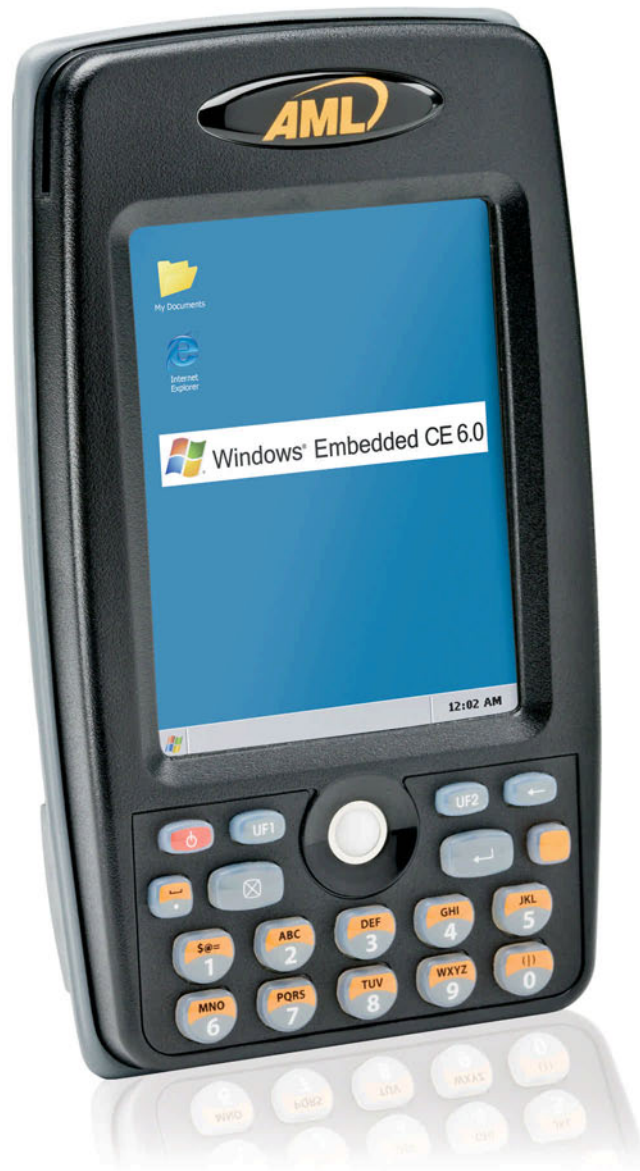


M8050

Compact Handheld Computer



User's Guide

Effective date: March 2009

Revision History

February 5, 2009 - Initial version

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FCC Declaration of Conformity

Product Name: Model 8050 Wireless Handheld Computer

Model Number: M8050

Radio Frequency Interference Requirements

This equipment complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This equipment may not cause harmful interference, and (2) this equipment must accept any interference received, including interference that may cause undesired operation.

This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a residential environment. 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 you determine the equipment does cause harmful interference to radio or television reception (this may be determined by monitoring the interference while turning the equipment off and on), you are 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 or TV technician for help.

Changes or modifications not expressly approved by American Microsystems, Ltd. could void the user's authority to operate the equipment.

Normalización y Certificación Electronica (NYCE)



Safety

NOM/NYCE-NOM-019-SCFI-1998

Safety of data processing equipment

American Microsystems, Ltd.
2190 Regal Parkway • Euless, TX 76040
Phone 800.648.4452 • Fax 817.685.6232
www.amltd.com

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1

Introduction

This chapter gives an overview of the M8050.

M8050 Introduction

The M8050 combines a compact form factor with powerful features to efficiently handle data collection and real-time transactions in your business. More durable than a standard commercial PDA device, the M8050 is built to withstand the rigors of everyday enterprise use.

Sealed to IP54 specifications and designed to withstand multiple drops to concrete, the M8050 delivers reliable performance and long-term dependability for hospitality, retail and healthcare data collection applications.

Purpose built for ease of use, high-value functionality and power manageability, the M8050 is equipped with a QVGA color graphic display with touch screen, WLAN 802.11b/g radio, a backlit 18-key keypad with trackball, a built-in speaker and Bluetooth® WPAN connectivity. The M8050 includes a fully functional magnetic stripe reader capable of reading most magnetic striped plastic cards.

Its Samsung® S3C2440 processor runs your choice of embedded Linux® or Windows® CE, while generous 128 MB RAM and 128MB Flash ROM provide adequate storage for data and system files.

Full-shift productivity is ensured by the M8050's efficient power management capabilities that easily support all-day operation without recharging.

Priced affordably but rich with features, the M8050 delivers all the critical functionality you need to efficiently scan, transfer and access real-time information in your business operations.

Unpacking

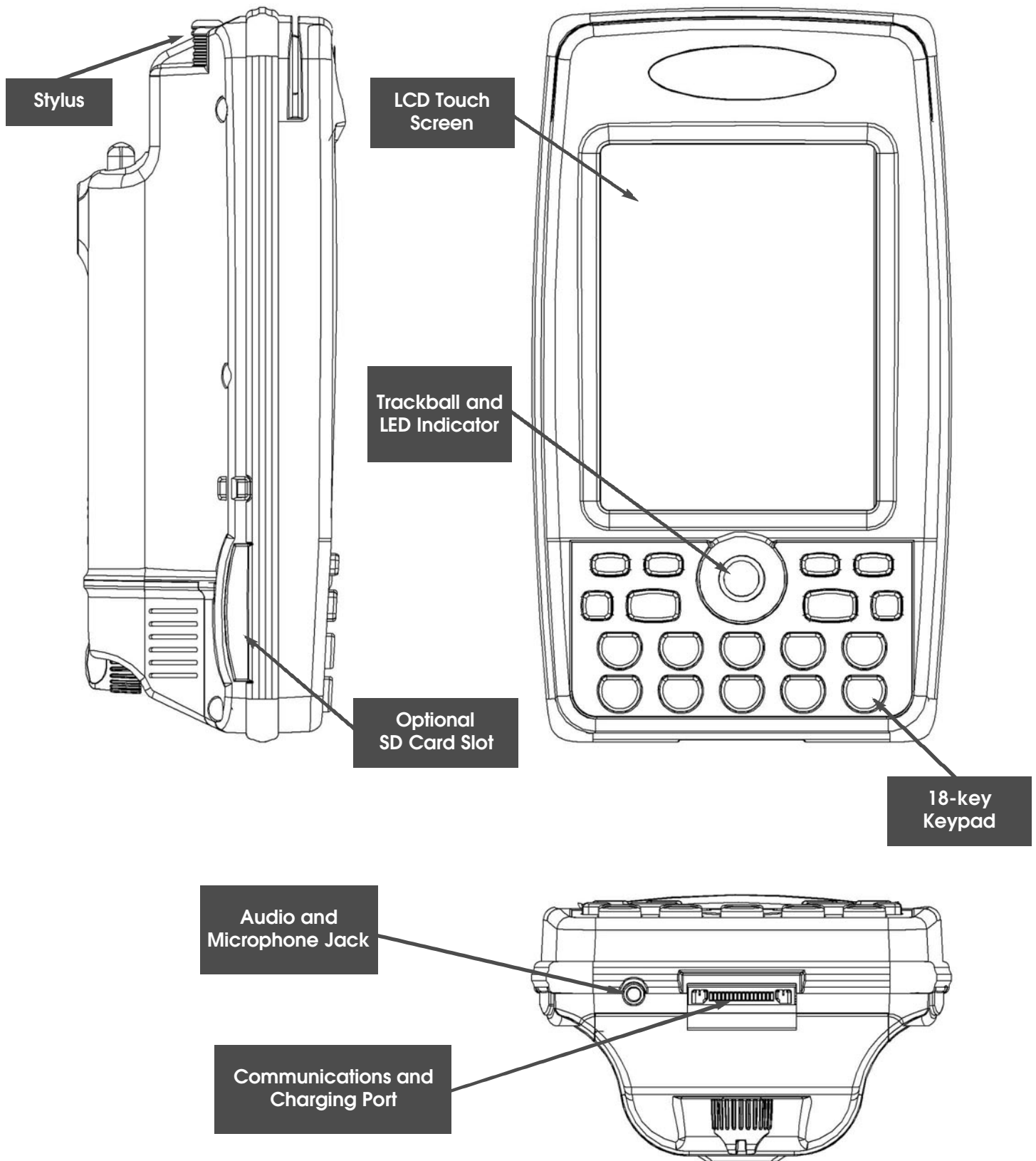
The M8050 computer comes with the following items. If any of the items are missing or damaged please contact AML for assistance.

M8050 Computer:	1ea
M8050 Li-Ion Battery:	1ea
M8050 Stylus:	2ea

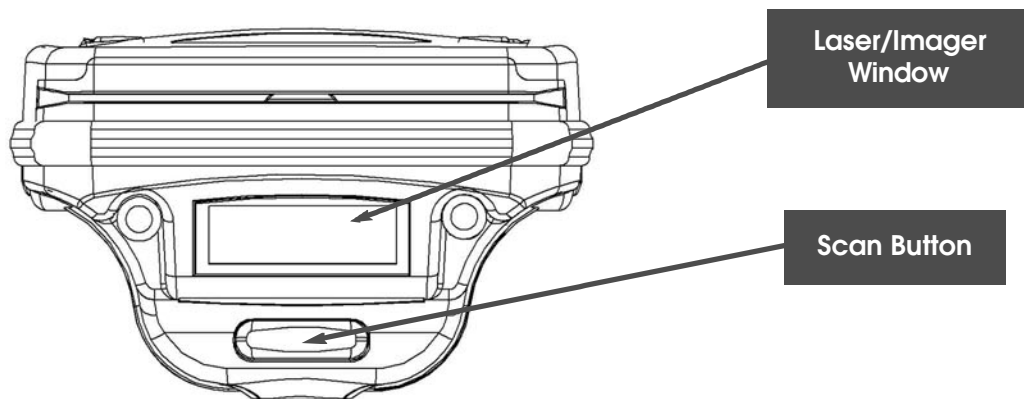
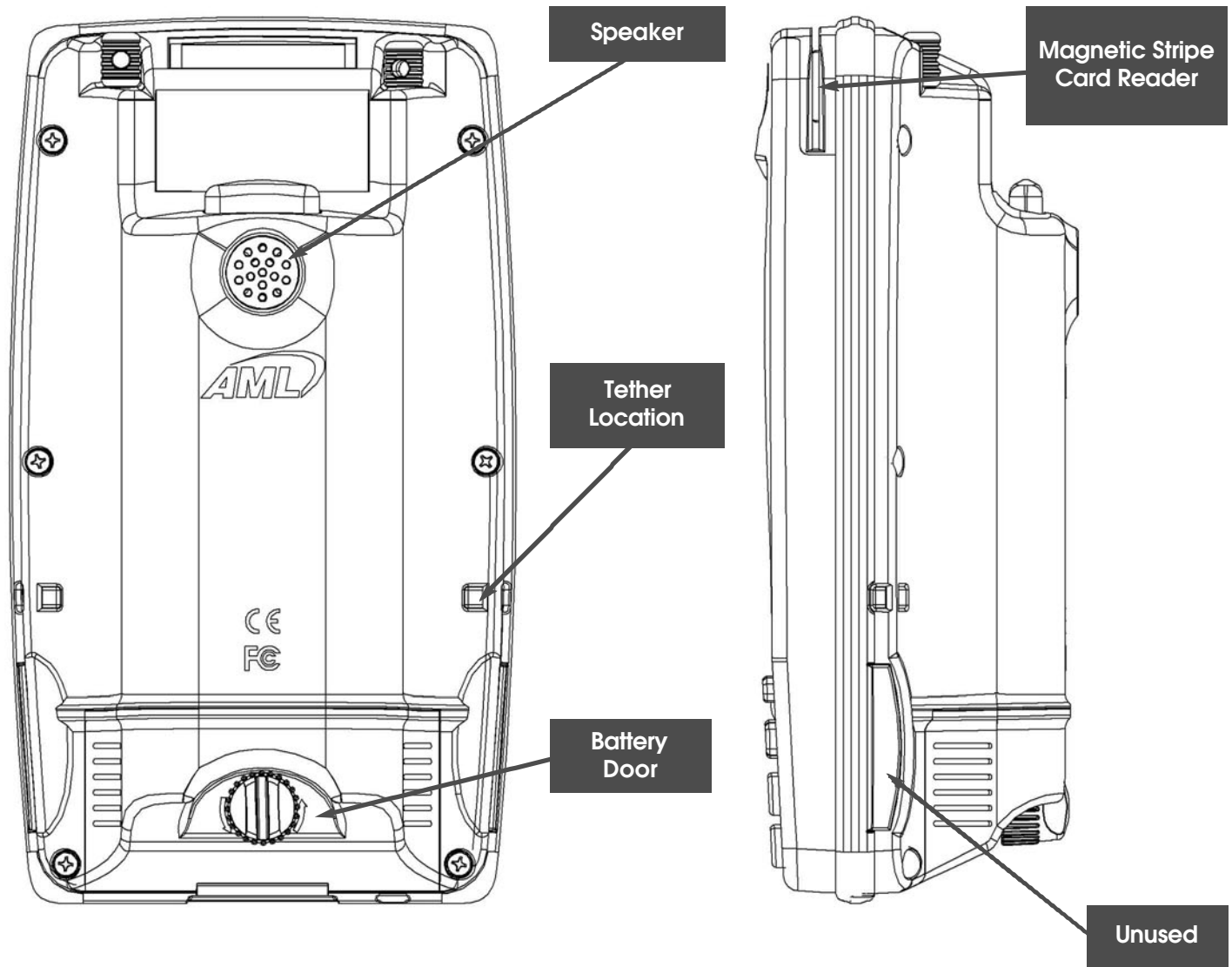
Sold separately

M8050 Charging Cradle:	1ea
M8050 Power Convertor:	1ea

M8050 Computer Description (front)

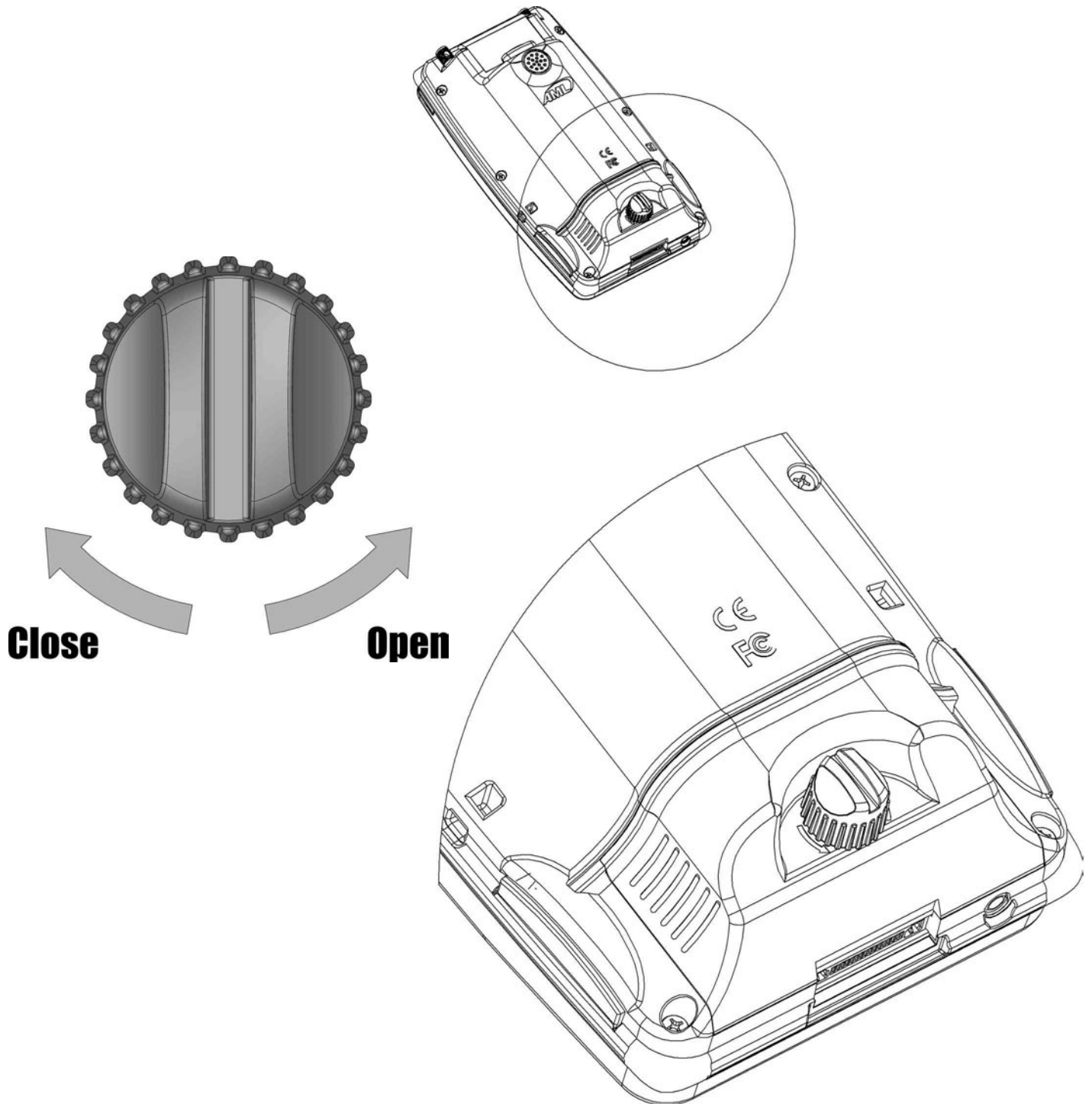


M8050 Computer Description (back)



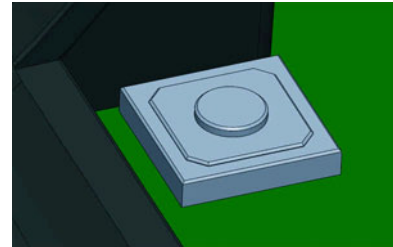
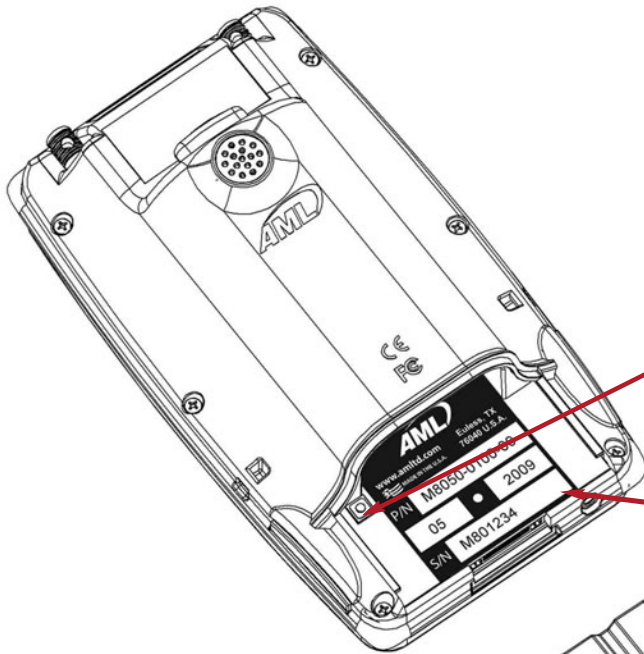
M8050 Battery Compartment

To open the battery compartment unscrew the battery door knob approximately 3 full revolutions. Grasp the door and slide the door backwards. To close the compartment slide the door closed tightly and turn the screw closed.



M8050 Battery Installation

The Battery compartment houses the battery and allows access to the Master Reset Switch.



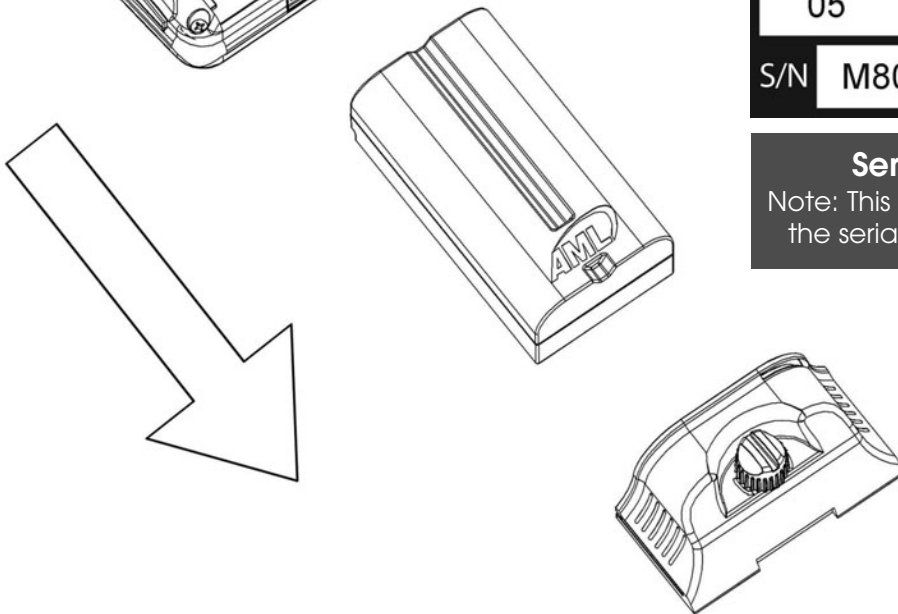
Reset Switch

Note: Use the reset switch only if the computer becomes un-responsive.

P/N	M8050-0100-00	
	05	2009
S/N	M801234	

Serial Label

Note: This is the location of the serial number label.

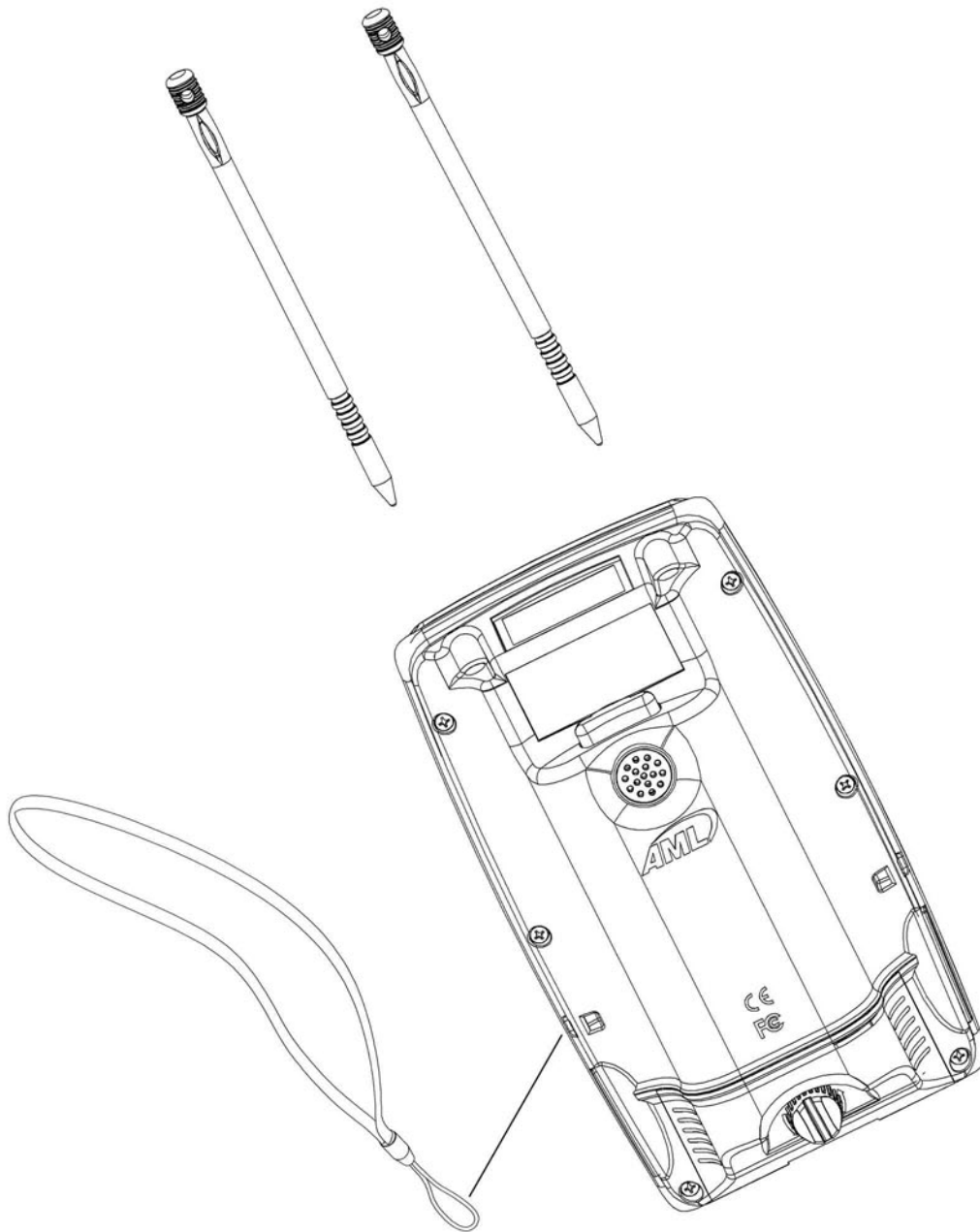


Backup Battery

The M8050 computer has an internal backup battery that keeps the computer running during main battery replacement. The unit will run for approximately 30 minutes on the backup battery. The backup battery is automatically charged from the main battery.

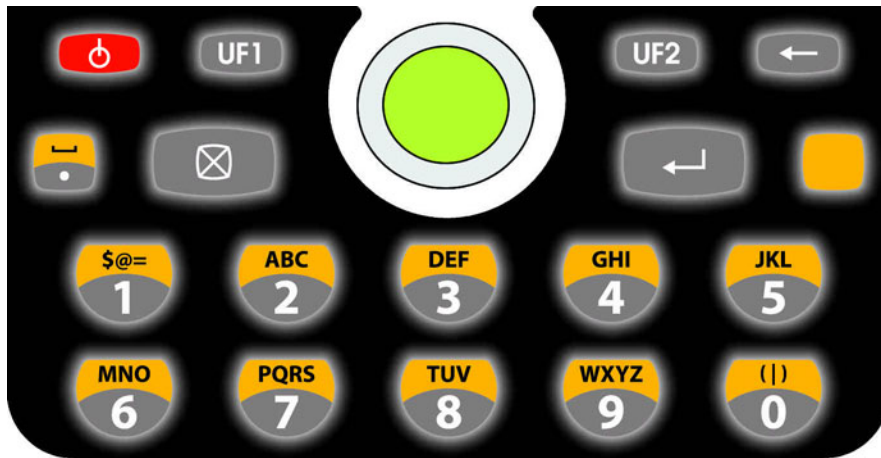
M8050 Stylus and Optional Tether

The M8050 has the ability to house 2 styluses. Additional or lost styluses can be purchased from AML. The M8050 also has an anchor point for an optional tether on the right or left side of the computer.



M8050 Keypad Description

The M8050 has an small easy to use 18 key keypad with an illuminated trackball for mouse control. The M8050 keypad was designed for quick entry of numeric data but can also be used for alpha data input.



The power ON/OFF key



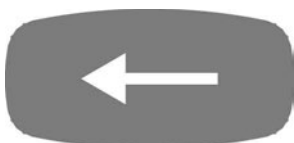
User definable key 1 (*Plus key by default*)



User definable key 2 (*Minus key by default*)



User definable key 3 (*Escape key by default*)

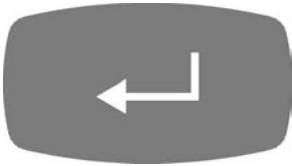


Backspace key

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Period or decimal point and *shift* space key



Carriage return key



Mode key
Press once for UPPER CASE.
Press again for lower case.
Press once more to return to numeric.



Number 1 key and *shift* \$ @ = key



Number 2 key and *shift* A B C key



Number 3 key and *shift* D E F key



Number 4 key and *shift* G H I key

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Number 5 key and *shift* J K L key



Number 6 key and *shift* M N O key



Number 7 key and *shift* P Q R S key



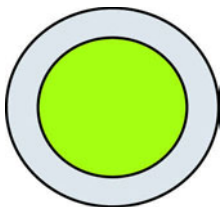
Number 8 key and *shift* T U V key



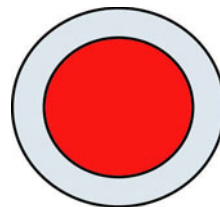
Number 9 key and *shift* W X Y Z key



Number 0 key and *shift* (|) key



Trackball with Good
Scan LED illuminated



Trackball with Bad
Scan LED illuminated

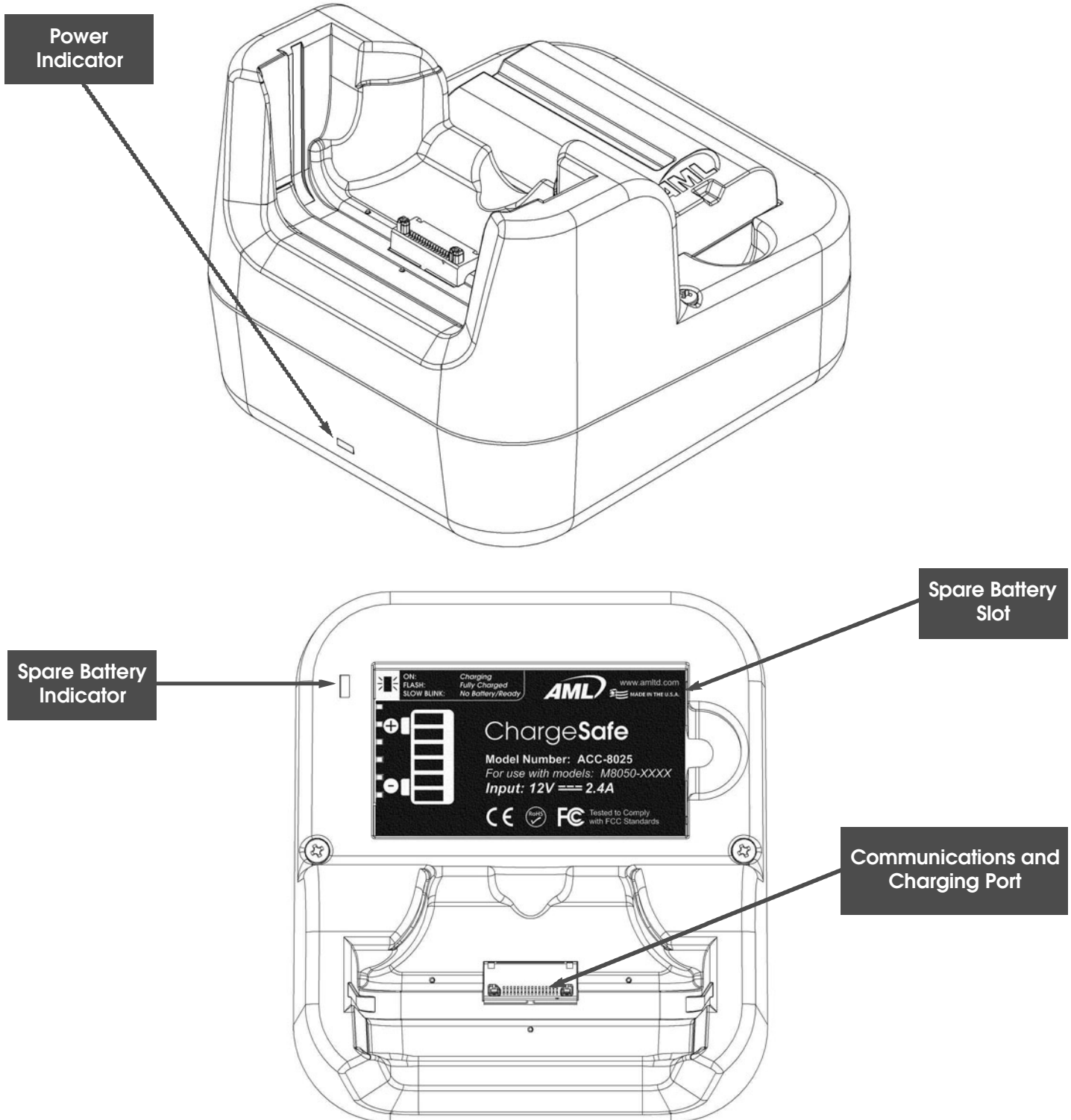
2

M8050 Charging Cradle

This chapter gives an overview of the M8050 charging cradle.

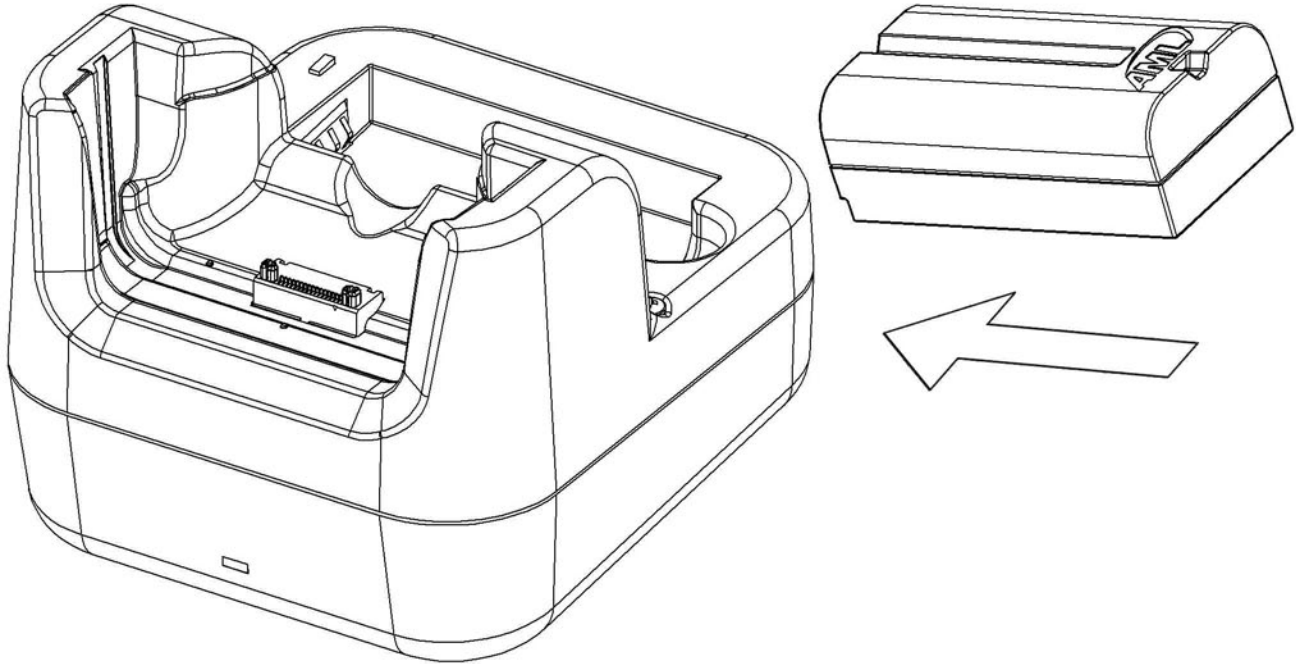
M8050 Cradle Description

The M8050 Cradle is designed to hold and charge the computer and an additional spare battery.

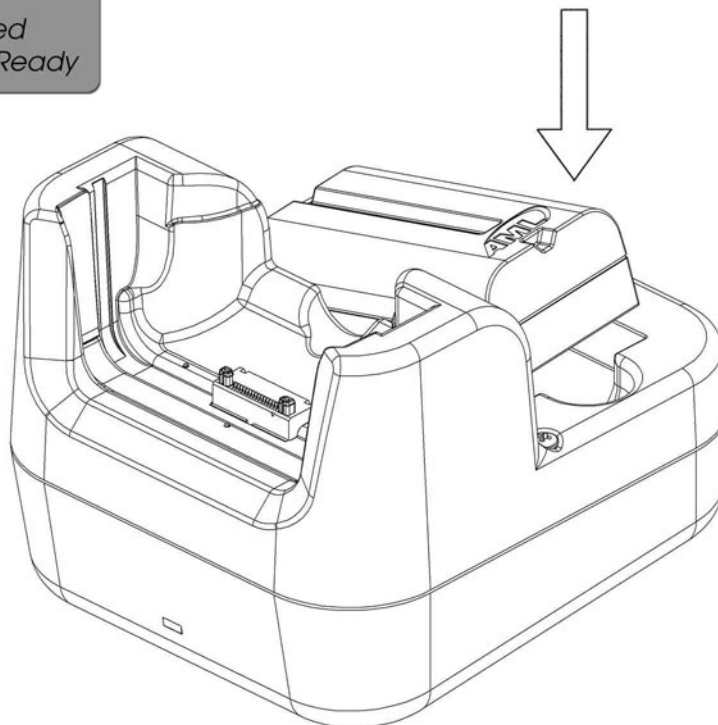


M8050 Cradle Battery installation

To install the spare battery, slide the contact side into the cradle slot and then push the battery down into pocket. The green LED will indicate when the battery is fully charged.

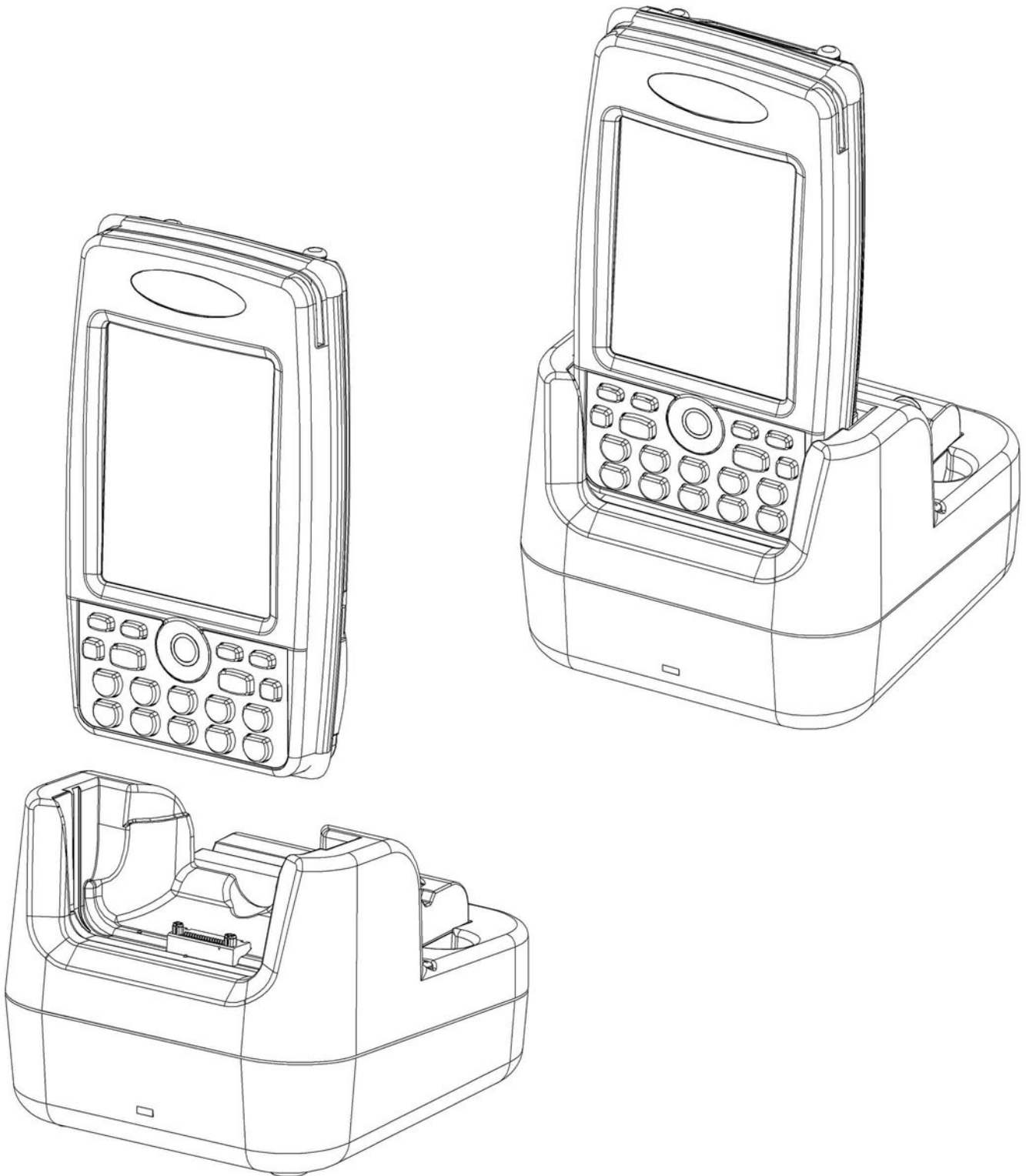


ON: Charging
FLASH: Fully Charged
SLOW BLINK: No Battery/Ready



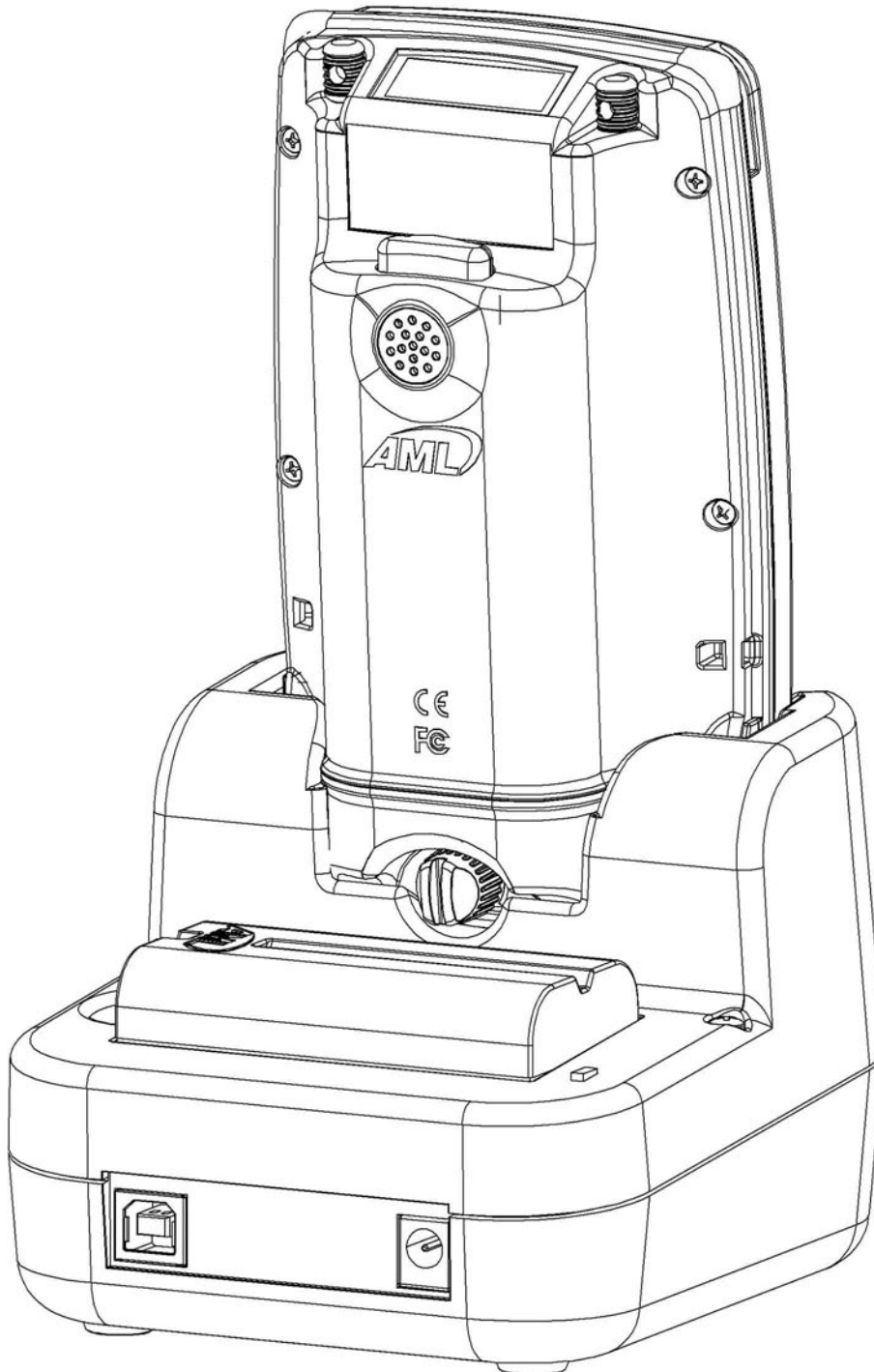
M8050 Cradle Computer Installation

The M8050 computer slides down into the cradle and is locked into the bottom connector.



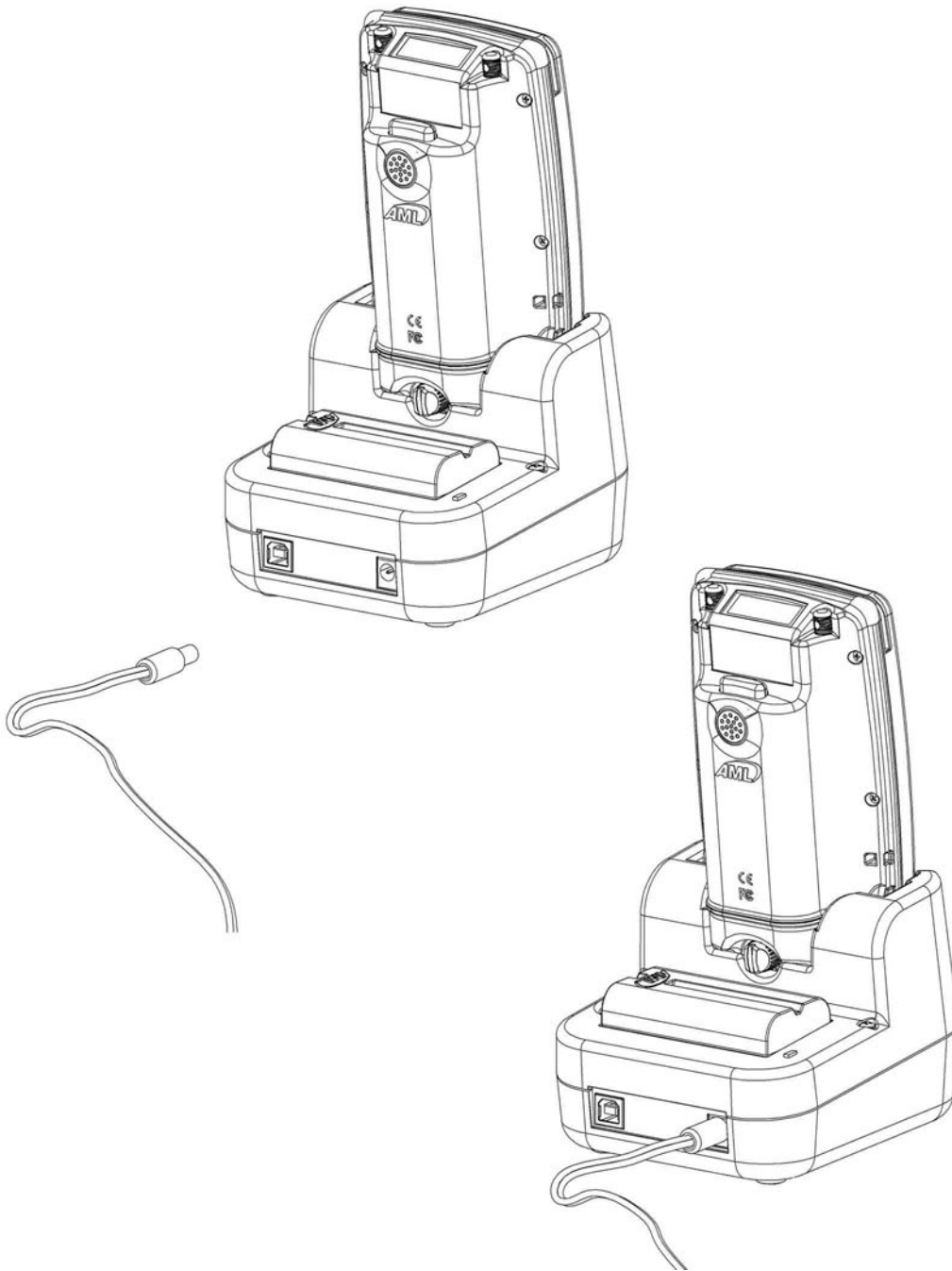
M8050 Cradle Connections

The M8050 computer has a power input connector and an USB connector for attaching to a standard PC. The M8050 computer can be operated when it is in the cradle. The M8050 computer's internal battery is automatically charged when the unit is in the computer.



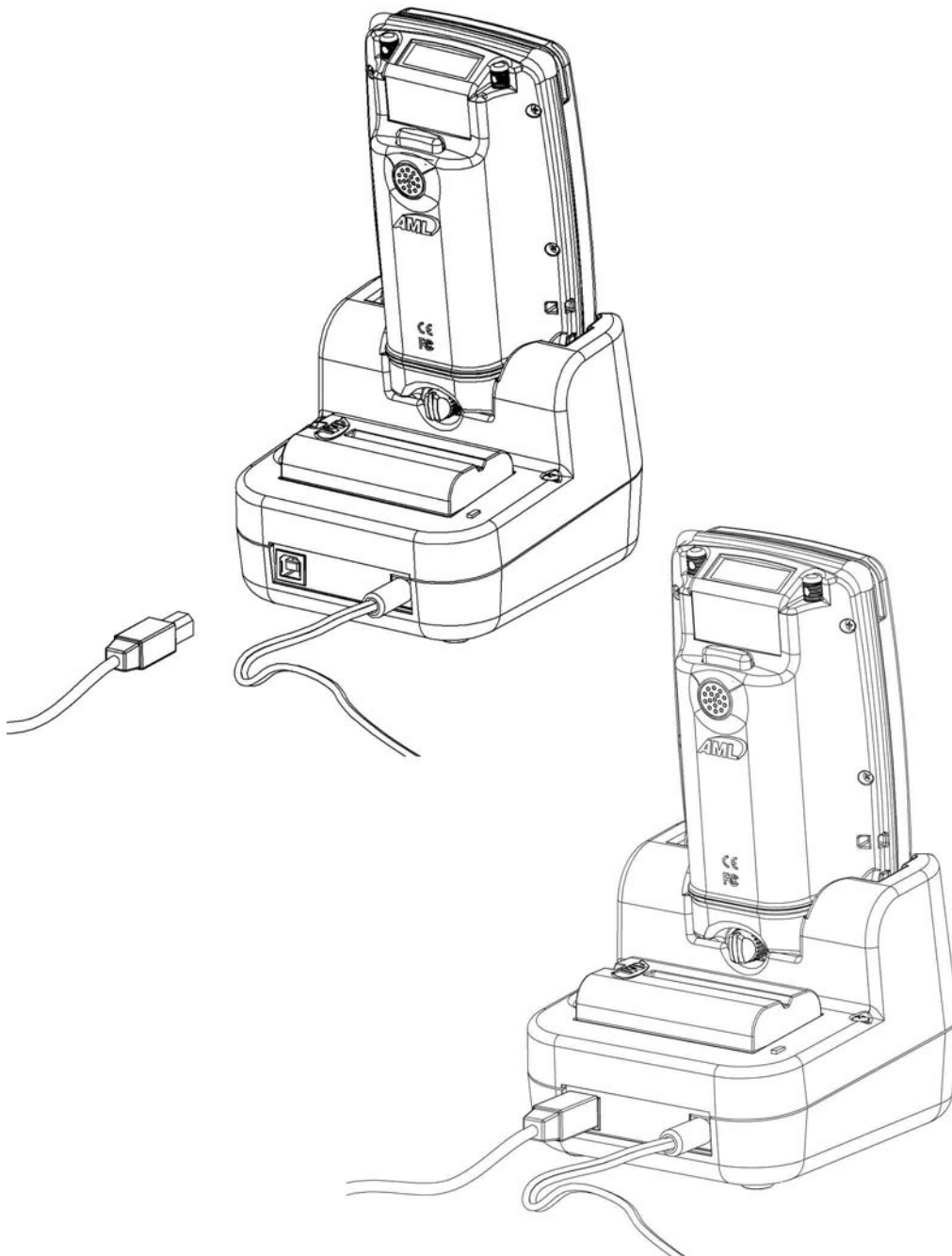
M8050 Power Connection

To connect the power to the computer simply plug in the DC jack into the appropriate plug. The green LED on the front of the unit should be illuminated. Use only the DC power converter supplied with the M8050 cradle.



M8050 Communications Connection (USB)

To connect the M8050 cradle to a PC plug the USB connector into the computer's USB port. The Microsoft ActiveSync function will start automatically.



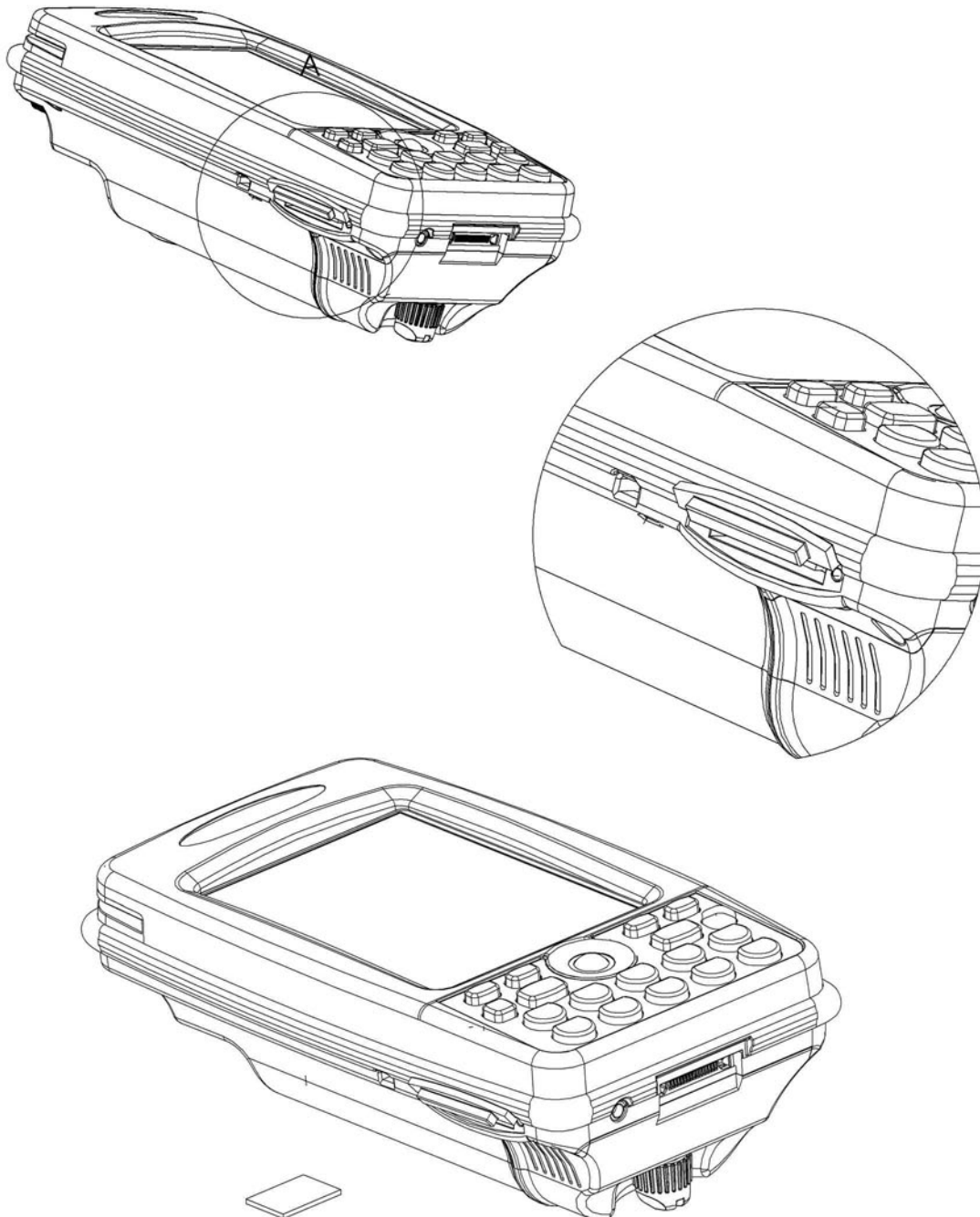
3

M8050 MicroSD Slot

This chapter gives a brief overview of the M8050's MicroSD slot.

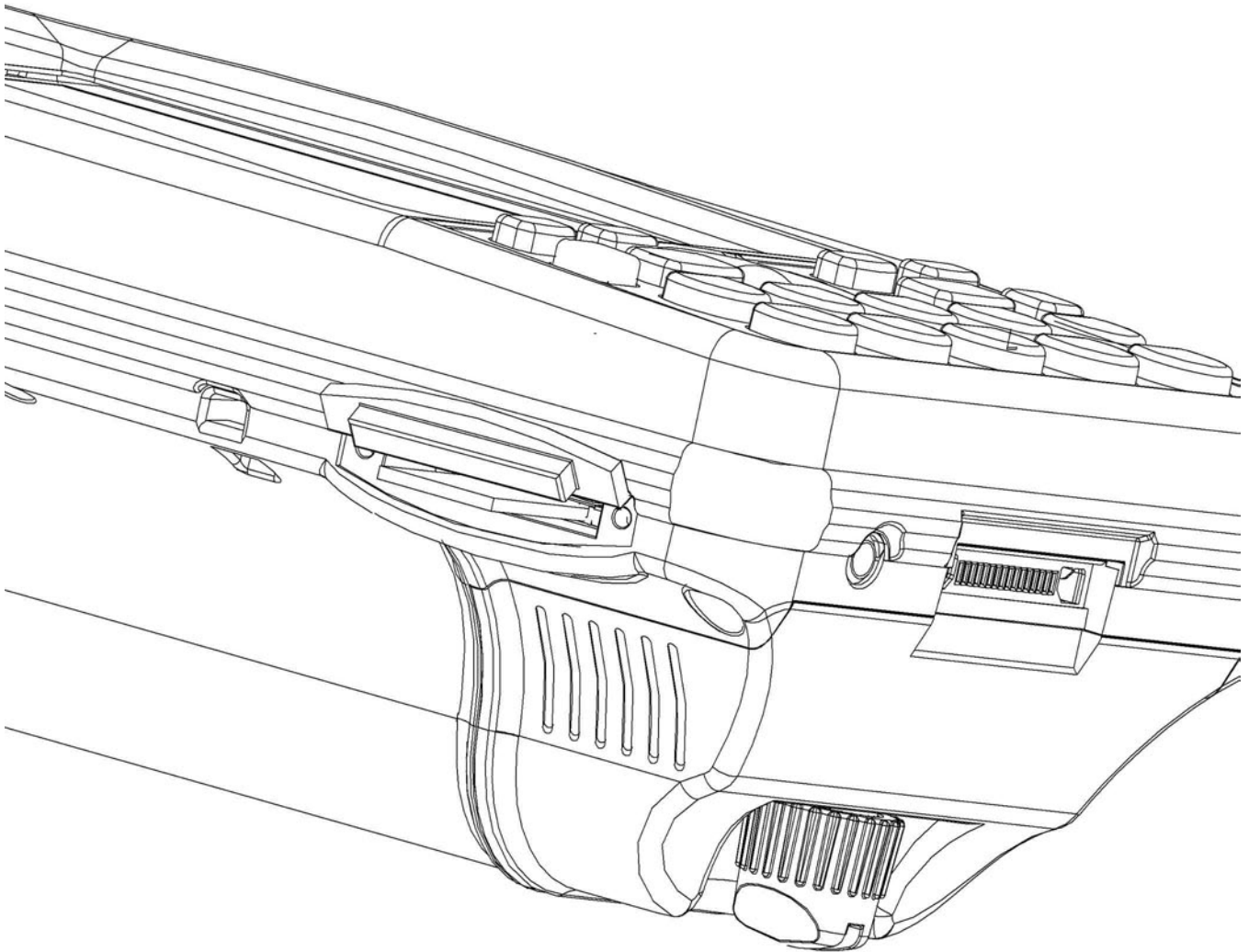
M8050 Memory Slot (micro SD)

The M8050 computer has a Micro Secure Digital (SD) Memory card slot on the left hand side of the computer. The slot on the right hand side of the computer is unused at this time. The slot can be accessed by bending the rubber door open, as shown below.



M8050 micro SD Card Installation

The micro SD Memory Card is slid carefully into the SD socket and then locked into place by a push-to-close, push-to-open mechanism. The card should not protrude when the card is properly installed.



The M8050 computer uses a standard Micro Secure Digital (SD) Memory card.

The memory card can be utilized for extra data storage or for program storage.

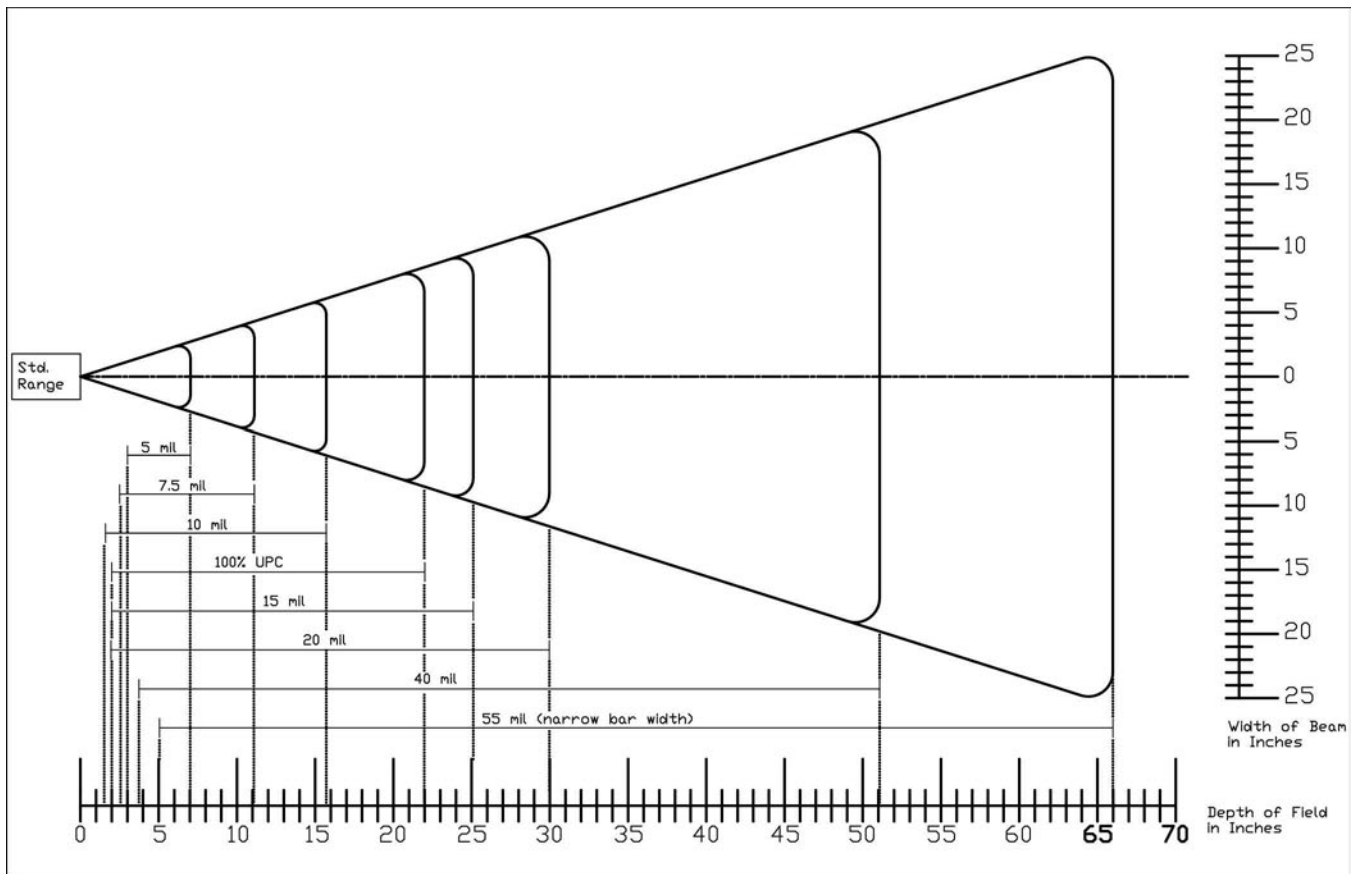
4

Integrated Data Capture

This chapter gives an overview of the M8050's integrated data capture options.

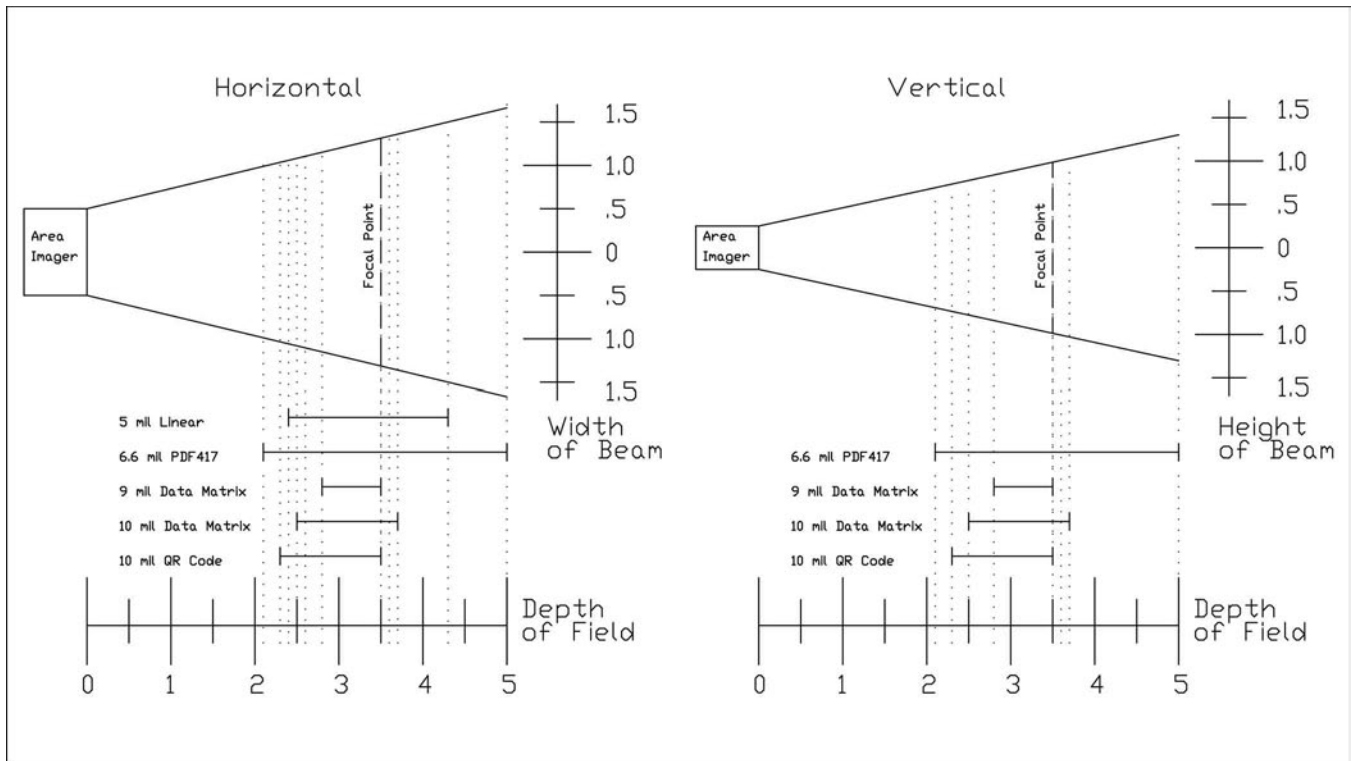
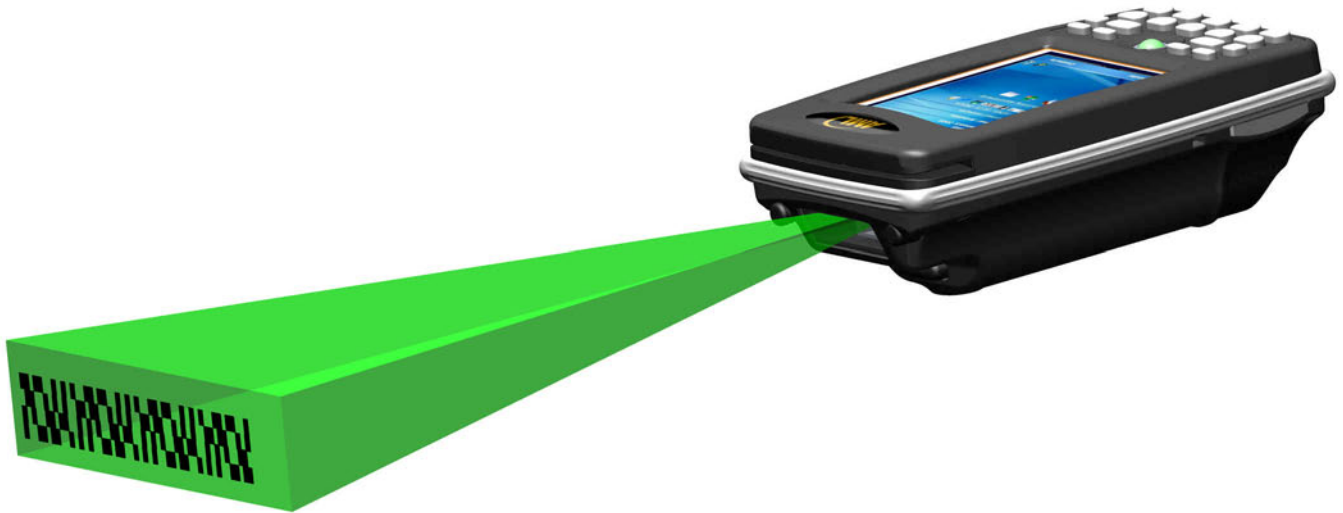
M8050 Scanner Description (Laser)

The M8050 computer comes standard with a laser scan engine. The performance of the engine is shown in the chart below.



M8050 Scanner Description (Imager)

The M8050 computer can be purchased with an optional 2D bar code scan engine. The performance of this engine is shown in the chart below.



Reading distance for the 2D Area Imager

Bar code symbologies are always measured in mils. This usually refers to the narrowest bar width. One mil equals 0.001", therefore a 0.010" width narrow bar would be a 10 mil bar code.

Conversion: 1 mil = 0.0254 mm
1 inch = 25.4 mm

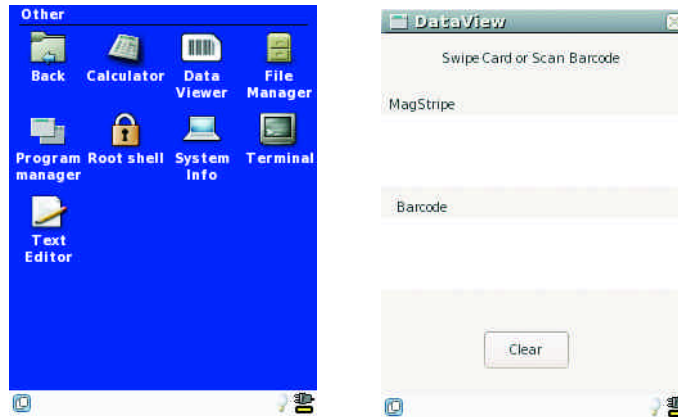
M8050 Integrated Magnetic Stripe Reader

The M8050 comes standard with an integrated magnetic stripe card reader (MSR). When using the integrated MSR, the magstripe must face the back (and bottom) of the handheld computer, as shown below.



M8050 DataViewer Application

The M8050 comes equipped with a standard DataViewer application.



5

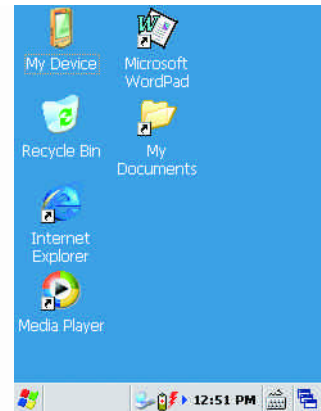
Windows® Embedded CE 6.0

This chapter gives an overview of the M8050 with Windows® Embedded CE 6.0.

M8050 Windows® Embedded CE Overview

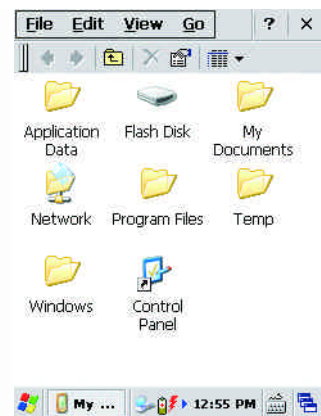
Home

The M8050 Handheld Computer starts at the home screen or Desktop.



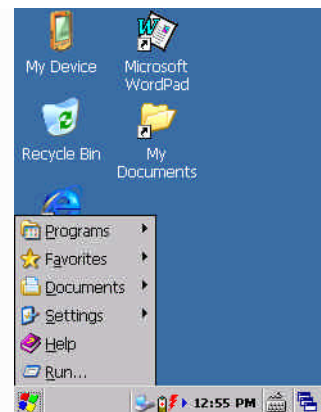
My Device

The My Device screen lists the file folders and commonly used functions such as the Control Panel.



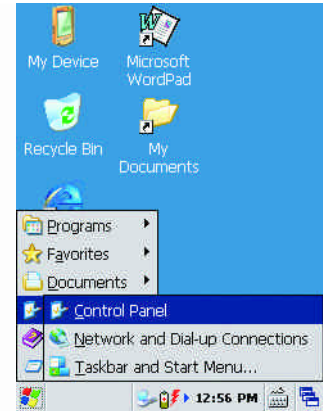
Start Menu

By tapping the small Windows flag in the lower left corner you can access the functions of the M8050 Handheld Computer.



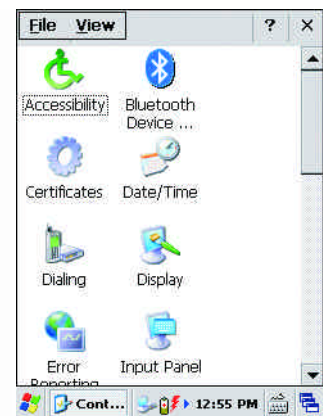
Settings (Control Panel)

By tapping and holding the Settings menu item brings up the sub-menu items.



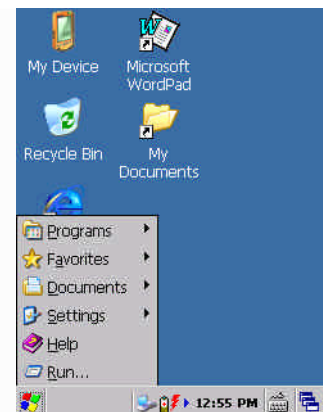
Settings

The Control Panel menu gives access to many of the settings of the M8050 Handheld Computer.



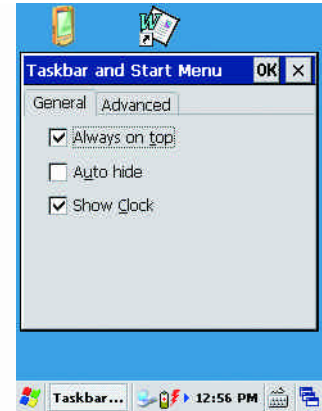
Network and Dial-up Connection

This screen shows the various types of external connections the M8050 Handheld Computer supports.



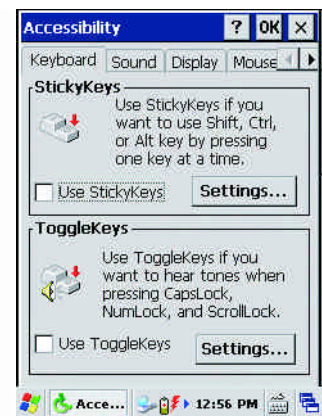
Taskbar and Start Menu

This screen allows the user to set the way the taskbar on the M8050 Handheld Computer operates.



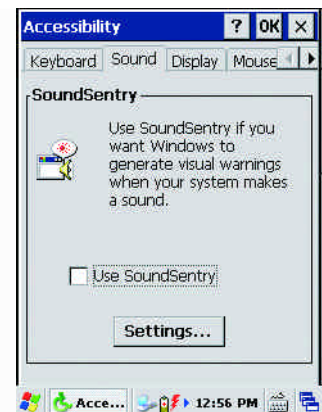
Accessibility (Keyboard)

This screen allows the user to setup how the keyboard works on the M8050 Handheld Computer.



Accessibility (Sound)

This screen allows the user to set visual prompts when a system alarm sounds.



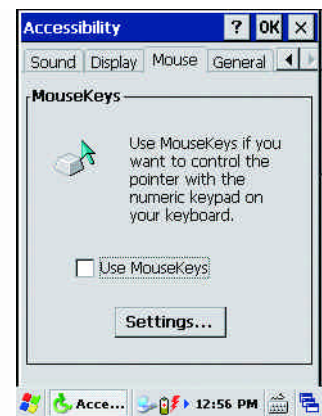
Accessibility (Display)

This screen allows the user to set the screen to high contrast.



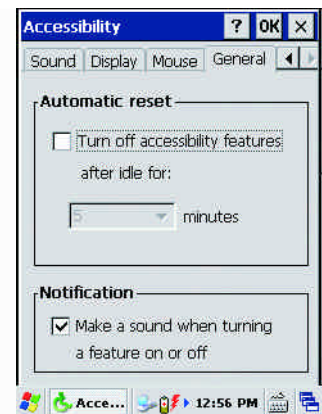
Accessibility (Mouse)

This screen allows the pop-up keyboard to control mouse movements.



Accessibility (General)

This screen allows the user to set a time out for user accessibility options.



Bluetooth Manager

The Bluetooth Manager allows the user to search for compatible Bluetooth enabled devices to connect to the M8050 Handheld Computer.



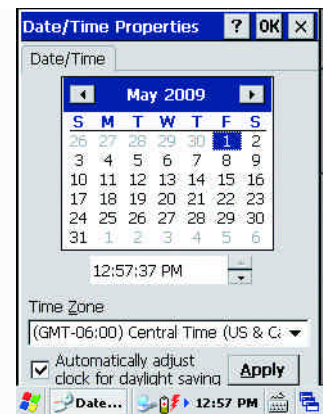
Certificates

Many websites offer a high level of security by issuing Trusted Certificates. These certificates can be managed on this screen.

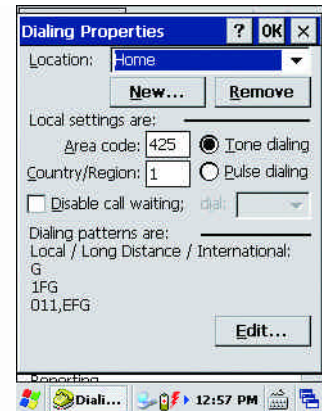


Date/Time Properties

This screen allows the user to set the current date and time and local time zone.

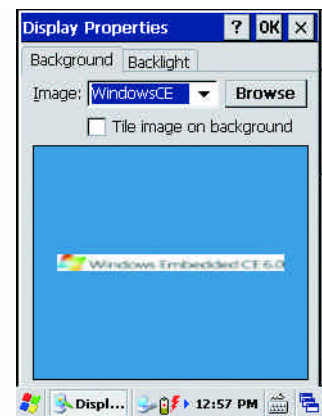


Dialing Properties



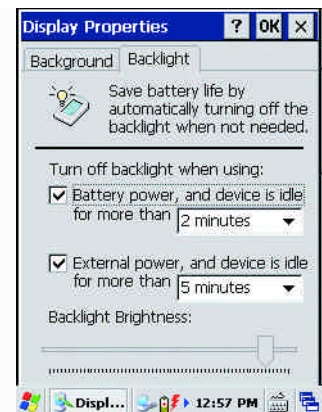
Display Properties (Background)

This screen allows the user to change the background picture or color.



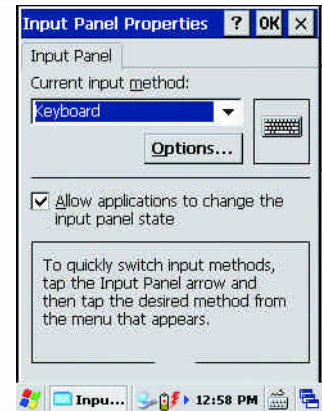
Display Properties (Backlight)

This screen allows the user to control the way the backlight functions.



Input Panel Properties

This screen allows the user to control the way the pop-up keyboard functions.



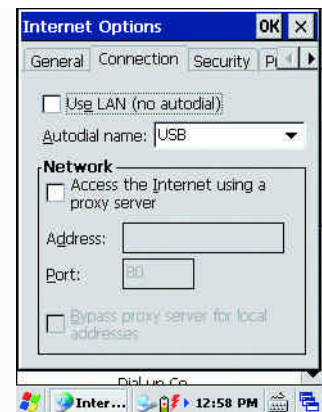
Internet Options (General)

The Internet Options screens allow the user to adjust how the internet explorer program operates.



Internet Options (Connections)

The Internet Options screens allow the user to adjust how the internet explorer program operates.



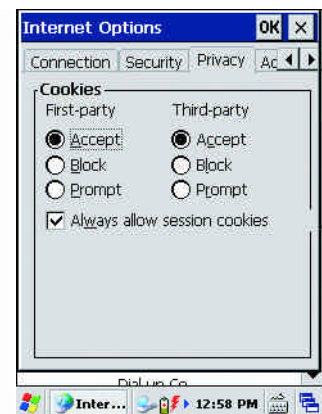
Internet Options (Security)

The Internet Options screens allow the user to adjust how the internet explorer program operates.



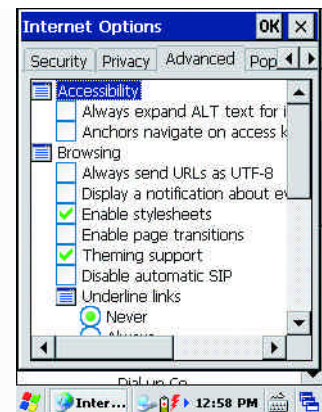
Internet Options (Privacy)

The Internet Options screens allow the user to adjust how the internet explorer program operates.



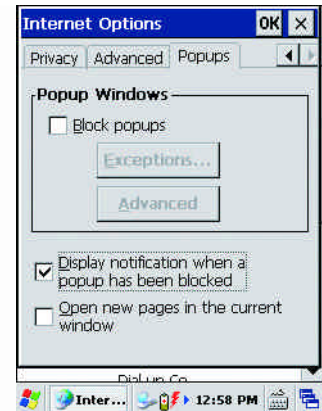
Internet Options (Advanced)

The Internet Options screens allow the user to adjust how the internet explorer program operates.



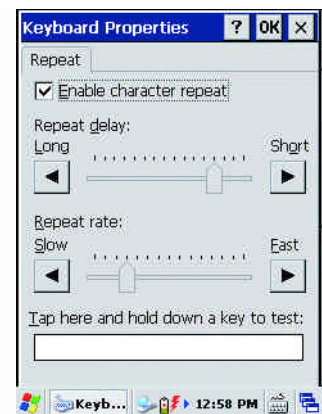
Internet Options (Pop-ups)

The Internet Options screens allow the user to adjust how the internet explorer program operates.



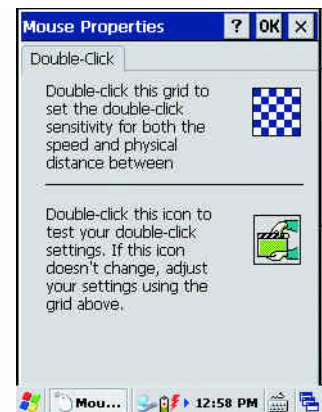
Keyboard Properties

The keyboard properties screen allows the user to adjust the keyboard properties.



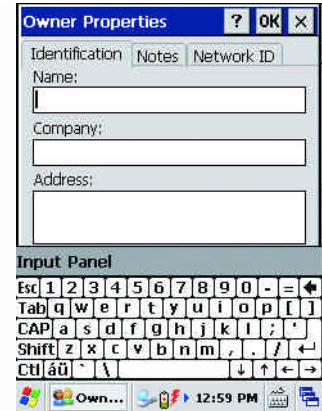
Mouse Properties

The Mouse Properties screen allows the user to test the mouse functionality.



Owner Properties (Identification)

The Owner Properties allows the user to store important personal information about the owner.



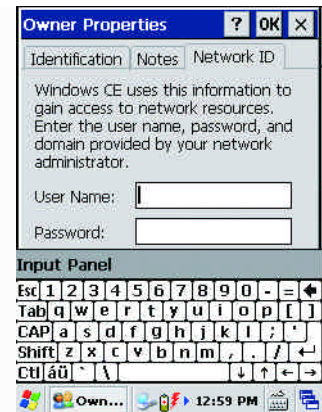
Owner Properties (Notes)

The Owner Properties allows the user to store important personal information about the owner.



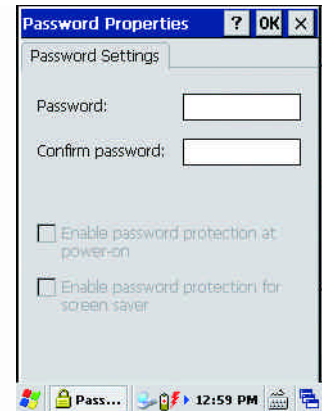
Owner Properties (Network ID)

The Owner Properties allows the user to store important personal information about the owner.



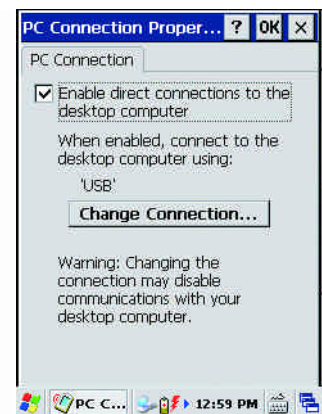
Password Properties

The Password Properties screen allows the user to set a password to protect the M8050 Handheld Computer from unauthorized use.



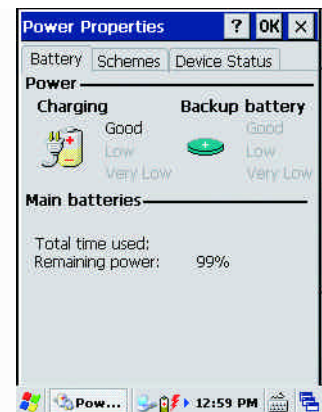
PC Connection

The PC Connection screen allows the user to change how the M8050 Handheld Computer will connect to an external computer.



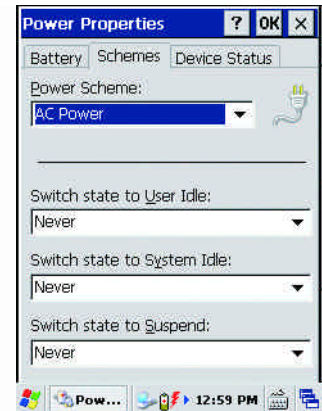
Power Properties (Battery)

The battery screen shows the user the current status of the main and backup battery.



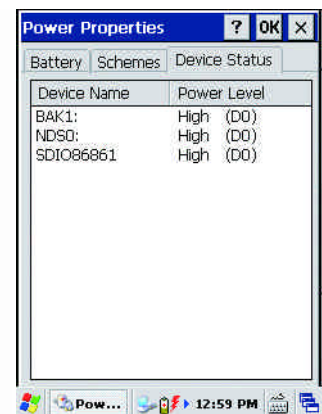
Power Properties (Schemes)

The Power Properties screen allows the user to adjust the power timeouts to preserve battery life.



Power Properties (Device Status)

The Device Status shows the power use of the currently installed battery and radio.



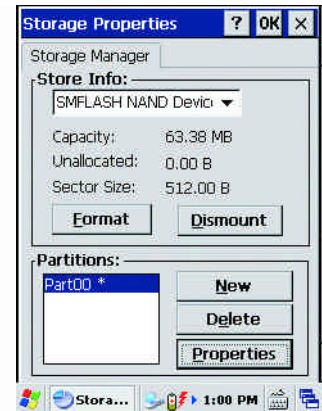
Remove Programs

The Remove Programs screen allows the user to remove currently installed programs.



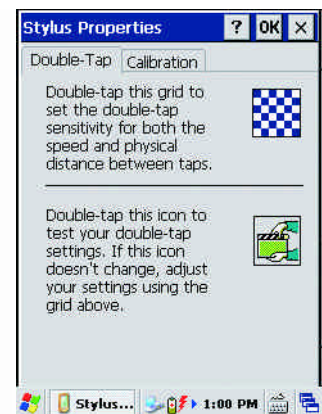
Storage Properties

The Storage Manager allows the user to setup the memory storage functions for the M8050 Handheld Computer.



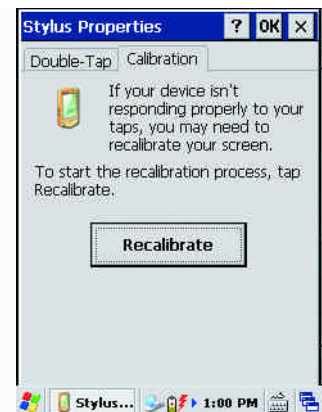
Stylus Properties (Double-Tap)

The Stylus Properties Double-Tap screen allows the user to set and test the stylus functions.



Stylus Properties (Calibration)

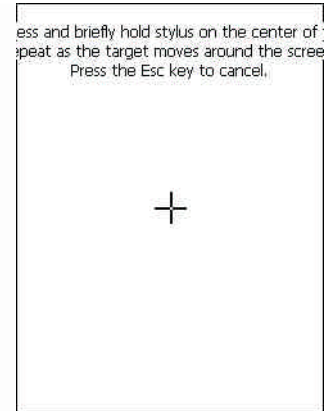
The Stylus Properties Calibration screen allows the user to set and test the stylus functions.



Stylus Properties (Calibration)

The Stylus Properties Calibration screen allows the user to set and test the stylus functions.

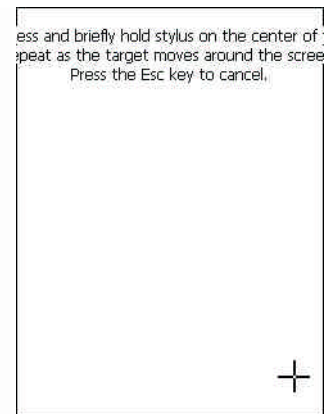
The user should tap the stylus into the middle of the cross-hair pattern.



Stylus Properties (Calibration)

The Stylus Properties Calibration screen allows the user to set and test the stylus functions.

The more accurately the user hits the pattern, the more accurate the touch screen will work.



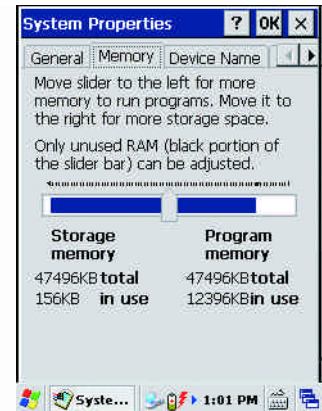
System Properties (General)

The System Properties screens show important information about the M8050 Handheld Computers' operating system.



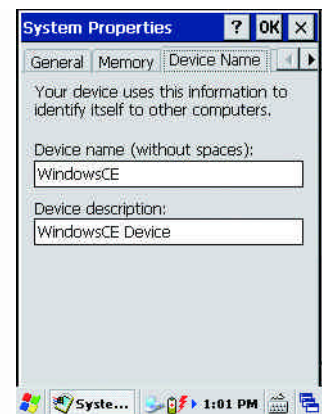
System Properties (Memory)

The System Properties screens show important information about the M8050 Handheld Computers' operating system.



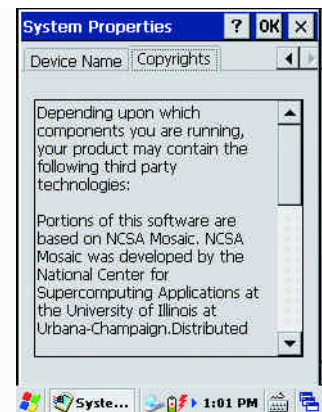
System Properties (Device Name)

The System Properties screens show important information about the M8050 Handheld Computers' operating system.



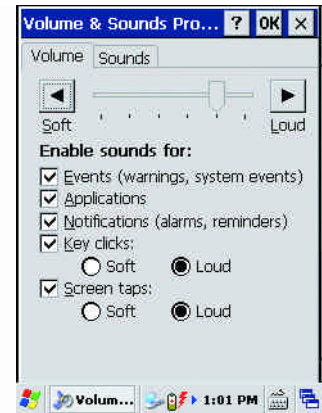
System Properties (Copyrights)

The System Properties screens show important information about the M8050 Handheld Computers' operating system.



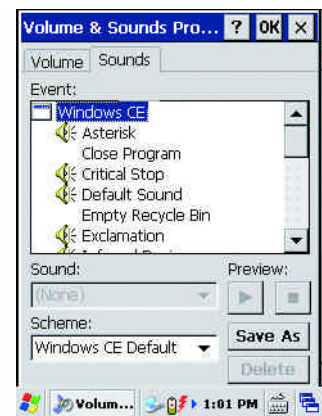
Volume & Sounds Properties (Volume)

The Volume and Sounds screen allows the operator to control the volume on the built-in speaker or external headphone jack as well as what sounds will be heard when certain events happen.



Volume & Sounds Properties (Sounds)

The Sounds screen allows the operator to setup the sounds that will be heard for certain Windows events.



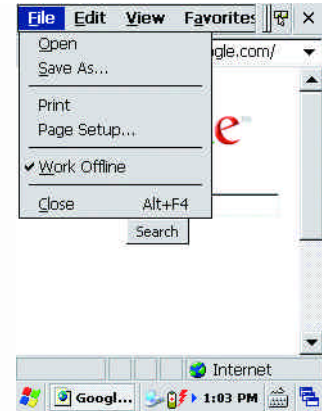
Web Browser

The built-in web browser allows the user to view web based pages if the unit has connectivity to the internet.



Web Browser (File menu)

The built-in web browser allows the user to view web based pages if the unit has connectivity to the internet.



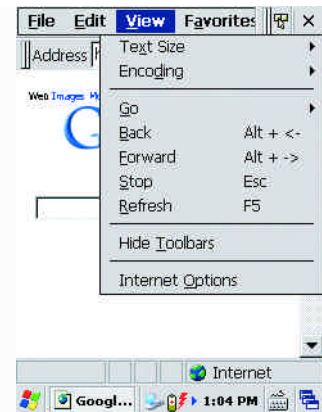
Web Browser (Edit menu)

The built-in web browser allows the user to view web based pages if the unit has connectivity to the internet.



Web Browser (View menu)

The built-in web browser allows the user to view web based pages if the unit has connectivity to the internet.



Web Browser (Favorites menu)

The built-in web browser allows the user to view web based pages if the unit has connectivity to the internet.



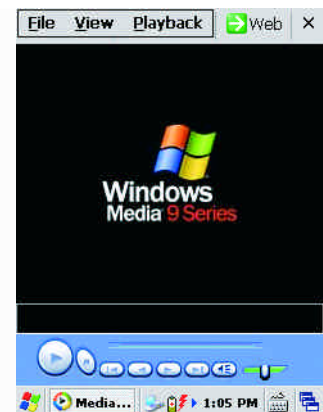
Web Browser (Navigation Tools)

The built-in web browser allows the user to view web based pages if the unit has connectivity to the internet.



Windows Media Player

The Windows Media Player allows the M8050 Handheld Computer to play Windows based media files.



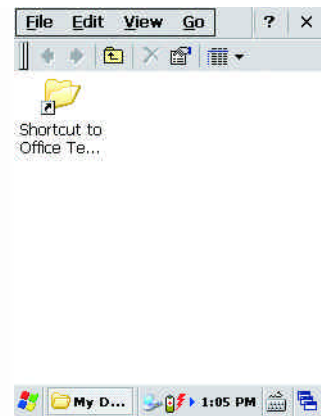
Microsoft Wordpad

The Microsoft Wordpad program is a simple word processing software.



My Documents

The My Documents screen allows the user to control files on the M8050 Handheld Computer.



6

Specifications

This chapter lists detailed specifications of the M8050.

Specifications

Physical Specifications	
Dimensions	14.5 cm L x 8.3 cm W x 5.1 cm D (5.7" L x 3.25" W x 2.0" D)
Weight	0.81 lbs./363g
Drop Specifications	Multiple 4' (1.2m) drops to concrete across operating temperature range
Display	3.5" QVGA 320 x 240 (Portrait), 65K colors
Touchscreen	Integrated resistive type
Primary Battery	Removable, re-chargeable 3.7 VDC Li-Ion, 5200mAh, 19.2 watt hours
Backup Battery	3.7VDC Li-Polymer, 200mAh
Keyboard	18 keys with Trackball

Environmental Specifications	
Operating Temperature	14° to 122° F (-10° to 50° C)
Storage Temperature	-14° to 122° F (-25° to 50° C)
Humidity	5% to 95% RH non-condensing
Electrostatic Discharge (EDS)	15kVdc air discharge; 8kVdc direct discharge
Ingress Protection	IP54 (Protection against dust and water spray)

Performance Specifications	
CPU	Samsung S3C2440 @ 400 MHz
Operating Platform	Windows CE 6.0
Memory (RAM/ROM)	128MB RAM; 128MB Flash ROM
Memory Expansion	User accessible micro SD slot
Integrated Scanner Options	Motorola SE955 laser; HHP IT5080 Imager
Data Communications	USB Slave
Audio	Built-in PM speaker; Four-ring, 1mm audio jack for headset/microphone

Specifications (cont'd)

Wireless Data Communications	
Wireless Local Area Network (WLAN)	IEEE 802.11b/g
Security (Encryption)	WPA/WPA2; 802.11x; WEP
Antenna	Internal
WPAN	Bluetooth® v.2.0

Regulatory Specifications	
EMI/RFI	FCC Part 15 Class A
Laser Safety	FDA CDRH Class II, IEC, Class 2

MAINTENANCE & SUPPORT

Includes one (1) year standard warranty agreement
Optional: Extended Warranty (3 years), Extended Warranty Plus (3 years) or
CARE Extended Warranty (3 years)

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