8515
Vehicle-Mount Computer

User Manual

May 4, 2007 **Part No. 8000132.A**

ISO 9001 Certified
Quality Management System

PSION TEKLOGIX

Download from Www.Somanuals.com. All Manuals Search And Download.

© Copyright 2007 by Psion Teklogix Inc., Mississauga, Ontario
This document and the information it contains is the property of Psion Teklogix Inc., is issued in strict confidence, and is not to be reproduced or copied, in whole or in part, except for the sole purpose of promoting the sale of Psion Teklogix manufactured goods and services. Furthermore, this document is not to be used as a basis for design, manufacture, or sub-contract, or in any manner detrimental to the interests of Psion Teklogix Inc.

Windows® and the Windows Logo are trademarks or registered trademarks of Microsoft Corporation in the United States and/or other countries.

The Bluetooth® *word mark and logos are registered trademarks owned by Bluetooth SIG, Inc. and any use of such trademarks by Psion Teklogix Inc. is under license.*

All trademarks are the property of their respective holders.

Download from Www.Somanuals.com. All Manuals Search And Download.

Return-To-Factory Warranty

Psion Teklogix Inc. provides a return to factory warranty on this product for a period of twelve (12) months in accordance with the Statement of Limited Warranty and Limitation of Liability provided at www.psionteklogix.com/warranty. (If you are not already a member of Teknet and you attempt to view this warranty, you will be asked to register. As a member of Teknet, you will have access to helpful information about your Psion Teklogix products at no charge to you.) In some regions, this warranty may exceed this period. Please contact your local Psion Teklogix office for details. For a list of offices, see Appendix A: "Support Services / Worldwide Offices". The warranty on Psion Teklogix manufactured equipment does not extend to any product that has been tampered with, altered, or repaired by any person other than an employee of an authorized Psion Teklogix service organization. See Psion Teklogix terms and conditions of sale for full details.

Important:Psion Teklogix warranties take effect on the date of shipment.

Service

Psion Teklogix provides a complete range of product support services to its customers. For detailed information, please refer to Appendix A: "Support Services / Worldwide Offices". This section also provides information about accessing support services through the Psion Teklogix web site.

Waste Electrical and Electronic Equipment (WEEE) Directive 2002/96/EC

This Product, and its accessories, comply with the requirements of the Waste Electrical and Electronic Equipment (WEEE) Directive 2002/96/EC. If your end-of-life Psion Teklogix product or accessory carries a label as shown here, please contact your local country representative for details on how to arrange recycling.

For a list of international subsidiaries, please go to:

www.psionteklogix.com/EnvironmentalCompliance

Download from Www.Somanuals.com. All Manuals Search And Download.

Restriction On Hazardous Substances (RoHS) Directive 2002/95/EC

What is RoHS?

The European Union has mandated that high environmental standards be met in the design and manufacture of electronic and electrical products sold in Europe, to reduce hazardous substances from entering the environment. The "Restriction on Hazardous Substances Directive (RoHS)" prescribes the maximum trace levels of lead, cadmium, mercury, hexavalent chromium, and flame retardants PBB and PBDE that may be contained in a product. Only products meeting these high environmental standards may be "placed on the market" in EU member states after July 1, 2006.

RoHS Logo

Although there is no legal requirement to mark RoHS-compliant products, Psion Teklogix Inc. indicates its compliance with the directive as follows:

The RoHS logo located either on the back of the product or underneath the battery in the battery compartment (or on a related accessory such as the charger or docking station) signifies that the product is RoHS-compliant as per the EU directive. Other than as noted below, a Psion Teklogix product that does not have an accompanying RoHS logo signifies that it was placed on the EU market prior to July 1, 2006, and is thereby exempt from the directive.

Note: Not all accessories or peripherals will have a RoHS logo due to physical space limitations or as a result of their exempt status.

Disclaimer

Every effort has been made to make this material complete, accurate, and up-to-date. In addition, changes are periodically added to the information herein; these changes will be incorporated into new editions of the publication.

Psion Teklogix Inc. reserves the right to make improvements and/or changes in the product(s) and/or the program(s) described in this document without notice, and shall not be responsible for any damages, including but not limited to consequential damages, caused by reliance on the material presented, including but not limited to typographical errors.

Download from Www.Somanuals.com. All Manuals Search And Download.

TABLE OF CONTENTS

Approvals And Safety Summary ix
CE Marking xi
R&TTE Directive 1999/5/EC xi
FCC Information To Users xii
Emissions Information For Canada. xiv
Warnings To Users xiv

Chapter 1: Introduction

1.1 About This Manual 3
1.2 Text Conventions 4
1.3 About The 8515 Vehicle-Mount Computer 4

Chapter 2: Basic Checkout

2.1 Preparing The 8515 For Operation 7
2.2 8515 Safety Instructions 7
2.3 Important Operating Instructions 8
2.4 Switching The 8515 On And Off 8
2.5 Calibrating The Touchscreen 9
2.6 Configuring Your IEEE 802.11 Radio 9
2.7 Setting Up The Model RA2040 802.11g Radio 9
2.7.1 Assigning An IP Address 15
2.7.2 Name Servers Tab 16
2.7.3 Advanced Features 16
2.7.3.1 Rearranging Preferred Networks 17
2.7.3.2 Deleting A Preferred Network 17
2.7.3.3 Changing Network Properties 17
2.8 Setting Up The Model RA2041 Radio SCU 17
2.8.1 Assigning The IP Address 18
2.8.2 Using The SCU To Connect To The WLAN 18
2.9 SCU Tabs 20
2.9.1 Main Tab 20
2.9.2 Config Tab 21
2.9.2.1 SCU Security Capabilities 23

Download from Www.Somanuals.com. All Manuals Search And Download.

2.9.2.2 EAP Credentials 25
2.9.2.3 ThirdPartyConfig 25
2.9.3 Global Settings Tab 25
2.9.4 Status Tab 28
2.9.5 Diags Tab 28
2.10 Resetting The 8515 Vehicle-Mount Computer 29

Chapter 3: Getting To Know The 8515

3.1 Features Of The 8515 33
3.2 The Internal Backup Battery 34
3.3 The Stylus 34
3.4 The Keyboard 34
3.4.1 Modifier Keys 34
3.4.1.1 Activating Modifier Keys 34
3.4.1.2 Locking Modifier Keys 35
3.4.2 The Keys 35
3.5 Function Keys And Macro Keys 36
3.5.1 Function Keys 36
3.5.2 Macro Keys 37
3.5.3 The Keypad Backlight 38
3.6 The Display 38
3.6.1 Calibrating The Touchscreen 38
3.7 8515 Indicators 39
3.7.1 Power Indicator LED 39
3.7.2 Onscreen Indicators 39
3.7.3 Audio Indicators 41
3.8 Scanning 41
3.8.1 Scanning Techniques 41
3.8.2 Scan LED Indicators 41
3.8.3 Troubleshooting 42
3.8.4 Operating One Dimensional (1D) Laser Scanners 42
3.8.5 Operating PDF Laser Scanners 42
3.9 Monitoring The Network Connection 42
3.10 Connecting An 8515 To A Windows 2000 Or XP PC 43
3.11 Connecting An 8515 To A Windows Vista™ PC 43
3.12 General Maintenance 43
3.12.1 Ports 43
3.12.2 Caring For The Touchscreen 44

Download from Www.Somanuals.com. All Manuals Search And Download.

3.12.3 Cleaning The 8515 44

Chapter 4: Windows Embedded CE 5.0

4.1 Navigating In Windows Embedded CE 5.0 And Applications 47
4.1.1 Navigating Using A Touchscreen And Stylus 47
4.1.2 Navigating Using The Keyboard 47
4.2 Working With Files, Folders And Programs 48
4.3 The Startup Desktop 49
4.3.1 The Desktop Icons 50
4.3.2 The Taskbar 50
4.3.2.1 Using The Taskbar 51
4.3.2.2 Customizing The Taskbar 51
4.4 The Start Menu 52
4.4.1 The Desktop 52
4.4.2 Security Level 52
4.4.2.1 Changing A Password 53
4.4.2.2 Configuring Security 53
4.4.3 Programs 54
4.4.4 Shortcuts 55
4.4.5 Settings 57
4.4.6 Run 57
4.4.7 Shutdown 58
4.5 Using A Dialog Box 59

Chapter 5: Configuration

5.1 Remote Desktop Connection 65
5.2 Pocket PC Compatibility 65
5.3 The Control Panel 65
5.4 Control Panel Icons 66
5.5 Display Properties 70
5.5.1 Display Background 70
5.5.2 Display Appearance 70
5.5.3 Display Backlight 71
5.6 Keyboard Properties 72
5.6.1 Key Repeat 72
5.6.2 Backlight 73
5.6.3 One Shots 74
5.6.4 Macro Keys 75

Download from Www.Somanuals.com. All Manuals Search And Download.

5.6.4.1 Recording And Saving A Macro 76
5.6.4.2 Executing A Macro 76
5.6.4.3 Deleting A Macro 77
5.6.5 Unicode Mapping 77
5.6.5.1 Adding And Changing Unicode Values 78
5.6.5.2 Removing Unicode Values 78
5.6.6 Scancode Remapping 78
5.6.6.1 Adding A Remap 79
5.6.6.2 Virtual Key, Function And Macro 80
5.6.6.3 Editing A Scancode Remap 80
5.6.6.4 Removing A Remap 80
5.6.7 Lock Sequence 80
5.7 Volume And Sound Properties 81
5.7.1 Volume Adjustments 82
5.8 Power Properties 82
5.8.1 Battery 83
5.8.2 Suspend 83
5.8.3 Advanced Power Properties 84
5.8.4 Devices 85
5.9 Stylus Properties 85
5.9.1 Setting Double-Tap Sensitivity 86
5.9.2 Touchscreen Calibration 86
5.9.3 Disabling The Touchscreen 87
5.10 Manage Triggers 87
5.10.1 Trigger Mappings 88
5.10.2 Add And Edit Trigger Mapping 89
5.11 Certificate Assignment 90
5.12 Bluetooth Setup 91
5.12.1 The Devices Tab 92
5.12.1.1 Scan 92
5.12.1.2 Services 93
5.12.1.3 Set PIN 94
5.12.2 The Servers Tab 95
5.12.3 Outgoing Tab 95
5.12.4 Active Connections Tab 96
5.12.5 Properties Tab 97
5.13 Storage Manager 98
5.13.1 Formatting A Memory Card 98
5.13.2 Creating Partitions 99

Download from Www.Somanuals.com. All Manuals Search And Download.

5.13.3 Partition Management 100
5.13.3.1 Dismounting A Partition 100
5.13.3.2 Deleting A Partition 100
5.13.3.3 Formatting A Partition 100
5.13.3.4 Mounting A Partition 101
5.14 Total Recall 102
5.14.1 Creating A Backup Profile 102
5.14.1.1 Profile Information 103
5.14.1.2 Add Files 104
5.14.1.3 View Selections 104
5.14.1.4 Performing The Backup 105
5.14.2 Restoring A Profile 105
5.15 Input Panel 105
5.16 IPv6 Support 108
5.17 Scanner Settings 109
5.17.1 Decoded Scanners 109
5.17.2 Scanner Settings Options Tab 109
5.17.2.1 Double Click 110
5.17.2.2 Display 110
5.17.3 Translations Tab 111
5.17.3.1 Case Rules 113
5.17.4 Ports Tab 113
5.17.4.1 Serial Port (COM 1) 114
5.18 SNMP (Simple Network Management Protocol) Setup 115
5.18.1 Contacts Tab 116
5.18.2 Communities Tab 117
5.18.2.1 Enable SNMP 117
5.18.2.2 Adding A Community 117
5.18.2.3 Modifying A Community Setting 118
5.18.2.4 Removing An Existing Community 118
5.18.3 Trap Destination Tab 118
5.18.3.1 Enabling Authentication TRAPS 119
5.18.3.2 Adding A Destination 119
5.18.3.3 Changing A Destination 119
5.18.3.4 Removing A Trap Destination 119
5.18.4 Permitted Hosts Tab 120
5.18.4.1 Adding A Host 120
5.18.4.2 Changing A Host 120

Download from Www.Somanuals.com. All Manuals Search And Download.

Chapter 6: Peripheral Devices & Accessories

6.1 External Bar Code Readers 125
6.1.1 Entering Data With The Bar Code Reader 125
6.2 Bluetooth Peripherals 125
6.3 Linking An 8515 To An Ethernet Network 126
6.3.1 Network Access 126
6.4 8515 Mounting Accessories: Installing The RAM Mounting Kit 126
6.4.1 Component Part Numbers 128
6.4.2 MT33XX RAM Mounting Kit Specifications 129
6.4.3 Preparation 130
6.4.4 Installation 132
6.4.4.1 RAM Vesa Base 133
6.4.4.2 RAM Circular Base 133
6.4.5 Positioning The Vehicle-Mount 134
6.4.6 Optional Mount Kits 135
6.5 8515 Vehicle-Mount Computer Installations 136
6.5.1 Wiring Guidelines 136
6.5.2 Non-Vehicle Installations 137
6.5.3 Wiring Vehicle Power To The 8515 137
6.5.3.1 Installing The Power Pre-regulator (PS1300) 137

Chapter 7: Specifications

7.1 8515 Vehicle-Mount Computer Specifications 143
7.2 Colour Display 144
7.3 Keyboard 144
7.4 External Power 145
7.5 Internal Lithium-Polymer Battery 145
7.6 Radio Specifications 145
7.7 External Bar Code Scanners 147

Appendix A: Support Services / Worldwide Offices

A.1 Technical Support A-1
A.2 Product Repairs A-1
A.3 Worldwide Offices A-2
A.3.1 Company Headquarters A-2
A.3.2 Canadian Service Centre A-2
A.3.3 North American Headquarters And U.S. Service Centre A-2
A.3.4 International Subsidiaries A-3

Download from Www.Somanuals.com. All Manuals Search And Download.

Appendix B: Port Pinouts

B.1 Serial Port Interface Pinout (DB-9 male) B-1
B.2 Enhanced USB1 Port Interface Pinout B-2
B.3 Enhanced USB2 Port Interface Pinout B-2

Appendix C: USB Setup Application

C.1 USB Setup C-1
C.1.1 Launching The Application C-1
C.1.2 Installation Complete Dialog Box C-3

Index

..... I

Download from Www.Somanuals.com. All Manuals Search And Download.

Download from Www.Somanuals.com. All Manuals Search And Download.

APPROVALS AND SAFETY SUMMARY

CE Marking xi
R&TTE Directive 1999/5/EC xi
FCC Information To Users xii
Emissions Information For Canada xiv
Warnings To Users xiv

Download from Www.Somanuals.com. All Manuals Search And Download.

Download from Www.Somanuals.com. All Manuals Search And Download.

CE Marking

When used in a residential, commercial or light industrial environment the product and its approved UK and European peripherals fulfil all requirements for CE marking.

R&TTE Directive 1999/5/EC

This equipment complies with the essential requirements of EU Directive 1999/5/EC (Declaration available: www.psionteklogix.com).

Cet équipement est conforme aux principales caractéristiques définies dans la Directive européenne RTTE 1999/5/CE. (Déclaration disponible sur le site: www.psionteklogix.com).

Die Geräte erfüllen die grundlegenden Anforderungen der RTTE-Richtlinie (1999/5/EG). (Den Wortlaut der Richtlinie finden Sie unter: www.psionteklogix.com).

Questa apparecchiatura è conforme ai requisiti essenziali della Direttiva Europea R&TTE 1999/5/CE. (Dichiarazione disponibile sul sito: www.psionteklogix.com).

Este equipo cumple los requisitos principales de la Directiva 1995/5/CE de la UE, “Equipos de Terminales de Radio y Telecomu-nicaciones”. (Declaración disponible en: www.psionteklogix.com).

Este equipamento cumpre os requisitos essenciais da Directiva 1999/5/CE do Parlamento Europeu e do Conselho (Directiva RTT). (Declaração disponível no endereço: www.psionteklogix.com).

Ο εξοπλισμός αυτός πληροί τις βασικές απαιτήσεις της κοινοτικής οδηγίας EU R&TTE 1999/5/ΕΚ. (Η δήλωση συμμόρφωσης διατίθεται στη διεύθυνση: www.psionteklogix.com)

Deze apparatuur voldoet aan de noodzakelijke vereisten van EU-richtlijn betreffende radioapparatuur en telecommunicatie-eindappa-ratuur 199/5/EG. (verklaring beschikbaar: www.psionteklogix.com).

Dette udstyr opfylder de Væsentlige krav i EU's direktiv 1999/5/EC om Radio- og teleterminaludstyr. (Erklæring findes på: www.psionteklogix.com).

Dette utstyret er i overensstemmelse med hovedkravene i R&TTE-direktivet (1999/5/EC) fra EU. (Erklæring finnes på: www.psionteklogix.com).

Utrustningen uppfyller kraven för EU-direktivet 1999/5/EC om ansluten teleutrustning och ömsesidigt erkännande av utrustningens överensstämmelse (R&TTE). (Förklaringen finns att läsa på: www.psionteklogix.com).

Download from Www.Somanuals.com. All Manuals Search And Download.

Tämä laite vastaa EU:n radio- ja telepäätelaitedirektiivin (EU R&TTE Directive 1999/5/EC) vaatimuksia. (Julkilausuma nähtävillä osoitteessa: www.psionteklogix.com).

Psion Teklogix tímto prohlašuje, že 8515 Vehicle-Mount Computer je ve shodě se základními požadavky a dalšími příslušnými ustanoveními směrnice 1995/5/ES (NV č. 426/2000 Sb.) a Prohlášení o shodě je k dispozici na *www.psionteklogix.com*.

Toto zarízení lze provozovat v České republice na základě generální licence č. GL-12/R/2000.

Psion Teklogix týmto vyhlasuje, že 8515 Vehicle-Mount Computer spĺňa základné požiadavky a všetky príslušné ustanovenia Smernice 1995/5/ES (NV č. 443/2001 Z.z.) a Vyhlásenie o zhode je k dispozícii na *www.psionteklogix.com*.

Toto zariadenie je možné prevádzkovat' v Slovenskej republike na základe Všeobecného povolenia č. VPR-01/2001.

ⓘ

Use of the 802.11 8515 Vehicle-Mount Computer in France:

Owing to French Government restrictions, the 802.11 8515 vehicle-mounts are limited to indoor use. They may be used outdoors, on private property, only with prior authorization from the French Ministry of Defense.

FCC Information To Users

Federal Communication Commission Interference Statement

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation.

If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one of the following measures:

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

Download from Www.Somanuals.com. All Manuals Search And Download.

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

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

FCC Caution: Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate this equipment.

Important: FCC Radiation Exposure Statement

This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter., except as noted here:

The condition for the co-location of the* Bluetooth® *and Model RA2040 radios is as follows:

The Murata Bluetooth radio must use the Antenova antenna (P/N 3030A5645-01).

The Model RA2040 radio must use one of these antennas:

1. Radiall/Larsen Model EPA-016.

2. Psion Teklogix Case Integrated Antenna (P/N 1070545).

3. Mobile Mark Model IMAG5-2400.

The use of any other configuration requires its own FCC approval.

Some equipment in hospitals and aircraft are not shielded from radio frequency energy. Do not use the 8515 onboard aircraft, or in hospitals, without first obtaining permission.

Do not use near pacemakers. The product may affect the operation of some medically implanted devices such as pacemakers, causing them to malfunction. Avoid placing your product next to such devices. Keep a minimum distance of 20 cm between the device and the product to reduce the risk of interference. If you have any reason to suspect that interference is taking place, turn off the 8515 and contact your cardiologist for assistance.

Note: *In August 1996 the Federal Communications Commission (FCC) of the US adopted an updated safety standard for human exposure to radio frequency energy emitted by FCC regulated transmitters. The design of this product complies with the FCC guidelines and those standards. To maintain compliance with the FCC RF exposure guidelines, ensure the antenna is at least 20 cm from your body when transmitting.*

Download from Www.Somanuals.com. All Manuals Search And Download.

Emissions Information For Canada

This Class B digital apparatus meets all requirements of the Canadian Interference-Causing Equipment Regulations. When using the 802.11 radio option, to prevent radio interference, this device is intended to be operated indoors and away from windows to provide maximum shielding. Equipment (or its transmit antenna) that is installed outdoors is subject to licensing.

Cet appareil numérique de la classe B respecte toutes les exigences du Règlement sur le matériel brouilleur du Canada. En cas d'utilisation du module radio 802.11, afin d'éviter toute interférence radio avec le service autorisé, l'appareil doit être utilisé à l'intérieur, tout en tant éloigné de toute fenêtre afin de garantir le maximum de protection. Si cet équipement (ou son antenne émettrice) est installé à l'extérieur, il est alors soumis à licence.

Warnings To Users

RF Exposure

Warning: ***To satisfy FCC RF exposure requirements for vehicle mount transmitting devices, a separation distance of 20 centimeters should be maintained between the antenna of this device and persons during device operation. To ensure compliance, operations at closer than this distance is not recommended.***

Do Not Remove Covers Or Open Enclosures

To avoid injury, the equipment covers and enclosures should only be removed by qualified service personnel. Do not operate the equipment without the covers and enclosures properly installed.

Warning: ***Risk of explosion if battery is replaced by an incorrect type.***

Dispose of used batteries according to the instructions.

Cautions

- Use of the Vehicle Mount Computer while charging the fork truck battery is prohibited.
- Use of additional wiring and attachments not recommended or sold by the manufacturer may result in fire, electric shock or personal injury.
- If using an AC adaptor, use only the AC adaptor recommended by manufacturer.
- Do not operate the vehicle-mount computer with a damaged cord or plug. Replace immediately.

Download from Www.Somanuals.com. All Manuals Search And Download.

- Make sure the cord is positioned so that it is not stepped on, tripped over or otherwise subjected to damage or stress.
- An extension cord should not be used unless absolutely necessary. Use of an improper extension cord could result in fire or electric shock.
- To reduce risk of electric shock, unplug the vehicle-mount computer from the DC source before attempting any maintenance or cleaning.

Warning: Physically disconnect the 8515 from the vehicle battery during battery charging (into AC outlet).

Download from Www.Somanuals.com. All Manuals Search And Download.

Download from Www.Somanuals.com. All Manuals Search And Download.

1 INTRODUCTION

1.1 About This Manual 3
1.2 Text Conventions 4
1.3 About The 8515 Vehicle-Mount Computer 4

Download from Www.Somanuals.com. All Manuals Search And Download.

Download from Www.Somanuals.com. All Manuals Search And Download.

1.1 About This Manual

This manual describes how to configure, operate and maintain the Psion Teklogix 8515 Vehicle-Mount Computer.

Chapter 1: "Introduction"

provides a basic overview of the 8515 Vehicle-Mount Computer.

Chapter 2: "Basic Checkout"

describes the steps required to get the 8515 ready for operation.

Chapter 3: "Getting To Know The 8515"

describes the 8515 features and provides a description of the keyboard, how to navigate in Microsoft® Windows® Embedded CE 5.0, etc.

Chapter 4: "Windows Embedded CE 5.0"

describes the Microsoft Windows Embedded CE 5.0 desktop and how to use it. This chapter also outlines the basics of moving around a Windows Embedded CE 5.0 window, selecting and opening icons, files, folders and working with a Windows dialog box.

Chapter 5: "Configuration"

provides a description of the Windows Embedded CE 5.0 Control Panel and how to use it to configure the 8515, along with the scanners attached to the unit.

Chapter 6: "Peripheral Devices & Accessories"

describes the peripherals and accessories available for your 8515.

Chapter 7: "Specifications"

details vehicle-mount computer, radio and battery specifications.

Appendix A: "Support Services / Worldwide Offices"

provides the helpdesk phone number at the Mississauga, Ontario, Canada office and details the support services available. This appendix also lists the worldwide office addresses and phone numbers.

Appendix B: "Port Pinouts"

includes 8515 pinouts.

Appendix C: "USB Setup Application"

describes the USB setup application.

Download from Www.Somanuals.com. All Manuals Search And Download.

1.2 Text Conventions

Note: *Notes highlight additional helpful information.*

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

Warning: ***These statements provide important information that may prevent injury, damage to the equipment, or loss of data.***

1.3 About The 8515 Vehicle-Mount Computer

The 8515 is a ruggedized vehicle-mount computer, running the Microsoft Windows Embedded CE 5.0 operating system. It is intended for use in commercial and industrial applications with a focus on real time wireless data transactions. A wide range of data input capabilities are supported through a variety of imager, RFID and bar code scanner options.

Figure 1.1 8515 With Qwerty Keyboard

Download from Www.Somanuals.com. All Manuals Search And Download.

BASIC CHECKOUT 2

2.1 Preparing The 8515 For Operation 7
2.2 8515 Safety Instructions 7
2.3 Important Operating Instructions 8
2.4 Switching The 8515 On And Off 8
2.5 Calibrating The Touchscreen 9
2.6 Configuring Your IEEE 802.11 Radio 9
2.7 Setting Up The Model RA2040 802.11g Radio 9
2.7.1 Assigning An IP Address 15
2.7.2 Name Servers Tab 16
2.7.3 Advanced Features 16
2.7.3.1 Rearranging Preferred Networks 17
2.7.3.2 Deleting A Preferred Network 17
2.7.3.3 Changing Network Properties 17
2.8 Setting Up The Model RA2041 Radio SCU 17
2.8.1 Assigning The IP Address 18
2.8.2 Using The SCU To Connect To The WLAN 18
2.9 SCU Tabs 20
2.9.1 Main Tab 20
2.9.2 Config Tab 21
2.9.2.1 SCU Security Capabilities 23
2.9.2.2 EAP Credentials 25
2.9.2.3 ThirdPartyConfig 25
2.9.3 Global Settings Tab 25
2.9.4 Status Tab 28
2.9.5 Diags Tab 28
2.10 Resetting The 8515 Vehicle-Mount Computer 29

Download from Www.Somanuals.com. All Manuals Search And Download.

Download from Www.Somanuals.com. All Manuals Search And Download.

2.1 Preparing The 8515 For Operation

Typically the 8515 Vehicle-Mount Computer is configured at the factory and arrives ready for use. Although the 8515 is equipped with an internal Compact Flash slot and a Micro-SD I/O slot, these slots are not intended for user modification. If a device needs to be changed or added in these slots, contact qualified Psion Teklogix personnel. Refer to Appendix A: "Support Services / Worldwide Offices" for the service number closest to you.

2.2 8515 Safety Instructions

- The cord should be installed in the vehicle so that it is not subjected to damage or stress.
- Use of a power cord that is not recommended or sold by the manufacturer may result in fire, electric shock, or personal injury.
- An extension cord should not be used unless absolutely necessary. Use of an improper extension cord could result in fire or electric shock. If an extension cord must be used, make sure:
  - The plug pins on the extension cord are the same number, size, and shape as those on the adaptor.
  - The extension cord is properly wired and in good electrical condition and that the wire size is larger than 16 AWG.
- When the unit is connected to the battery or AC adaptor, the mains power cord shall comply with National safety regulations of the country where the equipment is to be used.
- Do not use the AC adaptor with a damaged cord or plug. Replace it immediately.
- Do not operate the AC adaptor if it has received a sharp blow, been dropped, or otherwise damaged in any way; it should be inspected by qualified service personnel.
- Do not disassemble the AC adaptor; it should be repaired by qualified service personnel. Incorrect reassembly may result in electric shock or fire.
- To reduce risk of electric shock, unplug the battery or AC adaptor from the outlet before attempting any maintenance or cleaning.
- Do not expose the battery or AC adaptor to rain or snow.

Download from Www.Somanuals.com. All Manuals Search And Download.

2.3 Important Operating Instructions

Warning: ***IT IS CRITICAL that this information be reviewed and that any guidelines applicable to your vehicle-mount be strictly followed.***

Backup Battery

The vehicle-mount backup battery provides one hour of memory backup. The capacity is reduced as the operating temperature cools. The table below provides a general outline of battery capacity based on the operating temperature. Charging of the backup battery will occur between 0° C and 40° C.

Note: *If the backup battery temperature is less than 10° C and a brown-out occurs, the display backlight will switch off in order to maintain vehicle-mount operations. The backlight will switch back on when external power is restored or the battery temperature is above 10° C.*

Table 2.1 Backup Battery Performance

Temperature	Backup Battery Capacity
-20° C (-4° F)	65%
-10° C (14° F)	80%
0° C (32° F)	close to 90%

Warning: ***Do not install the 8515 in such a way that the power cable is bent 90 degrees as this may damage the power cable and power cable strain relief.***

2.4 Switching The 8515 On And Off

- To switch on the 8515, press the [ENTER/ON] key.

Note: *If the 8515 is in suspend state, pressing [ENTER/ON] 'wakes' the unit from this state. The screen in which you were working before the computer entered suspend state is displayed.*

To switch off the 8515:

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

Turning off the 8515 does not result in a complete reboot; rather, the unit enters a power-saving, "suspend" state. When the 8515 is turned on from suspend state, operation resumes within a few seconds.

Download from Www.Somanuals.com. All Manuals Search And Download.

Important: If the word 'BLUE' is displayed in uppercase in the taskbar at the bottom of the screen, this key is locked 'on'—the 8515 will not switch off. Press the [BLUE] key again to unlock it; then press [BLUE] [ENTER/ON] to switch the 8515 off.

If, however, you've disabled the "Blue Key" in the 'One Shot' dialog box (see "One Shots" on page 74), the 8515 can be turned off even when the [BLUE] key is locked 'on'.

2.5 Calibrating The Touchscreen

Before using your 8515, you will need to calibrate the touchscreen. Refer to "Calibrating The Touchscreen" on page 38 for details.

2.6 Configuring Your IEEE 802.11 Radio

If your 8515 is equipped with a Model RA2040 radio (Marvell-88W8300 802.11g PC Card radio), follow the steps outlined in Section 2.7: "Setting Up The Model RA2040 802.11g Radio".

If your vehicle-mount is equipped with a Model RA2041 radio (Summit DC 802.11 SC CF radio), follow the steps under "Setting Up The Model RA2041 Radio SCU" on page 17 to set up this type of radio for communication with a wireless LAN.

2.7 Setting Up The Model RA2040 802.11g Radio

The most common Marvell-88W8300 802.11g radio settings are configured as defaults. However, there are some fields that must be completed, including the SSID of your access point and the security methods implemented in the network (including access keys).

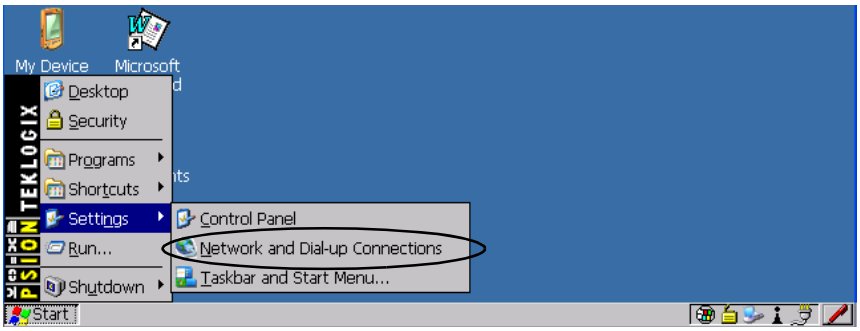
Important: If the 8515 is equipped with a radio that has never been configured, the radio settings dialog box opens automatically when the unit is powered on. In this case, skip to Step 4 on page 11.

To configure the 802.11g radio:

1. Tap on **Start>Settings>Network and Dial-up Connections.**

Download from Www.Somanuals.com. All Manuals Search And Download.

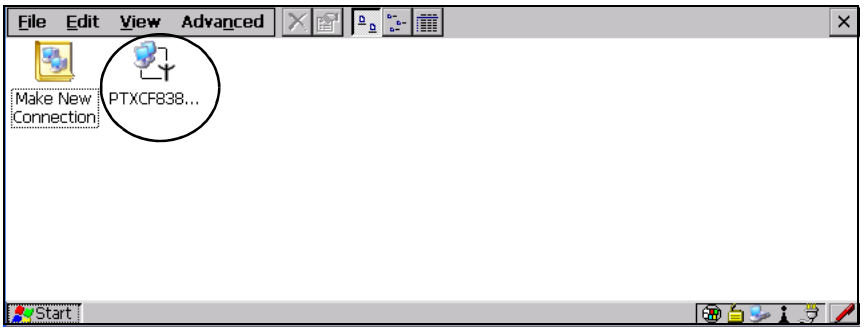
Figure 2.1 Network And Dial-Up Connections



Note: You can press [CTRL] [ESC] to display the Start Menu.

2. Choose the radio icon to open the *Wireless LAN Settings* window—in the sample screen below, this is labelled *PTXCF838*.

Figure 2.2 Wireless Settings Window

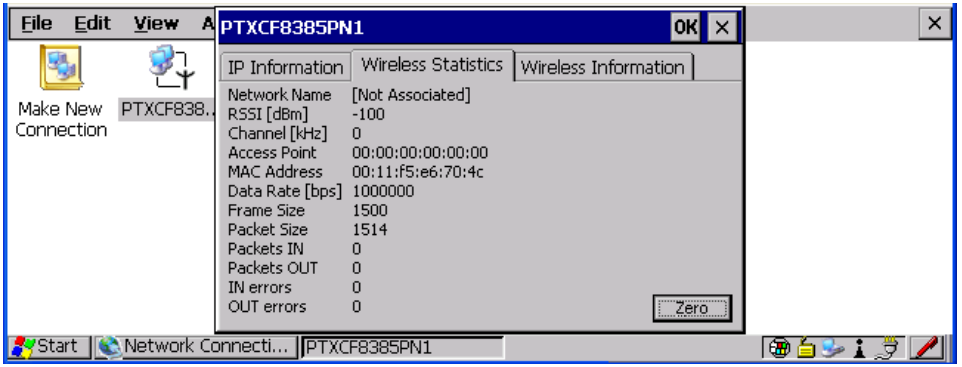


3. Wireless Statistics Tab

   This tab lists your radio statistics. When you choose the **Wireless LAN** icon, a *Wireless Statistics* window is displayed.

Download from Www.Somanuals.com. All Manuals Search And Download.

Figure 2.3 Wireless Statistics



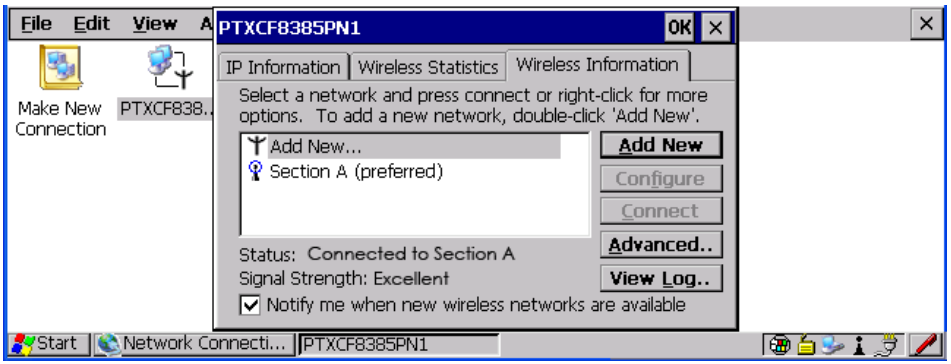
Choosing the **Zero** button resets the statistics of the last four items—*Packets IN, Packets OUT, IN errors* and *OUT errors*.

Tap the stylus on the **Wireless Information** tab.

4. Wireless Information Tab

   This tab displays existing networks to which you can connect, and it allows you to add a new network or modify the settings for an existing network.

Figure 2.4 Wireless Information Tab



Note: *Connect button—To force connection to a specific, **existing network**, highlight the network to which you want your 8515 to connect, and tap the* **Connect** *button.*

This tab lists available networks—any access points that are broadcasting an SSID—and it lists *preferred* networks—networks that you have configured. Since access points are generally secure, they will most likely not be listed here. By

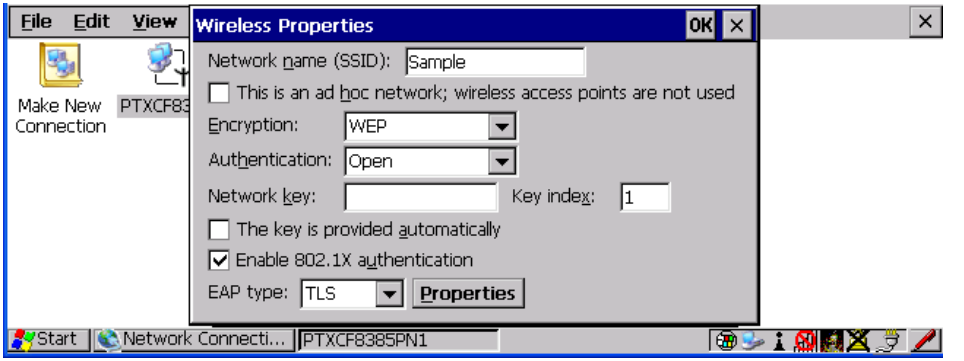
Download from Www.Somanuals.com. All Manuals Search And Download.

default, the 8515 attempts to connect to preferred networks. This behaviour can be changed by enabling *'Automatically connect to non-preferred networks'* in the *Advanced* dialog box (page 16).

To add a new configuration, double-tap on the **Add New** item listed with the networks. A blank *Wireless Properties* dialog box is displayed.

5. Wireless Properties

Figure 2.5 Wireless Properties Dialog Box



Network name (SSID)

Type the appropriate SSID (Service Set Identifier) in the *'Network name (SSID):'* text entry field at the top of this dialog box.

The *Network name* field can contain a maximum of 32 characters. The name assigned here is listed as a *preferred* network.

Important: Keep in mind that the 8515 will only communicate with access points that are configured with the same SSID.

Ad Hoc And Infrastructure

If you are using an "Infrastructure" network (one in which 8515s must pass data through an access point) leave the checkbox *'This is an ad hoc network'* empty.

If you are using an *Ad Hoc* network—a network in which 8515s pass data ***directly*** to other 8515s without an access point—tap on the checkbox next to *'This is an ad hoc network'* to enable Ad Hoc.

Encryption

WEP (Wired-Equivalent Privacy) encryption prevents others from accidentally accessing your network. If you are not using encryption, you can choose *Disabled* from the dropdown encryption menu. Otherwise, leave this field as is.

Download from Www.Somanuals.com. All Manuals Search And Download.

Note: WEP cannot be disabled if you are using WPA or WPA-PSK authentication.

TKIP (Temporal Key Integrity Protocol) is an encryption protocol included as part of the IEEE 802.11 standard for wireless LANs. Designed to enhance WEP, TKIP uses the original WEP programming but 'wraps' additional code at the beginning and end to encapsulate and modify it, encrypting each data packet with a unique encryption key.

Authentication

802.11 supports a number of subtypes of network authentication services: *Open, Shared, WPA* and *WPA-PSK*.

Using *Open* authentication, any wireless station can request authentication. The station that needs to authenticate with another wireless station sends an authentication management frame that contains the identity of the sending station. The receiving station then sends back a frame that indicates whether it recognizes the identity of the sending station.

Using *Shared* authentication, each wireless station is assumed to have received a secret shared key over a secure channel that is independent from the 802.11 wireless network communications channel.

WPA (Wi-Fi Protected Access) uses the Temporal Key Integrity Protocol (TKIP) to provide strong data encryption, and offers two user authentication and key management methods.

The first method of user authentication is intended for environments using a centralized Authentication Server, such as RADIUS. User authentication is based on IEEE 802.1X and mutual authentication based EAP.

In environments where a centralized Authentication Server or EAP framework is *not* available, user authentication is based on a 'Pre-Shared Key' method—*WPA-PSK*. If you are using Pre-Shared Key authentication, you will need to manually enter a password (Master Key) in the Access Point or Wireless Router and enter the same password in each client device that accesses the wireless network. The manually configured *WPA* password (Master Key) automatically starts the TKIP data encryption process.

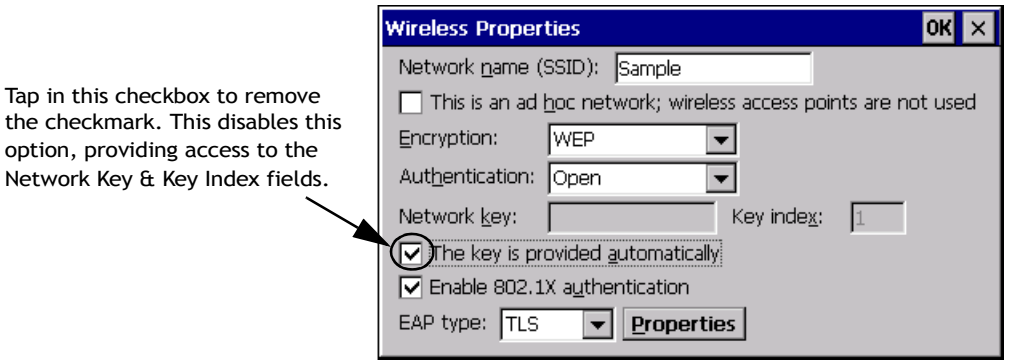
Network Key

This text box is used to 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.

Download from Www.Somanuals.com. All Manuals Search And Download.

To assign a *Network key*, tap in the checkbox next to **'The key is provided automatically'** to remove the check mark next to this option.

Figure 2.6 Accessing Network Key And Key Index



Key Index

This field is used to identify the WEP key.

Enter a value from 1 to 4.

Enable 802.1X authentication

"802.1X" is the IEEE standard that offers additional security for local area networks. It provides authentication for user devices attached to an Ethernet network, whether wired or wireless. A security protocol packet such as TLS or MD5 encapsulated in an "EAP" is used in conjunction with the "802.1X" standard to authenticate users at the MAC layer. Available EAPs are listed in the dropdown menu next to the 'EAP' option.

To activate "802.1X", tap on the checkbox next to **'Enable 802.1X authentication'**, and press the [SPACE] key to enable it.

EAP Type (Extensible Authentication Protocol):

This dropdown menu lists the EAP types available on your system. The items in this dropdown menu will vary depending on your network setup. Keep in mind also that some authentication protocols require that you select a 'Certificate'. By selecting the *Properties* button, you will be able to select a Certificate. "Certificate Assignment" on page 90 provides a website that outlines how to create certificates for your network.

6. Saving and exiting the radio setup.

   Once you have completed your configuration, press [ENTER] or tap on **OK**.

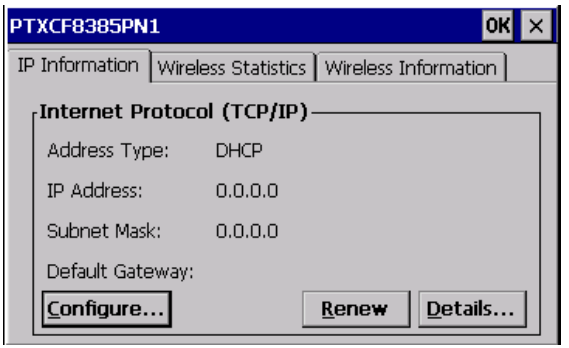
Download from Www.Somanuals.com. All Manuals Search And Download.

The connection you created will be listed in the *Wireless Information* tab as a preferred network. The radio will search for the SSID and will compare the WEP and authentication information you specified. If there is a match between your 8515 settings and the access point settings, the 8515 will communicate on the network through the access point.

2.7.1 Assigning An IP Address

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

Figure 2.7 Configuring An IP Address

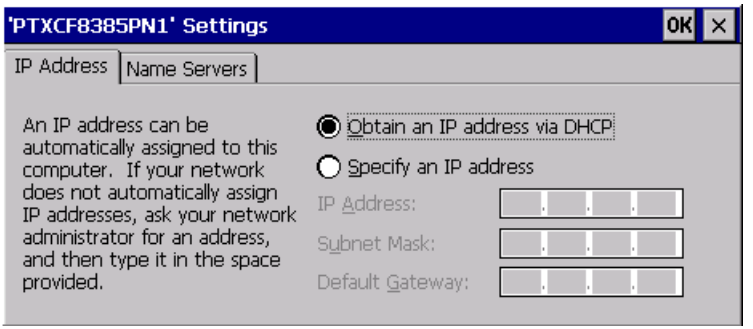


Note: *Choosing the* **Renew** *button forces the 8515 to renew or find a new IP address. This is useful if, for example, you are out of communication range for a longer period of time and your 8515 is dropped from the network.*

To define a static IP address:

- Tap the **Configure** button.

Figure 2.8 Defining An IP Address



- Tap on the radio button next to *Specify an IP address*.

Download from Www.Somanuals.com. All Manuals Search And Download.

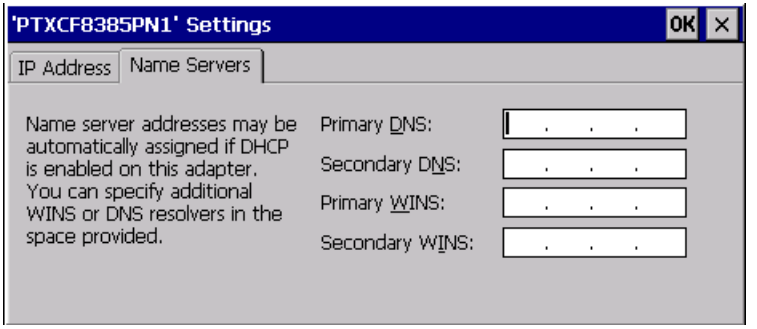
- Tap on each field, and type an **IP, Subnet Mask** and **Default Gateway** address. Tap on **OK** to save your information.

2.7.2 Name Servers Tab

Note: ***If DHCP is enabled****, name server addresses are assigned automatically.*

- In the *IP Information* tab, tap on the **Configure** button. (Figure 2.7 is the window from which you choose the **Configure** button.)
- Tap on the **Name Servers** tab.

Figure 2.9 Name Servers Tab



The DNS and WINS fields in the *Name Servers* tab allow you to specify additional WINS and DNS resolvers. The format for these fields is ###.###.###.###.

2.7.3 Advanced Features

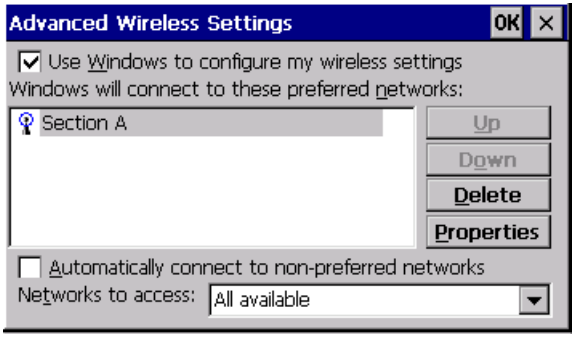
To display the *Advanced Wireless Settings* dialog box:

- Tap the **Advanced** button in the *Wireless Information* tab.

This window lists the available preferred networks.

Download from Www.Somanuals.com. All Manuals Search And Download.

Figure 2.10 Advanced Wireless Settings



2.7.3.1 Rearranging Preferred Networks

The 8515 attempts to connect with the networks listed in this dialog box *in sequence, beginning at the top of the list*. If you need to rearrange this list of networks—move networks up and down in the list:

- In the networks list, tap on the network that you want to move up or down in the list.
- To move the highlighted item upward or downward in the list, tap the **Up** or **Down** button, and press [ENTER].

2.7.3.2 Deleting A Preferred Network

To delete a network from this list:

- Tap on the network in the list to highlight it.
- Tap the **Delete** button, and press [ENTER].

2.7.3.3 Changing Network Properties

To change the properties of an existing preferred network:

- Highlight the network that you want to modify.
- Tap the **Properties** button, and press [ENTER].
- Make any necessary changes in the *Wireless Properties* dialog box, and press [ENTER] to save the changes.

2.8 Setting Up The Model RA2041 Radio SCU

This section describes the Summit DC 802.11 SC CF radio *Summit Client Utility (SCU)*. The *SCU* provides the utilities you will need to configure the Summit 802.11g Compact Flash radio module, model number RA2041, so that it can communicate through a wireless LAN effectively and securely.

Download from Www.Somanuals.com. All Manuals Search And Download.

Note: You do not need to reset your 8515 after configuring the Summit DC 802.11 SC (Model RA2041) CF radio.

2.8.1 Assigning The IP Address

Before launching the *SCU*, you need to configure how the IP address will be obtained.

- Tap on **Start>Settings>Network and Dial-up Connections.**

Follow the steps under the heading "Assigning An IP Address" on page 15 to determine how the IP address will be obtained—either via DHCP or by specifying an address.

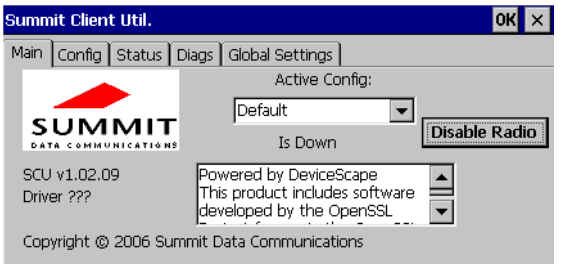
2.8.2 Using The SCU To Connect To The WLAN

This section provides a quick set of steps to create a profile (referred to as a *config*). Detailed information about each of the SCU tabs—*Main*, *Config*, *Status*, *Diags* and *Global Settings*—is provided under "SCU Tabs" beginning on page 20.

To launch the *SCU* so that your vehicle-mount can connect to a wireless LAN:

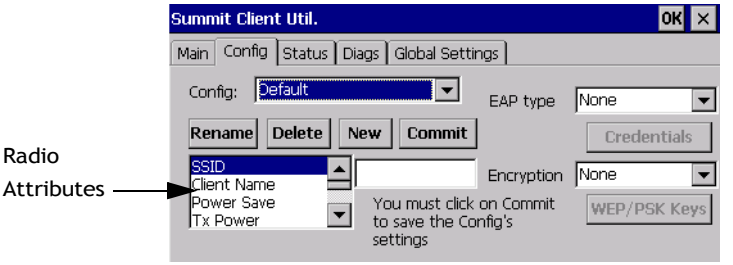
- Tap on **Start>Programs>Summit>SCU**.

Figure 2.11 SCU Main Menu



- Tap on the **Config** tab.

Figure 2.12 SCU Configuration Menu



Download from Www.Somanuals.com. All Manuals Search And Download.

- Tap on the **New** button to define a new *config* (profile).
- Type a name for your configuration using any alpha-numeric combination to uniquely identify this *config*.
- Tap on **OK** to return to the *Config* tab.
- Tap on **Commit** to save the *config* name.
- When a pop-up message indicates that your configuration will be saved, tap on **OK.**

To configure the *SSID* for the network to which you want to associate:

- Type an **SSID** in the text box to the right of *SSID*. This field is limited to 32 characters.
- Tap on **Commit** and then, in the pop-up message, tap on **OK** to save your *SSID* setting.

Important: To learn more about the other options available in the radio attributes list, refer to "Config Tab" on page 21.

To configure authentication:

- Tap on the **EAP type** dropdown menu, and choose the appropriate type of authentication —LEAP, EAP-FAST, PEAP-MSCHAP, and PEAP-GTC.
- Next, tap on the **Credentials** button, and type credentials for IEEE 802.1X EAP types.

Important: Refer to "SCU Security Capabilities" on page 23 for details about security settings. Additional EAP details are described in "EAP Credentials" on page 25.

To configure encryption:

- Tap on the **Encryption** dropdown menu, and choose the appropriate type of encryption—Manual WEP, Auto WEP, WPA PSK, WPA TKIP, WPA2 PSK, WPA2 AES, and CCKM TKIP.

If you choose *Manual WEP*, *WPA PSK* or *WPA2 PSK*:

- Tap on the **WEP/PSK Keys** button. For *Manual WEP*, choose up to four static WEP keys. For *PSK*, type an ASCII passphrase or hex PSK.
- Configure any other settings that are supplied by the network administrator for the *SSID* to which you will associate.
- Make certain that you tap on **Commit** *following each change*.

Once you've completed the configuration:

- Tap the **Main** tab. Tap on the **Active Config** button—your new *config* will be listed in the dropdown menu.

Download from Www.Somanuals.com. All Manuals Search And Download.

When you tap on the *config* you created, the Summit DC-802.11 SC CF radio module (Model RA2041) attempts to connect to the network using these steps:

- Associate to the SSID.
- Authenticate to the network.
- If EAP authentication is being used, derive dynamic encryption keys.
- If DHCP is being used by the network, obtain an IP address.

If the Summit DC-802.11 SC CF (Model RA2041) is not connecting:

- Tap on the **Status** tab.

The *Status* dialog box lists the IP and MAC address, and indicates the current state of the radio, the signal strength, channel etc.

You can also use the *Status* screen for DHCP renewal and ICMP Echo Requests (Pings).

Important: For details about the Status dialog box, refer to "Status Tab" on page 28.

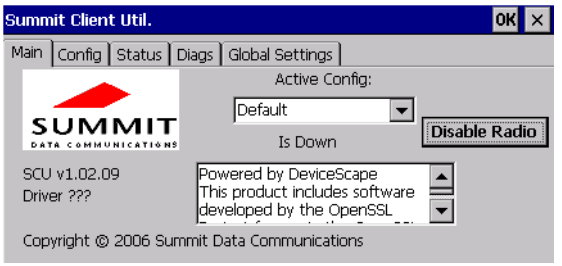
2.9 SCU Tabs

This section provides a detailed description of each of the tabs available in the SCU—Main, Config, Status, Diags and Global Settings.

2.9.1 Main Tab

The *Main* tab is displayed when you tap on *Start>Programs>Summit>SCU*.

Figure 2.13 SCU Main Menu



- **Enable/Disable Radio:** Enables or disables the radio. This a toggle button; when the radio is enabled, this button reads *Disable Radio*, and when the radio is disabled, it reads *Enable Radio*.

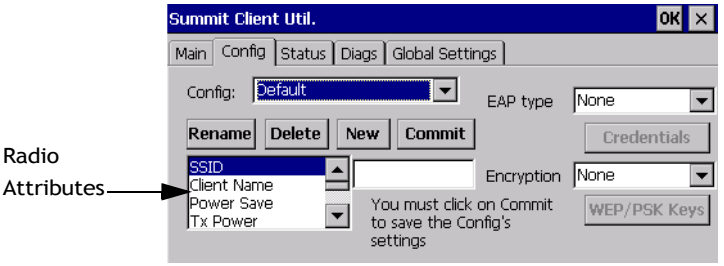
Download from Www.Somanuals.com. All Manuals Search And Download.

- **Active Config:** Lists the name(s) of the active configuration profile(s) which are referred to as *configs*. When a *config* is chosen from the *Active Config* dropdown menu, the settings for that config become active.
  - If *ThirdPartyConfig* is selected, after the vehicle-mount goes through a power cycle, WZC is used for configuration of the radio. See "ThirdPartyConfig" on page 25 for details.
- **Association Status:** Indicates if the radio is associated to an access point. If this is not the case, *Association Status* indicates the radio status.
- **Software Version:** This field displays the version of the device driver and the *SCU* that are running on the 8515.
- **About Box:** This box provides information about the *SCU*.

2.9.2 Config Tab

The *Config* tab allows you to define radio and security settings that are stored in the registry as part of the configuration profile or *config*.

Figure 2.14 SCU Configuration Menu



The *config* you create and save is listed in the *Active Config* dropdown menu in the *Main* tab. You can define up to 20 *configs*.

- **Config:** Used to choose the *config* to be viewed or edited. If *ThirdPartyConfig* is chosen, after the 8515 goes through a power cycle, WZC is used for configuration of the radio.
- **Rename:** Allows you to assign a *config* name.
- **Delete:** Deletes the *config* unless it is currently active.
- **New:** Allows you to create a new *config* with default settings and assign it a name.
- **Commit:** Saves all changes.

Download from Www.Somanuals.com. All Manuals Search And Download.

- **Radio Attributes:** Lists radio attributes. These attributes can be individually chosen from this menu. When an attribute is chosen, an associated list of options is displayed where you can assign new settings or view existing settings.

The following table describes the options in the *Radio Attributes* dropdown menu:

Table 2.2 Radio Attributes Menu

Radio Attribute	Description	Value	Default
Config	Name of config (configuration profile). Use Rename button to change name.	Maximum of 32 characters.	None
SSID	Service set identifier (SSID) for WLAN to which the radio connects.	Maximum of 32 characters.	None
Client Name	Name assigned to radio & vehicle-mount into which it is installed.	Maximum of 16 characters.	None
Power Save	Power save mode for radio.	CAM: Constantly awake. Maximum: Maximum power savings. Fast: Fast power save mode.	Fast
Tx Power	Maximum transmit power.	Max: Maximum defined for current regulatory domain. Measured in mW: 50,30,10, 1.	Max
Bit Rate	Used by radio when interacting with WLAN access point.	Auto: Rate automatically negotiated with access point. Rates in Mbps: 1, 2, 5.5, 6.9, 11, 12, 18, 24, 36, 48, 54.	Auto
Radio Mode	Used by 802.11g when interacting with access point.	B rates only: 1, 2, 5.5, & 11 Mbps. G rates only: 6, 9, 12, 18, 24, 36, 48, and 54 Mbps. BG rates full: All B and G rates. BG rates optimized: 1, 2, 5.5, 6, 11, 24, 36 & 54 Mbps.	BG rates optimized
Auth Type	802.11 authentication type used when associating with access point.	Open, shared-key, or LEAP (Network-EAP).	Open

Download from Www.Somanuals.com. All Manuals Search And Download.

Table 2.2 Radio Attributes Menu

Radio Attribute	Description	Value	Default
EAP Type	Extensible Authentication Protocol type used for 802.1X authentication to access point.	None, LEAP, EAP-FAST, PEAP-MSCHAP – To use EAP-TLS, you must use WZC.	None
Credentials	Authentication credentials for the selected EAP type. Refer to "EAP Credentials" on page 25.	User: Username or Domain/Username (up to 64 characters). Password: up to 64 characters. For PEAP: CA Cert–CA server certificate filename.	None
Encryption	Type of encryption used to protect transmitted data.	Off, Manual WEP, Auto WEP (generated during EAP authentication), WPA-PSK, WPA-TKIP, WPA2-PSK, WPA2-TKIP, WPA2-AES, CCKM-TKIP. For Manual WEP: Up to four static WEP keys. For PSK: ASCII passphrase or hex PSK.	None

- **EAP-Type & Encryption:** Security settings. These settings allow you to enhance the security of data across the wireless LAN. Refer to "EAP Credentials" on page 25 and "SCU Security Capabilities" on page 23 for details about these settings.

2.9.2.1 SCU Security Capabilities

The *SCU* provides integrated security to protect transmitted data as well as the vehicle-mount infrastructure that transmits and receives data.

A foundational element of the IEEE 802.11i WLAN security standard is IEEE 802.1X and a critical application on a mobile device is an 802.1X supplicant. This supplicant provides an interface between the radio and the operating system and supports the authentication and encryption elements required for 802.11i, also known as Wi-Fi Protected Access 2 (WPA2), as well as predecessors such as WPA and WEP. Summit software includes an integrated supplicant that supports a broad range of security capabilities, including:

Download from Www.Somanuals.com. All Manuals Search And Download.

- 802.1X authentication using pre-shared keys or an EAP type, required for WPA2 and WPA.
- Data encryption and decryption using WPA2 AES, WPA TKIP or WEP.

Common EAP types include:

- **EAP-TLS:** Uses the same technology as a follow-on to Secure Socket Layer (SSL). It provides strong security, but relies on client certificates for user authentication.
- **PEAP:** Provides secure user authentication by using a TLS tunnel to encrypt EAP traffic. Two different inner methods are used with PEAP:
  - EAP-MSCHAPV2, resulting in PEAP-MSCHAP: This is appropriate for use against Windows Active Directory and domains.
  - EAP-GTC, resulting in PEAP-GTC: This is for authentication with one-time passwords (OTPs) against OTP databases such as SecureID.
- **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 offline dictionary attacks.
- **EAP-FAST:** Is a successor to LEAP and does not require strong passwords to protect against offline dictionary attacks. Like LEAP, EAP-FAST does not require the use of server or client certificates and supports Windows Active Directory and domains.

Note: PEAP and EAP-TLS require the use of Windows facilities for the configuration of digital certificates.

SCU EAP Types

The following EAP types are supported by the integrated supplicant and can be configured in SCU: PEAP-MSCHAP, PEAP-GTC, LEAP and EAP-FAST. With each of these four types, if authentication credentials are not stored in the *config*, you will be prompted to enter credentials the first time the radio attempts to associate to an access point that supports 802.1X (EAP).

Consider the following when configuring one of the EAP types:

- PEAP-GTC: SCU supports static (login) passwords only.
- LEAP: Strong passwords are recommended.
- EAP-FAST: SCU supports automatic, not manual, PAC provisioning.

EAP-TLS will work with a Summit DC-802.11 SC CF (Model RA2041) radio module when *Windows Zero Config* (WZC) rather than the *SCU* is used to configure the type. With WZC, *the native Windows supplicant* instead of the *SCU* integrated supplicant is used.

Download from Www.Somanuals.com. All Manuals Search And Download.

2.9.2.2 EAP Credentials

Keep the following in mind when defining security settings:

- If the credentials specified in the *config* are incorrect and that *config* is used, the authentication fails without an error message; you will not be prompted to enter correct credentials.
- If the credentials are not specified in the *config*, when the radio tries to associate using that config, you will be prompted to enter the credentials.
- When prompted, you can enter valid credentials, enter invalid credentials, or cancel the operation.
  - If you enter valid credentials and tap OK, the radio will associate and authenticate.
  - If you enter invalid credentials and tap on OK, the radio will associate but will not authenticate; you will be prompted again to enter credentials.
  - If you tap on **Cancel** or clear the credentials fields and tap on **OK**, the radio will not attempt to associate with that *config* until you perform one of the following actions (while the *config* is the *active config*):
    - Cause the vehicle-mount to go through a power cycle or suspend/resume.
    - Disable and enable the radio, or tap the **Reconnect** button on the *Diags* windows.
    - Modify the *config,* and tap on **Commit**.

Alternatively, you can choose another *config* as the active *config* and then switch back to the *config* for which EAP authentication was cancelled.

2.9.2.3 ThirdPartyConfig

If you choose to configure *ThirdPartyConfig*, the *SCU* will work with the operating system's *Windows Zero Config* (WZC) to configure radio and security settings for the CF radio installed in the unit.

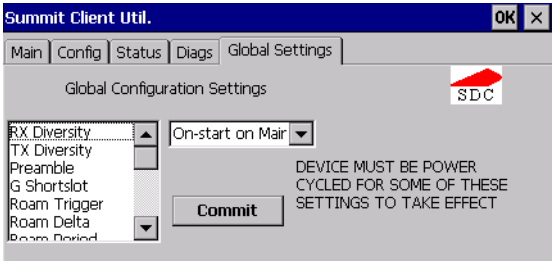
Choosing this *config* means that *WZC* must be used to define the following radio and security options: SSID, Auth Type, EAP Type and Encryption.The *SCU* settings for *ThirdParty-Config* include: Client Name, Power Save, Tx Power, Bit Rate and Radio Mode. These *SCU* settings along with SCU global settings and the WZC settings will be applied to the radio module.

2.9.3 Global Settings Tab

The *Global Settings* tab allows you to define radio and security settings that apply to all *configs* (profiles), along with settings that apply specifically to the *SCU*.

Download from Www.Somanuals.com. All Manuals Search And Download.

Figure 2.15 SCU Global Settings Menu



The *Global Settings* outlined in the table below can be edited in the SCU:

Table 2.3 Global Settings Menu

Global Setting	Description	Value	Default
CCX features	Activates three CCX features: AP-assisted roaming, AP-specified maximum transmit power and radio management.	On, Off	Off
Cert Path	Directory where certificates for EAP authentication are stored.	Valid directory path up to 64 characters.	Dependent on device.
Frag Thresh	Packet is fragmented when packet size (in bytes) exceeds threshold.	Integer from 256 to 2346	2346
G Shortslot	802.11g short slot timing mode.	Auto, Off, On	Auto
Hide Passwords	On - SCU as well as EAP authentication dialog boxes hide passwords, WEP keys and other sensitive information.	On, Off	Off
LED	Available only with MCF10G.	On, Off	Off
Preamble	Type of radio preamble or headers.	Auto, Short, Long	Auto
Ping Payload	Amount of data to be transmitted on a ping.	Bytes: 32, 64, 128, 256, 512 and 1024	32

Download from Www.Somanuals.com. All Manuals Search And Download.

Table 2.3 Global Settings Menu

Global Setting	Description	Value	Default
Ping Timeout ms	Amount of time in milliseconds that passes without a response before ping request is considered a failure.	Integer from 0 to 30000	5000
Ping Delays ms	Amount of time in milliseconds between successive ping requests.	Integer from 0 to 7200000	1000
Roam Delta	Amount by which second AP's RSSI must exceed the moving average RSSI for the current AP before the radio will attempt to roam to a second AP.	dBm: 5, 10, 15, 20, 25, 30, 35	15
Roam Period	Following an association or roam scan (with no roam), the number of seconds the radio collects RSSI scan data before considering roaming.	Seconds: 5, 10, 15, 20, 25, 30, 35, 40, 45, 50, 55, 60	10
Roam Trigger	If RSSI from AP is less than roam trigger value, radio performs roam scan or probes for an AP with stronger signal.	dBm: -50, -55, -60, -65, -70, -75	-70
RTS Thresh	Packet size above which RTS/CTS is required on link.	An integer from 0 to 2347	2347
RX Diversity	Defines how to handle antenna diversity when receiving data from AP.	-On-Start on Main: On startup, use main antenna. -On-Start on Aux: On startup, use auxiliary antenna. -Main only: Use main antenna only. -Aux only: Use auxiliary antenna only.	On-Start on Main

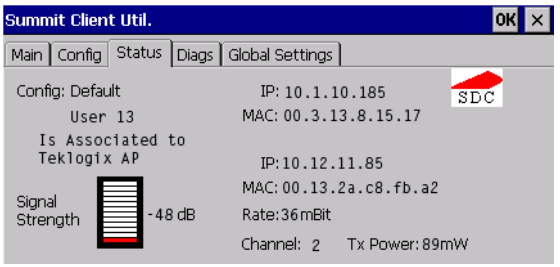
Download from Www.Somanuals.com. All Manuals Search And Download.

Table 2.3 Global Settings Menu

Global Setting	Description	Value	Default
TX Diversity	Defines how to handle antenna diversity when transmitting data to AP.	-Main only: Use main antenna only. -Aux only: Use auxiliary antenna only. -On: Use diversity.	On
WMM	Use Wi-Fi Multimedia Extensions, also know as WMM.	On, Off	Off

2.9.4 Status Tab

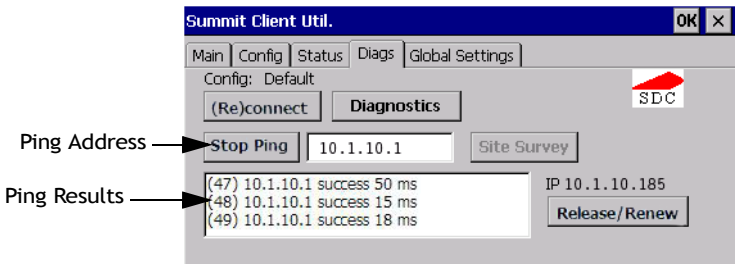
Figure 2.16 SCU Status Menu



The *Status* tab provides status information including IP address and MAC address for the client radio, IP address and MAC address for the AP, signal strength, channel, transmit power and data rate.

2.9.5 Diags Tab

Figure 2.17 SCU Diagnostics Menu



Use the *Diags* tab as a troubleshooting tool. The functions are as follows:

Download from Www.Somanuals.com. All Manuals Search And Download.

- **(Re)Connect:** Enables/Disables the radio, applies/reapplies current *config* and tries to associate and authenticate to the wireless LAN, logging all activity in the output area at bottom of the dialog box.
- **Release/Renew**: Obtains a new IP address through DHCP and logs all activity in the output area.
- **Start Ping/Stop Ping**: Starts a continuous ping to the address in the text box next to this button. This a toggle button so when you tap on it, it changes to *Stop Ping*. Closing this window or tapping on another button also stops the ping.
- **Diagnostics:** Attempts to connect or reconnect to an AP, and provides a more detailed dump of data than if you used *(Re)connect*. The dump includes the radio state, config settings, global settings and BSSID list of APs. The SCU is saved to a file called *_sdc_diag.txt* in the Windows directory.

2.10 Resetting The 8515 Vehicle-Mount Computer

Warm Reset

To execute a warm reset:

- Press and hold down the [BLUE] key and the [ENTER/ON] key simultaneously for a minimum of six seconds.

A warm reset closes open applications; any unsaved data is lost. Installed programs and saved data are preserved.

Note: You do not need to reset your 8515 after configuring the radio.

Cold Reset

There are two options when executing a cold reset: reset to BootLoader, or reset directly to Windows Embedded CE 5.0 operating system.

To execute a cold reset and access the BooSt menu:

- Press and hold down the [BLUE] key, the [ENTER] key and the [SPACE] key simultaneously for a minimum of six seconds.

After a cold reset, the BooSt menu appears.

- If you want to load the *Windows Embedded CE 5.0* operating system, type **1**.
- If you want a clean start, press **!** (that is, [SHIFT] [1]). All data and settings are lost. Files and data stored in flash are preserved.

Once the OS loads, any executables and cab files in the startup folders are run. The cab files are deleted by the cab file installer unless they are marked read-only.

Download from Www.Somanuals.com. All Manuals Search And Download.

Download from Www.Somanuals.com. All Manuals Search And Download.

GETTING TO KNOW THE 8515 3

3.1 Features Of The 8515 33
3.2 The Internal Backup Battery 34
3.3 The Stylus 34
3.4 The Keyboard 34
3.4.1 Modifier Keys 34
3.4.1.1 Activating Modifier Keys 34
3.4.1.2 Locking Modifier Keys 35
3.4.2 The Keys 35
3.5 Function Keys And Macro Keys 36
3.5.1 Function Keys 36
3.5.2 Macro Keys 37
3.5.3 The Keypad Backlight 38
3.6 The Display 38
3.6.1 Calibrating The Touchscreen 38
3.7 8515 Indicators 39
3.7.1 Power Indicator LED 39
3.7.2 Onscreen Indicators 39
3.7.3 Audio Indicators 41
3.8 Scanning 41
3.8.1 Scanning Techniques 41
3.8.2 Scan LED Indicators 41
3.8.3 Troubleshooting 42
3.8.4 Operating One Dimensional (1D) Laser Scanners 42
3.8.5 Operating PDF Laser Scanners 42
3.9 Monitoring The Network Connection 42
3.10 Connecting An 8515 To A Windows 2000 Or XP PC 43
3.11 Connecting An 8515 To A Windows Vista™ PC 43
3.12 General Maintenance 43

Download from Www.Somanuals.com. All Manuals Search And Download.

3.12.1 Ports 43
3.12.2 Caring For The Touchscreen 44
3.12.3 Cleaning The 8515 44

Download from Www.Somanuals.com. All Manuals Search And Download.

3.1 Features Of The 8515

Figure 3.1 Front Of The 8515 Vehicle-Mount Computer

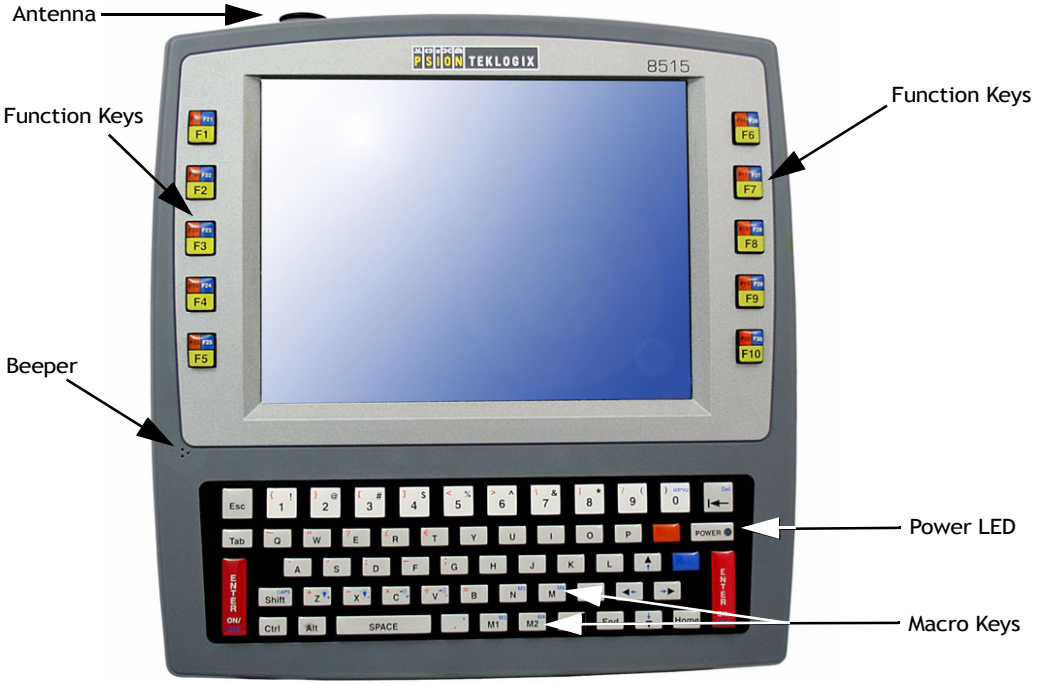
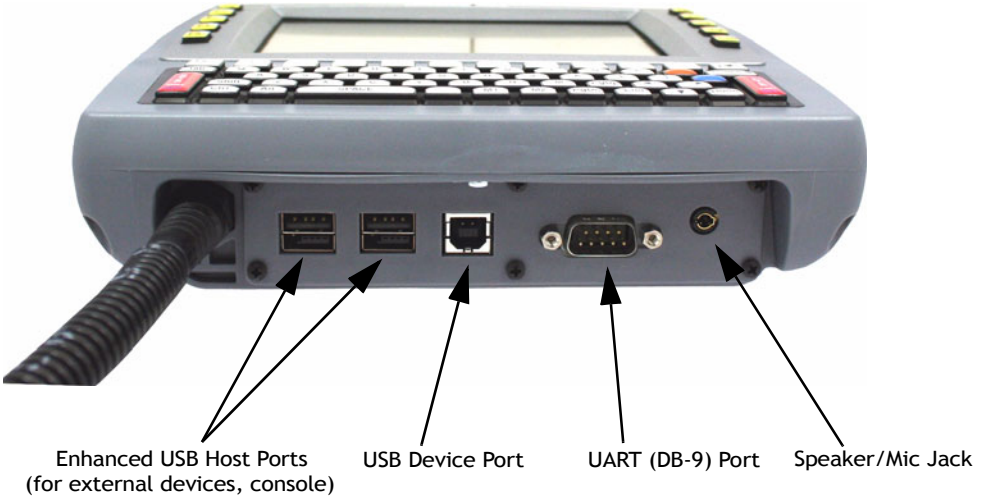


Figure 3.2 8515 Ports



Download from Www.Somanuals.com. All Manuals Search And Download.

3.2 The Internal Backup Battery

The 8515 vehicle-mount is equipped with an internal battery that will provide backup power to the unit for up to 30 seconds of normal operation. The display will be blank during this time. After 30 seconds, the unit will shut off to preserve the contents of RAM. The backup battery provides one hour of memory backup. For configuration information, please see "Power Properties" on page 82; for specifications, see "Internal Lithium-Polymer Battery" on page 145.

The backup battery is <u>not</u> user accessible. It must be replaced by authorized Psion Teklogix personnel.

3.3 The Stylus

The stylus is supplied with a holder with double-sided adhesive tape so that it can be attached wherever is most convenient for you.

3.4 The Keyboard

The 8515 provides a 58-key QWERTY or ABC alphanumeric keyboard layout (see Figure 3.1 on page 33).

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

Note: A soft keyboard that is a replica of the external keyboard is available. Refer to "Input Panel" on page 105 for details.

3.4.1 Modifier Keys

The [SHIFT], [CTRL], [ALT], [BLUE] ad [ORANGE] keys are *modifier* keys. Pressing a modifier key changes the function of the next key pressed. For example, a square bracket is printed in *orange* print above the [4] key. Pressing the [ORANGE] key followed by the [4] key displays a square bracket rather than the number 4.

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

When a modifier key is pressed once, it is displayed in lowercase letters in the taskbar at the bottom of the 8515 screen. For example, if the [CTRL] key is pressed, `ctrl key` is displayed at the bottom of the unit screen. Once another key is pressed, the modifier key becomes inactive and disappears from the taskbar.

Download from Www.Somanuals.com. All Manuals Search And Download.

3.4.1.2 Locking Modifier Keys

When a modifier key is pressed twice, it is 'locked' on. A 'locked' modifier key is displayed in uppercase letters in the taskbar. For example, pressing the [BLUE] key twice locks it on—it is displayed as BLUE KEY in the taskbar at the bottom of the computer screen.

The locked modifier key will remain active until it is pressed a third time to unlock or turn it off. Once a modifier key is unlocked (pressed a third time), the uppercase representation at the bottom of the screen is no longer displayed.

*Note: The locking function of modifier keys can be disabled so that pressing a modifier key **once** will lock the key 'on'. If you disable the 'One Shot' function of these keys, pressing a modifier key once will lock it 'on'. Pressing the same key a second time will unlock or turn it 'off'. Refer to "One Shots" on page 74 for details.*

3.4.2 The Keys

The [BLUE] And [ORANGE] Keys

The [BLUE] and [ORANGE] modifier keys provide access to additional symbols and keys. These additional symbols and keys are colour coded in *blue* and *orange* print above the keyboard keys.

Press the [BLUE] key to access functions or characters displayed in *blue* print on the keyboard. Press the [ORANGE] key to access functions or characters displayed in *orange* print on the keyboard.

The [SHIFT/CAPS] Key

The [SHIFT/CAPS] key is used to display uppercase alpha characters. Pressing [BLUE][SHIFT] turns the [CAPS] key on so that all alpha characters are printed in uppercase until the [BLUE][SHIFT] sequence is pressed again.

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 [INS] Key

The [INS] key inserts a character at the cursor position.

The [DEL] Key

The [DEL] key erases the character at the cursor position.

Download from Www.Somanuals.com. All Manuals Search And Download.

The [BKSP] Key

The [BKSP] key (sometimes referred to as destructive backspace) moves the cursor one character to the left, erasing the incorrectly entered key stroke.

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 [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 [HOME] Key

The [HOME] key moves the cursor to the top of the form or page.

The [END] Key

The [END] key moves the cursor to the bottom of the form or page.

The [PgUp] And [PgDn] Keys

The [PgUp] key displays the previous screen of information. The [PgDn] key displays the next screen of information.

3.5 Function Keys And Macro Keys

In addition to the standard keyboard functions (see "The Keyboard" on page 34), 8515 Vehicle-Mount Computers are equipped with function keys and macro keys.

3.5.1 Function Keys

The 8515 is equipped with a series of 30 function keys divided amongst 10 physical keys, each of which is defined in the application software. There are five keys located on each side of the display.

Download from Www.Somanuals.com. All Manuals Search And Download.

Accessing Function Keys [F1] to [F10]

Function keys [F1] to [F10] can be directly accessed by pressing the function keys labelled in *yellow* along the sides of the display. No key combination is required. Function keys [F1] to [F5] are located to the left of the display, [F6] to [F10] on the right.

Accessing Function Keys [F11] To [F20]

These keys are labelled in *orange* in the top-left corner of the function keys. To access these keys, press the [ORANGE] key followed by [F1] to [F10].

- To access function key [F11], press the [ORANGE] key followed by [F1].
- Press [ORANGE] [F2] to access function key [F12], etc.

Accessing Function Keys [F21] To [F30]

These keys are labelled in *blue* in the top-right corner of the function keys. To access these keys, press the [BLUE] key followed by [F1] to [F10].

- To access function key [F21], press the [BLUE] key followed by [F1].
- Press [BLUE] [F2] to access Function key [F22], etc.

3.5.2 Macro Keys

Important: Refer to "Macro Keys" on page 75 for details about creating macros.

8515 Vehicle-Mount Computers are equipped with six macro keys that can be programmed to replace frequently used keystrokes, along with the *function* of executable keys such as the [ENTER] key, the [BKSP] key, any function key and arrow key, etc.

Macro Keys [M1] And [M2]

These keys are displayed in *black* print on the bottom row of executable keys on the keyboard. These macro keys are accessed by simply pressing the key.

Macro Keys [M3] To [M6]

These keys are displayed in *blue* print on the [M1] and [M2] keys in the bottom row of executable keys, and on the [N] and [M] keys in the first row of alpha keys on the keyboard. To access these macro keys, press the [BLUE] key followed by the appropriate executable or alpha key. For example, on a ***Qwerty*** keyboard:

- Press [BLUE] [N] to access macro key [M5].
- To access [M3], press [BLUE] [M1], etc.

Download from Www.Somanuals.com. All Manuals Search And Download.

3.5.3 The Keypad Backlight

The intensity of the keypad backlight and the conditions under which this backlight is activated can be configured using the *Keyboard* icon in the *Control Panel*. The behaviour of the keypad backlight is tailored in the *Keyboard Properties* dialog box.

Note: *Refer to "Backlight" on page 73 for details about this option. Keep in mind that this option may be restricted to supervisory use only.*

3.6 The Display

8515s are equipped with display backlighting to improve character visibility in low light conditions. The backlight switches on when a key is pressed or the touchscreen is tapped. The backlight intensity and the duration of time that the backlight will remain at full intensity can be specified in the *Display Properties* dialog box in the *Control Panel*.

Note: *Refer to "Display Backlight" on page 71 for details about the Display Properties dialog box.*

3.6.1 Calibrating The Touchscreen

If your 8515 touchscreen has never been calibrated or if you find that the stylus pointer is not accurate when you tap on an item, use the **Stylus Properties** dialog box in the *Control Panel* to recalibrate the screen.

- In the *Control Panel*, choose the **Stylus** icon to display the *Stylus Properties* window.

Figure 3.3 Control Panel: Stylus Icon

- Choose the **Calibration** tab, and then tap on the **Recalibrate** button.

Download from Www.Somanuals.com. All Manuals Search And Download.

Figure 3.4 Stylus Properties Menu: Calibration Tab

- Follow the directions on the calibration screen to calibrate the screen.

3.7 8515 Indicators

8515s use onscreen messages and audio tones as indicators. The vehicle-mount is also equipped with a power indicator LED.

3.7.1 Power Indicator LED

A power indicator LED is located in the keyboard on the front of the unit. When the vehicle-mount is receiving power from an external source, the green power indicator LED is illuminated. When the unit is in suspend, the LED remains on but is flashing.

3.7.2 Onscreen Indicators

The taskbar at the bottom of the screen displays a variety of system status indicators.

Figure 3.5 Taskbar

The taskbar changes dynamically, and only those icons that are applicable are displayed. For example, if a radio is not installed in your 8515, the radio signal icon is not displayed in the taskbar.

Download from Www.Somanuals.com. All Manuals Search And Download.

Windows Start Button

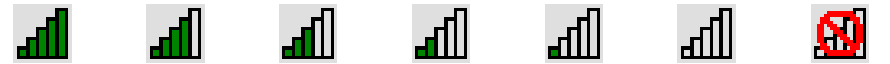
You can display the *Start Menu* by tapping on the *Start* button in the taskbar.

Modifier Key Indicators

[SHIFT], [CTRL], [ALT], [BLUE] and [ORANGE] are modifier keys that have onscreen indicators to show when a key is active or locked. If a modifier key is pressed once to activate it, the key is displayed in the taskbar in *lowercase* characters—for example, pressing the [BLUE] key once displays blue key in the taskbar. If a modifier key is pressed twice, it is 'locked on' and the onscreen indicator is displayed in *uppercase* letters in the taskbar—for example, pressing [BLUE] twice displays BLUE KEY in the taskbar.

802.11 Radio Signal Quality

Increasing radio signal quality is represented by longer, filled bars within this icon.



The radio signal is determined when the 8515 receives a message. If the unit receives no messages within a second, the "no signal" icon is displayed. The signal strength icon shows the following cases: No signal, 1% to 25% bar, 26% to 50% bar, 51% to 75% bar and 75% to 100% bar.

Bluetooth Radio

This icon represents the *Bluetooth* radio installed in your 8515.

Security Level

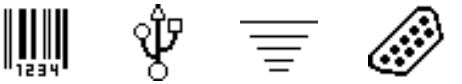
Security levels can be set to limit user access to 8515 settings. In addition, applications can be restricted to prevent inadvertent changes.

External Power

This is the external power icon displayed in the taskbar.

External Devices

When a peripheral is attached to the USB or serial ports and activated, an associated icon appears in the taskbar.



Download from Www.Somanuals.com. All Manuals Search And Download.

3.7.3 Audio Indicators

The 8515 beeper provides a variety of sounds and can be configured to emit a sound when a key is pressed, a keyboard character is rejected, scan input is accepted or rejected or an operator's entry does not match in a match field.

Note: Refer to "Volume And Sound Properties" on page 81 for details about the Volume & Sound Properties dialog box.

3.8 Scanning

Decoded scanners must be configured by scanning special configuration bar codes. In these cases, the scanner manufacturer provides programming manuals for configuration purposes. The 8515 supports a variety of one dimensional (1D) scanners and two dimensional (2D) laser and imager scanners. "Scanning Techniques" outlines the mechanics of a successful scan. In addition, "Troubleshooting" on page 42 provides some helpful suggestions should the scan fail.

3.8.1 Scanning Techniques

Note: External scanners can be connected to the 8515 serial or USB device port.

- Hold the scanner at an angle. Do not hold it perpendicular to the bar code.
- Do *not* hold the scanner directly over the bar code. In this position, light can reflect back into the scanner's exit window and prevent a successful decode.
- Scan the entire bar code. If you are using a 1D or 2D 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.
- If you are using a 2D imaging scanner, make certain the red, oval-shaped framing mark is centered within the bar code you want to scan.
- 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.

3.8.2 Scan LED Indicators

External scanners have integrated LED indicators that are not controlled by the 8515.

Download from Www.Somanuals.com. All Manuals Search And Download.

3.8.3 Troubleshooting

If the scanner is not working, investigate the following:

- Is the 8515 on?
- Check that the scanner settings are correctly configured (see "Scanner Settings" on page 109).
- 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 proper range.
- Does the vehicle-mount display the warning without scanning? This suggests a hardware problem in the 8515.
- Is the laser beam scanning across the bar code?
- Once the scan beam has stopped, check the scanner window for dirt or fogging.

3.8.4 Operating One Dimensional (1D) Laser Scanners

- Turn the 8515 on. Wait until the unit has booted up completely.
- Aim at the bar code and press the trigger. A scan beam and a warning indicator appear until a successful decode is achieved or six seconds have elapsed.

3.8.5 Operating PDF Laser Scanners

This scanner decodes PDF417 two-dimensional bar codes.

- Turn the vehicle-mount on. Wait until the unit has booted up completely.
- Aim at the bar code and press the trigger. The beam expands into a rectangle covering the bar code to properly scan it. The scan beam and a warning indicator are visible until a successful decode is achieved or three seconds have elapsed.

3.9 Monitoring The Network Connection

If your vehicle-mount is equipped with a wireless LAN radio, it will typically associate with the nearest access point. The radio signal quality meter in the taskbar indicates the relative strength of the communication link. To access the radio signal icon from the keyboard:

- Tap on the **radio icon** in the taskbar to display the *Wireless Statistics* dialog box.

Note: Moving in and out of the radio coverage area can have varying effects on a network session. At times, you may need to renew your connection by logging in again.

Download from Www.Somanuals.com. All Manuals Search And Download.

3.10 Connecting An 8515 To A Windows 2000 Or XP PC

ActiveSync®—Microsoft® PC connectivity software— can be used to connect the 8515 to a Windows 2000 or XP PC (desktop or laptop) running this software. By connecting the 8515 to a computer with a cable and running ActiveSync on the PC you will be able to:

- View 8515 files from Windows Explorer.
- Drag and drop files between the 8515 and the PC in the same way that you would between PC drives.
- Back up 8515 files to the PC, then restore them from the PC to the vehicle-mount again, if needed, etc.

To install ActiveSync, follow the step-by-step instructions provided with the program's setup wizard. Refer to the following website for details:

http://www.microsoft.com/windowsmobile/resources/downloads/pocketpc/activesync35.mspx

Note: *You'll need to run an application*—usbsetup.exe—*to configure Windows to recognize the 8515. For information about this USB application, refer to Appendix C: "USB Setup Application".*

3.11 Connecting An 8515 To A Windows Vista™ PC

Device connections to a PC are handled by different applications for Windows Vista™ and Windows XP or earlier.

Unlike earlier Windows operating systems, ActiveSync (see Section 3.10) is not used to connect devices to Windows Vista™. The Windows Vista™ 'Windows Mobile Device Center' makes the connection automatically. The Windows Mobile Device Center helps you to set up new partnerships, synchronize and manage information, and transfer files between your device and PC. Refer to the following website for details:

http://www.microsoft.com/windowsmobile/devicecenter.mspx

When a connection is established with the Psion Teklogix 8515 Vehicle-Mount Computer running Windows Embedded CE 5.0, you will be able to map to the drive and deploy software (however, it will not be recognized by the Windows Mobile Device Center).

3.12 General Maintenance

3.12.1 Ports

Remember to always install the dust caps on unused ports.

Download from Www.Somanuals.com. All Manuals Search And Download.

3.12.2 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. Using sharp objects on the touchscreen can scratch or cut the plastic, or crack the internal conductive coating.

If the touchscreen is used in harsh environments, consider applying a disposable screen protector. These covers reduce the clarity of the display slightly but will dramatically extend the useful life of the touchscreen. When they become scratched and abraded, they are easily removed and replaced.

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

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

3.12.3 Cleaning The 8515

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

- Use ***only*** mild detergent or soapy water to clean the vehicle-mount unit.
- Avoid abrasive cleaners, solvents or strong chemicals for cleaning.
- To clean ink marks from the keypad and touchscreen, use isopropyl alcohol.

Download from Www.Somanuals.com. All Manuals Search And Download.

WINDOWS EMBEDDED CE 5.0 4

4.1 Navigating In Windows Embedded CE 5.0 And Applications 47
4.1.1 Navigating Using A Touchscreen And Stylus 47
4.1.2 Navigating Using The Keyboard 47
4.2 Working With Files, Folders And Programs. 48
4.3 The Startup Desktop 49
4.3.1 The Desktop Icons. 50
4.3.2 The Taskbar 50
4.3.2.1 Using The Taskbar 51
4.3.2.2 Customizing The Taskbar 51
4.4 The Start Menu. 52
4.4.1 The Desktop 52
4.4.2 Security Level 52
4.4.2.1 Changing A Password 53
4.4.2.2 Configuring Security 53
4.4.3 Programs 54
4.4.4 Shortcuts. 55
4.4.5 Settings 57
4.4.6 Run 57
4.4.7 Shutdown 58
4.5 Using A Dialog Box 59

Download from Www.Somanuals.com. All Manuals Search And Download.

Download from Www.Somanuals.com. All Manuals Search And Download.

4.1 Navigating In Windows Embedded CE 5.0 And Applications

Note: In order to access many of the menus discussed in this chapter, the security level must be set to "Supervisor" (see "Security Level" on page 52).

Graphic user interfaces like Windows Embedded CE 5.0 for portable devices and desktop Windows operating systems (Windows 2000, Windows XP, Windows Vista™, etc.) utilize 'point and click' navigation. An equivalent keyboard shortcut is also available for every 'point and click' action.

Windows Embedded CE 5.0 supports the same 'point and click' user interface and keyboard shortcuts as desktop Windows with one difference—the 'point and click' action is accomplished using a touchscreen rather than a mouse. Actions can be performed using any combination of keyboard shortcuts or touchscreen tapping.

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 "Calibrating The Touchscreen" on page 38.

Each 8515 Vehicle-Mount Computer is equipped with a *stylus*—a pointing tool that looks like a pen—that is used to select objects on the touchscreen.

Note: To prevent damage to the touchscreen, use only the stylus (pen) supplied with your 8515.

To open a file, launch an applet, or open a folder:

- Double-tap the stylus on the appropriate icon.

To navigate through a dialog box—for example, display the information in a tab, choose a radio button, check a checkbox, etc.:

- Tap the stylus on the tab, radio button, checkbox, etc.

4.1.2 Navigating Using The Keyboard

If your touchscreen has been disabled, you can use the keyboard rather than a stylus to choose icons and navigate dialog boxes, display the desktop, etc. If your unit has already

Download from Www.Somanuals.com. All Manuals Search And Download.

been fully configured and your application is launched at startup, you'll have little need for keyboard navigation.

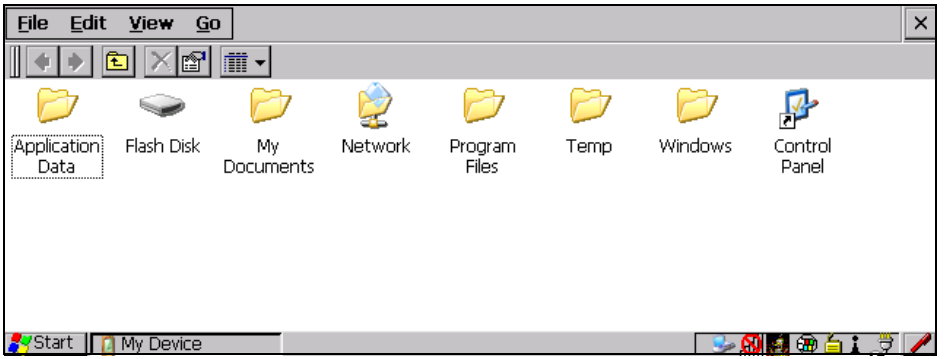
Table 4.1 Keyboard Navigation

Operation	Key or Key Combination
Switch between active applications	[ALT] [TAB]
Open task manager	[ALT] [ESC]
Move the cursor	Arrow keys
Open file, folder or icon	[ENTER]
Exit & Save	[ENTER]
Close/Exit & Do Not Save	[ESC]
Navigate Dialog Boxes	[TAB] To move cursor up [SHIFT] [TAB] To display the contents of the next 'tab' in a dialog box [CTRL] [TAB]
Select Radio Button/Press Button	[SPACE]
Go to Start Menu	[BLUE][0]

Keep in mind that unlike a desktop computer, the 8515 does not support key chording (pressing two keys at the same time). You must press one key followed by the next in sequence. Refer to "Working With Files, Folders And Programs" below for additional details about keyboard navigation.

4.2 Working With Files, Folders And Programs

Figure 4.1 Windows Explorer Screen



Download from Www.Somanuals.com. All Manuals Search And Download.

- Double-tap on the appropriate icon—either a folder icon, an application icon or a file icon—to open or launch your selection.

If you're using the keyboard:

- Use the arrow keys to highlight the icon you want to open or launch.
- Press **[ENTER]**.

4.3 The Startup Desktop

When the 8515 boots up, the startup desktop (shell) is displayed. Any applications stored in the Startup folder start up immediately.

Note: The startup folder is located in >Windows>StartUp and >Flash Disk> StartUp.

Figure 4.2 Startup Screen

- Double-tap on the icon to open a window or, in the case of an application icon, launch an application.

Download from Www.Somanuals.com. All Manuals Search And Download.

4.3.1 The Desktop Icons

The icons displayed in the startup desktop operate in much the same way as those displayed on any standard PC desktop that is running Windows.

My Device

Choosing this icon displays the contents of your 8515 computer. If you're not sure how to work with the files, folders and programs displayed, refer to "Working With Files, Folders And Programs" on page 48.

Recycle Bin

The Recycle Bin temporarily contains items that were deleted, allowing you to either permanently delete or restore these items.

Internet Explorer

Choosing this icon launches Internet Explorer—a standard Windows Embedded CE 5.0 version. Keep in mind that your supervisor will need to set up access using the *Internet Options* and the *Network and Dial-up Connections* icons in the *Control Panel*.

Microsoft WordPad

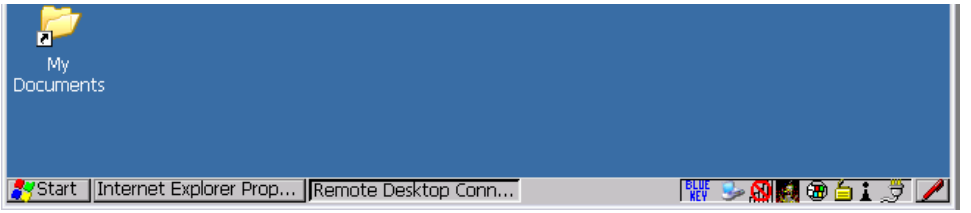
Choosing this option launches Microsoft WordPad, a trimmed version of the Microsoft Word application.

Remote Desktop Connection

This option allows your 8515 to communicate with a remote desktop PC. "Remote Desktop Connection" on page 65 provides a website with step-by-step instructions.

4.3.2 The Taskbar

Figure 4.3 The Taskbar



The 8515 is equipped with a taskbar at the bottom of the screen. It displays icons through which you can view the internal battery status, the radio signal quality of your unit, etc. If the vehicle-mount is attached to a peripheral device, an associated icon is displayed. In addition, the taskbar displays the application(s) currently running on your unit and the security level assigned to your 8515.

Download from Www.Somanuals.com. All Manuals Search And Download.

The taskbar also displays active modifier keys—[SHIFT], [ALT], [CTRL], [BLUE] and [ORANGE]. Keys that have been locked "on" are displayed in *uppercase* letters. For example, if you press the [CTRL] key twice to lock it "on", it is displayed as CTRL KEY in the taskbar.

4.3.2.1 Using The Taskbar

A taskbar icon allows you to display a *tooltip*—a short description of the status of the icon, or to display the *Control Panel* dialog box associated with the icon.

If you're using the touchscreen:

- To display a *tooltip*, tap and hold the stylus on an icon.
- To display the *Control Panel* dialog box associated with an icon, double-tap on the icon.

On the keyboard:

- Press **[BLUE] [0]** (zero) to display the *Start Menu*.
- Choose **Shortcuts** from the Start Menu, and then press the **[RIGHT]** arrow key to display the sub-menu.
- Choose **System Tray** in the sub-menu.
- Use the arrow keys to highlight the icon in the taskbar about which you'd like more information.
- Press **[ENTER]** to display the appropriate dialog box.

4.3.2.2 Customizing The Taskbar

To customize the taskbar so that it displays only those icons you require:

- From the *Start Menu*, tap on the **Settings**>**Taskbar and Start Menu**.

The *Taskbar and Start Menu* dialog box is displayed.

Figure 4.4 Taskbar And Start Menu Settings

Download from Www.Somanuals.com. All Manuals Search And Download.

- Tap the stylus on the items you want to activate or deactivate. A check mark indicates active items.

Note: The Advanced tab allows you to tap on a Clear button to delete the contents of the Documents folder.

4.4 The Start Menu

Note: Some of the Start Menu items may be disabled based on the current 8515 security settings.

The *Start Menu* lists the operations you can access and work with. It is available from the startup desktop or from within any application.

If you're using the touchscreen:

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

Figure 4.5 Start Menu Items

If you're using the keyboard:

- Press [BLUE] [0] (zero) to open the *Start Menu*.
- Use the arrow keys to highlight a menu item, and press [ENTER], ***or*** If the menu item has an underlined character type the underlined alpha character. For example, to display the *Security* dialog box, type the letter '**s**'.

4.4.1 The Desktop

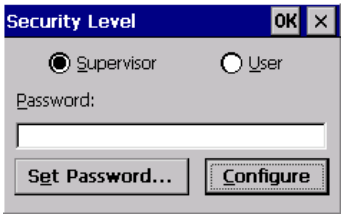
Choosing the *Desktop* option from the *Start Menu* displays the 8515 desktop.

4.4.2 Security Level

Choosing the **Security** option from the *Start Menu* displays a dialog box in which you can define the access level for the 8515—*Supervisor* or *User*.

Download from Www.Somanuals.com. All Manuals Search And Download.

Figure 4.6 Security Level Menu



Assigning The Supervisor Security Level

The security level is represented by an icon in the shape of a lock in the taskbar. The security levels define the options accessible to the operator in the *Start Menu* and the taskbar. By default, the security level is set to *User*, restricting access to only the most basic *Start Menu* items.

To allow access to all the *Start Menu* and taskbar options:

- Tap on the radio button next to **Supervisor**.
- Tap in the **Password** field, and type the Supervisor level password—the default password is *123456*.
- Tap on **OK**—you can now access all menu items in the *Start Menu* along with the icons in the taskbar.

4.4.2.1 Changing A Password

Note: *Keep in mind that this is the same password as that assigned through the Password Control Panel applet. Refer to "Password" on page 68.*

- To assign a password, choose a **security level**, and enter the **existing password** in the *Password* field.
- Tap on the **Set Password** button.

A dialog box labelled "Password Properties" is displayed.

- Type the new password in the Password: text box
- In the Confirm Password: text box, retype the new password.

4.4.2.2 Configuring Security

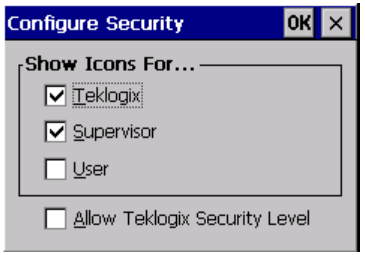
In the *Security Level* dialog box (see Figure 4.6 on page 53):

- Tap on the **Configure** button.

This dialog box allows you to determine which security levels will have an associated icon displayed in the taskbar. By default, a security icon is not displayed for user-level security.

Download from Www.Somanuals.com. All Manuals Search And Download.

Figure 4.7 Security Settings

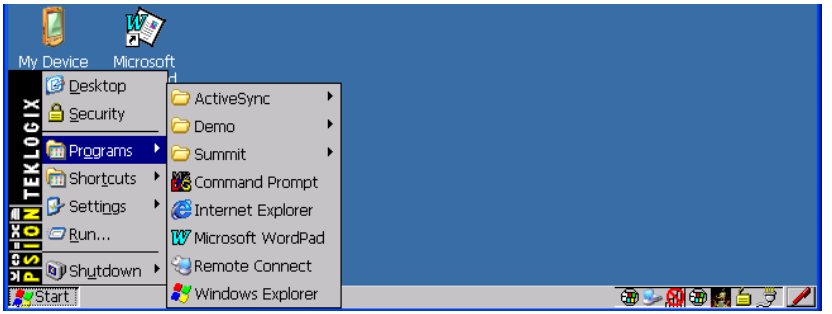


Note: *It is recommended that you enable 'Allow Teklogix Security Level' so that authorized Psion Teklogix service personnel can access your unit should it require maintenance.*

4.4.3 Programs

- Tap on **Programs** to display a sub-menu of options.

Figure 4.8 Programs List



This sub-menu allows you to choose *ActiveSync, Demo* and *Command Prompt*, and you can access *Internet Explorer, along with* installed applications (e.g., *Microsoft WordPad*), *Remote Desktop Connection* and *Windows Explorer.*

ActiveSync®

ActiveSync is used to connect your 8515 to your PC.

Demo

The *Demo* folder contains demo programs available on the 8515. Some demo programs such as *Sound* and *Imager* require hardware support not available.

Download from Www.Somanuals.com. All Manuals Search And Download.

Summit

The Summit folder provides access to the *SCU* (Summit Client Utility). The *SCU* is the utility you will need to configure the Summit 802.11g Compact Flash radio module, Model RA2041 so that it can communicate through a wireless LAN effectively and securely.

Command Prompt

Command Prompt is used to access the DOS command prompt. At the prompt, you can type DOS commands such as *dir* to display all the directories in the drive.

Internet Explorer

The 8515 is shipped with the Microsoft Internet Explorer for Windows Embedded CE 5.0. You can access the *Internet Options* icon through the *Start Menu* under *Settings>Control Panel* or by double-tapping on the desktop icon labelled *My Device* and then, double-tapping on the *Control Panel* icon.

Remote Desktop Connection

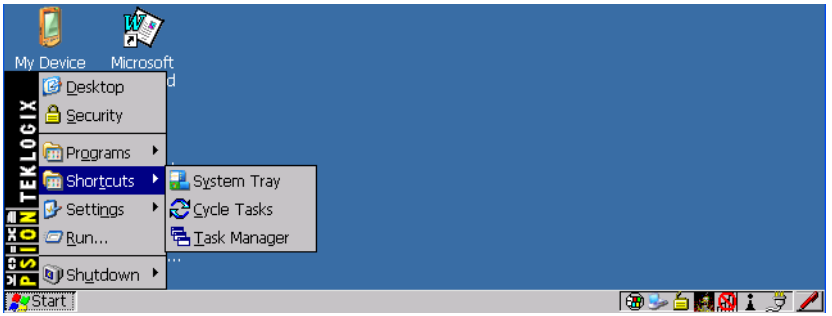
Remote Desktop Connection is an 8515 application used to connect to a Windows Terminal Server so that you can run a "session" on the Server machine using the 8515 (Windows Embedded CE 5.0 device). "Remote Desktop Connection" on page 65 provides a website with details about this option.

Windows Explorer

The *Windows Explorer* installed on your 8515 is consistent with all Windows Embedded CE 5.0 devices. You can access this option either from the *Start Menu* under *Programs>Windows Explorer* or from your device desktop.

4.4.4 Shortcuts

Figure 4.9 Shortcuts List



Download from Www.Somanuals.com. All Manuals Search And Download.

The System Tray

If your touchscreen is not enabled, you can use the *System Tray* option to access the icons in the taskbar at the bottom of the screen. The taskbar displays indicators such as a radio signal icon and the security level. Highlighting a taskbar icon allows you to display a *tooltip*—a short description of the status of the icon, or to display the *Control Panel* dialog box associated with the icon.

- Choose **System Tray** from the *Shortcuts Start Menu*.

When *System Tray* is chosen, you can access the taskbar icons using the arrow keys.

- Press the [LEFT] and [RIGHT] arrow keys to highlight the icon in the taskbar about which you'd like more information—a *tooltip* is displayed as each taskbar icon is highlighted.
- To display the *Control Panel* dialog box associated with the highlighted icon, press [ENTER].

Cycle Tasks

When *Cycle Tasks* is selected (and the Task Manager is not open), you can cycle through active applications. To choose this option:

- Choose **Cycle Tasks** from the *Shortcuts* menu, *or*

  Press [ALT] [TAB].

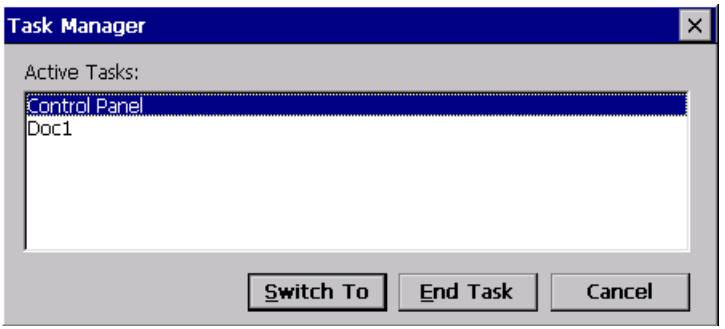
The Task Manager

The *Task Manager* option allows you to switch to another task or to end an active task. To display the task manager window:

- Choose **Task Manager** in the *Start Menu*, *or*

  Press [ALT] [ESC].

Figure 4.10 Task Manager

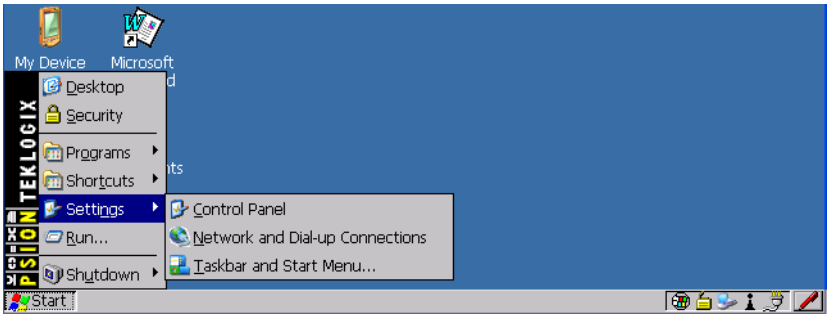


Download from Www.Somanuals.com. All Manuals Search And Download.

4.4.5 Settings

- Tap on **Settings** to display a sub-menu of options.

Figure 4.11 Settings List



Control Panel

The *Control Panel* contains applets used to configure hardware, the operating system and the shell. If your 8515 is running with the Psion Teklogix Tekterm application or another application, additional configuration applets may appear in the *Control Panel.*

Network And Dial-Up Connections

The *Network and Dial-up Connections* window allows you to configure an 802.11 radio or execute an existing configuration. Refer to "Configuring Your IEEE 802.11 Radio" on page 9 for radio setup details.

Taskbar And Start Menu

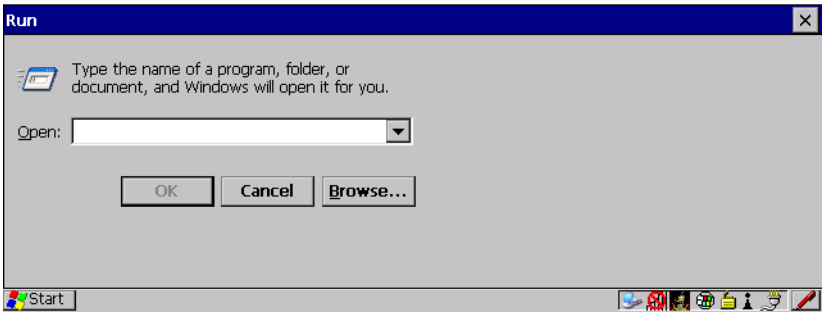
The *Taskbar and Start Menu* option displays a dialog box in which you can customize the taskbar, selecting the icons that will be displayed. Refer to "Customizing The Taskbar" on page 51 for additional details about this option.

4.4.6 Run

Choosing the *Run* option from the *Start Menu* displays a dialog box in which you can enter the name of the program, folder or document you want to open or launch.

Download from Www.Somanuals.com. All Manuals Search And Download.

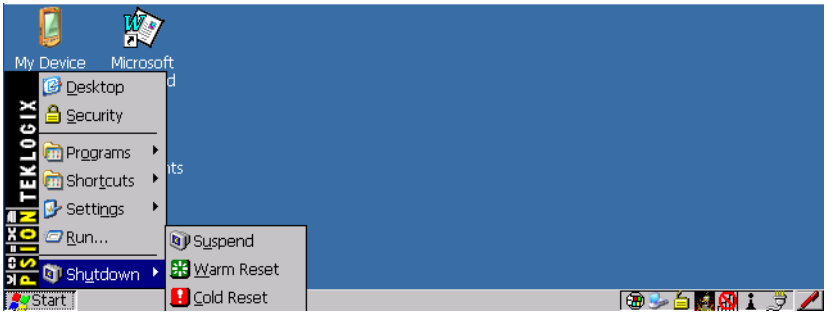
Figure 4.12 Run Dialog



4.4.7 Shutdown

Choosing *Shutdown* displays a sub-menu of options, including *Suspend, Warm Reset* and *Cold Reset*.

Figure 4.13 Shutdown Menu



Note: *This menu varies slightly depending on the security level chosen. When the 8515 is set to **User** level, the Shutdown option is replaced by Suspend. A sub-menu is not available.*

*At **Teklogix** security level, an additional option is available in the sub-menu—Bootloader. This option behaves like cold-reset, except that the 8515 starts Bootloader rather than Windows Embedded CE 5.0.*

Suspend

The *Suspend* option suspends the 8515 immediately—this is equivalent to turning the vehicle-mount off.

Download from Www.Somanuals.com. All Manuals Search And Download.

Warm Reset

The *Warm Reset* option resets the 8515, leaving all saved files and (registry) settings intact. Any unsaved data is lost.

Cold Reset

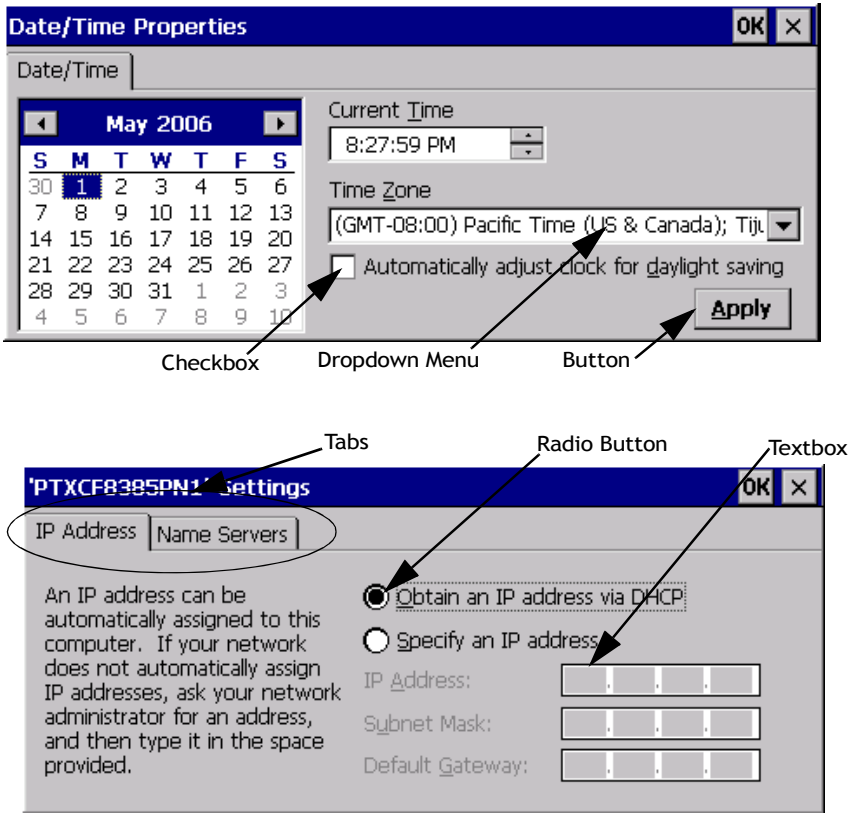
The *Cold Reset* option resets the 8515. Any files not stored in permanent memory are lost. However, the registry settings are saved.

4.5 Using A Dialog Box

A dialog box (like those in the sample screens in Figure 4.14 on page 59) appears when you need to make selections and enter further information.

Note: A dialog box item that is displayed in grey text indicates that it is not currently available.

Figure 4.14 Navigating Dialog Boxes



Download from Www.Somanuals.com. All Manuals Search And Download.

Note: If you're using the touchscreen, use the stylus to tap on an element in a dialog box to select or deselect it, display dropdown menus, save your selections, etc. If you're using a keyboard, follow the directions below.

Dialog boxes contain one or more of the following elements:

Tab: A tab separates different elements of a dialog box. Tap on a tab to display the associated information.

Textbox: A textbox requires that you type information. Highlight the textbox with the stylus and then type the appropriate information.

Dropdown: This type of menu is identified by up and down arrows next to the dropdown menu to indicate that additional options are available. Tap the stylus on the arrow to display the options in the menu.

Checkbox: This box allows you to select or deselect an option. To select or deselect a checkbox, tap the stylus on the checkbox to select or deselect it.

Radio buttons: These buttons allow you to choose from a number of options. For example, in the second sample screen in Figure 4.14 on page 59 you can choose to *'Obtain an IP address via DHCP'* or *'Specify an IP address'*. Tap the stylus on the button to select or deselect it.

Buttons: This type of button allows you to 'Save', 'Delete', etc., the options you've chosen in a dialog box. Tap the stylus on the button to activate it.

Saving Your Choices: Once you've made all your changes, tap on **OK** to save your changes and exit the window.

Download from Www.Somanuals.com. All Manuals Search And Download.

CONFIGURATION 5

5.1 Remote Desktop Connection 65
5.2 Pocket PC Compatibility 65
5.3 The Control Panel 65
5.4 Control Panel Icons 66
5.5 Display Properties 70
5.5.1 Display Background 70
5.5.2 Display Appearance 70
5.5.3 Display Backlight 71
5.6 Keyboard Properties 72
5.6.1 Key Repeat 72
5.6.2 Backlight 73
5.6.3 One Shots 74
5.6.4 Macro Keys 75
5.6.4.1 Recording And Saving A Macro 76
5.6.4.2 Executing A Macro 76
5.6.4.3 Deleting A Macro 77
5.6.5 Unicode Mapping 77
5.6.5.1 Adding And Changing Unicode Values 78
5.6.5.2 Removing Unicode Values 78
5.6.6 Scancode Remapping 78
5.6.6.1 Adding A Remap 79
5.6.6.2 Virtual Key, Function And Macro 80
5.6.6.3 Editing A Scancode Remap 80
5.6.6.4 Removing A Remap 80
5.6.7 Lock Sequence 80
5.7 Volume And Sound Properties 81
5.7.1 Volume Adjustments 82
5.8 Power Properties 82
5.8.1 Battery 83

Download from Www.Somanuals.com. All Manuals Search And Download.

5.8.2 Suspend. 83
5.8.3 Advanced Power Properties 84
5.8.4 Devices 85
5.9 Stylus Properties 85
5.9.1 Setting Double-Tap Sensitivity. 86
5.9.2 Touchscreen Calibration 86
5.9.3 Disabling The Touchscreen 87
5.10 Manage Triggers. 87
5.10.1 Trigger Mappings 88
5.10.2 Add And Edit Trigger Mapping 89
5.11 Certificate Assignment 90
5.12 Bluetooth Setup 91
5.12.1 The Devices Tab 92
5.12.1.1 Scan 92
5.12.1.2 Services 93
5.12.1.3 Set PIN 94
5.12.2 The Servers Tab. 95
5.12.3 Outgoing Tab 95
5.12.4 Active Connections Tab 96
5.12.5 Properties Tab. 97
5.13 Storage Manager. 98
5.13.1 Formatting A Memory Card 98
5.13.2 Creating Partitions 99
5.13.3 Partition Management 100
5.13.3.1 Dismounting A Partition. 100
5.13.3.2 Deleting A Partition 100
5.13.3.3 Formatting A Partition. 100
5.13.3.4 Mounting A Partition 101
5.14 Total Recall 102
5.14.1 Creating A Backup Profile 102
5.14.1.1 Profile Information. 103
5.14.1.2 Add Files. 104
5.14.1.3 View Selections 104
5.14.1.4 Performing The Backup 105
5.14.2 Restoring A Profile 105

Download from Www.Somanuals.com. All Manuals Search And Download.

5.15 Input Panel 105
5.16 IPv6 Support 108
5.17 Scanner Settings 109
5.17.1 Decoded Scanners 109
5.17.2 Scanner Settings Options Tab 109
5.17.2.1 Double Click 110
5.17.2.2 Display 110
5.17.3 Translations Tab 111
5.17.3.1 Case Rules 113
5.17.4 Ports Tab 113
5.17.4.1 Serial Port (COM 1). 114
5.18 SNMP (Simple Network Management Protocol) Setup 115
5.18.1 Contacts Tab 116
5.18.2 Communities Tab 117
5.18.2.1 Enable SNMP 117
5.18.2.2 Adding A Community 117
5.18.2.3 Modifying A Community Setting. 118
5.18.2.4 Removing An Existing Community 118
5.18.3 Trap Destination Tab. 118
5.18.3.1 Enabling Authentication TRAPS 119
5.18.3.2 Adding A Destination. 119
5.18.3.3 Changing A Destination 119
5.18.3.4 Removing A Trap Destination 119
5.18.4 Permitted Hosts Tab 120
5.18.4.1 Adding A Host 120
5.18.4.2 Changing A Host 120

Download from Www.Somanuals.com. All Manuals Search And Download.

Download from Www.Somanuals.com. All Manuals Search And Download.

5.1 Remote Desktop Connection

Remote Desktop Connection is an 8515 application used to connect to a Windows Terminal Server so that you can run a "session" on the Server machine, using the 8515 (Windows Embedded CE 5.0 device).

Refer to the following website for step-by-step information about setting up this connection:

http://www.microsoft.com/WindowsXP/pro/using/howto/gomobile/remotedesktop/default.asp

5.2 Pocket PC Compatibility

The 8515 supports the AYGShell API set that allows PocketPC-compatible applications to run on the vehicle-mount. Microsoft Windows Embedded CE 5.0 is designed to include application programming interface (API) compatibility support for the Microsoft Windows Powered Pocket PC 2002 shell in 8515s running Windows Embedded CE 5.0.

The website listed below describes the APIs exposed through AYGShell and the application compatibility between Windows Powered Pocket PC 2002-based applications and Windows Embedded CE 5.0-based devices:

http://msdn.microsoft.com/library/default.asp?url=/library/en-us/dncenet /html/WINCENET_CEPCC_App.asp

5.3 The Control Panel

The Windows Embedded CE 5.0 Control Panel provides a group of icons through which you can set a variety of system-wide properties, such as mouse sensitivity, network configuration and the desktop colour scheme.

Note: If you are uncertain how to move around a dialog box and make selections, review "Using A Dialog Box" on page 59.

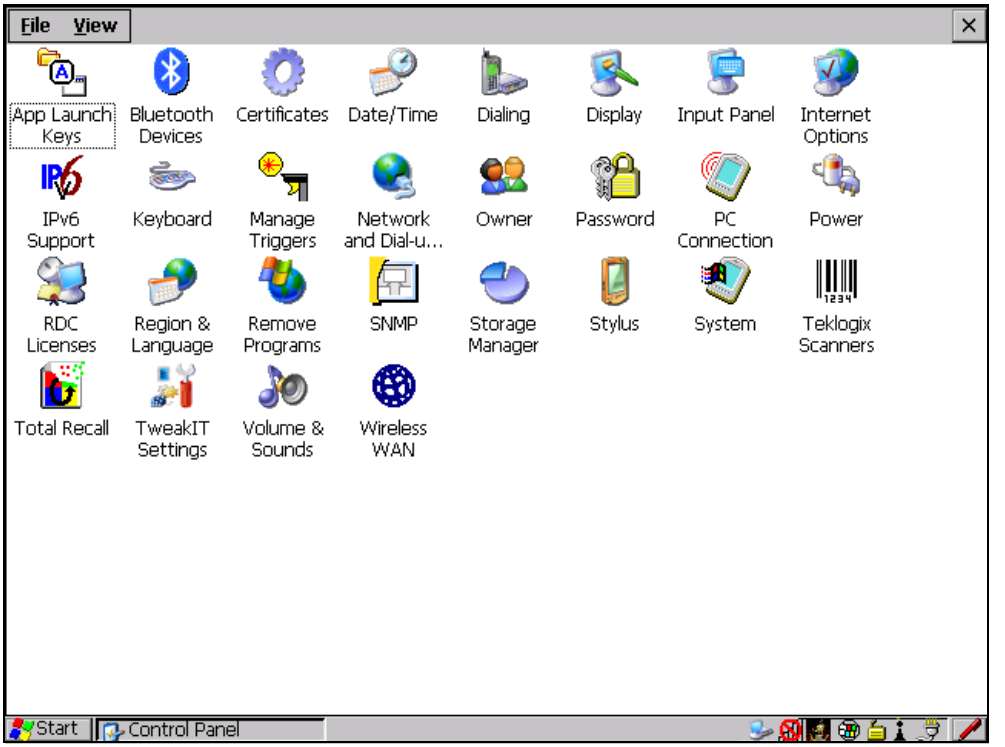
When the 8515 boots up, the startup desktop (shell) is displayed, and any applications stored in the Startup folder start up immediately.

- Press **[BLUE][0]**, or
- Tap on the **Start** button in the taskbar to display the **Start Menu**.
- Tap on **Settings>Control Panel**.

The **Control Panel** folder contains icons used in the setup of your 8515.

Download from Www.Somanuals.com. All Manuals Search And Download.

Figure 5.1 Control Panel



5.4 Control Panel Icons

The Control Panel provides a group of icons that allow you to customize and adjust settings on your 8515.

App Launch Keys

Allows you to map keys to applications, so that you can launch those applications from a single key-press.

Bluetooth

A short-range wireless technology that enables data communication between devices. It also provides the capability to use a *Bluetooth*-enabled cellular phone as a data modem, exchanging information with other *Bluetooth* devices (such as a headset), and providing network access.

Download from Www.Somanuals.com. All Manuals Search And Download.

Certificates

A public key is transmitted as part of a certificate. The certificate assigned through this icon is used to ensure that the submitted public key is, in fact, the public key that belongs to the submitter. The client checks that the certificate has been digitally signed by a certification authority that the client explicitly trusts. "Certificate Assignment" on page 90 directs you to the appropriate setup information.

Date/Time

Allows you to set the current Month, Date, Time, and Time Zone on your unit.

Dialing

Specifies dialing settings, including area code, country code, dial type and the code to disable call waiting. You can store multiple patterns—for example, 'Work', 'Home', etc.—using this dialog box.

Display

Changes the appearance (window colour scheme) on the unit desktop. This applet can also be used to adjust the backlight level.

Input Panel

The 8515 is equipped with the framework for a Soft Input Panel (SIP) should you need to design your own SIP.

Internet Options

Used to configure your Internet browser including options such as identifying the default and search page that the browser applies when connecting to the Internet, setting the cache size, specifying the Internet connection options, and defining the security level that is applied when browsing.

IPv6 Support

Refers to Internet Protocol specification version 6 that uses 128-bit IP addresses.

Keyboard

Toggles character repeat on and off and specifies delay and rate for repeated characters. It also allows you to adjust the keyboard backlight threshold and intensity. Additional tabs also allow the configuration of macros and scanner key remapping.

Manage Triggers

Allows multiple-scanner triggering, including the ability to configure each of the trigger buttons. You can configure the trigger ID for each trigger button for both single- and double-click, the double-click time and the double-click data.

Download from Www.Somanuals.com. All Manuals Search And Download.

Network And Dial-up Connections

Displays a network window from which the 8515 radio can be configured and an existing configuration can be executed. Refer to "Configuring Your IEEE 802.11 Radio" on page 9 for details.

Owner

Provides fields in which you can specify owner information. A **Notes** tab allows additional information to be entered and displayed when the unit is powered up. **Network ID** tab information is used to access network resources. (This information should be provided by your System Administrator.)

Password

Allows you to assign a password to restrict access to elements of the unit. Once assigned, password access cannot be circumvented so it is important that you write down your password and keep it in a safe place. Refer to "Security Level" on page 52 for details.

PC Connection

Enables direct connections to a desktop computer. Selecting the **Change Connection** button allows you to change the type of direct connect to your PC.

Power

Allows you to define if and when the unit will automatically switch to **Suspend** state. It also allows you to turn power for the CF card slot on and off. This dialog box also allows you to enable and disable the built-in *Bluetooth* radio.

RDC Licenses

The Terminal Services license server stores all license tokens that have been installed for a group of terminal servers and tracks licenses issued. The *Remote Desktop Licenses* (RDC) application displays license 'tokens' for devices that connect to a Terminal Server.

Region & Language

Allows you to specify the local language the display text will use along with the format of numbers, currency, time, and date for your region.

Remove Programs

Lists the programs that can be removed from your unit. To remove a program, choose it and then tap on the **Remove** button.

Download from Www.Somanuals.com. All Manuals Search And Download.

SNMP

SNMP (Simple Network Management Protocol) is the protocol used to monitor and manage devices attached to a TCP/IP network.

Storage Manager

Allows the user to view information about the storage devices that are present, such as the CF card. For details, see page 98.

Stylus

Adjusts how Windows Embedded CE 5.0 recognizes your double-tap (as slow or rapid successive taps).

Under the **Calibration** tab, you can recalibrate your touchscreen by tapping on the **Recalibrate** button and following the directions on the calibration screen.

System

Displays system and memory properties. Under the **Memory** tab, you can allocate memory between storage memory and program memory.

Teklogix Scanners

Used to set up some scanner parameters. However, the 8515 supports decoded scanners, which must be configured by scanning special configuration bar codes (see page 109).

Total Recall

This is a Psion Teklogix utility developed to maintain applications and setting over cold boots. This utility is based on a backup and restore concept and is extended to incorporate powerful advanced features.

TweakIT Settings

Allows you to change Advanced System Settings (interface, network, and servers), User System Settings (display font size), and provides the Registry Editor.

Volume & Sounds

Allows you to adjust the volume of the beep that is emitted to indicate events like warnings, key clicks and screen taps. Sounds (wave files) cannot be played on 8515 units. The beeper volume and the conditions under which it sounds are tailored from within the application installed on your unit.

Wireless WAN

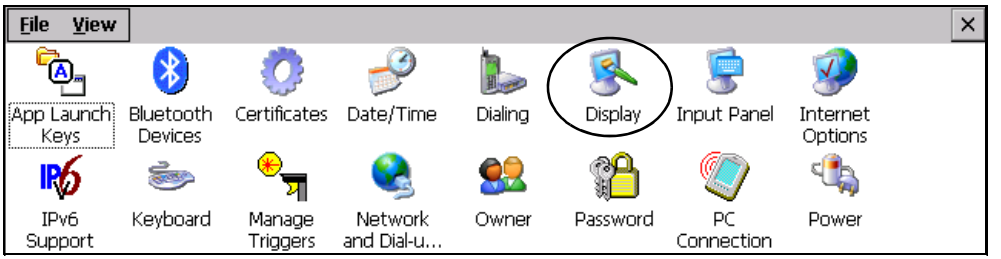
Provides access to technology like GSM/GPRS and CDMA which allows wide area networking capability such as internet browsing via GSM/GPRS.

Download from Www.Somanuals.com. All Manuals Search And Download.

5.5 Display Properties

- In the **Control Panel**, choose the **Display** icon.

Figure 5.2 Display Icon

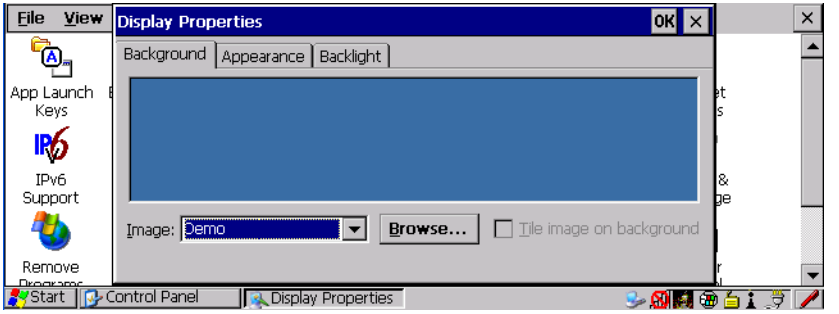


5.5.1 Display Background

The **Background** tab allows you to adjust the 8515 display background.

- In the **Display Properties** dialog box, open the **Background** tab.

Figure 5.3 Background Tab



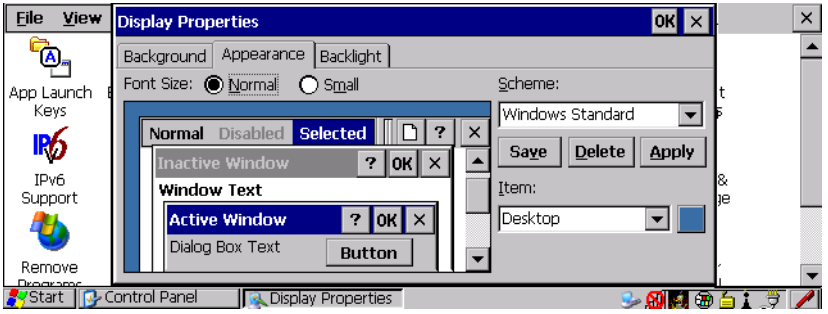
This option allows you to change the background colour or add an image.

5.5.2 Display Appearance

- In the **Display Properties** dialog box, open the **Appearance** tab.

Download from Www.Somanuals.com. All Manuals Search And Download.

Figure 5.4 Appearance Tab



This dialog box allows you to customize the display colour scheme and font size.

5.5.3 Display Backlight

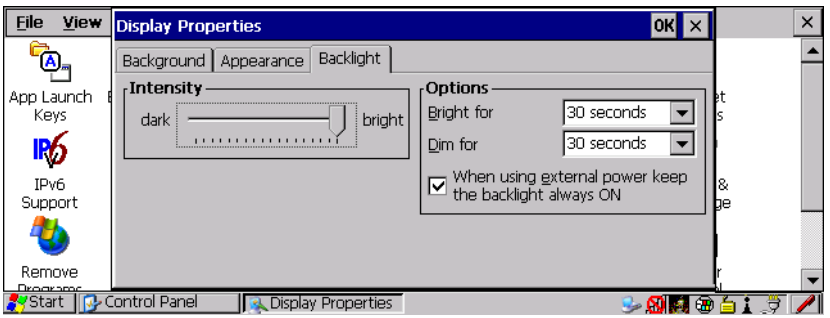
The backlight is activated for a configurable amount of time when the 8515 is in use (key press, scanner trigger or data received from the host).

The **Display Properties** dialog box in the **Control Panel** allows you to specify the intensity of the backlight along with how long the display will maintain the specified intensity.

Note: Keep in mind that this option may be restricted to supervisory use only.

- In the Display Properties dialog box, open the **Backlight** tab.

Figure 5.5 Backlight Tab



Note: Backlight changes take effect immediately. You do not need to reset the 8515.

Download from Www.Somanuals.com. All Manuals Search And Download.

Intensity

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

Bright For

The value chosen from this dropdown menu determines the duration of time that the backlight stays on at the configured intensity when a unit is not in use.

Dim For

The value chosen from this dropdown menu determines the duration of time that the backlight stays on at half the configured intensity (dimmed backlight) when a unit is not in use.

External Power Checkbox

When you select the checkbox next to **'When using external power keep the backlight always ON.**', the backlight remains ON at the configured intensity.

5.6 Keyboard Properties

This icon displays the **Keyboard Properties** dialog box in which you can adjust the repeat rate of the keys, the intensity of the keyboard backlight and the behaviour of the [BLUE] and [ORANGE] modifier keys. This dialog box also allows you to define macro keys and remap the keyboard.

- In the **Control Panel**, choose the **Keyboard** icon.

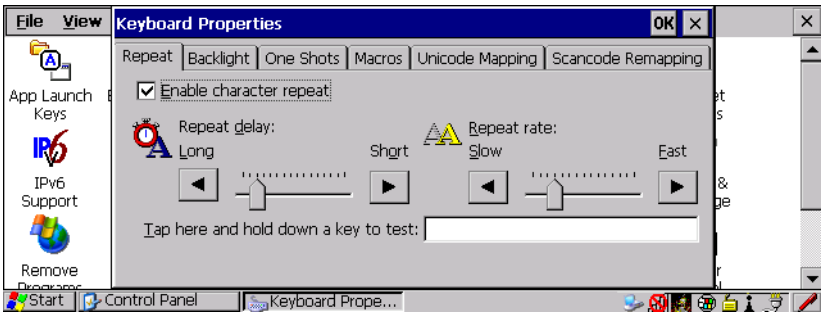
Figure 5.6 Keyboard Icon

5.6.1 Key Repeat

- In the **Keyboard Properties** dialog box, open the **Repeat** tab.

Download from Www.Somanuals.com. All Manuals Search And Download.

Figure 5.7 Repeat Tab



Enable Character Repeat

Tapping in the checkbox next to this option enables the key behaviour you specify in this dialog box.

Repeat Delay

The position of the slider determines how long a key must be held down before it begins to autorepeat.

Repeat Rate

The value assigned for the **Repeat Rate** parameter determines how quickly the key you press repeats and is measured in characters per second (cps). Sliding the bar to the left slows the repeat rate, and sliding the bar to the right increases the repeat rate.

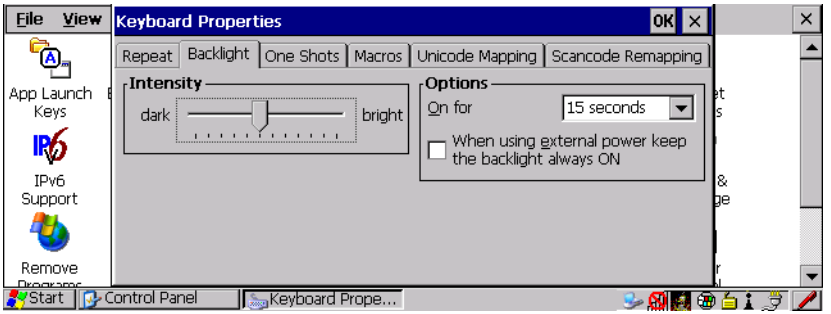
Note: Use the field at the bottom of this dialog box to test the repeat delay and rate settings you've chosen.

5.6.2 Backlight

- In the **Keyboard Properties** dialog box, open the **Backlight** tab.

Download from Www.Somanuals.com. All Manuals Search And Download.

Figure 5.8 Backlight Tab



Intensity

This parameter is used to adjust the light intensity of the 8515 keyboard backlight. Sliding the bar to the left darkens the keyboard backlight intensity, and sliding it to the right lightens the intensity.

Options - ON For

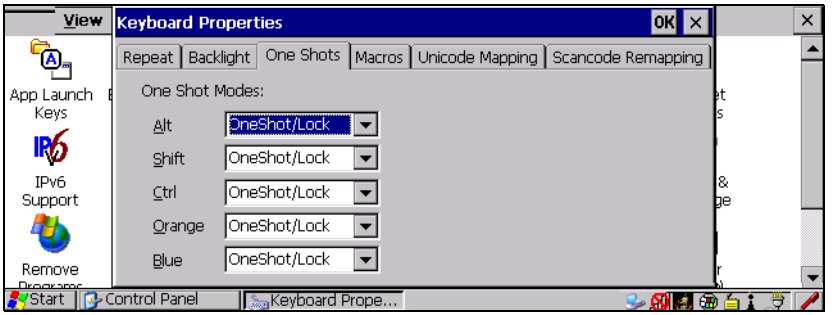
The value chosen from this dropdown menu determines the duration of time that the keyboard backlight stays on when a unit is not in use.

Note: *Tapping in the checkbox next to* **'When using external power, keep the backlight always ON'** *forces the keypad backlight to remain on when the unit is operating with external power such as vehicle battery or A/C adaptor.*

5.6.3 One Shots

- In the **Keyboard Properties** dialog box, open the **One Shots** tab.

Figure 5.9 One Shots Tab



Download from Www.Somanuals.com. All Manuals Search And Download.

The options in this tab allows you to determine how modifier keys on your 8515 behave. For each modifier key—[ALT], [SHIFT], [CTRL], [ORANGE] and [BLUE]—you have the following options in the drop-down menu: *Lock*, *OneShot*, and *OneShot/Lock*.

Note: *Keep in mind that checking the taskbar lets you know whether or not these keys are locked on. For example, if the [ORANGE] key is locked 'on', the taskbar at the bottom of the screen displays it in* ***uppercase*** *characters—***ORANGE KEY.** *If this key is displayed in* ***lowercase*** *characters in the taskbar, you'll know that the* **orange key** *is* ***not*** *locked. It will become inactive following a key press.*

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

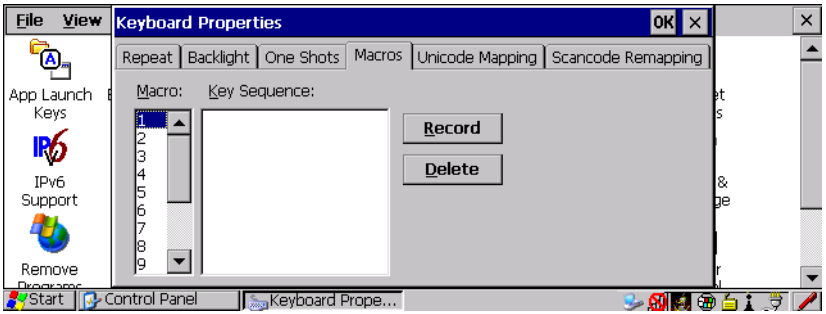
OneShot/Lock allows you to combine these functions. When you choose this option and you press the modifier key **once**, it remains active only until the next key is pressed.

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'.

5.6.4 Macro Keys

- In the **Keyboard Properties** dialog box, open the **Macros** tab.

Figure 5.10 Macros Tab



Download from Www.Somanuals.com. All Manuals Search And Download.

A macro has 200 programmable characters (or "positions"). The macro keys can be programmed to replace frequently used keystrokes, along with the function of executable keys including [ENTER], [BKSP] and [DEL] ([BLUE]-[BKSP]), function keys and arrow keys.

5.6.4.1 Recording And Saving A Macro

You can program up to six macro keys.

- In the **Macro** menu, highlight a macro key number—for example, Macro **1** to assign a macro to macro key [M1]. Tap on the **Record** button.

A message screen is displayed instructing you to **'Enter Key Strokes to Record'.**

Figure 5.11 Macros **Key Strokes**

- 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.

Note: Tap on the 'Stop Recording' button at any time to suspend the process.

- When you've finished recording your macro sequence, press the **Stop Recording** button, or type the key sequence—[CTRL] [ALT] [ENTER].

A new screen—Verify Macro—displays the macro sequence you created. The **Save** button is highlighted.

- Tap on the **Save** button.

Note: If you want to discard the macro you've just created, tap on the **'Discard'** *button.*

5.6.4.2 Executing A Macro

To execute a macro:

- Press the macro key to which you've assigned the macro. For example, if you created a macro for macro key '1', press [M1] to execute the macro.

Download from Www.Somanuals.com. All Manuals Search And Download.

Macro Keys [M1] And [M2]

These keys are displayed in *black* print on the bottom row of executable keys on the keyboard. These macro keys are accessed by simply pressing the key.

Macro Keys [M3] To [M6]

These keys are displayed in *blue* print on the [M1] and [M2] keys in the bottom row of executable keys, and on the [N] and [M] keys in the first row of alpha keys on the keyboard. To access these macro keys, press the [BLUE] key followed by the appropriate executable or alpha key. For example, on a ***Qwerty*** keyboard:

- Press [BLUE] [N] to access macro key [M5].
- To access [M3], press [BLUE] [M1], etc.

5.6.4.3 Deleting A Macro

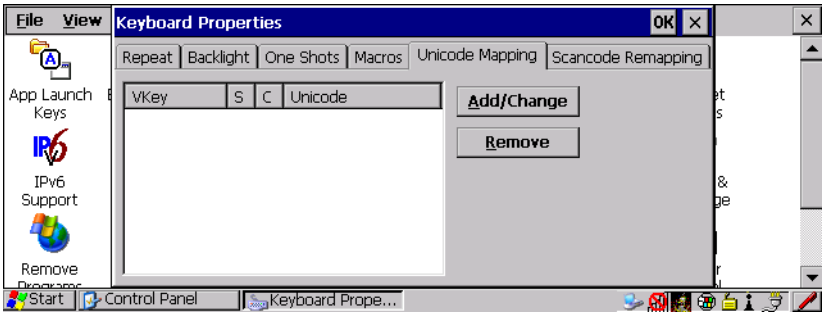
To delete a macro:

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

5.6.5 Unicode Mapping

- In the **Keyboard Properties** dialog box, open the **Unicode Mapping** tab.

Figure 5.12 Unicode Mapping Tab



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. 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.

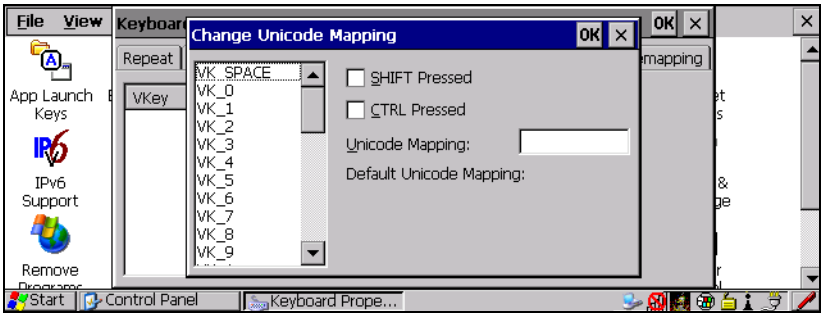
Download from Www.Somanuals.com. All Manuals Search And Download.

5.6.5.1 Adding And Changing Unicode Values

Important: Changes to Unicode mappings are not saved until you exit the Keyboard Properties dialog box.

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

Figure 5.13 Change Unicode Mapping



- Tap on a value in the Unicode mapping list—in the sample screen above, a value will be assigned to virtual key 0 (VK 0).
- Tap the stylus in the **Unicode Mapping** field, and type a Unicode value for the highlighted key.

Note: To add a shifted state—[SHIFT] and/or [CTRL], tap the checkbox next to 'SHIFT Pressed' and/or 'CTRL Pressed'. to select the shift state you want to assign.

5.6.5.2 Removing Unicode Values

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

5.6.6 Scancode Remapping

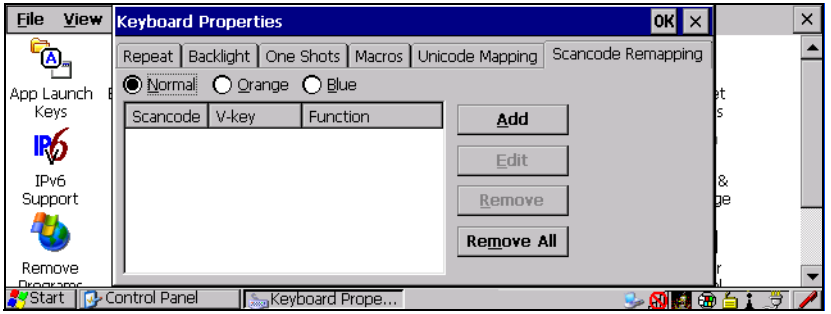
A scancode is a number that is associated with a physical key on a keyboard. Every key has a unique scancode that is mapped to a virtual key, a function or a macro. Scancode Remapping allows you to change the functionality of any key on the keyboard. A key can be remapped to send a virtual key (e.g. VK_F represents the 'F' key; VK_RETURN represents the [ENTER/ON] 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 *Orange* table and the **Blue** table. The **Normal** table defines unmodified key presses; the **Orange** table

Download from Www.Somanuals.com. All Manuals Search And Download.

defines key presses that occur when the [ORANGE] modifier is on; the **Blue** table defines key presses that occur when the [BLUE] modifier is on. The default mappings of these scancodes can be overwritten for each of these three tables using the **Scancode Remapping** tab accessed from the **Keyboard Properties** dialog box.

Figure 5.14 Scancode Remapping Tab



The first column in the **Scancode Remapping** tab displays the Scancodes in hexidecimal. 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 (for example, Macro 2).

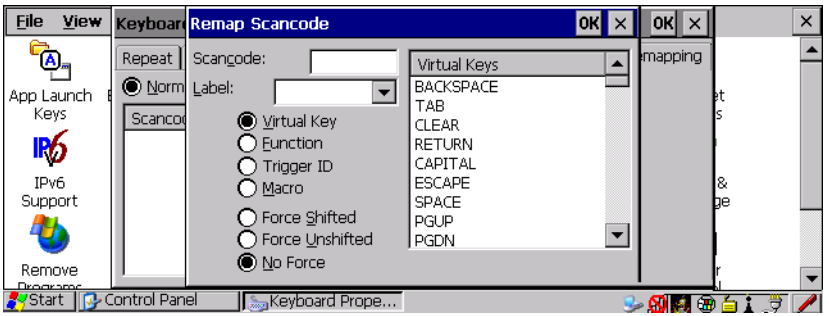
5.6.6.1 Adding A Remap

To add a new remapping:

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

The **Remap Scancode** dialog box is displayed.

Figure 5.15 Remap Scancode



Download from Www.Somanuals.com. All Manuals Search And Download.

- Type the scan code in hexidecimal in the field labelled **Scancode:**

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

5.6.6.2 Virtual Key, Function And Macro

The radio buttons along the side of the dialog box allow you to define to what the scan code will be remapped: **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 in the dialog box, and tap on **OK**.

5.6.6.3 Editing A Scancode Remap

To edit a scancode:

- 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.

5.6.6.4 Removing A Remap

To delete a remap:

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

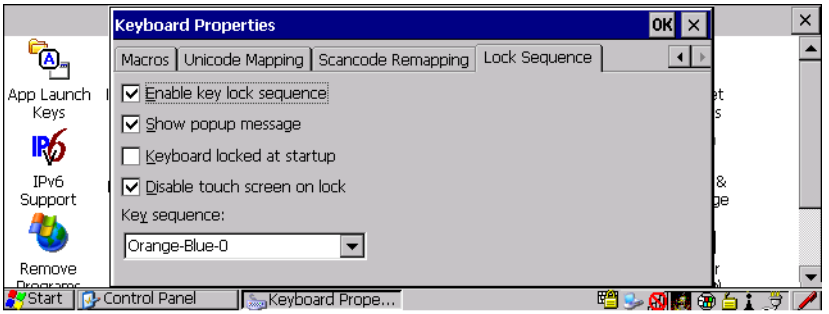
5.6.7 Lock Sequence

This function uses a selected key sequence to lock the keyboard if required to prevent accidental key presses.

- In the **Keyboard Properties** dialog box, open the **Lock Sequence** tab.

Download from Www.Somanuals.com. All Manuals Search And Download.

Figure 5.16 Lock Sequence Tab



Enable Key Lock Sequence

Once the key lock sequence is enabled, the following options become available:

- A popup message can be displayed when the keyboard is locked and a key is pressed.

- The keyboard can be in lock mode when the computer is started.
- The touchscreen can be disabled when the keyboard is locked.

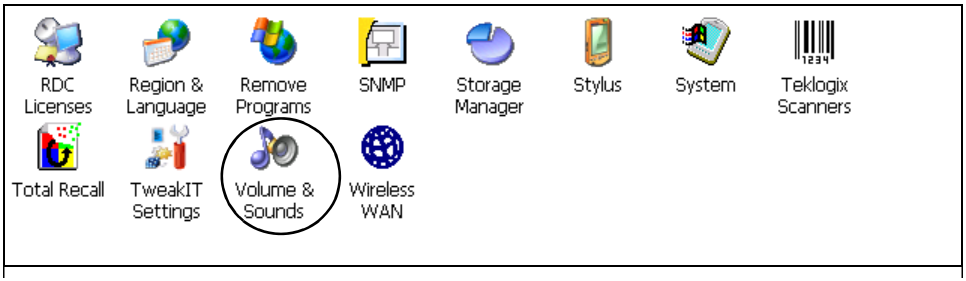
Key Sequence

The available key sequences to lock the keyboard are:
[ORANGE][BLUE][0], *[ORANGE][BLUE][8]*, or *[ORANGE][BLUE][Bksp]*.

5.7 Volume And Sound Properties

- In the **Control Panel**, choose the **Volume & Sounds** icon.

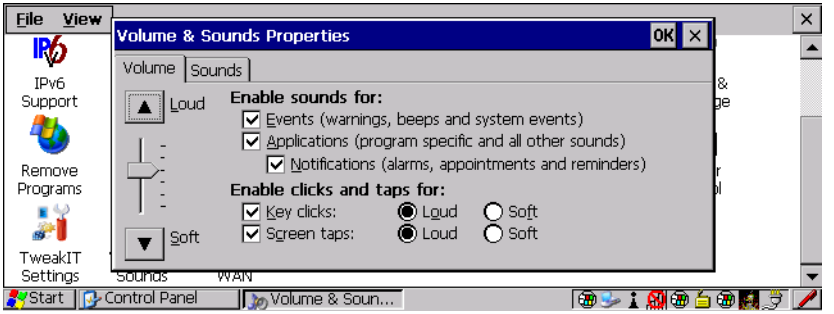
Figure 5.17 Volume & Sounds Icon



Download from Www.Somanuals.com. All Manuals Search And Download.

5.7.1 Volume Adjustments

Figure 5.18 Volume Tab



- Slide the volume button upward to increase the beeper volume or downward to decrease the beeper volume.
- Under the heading **Enable sounds for**, enable the conditions under which you want the 8515 to emit a beep.

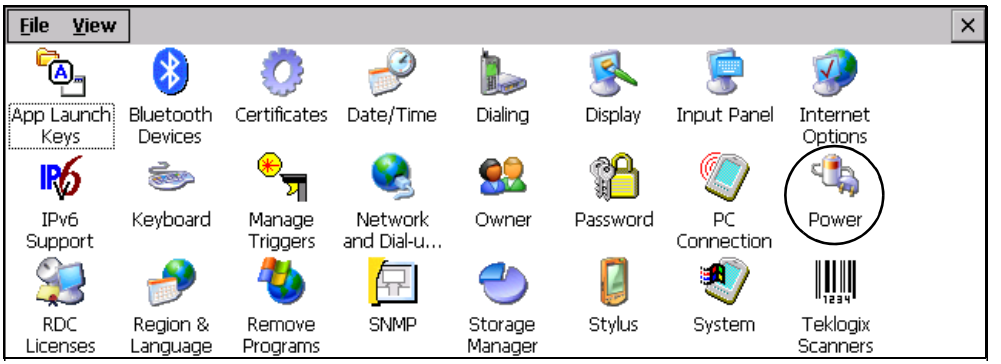
Note: *Sounds (wave files) cannot be played on 8515 units. The conditions under which 8515s emit sounds are tailored from within the application installed on your unit. Therefore the options in the Sounds menu are not available.*

5.8 Power Properties

This icon allows you to define the **Suspend** state of your unit and to turn power on and off for the CF card slot. *Power Properties* also allows you to enable and disable the built-in *Bluetooth* radio.

- In the **Control Panel**, choose the **Power** icon.

Figure 5.19 Power Icon

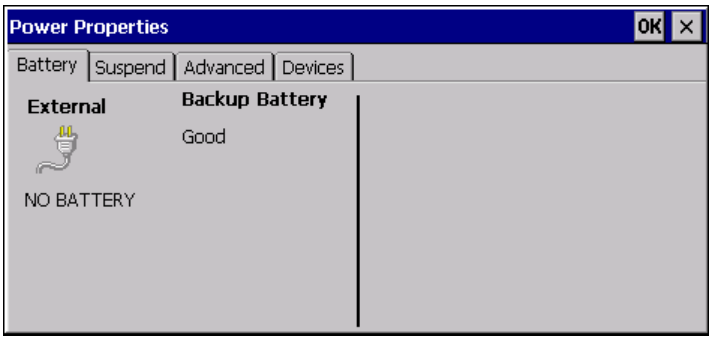


Download from Www.Somanuals.com. All Manuals Search And Download.

5.8.1 Battery

The *Battery* tab displays the status of the internal battery in your unit.

Figure 5.20 Internal Battery Status

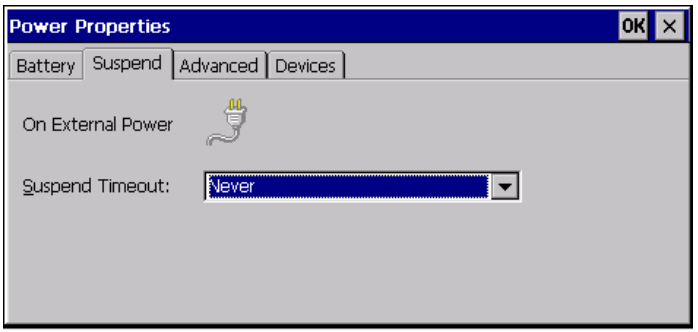


If external power is removed, the battery will supply enough power to the computer to allow it to shut down gradually with up to 30 seconds of run time to do this. The display will be blank during this time. The computer will save any sessions, and the state of the computer is maintained. There is also a one hour backup of the state of the computer from when the external power was removed. All of the activities that were occurring when external power was removed will be stored in memory. When external power is applied again within the one-hour window, the computer will resume from suspend mode and you can continue working from where you left off. The battery will also keep the RTC running for 7 days.

5.8.2 Suspend

- In the **Power Properties** dialog box, open the **Suspend** tab.

Figure 5.21 Suspend Tab



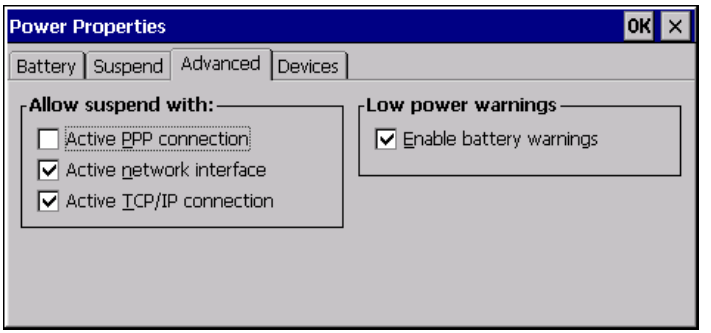
Download from Www.Somanuals.com. All Manuals Search And Download.

When the 8515 is idle—not receiving any user input (a key touch, a scan, etc.) or system activity (serial data, an activity initiated by an application, etc.)—the value chosen in the **Suspend Timeout** dropdown menu determines when the unit will go to suspend state (appear to be off).

When the time in the **Suspend Timeout** field elapses without any activity, the unit enters **Suspend** state. In **Suspend** state, the 8515 CPU enters a sleep state, and the radio is shut off. The state of the device (RAM contents) is preserved. Pressing [ENTER] wakes the system from suspend state. When the 8515 is in suspend state, the network connection is broken immediately; therefore you must re-establish the network connection.

5.8.3 Advanced Power Properties

Figure 5.22 Advanced Tab



Allow Suspend With

This tab allows you to specify whether or not your unit will enter suspend state while is operating with an active PPP connection, network interface or active TCP/IP connection.

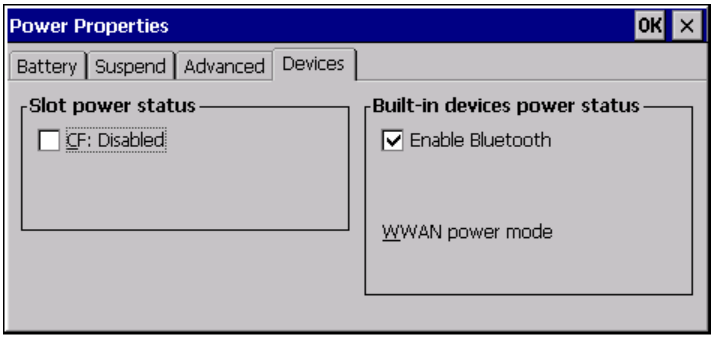
Low Power Warnings

The checkbox under this section of the tab allows you to enable a warning message when the battery becomes low.

Download from Www.Somanuals.com. All Manuals Search And Download.

5.8.4 Devices

Figure 5.23 Devices Tab



Slot Power Status

This tab allows you to enable or disable power to the CF slot in your unit.

Built-In Devices Power Status

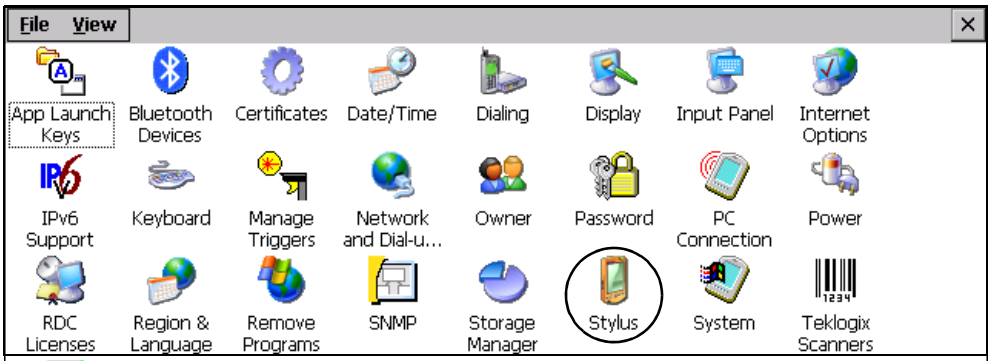
A checkmark next to *Enable Bluetooth* indicates that the unit's built-in, *Bluetooth* radio is enabled.

5.9 Stylus Properties

Note: Touchscreen calibration may not be enabled on your unit. If your screen appears to require recalibration, contact your supervisor.

- In the **Control Panel**, choose the **Stylus** icon.

Figure 5.24 Stylus Icon

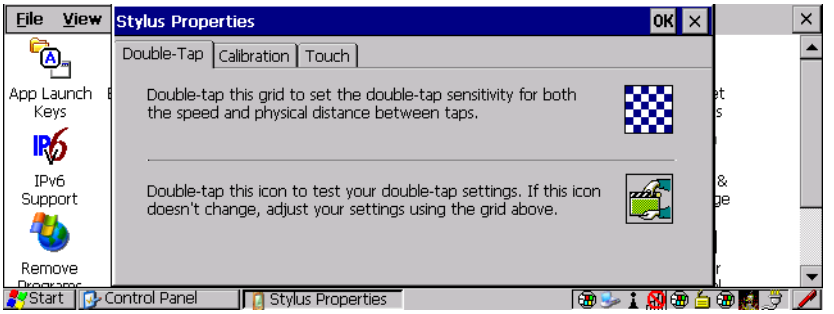


Download from Www.Somanuals.com. All Manuals Search And Download.

5.9.1 Setting Double-Tap Sensitivity

- In the **Double-Tap** tab, follow the directions to tailor the sensitivity of the stylus when you tap on the touchscreen.

Figure 5.25 Double-Tap Tab



5.9.2 Touchscreen Calibration

Touchscreens rarely require recalibration. However, if your touchscreen has never been calibrated or if you find that the stylus pointer is not accurate when you tap on an item, you can use the **Calibration** tab to recalibrate the touchscreen.

- Choose the **Calibration** tab and then tap on the **Recalibrate** button.

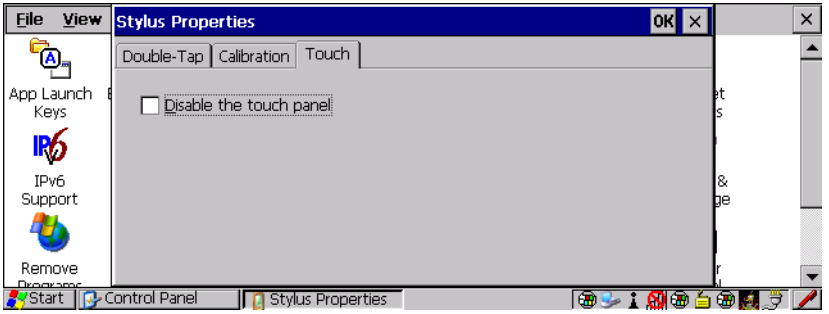
Figure 5.26 Calibration Tab

- Follow the directions in the **Calibration** tab to recalibrate the screen.

Download from Www.Somanuals.com. All Manuals Search And Download.

5.9.3 Disabling The Touchscreen

Figure 5.27 Touch Tab



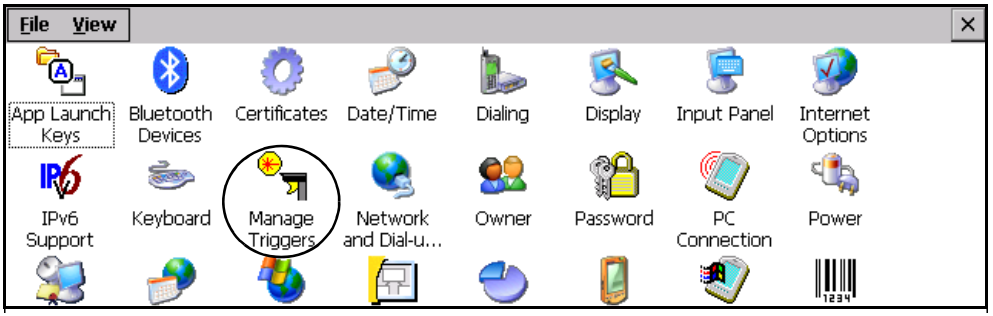
- Tap on the checkbox next to **Disable the touch panel**. The touchscreen will not accept screen taps.

5.10 Manage Triggers

This applet allows you to configure how bar code scanners are triggered. You can configure the trigger ID for each trigger button for both single- and double-click, and the double-click time.

- In the **Control Panel**, choose the **Manage Triggers** icon.

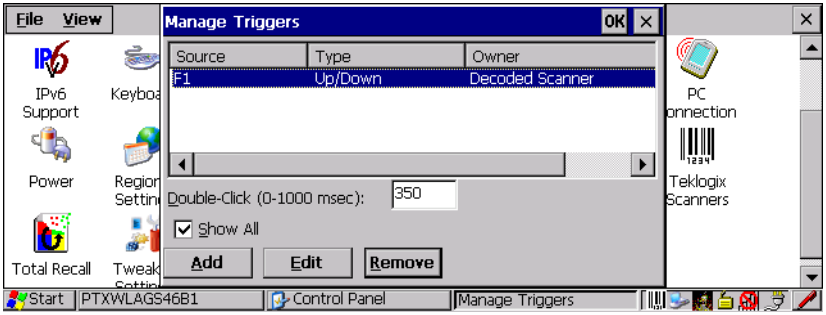
Figure 5.28 Manage Triggers Icon



The **Manage Triggers** screen lists any trigger mappings.

Download from Www.Somanuals.com. All Manuals Search And Download.

Figure 5.29 Manage Triggers Menu



5.10.1 Trigger Mappings

A trigger mapping is an association between a particular key on the keyboard and a driver or application, the "owner(s)" of the trigger source. When the specified key is pressed, the owner (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 Type" on page 90.

Show All

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 box, so that you can add new trigger mappings.

Download from Www.Somanuals.com. All Manuals Search And Download.

Edit

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

Remove

Tapping this button removes an existing mapping.

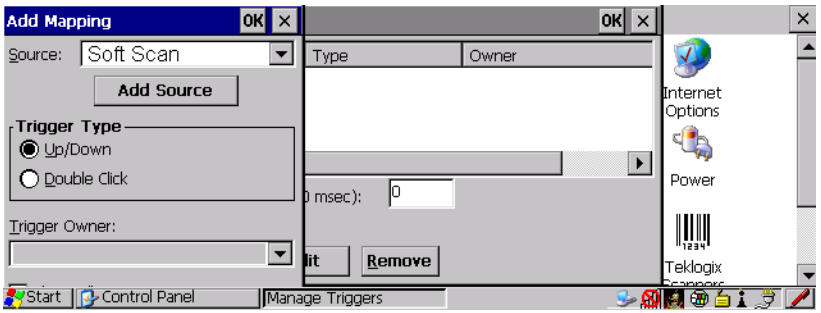
OK

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

5.10.2 Add And Edit Trigger Mapping

This dialog box is used to add trigger mappings.

Figure 5.30 Add Mapping Menu



Source

This dropdown list allows you to specify the source of the trigger events, such as a keyboard key [F1], for the *Trigger Owner* selected.

Note: *It is possible to map the same source to different owners—for example, [F1] can be mapped to both the Imager and RFID. If so, both devices/operations will occur simultaneously. This is not recommended in most cases, especially with devices that draw a great deal of current, such as imagers.*

It is also possible to map different sources to the same owner.

Add Source

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

Download from Www.Somanuals.com. All Manuals Search And Download.

Trigger 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 is generated. If a mapping with the type *Up/down* has also been configured for the same source, it will only receive the first set of trigger events.

Trigger Owner

This identifies the driver or application receiving the trigger presses.

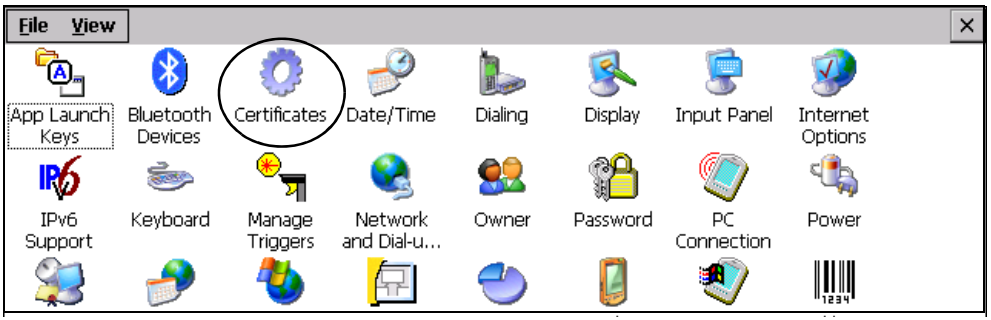
Show All

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

5.11 Certificate Assignment

- In the **Control Panel**, choose the **Certificates** icon.

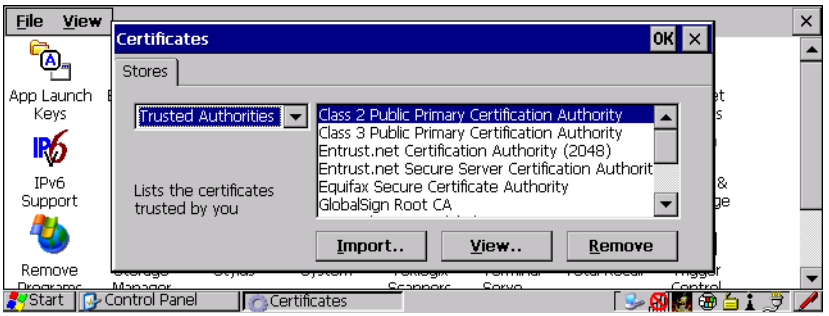
Figure 5.31 Certificates Icon



This dialog box is used in conjunction with 802.1X authentication to enhance 8515 security.

Download from Www.Somanuals.com. All Manuals Search And Download.

Figure 5.32 Certificates Menu



For a detailed description about **Certificate** setup for both the server and client-side devices (8515s), refer to the following website:

www.microsoft.com/windows2000/techinfo/planning/walkthroughs/default.asp - "Security Services"

Note: When importing certificates, the 8515 only recognizes .cer files.

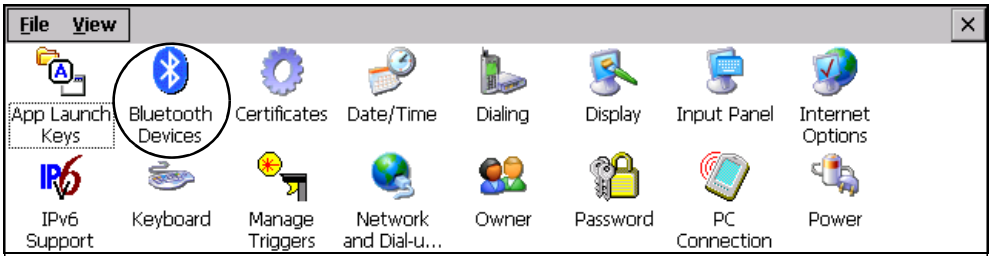
5.12 *Bluetooth* Setup

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 a 2 meter 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.*

- In the **Control Panel**, choose the ***Bluetooth* Devices** icon to display the ***Bluetooth* Manager** screen.

Figure 5.33 *Bluetooth* Icon



Download from Www.Somanuals.com. All Manuals Search And Download.

The ***Bluetooth* Manager** dialog box is used to display the other *Bluetooth* devices with which you can communicate.

5.12.1 The Devices Tab

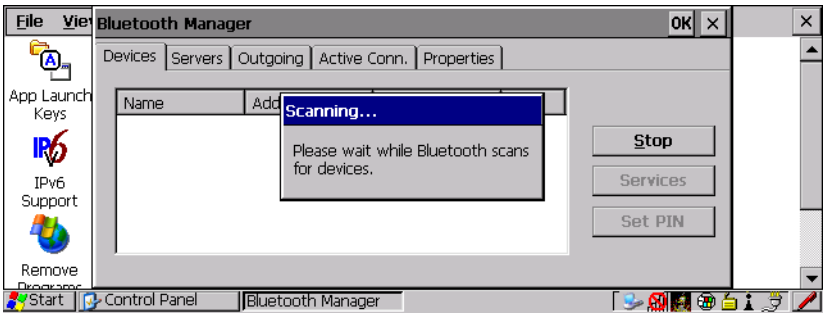
Note: *If you intend to configure* Bluetooth *communication with specific devices (e.g., a scanner, printer, or headset), turn on the devices and bring them within 5 meters of the vehicle-mount before proceeding with the discovery process described below.*

Figure 5.34 Devices Tab

5.12.1.1 Scan

- Tap on the **Scan** button to list available devices.

Figure 5.35 Scan



Wait for the 8515 to complete its scan (approximately 20 seconds). When scanning starts, the **Scan** button will change to **Stop**—if necessary, you can tap on this button to stop the process. Once scanning is complete, all discovered devices will be displayed in the list box, with **Name**, **Address**, **Active** status, and **PIN** information.

Download from Www.Somanuals.com. All Manuals Search And Download.

Note: During the scanning process, addresses are located first, followed by names. Only the names of devices that are within the Bluetooth *radio coverage range will be retrieved.*

The **Active** column indicates whether any service is activated for that device. When a service is activated, the device is displayed in the list even when it is not detected during the scan.

The **PIN** column indicates whether you have a PIN (password) set for the device.

At this point you can either query for services or set the PIN for each device. Once you highlight a device in the list box, both the **Services** and **Set PIN** buttons become available.

5.12.1.2 Services

A discovered device may display several service profiles that it can use to communicate, and you will want to activate the type you need. Supported profiles that can be activated include: DUN (Dial-Up Networking service), Printer (serial service), and LANPPP (LANAccessUsingPPP service). ASync (ActiveSync) is another available profile.

- To start the service scan, highlight a device in the **Devices** tab list, and then click on the **Services** button or double-click on the device entry.

Note: If the remote device is out of reach or turned off, it can take considerable time for the Services dialog box to appear—it may appear to be frozen.

Once the device's service profiles are displayed in the Services list box:

- Highlight the service to be activated.
- Press [SPACE] or right-click to display the Activation menu.

The Activation menu contains four options—Activate, Authenticate, Outgoing and Encrypt.

Once the service is successfully activated, the assigned port (if applicable) will appear in the **Port** column of the *Services* list box. You can choose to use **BSP** or **COM** as the port name. BSP is the latest Microsoft *Bluetooth* stack standard, but older applications assume serial ports are COM. When using *COM* as the port name, the *Bluetooth* manager will try to find and use a free port between COM7 and COM9. When using *BSP* as the port name, BSP2 to BSP9 are available for use. The port is available as soon as it is activated.

Note: The **CH** *column shows the RFCOMM channel of the service* ***if*** *the service is RFCOMM-based. This information is not generally needed except for debugging purposes.*

Download from Www.Somanuals.com. All Manuals Search And Download.

To add a service to the **Outgoing** port, an active service must first be deactivated. Then you can choose the 'Outgoing' option from the Activation menu (highlight a service, right-click or press the [SPACE] bar to display the Activation menu).

The **Authentication** and **Encryption** options can be changed only before activation. To change these after activation, deactivate the service first, then change the options.

Once a service is activated, all the information regarding the service, including the RFCOMM channel number, is saved in the registry. (Some remote devices may change their RFCOMM channel numbers when they reboot, so your saved setting may not work when the remote device is rebooted. In that case, you must deactivate the service and reactivate it to detect the current RFCOMM channel.)

5.12.1.3 Set PIN

PINs can be set for each device by pressing the **Set PIN** button in the **Devices** tab, or you can skip this step and try to connect to the device first.

Important: The remote device must have authentication enabled, otherwise the PIN authentication will fail.

- Highlight a device, tap on the **Set Pin** button, and type the **PIN**.

You will receive a message, either that the PIN has been successfully validated or that it has been rejected.

If the PIN has been validated, an asterisk (*) appears in the PIN column in the *Devices* list box, indicating that this device has a PIN set. Once a PIN is entered, it is saved in the registry.

To remove the PIN:

- Choose **Set PIN,** and press [ENTER].

If the 8515 attempts to connect to a remote device that has Authentication enabled and does not have a required PIN set, an *Authentication Request* dialog box is displayed.

- Enter the **PIN**, and tap on **OK** to connect the devices.

Download from Www.Somanuals.com. All Manuals Search And Download.

5.12.2 The Servers Tab

Figure 5.36 Servers

The *Bluetooth* connection is initiated from your 8515 to the remote device—therefore the 8515 is called the 'client' and the remote is called the 'server'. The **Servers** tab displays the server profiles that can be activated in your 8515. There is currently one server profile available: **Serial**.

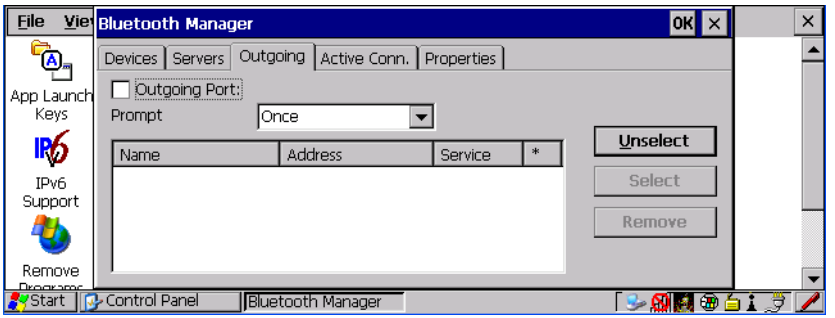
- Tap on the checkbox to activate the server, and it will display the associated port name beside the server name.

Once you activate a server profile, it is recommended that the 8515 be rebooted before you try to bond from a server.

Note: You do not need to reboot if you are deactivating a server.

5.12.3 Outgoing Tab

Figure 5.37 Outgoing



Download from Www.Somanuals.com. All Manuals Search And Download.

Outgoing Port acts as a serial port that can be used to connect to a list of *Bluetooth* devices (one at a time), but you have the freedom to ***switch on-the-fly***.

The **Outgoing Port** checkbox allows you to create the Outgoing port. When the port is created, the Outgoing tab lists the port name.

The Outgoing list dialog box displays a list of services marked as 'Outgoing'. The ***** column indicates the currently selected service. You can tap on **Unselect** to reset the current selection, or you can tap on **Select** to make a selection. The **Remove** button deletes the service from the outgoing list.

The Prompt menu determines the behaviour of the pop-up Selection menu. Choosing **Everytime** causes the Selection menu to be displayed each time an outgoing port is created. If you choose **Once**, the menu is displayed only when a partner service is not selected.

To display the **Selection** menu at any time:

- Press [CTRL] [ALT] [F1], and switch the partner *Bluetooth* device.

If a connection to a partner device already exists, the connection is dropped and another connection to the newly selected device is created instantly without disrupting the application that has opened the outgoing port.

Note: *To add a service to the **Outgoing** port, an active service must first be deactivated. Then you can choose the 'Outgoing' option from the Activation menu (highlight a service, right-click or press the [SPACE] bar to display the Activation menu).*

5.12.4 Active Connections Tab

Figure 5.38 Active Conn. Tab

The *Active Conn.* tab lists the *Name*, *Address*, and *Type* of the currently active connections. The table is periodically updated while on display, but it can take a few seconds before it re-

Download from Www.Somanuals.com. All Manuals Search And Download.

flects the actual list of connections. The *Type* column of the table shows 'ACL' or 'SCO'. The Connection list table shows the connections for scanning and the service connections.

Note: *You can change the device-name and description of your radio by clicking on the* **System** *icon in* **Control Panel**, *which will open the* **System Properties** *dialog box. Click on the* ***Device Name*** *tab to access the menu and change your settings. Then click on* **OK**.

Although the name will have changed in the Properties menu in Bluetooth *Controls, the radio only reads it on boot-up. For the changes to take effect, you must reset the 8515.*

5.12.5 Properties Tab

Figure 5.39 Properties

The **Properties** tab displays information about your 8515, and provides some port options.

The *Device Name* field shows the device name of your 8515. This name can be changed (see the ***Note*** in this section for details).

Device Class shows the Class of Device (e.g. desktop), which is always set to 'Handheld'.

Local Bluetooth Address shows the address of your 8515 radio.

Port Prefix is used to set the port name to either *BSP* or *COM*. When the name is set to *BSP*, BSP2 to BSP9 are available for activated services (including the server). When *COM* is chosen, COM7 to COM9 are available.

Name Query Retry governs the number of times the vehicle-mount will attempt to query the names of other *Bluetooth* devices if the first attempt fails. (When the unit scans for other devices, it sometimes fails to scan names.)

Download from Www.Somanuals.com. All Manuals Search And Download.

5.13 Storage Manager

The Storage Manager allows the user to view information about the storage devices that are present in the 8515, such as the Compact Flash card.

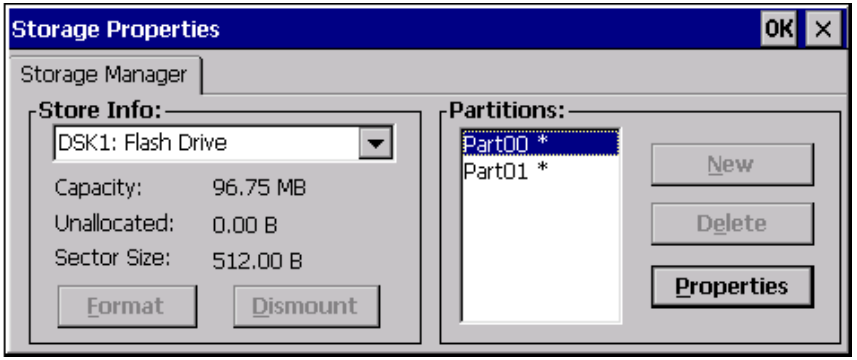
5.13.1 Formatting A Memory Card

Formatting a memory card bulk-erases it. Once a card is erased, partitions may be created in it, similarly to those on a hard drive. Memory-card devices are normally 'mounted' (made available to the system) automatically when they are inserted. They must be dismounted before they can be formatted.

To format an entire memory card:

1. Select *Start> Settings>Control Panel*.
2. In *Control Panel*, double-click on the **Storage Manager** icon. The Storage Manager menu opens:

Figure 5.40 Storage Properties Menu



3. Select the memory card from the drop-down list.
4. Press the **Dismount** button to dismount the memory card. All partitions on the card will be dismounted.
5. Press the **Format** button to format the memory card.

Warning: All partitions and information on the card will be erased during the formatting process.

Download from Www.Somanuals.com. All Manuals Search And Download.

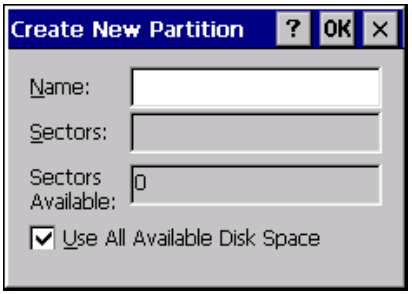
5.13.2 Creating Partitions

Once the card is formatted, new partitions can be created in it. The default is to create one partition that occupies the whole card, but a card can be divided into more than one partition if desired. Each partition appears as a separate folder in Windows Explorer.

To create new partitions:

1. Press the **New** button next to the Partitions listbox. The *New Partition* dialog appears:

Figure 5.41 New Partition Dialog

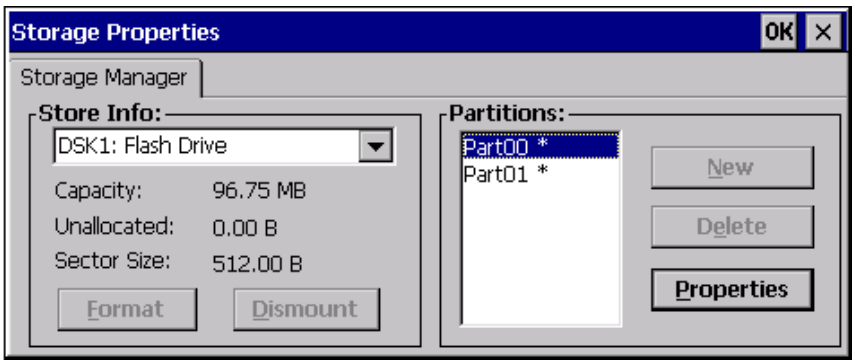


2. Enter a name for the partition.
3. If more than one partition is desired, uncheck the *Use All Available Diskspace* checkbox, then specify the desired number of sectors to be used by the partition:

Note: The sector size of the card is given on the left-hand side of the Storage Properties dialog.

4. Press **OK**. The new partition appears in the Partitions list:

Figure 5.42 Partitions List



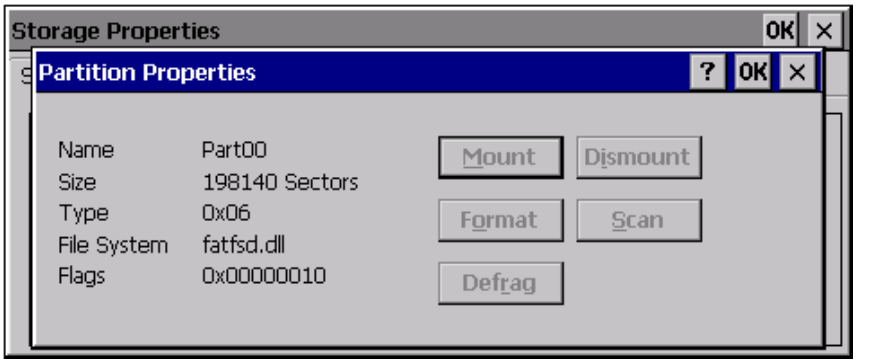
Download from Www.Somanuals.com. All Manuals Search And Download.

The new partition is automatically mounted. This is indicated by an asterisk (*) next to its name in the partition list. Any unallocated space on the card is indicated at the left, and additional partitions can be created in it.

5.13.3 Partition Management

Partitions can be individually dismounted, mounted, deleted, or formatted as well. These and additional tasks are available from the *Partition Properties* dialog:

Figure 5.43 Partition Properties Dialog



5.13.3.1 Dismounting A Partition

1. Select the desired partition.
2. Press the **Properties** button. The *Partition Properties* dialog appears.
3. Press the **Dismount** button. The partition is dismounted. The asterisk disappears next to its name in the partitions list.

5.13.3.2 Deleting A Partition

1. Select the desired partition.
2. Press the **Delete** button. A warning dialog appears.
3. Press the **OK** button. The partition is deleted.

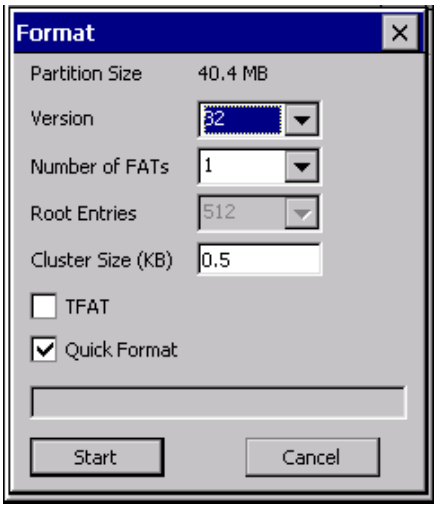
5.13.3.3 Formatting A Partition

1. Select the desired partition.
2. Press the **Properties** button. The *Partition Properties* dialog appears.
3. Press the **Dismount** button. The partition is dismounted. The asterisk disappears next to its name in the partitions list.

Download from Www.Somanuals.com. All Manuals Search And Download.

4. Press the **Format** button. The *Format* dialog appears:

Figure 5.44 Format Dialog



5. Choose your format options. These options include:
   - Version of file system (FAT-16, for devices holding up to 4 GB; or FAT-32, for devices containing up to 32 GB).
   - Number of FATs (File-Allocation Tables).
   - Number of entries allowed in the root directory.
   - Cluster size (.5 KB to 64 KB).

   There are also two checkboxes, which govern:

   - Whether to use the transaction-safe FAT file system (TFAT). This file system keeps multiple copies of the file-allocation table, changing one while maintaining another as a backup.
   - Whether to perform a quick format. Quick formatting removes all reference to data in the partition without erasing the actual partition. The partition will be treated as empty, and new data will overwrite it.
6. Press **Start**. The partition is formatted.

5.13.3.4 Mounting A Partition

1. Select the desired partition.
2. Press the **Properties** button. The *Partition Properties* dialog appears.

Download from Www.Somanuals.com. All Manuals Search And Download.

3. Press the **Mount** button. The partition is mounted. The asterisk appears next to its name in the partitions list.

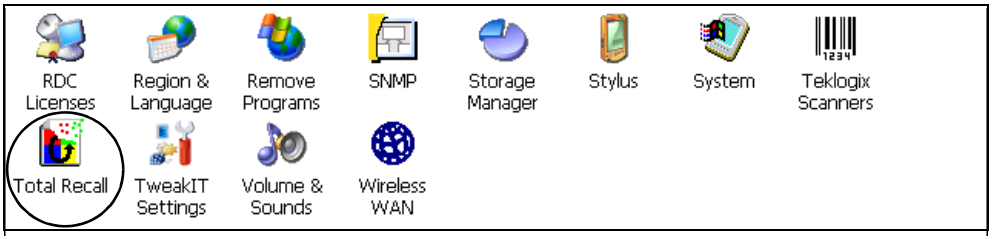
The *Partition Properties* dialog has buttons for additional functions. Partitions can be de-fragmented, and their file structure can be scanned.

5.14 Total Recall

Total Recall is a Psion Teklogix utility developed to maintain applications and setting over cold boots. This utility is based on a backup and restore concept.

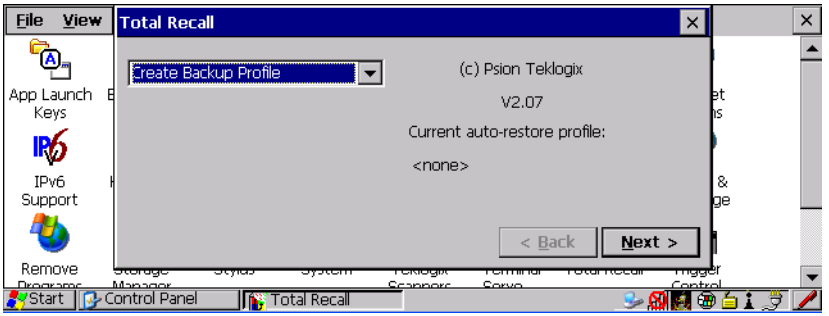
- In the **Control Panel**, choose the **Total Recall** icon.

Figure 5.45 Total Recall Icon



5.14.1 Creating A Backup Profile

Figure 5.46 Total Recall



In the dropdown menu, you can choose from four options: **Create Backup Profile**, **View Selected Profile**, **Restore Selected Profile** and **Delete Selected Profile**. Keep in mind however that until a profile is created, the only available option is **Create Backup Profile.**

Download from Www.Somanuals.com. All Manuals Search And Download.

5.14.1.1 Profile Information

Figure 5.47 Profile Information Dialog

This dialog box lists the possible storage destinations for the profile file.

- To begin, type a name for the profile in the field labelled **Profile Name**.

The image type—**OS Version** and **Registry Type**—for the 8515 is displayed at the top of the dialog box.

- Tap on the ⊞ icon to expand the settings for **Profile Type** and **Profile Location.**

Figure 5.48 Profile Information Settings

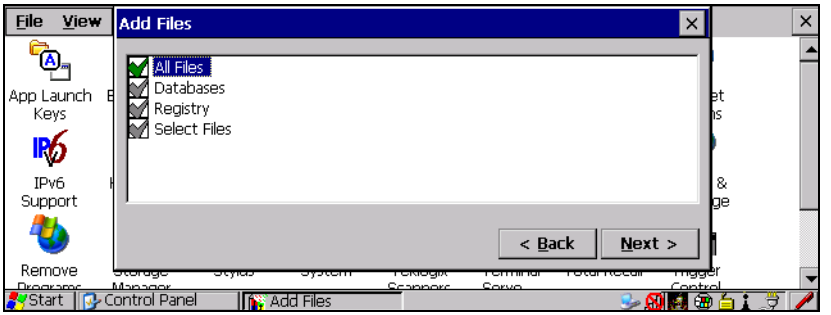
- **For this device only**—creates a backup that is manually restored by the operator.
- **AutoRestore for this device only**—creates a profile that automatically restores itself following a cold boot.
- **AutoRestore for this and other devices**—creates a profile that automatically restores after resuming from a cold boot, but it will not contain the touchscreen calibration coordinates or the Wireless radio settings.
- **Profile Location**—allows the operator to specify where the profile is to be saved. The location for the profile is either *\Flash Disk* or *\SD-MMC Card*.

Download from Www.Somanuals.com. All Manuals Search And Download.

- Tap on **Next** to display the next dialog box—**Add Files**.

5.14.1.2 Add Files

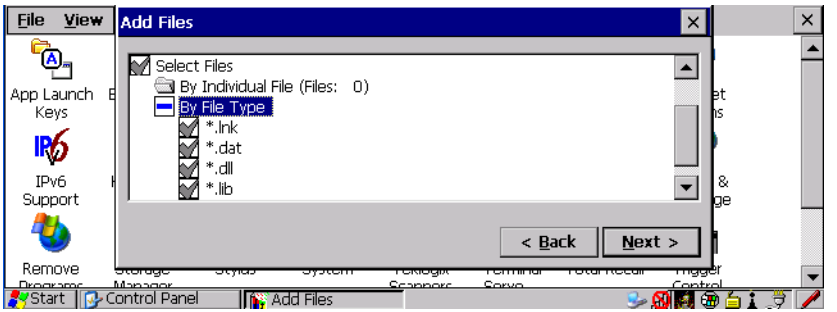
Figure 5.49 Add Files Options



By default, **All Files:** is selected so that all installed or copied files, database entries, and the Registry will be saved. You can, however, limit the backup to database, and/or the registry only.

The **Select Files** option allows choose to limit the backup *By Individual File*, or you can choose to define which files will be backed up *By File Type*.

Figure 5.50 Select File Types



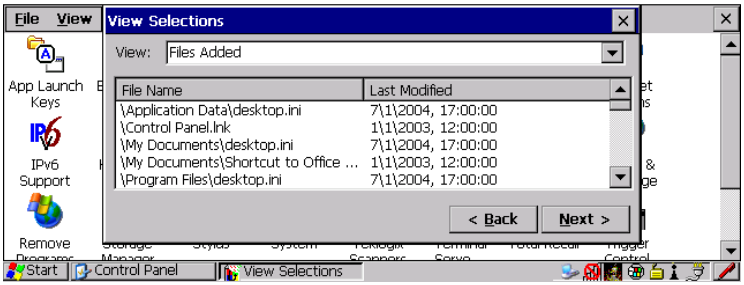
- Tap on **Next** to view your selections

5.14.1.3 View Selections

Depending on what you have selected for inclusion in your profile, you can view a list of the selected files, databases and/or registry.

Download from Www.Somanuals.com. All Manuals Search And Download.

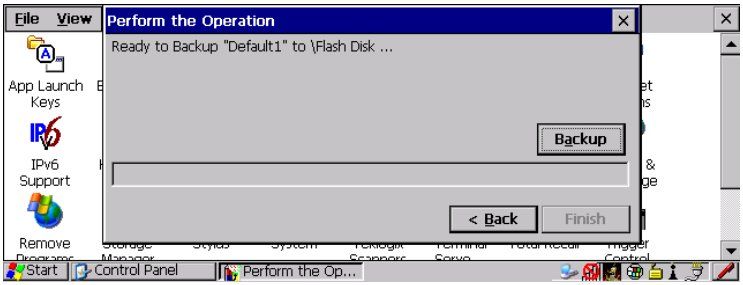
Figure 5.51 View Selections



- Tap on **Next** to perform the operation.

5.14.1.4 Performing The Backup

Figure 5.52 Backup Dialog



- Tap on **Backup** to start the process and create a profile.

5.14.2 Restoring A Profile

To manually restore a profile:

- Tap on the **Total Recall** icon.
- Choose **Restore Selected Profile** from the dropdown menu.
- Choose the **Profile Name** you want to restore from the *Profile Name* dropdown menu.

Note: *You can also manually restore an auto restore profile located in flash or a storage device.*

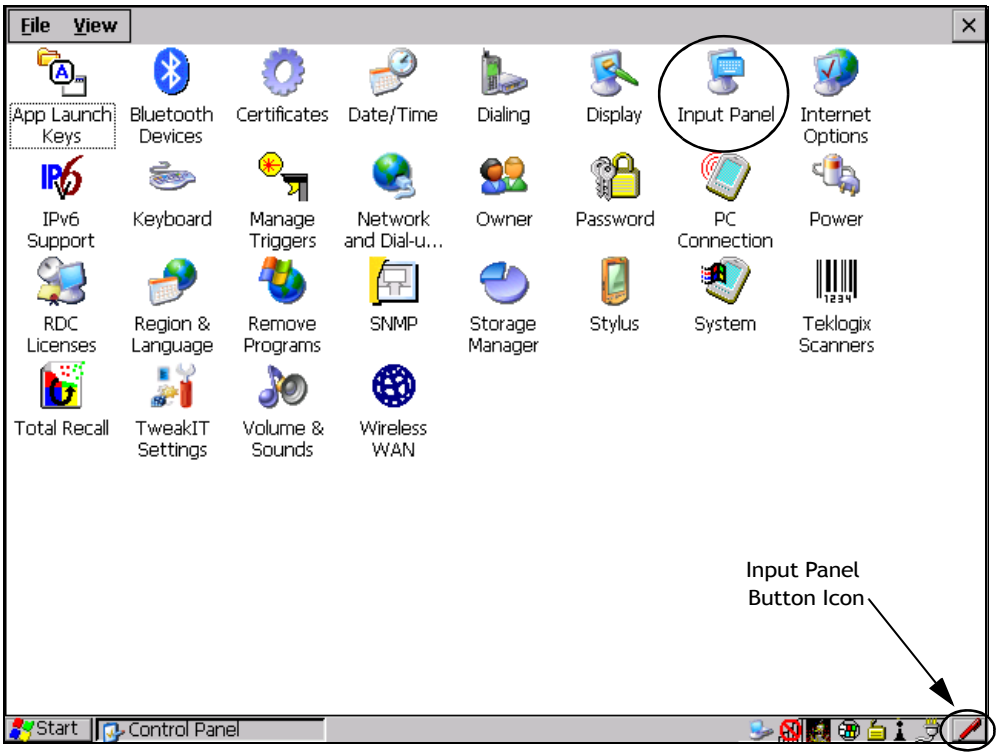
5.15 Input Panel

The 8515 is equipped with at Soft Input Panel (SIP).

Download from Www.Somanuals.com. All Manuals Search And Download.

Tapping on the *Input Panel button* displays a soft input panel (soft keyboard) that can be customized using the *Input Panel* dialog box.

Figure 5.53 Input Panel Icon



Important: If the Input Panel Button icon is not visible in the taskbar, from the 'Start' menu, tap on Settings>Taskbar and Start Menu. Tap the checkbox next to 'Show Input Panel Button'. To remove this icon from the taskbar, tap in the checkbox to erase the check mark.

- Tap on the **Input Panel Button** icon in the taskbar to display the *soft input panel* on the 8515 screen.

Download from Www.Somanuals.com. All Manuals Search And Download.

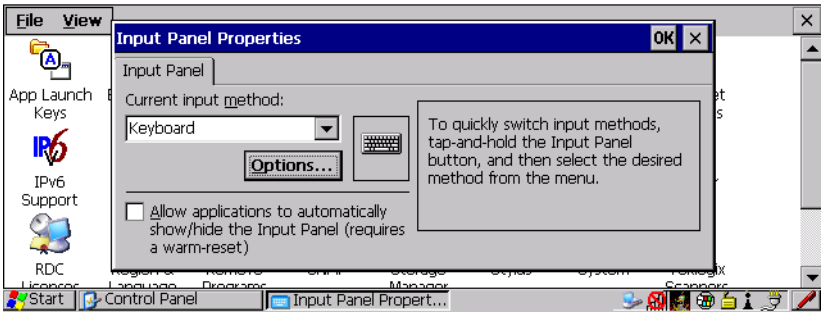
Figure 5.54 Soft Keyboard

The soft keyboard operates just like a standard keyboard except that rather than pressing a key, you tap on letters, numbers, modifier keys, etc. on the 8515 screen.

To customize the appearance and behaviour of the soft keyboard:

- Tap on the **Input Panel** icon in the *Control Panel*.

Figure 5.55 Input Panel Properties

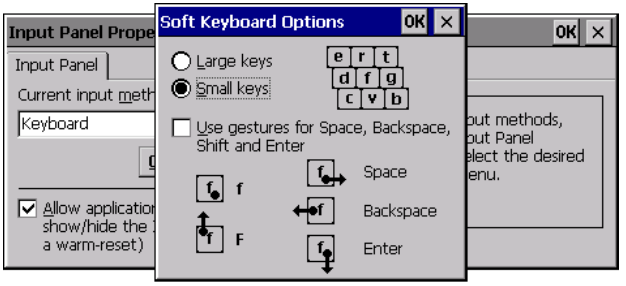


- Tap on the **Options** button to change the appearance of your soft keyboard.

Note: *You can also display this dialog box by double-tapping on the Input icon in the far-right corner of the taskbar.*

Download from Www.Somanuals.com. All Manuals Search And Download.

Figure 5.56 Soft Keyboard Options



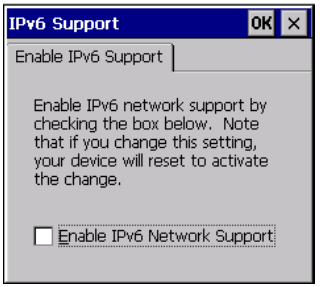
5.16 IPv6 Support

The **IPv6 Support** icon in the **Control Panel** allows you to activate IPv6 network support on your unit. This internet protocol specification (version 6) supports 128-bit IP addresses, replacing version 4.

Figure 5.57 IPv6 Support Icon

- Tap on the icon to display the **IPv6 Support** dialog box.

Figure 5.58 IPv6 Support Dialog Box



- Tap on the checkbox next to **Enable IPv6 Network Support** to enable this internet protocol.

Download from Www.Somanuals.com. All Manuals Search And Download.

5.17 Scanner Settings

The **Teklogix Scanners** icon in the **Control Panel** provides dialog boxes in which you can tailor bar code options and change the ports settings. If you wish to recover the factory defaults after making changes, the defaults can be applied by holding the stylus on a parameter, which will pop up a menu allowing you to default that parameter, or all settings. This option cannot be accessed without a touchscreen.

Figure 5.59 Teklogix Scanners Icon

5.17.1 Decoded Scanners

External decoded scanners must be configured by scanning special configuration bar codes. For configuration purposes, please refer to the programming manuals provided by the scanner manufacturer.

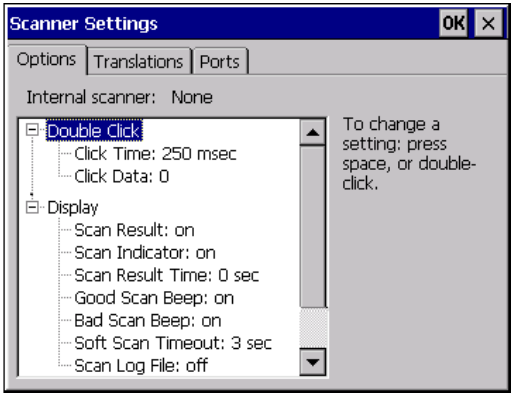
Note: For port setup information, refer to "Ports Tab" on page 113.

5.17.2 Scanner Settings Options Tab

This tab allows you to tailor the double-click parameters and the display options associated with your scanner.

Download from Www.Somanuals.com. All Manuals Search And Download.

Figure 5.60 Scanner Settings Options



5.17.2.1 Double Click

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

This parameter determines which character is sent to the application installed in your 8515 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.

Pressing the [ESC] key in this dialog box resets the data to zero.

5.17.2.2 Display

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.

Download from Www.Somanuals.com. All Manuals Search And Download.

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 vehicle-mount 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 rather than through a physical 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

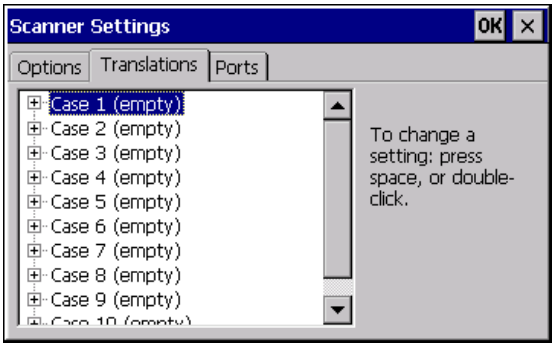
If this parameter is enabled, the input bar code and the modified/translated output bar code are logged in the file *\Flash Disk\ScanLog.txt*. Keep in mind that if this parameter is enabled, there is a slight performance effect when performing multiple scans because the log file is written to persistent storage.

5.17.3 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.

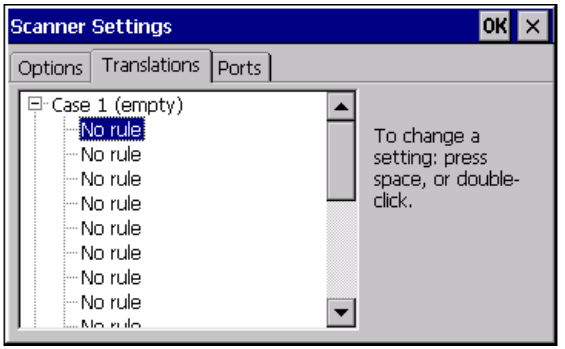
Download from Www.Somanuals.com. All Manuals Search And Download.

Figure 5.61 Translations



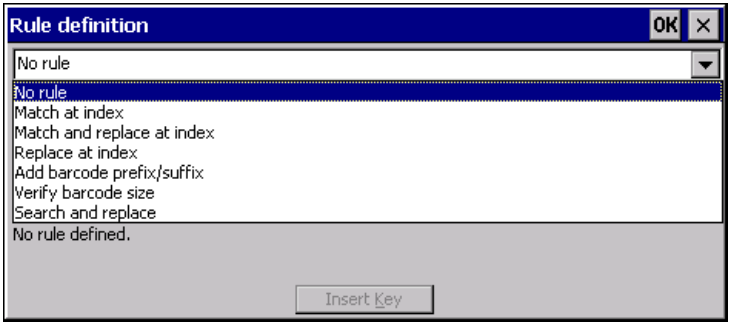
- In the **Translations** tab, choose the **Case #** to create rules.

Figure 5.62 Cases



- Double-tap on a **No rule** item in the dropdown list to display the rules.

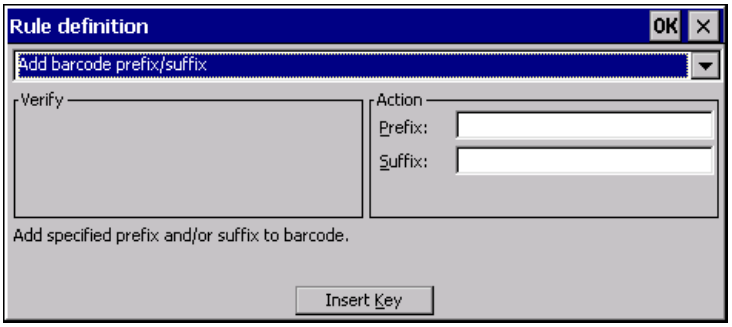
Figure 5.63 Case Rules



When you choose a rule, an associated screen is displayed in which you can define the rule.

Download from Www.Somanuals.com. All Manuals Search And Download.

Figure 5.64 Case Rule Definitions



5.17.3.1 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, if enabled (see "Scan Log File" on page 111). This is useful if a case fails, and you are trying to determine why a rule is failing.

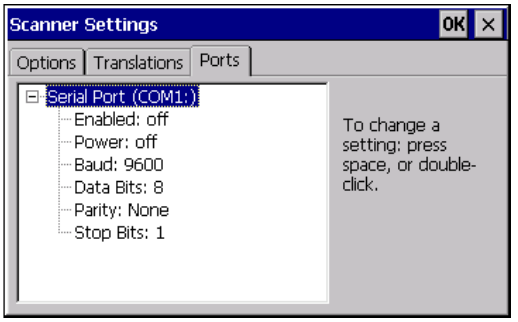
5.17.4 Ports Tab

While you cannot configure external decoded scanners, you can configure *communications* with a serial decoded scanner using the options in this tab.

Download from Www.Somanuals.com. All Manuals Search And Download.

5.17.4.1 Serial Port (COM 1)

Figure 5.65 Serial Port Settings



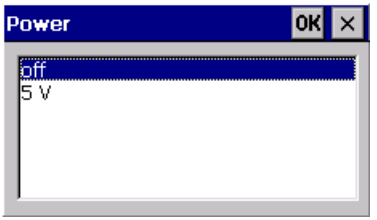
Enabled

This parameter must be set to *on* in order for the 8515 to recognize the device connected to the serial port.

Power

Double-tapping on this parameter displays a dialog box in which you can choose to disable (turn *off*) this port, or you can assign *5V* power to the port.

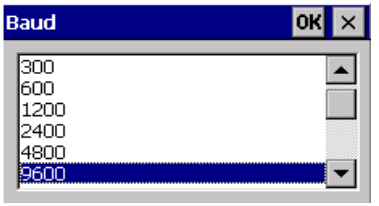
Figure 5.66 Serial Port Power Options



Baud

Double-tapping on this parameter displays a pop-up window in which you can choose an appropriate baud rate.

Figure 5.67 Baud Rate

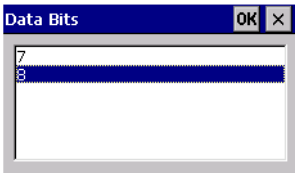


Download from Www.Somanuals.com. All Manuals Search And Download.

Data Bits

This parameter determines the number of bits for the data going through this port. Double-tapping on this option displays a pop-up window in which you can choose either 7 or 8 data bits.

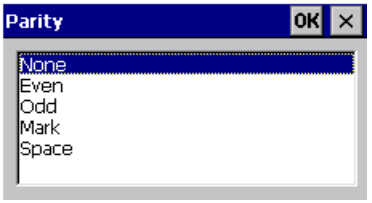
Figure 5.68 Data Bits Options



Parity

This parameter determines the type of parity checking used on the data going through the tether port. Double-tapping on this option displays a pop-up window in which you can choose the appropriate Parity.

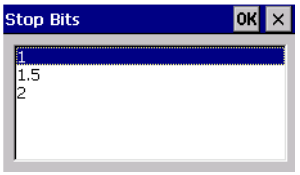
Figure 5.69 Parity Options



Stop Bits

This parameter specifies the number of stop bits—1, 1.5 or 2—used for asynchronous communication.

Figure 5.70 Stop Bits Options



5.18 SNMP (Simple Network Management Protocol) Setup

Simple Network Management Protocol (SNMP) is the protocol used to monitor and manage devices attached to a TCP/IP network (providing they support SNMP). SNMP uses Management Information Bases (MIBs) that define the variables an SNMP Network Manage-

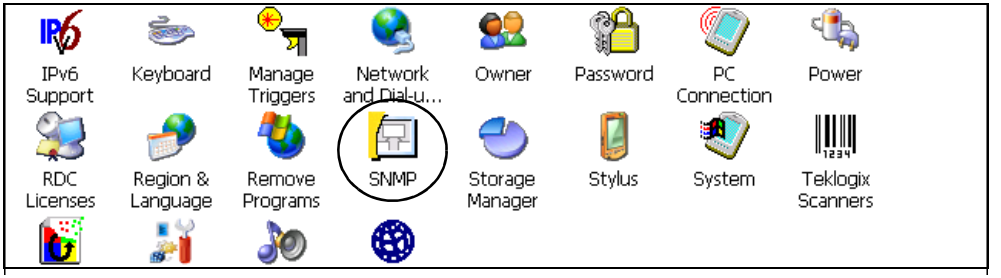
Download from Www.Somanuals.com. All Manuals Search And Download.

ment Station can access. Each product has a defined set of MIBs that determine how SNMP operates, the type of access allowed etc.

All Psion Teklogix products support the TEKLOGIX-GENERIC-MIB—a MIB that defines some common features across Teklogix products. All devices also support MIB-II, a management information base that defines the common features of TCP/IP networks. The SNMP Agent software embedded in the 8515 supports SNMPv1 (RFC 1157).

- In the **Control Panel**, choose the **SNMP** icon.

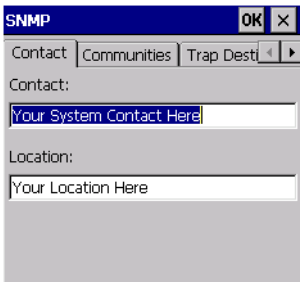
Figure 5.71 SNMP Icon



The **SNMP** dialog box is displayed.

5.18.1 Contacts Tab

Figure 5.72 Contact Information



Contact

This field identifies the contact person for this managed node along with information about how to get in touch with this person. The content of this parameter is accessible through MIB-II's sysContact object.

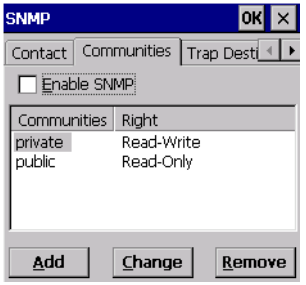
Location

This parameter is used to identify the physical location of this node (e.g., Warehouse A: Pillar 32B). The content of this parameter is accessible through MIB-II's sysLocation object.

Download from Www.Somanuals.com. All Manuals Search And Download.

5.18.2 Communities Tab

Figure 5.73 Communities Options



The *Communities* tab provides a means of limiting access to SNMP managed devices to those SNMP Managers with matching "community names", as specified by RFC 1157.

5.18.2.1 Enable SNMP

Enabling **Enable SNMP** allows the device to respond to SNMP queries and to send Traps. After enabling this option and rebooting the device, the SNMP Agent will automatically start up. To disable this feature, remove the check mark from the check box.

5.18.2.2 Adding A Community

- Tap on **Add** to add a new 'community'.

Figure 5.74 Add Community Dialog

Name

The value assigned here is the name assigned by the network administrator to the set of devices to which this managed node belongs.

Rights

This menu allows you to specify access—that is, 'Read-Only' or Read-Write'.

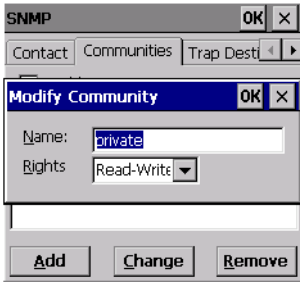
Download from Www.Somanuals.com. All Manuals Search And Download.

5.18.2.3 Modifying A Community Setting

To modify an existing community:

- Highlight the community you want to alter.
- Tap on **Change**.

Figure 5.75 Modify Community Dialog



A **Modify Community** dialog box is displayed, listing the community you highlighted.

- Edit the **Name** and/or **Rights**, and press [ENTER] to save your changes.

5.18.2.4 Removing An Existing Community

- Highlight the community you want to remove in the **Communities** tab and then tap on the **Remove** button.

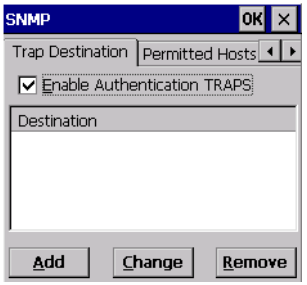
A **Delete Confirmation** screen is displayed.

- To remove a community, tap on **Yes**, **or**
- If you decide not to remove the community, tap on **No**.

5.18.3 Trap Destination Tab

A trap is an unsolicited report sent to SNMP Managers by the SNMP Agent running on the managed node. This option allows you to define where the report will be sent.

Figure 5.76 Trap Destination Options



Download from Www.Somanuals.com. All Manuals Search And Download.

5.18.3.1 Enabling Authentication TRAPS

Checking **Enable Authentication TRAPS** allows authorization traps to be sent when a failure is detected (e.g., an SNMP message received with a bad community name).

5.18.3.2 Adding A Destination

- To add a new destination, tap on the **Add** button.

Figure 5.77 Add IP Address Dialog

- Type a destination in the text box provided, and press [ENTER].

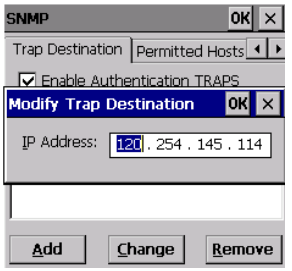
5.18.3.3 Changing A Destination

To change an existing trap destination:

- Highlight the destination you want to alter in the **Trap Destination** tab, and then tap on the **Change** button.

A dialog box like the one displayed when you *add* a destination is displayed.

Figure 5.78 Change IP Address Dialog



- Make the changes to the destination, and tap on **OK** to save the changes.

5.18.3.4 Removing A Trap Destination

To remove a trap destination:

- In the **Trap Destination** tab, highlight the destination you want to delete.

Download from Www.Somanuals.com. All Manuals Search And Download.

- Tap on the **Remove** button.

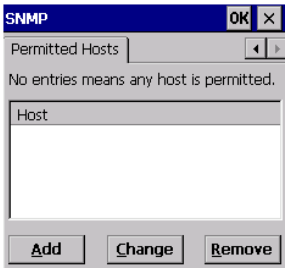
A **Delete Confirmation** screen is displayed.

- To remove a destination, tap on **Yes**, *or*
- If you decide not to remove the destination, tap on **No**.

5.18.4 Permitted Hosts Tab

For security reasons, the Network Administrator may want to restrict SNMP-node access to a known sub-set of SNMP Managers. This tab lists the IP addresses of all the SNMP Managers which are allowed to monitor and manage this device. If no entries are listed, the device will accept SNMP queries from any host.

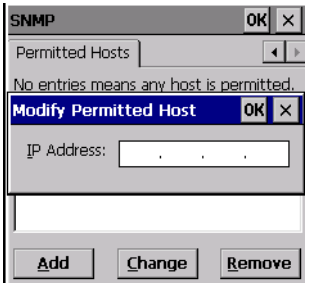
Figure 5.79 Permitted Hosts Options



5.18.4.1 Adding A Host

- To add a new host, tap on the **Add** button.

Figure 5.80 Add IP Address Dialog



- Type a new host IP address in the text box provided, and press [ENTER].

5.18.4.2 Changing A Host

To change an existing host IP address:

Download from Www.Somanuals.com. All Manuals Search And Download.

- Highlight the IP address you want to alter in the **Permitted Hosts** tab, and then tap on the **Change** button.

A dialog box like the one displayed when you *add* a host is displayed.

- Make the necessary changes, and press [ENTER].

Download from Www.Somanuals.com. All Manuals Search And Download.

Download from Www.Somanuals.com. All Manuals Search And Download.

PERIPHERAL DEVICES & ACCESSORIES 6

6.1 External Bar Code Readers 125
6.1.1 Entering Data With The Bar Code Reader 125
6.2 Bluetooth Peripherals 125
6.3 Linking An 8515 To An Ethernet Network 126
6.3.1 Network Access 126
6.4 8515 Mounting Accessories: Installing The RAM Mounting Kit 126
6.4.1 Component Part Numbers 128
6.4.2 MT33XX RAM Mounting Kit Specifications 129
6.4.3 Preparation 130
6.4.4 Installation 132
6.4.4.1 RAM Vesa Base 133
6.4.4.2 RAM Circular Base 133
6.4.5 Positioning The Vehicle-Mount 134
6.4.6 Optional Mount Kits 135
6.5 8515 Vehicle-Mount Computer Installations 136
6.5.1 Wiring Guidelines 136
6.5.2 Non-Vehicle Installations 137
6.5.3 Wiring Vehicle Power To The 8515 137
6.5.3.1 Installing The Power Pre-regulator (PS1300) 137

Download from Www.Somanuals.com. All Manuals Search And Download.

Download from Www.Somanuals.com. All Manuals Search And Download.

6.1 External Bar Code Readers

The 8515 supports these external decoded scanner types:

- 1D Scanner.
- 2D Standard Range Raster Laser Scanner (PDF417).
- 2D Imager.
- RFID Scanner.

To connect a scanner to the 8515, attach the device to either the UART or USB port. Please refer to the scanner-specific programming manual provided by the manufacturer before you begin.

6.1.1 Entering Data With The Bar Code Reader

Note: For helpful scanning tips, refer to "Scanning Techniques" on page 41.

When a label is scanned successfully, the 8515 will beep if configured appropriately and the scan icon will be displayed on the screen. Occasionally, the bar code labels are poorly printed or damaged and cannot be read properly. In this case, use the keyboard to enter data from the label.

6.2 *Bluetooth* Peripherals

All 8515 Vehicle-Mount Computers are equipped with *Bluetooth* radios, making it is possible to communicate with a variety of *Bluetooth* peripherals, including scanners, printers, etc. The range of the *Bluetooth* radio in the 8515 is limited to between 2–5 meters.

Keep in mind that *Bluetooth* and IEEE 802.11g radios both operate in the 2.4GHz band. Although the 8515 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 8515 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).

Bluetooth peripherals are configured using the *Bluetooth* control panel applet. Refer to "Bluetooth Setup" on page 91 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 associate with the 8515 host.

Download from Www.Somanuals.com. All Manuals Search And Download.

6.3 Linking An 8515 To An Ethernet Network

A USB-Ethernet adaptor cable—model number WA4010-G1—is used to connect the 8515 to an Ethernet network.

Figure 6.1 USB-Ethernet Adaptor Cable

- Insert the adaptor's USB connector into the Host USB port on the 8515.
- Connect your network Ethernet cable to the Ethernet port on the adaptor cable.

6.3.1 Network Access

The 8515 automatically loads the appropriate drivers to communicate with the USB-Ethernet converters.

Network Addressing

The host application uses standard TCP/IP protocol to name, locate, and communicate with a specific 8515 on the network.

If a link is established between an 8515 and a host, the application on the host and on the vehicle-mount must have a recovery mechanism in the event that the 8515 is disconnected, interrupting the link.

6.4 8515 Mounting Accessories: Installing The RAM Mounting Kit

The 8515 is installed using an articulating RAM Mount (Model MT34XX – 4 in. or 12 in. arm) secured to either a Vesa or circular base.

Download from Www.Somanuals.com. All Manuals Search And Download.

Warning: ***Failure to install the mount correctly, or modifications to the mount, may result in serious injury or damage to property. Contact Psion Teklogix Technical Support or your Psion Teklogix representative if you have problems installing this mount (see Appendix A: "Support Services / Worldwide Offices"). To ensure operator safety, you must use a calibrated torque wrench and the supplied mounting hardware when fastening the cradle and mount. Use of this mount in vehicles driven on public roads or highways is prohibited. Contact Psion Teklogix for further details.***

Before mounting an 8515 in a vehicle, there are a number of operator safety issues that require careful attention. When mounting an 8515 use only approved Psion Teklogix mounting hardware and mounting parts which are specific to the 8515 model purchased. An improperly mounted 8515 or use of non-approved parts may result in one or more of the following: operator injury, property damage, operator visibility obstruction, operator distraction, and/or poor ease of egress for the operator. Psion Teklogix strongly recommends that you seek professional mounting advice from the vehicle manufacturer.

If it is necessary to mount the 8515 overhead, or in any position that could cause injury to the operator should the unit fall, it is critical that a secondary tether or other failsafe device be installed.

The following restrictions must be strictly enforced:

- ***Do not use the mount and/or the 8515 as a hand-hold. Using the mount in this manner may cause the person to fall or dislodge the mounting hardware and/or mounts.***
- ***Do not add weight or attach any other items to the mount or 8515. Additional elements may fall causing injury, or may increase the chance of failure and/or damage in mounting hardware and/or mounts.***

Mounts used in industrial or vibration generating environments may be subjected to fatigue, stress, and/or part wear. A periodic inspection of the mounting hardware and mounts should be performed to ensure parts are retightened to the correct torque, free of fractures, excessive wear, and/or other environmental damage. Any parts found to be unsafe should be removed and replaced immediately. After inspection or replacement of parts, readjust the mount as outlined in step 4 below and tighten with the approved tightening tool (P/N 9000594).

Cable routing within a vehicle cab also requires careful consideration, especially for separately connected scanners and other devices with loose cables. If you are unable to obtain suitable advice, contact Psion Teklogix for assist-

Download from Www.Somanuals.com. All Manuals Search And Download.

ance (see Appendix A: "Support Services / Worldwide Offices"). Note also that for better protection, the equipment should be mounted inside the vehicle roll cage.

Use of the Powered Fork Lift Cradle while charging the fork truck battery is prohibited.

Important: Safeguards

To avoid possible injury, this device must be properly secured when in a moving vehicle.

Keep this device away from magnetic fields.

Do not place the computer near a television or radio receiver.

Do not disassemble your 8515 computer—there are no user-serviceable parts inside.

6.4.1 Component Part Numbers

The table below lists the mounting component part numbers.

Table 6.1 Mounting Components And Figure Legend

Figure Legend	Description	Psion Teklogix Part Number
A	8515 Vehicle-Mount Computer	
B	RAM Vesa Base	9001934
C	Washer M8 Internal Tooth	9008800
D	Screw M8 x 12 Pan Head	9004517
E	RAM Standard Arm	9001805
F	RAM Circular Base	9001804
G	Screw M8 x 25 Pan Head	9004518
H	Screw M8 x 25 Flat Head	9004522
J	Nut M8 x 1.25	9008801
L	Mounting Kit MT3505 (Clamp base (for 4" or 12" RAM arm, 2" max. width)	9007505
M	Mounting Kit MT3507 (Clamp base (for 4" or 12" RAM arm, 3" max. width)	9007507

Download from Www.Somanuals.com. All Manuals Search And Download.

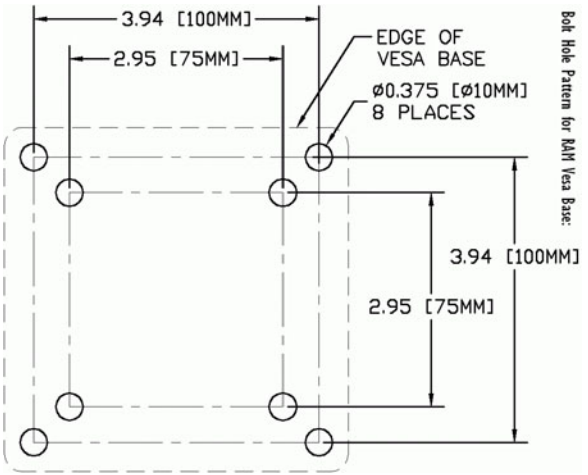
Table 6.1 Mounting Components And Figure Legend

N	Mounting Kit MT3509 (Rail base (for 4" or 12" RAM arm, 1¼" to 1⅞")	9007509
P	Mounting Kit MT3510 (Rail base (for 4" or 12" RAM arm, 2" to 2 ½")	9007510

6.4.2 MT33XX RAM Mounting Kit Specifications

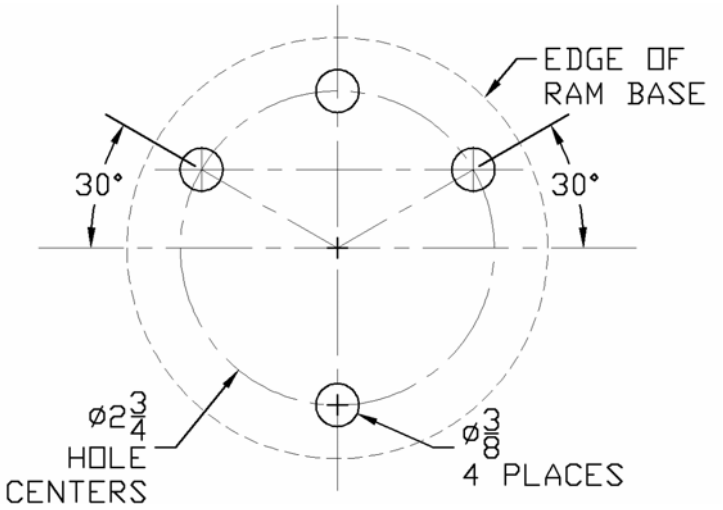
Max. Load:	15kg
Articulating Range:	Spherical through 180 degrees.
Shock Rating:	Meets IEC60721-3-5 CLASS 5M2
	Test Method IEC60068-2-64 Fh
Vibration Rating:	Meets IEC60721-3-5 CLASS 5M2
	Test Method IEC60068-2-27 Ea

Figure 6.2 Bolt Hole Pattern For RAM Vesa Base



Download from Www.Somanuals.com. All Manuals Search And Download.

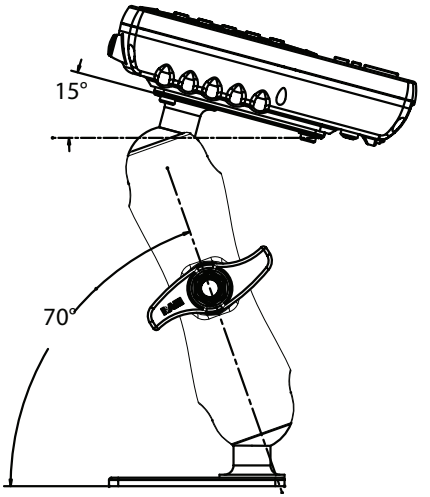
Figure 6.3 Bolt Hole Pattern For RAM Circular Base



6.4.3 Preparation

The RAM articulating mount can be installed in a variety of orientations (see Figure 6.9 on page 135). Select the best orientation for your specific application. Preferred orientations maintain the centre of mass of the vehicle-mount assembly, directly over the centre of the base (see Figure 6.4).

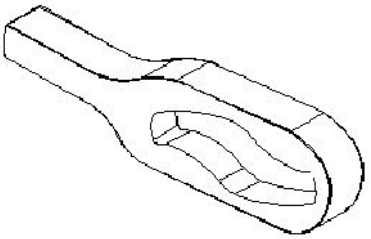
Figure 6.4 Orientation Of Vehicle-Mount Assembly



Download from Www.Somanuals.com. All Manuals Search And Download.

Important: The tilt and rotation of the cradle can be easily adjusted by the operator. Ensure that if the handscrew is loosened and the cradle slips, the operator and any equipment cannot be damaged by it. Also note that under extreme vibration, the mount may slowly 'settle', requiring readjustment and tightening of the handscrew. Psion Teklogix offers a tightening tool (P/N 9000594) which can be used to minimize settling.

Figure 6.5 Tightening Tool P/N 9000594

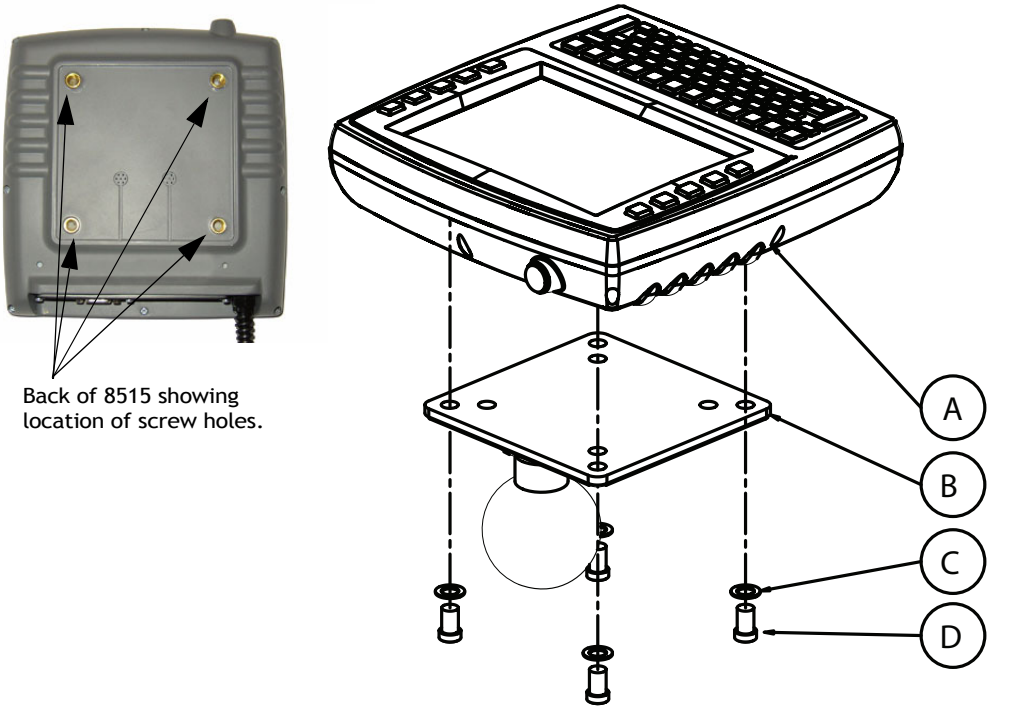


The mounting platform on which you secure the vehicle-mount must be strong enough to support 25 kg. Never attach the mount to a plastic dash or a wooden platform without the appropriate backing plate and bracing. When selecting a mounting location, you must provide the operator access at the top, bottom, and sides.

Download from Www.Somanuals.com. All Manuals Search And Download.

6.4.4 Installation

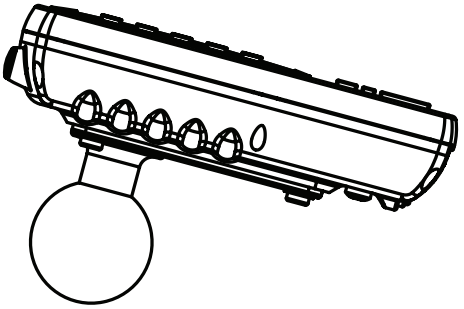
Figure 6.6 8515 Vehicle-Mount Computer With Mounting Bracket



1. **Attaching the mounting bracket and RAM base to the vehicle-mount:** The kit provides four screws and washers that are used to secure the mounting bracket to the vehicle-mount. Figure 6.6 provides a diagram and a legend to help you attach the mounting bracket and the RAM Vesa base to the vehicle-mount. To do this:
   - Apply Loctite 243 to the screw threads (Note: Loctite is not supplied by Psion Teklogix). Match the four screw holes on the back of the 8515 with the appropriate pairs of holes on the bracket and screw them together by placing the Screw (D) through the Washer (C) and the RAM Vesa Base (B), and then affixing it to the 8515 (A).
   - Torque to 26 in-lbs.

Download from Www.Somanuals.com. All Manuals Search And Download.

Figure 6.7 Mounting Bracket Attached To The 8515



2. **Secure the RAM Base to the local platform and attach RAM Standard Arm:** Use the supplied bolt hole pattern to drill the required holes in the local platform. Hole diameters must not exceed 10mm [13/32 inches]. Hardware (G, H, C, and J) for securing RAM Bases (B or F) to the local platform are in the recommended sizes (see Table 6.1 on page 128). If replacement hardware is required, it should be consistent with these diameters. All fasteners must use a suitable locking mechanism to ensure that they do not loosen under shock and vibration.
   - If you are assembling with the RAM Vesa Base, see Section 6.4.4.1:"RAM Vesa Base".
   - If you are assembling with the RAM Circular Base, see Section 6.4.4.2:"RAM Circular Base".

6.4.4.1 RAM Vesa Base

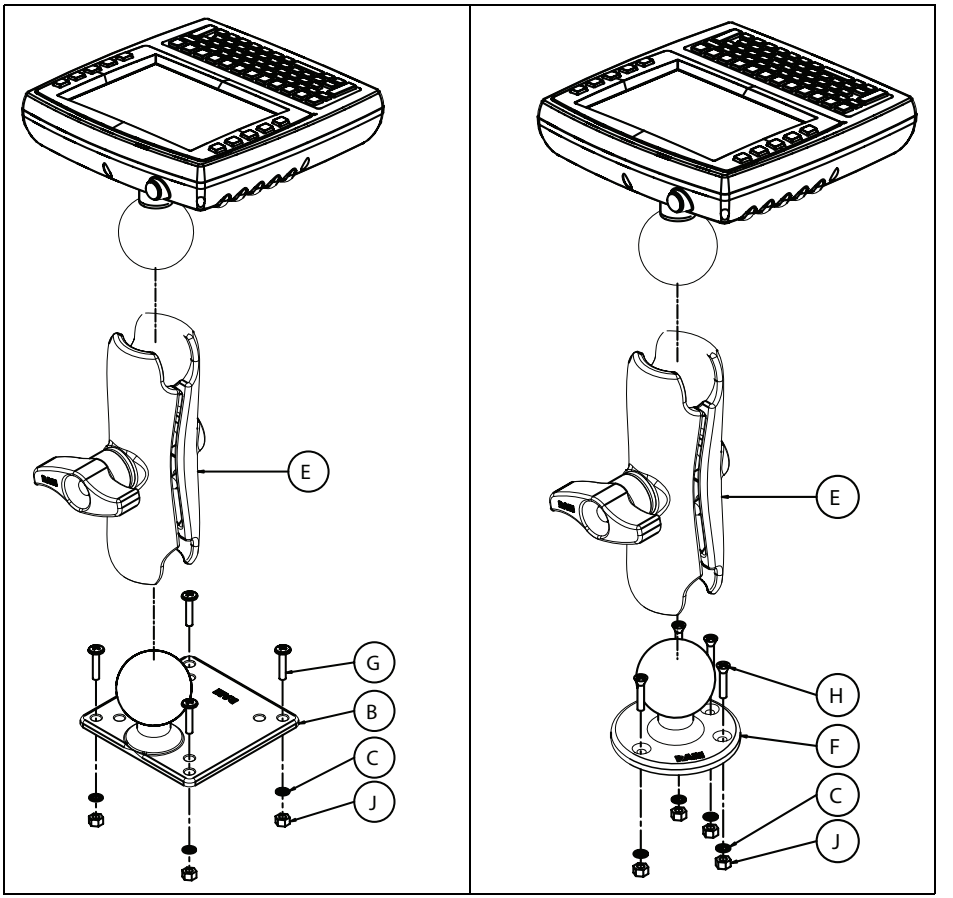
See Figure 6.8 on page 134. In four places, insert screw (G) through the RAM Vesa Base (B), the local platform and the washer (C). Affix with nut (J). Torque to 26 in-lbs. Secure RAM Standard Arm (E) by inserting RAM Balls into both ends of arm sockets.

6.4.4.2 RAM Circular Base

See Figure 6.8 on page 134. In four places, insert screw (H) through the RAM Circular Base (F), the local platform and the washer (C). Affix with nut (J). Torque to 26 in-lbs. Secure RAM Standard Arm (E) by inserting RAM Balls into both ends of sockets.

Download from Www.Somanuals.com. All Manuals Search And Download.

Figure 6.8 RAM Vesa Base RAM Circular Base

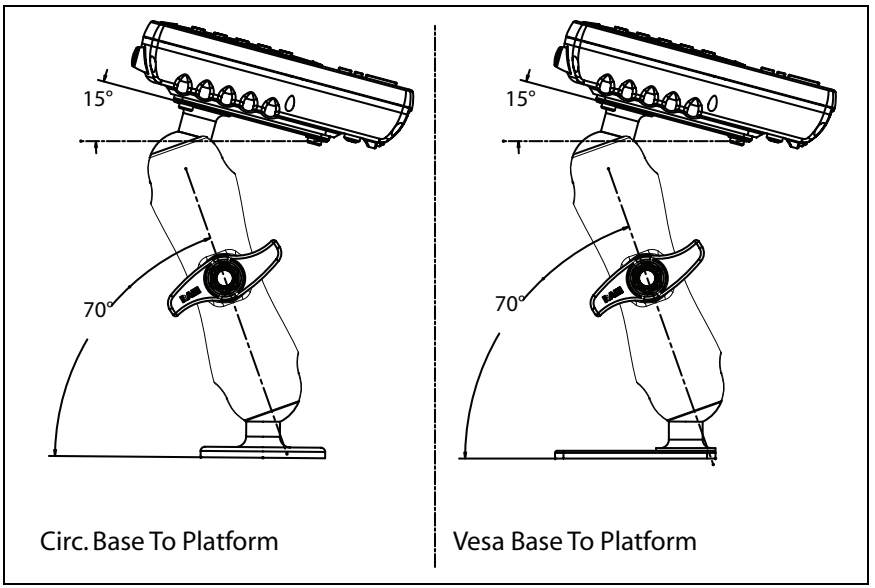


6.4.5 Positioning The Vehicle-Mount

Place the 8515 into the position best corresponding to the RAM hardware used (see Figure 6.9 on page 135) and tighten by hand until secure. Refer to "8515 Mounting Accessories: Installing The RAM Mounting Kit" on page 126 for warnings and proper tightening technique. Mount orientations shown in Figure 6.9 are considered the preferred configurations for the Circular Base to Platform and the Vesa Base to Platform.

Download from Www.Somanuals.com. All Manuals Search And Download.

Figure 6.9 Circular Base and Vesa Base Mount Orientations



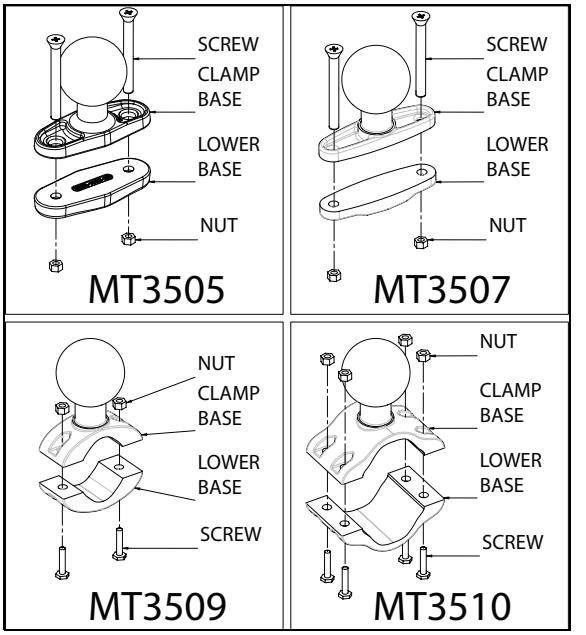
6.4.6 Optional Mount Kits

One of the mounting kits shown in Figure 6.10 on page 136 may be substituted for the Vesa Base (B) or the circular base (F) when mounting to a post or forklift roll cage.

To Install: Mount the Clamp Base and Lower Base around the shaft. Place the Screw through the Clamp and the Lower Base, and affix with the Nut. Torque to 26 in-lbs. Secure the RAM Standard Arm (E) by inserting the RAM Balls into both ends of the arm sockets.

Download from Www.Somanuals.com. All Manuals Search And Download.

Figure 6.10 Optional Mount Kits



6.5 8515 Vehicle-Mount Computer Installations

6.5.1 Wiring Guidelines

Before installing cables between the computer and other devices, consider the following:

- Ensure the vehicle body and underlying wiring is not damaged while drilling mounting holes.
- Protect cable runs from pinching, overheating and physical damage.
- Use grommets to protect cables that pass through metal.
- Use plastic straps and tie-downs to secure cables and connectors in their desired location, away from areas where they may get snagged or pulled.
- Keep the cables away from heat sources, grease, battery acid, and other potential hazards.
- Keep the cables away from control pedals and other moving parts that may pull on the cables or interfere with the operation of the vehicle.
- Leave enough slack on the cables so that the computer can be removed easily for maintenance.

Download from Www.Somanuals.com. All Manuals Search And Download.

Note: Make sure the cables run inside the roll cage of the vehicle.

6.5.2 Non-Vehicle Installations

Using AC power, the 8515 Vehicle-Mount Computer can be mounted at fixed locations adjacent to cross-dock doors, manufacturing stations, or in offices. The 110/220V Psion Teklogix AC adaptor Model PS1400 should be used to power the computer from an AC source.

6.5.3 Wiring Vehicle Power To The 8515

Warning: The 8515 accepts DC power sources between 10V and 30VDC nominal.

Applying a voltage above 30VDC or reversing polarity may result in permanent damage to the 8515 and will void the product warranty.

A 1.8 meter (6 ft.) extension power cable (P/N 13985-302 or P/N 13985-301 with screen-blanking sensor) is supplied with your 8515 (see Figure 6.12 on page 139). This cable should be wired to a filtered, fused (maximum 6A) accessory supply on the vehicle. The 8515 draws no more than 6A (less if the accessory supply is greater than 12V). Any additional wiring (minimum 18 gauge), connectors or disconnects used should be rated for at least 90 VDC, 10A.

The red lead of the power cable attaches to the positive vehicle supply. The black lead connects to the negative supply—this should be connected to a proper terminal block and not to the vehicle body. The 8515 is fully isolated and can be used with both negative and positive chassis vehicles.

You may have the option of connecting power before or after the 'key' switch. It is preferable to wire the 8515 after the key switch—that is, the 8515 cannot be switched on without turning the vehicle key on.

If an unfused power source must be used, a fuse assembly (P/N 19440-300) must be added to the extension power cable (the fuse and instructions are supplied with the cable). Use only a 6A slow blow UL approved fuse in the fuse assembly. The fuse assembly must be located as close as practical to the DC supply, and shall connect to the positive side of the DC supply.

6.5.3.1 Installing The Power Pre-regulator (PS1300)

The power pre-regulator should be used on all vehicles that run off voltages from 10V to 30VDC. This helps to eliminate power irregularities that may affect the computer's operating system.

Download from Www.Somanuals.com. All Manuals Search And Download.

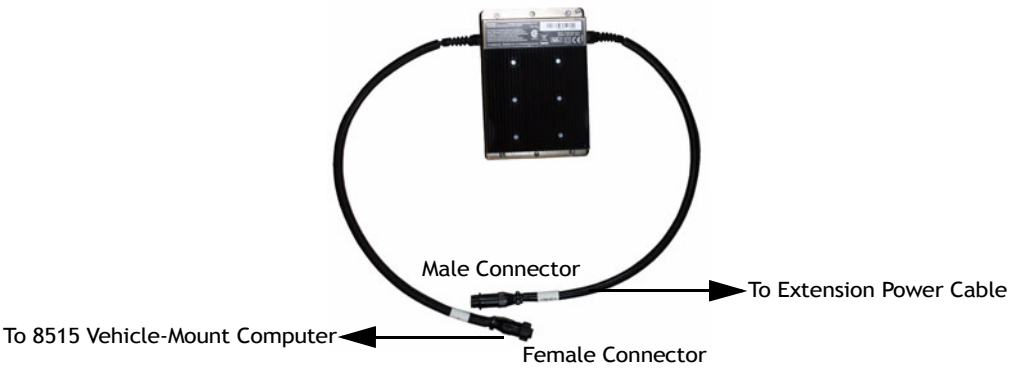
1. Attach the pre-regulator cable with *male* connector to the Psion Teklogix extension power cable P/N 13985-302, which has been installed on the vehicle.

Important: The Psion Teklogix extension power cable P/N 13985-302 positive lead is red and the negative lead is black.

It is recommended that all connections be secured with electrical tape or heat shrink to prevent contaminants from degrading the connection.

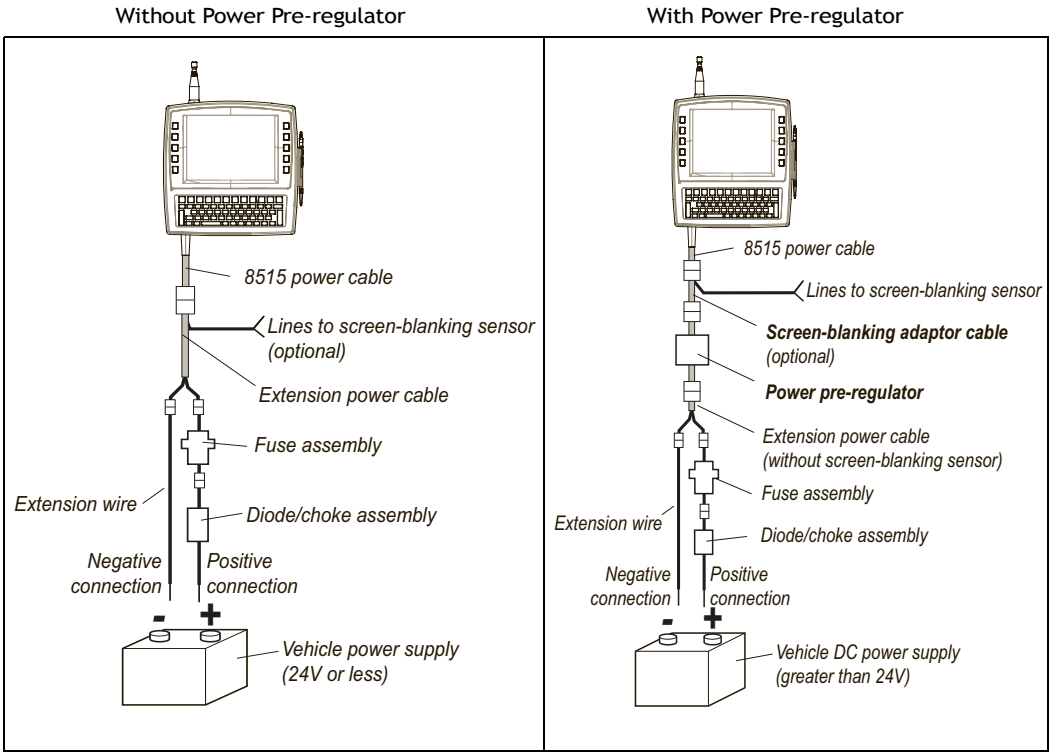
2. Next, connect the pre-regulator cable with *female* connector either directly to the 8515 power cable, or to the extension power cable P/N 13985-303 (for screen blanking option) (see Figure 6.12 on page 139 — 'With Power Pre-regulator').

Figure 6.11 The Power Pre-regulator (Model PS1300)



Download from Www.Somanuals.com. All Manuals Search And Download.

Figure 6.12 Connections To Vehicle DC Supply



Note: *When installing the 8515 on vehicles operating on 24 Volts and above, the diode assembly (supplied with the extension power cable 13985) should be used to reduce the AC ripple produced by the SCR traction motor controller on the vehicle.*

To connect the diode, push the male connector on the diode assembly into the female connector on the positive (red) lead of the power cable. If the fuse assembly is already installed, connect the diode assembly to the fuse assembly as described in the previous sentence. Connect the red wire from the diode assembly to a fused power source on the vehicle.

It is recommended that all connections be secured with electrical tape or heat shrink to prevent contaminants from degrading the connection.

Download from Www.Somanuals.com. All Manuals Search And Download.

Download from Www.Somanuals.com. All Manuals Search And Download.

SPECIFICATIONS 7

7.1 8515 Vehicle-Mount Computer Specifications 143
7.2 Colour Display 144
7.3 Keyboard 144
7.4 External Power 145
7.5 Internal Lithium-Polymer Battery 145
7.6 Radio Specifications 145
7.7 External Bar Code Scanners 147

Download from Www.Somanuals.com. All Manuals Search And Download.

Download from Www.Somanuals.com. All Manuals Search And Download.

Note: Performance specifications are nominal and subject to change without notice.

7.1 8515 Vehicle-Mount Computer Specifications

Size

203 mm x 209 mm x 50 mm (7.99"x 8.23" x 1.97")

Weight

Approximately 1.3 kg (2.8 lbs)

Environmental

Standard Temperature Unit

Operating Temperature	-10° C to 50° C (14° F to 122° F)
Storage Temperature	-35° C to 70° C (-31° F to 158° F)
Rain And Dust Resistance	IEC 529, classification IP65
Humidity (operating)	5% to 90% RH non-condensing at 40° C (104° F)
Shock and Vibration testing	IEC 60721-3-5 - Class 5M2

Operating System

Microsoft® Windows® Embedded CE 5.0

Processor And Memory

XScale PXA270 @ 312 MHz Processor.

RAM: 128 MB SDRAM standard.

Flash ROM: 128 MB micro-SD card standard (not user-accessible).

Communication Ports

UART (DB-9) port	RS-232 serial port for decoded scanner, printer
	Data rate: 2,400 bps to 115,200 bps
	Power: 1000mA @ 5V
Two USB V 1.1 host ports	For external devices, console
	Data rate: 12 Mbps
	Power out, +5 VDC @ 500mA nominal

Download from Www.Somanuals.com. All Manuals Search And Download.

One USB V 1.1 device port	Allows 8515 to appear as USB peripheral to USB host computer
	Data rate: 12 Mbps; >50 Kbps ActiveSync throughput

Approvals

Safety	UL 60950-1, CAN/CSA-C22.2 NO. 60950-1 LVD EN 60950-1
EMC	
North America	FCC Part 15 Class B
Europe	Complies with R & TTE Directive for Radio approval.
	Complies with EMC Directive 2004/108/EC for EMC approval.
	Compliance with Automotive Directive 95/54/EC for e-marking.
	* Note: this product will carry the CE Mark.

7.2 Colour Display

Transmissive TFT for indoor/sunlight readability

Resolution	Full VGA, 640 x 480 pixels
Size	16.26 cm (6.4") diagonal
Colour Depth	64K colours, 16 bit
Backlight (CCFL x 2)	Intensity of 350 cd/m^2
	Brightness control adjustable from 5% to 100%
Touchscreen	5-wire resistive with anti-reflective, anti-glare coating
	Passive stylus or finger operation; signature capture

7.3 Keyboard

Alphanumeric keyboard	58-key Qwerty and ABC formats available
	Epoxy-coated elastomeric keys

Download from Www.Somanuals.com. All Manuals Search And Download.

Function Keys	10 dedicated function keys
Key Illumination	Adjustable backlight

7.4 External Power

Power Input range	10 VDC to 30 VDC
Power Output range	5 VDC, 6A (max 30W)

7.5 Internal Lithium-Polymer Battery

Not user accessible.

Technology	350 mA @ 3.7 V Lithium-Polymer backup battery with automatic charging
Charge Duration	One-hour battery life for memory backup
Charge Time	2 hours
Charge Temperature	0° C to 40° C (32° F to 104° F)
RTC Backup	7 x 24 hours

7.6 Radio Specifications

Model RA2040: Marvell-88W8300 802.11g PC Card radio

Direct Sequence Spread Spectrum (DSSS) and Orthogonal Frequency Division Multiplexing (OFDM) radio.

Form factor	Compact Flash Type II extended
Antenna port	Single U.FL jack, no diversity
Transmit Power	32 mW maximum (+15 dBm), all versions
Frequency Range	2.400 GHz to 2.4835 GHz
Channels	USA, Canada: 1–11 EU countries: 1–13
RX Sensitivity	(8% FER, 1024 bytes packet) = -89 dBm @ 1 Mbps, -87 dBm @ 11 Mbps, -83 dBm @ 6 Mbps, -72 dBm @ 54 Mbps

Download from Www.Somanuals.com. All Manuals Search And Download.

Data Rates	802.11g: 6, 9, 12, 18, 24, 36, 48, 54 Mbps
	802.11b: 1, 2, 5.5, 11 Mbps

Model RA2041: Summit DC 802.11 SC CF radio

Direct Sequence Spread Spectrum (DSSS) radio.

Form factor	Compact Flash Type I extended
Antenna port	Two Hirose U.FL connectors for antenna diversity
Transmit Power	802.11g: 32 mW maximum (+15 dBm)
	802.11b: 80 mW maximum (+19 dBm)
Frequency Range	2.400 GHz to 2.4897 GHz
Channels	FCC: 11
	ETSI: 13
	TELEC: 13
RX Sensitivity	-96 dBm @ 1 Mbps, -90 dBm @ 11 Mbps,
	-94 dBm @ 6 Mbps, -75 dBm @ 54 Mbps
Data Rates	802.11g: 6, 9, 12, 18, 24, 36, 48, 54 Mbps
	802.11b: 1, 2, 5.5, 11 Mbps

***Bluetooth* Radio**

Embedded (USB interface)

Bluetooth Version	1.2 compliant (features Adaptive Frequency Hopping for better co-existence with 802.11 radio)
Chip Antenna	2 dBi peak
Transmit Power	-3 dBm (0.5mW) minimum, +4 dBm (2.5 mW) max
Frequency Range	2.400 GHz to 2.4835 GHz
RX Sensitivity	-80 dBm max
(BER<=0.1%)	
Data Rate	732.2 kbps and 57.6 kbps asymmetric,
	433.9 kbps symmetric

Download from Www.Somanuals.com. All Manuals Search And Download.

7.7 External Bar Code Scanners

Supported Types	Decoded scanners: 1D, 2D Standard Range Raster Laser, 2D Imager, RFID. (Refer to "Ports Tab" on page 113 for details.)
Interface	Via FF UART DE-9 port or USB port.
Decoded Codes Supported	Dependent on external scanner choice.
Code Discrimination	Automatic for all selected codes. Decoded input is external scanner dependent.
Specifications	Refer to the scanner-specific programming manual provided by the manufacturer.

Download from Www.Somanuals.com. All Manuals Search And Download.

Download from Www.Somanuals.com. All Manuals Search And Download.

APPENDIX A

SUPPORT SERVICES / WORLDWIDE OFFICES

Psion Teklogix provides a complete range of product support services to its customers worldwide. These services include technical support and product repairs.

A.1 Technical Support

For technical support in North America:

Call Toll free:	+1 800 387 8898	Option 3, *or*
Direct Dial:	+1 905 813 9900 Ext. 1999	Option 3

For technical support in EMEA (Europe, Middle East and Africa), please contact the local office listed in the website below:

http://www.psionteklogix.com/EMEASupport

For technical support in Asia, please contact the local office listed in the website below:

http://www.psionteklogix.com

Technical Support for Mobile Computing Products is provided via e-mail through the Psion Teklogix customer and partner extranets. To reach the website, go to *www.psionteklogix.com*, and click on the appropriate Teknet link on the home page. Then click on the "Login" button or the "Register" button, depending on whether you have previously registered for Teknet. Once you have logged in, search for the "Support Request Form".

A.2 Product Repairs

For repair service in North America:

Call Toll free:	+1 800 387 8898	Option 2, *or*
Direct Dial:	+1 905 813 9900 Ext. 1999	Option 2

For repair service in EMEA (Europe, Middle East and Africa), please contact the local office listed in the website below:

http://www.psionteklogix.com/EMEASupport

For repair service in Asia, contact the local office listed in the website below:

http://www.psionteklogix.com

Download from Www.Somanuals.com. All Manuals Search And Download.

A.3 Worldwide Offices

A.3.1 Company Headquarters

Psion Teklogix Inc.
2100 Meadowvale Boulevard
Mississauga
Ontario
Canada L5N 7J9

Tel: +1 905 813 9900
Fax: +1 905 812 6300
E-mail:salescdn@psion.com

A.3.2 Canadian Service Centre

Psion Teklogix Inc.
7170 West Credit Ave., Unit #1
Mississauga, Ontario
Canada L5N 7J9

Tel: +1 800 387 8898Option 2 - or -
Direct: + 1 905 813 9900Ext. 1999 Option 2
Fax: + 1 905 812 6304
Web: www.psionteklogix.com

A.3.3 North American Headquarters And U.S. Service Centre

Psion Teklogix Corp.
1810 Airport Exchange Boulevard
Suite 500
Erlanger, Kentucky
USA 41018

Tel: +1 859 371 6006
Fax: +1 859 371 6422
E-mail:salesusa@psion.com

Download from Www.Somanuals.com. All Manuals Search And Download.

A.3.4 International Subsidiaries

See also *www.psionteklogix.com/Subsidiaries* .

Psion Teklogix S.A.

La Duranne
135 Rue Rene Descartes
BP 421000
13591 Aix-En-Provence
Cedex 3; France

Tel: +33 4 42 90 88 09
Fax: +33 4 42 90 88 88
E-mail:tekeuro@psion.com

Download from Www.Somanuals.com. All Manuals Search And Download.

Download from Www.Somanuals.com. All Manuals Search And Download.

APPENDIX B

PORT PINOUTS

B.1 Serial Port Interface Pinout (DB-9 male)

Table B.1 RS-232 Pinout*

Signal #	Function	Signal	Type	Notes
1	RS-232 Serial Port Data Carrier Detect	DCD	RS-232D	Loopback for PCON/CON
2	RS-232 Serial Port Receive Data	RXD	RS-232D	
3	RS-232 Serial Port Transmit Data	TXD	RS-232D	
4	RS-232 Serial Port Data Terminal Ready	DTR	RS-232D	Loopback for PCON/CON
5	Ground	GND	Power	
6	RS-232 Serial Port Data Set Ready	DSR	RS-232D	Loopback for PCON/CON
7	RS-232 Serial Port Ready to Send	RTS	RS-232D	Loopback for Console
8	RS-232 Serial Port Clear to Send	CTS	RS-232D	Loopback for Console
9	Power Output		Power	Switched 5V @ 1000mA max (see ***Warning*** below)

* *Signal definitions are with respect to the 8515 Vehicle-Mount Computer side.*

Warning: If enabled (software configurable), 5V power will appear on this line, which may be the Ring Indicator line on some devices such as modems.

1/2 Amp Max.

Download from Www.Somanuals.com. All Manuals Search And Download.

B.2 Enhanced USB1 Port Interface Pinout

Table B.2 Enhanced USB1 Pinout*

Signal #	Function	Signal	Type	Notes
1	USB– VBUS	DCD	USB	Switched 5V @ 0.5A max
2	USB– D-	RXD	USB	Standard or enhanced USB port
3	USB– D+	TXD	USB	Standard or enhanced USB port
4	Ground	DTR	USB	
5	RS-232 Serial Port Transmit Data	GND	PCON console	Customized cable to DE-9
6	RS-232 Serial Port Receive Data	DSR	PCON console	Customized cable to DE-9
7	Ground	RTS	PCON console	
8	Port Detection ID	CTS	PCON console	3K0 pull-down resistor for PCON console detection
9	PCON Programming Switch		PCON console	Switch to Ground for programming

* *Signal definitions are with respect to the 8515 Vehicle-Mount Computer side.*

B.3 Enhanced USB2 Port Interface Pinout

Table B.3 Enhanced USB2 Pinout*

Signal #	Function	Signal	Type	Notes
1	USB– VBUS	DCD	USB	Switched 5V @ 0.5A max
2	USB– D-	RXD	USB	Standard or enhanced USB port
3	USB– D+	TXD	USB	Standard or enhanced USB port
4	Ground	DTR	USB	
5	RS-232 Serial Port Transmit Data	GND	PXA console	Customized cable to DE-9
6	RS-232 Serial Port Receive Data	DSR	PXA console	Customized cable to DE-9
7	Ground	RTS	PXA console	

Download from Www.Somanuals.com. All Manuals Search And Download.

Table B.3 Enhanced USB2 Pinout*

Signal #	Function	Signal	Type	Notes
8	Port Detection ID	CTS	PXA console	23K2 pull-down resistor for PXA console detection
9	NC		PXA console	Open for PXA console port

* *Signal definitions are with respect to the 8515 Vehicle-Mount Computer side.*

Download from Www.Somanuals.com. All Manuals Search And Download.

Download from Www.Somanuals.com. All Manuals Search And Download.

APPENDIX C

USB SETUP APPLICATION

C.1 USB Setup

The USB Setup application is used to update a Windows 2000 or XP PC so that it can connect to a Psion Teklogix 8515 Vehicle-Mount Computer.

Note: For details on connecting devices to Windows Vista™ PCs, see page 43.

To download the USB Setup application, go to:

www.psionteklogix.com/downloads

This will take you to the Teknet home page.

- Login with your Teknet Username and Password. (If you're not already a member of Teknet, you can register for free at this home page so that you can access the USB Setup application.).

Once you've entered your name and password, the Download page is displayed.

- Scroll down to the *Utilities* heading, and then under *USB Setup*, tap on **Download**. If you need further assistance, please contact Psion Teklogix support (1-800-387-8898).

System Requirements

- Windows 2000 or XP.
- ActiveSync 3.5 or later.

The install program:

- updates copies of the device installation scripts `usbstor.inf` and `wceusbsh.inf` with Psion Teklogix-specific information, *and*
- sets up a USB connection between the PC and the 8515.

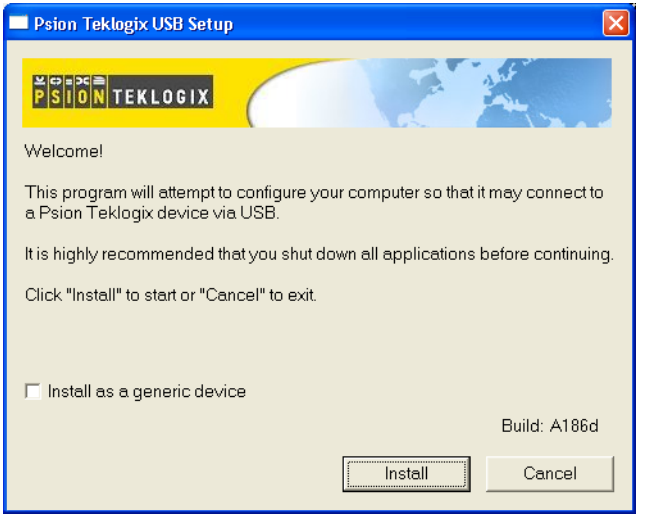
C.1.1 Launching The Application

Before running the USB Setup application:

1. Unplug the 8515 from your PC, and exit all running applications.
2. Double-click on the USB Setup executable in the directory to which you copied it.

Download from Www.Somanuals.com. All Manuals Search And Download.

Figure C.1 Welcome Dialog



If you check the “Install as a generic device” checkbox, the Hardware Manager on your PC will not prompt you to install every new device you connect to your PC. A generic configuration will be used for the Psion Teklogix devices.

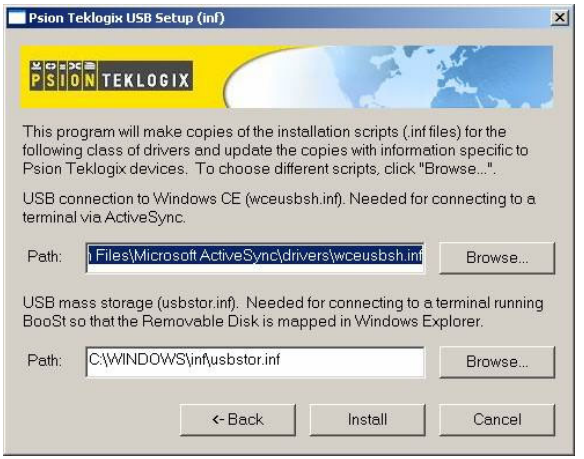
3. Tap on the **Install** button to configure your PC or the **Cancel** button to exit the USB Setup program.

   The program checks that ActiveSync is installed and that it is a supported version—3.5 or later. If the version installed on your PC is not supported, you’ll need to exit the USB Setup application, and install a later version of ActiveSync. ActiveSync can be downloaded from Microsoft at: *http://www.microsoft.com/downloads*.

   In some cases, you may see an additional dialog (see Figure C.2 on page 3).

Download from Www.Somanuals.com. All Manuals Search And Download.

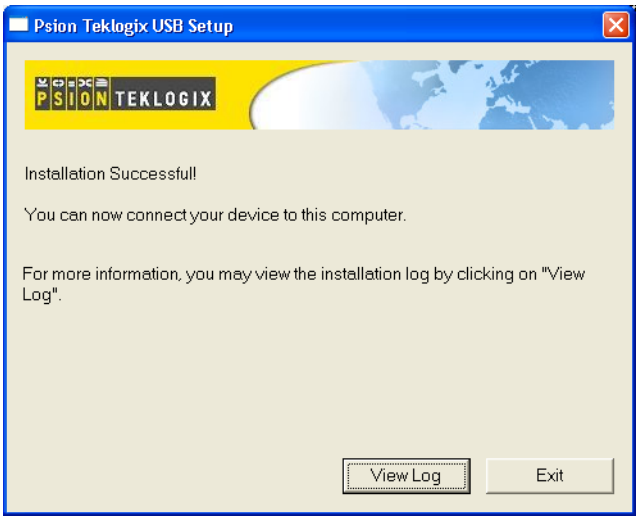
Figure C.2 Installation Dialog



Usually, this dialog is shown when more than one version of ActiveSync is installed. You can either select the correct inf file for the USB Setup program to work with, or you can cancel the installation, and uninstall the extra copies of ActiveSync.

C.1.2 Installation Complete Dialog Box

Figure C.3 Installation Successful



This dialog box indicates the success or failure of the installation.

Download from Www.Somanuals.com. All Manuals Search And Download.

4. Tap on **Exit** to exit the application.

   If you need to view the log file, tap on **View Log**.

Once the USB Setup program is exited, you can connect the vehicle-mount to your PC using a USB cable, and turn the unit on. If the USB Setup process was successful, the "Found new hardware" wizard may start. If this occurs, choose the recommended defaults. ActiveSync will detect your 8515.

Download from Www.Somanuals.com. All Manuals Search And Download.

INDEX

A

accessories
  bar code readers, connecting *125*
  Ethernet adaptor cable *126*
Active Conn Tab *96*
ActiveSync
  ASync profile *93*
ActiveSync, connecting to Windows PC *43*
adaptor cable
  USB-Ethernet *126*
Ad Hoc network *12*
Advanced (wireless connection) *16*
ALT Key *36*
appearance (display colour scheme) *70*
approvals, regulatory *144*
arrow keys
  moving the cursor *35*
audio indicators
  description of beep conditions *41*
Authentication, *Bluetooth* Controls *94*
authentication, network *13*

B

backlight
  display *71*
  keyboard *38*
backup profile, creating (Total Recall) *102*
backup profile, restoring (Total Recall) *105*
Bad Scan Beep *111*
bar code reader
  connecting *125*
  external scanner, operation of *125*
  specifications *147*
batteries
  backup *34*
  installing *34*
  power card slots, enabling *85*
  power suspend *83*
  removing *34*
  specifications *145*
  status of internal battery *83*
Baud *114*
beeper
  description of beep conditions *41*
BKSP *36*
BKSP Key *36*
BLUE Key *35*
Bluetooth radio
  changing device name *97*
  device service profiles *93*
  enabling *85*
  ISM band *91*
  peripherals *125*
  PINs for devices *94*
  radio configuration *91–97*
  setup *91*
Bootloader (Shutdown menu) *58*
Bright For, backlight *72*
BSP, *Bluetooth* Controls *97*

C

cables
  installing in vehicle *136*
calibrating (touchscreen) *38, 86*
card slot power *85*
card slots (Devices), enabling power to *85*
Cases *111*
CH, *Bluetooth* Controls *93*
changing password (Start Menu security) *53*
Click Data *110*
Click Time *110*
cold reset *29*
Cold Reset (Shutdown menu) *59*
COM, *Bluetooth* Controls *97*
Command Prompt *54*
communication
  Ethernet connection *126*
Communities *117*
connecting devices to PCs *43*

Download from Www.Somanuals.com. All Manuals Search And Download.

connection list table, *Bluetooth* Controls *96*
Contact *116*
Contacts *116*
control panel
accessing *65*
Display Properties *70*
icons *66*
keyboard properties *72*
power management properties *82*
stylus properties *85*
CTRL Key *36*
cycle tasks *56*

D

data
entering
with a bar code reader *125*
Data Bits *115*
decoded (external) parameters *114*
decoded scanners *109*
DEL Key *35*
desktop connection, remote *65*
Device Name, changing *97*
dialog box, using *59*
Dim For, backlight *72*
dismounting partitions *100*
display
appearance (colour scheme) *70*
background (control panel) *70*
backlight *71*
Display Properties *70*
Display (scanning) *110*
Display Properties *70*
Double Click *110*
Double-Click, Manage Triggers menu *88*
Double-Tap (stylus settings) *86*
DSSS, 802.11g radio *145, 146*
DUN service, *Bluetooth* *93*

E

EAP (Extensible Authentication Protocol) *14*
Enable SNMP *117*
encryption
TKIP (Temporal Key Integrity Protocol) *13*
WEP (Wired-Equivalent Privacy) *12*
Encryption, *Bluetooth* Controls *94*
END *36*
END Key *36*
ESC Key *36*
Extensible Authentication Protocol (EAP) *14*
external device
taskbar icons *40*

F

features, of 8515 *4*
formatting
entire memory card *98*
partitions *100*
Function Keys *36*

G

Good Scan Beep *111*

H

HOME *36*
HOME Key *36*

I

IEEE 802.11 radio, configuring *9*
indicators
external device *40*
modifier keys *40*
onscreen *39*
power *40*
radio signal quality *40*
scanner message *42*
security level *40*
task bar *50*
tooltips *51, 56*
Infrastructure network *12*
input
bar code reader *125*
Input Panel *105*
Input Panel (control panel) *67*
INS Key *35*
installation
non-vehicle *137*
safeguards *128*
vehicle *137*
8515 cables to devices *136*
Intensity (7035 backlighting) *72*
Intensity, backlighting *74*
Internet Explorer *54*
IP address, assigning *15*

Download from Www.Somanuals.com. All Manuals Search And Download.

ISM band, *Bluetooth* radio *91*

K

keyboard
- key repeat *72, 73*
- one shot mode *74*

keyboard backlight *38*
keyboard keys *34*
- ALT *36*
- arrow keys *35*
- BKSP *36*
- BLUE key *35*
- CTRL *36*
- DEL *35*
- END *36*
- ESC *36*
- Function keys *36*
- HOME *36*
- INS *35*
- macro keys *37, 75*
- modifiers *34*
- navigating using the keyboard *47*
- one shot mode *74*
- ORANGE key *35*
- SHIFT *35*
- SPACE *36*
- TAB *36*

Keyboard Properties *73*
- backlight *73*
- lock sequence *80*
- one shot mode *74*

Keyboard Properties *72–80*
Key Index, assigning *14*
Key Repeat tab *72*

L

LANAccessUsingPPP service, *Bluetooth* *93*
Location *116*
lock sequence, keyboard *80*

M

Macro keys
- accessing *37*
- executing a macro *76, 77*
- Macros menu, accessing *75*
- recording and saving *75*

maintenance *43*
Manage Triggers *87*
Marvell-88W8300 802.11g PC Card radio (Model RA2040)
- configuring *9*
- specifications *145*

memory card
- creating partitions *99*
- formatting entire *98*
- formatting partition *100*

modifier keys *34*
- locking *34*
- **One Shot Mode** *74*
- unlocking *34*

mounting partitions *101*

N

Name *117*
name servers, assigning *16*
network
- Ad Hoc *12*
- connection, monitoring *42*
- infrastructure *12*

network authentication *13*
Network Key, assigning *13*

O

OFDM, 802.11g radio *145*
one dimensional internal scanner *42*
One Shot Mode *74*
Open (network authentication) *13*
optional mount kits *135*
Options (scanning) *109*
ORANGE Key *35*
Outgoing, *Bluetooth* Controls *95*

P

Parity *115*
partitions
- creating *99*
- deleting *100*
- dismounting *100*
- formatting *100*
- management *100*
- mounting *101*

PDF scanner, operating *42*
PIN, *Bluetooth* Controls *93*
PINs, *Bluetooth* devices *94*
pocket PC compatibility *65*
Port Prefix, *Bluetooth* Controls *97*
ports

Download from Www.Somanuals.com. All Manuals Search And Download.

dust caps *43*
pinouts *1*
power
AC *137*
DC *137*
extension power cable *137*
pre-regulator *137*
Power (Serial Port) *114*
power icon *40*
Power Management Properties *82*
devices (card slots) *85*
suspend, power saving *83*
power up 8515 *8*
preferred networks *17*
pre-regulator, power *137*
Printer (serial service), *Bluetooth* *93*
profile, creating backup *102*
profile, restoring backup *105*
Programs
Command Prompt *54*
Internet Explorer *54*
Remote Desktop Connection *54*
Windows Explorer *54*
punctuation marks, accessing (SHIFT Key) *35*

R

radio
adding new network connection *12*
advanced settings of *16*
Bluetooth *91–97*
configuring
adding a new network connection *12*
Ad Hoc *12*
authentication, network *13*
Connect button *11*
EAP (Extensible Authentication Protocol) *14*
Infrastructure *12*
Key Index *14*
Key Index, assigning *14*
network authentication *13*
Network Key *13*
Network Key, assigning *13*
wireless information *11*
wireless properties *12*
802.1X authentication *14*
Connect button *11*
IP address, assigning *15*
name servers *16*
preferred networks, arranging *17*
RA2040 (Marvell)
configuring *9*
specifications *145*
RA2041 (Summit)
configuring *17*
specifications *146*
SCU *17*
signal quality *40*
Summit DC-802.11 SC CF radio (Model RA2041)
configuring *17*
specifications *146*
wireless connection, setting up *9*
802.11, configuring *9*
802.11g Direct Sequence SS *145, 146*
radio specifications *145*
RAM Mounting Kit
Circular Base *133*
installing *126*
specifications *129*
Vesa Base *133*
RA2040 (Marvell) radio
configuring *9*
specifications *145*
RA2041 (Summit radio)
configuring *17*
specifications *146*
recalibrating (touchscreen) *38, 86*
regulatory approvals *144*
Remote Desktop Connection *54*
remote desktop connection *65*
Repeat Delay (between key repeats) *73*
Repeat Rate (of key repeats) *73*
Repeat tab (key repeat settings) *72*
resetting the vehicle-mount *29*
cold reset *29*
warm reset *29*
Rights *117*
Run (Start Menu) *57*

S

safety instructions
general *ix*
Scan Indicator *111*
Scan Log File *111*
scanning

Download from Www.Somanuals.com. All Manuals Search And Download.

Bad Scan Beep *111*
Cases *111*
Click Data *110*
Click Time *110*
decoded *109*
decoded (external)
Serial Port *114*
Display *110*
Double Click *110*
Good Scan Beep *111*
LED Indicators *41*
Options Tab *109*
PDF scanner, operating *42*
Scan Indicator *111*
Scan Log File *111*
Scan Result *110*
Scan Result Time *111*
Soft Scan Timeout *111*
techniques *41*
Translations Tab *111*
troubleshooting *42*
1D Laser, operating *42*
Scan Result *110*
Scan Result Time (sec) *111*
screen
stylus, using to navigate *47*
touch pen, using *47*
Windows Embedded CE 5.0, navigating *47*
SCU (Summit Client Utility) *17*
Config Tab *21*
configuring *18*
Diags (Diagnostics) Tab *28*
EAP Credentials *25*
EAP Types *23, 24*
Global Settings Tab *25*
IP, assigning *18*
Main Tab *18, 20*
security *23*
Status Tab *28*
ThirdPartyConfig *25*
Windows Zero Config (WZC) *25*
WLAN, connecting to *18*
security level icon *40*
Security Settings *52*
changing password *53*
configuring taskbar *53*
level *53*
Supervisor *53*
Teklogix *53*
User *53*
Serial Port settings *114*
Baud *114*
Data Bits *115*
Parity *115*
Power *114*
Stop Bits *115*
Servers, *Bluetooth* Controls *95*
Services, *Bluetooth* Controls *93*
Set PIN, *Bluetooth* Controls *94*
Settings
Control Panel *57*
Network and Dial-up connections *57*
Run *57*
Taskbar and Start Menu *57*
Shared Mode (network authentication) *13*
SHIFT Key *35*
Shutdown
Bootloader *58*
Cold Reset *59*
Suspend *58*
Warm Reset *59*
Shutdown (Start Menu) *58*
signal quality, radio *40*
Simple Network Management (SNMP) *See* **SNMP** *115*
SIP *105*
SIP (Soft Input Panel *67*
slot power status, built-in device, enabling *85*
SNMP (Simple Network Management Protocol) *115*
Communities *117*
Contact *116*
Contacts *116*
Enable SNMP *117*
Location *116*
Name *117*
Rights *117*
Soft Input Panel (SIP) *67*
soft keyboard *105*
Soft Scan Timeout *111*
SPACE Key *36*
specifications
battery *145*
radios *145*
scanners *147*
8515 *143*

Download from Www.Somanuals.com. All Manuals Search And Download.

Start Menu *52*
cycle tasks *56*
desktop *52*
programs *54*
Run *57*
Security *52*
Settings *57*
Shutdown *58*
system tray *56*
task manager *56*
Stop Bits *115*
stylus (touch pen), using *34, 47*
Stylus Properties *85*
Double-tap (stylus sensitivity) *86*
Summit Client Utility (SCU) *17*
Summit DC-802.11 SC CF radio (Model RA2041)
configuring *17*
specifications *146*
Supervisor security level *53*
Suspend (Shutdown menu) *58*
suspending power *83*
system tray *56*

T

TAB Key *36*
taskbar
onscreen indicators
external device *40*
modifier keys *40*
power *40*
radio signal quality *40*
security level *40*
tooltips *51, 56*
using *50*
task manager *56*
Teklogix security level *53*
TKIP (Temporal Key Integrity Protocol) encryption *13*
tooltips (taskbar) *51, 56*
Total Recall *102*
backup profile, creating *102*
backup profile, restoring *105*
touch pen, using *47*
touchscreen
recalibration *38, 86*
stylus, using *47*
touch pen, using *47*
touchscreen, disabling *87*
Translations (scanning) *111*
trigger mappings *88*
triggers, configuring *87*
Trigger Type, Manage Triggers menu *90*
turning 8515 on and off *8*

U

USB-Ethernet adaptor cable (WA4010) *126*
User security level *53*

V

vehicle-mount installation *132*
accessories list *128*
cables *136*
RAM Circular Base *133*
RAM Vesa Base *133*

W

warm reset *29*
Warm Reset (Shutdown menu) *59*
WEP (Wired-Equivalent Privacy) encryption *12*
Wi-Fi Protected Access Pre-Shared Key (network authentication) *13*
Wi-Fi Protected Access-WPA (network authentication) *13*
Windows Embedded CE 5.0
dialog box *59*
files, folders, & programs, working with *48*
Windows Embedded CE 5.0, navigating in *47*
Windows Explorer *54*
Windows Mobile Device Center *43*
Windows Start Menu *See Start Menu*
Windows Vista™, connecting to *43*
Windows Zero Config (WZC) *25*
Windows 2000 or XP, connecting to *43*
wireless connection setup *9*
Wireless Information Tab *11*
Wireless Properties tab *12*
WPA (network authentication) *13*
WPA-PSK (network authentication) *13*
WZC (Windows Zero Config) *25*

1D internal scanner *42*
802.1X authentication, enabling *14*

Download from Www.Somanuals.com. All Manuals Search And Download.

802.11b radio, configuring *9*
802.11g radio *146*

Download from Www.Somanuals.com. All Manuals Search And Download.

Download from Www.Somanuals.com. All Manuals Search And Download.

Free Manuals Download Website

http://myh66.com

http://usermanuals.us

http://www.somanuals.com

http://www.4manuals.cc

http://www.manual-lib.com

http://www.404manual.com

http://www.luxmanual.com

http://aubethermostatmanual.com

Golf course search by state

http://golfingnear.com

Email search by domain

http://emailbydomain.com

Auto manuals search

http://auto.somanuals.com

TV manuals search

http://tv.somanuals.com