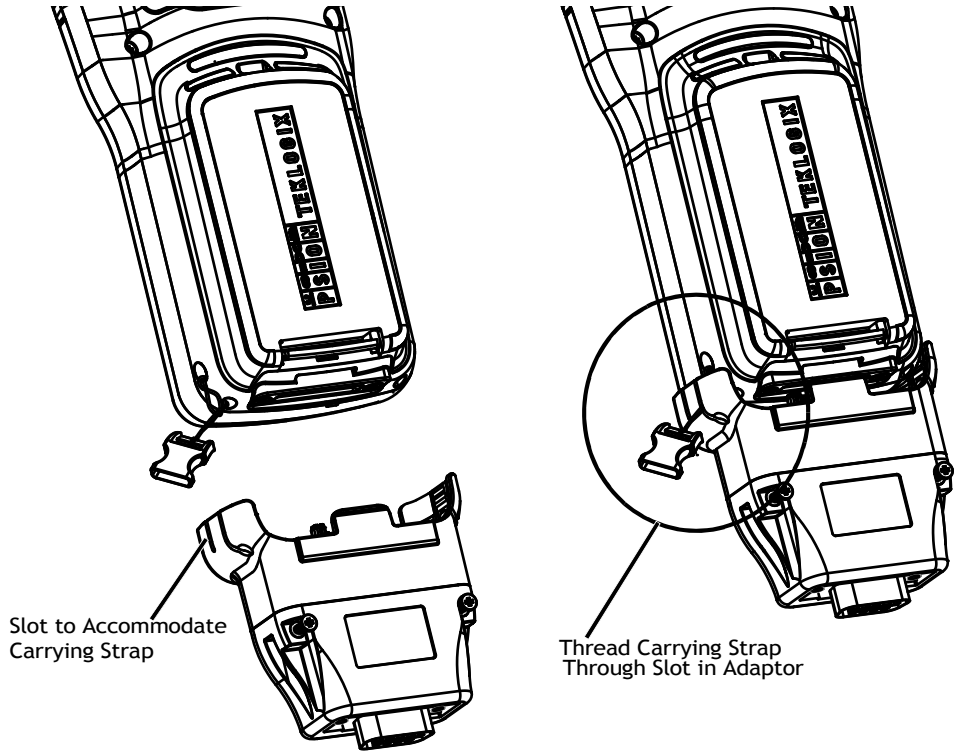
This adaptor is equipped with an RS-232 port via a standard non-powered DB9 connector. Carrying devices such as the wrist strap can still be used when the adaptor is attached to the hand-held.



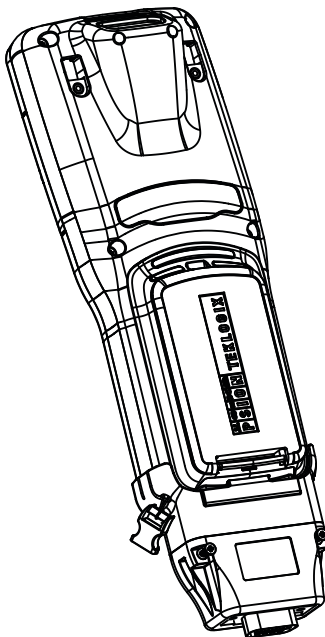
To attach the adaptor to NEO:

- Make certain that the adaptor connector and NEO docking port are free of dust or any other debris before connecting them.
- A slot on the side of the adaptor is provided to accommodate the carrying strap. Thread the carrying strap through the slot on the adaptor. (Refer to Figure 7.8 on page 213.)

Figure 7.8 Threading Wrist Strap Through Adaptor



- Align the docking port on the base of NEO with the adaptor, and gently snap the adaptor into place.

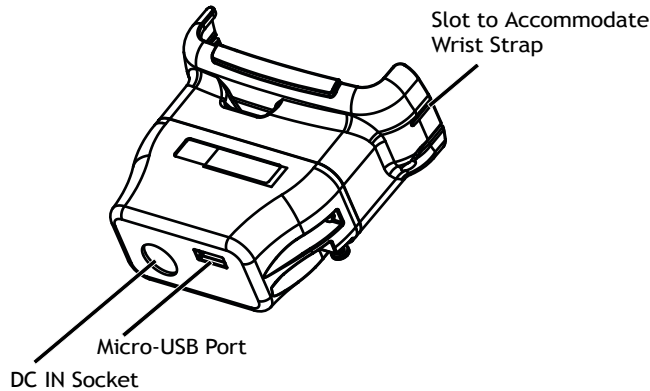


### 7.3.2 Micro-USB Adaptor - Model No. PX3054

This adaptor is equipped with a micro-USB port along with a DC IN socket. When attached to NEO, the adaptor allows you to connect an AC wall adaptor (Model No. PX3012) or an automotive power adaptor (Model No. PX3056) to the hand-held. The micro-USB port allows you to utilize the micro-USB to Ethernet cable (Model No. PX3052) and the micro-



USB to USB 'A' (Model No. PX3058 & PX3053). Carrying devices such as the wrist strap can still be used when the adaptor is attached to the hand-held.



To attach this adaptor:

- Make certain that the adaptor connector and NEO docking port are free of dust or any other debris before connecting them.
- A slot on the side of the adaptor is provided to accommodate the wrist strap. Thread the wrist strap through the slot on the adaptor. (See Figure 7.8 on page 213 for details.)
- Align the docking port on the base of NEO with the adaptor, and gently snap the adaptor into place.

## 7.4 Charging Options

Psion Teklogix offers a variety of charging options for NEO. These include:

- AC Adaptor – Model No. PX3012 with PX3054
- Cigarette Lighter Adaptor – Model No. PX3056 with PX3054
- Desktop Docking Station – Model No. PX3001
- Desktop Docking Station with Integrated V.92 Analog Modem – Model No. PX3008
- Quad Docking Station – Model No. PX3004 PC and PX3004 NPC
- Battery Chargers for charging batteries only:
  - Quad Battery Charger – Model No. WA3004
  - Single Battery Charger – Model No. WA3001

## 7.4.1 Installation - Docking Stations

When installing a docking station, consider the following guidelines.

- Keep docking stations away from excessive dirt, dust and contaminants.
- Docking stations will not charge batteries outside an ambient temperature range of 0 °C to 45 °C (32 °F to 113 °F). It is recommended that the docking station be operated at room temperature—between 18 °C and 25 °C (64 °F to 77 °F) for maximum performance.

After unpacking your unit:

- Visually inspect the docking station for possible damage.
- Install the IEC power cord and apply power.

## 7.4.2 Power Consumption Considerations

Check to ensure the mains circuit supplying docking stations is adequate for the load, especially if several docking stations are being powered from the same circuit.

- Quad docking station – can consume up to 3A @ 120VAC or 1.5A @ 240VAC.

## 7.4.3 Operator Controls

NEO docking stations have no operator controls or power switches.

## 7.5 Desktop Docking Station - PX3001

Figure 7.9 Desktop Docking Station





*Note: The desktop docking station is shipped with its own user manual. It is critical that it be reviewed for additional information and updates.*

The desktop docking station is designed to charge the battery installed in NEO along with a spare battery pack. It is equipped with a micro-USB port.

Figure 7.10 Back of Desktop Docking Station



**Important:** *This docking station can only be used to charge Psion Teklogix approved lithium-ion batteries.*

### 7.5.1 Desktop Docking Station Setup


Refer to instruction sheet *PN 1081333* for a checklist of startup steps. You can find this instruction sheet on Teknet. Go to [www.pSIONteklogix.com](http://www.pSIONteklogix.com). Tap on **Teknet** and enter your **user name** and **password**. If you're not already a member, you will be asked to register free of charge.

### 7.5.2 Charging a Battery Installed in NEO



**Important:** *Before charging a battery, it is critical that you review the “NEO Hand-Held Computer Regulatory & Warranty Guide, PN 8000175.”*

### Charging a Spare Battery

- Insert the DC power cable to the DC IN port on the desktop docking station. Plug the pronged end of the cable into an AC outlet.
- Slide NEO into the docking station, making certain that the connector on the base of the hand-held is securely seated on the docking station connector pins. An icon is displayed in the task bar at the bottom of the hand-held screen indicating that the unit is properly installed in the station: 

The LED on NEO lights up indicating that the unit has external power and battery charging will begin. It is safe to leave the unit in the desktop docking station while it is not in use – the battery will not be overcharged.



*Note: To maintain NEO real time clock for three days, the battery must be charged for a minimum of two hours (while installed in the hand-held).*

### 7.5.3 Charging a Spare Battery

To charge a spare battery:

- Insert the battery in the spare battery charge well at the back of the docking station, aligning the contacts on the battery with the contacts in the spare battery charge well.



*Note: To maintain NEO real time clock for three days, a battery must be charged for at least two hours while installed in the hand-held; however, if you are charging a **spare** battery (not installed in the hand-held), the real time clock three day backup cannot be maintained until a charged battery is installed in the hand-held computer for at least two hours.*

### 7.5.4 Battery Charge Duration

A NEO inserted in the desktop docking station requires 3 hours to charge the battery to 75% capacity.



*Note: The specified battery charge times are based on NEO default settings – i.e., display brightness 50%, keyboard backlight off, 802.11b/g radio on and 23° C temperature. Additional peripherals and other power consumption features will also alter the specified charge time.*

The desktop docking station stops applying power to the battery when it is fully charged – there is no risk of overcharge if the battery remains in the charge well.

## 7.5.5 Docking Station Charger LED Indicators

The desktop docking station is equipped with a single tri-coloured LED indicator in the lower-right corner of the front panel that indicates various charge states of the spare battery installed in the docking station.



*Note: During the first two minutes of a battery charge, the LED remains solid yellow while the hand-held computer status is assessed and the super capacitor is charged.*

Table 7.3 Desktop Docking Station Charger LED Behaviour

LED Behaviour	Charge Status
Off	No battery detected in the slot.
Solid Yellow	Battery charged to less than 75% of capacity.
Flashing Green	Battery charged to between 75% and 95% of capacity.
Solid Green	Charge complete.
Flashing Yellow	Battery is not charging. The battery temperature is outside of the charge range of 0° C to 45° C.
Solid Red	Battery is not charging. Battery fault.



*Note: Battery charging continues whether the hand-held is switched on or off.*

## 7.5.6 Troubleshooting the Charging Operation of the Dock

### 7.5.6.1 Indicator Solid Red

If the indicator is solid red:

- Remove the battery and disconnect the mains power cable.
- Wait at least 20 seconds, and then plug the cable in again.

If the charge well LED remains solid red, the battery may be defective or there is a power supply problem.

### 7.5.6.2 NEO Power LED Does Not Light Up

- Ensure NEO is fully seated in the dock.
- Verify that there is power from the mains outlet.
- Remove the power cable from the docking station, and check it for damage.

- Reconnect the power cable to the outlet.

### 7.5.6.3 Indicator Does Not Light When Battery Installed

- Reinstall the battery, and check that it is fully seated in the charge well.
- Remove the battery, and clean the contacts on the battery and the charge well.
- Inspect the charge well contacts for damage (are they bent, flattened, twisted or broken).
- Try inserting a battery that you know to be working in the charge well.
- Reconnect the power cable, and check that the charge well indicator flashes at powerup.

### 7.5.7 Linking a NEO to a PC

The desktop docking station can be connected to a PC so that you can exchange files or install applications. A USB cable is included with your docking station.



*Note: For information about data transfer with the Windows XP operating system and ActiveSync or with the Vista operating system, refer to “Data Transfer Between the PC & the Hand-Held” on page 20.*

To link NEO to a PC:

- Insert the hand-held in the desktop docking station.
- Insert the micro-USB connector into the docking station connector. Attach the other end of the cable into a USB port on the PC.

### 7.5.8 Linking NEO to an Ethernet Network

A micro-USB Ethernet adaptor cable – model number PX3052 – is used to connect NEO to an Ethernet network through a desktop docking station.

- Insert the micro-USB connector on the adaptor cable into the micro-USB port on the back of the desktop docking station.
- Connect your network Ethernet cable to the Ethernet port on the adaptor cable.

#### 7.5.8.1 Network Access

The hand-held unit automatically detects insertion into the desktop dock and loads the appropriate drivers to communicate with the micro-USB Ethernet converters.

#### Network Addressing

The host application uses standard TCP/IP protocol to name, locate and communicate with a specific NEO on the network.

If a link is established between NEO and a host, the application on the host and on the hand-held must have a recovery mechanism in the event that NEO is removed from the dock, interrupting the link.

### 7.5.9 Troubleshooting USB Operations

- Ensure that the unit is fully seated in the dock. A dock icon should be visible in the task bar.
- Ensure the USB cabling is connected properly.
- Ensure NEO and docking station contacts are not contaminated.

## 7.6 AC Wall Adaptor - Model No. PX3012

The AC wall adaptor available for your docking station allows you to operate your hand-held using AC power while charging the battery inserted in the unit.

Adaptor plugs suitable for use in the following regions are shipped with the AC wall adaptor: United Kingdom, Australia, Europe and North America.



- Choose the adaptor plug that is suitable for use in your country. Slide the adaptor plug into the Universal AC power supply, snapping it into place. These two pieces, coupled together, are referred to as an AC wall adaptor.
- Insert the DC power plug into the DC IN socket at the back of the charger.
- Plug the pronged end into an AC outlet.

## 7.7 Cigarette Lighter Adaptor – Model PX3056

The cigarette lighter adaptor allows you to power your hand-held and recharge your battery using power drawn from your vehicle's automotive power outlet when used in conjunction with the DC/USB Adaptor, Model No. PX3054.

Figure 7.11 Automotive Power Adaptor



- Attach the micro-USB adaptor, model number PX3054, to the base of NEO. Refer to “Micro-USB Adaptor – Model No. PX3054” on page 214 if you require further details. The desktop docking station is also equipped with a DC IN socket to which you can connect the automotive adaptor.
- Insert the DC power plug on the automotive adaptor into the DC IN socket on the Micro-USB adaptor or desktop docking station.
- Insert the automotive power adaptor plug into automotive power outlet in your vehicle.



*Note: Battery charging continues whether the hand-held is switched on or off.*

## 7.8 Quad Docking Station - PX3004 PC & PX3004 NPC







*Note: The quad docking station is shipped with a user manual. It is critical that this manual be reviewed for additional information and updates.*

The quad docking station permits each of the four docked NEOs to communicate with a 10/100 Base-T Ethernet network. It also provides sufficient power to operate the hand-helds and charge their batteries.



**Important:** *The Ethernet connection on the quad docking station is designed for indoor use only!*

## 7.8.1 Quad Docking Station Setup

Refer to instruction sheet *PN 1081342* for a checklist of startup steps. You can find this instruction sheet on Teknet. Go to [www.pSIONTEKLOGIX.COM](http://www.pSIONTEKLOGIX.COM). Tap on **Teknet** and enter your **user name** and **password**. If you're not already a member, you will be asked to register free of charge.

## 7.8.2 Quad Docking Station Indicators

The quad dock is equipped with a power indicator LED and RJ45 link and traffic indicator LEDs. When a valid link is established, a green LED is illuminated next to the RJ45 connector.

## 7.8.3 Inserting a NEO in the Quad Docking Station

- Slide NEO into the cradle portion of the quad dock until lightly latched.

The LED on the hand-held unit lights up to show it has external power and may start charging the battery.

Interaction with NEO while in the quad dock is a function of the user application software used to communicate with the host network.

## 7.8.4 Network Access

The quad docking station has one 10/100 Ethernet port. You can insert up to four hand-held units. The hand-helds are connected to an internal USB hub. The hand-held unit automatically detects insertion into a quad docking station and loads the appropriate drivers to communicate with the USB/Ethernet converters.

### 7.8.4.1 Network Addressing

Although the USB converters have fixed Ethernet MAC addresses, there is generally no correlation between these addresses and a specific hand-held. The host application uses standard TCP/IP protocol to name, locate and communicate with a specific NEO on the network.

If a link is established between NEO and a host, the application on the host and on the hand-held must have a recovery mechanism in the event that NEO is removed from the dock and the link is interrupted.

## 7.8.5 Battery Charging - LED Behaviour

Charge status is displayed on the hand-held LED. Refer to Table 7.3 on page 219 for detailed LED charge behaviour. When inserted in the quad dock, NEO requires 3 hours to charge the battery to 75% capacity. Charge durations are independent of the number of NEOs docked.



*Note: The specified battery charge times are based on NEO being powered off. Additional peripherals and other power consumption features will also alter the specified charge time.*

## 7.8.6 Troubleshooting

The indicators, applications and drivers required to use and monitor the docking station are installed on NEO – no indicators or applications are present on the docking station itself.

### 7.8.6.1 Network Link Unsuccessful

If a network link fails, the application must take appropriate action.

### 7.8.6.2 NEO LED Does Not Light When Docked

- Check that the quad docking station has power: Is the Power LED on the docking station illuminated?
- Try inserting NEO in another well in the quad dock.
- Check for dirt or contamination on the docking contacts at the bottom of NEO. Wipe the contacts with a damp cloth if necessary.
- Check the connector pins inside the dock cradle for dirt. Gently wipe with a soft cloth if they appear to be dirty or discoloured.
- Check that the contacts are not bent or damaged.
- Remove and reinsert NEO in the cradle.

- Make certain that the battery installed in NEO is not defective.

## 7.9 Scanners and Imagers

NEO supports the following scanner and imagers: 1D laser scanner (SE955), 1D imager (EV15) and 2D imager (HHP 5000). The scanner installed in your unit can be configured using the *Scanner Settings* dialog box (see “Teklogix Scanners Settings” on page 156 and Appendix C: “Bar Code Settings”) and the *Manage Triggers* application (see page 141).

If a 2D imager is installed in your unit, the imager can be configured using the *Teklogix Imager* applet. For details, refer to “Teklogix Imagers Settings” on page 155 and Appendix B: “Teklogix Imagers Applet”.



***Important: It is critical that you review the “NEO Hand-Held Computer Regulatory & Warranty Guide, PN 8000175, before proceeding.***

### 7.9.1 Basic Scanner Operations

- Turn the hand-held on. Wait until the unit has booted up completely.
- Aim at the bar code and press the scan key or the trigger. A scan beam and a warning indicator appear until a successful decode is achieved or six seconds have elapsed.

### 7.9.2 Scanning Techniques

- NEO’s unique ergonomic design allows you to hold the hand-held at a comfortable angle while scanning.
- Ensure that the scanner beam is not perpendicular to the bar code. Light reflected directly back into the scanner’s exit window may prevent a successful decode.
- Scan the entire bar code. If you are using a 1D laser scanner, make certain that the scan beam crosses every bar and space on the bar code, including the margins on either end of the symbol.
- When using imaging scanners, do not move the scanner while decoding the bar code. Movement blurs the image.
- Hold the scanner farther away for larger bar codes.
- Hold the scanner closer for bar codes with bars that are close together.

A bar code icon appears on the screen during a scan. While the scanner beam is active, the onscreen message states: SCANNING. If you want to turn off the onscreen message, tap on *Start>Settings>System tab>Teklogix Scanners icon*. Tap on the *Options* tab, and then tap on **Scan Indicator** to turn this option off.

When the scan is successful, the bar code data is displayed on the screen until the scan button (or pistol trigger) is released, but only if **Scan Result** is turned on in the *Options* tab discussed in the previous paragraph.

### 7.9.3 Troubleshooting

If the scanner is not working, investigate the following:

- Check that the bar code symbology being scanned is enabled for the hand-held you are using. Check any other parameters that affect the scanning procedure or the bar code.
- Check the bar code to make sure it is not damaged. Try scanning a different bar code to verify that the problem is not with the bar code.
- Check that the bar code is within the specified decode zone. Refer to “Scanner/Imager Specifications” on page 233 for details.
- Does the hand-held display the warning without scanning? This suggests a hardware problem in the hand-held.
- Is the laser beam scanning across the bar code?
- Once the scan beam has stopped, check the scanner window for dirt, fogging or damage.

### 7.10 Bluetooth Peripherals

NEOs equipped with *Bluetooth* radios make it possible to communicate with a variety of *Bluetooth* peripherals, including GSM/GPRS handsets, scanners, printers, and so on.

The range of the *Bluetooth* radio is limited to approximately 10 meters.

Psion Teklogix provides built-in support for the *Bluetooth* peripherals listed below.

- GSM/GPRS universal handset.
- *Bluetooth* printer.
- *Bluetooth* headset.

Keep in mind that *Bluetooth* and IEEE 802.11b/g radios both operate in the 2.4GHz band. Although NEO includes features to minimize interference, performance of the system will not be optimal if you use both radios simultaneously. Typically, when both radios operate in the hand-held at the same time, they cannot transmit simultaneously—this has a negative impact on overall system throughput. To minimize the impact on the backbone 802.11g network, Psion Teklogix recommends using *Bluetooth* peripherals that have low transaction rates (such as printers and scanners).

Refer to “Bluetooth Setup” on page 177 for information about setting up your *Bluetooth* devices for communication. In addition, review the manual shipped with your *Bluetooth* device to determine the method used to pair with NEO host.

# SPECIFICATIONS

# 8

8.1 NEO Hand-Held Specifications . . . . .	229
8.1.1 Hardware . . . . .	229
8.1.2 Software . . . . .	230
8.1.3 Wireless Communication. . . . .	231
8.1.4 Bar Code Applications . . . . .	231
8.2 NEO Radio Specifications . . . . .	232
8.2.1 802.11b/g Radio . . . . .	232
8.2.2 Bluetooth Radio . . . . .	232
8.3 Scanner/Imager Specifications . . . . .	233
8.3.1 SE 955HP Specifications. . . . .	233
8.3.1.1 SE 955HP Decode Zone . . . . .	234
8.3.2 EV15 Imager Specifications . . . . .	234
8.3.2.1 EV15 Imager Decode Zone . . . . .	235
8.3.3 HHP 5000 Imager Performance . . . . .	235
8.3.3.1 HHP 5000 Decode Zone . . . . .	236



## 8.1 NEO Hand-Held Specifications



*Note: Performance specifications are nominal & subject to change without notice.*

### 8.1.1 Hardware

#### Physical Dimensions

- 168 mm x 64 mm x 34 mm (6.6 in. x 2.5 in. x 1.3 in.)

#### Weight (with battery pack)

- 275 g (0.6 lbs.)

#### User Interface

##### **Colour Touchscreen Display:**

- 6.86 cm (2.7 in.) diagonal in QVGA portrait mode
- Sunlight readable transmissive with touchscreen
- Colour 240 x 320 graphic TFT
- Passive stylus or finger operation
- LED backlit keyboard

##### **Keyboard:**

- 48-key Alpha Numeric
- 26-key Numeric
- Ergonomically enhanced for ambidextrous, one-hand operation

##### **Indicators & Controls:**

- Tri-coloured LED indicates battery charge and scan status

##### **Audio:**

- Built-in microphone and receiver on all Connected hand-helds
- 85db internal beeper
- *Bluetooth* (on equipped models)

#### Internal Expansion Slot

- One microSD memory card slot – user accessible.

#### Expansion Port

- Battery Power

- USB signalling

### **Docking Port**

- RS-232
- USB
- DC Input

### **Environmental Specifications**

- Drop Test: 1.2 m (4 ft.) - 26 drops to polished concrete
- Rain/Dust: IP54, IEC 529
- Operating Temperature: -10 °C to +50 °C (14 °F to 122 °F)
- Storage Temperature: -20 °C to +60 °C (-4 °F to 140 °F)
- Relative Humidity: 5% to 95% RH non-condensing
- Storage Temperature: -20 °C to +60 °C (13 °F to 140 °F)
- Shock and Vibration: Random vibration 1 m2/s3 @ 5 to 200 Hz, 0.5 m2/s3 @ 200-500 with duration of 100 min/axis, 3 axes and shock of 150 m/s2 @ 11ms and 300 m/s2 @ 6ms.
- ESD: ± 8kVdc air discharge, ± 4kVdc contacts

## **8.1.2 Software**

### **Platform**

- PXA270 Processor @ 624 Mhz
- Memory:
  - On-board RAM: 128 MB SDRAM
  - On-board ROM: 128 MB Flash

### **Operating System**

- Microsoft Windows Mobile 6.1 Classic

### **Programming Environment**

- HTML, XML
- Mobile Devices SDK:
  - CE .NET SDK
  - Java Visual C++



- Standard protocols APIs – Windows<sup>®</sup> sockets (WinCE)

### Application Software

- Internet Explorer<sup>®</sup> 6
- Office Mobile
- ActiveSync
- Open TekTerm
- ANSI
- TESS terminal emulations
- IBM 3270, IBM 5250, HP 2392
- MCC
- Naurtech
- Stay-Linked
- PTX Connect
- MCL

### 8.1.3 Wireless Communication

- On-board IEEE 802.11b/g (CCX Certified)
- On-board *Bluetooth* radio

### 8.1.4 Bar Code Applications



*Note: All are user-upgradeable.*

- Optional 1D EV15 imager module.
- Optional 1D SE955 laser scanner module
- Optional 2D HHP 5000 imager module

## 8.2 NEO Radio Specifications

### 8.2.1 802.11b/g Radio

#### Direct Sequence Spread Spectrum (DSSS) and Orthogonal Frequency Division Multiplexing (OFDM)

- Form factor: Embedded surface mount module, 8.2 x 8.4 mm
- Antenna port: U.FL jack
- Antenna Type: PCB slot antenna
- Antenna Gain: 2dBi peak
- Transmit Power: 802.11b/g: 50 mW typical (+17 dBm)
- Frequency Range: 2.400 - 2.4835 GHz
- Channels: This radio supports 802.11d. The radio will associate with any 802.11d compliant AP, regardless of what channel is in use.
- RX Sensitivity:
  - 86 dBm typ @ 11 Mbps
  - 82dBm @ 6 Mbps, -69 dBm @ 54 Mbps
- Data Rates:
  - 802.11g: 6, 9, 12, 18, 24, 36, 48, 54 Mbps
  - 802.11b: 1, 2, 5.5, 11 Mbps
- EVM
  - 802.11b: -28 dB typ (16%)
  - 802.11g: -29 dB typ (13%)
- *Bluetooth* Co-existence: 2-line hardware handshake with *Bluetooth* radio

### 8.2.2 *Bluetooth* Radio

- Form Factor: Embedded (920 kbps serial interface)
- *Bluetooth* Version: Version 2.0 compliant – features Adaptive Frequency Hopping (AFH) for better co-existence with 802.11 radio and Enhanced Data Rate (EDR) for up to 3 Mbps data rate
- Antenna Type: Ceramic chip PIFA
- Antenna Gain: 1 dBi peak
- Transmit Power: -3 dBm (0.5mW) minimum, +4 dBm (2.5 mW) max

- Frequency Range: 2.400-2.4835 GHz
- RX Sensitivity (BER<0.1%): -80 dBm max
- Data Rate:  
V1.2 = 732.2 kbps and 57.6 kbps asymmetric, 433.9 kbps symmetric  
V2.0 = 2 & 3Mbps
- 802.11 Co-existence: 2-line hardware handshake with 802.11 radio

## 8.3 Scanner/Imager Specifications

### 8.3.1 SE 955HP Specifications

Scan Angle	47° ± 3° default / 35° ± 3° reduced
Scan Rate	104 (± 12) scans/sec (bi-directional)
Scan Pattern	Linear
Wavelength	650nm
Input Voltage	3.0-5.5 VDC ± 10%
Input Current	65 mA typical
Standby Current	8 µA max
Operating Temperature	-20° to 60° C -4° to 140°F
Print Contrast	Minimum 25% absolute dark/light reflectance measured at 650 nm
Dimensions	1.21 cm H x 2.16 cm W x 1.55 cm (max) 0.47 in. H x 0.85 in. W x 0.61 in. D (max)
Symbologies	UPC/EAN, Code 128, Code 39, Code 93, I 2 of 5, Discrete 2 of 5, Codabar, MSI Plessey

### 8.3.1.1 SE 955HP Decode Zone

Decode Zone Typical	
4 mil	1.0 in. – 5.5 in. / 2.54 cm – 13.97 cm
5 mil	1.25 in. – 8 in. / 3.18 cm – 20.32 cm
7.5 mil	1.5 in. – 13.25 in. / 3.81 cm – 33.66 cm
10 mil	1.5 in. – 17.5 in. / 3.81 cm – 44.45 cm
UPC 100%	1.5 in. – 23.5 in. / 3.81 cm – 59.69 cm
15 mil	1.5 in. – 29.5 in. / 3.81 cm – 74.93 cm
20 mil	1.75 in. – 35.5 in. / 4.45 cm – 90.17 cm
40 mil	* - 40 in. / * - 101.6 cm
55 mil	* - 55 in. / * - 139.7 cm
* dependent on width of bar code	

### 8.3.2 EV15 Imager Specifications

Parameter	Specification
Light Source	617nm Highly Visible LED
Scan Angle	40°
Minimum Print Contrast	Minimum 25%
Min x. Dimension	0.1 mm (4 mils)
Reading Distance	Up to 90cm (35 in)
Symbologies	UPC (E&A), EAN, RSS, Code 39, Code 128, UCC/EAN 128, ISBN, ISBT, Interleaved, Matrix, Industrial and Standard 2 of 5, Codabar, Code 93/93i, Code 11, MSI, Plessey, Telepen, PDF417, Micro PDF417
Ambient Light	Works in any lighting conditions, from 0 to 100,000 lux
Shock	2000G, 0.7ms, half sinus, 3 axes
Vibration	50G r.m.s

### 8.3.2.1 EV15 Imager Decode Zone

0 Lux to 100,000 Lux		
	Minimum Range	Maximum Range
Mil Size	Inches	Inches
5	2.5	7
10	3	14
UPC	2	14.5
20	2.5	22
40	3	35.5
High quality symbols in normal room light.		

### 8.3.3 HHP 5000 Imager Performance

Specification	HHP 5000
Image Sensor	752H x 480 CMOS sensor
Motion Tolerance	4 in. (10.2 cm) per second
Rotational Sensitivity	360°
Viewing Angle	±40°
Ambient light	Total darkness to 100,000 lux (full sunlight)
Illumination LEDs	626 nm ±30 nm
Aiming	LEDs: 526 nm ±30 nm Laser: 650 nm ±10 nm
Symbologies supported	2D: PDF417, MicroPDF417, MaxiCode, Data Matrix, QR Code, Aztec, Aztec Mesa, Code 49, UCC Composite Linear: Code 39, Code 128, Codabar, UPC, EAN, Interleaved 2 of 5, RSS, Code 93, Codablock Postal: Postnet (US), Planet Code, BPO 4 State, Canadian Post, Japanese Post, KIX (Netherlands) Post

Size	1.78 cm Depth x 2.79 cm Width (without mounting tabs) x 1.21 cm Height 0.7 in. Depth x 1.1 in. Width (without mounting tabs) x 0.475 in. Height
Weight	5.9 grams (.21 ounces)
Operational Input Voltage	Imager: 3.3 VDC $\pm$ 5% (23°C) Illumination + Aimer 5300: 3.0 VDC to 5.5 VDC (23°C)
Operating Temperature	-30° to +50°C (-34° to 122°F)
Storage Temperature	-40° to +70°C (-40° to 158°F)
Humidity	up to 95% RH, non-condensing at 122° F (50°C)
Shock	18 shocks of 3,500 G for 0.5 msec at 23°C (73° F)

### 8.3.3.1 HHP 5000 Decode Zone

#### Performance Focal Point

<b>SR</b>	7 inches (17.8 cm) from lens plate
-----------	------------------------------------

SR Working Range	8.3 mil Linear (.02 cm)	10 mil PDF417 (.025 cm)	13 mil UPC (.033 cm)	15 mil Data Matrix (.038 cm)	15 mil QR (.038 cm)	35 mil Maxi-code (.089 cm)
Near	3.5 in. (8.9 cm)	3.1 in. (7.9 cm)	2.1 in. (5.3cm)	2.3 in. (5.8 cm)	2.1 in. (7.9 cm)	2.0 in. (5.1 cm)
Far	7.6 in. (19.3cm)	9 in. (22.9 cm)	13.2 in. (33.5 cm)	10.2 in. (25.9 cm)	8.8 in. (22.4 cm)	13.0 in. (33 cm)

# APPENDIX A

## PINOUTS

### A.1 Docking Connector Pinout

PIN #	Signal Name	Function
1	DGND	Ground
2, 3, 4	VDD_EXT_POWER	Power Input (6 VDC, 2.8 A)
5	BATT_OUT	Not Connected
6	AUDIO_N	Not Connected
7	AUDIO_P	Not Connected
8	VBUS_5V	USB Vbus (5 V @ 500 mA)
9	DOCK_ID	Dock Identifier
10	USB_DOCK_D-	USB Data Negative
11	USB_DOCK_D+	USB Data Positive
12	USB_DOCK_ID	USB Identifier
13	DGND	Ground
14	TXD	RS-232 Transmit Console Data
15	RXD	RS-232 Receive Console Data
16	DGND	Ground

## A.2 Battery Connector

PIN #	Signal Name	DESCRIPTION
1	B-	Battery Negative
2	DQ	Bi-directional data (DS2762)
3	TH (GND)	Ground
4	B+	Battery Positive
5	PS	Power Switch Sensor
-	POLARITY TAB	
6	B-	Battery Negative

## A.3 Expansion Port Pinout

PIN #	Signal Name	Function
1, 2, 5, 13, 14, 15, 16	DGND	Power Ground
3	USB-	USB Device port negative data
4	USB+	USB Device port positive data
6	EXP_~TRIG	Pistol Grip Trigger signal
7	EXP_~DETECT	Detection of installed device
8, 9, 10, 11, 12	SW_VSYS_PWR	Power Output (2.7-4.2VDC, 1A peak, 500mAh nominal) switched



# APPENDIX B

## TEKLOGIX IMAGERS APPLLET

The *Teklogix Imagers* applet is used to create, modify, delete and activate imager settings. The principal uses of the applet are to decode bar codes and to capture images. A *Demonstration Application* is provided to demonstrate how the imager works. Refer to “Imager Demo” on page 89 for details.

### B.1 Required Applets

In order to configure imaging, the *Manage Triggers* must be present in the *Settings>System* tab along with the *Teklogix Imagers* applet.

### B.2 Presets

There are two methods that can be used to configure an imager using the *Teklogix Imagers* applet:

- Use a predefined preset.
- Create a custom preset based on a predefined preset.



***Important: It is strongly recommended that a predefined preset is used whenever possible. Each predefined preset contains a coherent group of settings that are known to work together in the intended environment. In almost all situations, at least one of the predefined presets results in a satisfactory outcome.***

A *preset* is a group of exposure and image correction settings. Each preset configures the imager for a specific purpose such as bar code decoding or image capture.

Presets also allow easier and faster configuration of the imager after power-on or resume from suspend.

The predefined presets are generic and satisfy most user requirements. A custom preset can be created for a specific user application, such as: include only specified bar codes, read only a specified number of bar codes or for reading unusual media.

Every preset belongs to a preset type. The following preset types are available:

## Predefined Presets

- Imaging for photo capture.
- Imaging for bar code decoding.
- Symbology selection.

At any time, only one preset of each type can be designated as the user-selected *active* preset.

### B.2.1 Predefined Presets

Predefined presets are built into the imaging software and cannot be changed. The predefined presets allow you to use the imager to perform specified tasks without having to understand and set numerous variables. In almost all cases, these predefined presets are sufficient.

### B.2.2 Bar Code Predefined Presets

These presets encompass the majority of the most popular bar codes and their subtypes. The *bar code decoding symbology* predefined presets define which bar codes can be decoded. The *bar code decoding camera* predefined presets determine how the bar code images are captured.

#### B.2.2.1 Bar Code Decoding Symbology Predefined Presets

The following presets select groups of similar bar codes for decoding.



*Note: It is recommended that the default preset be used whenever possible.*

#### Factory Default

This preset enables the decoding of frequently used bar codes.

#### My Default

This preset uses the *Symbology Settings* menu to define the preset. For details about the *Symbology Settings* menu, refer to “Bar Coding Tab – Configuring Symbologies” on page B-16.

#### All

This preset enables the decoding of all bar codes that the imager can decode.

#### Linear

This preset enables the decoding of all the 1D symbologies that the imager can decode.

### **Linear and PDF417**

This preset enables the decoding of all the 1D and PDF symbologies that the imager can decode.

### **Matrix**

This preset enables the decoding of all 2D symbologies that the imager can decode.

### **Postal**

This preset enables the decoding of all the postal symbologies that the imager can decode.

## **B.2.3 Bar Code Decoding Camera Predefined Presets**

The following presets enable successful bar code image capture in almost all conditions.



*Note: It is recommended that the default preset be used whenever possible.*

### **Default**

This preset works in a wide range of conditions. It is optimized for a normal office lighting (about 300 Lux).

### **Low light**

This preset is designed for very dark conditions such as inside a warehouse where the lights are kept low, or inside an unlit truck. This preset increases either the exposure time or the gain.

### **Low power**

This preset minimizes the use of the flash so as to conserve the battery power on the hand-held.

### **Glossy surface**

This preset minimizes the use of the flash so as to reduce reflection. This preset is used to read bar codes that are behind glass, or inside the plastic window of an envelope.

## **B.2.4 Image Capture Predefined Presets**

The following presets enable successful image capture in almost all conditions.



*Note: It is recommended that the default preset be used whenever possible.*

## Default

This preset works in a wide range of conditions. It is optimized for a normal office lighting (about 300 Lux).

## Motion

This preset uses a shorter exposure time so as to freeze motion.

## Low light near

This preset is designed for dark conditions, it uses a longer exposure time and includes the flash.

## B.3 Using the Teklogix Imagers Applet

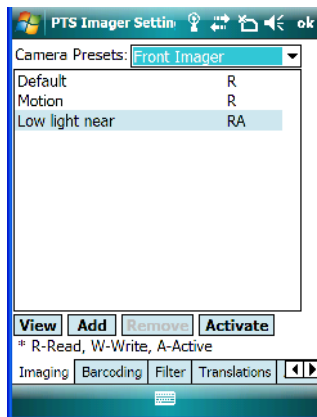
### B.3.1 Configuring the Image Capture Presets

To configure the image capture presets, open the dialog box as follows:

- Tap on **Start>Settings>System** tab.
- Tap on the **Teklogix Imagers** icon, and if it's not already selected, tap on the **Imaging** tab.

The following screen is displayed:

Figure B.1 Imaging Tab



This window lists all the presets, both predefined and custom. Presets are identified as follows:

- Predefined presets are marked as *read-only*.

- Custom presets are marked as *read and write*.
- One preset – either predefined or custom – is marked as *active*.

### B.3.2 Selecting a Camera

To select a camera:

- Tap on the **Camera Presets** drop-down menu to view the camera options.
- Choose a **camera** – specifically, *Front Imager* which is located at the top of the unit.

### B.3.3 Setting the Active Preset

An active preset has an *A* to the right; in Figure B.1 on page B-4, the active preset is *Low light near*. To set an active preset:

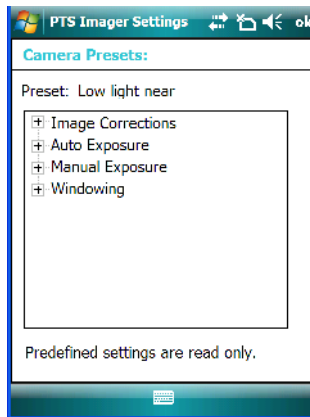
- Highlight the preset, and tap on the **Activate** button.

### B.3.4 Viewing a Preset

To view the parameter settings in a preset:

- Highlight a preset, and tap on the **View** button.

The associated preset window is displayed.



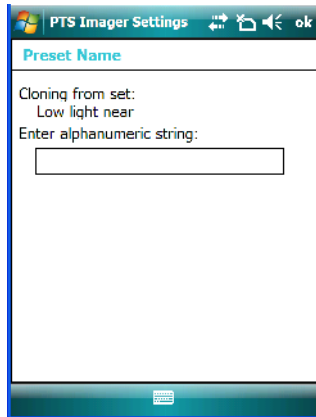
- Tap on the + sign to expand the lists so that you can view the parameter settings.

### B.3.5 Creating a Custom Preset

A new custom preset is created by modifying a preset – either a predefined preset or an existing custom preset. To create a custom preset:

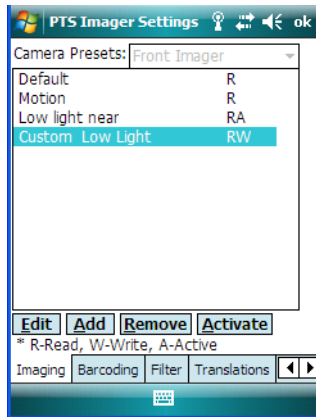
- Highlight a preset, and tap on the **Add** button.

In this example, the *Low light near* preset was chosen. A screen like the sample below is displayed.



- Type the **name** of the new preset in the dialog box.
- Tap on **OK** to save your changes.

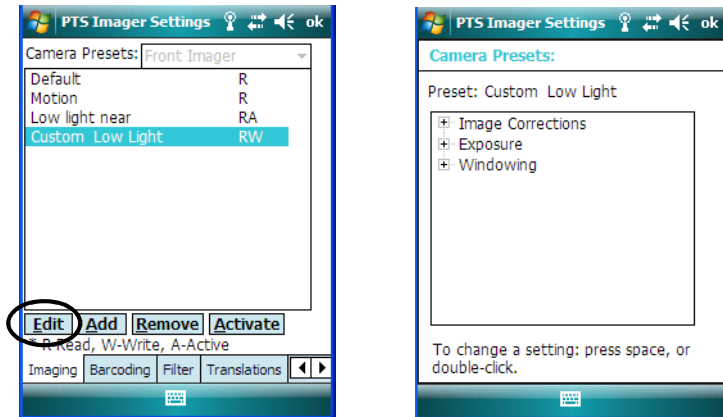
The preset list is displayed – for this example, the new preset is called *Custom Low Light*; the new custom preset appears at the end of the list. It is marked as read and write.



### B.3.6 Modifying a Custom Preset

The parameter values in a custom preset can be modified. It is recommended that very few changes be made to a custom preset. To ensure that it will work reliably, it should be as close as possible to the original predefined preset. To change a parameter value:

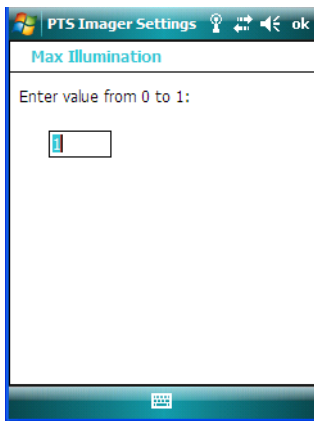
- Highlight the custom preset, and tap on the **Edit** button.



- Tap on the + symbols to expand the lists so that you can view the parameter settings.
- Scroll through the parameter list until you reach the parameter that you want to change.
- For a parameter that can take a *range* of values:
  - Highlight the parameter, and then press the **[SPACE]** key or double-click the parameter.

### Removing a Custom Preset

- An associated dialog box containing the valid range of values for the parameter and the current setting like the sample screen following is displayed.



- Type a value in the field provided.
  - For a parameter that toggles between two values such as *on* or *off* and *enabled* or *disabled*:
    - Highlight the parameter and then press the [SPACE] key, or double-click on the parameter. Either method toggles between the two available values.
  - When you've completed your edits, tap on **OK**.
- The parameter list is displayed; the new value for the changed parameter is shown.
- Tap on **OK** to exit to the preset list and save the changes.

### B.3.7 Removing a Custom Preset

- Highlight the custom preset you want to delete, and tap on the **Remove** button. A window is displayed warning you that you are about to remove a preset.
- Tap on **Yes** to remove the preset or **No** to cancel the operation.

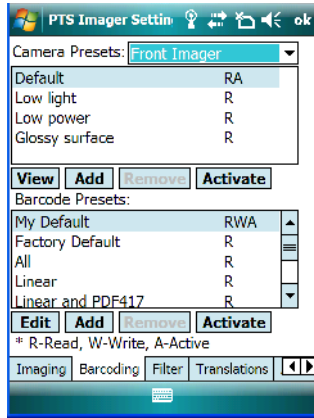
## B.4 Configuring the Bar Code Decoding Camera Presets

To configure the bar code decoding camera presets:

- Tap on **Start>Settings>System** tab.
- Tap on the **Barcoding** tab.



Figure B.2 Bar Code Presets



This window lists all the presets, both predefined and the custom. Presets are identified as follows:

- Predefined presets are marked as read-only. For a description, review “Predefined Presets” on page B-2.
- Custom presets are marked as read and write.
- One preset – either predefined or custom – is marked as active.



*Note: The top portion of the window displays the bar code decoding camera presets.*

The top portion of the window displays the bar code decoding camera presets.

### B.4.1 Selecting a Camera

To select a camera:

- Tap on the **Camera Presets** drop-down menu to view the camera options.
- Choose a **camera** – specifically, *Front Imager* which is located at the top of the unit.

### B.4.2 Setting the Active Preset

An active preset has an *A* to the right; in Figure B.2 on page page B-9, the active preset is *Defaults*. To set an active preset:

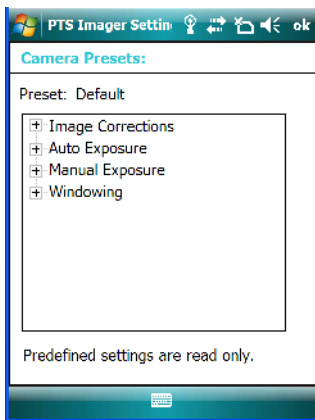
- Highlight the preset, and tap on the **Activate** button.

### B.4.3 Viewing a Preset

To view the parameter settings in a preset:

- Highlight a preset, and tap on the **View** button.

The associated preset window is displayed.



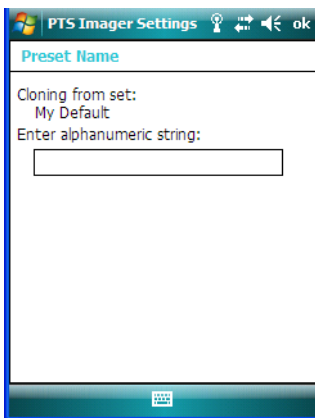
- Tap on the + sign to expand one of the lists so that you can view the parameter settings.

### B.4.4 Creating a Custom Preset

A new custom preset is created by modifying a preset – either a predefined preset or an existing custom preset. To create a custom preset:

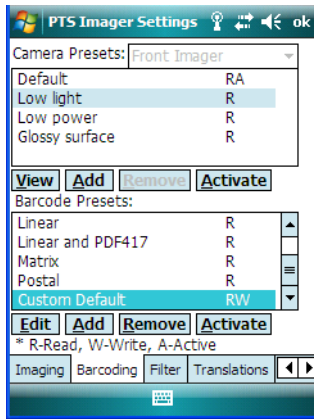
- Highlight a preset, and tap on the **Add** button.

A screen like the sample following is displayed.



- Type the **name** of the new preset in the dialog box.
- Tap on **OK** to save your changes.

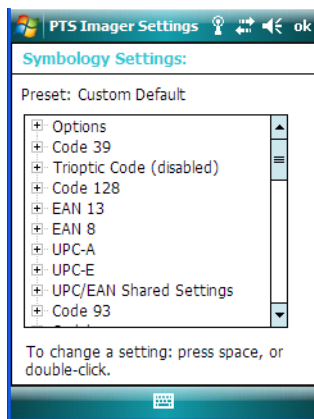
The custom preset is displayed – for this example, *Custom Default*. The new custom preset appears at the end of the list. It is marked as read and write.



#### B.4.5 Modifying a Custom Preset

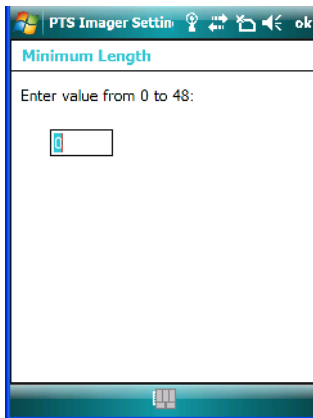
The parameter values in a custom preset can be modified. It is recommended that very few changes be made to a custom preset. To ensure that it will work reliably, it should be as close as possible to the original predefined preset. To change a parameter value:

- Highlight the custom preset, and tap on the **Edit** button.



- Tap on the + symbols to expand the lists and view the parameter settings.

- Scroll through the parameter list until you reach the parameter that you want to change.
- For a parameter that can take a *range* of values:
  - Highlight the parameter, and then press the [SPACE] key or double-click the parameter.
  - An associated dialog box containing the valid range of values for the parameter and the current setting like the sample screen following is displayed.



- Type a value in the field provided.
- For a parameter that toggles between two values such as *on* or *off* and *enabled* or *disabled*:
  - Highlight the parameter and then press the [SPACE] key, or double-click on the parameter. Either method toggles between the two available values.
- When you've completed your edits, tap on **OK**.  
The parameter list is displayed; the new value for the changed parameter is shown.
- Tap on **OK** to exit to the preset list and save the changes.

#### B.4.6 Removing a Custom Preset

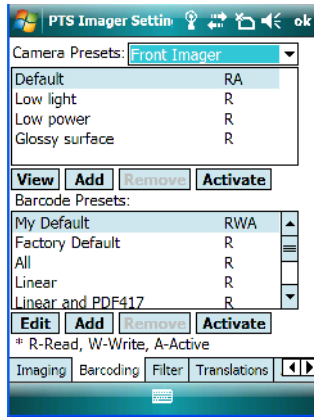
- Highlight the custom preset you want to delete, and tap on the **Remove** button. A window is displayed warning you that you are about to remove a preset.
- Tap on **Yes** to remove the preset or **No** to cancel the operation.

#### B.4.7 Configuring the Bar Code Decoding Symbologies

To configure the bar code decoding camera presets:

- Tap on **Start>Settings>System** tab.
- Tap on the **Barcoding** tab.

Figure B.3 Viewing Bar Code Decoding Symbolologies



#### B.4.8 Setting the Active Preset

An active preset has an *A* to the right; in Figure B.2 on page B-9, the active preset is *Defaults*. To set an active preset:

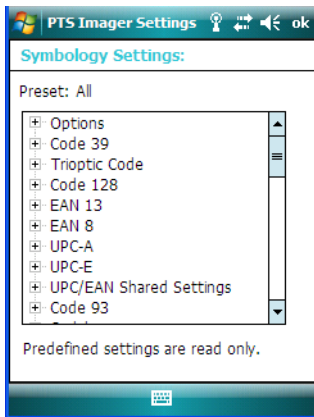
- Highlight the preset, and tap on the **Activate** button.

#### B.4.9 Viewing a Preset

To view the parameter settings in a preset:

- Highlight a preset, and tap on the **View** button.

The associated preset window is displayed.



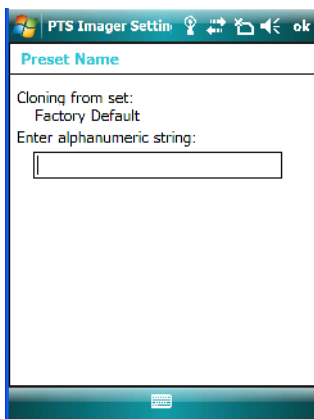
- Tap on the + sign to expand one of the lists so that you can view the parameter settings.

#### B.4.10 Creating a Custom Preset

A new custom preset is created by modifying a preset – either a predefined preset or an existing custom preset. To create a custom preset:

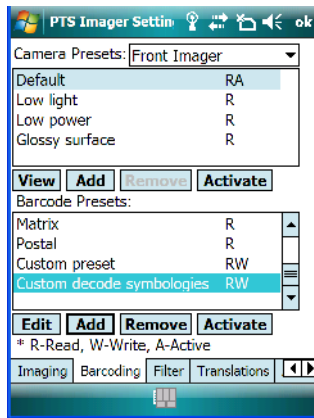
- Highlight a preset, and tap on the **Add** button.

A screen like the sample following is displayed.



- Type the **name** of the new preset in the dialog box.
- Tap on **OK** to save your changes.

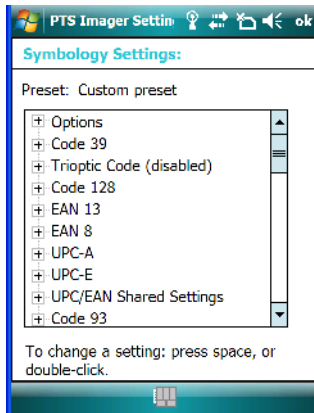
The preset list is displayed; the new custom preset appears at the end of the list. It is marked as read and write.



#### B.4.11 Modifying a Custom Preset

The parameter values in a custom preset can be modified. It is recommended that very few changes be made to a custom preset. To ensure that it will work reliably, it should be as close as possible to the original predefined preset. To change a parameter value:

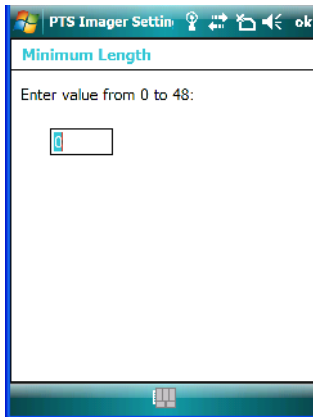
- Highlight the custom preset, and tap on the **Edit** button.



- Tap on the + symbols to expand the lists and view the parameter settings.
- Scroll through the parameter list until you reach the parameter that you want to change.
- For a parameter that can take a *range* of values:

### Removing a Custom Preset

- Highlight the parameter, and then press the [SPACE] key or double-click the parameter.
- An associated dialog box containing the valid range of values for the parameter and the current setting like the sample screen following is displayed.



- Type a value in the field provided.
  - For a parameter that toggles between two values such as *on* or *off* and *enabled* or *disabled*:
    - Highlight the parameter and then press the [SPACE] key, or double-click on the parameter. Either method toggles between the two available values.
  - When you've completed your edits, tap on **OK**.
- The parameter list is displayed; the new value for the changed parameter is shown.
- Tap on **OK** to exit to the preset list and save the changes.

#### B.4.12 Removing a Custom Preset

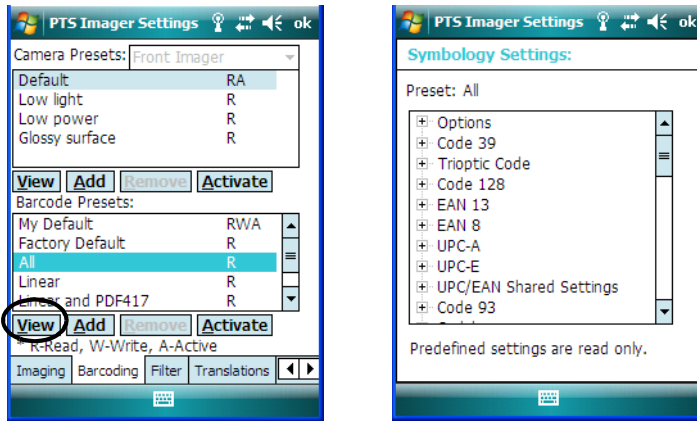
- Highlight the custom preset you want to delete, and tap on the **Remove** button. A window is displayed warning you that you are about to remove a preset.
- Tap on **Yes** to remove the preset or **No** to cancel the operation.

#### B.4.13 Bar Coding Tab - Configuring Symbolologies

To *view* the *Symbology Settings* options:

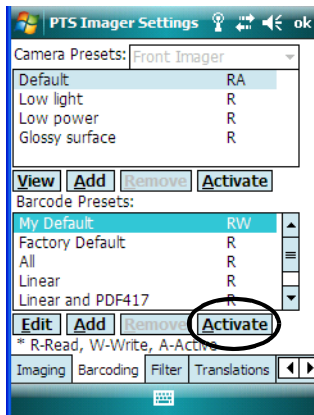


- Tap on the **Barcoding** tab, tap on **All** and then double-tap the **View** button.



To *edit* a default preset, you must first *activate* it:

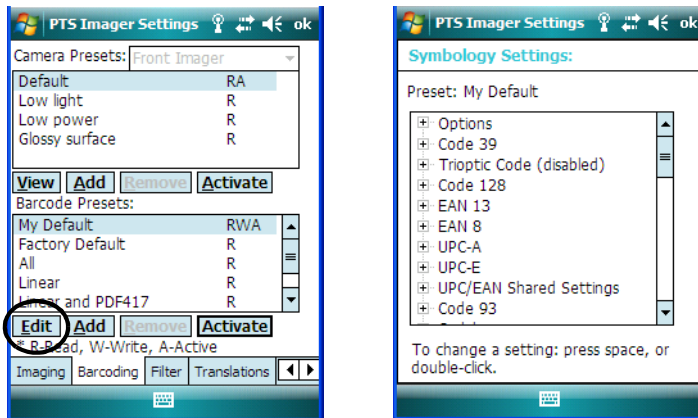
- Tap on **My Default**, and tap on the **Activate** button – an *A* appears to the right of *My Default*.



Once the preset is activated, you can enable or disable the bar codes the imager will read.

- Highlight **My Default** in the *Barcoding* tab.

- Double-tap on the **Edit** button.



None of the other bar code decoding predefined presets are changed.

#### B.4.13.1 Symbology Settings

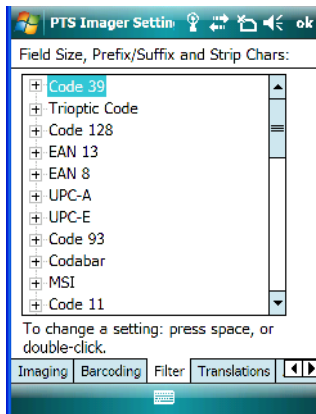


*Note: For descriptions of the bar code symbologies, review “Bar Code Symbologies – Descriptions” on page B-23.*

#### B.4.14 Filter Tab - Manipulating Bar Code Data

To configure rules for manipulating bar code data:

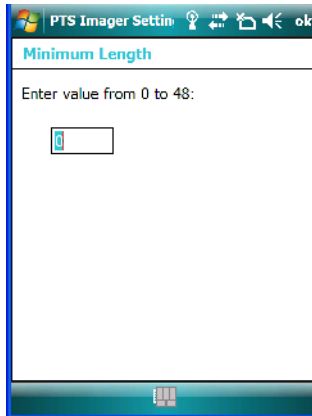
- Tap on **Start>Settings>System** tab.
- Tap on the **Teklogix Imagers** icon, and then tap on the **Filter** tab.



### B.4.14.1 Modifying a Bar Code Setting

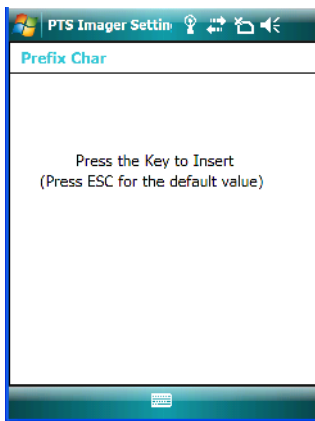
The rules for manipulating data from selected bar code symbologies can be modified. To change the settings for a symbology:

- Tap on the + symbols to expand the lists and view the parameter settings.
- Scroll through the parameter list until you reach the parameter that you want to change.
- For a parameter that can take a *range* of values:
  - Highlight the parameter, and then press the [SPACE] key or double-click the parameter.
  - An associated dialog box containing the valid range of values for the parameter and the current setting like the sample screen following is displayed.



- Type a value in the field provided.
- For a parameter that takes a single character:

- Highlight the parameter and then press the [SPACE] key, or double-click on the parameter. The following screen is displayed:



- When you've completed your edits, tap on **OK**.

#### B.4.15 Translation Tab - Configuring Rules

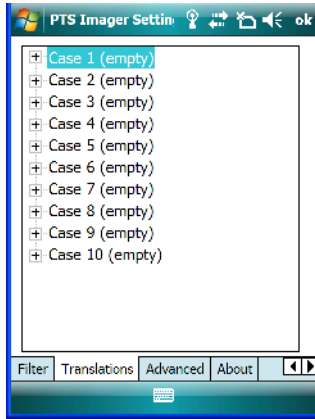
Translation rules enable the automatic processing of bar code data. Up to 10 cases can be defined, each consisting of up to 10 sequential rules.



*Note: Changes made to the translations configuration using the Teklogix Scanners applet are synchronized with changes made here. Changes made in either place affect both translation tables.*

- Tap on **Start>Settings>System** tab.

- Tap on the **Teklogix Imagers** icon, and then tap on the **Translation** tab.



For instructions on adding, editing, and removing translation rules, refer to the “Translations Tab” on page 159.

## B.4.16 Advanced Tab

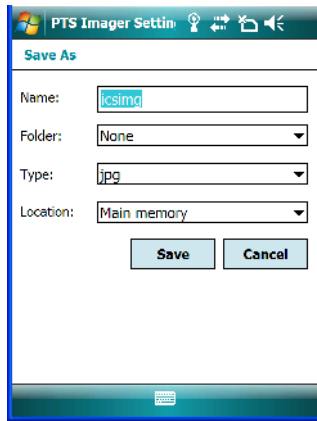
### B.4.16.1 File Locations for Captured Images

To configure the location for saved images, open the dialog box as follows:

- Tap on **Start>Settings>System** tab.
- Tap on the **Teklogix Imagers** icon, and then tap on the **Advanced** tab.

To define the location where imager files will be stored:

- Tap on the **File Location** button.



- Type the file **Name**, choose the **Folder** and file **Type**.
- Choose the **Location** in which your files will be saved.
- When you have completed all the changes, tap on the **Save** button.

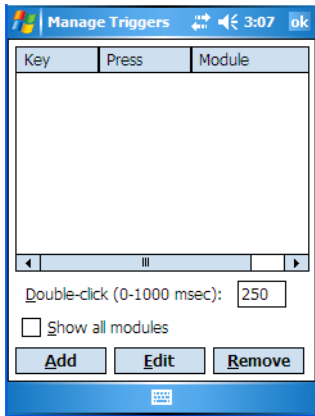
#### B.4.16.2 Configuring Triggers

##### Viewing the Trigger Configuration

The trigger on NEO is configured using the *Manage Triggers* applet. The *Teklogix Imagers* applet provides a shortcut to the *Manage Triggers* applet.

- In the *Advanced* tab, tap on the **Trigger Control** button.

- To view all the triggers and the hardware devices that are configured to use them, tap on the checkbox next to **Show all modules**.



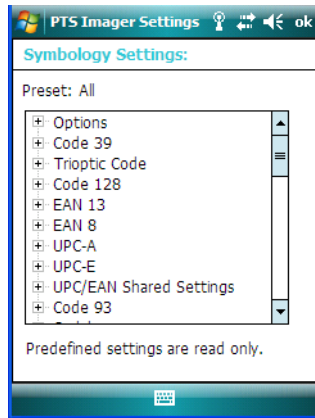
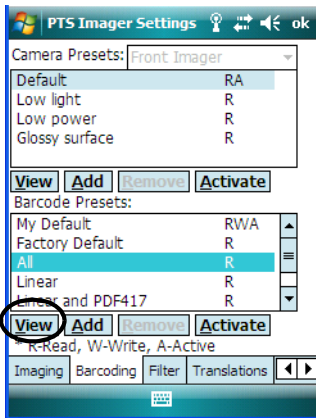
### Adding, Editing and Removing Triggers

For instruction about adding, editing and removing triggers, refer to “Manage Triggers” on page 141.

## B.5 Bar Code Symbolgies - Descriptions

To *view* all symbolgies available for the imager:

- Tap on the **Barcoding** tab, and tap on **All**.





*Note: Remember that if you want to **edit** the symbologies, the preset you want to change must be active. Highlight the **preset** you want to edit, and tap on the **Activate** button – an **A** is added at the far right of the preset. With the activated preset highlighted, double-tap on the **Edit** button.*

## B.5.1 Options

### Auto Retry On Failed Decode Enabled

Setting this parameter to *on* allows the imager to repeat the image capture attempt if the initial attempt fails. The number of retries is dependent on the value assigned in the next parameter, *Max Number of Auto Retry*. If this parameter is set to *off*, the imager will only attempt the image capture once.

### Max Number of Auto Retry

The value assigned for this parameter governs the number of times the imager will attempt to capture a bar code if the first attempt fails to a maximum of *99* times.

### Decoder Timeout

This parameter determines the maximum time that the decoder will spend searching for a bar code on a captured image. The value assigned here is dependent on the type of bar code and quality of the image being captured. For example, the value may need to be increased to compensate for larger bar codes with more data encoded or for poor quality images. On the other hand, the value can be decreased for smaller, good quality images. The allowable value ranges from 200 to 500 msec.

### Single Target Mode Enabled

When this parameter is enabled, the decoder assumes that a single bar code exists in the image and that it is located in the centre of the image.

### Add AIM ID Prefix

The *AIM ID* (Association for Automatic Identification and Mobility) is an international bar code identifier. When this parameter is enabled, the *AIM ID* is inserted at the beginning of the decoded bar code.

## B.5.2 Code 39

### Enabled

Setting this parameter to *on* makes “Code 39” readable to the imager.



## Full ASCII

If this parameter is enabled, the characters +, %, and / are used as escape characters. The combination of an escape character and the next character is converted to an equivalent ASCII character.

## Start/Stop Strip

“Code 39” has start/stop patterns that can be output as ASCII characters in the output data. When *Start/Stop Strip* is enabled, start/stop characters are not output.

## Check Char

When this parameter is enabled, before data is output, the “Code 39” symbol integrity is verified based on a parity character that must be present in the code. If the parity character is not part of the code, the code is not output. Keep in mind the parity character may not be part of your output setup; in this case, this parameter should be turned *off*.

## Check Char Strip

If this parameter is set to *on*, check characters – if present – are not output.

## Concatenation

When *Concatenation* is set to *on*, all decoded “Code 39” symbols with a SPACE as the first data character are concatenated to the internal buffer. Data from the last “Code 39” symbol *without* a SPACE is added to the buffer as well, and the entire buffer will be output.

## Pharmaceutical

This is a numeric (0-9) fixed length barcode used by Italian pharmacies. It is also referred to as Code 32 Pharmacode and is a form of Code 39.

## Minimum and Maximum Length

The length of a code refers to the number of characters (i.e., human readable characters), including check digit(s). Double-tapping on these parameters displays screens in which you can set the minimum and maximum allowable code lengths – 0 to 48.

### B.5.3 Trioptic Code



*Note: “Trioptic Code” and “Full ASCII” should not be enabled simultaneously. The scanner does not automatically discriminate between these two symbologies.*

## Enable

*Trioptic Code* symbols always contain six characters. Setting this parameter to *on* allows this type of symbology to be recognized.

### B.5.4 Code 128

#### Enabled

Set this parameter to *on* to enable “Code 128”.

#### ISBT Concatenation

These codes are not concatenated by default. You need to set this parameter to *on* to send concatenated code.

#### Minimum and Maximum Length

The length of a code refers to the number of characters (i.e., human readable characters), including check digit(s). Double-tapping on these parameters displays screens in which you can set the minimum and maximum allowable code lengths – *0 to 80*.

### B.5.5 EAN 13

#### Enabled

Set this parameter to *on* to enable “EAN 13”.

#### Check Digit Strip

If you enable this parameter, a check digit is stripped from the decoded bar code data.

#### Supplements 2 and Supplements 5

*Supplements* are additions to EAN/UPC codes. These addendums can be 2 or 5 characters in length. Usually, data from an addendum is a suffix to the main symbol output data.

#### Mandatory Enabled

When this parameter is set to *on*, the imager does not accept the main bar code without a supplement.

#### Supplements Separator

A *Supplements Separator* is a space that is added between the EAN 13 bar code and the Supplement code/Addenda.

## ISBN Translate

When this parameter (International Standard Book Number) is enabled, the first 3 characters ('978') are ignored and the checksum (0.9, 'X') is calculated on the remaining characters.

### B.5.6 EAN 8

#### Enabled

Set this parameter to *on* to enable "EAN 8".

#### Check Digit Strip

If you enable this parameter, a check digit is stripped from the decoded bar code data.

#### Supplements 2 and Supplements 5

*Supplements* are additions to EAN/UPC codes. These addendums can be 2 or 5 characters in length. Usually, data from an addendum is a suffix to the main symbol output data.

#### Mandatory Enabled

When this parameter is set to *on*, the imager does not accept the main bar code without a supplement.

#### Supplements Separator

*Supplements Separator* is a space that is added between the EAN 8 bar code and the Supplement code/Addenda.

### B.5.7 UPC-A

#### Enabled

Set this parameter to *on* to enable "UPC-A".

#### Check Digit Strip

If you enable this parameter, a check digit, if present, is stripped from the decoded bar code data.

#### Number System

If this parameter is enabled, the number system digit is transmitted with the decoded bar code data.

## Supplements 2 and Supplements 5

*Supplements* are additions to EAN/UPC codes. These addendums can be 2 or 5 characters in length. Usually, data from an addendum is a suffix to the main symbol output data.

### Mandatory Enabled

When this parameter is set to *on*, the imager does not accept the main bar code without a supplement.

### Supplements Separator

*Supplements Separator* is a space that is added between the UPC-A bar code and the Supplement code/Addenda.

## B.5.8 UPC-E Settings

### Enabled

Set this parameter to *on* to enable “UPC E”.

### Enabled UPC-E1

Set this parameter to *on* to allow “UPC-E1” (zero suppressed) bar code scans.

### Expand

This parameter expands the UPC-E code to a 12 digit UPC-A format.

### Check Digit Strip

If you enable this parameter, a check digit is stripped from the decoded bar code data.

### Number System

If this parameter is enabled, the number system digit is transmitted with the decoded bar code data.

## Supplements 2 and Supplements 5

*Supplements* are additions to EAN/UPC codes. These addendums can be 2 or 5 characters in length. Usually, data from an addendum is a suffix to the main symbol output data.

### Mandatory Enabled

When this parameter is set to *on*, the imager does not accept the main bar code without a supplement.

## Supplements Separator

*Supplements Separator* is a space that is added between the UPC-E bar code and the Supplement code/Addenda.

### B.5.9 UPC/EAN Shared Settings

#### Extended Coupon Code

This parameter specifies whether or not the imager will read only UPC-A/EAN-13 bar codes that have addenda.



*Note: The 2 or 5 digit addenda must be turned on/off, depending on the desired behavior.*

### B.5.10 Code 93

#### Enabled

Set this parameter to *on* to enable “Code 93”.

#### Minimum and Maximum Length

The length of a code refers to the number of characters (i.e., human readable characters), including check digit(s). Double-tapping on these parameters displays a screen in which you can set the minimum and maximum allowable code lengths – *0 to 80*.

### B.5.11 Codabar

#### Enabled

Set this parameter to *on* to enable “Codabar”.

#### Start/Stop Strip

Codabar can use the following sets of characters as start and stop characters:

a, b, c, d

A, B, C, D

a, b, c, d, /, t, n, \*, e

DC1, DC2, DC3, DC4

Setting this parameter to *on* strips the start and stop characters from this bar code.

### Check Char

When this parameter is enabled, before data is output, the “Codabar” symbol integrity is verified based on a parity character that must be present in the code. If the parity character is not part of the code, the code is not output. Keep in mind the parity character may not be part of your output setup; in this case, this parameter should be turned *off*.

### Check Char Strip

If you enable this parameter, a check character is stripped from the decoded bar code data.

### Concatenation

“Codabar” supports symbol concatenation. When *Concatenation* is set to *on*, Codabar uses a ‘D’ stop character to indicate that data from that symbol should be concatenated with data from the adjacent symbol with a ‘D’ start character.

### Minimum and Maximum Length

The length of a code refers to the number of characters (i.e., human readable characters), including check digit(s). Double-tapping on these parameters displays a screen in which you can set the minimum and maximum allowable code lengths – 2 to 60.

## B.5.12 MSI Plessey

### Enabled

Set this parameter to *on* to enable MSI.

### Enable Plessey

Set this parameter to *on* to enable Plessey.

### Check Char

When this parameter is set to *on*, the integrity of a “MSI Plessey” symbol is checked to ensure that it complies with specified algorithms.

### Minimum and Maximum Length

The length of a code refers to the number of characters (i.e., human readable characters), including check digit(s). Double-tapping on these parameters displays a screen in which you can set the minimum and maximum allowable code lengths – 4 to 48.

### Plessey Minimum and Plessey Maximum Length

These parameters apply to Plessey bar codes. The length of a code refers to the number of characters (i.e., human readable characters), including check digit(s). Double-tapping on

these parameters displays a screen in which you can set the minimum and maximum allowable code lengths – 4 to 48.

### B.5.13 Code 11

#### Enabled

Set this parameter to *on* to enable “Code 11”.

#### Check Digits

Double-tapping on this parameter displays a dialog box in which you can choose *One Check Digit* or *Two check digits*.

If this parameter is set to *One Check Digit*, it is assumed that the last digit is a check digit. If it is set to *Two Check Digits*, it is assumed that the last two digits are check digits.

#### Minimum and Maximum Length

The length of a code refers to the number of characters (i.e., human readable characters), including check digit(s). Double-tapping on these parameters displays a screen in which you can set the minimum and maximum allowable code lengths – 1 to 80.

### B.5.14 Interleaved 2 of 5

#### Enabled

Set this parameter to *on* to enable “Interleaved 2 of 5”.

#### Check Char

When this parameter is set to on, the integrity of a “Interleaved 2 of 5” symbol is checked to ensure that it complies with specified algorithms.

#### Check Char Strip

If you enable this parameter, a check character is stripped from the decoded bar code data.

#### Minimum and Maximum Length

The length of a code refers to the number of characters (i.e., human readable characters), including check digit(s). Double-tapping on these parameters displays a screen in which you can set the minimum and maximum allowable code lengths – 2 to 80.

## B.5.15 Matrix 2 of 5

### Enabled

Set this parameter to *on* to enable “Matrix 2 of 5”.

### Minimum and Maximum Length

The length of a code refers to the number of characters (i.e., human readable characters), including check digit(s). Double-tapping on these parameters displays a screen in which you can set the minimum and maximum allowable code lengths – *1 to 80*.

## B.5.16 IATA 2 of 5

### Enabled

Set this parameter to *on* to enable “IATA 2 of 5”.

### Minimum and Maximum Length

The length of a code refers to the number of characters (i.e., human readable characters), including check digit(s). Double-tapping on these parameters displays a screen in which you can set the minimum and maximum allowable code lengths – *1 to 48*.

## B.5.17 Discrete 2 of 5

### Enabled

Set this parameter to *on* to enable “Discrete 2 of 5”.

### Minimum and Maximum Length

The length of a code refers to the number of characters (i.e., human readable characters), including check digit(s). Double-tapping on these parameters displays a screen in which you can set the minimum and maximum allowable code lengths – *1 to 48*.

## B.5.18 Telepen

### Enabled

Set this parameter to *on* to enable “Telepen”.

### Enable AIM Output

If you set *Enable AIM Output* to *on*, the imager reads symbols with start/stop pattern 1 and decodes them as standard full ASCII (start/stop pattern 1). If you set this parameter to *off*,



the imager reads symbols with start/stop pattern 1 and decodes them as compressed numeric with optional full ASCII (start/stop pattern 2).

### **Minimum and Maximum Length**

The length of a code refers to the number of characters (i.e., human readable characters), including check digit(s). Double-tapping on these parameters displays a screen in which you can set the minimum and maximum allowable code lengths – 1 to 60.

## **B.5.19 GS1 DataBar**

### **GS1 DataBar**

Set this parameter to *on* to enable the imager to read “GS1 Databar” symbols.

### **Minimum and Maximum Length**

The length of a code refers to the number of characters (i.e., human readable characters), including check digit(s). Double-tapping on these parameters displays a screen in which you can set the minimum and maximum allowable code lengths – 4 to 74.

## **B.5.20 Posi Code (Reduced Space Symbology)**

### **Enable**

Setting this parameter to *on* enables “Posi Code” scanning capability.

### **Enable Limited A and Enable Limited B**

“Posi Code” is a “position” based symbology. A position based symbology de-couples the widths of the bars from their positions. The centers of the bars are specified to be laid out on a grid of equally spaced parallel lines. The distance between these grid lines is called the G-dimension and is analogous to the X-dimension of conventional bar codes.

There are two variations of this code: *Posi Code A*, and *Posi Code B*.

### **Minimum and Maximum Length**

The length of a code refers to the number of characters (i.e., human readable characters), including check digit(s). Double-tapping on these parameters displays a screen in which you can set the minimum and maximum allowable code lengths – 2 to 80.

## B.5.21 Composite

### Enabled

Set this parameter to *on* to enable “Composite” bar codes.



***Important:*** *To successfully read this type of bar code, the two types of symbologies included in a composite bar code must be enabled.*

## B.5.22 TLC-39

This composite component integrates MicroPDF417 with the linear code.

### Enabled

Setting this parameter to *on* enables this parameter.

## B.5.23 2D PDF-417

### Enabled

Set this parameter to *on* to enable “2D PDF-417”.

### Minimum and Maximum Length

The length of a code refers to the number of characters (i.e., human readable characters), including check digit(s). Double-tapping on these parameters displays a screen in which you can set the minimum and maximum allowable code lengths – *1 to 2750*.

## B.5.24 2D Micro PDF-417

### Enabled

Set this parameter to *on* to enable “2D Micro PDF-417”.

### Minimum and Maximum Length

The length of a code refers to the number of characters (i.e., human readable characters), including check digit(s). Double-tapping on these parameters displays a screen in which you can set the minimum and maximum allowable code lengths – *1 to 366*.

## B.5.25 Code 16K

The “Code 16K” bar code is a multiple-row bar code that can encode the full ASCII character set below ASCII 128. It uses existing UPC and Code 128 character set patterns. Up to 77

full ASCII characters or 154 numeric characters can be encoded into 2 to 16 rows. Each row is divided by a separator bar. The top and bottom of the symbol also have separator bars that extend to the ends of the minimum quiet zones.

### **Enabled**

Set this parameter to *on* to enable “Code 16K”.

### **Minimum and Maximum Length**

The length of a code refers to the number of characters (i.e., human readable characters), including check digit(s). Double-tapping on these parameters displays a screen in which you can set the minimum and maximum allowable code lengths – *1 to 160*.

## **B.5.26 Code 49**

The “Code 49” bar code is a multiple-row bar code that can encode the full ASCII character set below ASCII 128. Up to 49 alphanumeric characters or 81 numeric characters can be encoded into two to eight rows. Each row is divided by a separator bar. The top and bottom of the symbol also have separator bars that extend to the ends of the minimum quiet zones.

### **Enabled**

Set this parameter to *on* to enable “Code 49”.

### **Minimum and Maximum Length**

The length of a code refers to the number of characters (i.e., human readable characters), including check digit(s). Double-tapping on these parameters displays a screen in which you can set the minimum and maximum allowable code lengths – *1 to 81*.

## **B.5.27 Codablock**

### **Enable**

Set this parameter to *on* to enable “Codablock”.

### **Minimum and Maximum Length**

The length of a code refers to the number of characters (i.e., human readable characters), including check digit(s). Double-tapping on these parameters displays a screen in which you can set the minimum and maximum allowable code lengths – *1 to 2048*.

## B.5.28 2D Data Matrix

### Enable

Set this parameter to *on* to enable “2D Data Matrix”.

### Minimum and Maximum Length

The length of a code refers to the number of characters (i.e., human readable characters), including check digit(s). Double-tapping on these parameters displays a screen in which you can set the minimum and maximum allowable code lengths – *1 to 1500*.

## B.5.29 2D QR Code

### Enabled

Set this parameter to *on* to enable “2D QR Code”.

### Minimum and Maximum Length

The length of a code refers to the number of characters (i.e., human readable characters), including check digit(s). Double-tapping on these parameters displays a screen in which you can set the minimum and maximum allowable code lengths – *1 to 3500*.

## B.5.30 2D Maxicode

### Enabled

Set this parameter to *on* to enable “2D Maxicode”.

### Minimum and Maximum Length

The length of a code refers to the number of characters (i.e., human readable characters), including check digit(s). Double-tapping on these parameters displays a screen in which you can set the minimum and maximum allowable code lengths – *1 to 150*.

## B.5.31 2D Aztec

### Enabled

Set this parameter to *on* to enable “2D Aztec”.

### Aztec Runes

Aztec Runes, the smallest type of Aztec Code symbol, has the ability to encode a very short license plate message.

## Minimum and Maximum Length

The length of a code refers to the number of characters (i.e., human readable characters), including check digit(s). Double-tapping on these parameters displays a screen in which you can set the minimum and maximum allowable code lengths – *1 to 3750*.

### B.5.32 Postal: PlaNET

#### Enabled

Set this parameter to *on* to enable “Postal: PlaNET”.

#### Check Digit Strip

If you enable this parameter, a check digit is stripped from the decoded bar code data.

### B.5.33 Postal: PostNET

#### Enabled

Set this parameter to *on* to enable “Postal: PostNET”.

#### Check Digit Strip

If you enable this parameter, a check digit is stripped from the decoded bar code data.

### B.5.34 Postal: Australian

#### Enabled

Set this parameter to *on* to enable “Postal: Australian”.

### B.5.35 Postal: Canadian

#### Enabled

Set this parameter to *on* to enable “Postal: Canadian”.

### B.5.36 Postal: China

#### Enabled

Set this parameter to *on* to enable “Postal: China”.

### **B.5.37 Postal: Japanese**

#### **Enabled**

Set this parameter to *on* to enable “Postal: Japanese”.

### **B.5.38 Postal: Kix**

#### **Enabled**

Set this parameter to *on* to enable “Postal: Kix”.

### **B.5.39 Postal: Korean**

#### **Enabled**

Set this parameter to *on* to enable “Postal: Korean”.

### **B.5.40 Postal: Royal**

#### **Enabled**

Set this parameter to *on* to enable “Postal: Royal”.

### **B.5.41 VeriCode®**

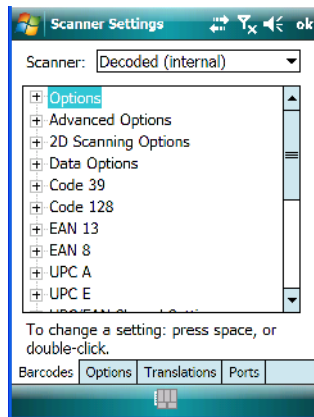
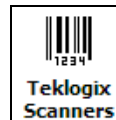
#### **Enabled**

VeriCode® is a 2D omni-directional symbol. To read this symbol, set this parameter to *on*.

# APPENDIX C

## BAR CODE SETTINGS

### C.1 Scanner Menu



The drop-down menu to the right of the *Scanner* option allows you to choose from one of the following scanner types used with NEO: *Decoded (internal)* or *Decoded (Intermec ISCP)*.

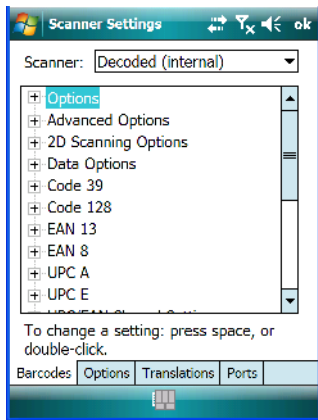
The symbologies listed change to reflect the scanner you choose and the bar codes it supports.



**Important:** *To improve the decode speed and performance, enable only those codes that are required by the application.*

Keep in mind that some bar code types are only available when an internal imaging scanner is installed. All internal scanners can be configured using the *Barcode* dialog boxes.

## C.2 Decoded (Internal) Scanner



### C.2.1 Options - Decoded (Internal) Scanner

#### Dot Time (msec)

The value selected for “Dot Time (msec)” determines (in milliseconds) how long the targeting dot remains on before the scanner switches to a normal scan sweep. When you double-tap on this parameter, a dialog box is displayed in which you can enter a value of 0 msec, 200 msec or 400 msec. A value of 0 (zero) disables the target dot.

#### Laser On Time

The value assigned to this parameter determines how long the laser will remain on when the scan button or trigger is pressed.

Double-tapping on this parameter displays a dialog box in which you can enter a value between 5 and 99, measured in tenths of a second.

### C.2.2 Advanced Options - Decoded (Internal)

#### Scan Mode

When you double-tap on this parameter, a dialog box is displayed in which you can choose a scanning mode: *Scan beam only*, *Aim with Scan: 1 trigger pull*, *Aim with Scan: 2 trigger pulls*, *Aim with Scan on trigger release*, and *Continuous Scan Mode*.



## Aim Duration

This parameter determines the total time the aiming pattern appears before the scanner laser begins sweeping. When you double-tap on this parameter, a dialog box is displayed in which you can enter a value from 0 to 30 (0 to 3 sec.). A value of 0 (zero) disables the aiming dot.

## Minimum Cancel Time

The value assigned to this parameter determines the time delay before the scanner is turned off, once the scanner trigger or button is released. This gives the scanner a minimum amount of time to complete its current decode before the scan is cancelled when the user quickly triggers on/off.

## Power Mode

This parameter is a power-saving option. Tapping on it displays a screen listing two power mode options: *Continuous Power* and *Low Power*.

In *Continuous Power* mode, the scanner is always on, waiting for a trigger pull or a serial communication.

In *Low Power* mode, the scanner is in a standby state, drawing minimal power until a trigger pull or serial communication wakes it. Keep in mind that while this option is more suitable for battery powered applications, there will be a slight delay while the scanner powers up to scan a bar code.

## Low Power Timeout

To extend laser life, you can select the length of time the scanner remains active following a successful decode. The scanner wakes from low power mode when a bar code is scanned – a successful decode restores normal blinking.

When you double-tap on this parameter, a dialog box is displayed in which you can choose a value of 30 sec, 1 min, 2 min or 3 min.



*Note: This parameter is only used if the Trigger Mode has been set to Continuous On and NEO is mounted in a fixed position; otherwise, 'Low Power Timeout' is not used.*

## Parameter Scanning

Setting this parameter to 'on' enables decoding of parameter bar codes.

## Linear Security Level

This parameter allows you to select the security level appropriate for your bar code quality. There are four levels of decode security for linear code types (e.g., Code 39, Interleaved 2 of

5). Higher security levels should be selected for decreasing levels of bar code quality. As security levels increase, the scanner's decode speed decreases.

Double-tapping on this parameter displays a dialog box in which you can enter a value from 1 to 4.

"Linear security level 1" specifies that the following code types must be successfully read twice before being decoded:

Code Type	Length
Codabar	All
MSI Plessey	4 or less
D 5 of 5	8 or less
I 2 of 5	8 or less

"Linear security level 2" specifies that all types of codes must be successfully read twice before being decoded.

"Linear security level 3" specifies that code types other than the following must be successfully read twice before being decoded. The following codes must be read three times:

Code Type	Length
MSI Plessey	4 or less
D 2 of 5	8 or less
I 2 of 5	8 or less

"Linear security level 4" requires that all code types be successfully read three times before being decoded.

### Bi-Direction Redundancy



*Note: This parameter is only valid if a "Linear Security Level" is enabled.*

When this parameter is enabled, a bar code must be successfully scanned in both directions (forward and reverse) before being decoded.

### C.2.3 Decoded (Internal) 2D Scanning Options

#### Scanning Mode

When you double-tap on this parameter, a dialog box is displayed in which you can choose one of the following scanning modes: *Smart Raster*, *Always Raster*, *Programmable Raster*, *Slab Pattern*, *Cyclone Pattern* or *Semi-Omni Pattern*.

#### Raster Height And Raster Expand Rate

These parameters determine the laser pattern's height and rate of expansion.



*Note: These parameters are only used when either Programmable Raster or Always Raster is assigned to the "2D Scanning Mode" parameter. "2D Raster Height" and "2D Raster Expand Rate" are intended for very specific applications and are usually not required for normal scanning purposes.*

Double-tapping on this parameter displays a dialog box in which you can enter a value from 1 to 15.

### C.2.4 Data Options – Decoded (Internal) Scanner

#### Transmit Code ID Char

A code ID character identifies the scanned bar code type. In addition to any single character prefix already selected, the code ID character is inserted between the prefix and the decoded symbol.

When you double-tap on this parameter, a dialog box is displayed in which you can choose a transmit code: None, AIM or Symbol.

#### Scan Data Format

This parameter allows you to change the scan data transmission format. Double-tapping on "Scan Data Format" displays the following options from which you can choose a data format: data (as-is), data [S1], data [S2], data [S1][S2], [P] data, [P] data [S1], [P] data [S2] and [P] data [S1][S2].

#### Prefix [P], Suffix [S1] And Suffix [S2]

A prefix and/or one or two suffixes may be appended to scan data for use in data editing.

When you double-tap on these parameters, a dialog box is displayed in which you can enter a value from 0 to 255.

## Delete Char Set ECIs

Setting this parameter to *on* enables the scanner to delete any escape sequences representing Character Set ECIs – Extended Channel Interpretations (also known as GLIs) from its buffer before transmission.

When this parameter is enabled, the scanner transmits data from PDF417 and MicroPDF417 bar codes containing Character Set ECIs, even when the ECI Protocol is disabled.

## ECI Decoder

Setting this parameter to *on* enables the scanner to interpret any Extended Channel Interpretations (ECIs) supported by the scanner. This parameter has no effect on symbols that were not encoded using ECIs.

If this parameter is set to *off* and a symbol that was encoded using an ECI escape is scanned, the scanner transmits the ECI escape followed by the uninterpreted data.

## C.2.5 Code 39

### Enabled

Setting this parameter to ‘on’ enables “Code 39”.

### Enable Trioptic Code 39



*Note: “Trioptic Code 39” and “Full ASCII” should not be enabled simultaneously. The scanner does not automatically discriminate between these two symbologies.*

Trioptic Code 39 symbols always contain six characters. Setting this parameter to *on* allows this type of symbology to be recognized.

### Convert To Code 32



*Note: “Code 39” must be enabled in order for this parameter to function.*

Setting this parameter to *on* allows the scanner to convert the bar code from “Code 39” to “Code 32”.

### Code 32 Prefix



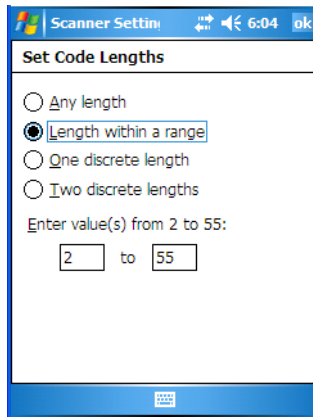
*Note: “Convert to Code 32” must be enabled in order for this parameter to function.*

When this parameter is enabled, the prefix character “A” is added to all “Code 32” bar codes.

## Set Length L1 And Set Length L2

Lengths for “Code 39” can be set for *Any length*, *Length within a range*, *One discrete length* or *Two discrete lengths*. The length of a code refers to the number of characters (i.e., human readable characters), including check digit(s).

Double-tapping on this parameter displays a dialog box labelled *Set Code Lengths* where you can define the code length that will be decoded by your scanner.



Choosing *One discrete length* allows you to decode only those codes containing a selected length. Choosing *Two discrete lengths* allows you to decode only those codes containing two selected lengths. *Length within a range* allows you to decode a code type within a specified range from 1 to 55.

## Check Digit Verification

When this parameter is enabled (set to *on*), the integrity of a “Code 39” symbol is checked to ensure that it complies with specified algorithms.



*Note: Only those “Code 39” symbols that include a Mod 43 check digit are decoded when this parameter is enabled.*

## Transmit Check Digit

If the check digit is to be transmitted with the data, this parameter must be enabled.

## Full ASCII

If this parameter is enabled, the characters +, %, and / are used as escape characters. The combination of an escape character and the next character is converted to an equivalent ASCII character.

## Decode Performance

If this parameter is enabled, one of three decode levels can be chosen in the “Decode Performance Level” parameter.

### Decode Perf. Level

This parameter provides three levels of decode performance or “aggressiveness” for Code 39 symbols. Increasing the performance level reduces the amount of required bar code orientation – this is useful when scanning very long and/or truncated bar codes. Keep in mind that increased levels reduce decode security.

When you double-tap on this parameter, a dialog box is displayed in which you can enter a decode performance level of between 1 and 3.

## Length Restriction

The parameters in this sub-menu allow you to define the length of the bar codes that will be decoded using either the *Field Size* parameter or the *Minimum Size* and *Maximum Size* parameters (see below). The order of operation to either match the *Field Size* or determine if the length falls between the *Minimum Size* and *Maximum Size* is as follows:

- Strip the leading and trailing characters.
- Add the prefix and suffix characters.
- Count the number of characters remaining to either match the field size or determine if the length falls between the minimum and maximum size.

### *Field Size*

When a value is assigned for this parameter, only bar codes that match the field size exactly can be transmitted. If a value is assigned to this parameter, a *Minimum Size* and *Maximum Size* value is not required.

### *Minimum Size And Maximum Size*

When a value is assigned to these parameters, only bar code lengths that fall between the minimum and maximum value can be decoded. If values are assigned to these parameters, a *Field Size* value is not required.

## Add/Remove Data

### **Prefix Char**

This character, if non-zero, is added before a successfully decoded bar code. Press the key you want to insert in the dialog box attached to this parameter. The ASCII/Unicode key value of the keypress is displayed.

### **Suffix Char**

This character, if non-zero, is added after a successfully decoded bar code. Press the key you want to insert in the dialog box attached to this parameter. The ASCII/Unicode key value of the keypress is displayed.

### **Strip Leading**

This parameter determines the number of characters that will be removed from the beginning of the bar code before the prefix character is added.



*Note: For Code 39 bar codes, the “ALAG Strip” is performed **before** the “Strip Leading”.*

### **Strip Trailing**

The value entered in this parameter determines the number of characters that will be removed from the end of the bar code before the suffix character is added.

## C.2.6 Code 128

### **Enabled**

Set this parameter to *on* to enable “Code 128”.

### **Enable GS1-128/GS1 US**

Previously UPC/EAN and UCC, these types of bar codes include group separators and start codes.

### **Enable ISBT 128**

To successfully scan this variation, “Enable ISBT 128” must be set to *on*.

### **Decode Performance**

If this parameter is set to ‘on’, one of three decode levels assigned to the “Decode Performance Level” parameter can be selected.

### **Decode Perf. Level**

This parameter provides three levels of decode performance or “aggressiveness” for Code 128 symbols. Increasing the performance level reduces the amount of required bar code orientation – this is useful when scanning very long and/or truncated bar codes. Keep in mind that increased levels reduce decode security.

When you double-tap on this parameter, a dialog box is displayed in which you can enter a decode performance level of between 1 and 3.

### **Length Restriction**

Refer to “Length Restriction” on page C-8 for details.

### **Add/Remove Data**

Refer to “Add/Remove Data” on page C-9 for details.

## **C.2.7 EAN 13**

### **Enabled**

Set this parameter to *on* to enable “EAN 13”.

### **Add/Remove Data**

Refer to “Add/Remove Data” on page C-9 for details.

## **C.2.8 EAN 8**

### **Enabled**

Set this parameter to *on* to enable “EAN 8”.

### **EAN-8 Zero Extend**

When this parameter is enabled, five leading zeros are added to decoded EAN-8 symbols, making them compatible in format to EAN-13 symbols. Disabling this parameter returns EAN-8 symbols to their normal format.

### **Add/Remove Data**

Refer to “Add/Remove Data” on page C-9 for details.



## C.2.9 UPC A

### Enabled

Set this parameter to *on* to enable “UPC A”.

### UPC-A Check Digit

If you enable this parameter, the check digit is included with the decoded bar code data.

### UPC-A Preamble

When you double-tap on this parameter, a dialog box is displayed where you can choose one of three options for lead-in characters for UPC-A symbols transmitted to the host device: *System Char* – system character transmitted with the data, *Country code and System Char* – both the country code (“0” for USA) and system character are transmitted with the data or *None* – no preamble is transmitted. The lead-in characters are considered part of the symbol.

### Add/Remove Data

Refer to “Add/Remove Data” on page C-9 for details.

## C.2.10 UPC E

### Enabled UPC-E

Set this parameter to ‘on’ to allow “UPC E” bar code scans.

### Enabled UPC-E1

Set this parameter to ‘on’ to allow “UPC-E1” (zero suppressed) bar code scans.

### UPC-E and UPC-E1 Check Digit

If you enable one or both of these parameters, a check digit is included with the decoded bar code data.

### UPC-E And UPC-E1 Preamble

When you double-tap on one of these parameters, a dialog box is displayed where you can choose one of three options for lead-in characters for UPC-E and UPC-E1 symbols transmitted to the host device: *System Char* – system character transmitted with the data, *Country code and System Char* – both the country code (“0” for USA) and system character are transmitted with the data or *None* – no preamble is transmitted. The lead-in characters are considered part of the symbol.

### **Conv. UPC-E To UPC-A**

This parameter converts UPC-E (zero suppressed) decoded data to UPC-A format before transmission. After conversion, data follows UPC-A format and is affected by UPC-A programming selections (e.g., Preamble, Check Digit).

### **Conv. UPC-E1 to UPC-A**

This parameter converts UPC-E1 (zero suppressed) decoded data to UPC-A format before transmission. After conversion, data follows UPC-A format and is affected by UPC-A programming selections (e.g., Preamble, Check Digit).

### **Add/Remove Data**

Refer to “Add/Remove Data” on page C-9 for details.

## **C.2.11 UPC/EAN Shared Settings**

The parameters you set here are shared across all available UPC and EAN bar codes.

### **Enable Bookland EAN**

Setting this parameter to ‘on’ allows your scanner to recognize “Bookland EAN” bar codes.

### **Supplementals**

“Supplementals” are additionally appended characters (2 or 5).

Double-tapping this parameter displays a list of options. If *Ignore* is chosen, UPC/EAN is decoded and the supplemental characters are ignored. If *Decode* is chosen, UPC/EAN symbols are decoded with supplementals. *Autodiscriminate* works in conjunction with the “Supp. Redundancy” parameter.

### **Supp. Redundancy**

With *Autodiscriminate* selected in the “Supplementals” parameter, “Supp. Redundancy” adjusts the number of times a symbol without supplementals is decoded before transmission.

When you double-tap on this parameter, a dialog box is displayed in which you can enter a value between 2 and 20. A value of 5 or above is recommended when *Autodiscriminate* is selected and you are decoding a mix of UPC/EAN symbols with and without supplementals.

### **Security Level**

This parameter controls the tolerance for decoding edge-to-edge UPC/EAN bar codes. Double-tapping on this parameter displays a dialog box in which you can choose a level from 0 to 3. Lower values have a lower tolerance for misreads, but they also increase the time it takes to decode the bar code.

## Linear Decode

“Linear Decode” applies to code types containing two adjacent blocks (e.g., UPC-A, EAN-8, EAN-13). When enabled (set to on), a bar code is transmitted only when both the left and right blocks are successfully decoded within one laser scan. This option should be enabled when bar codes are in proximity to each other.

## 2D UPC Half Block Stitching

Setting this parameter to on enables “UPC Half Block Stitching” for the SE 3223 omnidirectional engine only.

## C.2.12 Code 93

### Enabled

Set this parameter to *on* to enable “Code 93” or *off* to disable it.

### Set Length L1 and Set Length L2

Lengths for “Code 93” can be set for *Any length*, *Length within a range*, *One discrete length* or *Two discrete lengths*. The length of a code refers to the number of characters (i.e., human readable characters), including check digit(s).

Double-tapping on this parameter displays a dialog box labelled *Set Code Lengths* where you can define the code length that will be recognized by your scanner.

Choosing *One discrete length* allows you to decode only those bar codes of a specified length. Choosing *Two discrete lengths* allows you to specify two lengths of bar codes that may be decoded. *Length within a range* allows you to decode a code type within a specified range from 4 to 55.

### Length Restriction

Refer to “Length Restriction” on page C-8 for details.

### Add/Remove Data

Refer to “Add/Remove Data” on page C-9 for details.

## C.2.13 Codabar

### Enabled

Set this parameter to ‘on’ to enable “Codabar”.

## Set Length L1 and Set Length L2

Lengths for “Codabar” can be set for *Any length*, *Length within a range*, *One discrete length* or *Two discrete lengths*. The length of a code refers to the number of characters (i.e., human readable characters), including check digit(s).

Double-tapping on this parameter displays a dialog box labelled *Set Code Lengths* where you can define the code length that will be recognized by your scanner.

Choosing *One discrete length* allows you to decode only those bar codes of a specified length. Choosing *Two discrete lengths* allows you to specify two lengths of bar codes that may be decoded. *Length within a range* allows you to decode a code type within a specified range from 5 to 55.

## CLSI Editing

When enabled, this parameter strips the start and stop characters and inserts a space after the first, fifth, and tenth characters of a 14-character Codabar symbol.



*Note: Symbol length does not include start and stop characters.*

## NOTIS Editing

When enabled, this parameter strips the start and stop characters from decoded Codabar symbol.

## Length Restriction

Refer to “Length Restriction” on page C-8 for details.

## Add/Remove Data

Refer to “Add/Remove Data” on page C-9 for details.

## C.2.14 MSI Plessey

### Enabled

Set this parameter to *on* to enable “MSI Plessey”.

### Set Length L1 and Set Length L2

Lengths for “MSI Plessey” can be set for *Any length*, *Length within a range*, *One discrete length* or *Two discrete lengths*. The length of a code refers to the number of characters (i.e., human readable characters), including check digit(s).

Double-tapping on this parameter displays a dialog box labelled *Set Code Lengths* where you can define the code length that will be recognized by your scanner.

Choosing *One discrete length* allows you to decode only those bar codes of a specified length. Choosing *Two discrete lengths* allows you to specify two lengths of bar codes that may be decoded. *Length within a range* allows you to decode a code type within a specified range from 6 to 55.

### Check Digits

Double-tapping on this parameter displays a dialog box in which you can choose *One* or *Two* check digit(s).

If this parameter is set to *One*, it is assumed that the last digit is a check digit. If “Check Digits” is set to *Two*, it is assumed that the last two digits are check digits.



*Note: If Two check digits is selected, an MSI Plessey “Check Digit Algorithm” must also be selected. See below for details.*

### Transmit Check Digit

If this parameter is enabled, the check digit is included with the bar code data.

### Check Digit Algorithm

When the *Two MSI Plessey* check digits option is selected, an additional verification is required to ensure integrity. Double-tapping on this parameter displays a dialog box in which you can choose the algorithm to be used: MOD 10/MOD 11 or MOD 10/MOD 10.

### Length Restriction

Refer to “Length Restriction” on page C-8 for details.

### Add/Remove Data

Refer to “Add/Remove Data” on page C-9 for details.

## C.2.15 Interleaved 2 of 5

### Enabled

Set this parameter to *on* to enable “Interleaved 2 of 5”.

### **Set Length L1 and Set Length L2**

Lengths for “Interleaved 2 of 5” can be set for *Any length*, *Length within a range*, *One discrete length* or *Two discrete lengths*. The length of a code refers to the number of characters (i.e., human readable characters), including check digit(s).

Double-tapping on this parameter displays a dialog box labelled *Set Code Lengths* where you can define the code length that will be recognized by your scanner.

Choosing *One discrete length* allows you to decode only those bar codes of a specified length. Choosing *Two discrete lengths* allows you to specify two lengths of bar codes that may be decoded. *Length within a range* allows you to decode a code type within a specified range from 4 to 14.

### **Check Digit Verification**

When enabled, this parameter checks the integrity of an I 2 of 5 symbol to ensure it complies with a specified algorithm – either USS (Uniform Symbology Specification) or OPCC (Optical Product Code Council).

### **Transmit Check Digit**

If this parameter is enabled, the check digit is included with the bar code data.

### **Convert to EAN 13**

If this parameter is enabled, the I 2 of 5 bar code is converted to EAN 13.

### **Length Restriction**

Refer to “Length Restriction” on page C-8 for details.

### **Add/Remove Data**

Refer to “Add/Remove Data” on page C-9 for details.

## **C.2.16 Discrete 2 of 5**

### **Enabled**

Set this parameter to *on* to enable “Discrete 2 of 5”.

### **Set Length L1 and Set Length L2**

Lengths for “Discrete 2 of 5” can be set for *Any length*, *Length within a range*, *One discrete length* or *Two discrete lengths*. The length of a code refers to the number of characters (i.e., human readable characters), including check digit(s).

Double-tapping on this parameter displays a dialog box labelled *Set Code Lengths* where you can define the code length that will be recognized by your scanner.

Choosing *One discrete length* allows you to decode only those bar codes of a specified length. Choosing *Two discrete lengths* allows you to specify two lengths of bar codes that may be decoded. *Length within a range* allows you to decode a code type within a specified range from 1 to 12.

### Length Restriction

Refer to “Length Restriction” on page C-8 for details.

### Add/Remove Data

Refer to “Add/Remove Data” on page C-9 for details.

## C.2.17 GS1 DataBar

All *GS1 DataBar* bar codes encode a GTIN-12 or GTIN-13 in a 14-digit data structure. In order to make the GTIN-12 or GTIN-13 a 14-digit data structure, a leading zero or zeros is filled to the left of the GTIN.

### Enable GS1 DataBar Omni, Expanded & Limited

*GS1 DataBar Omni* and *GS1 DataBar Expanded* have omnidirectional scanning capability. *GS1 DataBar Limited* can only be scanned by a linear hand-held scanning device. They cannot be scanned by omnidirectional scanners. Each of these options can be turned *on* or *off* depending on the scanner installed in your hand-held.

### Length Restriction

Refer to “Length Restriction” on page C-8 for details.

### Add/Remove Data

Refer to “Add/Remove Data” on page C-9 for details.

## C.2.18 Composite



***Important: To successfully read this type of bar code, the two types of symbologies included in a composite bar code must be enabled. In addition, “Center Bar Code Only” must be disabled.***

A composite symbol includes multi-row 2D components making it compatible with linear and area CCD scanners along with linear and rastering laser scanners.

The options available for this parameter represent multi-level components of a composite symbol.

### **Enable CC-C and Enable CC-AB**

To activate these components, set these parameters to *on*.

### **Enable TLC-39**

This composite component integrates MicroPDF417 with the linear code. Setting this parameter to *on* enables this parameter.

## **C.2.19 PDF-417**

### **Enable**

Setting this parameter to *on* enables PDF-417 two dimensional (2D) coding.

### **Length Restriction**

Refer to “Length Restriction” on page C-8 for details.

### **Add/Remove Data**

Refer to “Add/Remove Data” on page C-9 for details.

## **C.2.20 Micro PDF-417**

### **Enable**

Setting this parameter to ‘on’ enables “Micro PDF-417” bar code scanning. Micro PDF-417 is a multi-row symbology that is useful for applications requiring greater area efficiency but lower data capacity than PDF-417.

### **Code 128 Emulation**

When this parameter is enabled, the scanner transmits data from certain Micro PDF-417 symbols as if it was encoded in Code 128 symbols.

If Code 128 Emulation is enabled, the following Micro PDF-417 symbols are transmitted with one of the following prefixes:

]C1 - if the first codeword is 903-907, 912, 914, 915

]C2 - if the first codeword is 908 or 909

]C0 - if the first codeword is 910 or 911



If Code 128 Emulation is set to off, the Micro PDF-417 symbols are transmitted with one of the following prefixes:

JL3 - if the first codeword is 903-907, 912, 914, 915

JL4 - if the first codeword is 908 or 909

JL5 - if the first codeword is 910 or 911

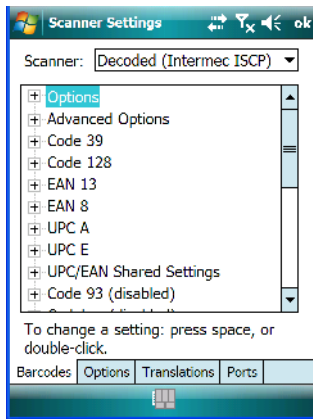
### Length Restriction

Refer to “Length Restriction” on page C-8 for details.

### Add/Remove Data

Refer to “Add/Remove Data” on page C-9 for details.

## C.3 Decoded (ISCP)



- Tap on the **Scanner** drop-down menu, and choose **Decoded (Intermec ISCP)**.

### C.3.1 Options - Decoded Scanner

#### Laser On Time

The value assigned to this parameter determines how long the laser will remain on when the scan button or trigger is pressed.

Double-tapping on this parameter displays a dialog box in which you can enter a value between 1 and 10 seconds.

## C.3.2 Advanced Options - Decoded Scanner

### Continuous Scan Mode

Setting this parameter to 'on' keeps the laser on and continuously decoding as long as the scanner button is pressed and held down.

### Minimum Cancel Time

The value assigned to this parameter determines the time delay before the scanner is turned off, once the scanner trigger or button is released. This gives the scanner a minimum amount of time to complete its current decode before the scan is cancelled when the user quickly triggers on/off.

### Low Power Timeout

To extend laser life, you can select the length of time the scanner remains active following a successful decode. The scanner wakes from low power mode when a bar code is scanned – a successful decode restores normal blinking.

When you double-tap on this parameter, a dialog box is displayed in which you can choose a value of 30 sec, 1 min, 2 min or 3 min.



*Note: This parameter is only used if the Trigger Mode has been set to Continuous On and NEO is mounted in a fixed position; otherwise, 'Low Power Timeout' is not used.*

### Parameter Scanning

Setting this parameter to 'Enabled' allows decoding of parameter bar codes.

### Same Read Validate

The data is only transmitted after repeated reads give the same result. The value assigned at this parameter determines the number of reads required, from 0 to 10 times.

### Same Read Timeout

Prevents the same bar code from being read more than once. The value assigned determines after what time period the scanner will timeout, from 0 to 2550 msec.

### Diff Read Timeout

Prevents unwanted reading of other bar codes on the same label. The value assigned determines after what time period the scanner will timeout, from 0 to 2550 msec.

### **Add AIM ID Prefix**

The *AIM ID* (Association for Automatic Identification and Mobility) is an international bar code identifier. When this parameter is enabled, the *AIM ID* is inserted at the beginning of the decoded bar code.

### **Aim Duration**

This parameter determines the total time the aiming pattern appears before the scanner laser begins sweeping. When you double-tap on this parameter, a dialog box is displayed in which you can enter a value from 0 to 2550 milliseconds. A value of 0 (zero) disables the aiming dot.

## **C.3.3 Code 39**

### **Enable**

Setting this parameter to *on* enables “Code 39”.

### **Full ASCII**

If this parameter is enabled, the characters +, %, and / are used as escape characters. The combination of an escape character and the next character is converted to an equivalent ASCII character.

### **Reading Range**

Determines the reading distance from which a bar code can be successfully scanned. The default setting, Extended, allows for increased reading distance.

### **Start/Stop Transmit**

Setting this parameter to *on* enables the transmission of start and stop characters, which are usually not transmitted. Code 39 can start and end with either a \* or a \$ character (see also next parameter, “Accepted Start Char”).

### **Accepted Start Char**

This parameter allows the user the option of using one of the two start/stop characters or both (\$ char, \* char, \$ and \* char).

### **Check Digit Verification**

Uses the specified algorithm of the option you've chosen to ensure the integrity of the symbol data before transmitting. If the data does not contain that algorithm, the data is not transmitted. The available options are: Disabled, MOD 43 Check, French CIP, or Italian CIP.



*Note: French CIP (French pharmaceutical) is only used with bar codes containing 7 characters.*

*Italian CIP (Italian pharmaceutical) is also known as Code 32. It is transmitted as a standard Code 39 if checksum is not validated.*

### **Transmit Check Digit**

If the check digit is to be transmitted with the data, this parameter must be enabled.

### **Minimum Length**

Minimum lengths for the bar code can be set from 0 to 255. The length of a code refers to the number of characters (i.e., human readable characters), including check digit(s).

### **Length Restriction**

Refer to “Length Restriction” on page C-8 for details.

### **Add/Remove Data**

Refer to “Add/Remove Data” on page C-9 for details.

## **C.3.4 Code 128**

### **Enable**

Setting this parameter to *on* enables “Code 128”.

### **GS1-128**

“GS1-128” is the GS1 implementation of the Code 128 barcode specification. The former correct name was UCC/EAN-128.

### **GS1-128 Identifier**

“GS1-128 Identifier” allows the AIM ID “]C1” for EAN 128 to be transmitted or removed. By default, this identifier is transmitted if EAN 128 is enabled.

### **GTIN Compliant**

GTIN (global trade item number) processing transmits EAN 128 as the 14-character EAN/UCC GTIN. To use GTIN processing, you must activate the EAN 128 symbology.



***Important: When EAN 128 and GTIN processing are both activated, it is not possible to read normal EAN 128 Codes.***

## FNC1 Conversion

“FNC1 Conversion” allows the embedded FNC1 character to be converted to another character for applications that cannot use the default <GS> Group Separator or hex (1d).

Double-tapping on this option displays a dialog box listing the allowable range – 0 to 255.

## Enable ISBT 128

To successfully scan this type of bar code (International Society of Blood Transfusion), this option must be set to *on*. If you enable this type of bar code, Code 128/EAN 128 is deactivated to avoid any confusion.

## ISBT Concat Transmit

The codes are not concatenated by default. You need to choose one of the options provided for this parameter to send concatenated code. Choosing Only Concatenated Codes transmits only concatenated codes—single codes will not be transmitted. Choosing Concatenated or Single transmits single codes or concatenated codes. If only one code of a pair is read, that code will be transmitted as a single code. If both codes in a pair are detected, they will be concatenated provided that ISBT Concat Any Pair (see below) is enabled.

## ISBT Concat Any Pair

Enabling this parameter causes all code pairs that can be, to be concatenated even if they do not comply with Section 4.1 of the “ISBT 128 Bar Code Symbology and Application Specification for Labeling of Whole Blood and Blood Components” (June 2000, Version 1.2.1).

## Reading Range

Determines the reading distance from which a bar code can be successfully scanned. The default setting Extended, allows for increased reading distance.

## Check Digit Verification

The available options for this parameter are Disabled or French CIP. This parameter uses the specified algorithm of the option you've chosen to ensure the integrity of the symbol data before transmitting. If the data does not contain that algorithm, the data is not transmitted.



*Note: French CIP (French pharmaceutical) is only used with bar codes containing 7 characters.*

## Minimum Length

Minimum lengths for the bar code can be set from 0 to 255. The length of a code refers to the number of characters (i.e., human readable characters), including check digit(s).

### **Length Restriction**

Refer to “Length Restriction” on page C-8 for details.

### **Add/Remove Data**

Refer to “Add/Remove Data” on page C-9 for details.

## **C.3.5 EAN 13**

### **Enabled**

Set this parameter to *on* to enable “EAN 13”.

### **ISBN Conversion**

When this parameter (International Standard Book Number) is enabled, the first 3 characters (‘978’) are ignored and the checksum (0.9, ‘X’) is calculated on the remaining characters.

### **Transmit Check Digit**

If the check digit is to be transmitted with the data, this parameter must be enabled.

### **Add/Remove Data**

Refer to “Add/Remove Data” on page C-9 for details.

## **C.3.6 EAN 8**

### **Enabled**

Set this parameter to *on* to enable “EAN 8”.

### **Transmit Check Digit**

If the check digit is to be transmitted with the data, this parameter must be enabled.

### **Convert To EAN 13**

If this parameter is enabled, an EAN 8 bar code is converted to EAN 13.

### **Add/Remove Data**

Refer to “Add/Remove Data” on page C-9 for details.

### C.3.7 UPCA

#### Enabled

Set this parameter to *on* to enable “UPC A” bar code scanning recognition.

#### Transmit Check Digit

If the check digit is to be transmitted with the data, this parameter must be enabled.

#### Transmit Number System

If this parameter is enabled, the number system digit is transmitted with the decoded bar code data.

#### Convert to EAN 13

If this parameter is enabled, a UPC A bar code is converted to EAN 13.

#### Add/Remove Data

Refer to “Add/Remove Data” on page C-9 for details.

### C.3.8 UPC E

#### Enabled

Set this parameter to *on* to enable “UPC E”.

#### Enable UPC-E1

Set this parameter to *on* to allow “UPC-E1” (zero suppressed) bar code scans.

#### Transmit Check Digit

If the check digit is to be transmitted with the data, this parameter must be enabled.

#### Transmit Number System

If this parameter is enabled, the number system digit is transmitted with the decoded bar code data.

#### Convert to UPC-A

This parameter converts UPC E (zero suppressed) decoded data to UPC A format before transmission. After conversion, data follows UPC A format and is affected by UPC A programming selections (e.g. Check Digit).

## Add/Remove Data

Refer to “Add/Remove Data” on page C-9 for details.

### C.3.9 UPC/EAN Shared

The setting assigned to the “Addendum” parameter associated with this option is shared across all UPC and EAN bar codes.

#### Addendum

An addendum is a separate bar code, supplementary to the main bar code. This parameter provides two options: *Not Required but Transmitted if Read* or *Required and Transmitted*.

- Double-tap on **Addendum** to display a dialog box listing your options.
- Highlight an item, and tap on **OK**.

When “Addendum” is set to *Not Required but Transmitted if Read*, the scanner searches for an addendum and if one exists, appends it to the main bar code. When the parameter is set to *Required and Transmitted*, the scanner does not accept the main bar code without an addendum.

#### Addendum Add-on 2 and Addendum Add-on 5

Enabling these parameters sets the length of the addendum bar code to either 2 or 5 characters.

#### Addendum Security

If you tap on “Addendum Security”, a dialog box is displayed in which you can define the security level of add-on 2 or add-on 5 with a value from 0 to 100. As security levels increase, the scanner decode speed decreases.

#### GTIN Compliant

GTIN (global trade item number) processing transmits EAN 128 as the 14-character EAN/UCC GTIN. To use GTIN processing, you must activate the EAN 128 symbology.



***Important: When EAN 128 and GTIN processing are both activated, it is not possible to read normal EAN 128 Codes.***

#### Reading Range

This parameter determines the reading distance from which a bar code can be successfully scanned. The default setting, *Extended*, allows for increased reading distance.



### C.3.10 Code 93

#### Enabled

Set this parameter to 'on' to enable "Code 93".

#### Minimum Length

Minimum lengths for the bar code can be set from 0 to 255. The length of a code refers to the number of characters (i.e., human readable characters), including check digit(s).

#### Length Restriction

Refer to "Length Restriction" on page C-8 for details.

#### Add/Remove Data

Refer to "Add/Remove Data" on page C-9 for details.

### C.3.11 Codabar

#### Enabled

Set this parameter to *on* to enable "Codabar".

#### Start/Stop Transmit

Codabar can use the following sets of characters as start and stop characters:

a, b, c, d

A, B, C, D

a, b, c, d, /, t, n, \*, e

DC1, DC2, DC3, DC4

Thus, when a set is chosen, the first and last digits of a Codabar message must be one of those characters and the body of the message should not contain these characters. Setting this parameter to Not Transmitted strips the start and stop characters from this bar code.

#### CLSI Library System

When enabled, spaces are inserted after characters 1, 5, 10 in the 14-character label (used in the USA by libraries using the CLSI system).

### Check Digit Verification

When enabled, this parameter checks the integrity of a symbol to ensure it complies with a specified algorithm – either *USS* (Uniform Symbology Specification) or *OPCC* (Optical Product Code Council).

### Transmit Check Digit

If the check digit is to be transmitted with the data, this parameter must be enabled.

### Set Length L1, Set Length L2, and Set Length L3

Lengths for “Codabar” can be set from 0 to 255. The length of a code refers to the number of characters (i.e., human readable characters), including check digit(s).

Double-tapping on these parameters displays dialog boxes where you can define the code length that will be recognized by your scanner.

### Length Mode

You can choose to set L1 as Minimum Length or L1,L2,L3 as Fixed Length.

### Length Restriction

Refer to “Length Restriction” on page C-8 for details.

### Add/Remove Data

Refer to “Add/Remove Data” on page C-9 for details.

## C.3.12 MSI Plessey

### Enabled

Set this parameter to *on* to enable “MSI”.

### Enable Plessey

Set this parameter to *on* to enable “Plessey”.

### Check Digit Verification

The available options for this parameter are *MOD 10 Check* and *Double MOD 10 Check*. This parameter uses the specified algorithm of the option you've chosen to ensure the integrity of the symbol data before transmitting. If the data does not contain that algorithm, the data is not transmitted.

### **Transmit Check Digit**

If the check digit is to be transmitted with the data, this parameter must be enabled.

### **Plessy Transmit Check Digit**

If the check digit is to be transmitted with the Plessy data, this parameter must be enabled.

### **Minimum Length**

Minimum lengths for the bar code can be set from *0 to 255*. The length of a code refers to the number of characters (i.e., human readable characters), including check digit(s).

### **Plessy Minimum Length**

Minimum lengths for the Plessy bar code can be set from *0 to 255*. The length of a code refers to the number of characters (i.e., human readable characters), including check digit(s).

### **Length Restriction**

Refer to “Length Restriction” on page C-8 for details.

### **Add/Remove Data**

Refer to “Add/Remove Data” on page C-9 for details.

## **C.3.13 Code 11**

### **Enabled**

Set this parameter to *on* to enable “Code 11”.

### **Check Digit Verification**

The available options for this parameter are *MOD 10 Check* and *Double MOD 10 Check*. This parameter uses the specified algorithm of the option you've chosen to ensure the integrity of the symbol data before transmitting. If the data does not contain that algorithm, the data is not transmitted.

### **Transmit Check Digit**

If the check digit is to be transmitted with the data, this parameter must be enabled.

### **Minimum Length**

Minimum lengths for the bar code can be set from *0 to 255*. The length of a code refers to the number of characters (i.e., human readable characters), including check digit(s).

### Length Restriction

Refer to “Length Restriction” on page C-8 for details.

### Add/Remove Data

Refer to “Add/Remove Data” on page C-9 for details.

## C.3.14 Interleaved 2 of 5

### Enabled

Set this parameter to *on* to enable “Interleaved 2 of 5”.

### Reading Range

This parameter determines the reading distance from which a bar code can be successfully scanned. The default setting, *Extended*, allows for increased reading distance.

### Check Digit Verification

The available options for this parameter are *Disabled*, *MOD 10 Check* and *French CIP*. “Check Digit Verification” uses the specified algorithm of the option you've chosen to ensure the integrity of the symbol data before transmitting. If the data does not contain that algorithm, the data is not transmitted.



*Note: French CIP (French pharmaceutical) is only used with bar codes containing 7 characters.*

### Transmit Check Digit

If the check digit is to be transmitted with the data, this parameter must be enabled.

### Set Length L1, Set Length L2, and Set Length L3

Lengths for “Interleaved 2 of 5” can be set from *0 to 255*. The length of a code refers to the number of characters (i.e., human readable characters), including check digit(s).

Double-tapping on these parameters displays dialog boxes where you can define the code length that will be recognized by your scanner.

### Length Mode

You can chose to set L1 as Minimum Length or L1,L2,L3 as Fixed Length.

### Length Restriction

Refer to “Length Restriction” on page C-8 for details.

### **Add/Remove Data**

Refer to “Add/Remove Data” on page C-9 for details.

## **C.3.15 Matrix 2 of 5**

### **Enabled**

Set this parameter to *on* to enable “Matrix 2 of 5”.

### **Minimum Length**

Minimum lengths for the bar code can be set from *0 to 255*. The length of a code refers to the number of characters (i.e., human readable characters), including check digit(s).

### **Length Restriction**

Refer to “Length Restriction” on page C-8 for details.

### **Add/Remove Data**

Refer to “Add/Remove Data” on page 9 for details.

## **C.3.16 Discrete 2 of 5**

### **Enabled**

Set this parameter to *on* to enable “Discrete 2 of 5”.

### **Standard 2 of 5 Format**

This parameter allows you to choose a standard format – either *Identic on (6 start/stop bars)* or *Computer Identics (4 start/stop bars)*.

### **Check Digit Verification**

The available options for this parameter are *Disabled* and *MOD 10 Check*. “Check Digit Verification” uses the specified algorithm of the option you've chosen to ensure the integrity of the symbol data before transmitting. If the data does not contain that algorithm, the data is not transmitted.

### **Transmit Check Digit**

If the check digit is to be transmitted with the data, this parameter must be enabled.

### **Set Length L1, Set Length L2, and Set Length L3**

Lengths for “Discrete 2 of 5” can be set from *0 to 255*. The length of a code refers to the number of characters (i.e., human readable characters), including check digit(s).

Double-tapping on these parameters displays dialog boxes where you can define the code length that will be recognized by your scanner.

### **Length Mode**

You can chose to set *L1* as *Minimum Length* or *L1,L2,L3* as *Fixed Length*.

### **Length Restriction**

Refer to “Length Restriction” on page C-8 for details.

### **Add/Remove Data**

Refer to “Add/Remove Data” on page C-9 for details.

## **C.3.17 Telepen**

### **Enabled**

Set this parameter to *on* to enable “Telepen”.

### **Format**

This parameter allows you to set the bar code character format to either *ASCII* or *Numeric*.

### **Minimum Length**

Minimum lengths for the bar code can be set from *0* to *255*. The length of a code refers to the number of characters (i.e., human readable characters), including check digit(s).

### **Length Restriction**

Refer to “Length Restriction” on page C-8 for details.

### **Add/Remove Data**

Refer to “Add/Remove Data” on page C-9 for details.

## **C.3.18 GS1 DataBar**

All *GS1 DataBar* bar codes encode a GTIN-12 or GTIN-13 in a 14-digit data structure. In order to make the GTIN-12 or GTIN-13 a 14-digit data structure, a leading zero or zeros is filled to the left of the GTIN.

### **Enable GS1 DataBar Omni, Expanded & Limited**

*GS1 DataBar Omni* and *GS1 DataBar Expanded* have omnidirectional scanning capability. *GS1 DataBar Limited* can only be scanned by a linear hand-held scanning device. They

cannot be scanned by omnidirectional scanners. Each of these options can be turned *on* or *off* depending on the scanner installed in your hand-held.

### Length Restriction

Refer to “Length Restriction” on page C-8 for details.

### Add/Remove Data

Refer to “Add/Remove Data” on page C-9 for details.

## C.3.19 Composite



***Important:*** *To successfully read this type of bar code, the two types of symbologies included in a composite bar code must be enabled. In addition, “Center Bar Code Only” must be disabled.*

A composite symbol includes multi-row 2D components making it compatible with linear and area CCD scanners along with linear and rastering laser scanners.

The options available for this parameter represent multi-level components of a composite symbol.

### Enable CC-C and Enable CC-AB

To activate these components, set these parameters to *on*.

### Linear Transmission Only

When ‘Linear Transmission Only’ is enabled, only the linear code portion of the composite bar code is transmitted when scanned.

### UPC-EAN Composite Message

This option allows you to choose how UPC-EAN shared bar codes are transmitted: *Always Linked*, *Never Linked* or *Auto-discriminate*.

## C.3.20 TLC-39

### Enable

This composite component integrates MicroPDF417 with the linear Code 39 symbol. Setting this parameter to *on* enables this parameter.

### **Linear Transmission Only**

When “Linear Transmission Only” is enabled, only the linear portion of the composite bar code is transmitted when scanned.

### **Security Level**

This parameter is used to differentiate between TLC-39 and standard Code 39. Tapping on “Security Level” displays a dialog box in which you can assign a value from 0 to 100. The higher the value assigned, the lower the decode rate.

### **Length Restriction**

Refer to “Length Restriction” on page C-8 for details.

### **Add/Remove Data**

Refer to “Add/Remove Data” on page C-9 for details.

## **C.3.21 PDF-417**

### **Enabled**

Set this parameter to *on* to enable “PDF-417”.

### **Length Restriction**

Refer to “Length Restriction” on page C-8 for details.

### **Add/Remove Data**

Refer to “Add/Remove Data” on page C-9 for details.

## **C.3.22 Micro PDF-417**

### **Enabled**

Set this parameter to *on* to enable “Micro PDF-417”.

### **Code 128 Emulation**

When this parameter is enabled, the scanner transmits data from certain Micro PDF-417 symbols as if it was encoded in Code 128 symbols.

If Code 128 Emulation is enabled, the following Micro PDF-417 symbols are transmitted with one of the following prefixes:

]C1 - if the first codeword is 903-907, 912, 914, 915

]C2 - if the first codeword is 908 or 909



]C0 - if the first codeword is 910 or 911

If Code 128 Emulation is set to off, the Micro PDF-417 symbols are transmitted with one of the following prefixes:

]L3 - if the first codeword is 903-907, 912, 914, 915

]L4 - if the first codeword is 908 or 909

]L5 - if the first codeword is 910 or 911

### **Length Restriction**

Refer to “Length Restriction” on page C-8 for details.

### **Add/Remove Data**

Refer to “Add/Remove Data” on page C-9 for details.

## **C.3.23 Codablock**

### **Enable Codablock A**

Set this parameter to *on* to enable “Codablock type A”.

### **Enable Codablock F**

Set this parameter to *on* to enable “Codablock type F”.

### **Length Restriction**

Refer to “Length Restriction” on page C-8 for details.

### **Add/Remove Data**

Refer to “Add/Remove Data” on page C-9 for details.



# INDEX

## A

- About Device icon *131*
- About icon (software version) *131*
- Accepted Start Char** *C-21*
- accessories
  - desktop docking station *216*
  - Ethernet adaptor cable *220*
  - hand strap *205*
  - quad docking station *222*
- ActiveSync *21, 79*
  - setting up *79*
- Adaptor
  - Cable/Dongle Micro-USB to Ethernet (Model No. PX3052) *212*
  - Cable Micro-USB to USB A Receptacle (Model No. PX3058) *212*
  - Micro-USB with DC Jack (Model No. 3054) *214*
  - RS232 (Model No. PX3050) *212*
- adaptor cable
  - USB-Ethernet *220*
- Addendum** *C-26*
- Addendum Add-on 2** *C-26*
- Addendum Add-on 5** *C-26*
- Addendum Security** *C-26*
- Add Remove Data (bar code scanning)**
  - C-9*
  - Prefix** *C-9*
  - Strip Leading** *C-9*
  - Suffix Char** *C-9*
- Aim Duration** *D-3, D-21*
- aiming dot, duration of *C-2*
- alarm, setting *53*
- alarms, setting *136*
- aligning touchscreen *37*
- All
  - Predefined preset *B-2*
- alpha keys, accessing *35*
- ALT Key *33*
- appending to bar codes
  - characters *158*

App Launch icon *110*

ASCII

**Full Ascii** *C-21*

audio indicators

beep conditions *39*

volume adjustment *39*

## B

backlight

Battery Power tab *132*

External Power tab *133*

intensity *36*

Intensity tab *133*

backup battery *11*

backup profile, creating (Total Recall) *163*

backup profile, restoring (Total Recall)

*166*

backup profile, viewing (Total Recall) *167*

**Bad Scan Beep** *158*

Bar code

Decoding symbology predefined

presets *B-2*

bar code

appending to *158*

Decoded *C-2*

displaying type of bar code *158*

Options tab *157*

symbologies

Codabar *B-29, C-13, C-27*

Code 11 *B-31, C-29*

Code 128 *C-9*

Code 93 *B-29, C-13, C-27*

Discrete 2 of 5 *B-32, C-16, C-31*

EAN 13 *C-10, C-24*

EAN 8 *C-10, C-24*

IATA 2 of 5 *B-32*

Interleaved 2 of 5 *B-31, C-15, C-30*

Matrix 2 of 5 *B-32, C-31*

MSI Plessey *B-30, C-14, C-28*

UPC A *B-27, C-11, C-25*

UPC E *B-28, C-11, C-25*

- Translation tab 159
- bar code reader
  - integrated scanner, operation of 225
- batteries
  - a description of 211
  - backup 11
  - battery cover, standard version 11
  - Battery Details tab 148
  - battery hotkey 53
  - Battery info. tab 147
  - battery power, managing 146
  - Battery Power tab 132
  - battery settings 147
  - charging 11
  - installing 28
  - installing main battery 11
  - main battery 11
  - pinouts A-2
  - removing 28
  - run time 40
  - storing 40
  - swap time 29
- battery
  - charging 29
- battery cover, standard version 11
- battery power, managing 146
- Baud Rate (modem setup) 188
- beeper
  - beep conditions 39
  - volume adjustment 39
- Bi-Direction Redundancy** C-4
- BKSP (DEL Key) 33
- Block Recognizer 73
- Bluetooth* 41
  - pairing devices 42
- Bluetooth* devices, pairing 182
- Bluetooth* radio
  - ISM band 177
- Bluetooth* setup
  - peripherals 226
- Bluetooth* setup 177
  - Device tab 180
  - GPRS setup 186
  - Mode tab 185
  - Paired tab 178
  - Servers tab 184
- Bluetooth* specs 232
- BooSt menu, accessing 23
- boot (reset) 23

- Built-in Devices tab 149
- Buttons icon 112

## C

- cable diagrams A-1
- calculator 80
- calendar 59
  - categories, using 61
  - creating & editing entries 59
  - deleting appointments 62
  - reminders, creating 60
- calibrating touchscreen 37
- Call Options (modem setup) 189
- Card Slots tab (Power) 149
- certificates 134
- charger
  - descriptions of 30
- chargers 215
  - desktop docking station 216
  - installing at a site 216
  - operator controls 216
- charging (main battery) 11
- check digit C-15
- Check Digit, One** C-15
- Check Digits (MSI Plessey)** C-15
- Check Digit Strip** B-26
- Check Digit Verification** C-7, C-21, C-23, C-28, C-29, C-30, C-31
- Check Digit Verification (Codabar)** C-28
- Check Digit Verification (I 2 of 5)** C-16
- cleaning hand-held 47
- Click Data** (scanner double-click) 158
- Click Time** (scanner double-click) 157
- clock, setting 53, 136
- CLSI Editing** C-14
- CLSI Library System** C-27
- Codabar B-29, C-13, C-27
- Codabar** C-13
- Codablock** B-35, C-35
- Code Page**
  - Default Local ASCII** 159
  - ISO-8859-1 Latin 1)** 159
- code page (Data Handling) 159
- Code 11 B-31, C-29
- Code 128** C-9, C-22
- Code 128 Emulation** C-18, C-34
- Code 16K** B-34

- Code 32, Convert To** C-6
  - Code 32 Prefix** C-6
  - Code 39** C-6, C-21
  - Code 49** B-35
  - Code 93 B-29, C-13, C-27
  - Code 93** C-13
  - cold reset to OS (bypass BooSt) 23
  - communication
    - ActiveSync 21, 79
    - data transfer 20
    - Ethernet connection (desktop dock) 220
    - Ethernet connection (quad dock) 223
    - NEO to PC 12, 220
    - Vista 21
  - Composite** B-34, C-17, C-33
  - Concatenation** B-25, B-30
  - configuring IEEE 802.11 radio 12
  - connecting to a server with 101
  - connection, cancelling (modem) 189
  - Connection Properties (serial modem) 187
  - Connections 174
    - editing settings 197
    - Internet 189
    - managing 197
    - modem setup 190
    - network, selecting 199
    - network cards, setting up 195
    - Proxy Server setup 200
    - VPN, setting up 196
  - connections
    - managing 196
  - Connections (Internet) 189
  - connectivity hotkey 52
  - Continuous Scan Mode** C-20
  - Conv. UPC-E To UPC-A** C-12
  - Conv. UPC-E1 To UPC-A** C-12
  - Convert To Code 32** C-6
  - Convert To EAN 13** C-16, C-24, C-25
  - Convert To UPC -A** C-25
  - Copyright information, operating system 131
  - credit card, wait for (modem setup) 189
  - CTRL Key 33
  - Custom preset B-1
- D**
- Data Bits (modem setup) 188
  - data entry modes
    - handwriting 87
    - typing 87
  - Data Handling (code page) 159
  - Data Matrix, 2D** B-36
  - date, setting 53
  - debug (error handling) 136
  - Decoded (Internal) Scanner C-2
  - Decoded (internal) scanner parameters C-2
  - Decoded Intermec (ISCP) parameters C-19
  - decoded scanner C-2
  - Decode Performance** C-8, C-9
  - Decode Performance Level** C-8, C-10
  - Decoding symbology
    - Predefined symbology B-2
  - Default
    - Predefined preset B-2, B-3, B-4
  - Default identifier
    - Preset group B-2
  - Default Local ASCII** (Code Page) 159
  - DEL (BKSP) Key 33
  - Delete Char Set ECIs** C-6
  - desktop docking station (WA4002) 216
  - desktop screen (Today's Screen) 51
  - Device ID tab 131
  - Device tab (*Bluetooth*) 180
  - Dial-String Commands (modem setup) 189
  - Dial Tone, wait for (modem setup) 189
  - Diff Read Timeout** C-20
  - digit
    - check digit C-15
  - Discrete 2 of 5 B-32, C-16, C-31
  - Discrete 2 of 5** C-16
  - display
    - backlight, adjusting 36
  - docking station
    - uploading data using 41
  - docking stations 215
    - desktop docking station 216
    - installation at site 216
    - operator controls 216
    - quad dock 222
  - Dot Time** C-2
  - double-click
    - appending characters to a decoded bar code 158
    - scanner trigger 157

**Double-Click**, Manage Triggers menu

142

Dr. Debug 136

## E

EAN 13 C-10, C-24

EAN 8 C-10, C-24

**EAN-8 Zero Extend** C-10

**ECI Decoder** C-6

email notification 56

**Enable AIM Output** (Telepen) B-32

**Enable Bookland (UPC-EAN)** C-12

**Enable CC-AB** C-18, C-33

**Enable CC-C** C-18, C-33

**Enable Plessy** C-28

**Enable TLC-39** C-18

Error Reporting 139

ESC Key 33

Ethernet card *See* Network Card 195

EV15 1D imager scanner specifications  
234

Excel Mobile 80

External GPS 139

External Power tab 133

## F

features, NEO 4

**Field Size** C-8

file, renaming 65

File Explorer 64, 88

copy 65

copying a file 65

deleting file 65

folders, creating 65

renaming file 65

files & folders, managing 64

find (search) 102

flight mode (disabling the WLAN  
connection) 194

**FNC1 Conversion** C-23

folder, copying 65

folder, creating 65

folder, deleting 65

folder, renaming 65

**Full Ascii** C-21

**Full ASCII (decoded scanner)** C-8

Function keys 34

## G

Games 79

Glossy surface

Predefined preset B-3

**Good Scan Beep** 158

GPRS (*bluetooth*) 186

GPS (external) 139

**GS1 DataBar** B-33, B-17, B-32

**GS1-128 GS1 US** C-9

**GS1-128 Identifier** C-22

**GTIN Compliant** C-22, C-26

## H

hand strap 205

hardware, description of 131

headsets, pairing (*Bluetooth*) 42, 182

Help 71

HHP 5000 imager specs 235

## I

IATA 2 of 5 B-32

Identifier

Default preset group B-2

IEEE radio, configuring 12

Imager

EV15 specifications 234

HHP 5000 specs 235

Imager Applet B-1

imager options 225

Imager Settings 155

indicators

LED functions 38

scanner message 225

softkey bar 67

inking settings 123

Input Methods 121

Block Recognizer 73, 121

Input Method tab 121

Keyboard Options 122

Letter Recognizer 75, 122

soft keyboard 72

Transcriber 72

Transcriber options 123

input modes

handwriting 87

typing 87

integrated scanner option 225

Intensity tab (backlight) 133

Interleaved 2 of 5 B-31, C-15, C-30

internal scanner, decoded *C-2*  
 Internet connection *189*  
 Internet Explorer *97*  
     browsing web sites *97*  
 Internet Sharing *89*  
 IP Address, assigning *19*  
**ISBN Conversion** *B-27, C-24*  
**ISBT Concat Any Pair** *C-23*  
 ISBT Concatenation *B-26*  
**ISBT Concat Transmit** *C-23*  
**ISBT 128** *C-9, C-23*  
 ISM band, *Bluetooth* radio *177*  
**ISO-8859-1 Latin 1** (code page) *159*

## K

keyboard  
     alpha keyboard *35*  
     one shot mode *113*  
     options *122*  
     Scancode remapping *117*  
     Unicode Mapping *116*  
 keyboard, soft (onscreen) *72*  
 keyboard keys *33, 35*  
     ALT *33*  
     BKSP *33*  
     CTRL *33*  
     DEL *33*  
     ESC *33*  
     Macro keys *35, 114*  
     modifier keys, locking & unlocking *32*  
     modifiers *31*  
     one shot mode *113*  
     punctuation, accessing *33*  
     SCAN *34*  
     Scancode Remapping *117*  
     shift-state indicator icon *31, 32, 67*  
     SPACE *34*  
     Unicode Mapping *116*

## L

landscape orientation *38*  
**Laser On Time** *C-2, C-19*  
 LED  
     functions *38*  
**Length Mode** *C-28, C-30, C-32*  
**Length Restriction (bar code scanning)**  
     *C-8*  
     **Field Size** *C-8*  
     **Maximum Size** *C-8*

**Minimum Size** *C-8*  
 Letter Recognizer *75*  
 Letter Recognizer options (Input Methods tab) *122*  
 Linear  
     Predefined preset *B-2*  
 Linear and PDF  
     Predefined preset *B-3*  
**Linear Decode** *C-13*  
**Linear Security Level** *C-3*  
**Linear Transmission only (Decoded Composite)** *C-33*  
**Linear Transmission only (TLC-39)**  
     *C-34*  
 linking hand-held to PC *12, 20*  
 Lock Sequence *120*  
 Low light  
     Predefined preset *B-3*  
 Low power  
     Predefined preset *B-3*  
**Low Power Timeout** *C-3, C-20*  
**L1, Set Length** *C-7*  
**L2, Set Length** *C-7*

## M

Macro keys *35*  
     deleting a macro *115*  
     executing a macro *115*  
     Macros menu, accessing *114*  
     recording and saving *114*  
 maintenance (of hand-held) *47*  
**Mandatory Enabled** *B-26*  
 mapping  
     Scancode *117*  
     Unicode *116*  
 Marvell Radio  
     Advanced tab *20*  
     Authentication modes *15*  
     Configuration tab *14*  
     configuring *12*  
     EAP types *16*  
     Encryption *17*  
     IP address *19*  
     Name Servers *19*  
     Status tab *13*  
 Matrix  
     Predefined preset *B-3*  
 Matrix 2 of 5 *B-32, C-31*  
**Maximum Length** *B-25, B-26*

- Maximum Size** C-8
- Memory
  - amount available 145
  - Storage Card tab 146
- menus
  - pop-up 66
  - using 66
- messages
  - Scan Indicator** 158
  - scanner warning message 158
  - Scan Result** 158
- Messaging 98
  - folders 98
  - Outlook email, synchronizing 99
- Micro PDF-417** B-34, C-18, C-34
- Micro-SD Card, inserting 45
- Micro-USB with DC Jack Adaptor (Model No. 3054) 214
- Minimum Cancel Time** C-3, C-20
- Minimum Length** B-25, B-26, C-22, C-23, C-27, C-29, C-31, C-32
- Minimum Size** C-8
- Mode, *Bluetooth* 185
- modem setup 190
  - Baud Rate 188
  - Call Options 189
  - Cancel If Not Connected 189
  - Data Bits 188
  - Dial-String Commands 189
  - Parity 188
  - Port Settings 188
  - Server Settings 193
  - Stop Bits 188
  - TCP\_IP Settings 193
  - Wait For Credit Card 189
  - Wait For Dial Tone 189
- modifier keys 31
  - locking & unlocking 31
  - One Shot Mode 113
  - shift-state indicator icon 31, 67
- Motion
  - Predefined preset B-4
- MSI Plessey B-30, C-14, C-28
- N**
  - name, assigning to NEO 131
  - navigation bar 52
    - Battery hotkey 53
    - connectivity hotkey 52
    - Start button 52
    - volume control 53
  - network, selecting 199
  - network card
    - settings, changing 196
    - setting up 195
  - New menu, customizing 63
  - Note
    - creating 91
    - recording a message (audio) 93
    - renaming 93
    - synchronizing 95
    - text, converting handwriting into 92
  - Notes 91
  - Notification, setting 128
  - NOTIS Editing** C-14
  - Number System** B-27
- O**
  - Off & On buttons 30
  - On & Off button 30
  - One Check Digit** C-15
  - one dimensional internal scanner 225
  - One Shot Mode 113
  - One Shot tab (modifier keys) 113
  - onscreen (soft) keyboard 72
  - Options tab (bar codes) 157
  - orientation, screen 38
  - Outlook email, synchronizing (Messaging) 99
  - Owner Information 127
  - ownership information, defining 55
- P**
  - Paired tab (*Bluetooth*) 178
  - pairing *Bluetooth* devices 182
  - Parameter Scanning** C-3, C-20, C-21, C-22, C-23, C-26, C-27, C-29, C-30, C-31, C-32
  - Parity (modem setup) 188
  - PC, connecting NEO to 220
  - PC, linking to NEO 12
  - PDF and linear
    - Predefined preset B-3
  - PDF-417** C-18, C-34
  - Pharmaceutical** B-25
  - Pictures
    - deleting 96
    - editing 96



- opening 96
  - slide show, creating 96
  - Pictures and Videos 95
  - pinouts *A-1*
  - Plessey Maximum Length** *B-30*
  - Plessey Minimum Length** *B-30*
  - Plessey Transmit Check Digit** *C-29*
  - Pocket Excel
    - workbook components 81
  - Pocket Word 86
  - port pinouts *A-1*
  - portrait orientation 38
  - Port Settings (modem setup) 188
  - Posi Code** *B-33*
  - Postal
    - Predefined preset *B-3*
  - Postal**
    - Australian *B-37*
    - Canadian *B-37*
    - China *B-37*
    - Japanese *B-38*
    - Kix *B-38*
    - Korean *B-38*
    - PlaNET *B-37*
    - PostNET *B-37*
    - Royal *B-38*
  - Power 146
    - Advanced battery settings 147
    - Battery Details tab 148
    - Battery tab 147
    - Built-in Devices tab 149
    - Card Slots tab 149
    - On Battery Power 147
    - On External Power 147
    - Suspend Threshold 150
  - Power button 11
  - powering up 11
  - Power Mode** Decoded (Internal)
    - Scanner *C-3*
  - Predefined preset *B-1*
    - All *B-2*
    - Default *B-2, B-3, B-4*
    - Glossy surface *B-3*
    - Linear *B-2*
    - Linear and PDF *B-3*
    - Low light *B-3*
    - Low power *B-3*
    - Matrix *B-3*
    - Motion *B-4*
    - Postal *B-3*
  - Predefined presets *B-2*
  - Prefix** *C-5, C-9*
  - Preset
    - Custom *B-1*
    - Group *B-1*
    - Group default identifier *B-2*
    - Predefined *B-1, B-2*
  - Preset group
    - Default identifier *B-2*
  - profile, creating backup 163
  - profile, restoring backup 166
  - profile, viewing backup 167
  - Programs 69, 79
    - closing 69
    - minimizing 69
    - opening 69
  - properties, NEO 131
  - proxy server, setting up 200
- ## Q
- quad dock (WA4204-G2) 222
- ## R
- radio
    - Bluetooth* specs 232
    - configuring 12
    - specifications 232
  - radio specifications 232
  - Raster Expand Rate** (2D) *C-5*
  - Raster Height** (2D) *C-5*
  - Reading Range** *C-21, C-23, C-26, C-30*
  - reboot (reset) 23
  - Regional Settings 151
  - remapping
    - Scancode 117
    - Unicode 116
  - Remote Desktop Mobile 101
  - Remove Programs 152
  - reset 23
  - resetting NEO
    - cold reset 23
    - reset 23
  - RS232 Adaptor (Model No. PX3050) 212
- ## S
- Same Read Timeout** *C-20*
  - Same Read Validate** *C-20*
  - Scancode remapping 117

- Scan Data Format** *C-5*
- Scan Indicator** *158*
- SCAN Key *34*
- Scan Log File** *159*
- Scan Mode** *2*
- scanner
  - module (SE955) specifications *233*
  - one dimensional (1D) internal scanner *225*
  - options *225*
  - techniques (scanning) *225*
  - troubleshooting tips *226*
- Scanner Settings *156*
- scanning
  - Aim Duration** *D-3, D-21*
  - aiming (target) dot duration *C-2*
  - appending characters *158*
  - Bad Scan Beep** *158*
  - bar code setting *156*
  - check digit *C-15*
  - Check Digits (MSI Plessey)** *C-15*
  - Check Digit Verification** *C-7*
  - Check Digit Verification (I 2 of 5)** *C-16*
  - Click Data** (appending data) *158*
  - Click Time** *157*
  - CLSI Editing** *C-14*
  - Codabar** *C-13*
  - Code 128** *C-9, C-22*
  - Code 128 Emulation** *C-18*
  - Code 32 Prefix** *C-6*
  - Code 39** *C-6, C-21*
  - Code 93** *C-13*
  - Composite** *C-17, C-33*
  - Conv. UPC-E To UPC-A** *C-12*
  - Conv. UPC-E1 To UPC-A** *C-12*
  - Convert To Code 32** *C-6*
  - Convert To EAN 13** *C-16*
  - Data Handling (code page) *159*
  - Decoded (internal) *C-2*
  - Decoded Intermec (ISCP) *C-19*
  - Decode Perf. Level** *C-8, C-10*
  - Decode Performance** *C-8, C-9*
  - Delete Char Set ECIs** *C-6*
  - Discrete 2 of 5** *C-16*
  - Dot Time** *C-2*
  - double-click *157*
  - EAN-8 Zero Extend** *C-10*
  - ECI Decoder** *C-6*
  - Enable Bookland** *C-12*
  - Enable CC-AB** *C-18, C-33*
  - Enable CC-C** *C-18, C-33*
  - Enable TLC-39** *C-18*
  - Full ASCII** *C-8*
  - Good Scan Beep** *158*
  - Laser On Time** *C-2, C-19*
  - Linear Decode** *C-13*
  - Linear Transmission only (Decoded Composite)** *C-33*
  - Linear Transmission only (TLC-39)** *C-34*
  - Micro PDF-417** *C-18*
  - NOTIS Editing** *C-14*
  - Options tab *157*
  - PDF-417** *C-18*
  - Prefix** *C-5*
  - Scan Data Format** *C-5*
  - Scan Indicator** *158*
  - Scan Log File** *159*
  - Scan Mode** *2*
  - Scan Result** *158*
  - Scan Result Time** *158*
  - Security Level** *C-12*
  - Security Level (TLC-39)** *C-34*
  - Set Length L1** *C-7*
  - Set Length L2** *C-7*
  - Suffix** *C-5*
  - Supp. Redundancy** *C-12*
  - Supplementals** *C-12*
  - target (aiming) dot duration *C-2*
  - TLC-39** *C-33*
  - Translations tab *159*
  - Transmit Check Digit** *C-7*
  - Transmit Check Digit (I 2 of 5)** *C-16*
  - Transmit Check Digit (MSI Plessey)** *C-15*
  - Transmit Code 1D Char** *C-5*
  - Trioptic Code, Enable** *B-25*
  - Trioptic Code 39, Enable** *C-6*
  - UPC-A Check Digit** *C-11*
  - UPC-A Preamble** *C-11*
  - UPC-EAN** *C-12*
  - UPC-EAN Shared Settings** *B-29, C-26*
  - UPC-E Check Digit** *C-11*
  - UPC-E Preamble** *C-11*
  - UPC-E1 Check Digit** *C-11*
  - UPC-E1 Preamble** *C-11*
  - 1D internal *225*
  - 2D UPC Half Block Stitching** *C-13*

- Scanning Mode (2D)** C-5
  - Scan Result** 158
  - Scan Result Time** 158
  - screen
    - navigating 51
    - stylus 51
    - touch pen 51
  - scrolling, adjusting speed (Up\_Down tab) 112
  - Search (find) 102
  - Security Level** C-12
  - Security Level (TLC-39)** C-34
  - serial modem setup *See* Connection Properties 187
  - Server Settings (modem setup) 193
  - Server tab (*Bluetooth*) 184
  - Set Length L1** C-7
  - Set Length L2** C-7
  - Settings 70, 109
    - App Launch 110
    - Buttons 112
    - Personal Tab 109
      - App Launch icon 110
      - Buttons icon 112
      - One Shot tab 113
      - Up\_Down tab 112
  - SE955 scanner specifications 233
  - shift-state indicator, accessing 67
  - shift-state indicator (softkey bar) 67
  - shift-state indicator icon 32
  - SIM card, inserting 45
  - softkey (softkey bar) 67
  - softkey bar
    - shift-state indicator 67
    - softkey 67
    - soft keyboard icon 67
    - softkeys 67
  - soft keyboard (onscreen) 72
  - soft keyboard icon (softkey bar) 67
  - softkeys (softkey bar) 67
  - Soft Scan Timeout** 158
  - Sound, setting events 128
  - Sound settings 128
  - SPACE Key 34
  - specifications
    - SE955 scanner 233
    - 802.11b/g WLAN radio 232
  - Start/Stop Transmit** C-21, C-27
  - Start button 52
  - Start Menu 63
    - customising 63
    - customizing 127
  - Stop 188
  - Stop Bits (modem setup) 188
  - Storage Card tab 146
  - Strip Leading** C-9
  - Strip Trailing** C-9
  - stylus (touch pen), using 51
  - Suffix** C-5
  - Suffix Char** C-9
  - Supp. Redundancy (Code 128)** C-12
  - Supplementals (UPC-EAN)** C-12
  - Supplements Separator** B-26
  - Supplements 2** B-26
  - Supplements 5** B-26
  - Surface
    - Glossy B-3
  - Suspend Threshold tab 150
  - swap time (for battery) 29
- ## T
- target dot, duration of C-2
  - task
    - completed (marking as) 58
    - creating 56, 57
    - deleting 58
    - editing 57
    - notification 56
    - sorting 58
  - Task Manager 153
  - TCP\_IP Settings (modem setup) 193
  - Teklogix Imager Applet B-1
  - Teklogix Imagers Settings 155
  - Teklogix Scanners Settings 156
  - Telepen** B-32, C-32
  - Terminal Services Client
    - 101
    - session, disconnecting (without ending) 101
    - session, ending 101
  - Text
    - Block Recognizer 73
    - entering 71
    - Letter Recognizer 75
    - soft keyboard entry 72
    - transcriber, using 72
  - title bar (navigation bar) 52
  - TLC-39** B-34, C-33

Today's Screen (desktop screen) 51  
 appearance of 129  
 Items (to appear in screen) 130  
 Total Recall 162  
   backup profile, creating 163  
   backup profile, restoring 166  
   view profile 167  
 touch pen, using 51  
 touchscreen  
   calibrating 37  
   stylus, using 51  
   touch pen, using 51  
 touchscreen, aligning (calibrating) 37  
 Transcriber  
   Inking 123  
   quick settings 123  
 Transcriber, using 72  
 Transcriber (Input Methods tab) 123  
 Translations parameters (bar codes) 159  
**Transmit Check Digit** C-22, C-24, C-25,  
 C-28, C-29, C-30, C-31  
**Transmit Check Digit (I 2 of 5)** C-16  
**Transmit Check Digit (MSI Plessey)**  
 C-15  
**Transmit Code 1D Char** C-5  
**Transmit Number System** C-25  
 trigger mappings 142  
**Trigger Press Type**, Manage Triggers  
 menu 144  
**Trioptic Code, Enable** B-25  
**Trioptic Code 39, Enable** C-6  
 troubleshooting tips (scanning) 226  
 TweakIT 169

**U**

Unicode Mapping 116  
 Up\_Down tab (scrolling adjustments) 112  
 UPC A B-27, C-11, C-25  
**UPC-A Check Digit** C-11  
**UPC-A Preamble** C-11  
 UPC E B-28, C-11, C-25  
**UPC-EAN** C-12  
**UPC-EAN Shared Settings** B-29, C-26  
**UPC-E Check Digit** C-11  
**UPC-E Preamble** C-11  
**UPC-E1 Check Digit** C-11  
**UPC-E1 Preamble** C-11  
**UPC Half Block Stitching, 2D** C-13

USB-Ethernet adaptor cable (WA4010)  
 220

## V

Version tab 131  
 Videos and Pictures 95  
 Vista 21  
 volume control 53  
 VPN connection, setting up 196

## W

warnings 158  
 WiFi Config  
   Advanced tab 20  
   Authentication modes 15  
   Configuration tab 14  
   EAP Types 16  
   Encryption 17  
   IP address 19  
   Name Servers 19  
   Status tab 13  
 WiFi Config (configuring radio) 12  
**Wi-Fi Configuration** 13  
 Windows Mobile 6, navigating in 51  
 WLAN connections, disabling 194  
 Word Completion tab 125  
 Word Mobile  
   data entry modes 87  
 Word *See* Pocket Word 86

1D internal scanner 225

**2D Aztec** B-36

**2D Data Matrix** B-36

**2D Maxicode** B-36

**2D PDF-417** B-34

**2D QR Code** B-36

**2D Raster Expand Rate** C-5

**2D UPC Half Block Stitching** C-13

802.11b/g radio specifications 232

802.11 radio, configuring 12