Hand Held

PRODUCTS

Dolphin® 9500 Series
Mobile Computers
Windows Mobile ™ 2003
Software for Pocket PCs

powered by
Adaptus™
imaging technology

Quick Start Guide

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Dolphin 9500 Series Quick Start Guide

Congratulations!

You have made a wise choice in selecting the Dolphin, a device known worldwide for the following features:

- Microsoft Windows Mobile 2003 Software for Pocket PCs
- Integrated, wireless, triple-radio design for real-time data collection
- Ergonomic form factor and lightweight design
- Rugged construction that withstands harsh treatment and real world use
- Adaptus Imaging Technology provides advanced point-and-shoot decoding and imaging
- 7.4V, 14.8 watt hour Lithium-ion (Li-ion) batteries

Dolphin 9500 Series Terminals

There are four terminals in the Dolphin 9500 Series:

Dolphin 9500   Ergonomic form factor for single-handed use.

Dolphin 9550   Integrated pistol grip for high-volume scanning applications.

Dolphin 9501   Flashlight form factor a laser scanner and imager.

Dolphin 9551   Integrated pistol-grip with a laser scanner and imager.

Dolphin 9500 Series Peripherals and Accessories

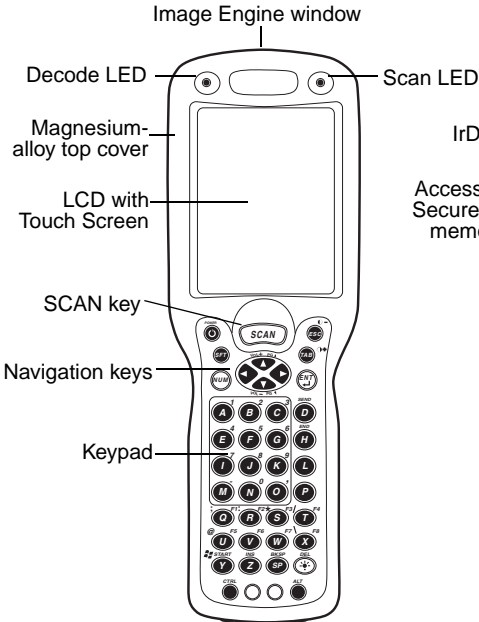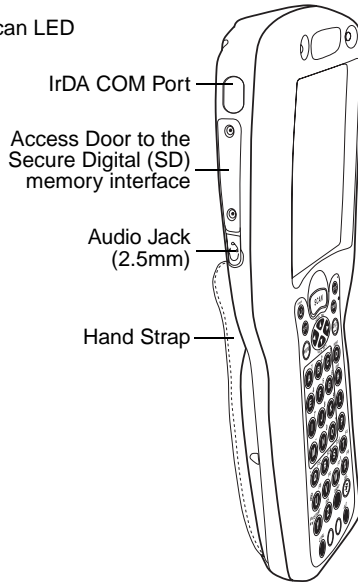|	
Dolphin HomeBase™	Charging/communications cradle with auxiliary battery well. Data transfers via RS-232 serial or USB ports.
Dolphin MobileBase™	Mobile charging/communication cradle. RS-232 serial transfers data transfers and powers out at 5 volts.
Dolphin QuadCharger™	Four-slot battery charger that charges four Li-ion batteries in under four hours. One slot doubles as a battery analyzer.
Dolphin Mobile Charger	Charges a Dolphin terminal by plugging into a vehicle cigarette lighter/power port.
Dolphin Net Base	Four-slot charging/communication cradle designed for Ethernet-based communications.
Dolphin ChargeBase	Four-slot charging cradle that stores, powers, and charges a terminal in each slot.
Dolphin Cable Kits	USB or serial cables that charge and communicate with the terminal directly, without a cradle.

Hardware Overview

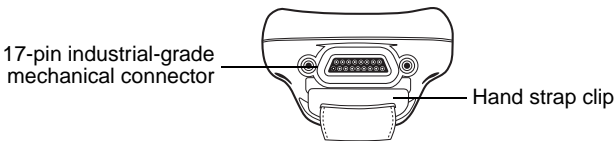The front, side, and bottom panels of all Dolphin 9500 Series terminals are the same.

Front Panel   *Side Panel*

Image Engine window

Decode LED   Scan LED

Magnesium-
alloy top cover   IrDA COM Port

LCD with   Access Door to the
Touch Screen   Secure Digital (SD)
                                                memory interface

SCAN key   Audio Jack
                                                (2.5mm)

Navigation keys   Hand Strap

Keypad

Bottom Panel

17-pin industrial-grade
mechanical connector
                                    Hand strap clip

Note: Dolphin 9550 and Dolphin 9551 terminals do not have a hand strap.

Dolphin 9500 Back Panel

Speaker

Stylus (in slot)

Microphone

Battery Well
(underneath the battery)
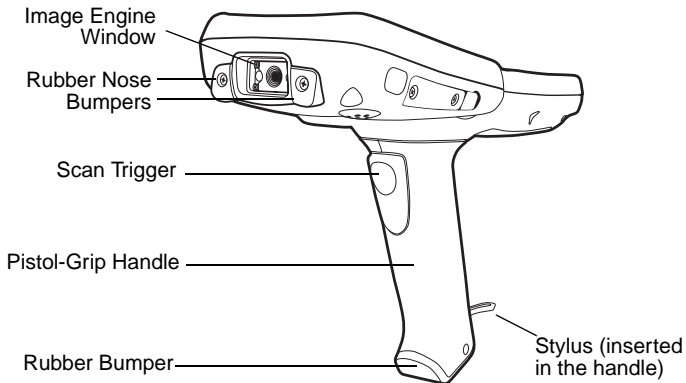
Battery
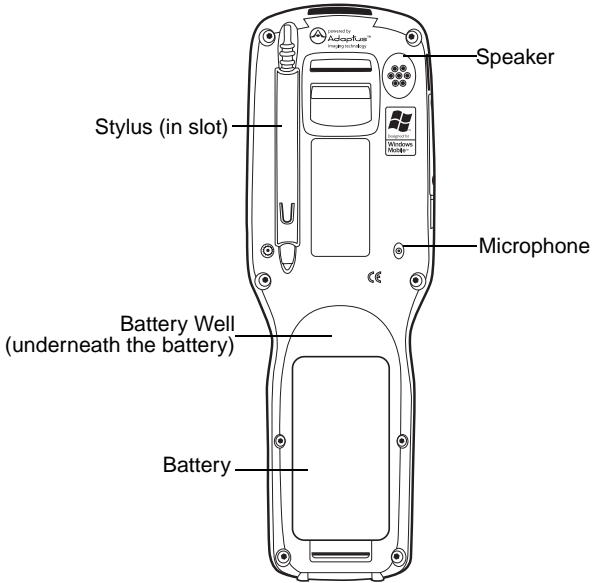
Note: The back panel of the Dolphin 9501 has an expanded bottom housing to accommodate the laser engine.

Dolphin 9550 Back Panel

Dolphin 9550 and Dolphin 9551 terminals feature an integrated pistol-grip.

Image Engine
Window

Rubber Nose
Bumpers

Scan Trigger

Pistol-Grip Handle

Stylus (inserted
in the handle)

Rubber Bumper

Note: The back panel of the Dolphin 9551 has an expanded bottom housing to accommodate the laser engine.

Setting Up Dolphin 9500 Series Terminals

1. Unpack the carton and verify its contents - page .

2. Install the battery in the terminal - page .

3. Charge the main battery in the terminal for a minimum of four hours - page .

4. Turn the power on and initialize the mobile computer - page .

5. Allow Autoinstall to run - page .

Unpack the Carton and Verify its Contents

Verify that the carton contains the following items:

- Dolphin 9500 Series mobile computer (the terminal)
- Main battery pack (7.4v Li-ion)
- Microsoft Companion CD-ROM
- Dolphin 9500 Series Quick Start Guide

Be sure to keep the original packaging in the event that the Dolphin terminal should need to be returned for service - see page .

Each order includes a Dolphin Software Development Kit and User's Guide CD; verify that you received this CD with your order. If you ordered accessories, verify that they are also included with the order.

The Dolphin 9500 and Dolphin 9501 Hand Strap

The Dolphin 9500 and Dolphin 9501 ship with the handstrap installed and fastened with a clip on the bottom panel - see page . To install the battery pack, you must detach the handstrap.

To detach the handstrap, push the clip of the handstrap down and away from the terminal. Move the strap up and away from the bottom panel.

To re-attach the handstrap, slide the clip back into place on the bottom panel.

Hand Strap

Clip
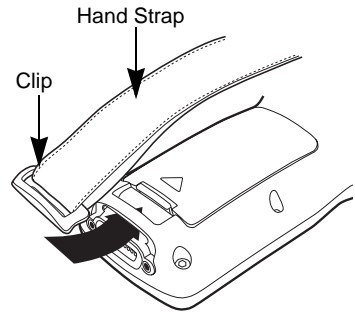
Install the Main Battery Pack

⚠️ *Use only the Li-ion battery packs provided by Hand Held Products. The use of any battery pack not sold/manufactured by Hand Held Products in the Dolphin 9500 Series terminal will void your warranty and may result in damage to the Dolphin terminal or battery.*

1. Remove the Li-ion battery pack from its package. Hold the terminal with the front panel (keyboard) facing down.

2. If necessary, detach the handstrap.

3. Take the battery and insert the end without the locking tab into the top of the battery well and push down with a hinging motion until the locking tab snaps.

4. If necessary, re-attach the hand strap.

To remove the battery pack, detach the handstrap, press the locking tab on the battery pack away from the bottom panel, and pull the battery pack up with a hinging motion.
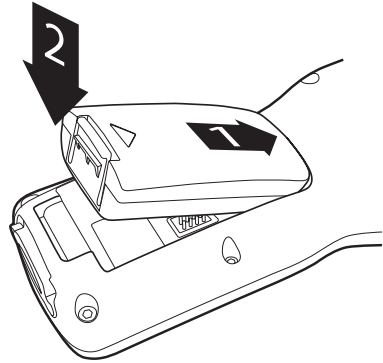
Charge the Main and Backup Batteries

The power supply for the Dolphin mobile computer consists of two types of battery power: the main battery pack installed in the back panel and the backup battery located inside the terminal.

The main battery powers the terminal. The internal backup battery charges off the main battery, and maintains the application data stored in RAM and the system clock for up to 30 minutes when the terminal's main battery pack is completely discharged or removed.

Before initial use - The terminals are shipped with both batteries discharged of power. **Charge the main battery pack for a minimum of four hours before initial use in the terminal.**

⚠️ *For charging, use a Dolphin 9500 Series peripheral and the power cables provided by Hand Held Products. Use of peripherals or cables not sold/manufactured by Hand Held Products will void the warranty and may damage the terminal.*
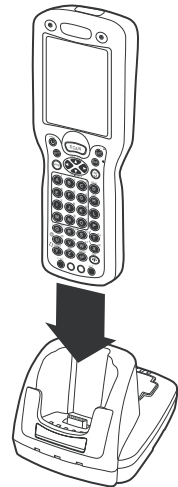
Using the Dolphin HomeBase

1. Connect the HomeBase to the power supply provided by Hand Held Products.

2. Slide the terminal into the terminal well until the Dock LED lights solid green to indicate that the terminal is properly seated.

3. The battery pack begins charging.

Charging a Spare Battery Pack
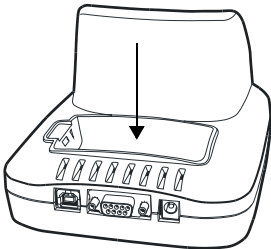
The HomeBase features an auxiliary battery well. Insert a spare battery pack into this well and the battery charges in four hours. The auxiliary battery well charges batteries independently of the terminal well. The Aux Battery LED indicates the charging status of the battery in this well.

Using the Mobile Base

1. Connect the Mobile Base to the appropriate power source using a cable from Hand Held Products.

2. Slide the terminal into the terminal well until the Dock LED lights solid green to indicate that the terminal is properly seated.

3. The battery pack begins charging.

Other Charging Options

When the Li-ion battery is installed in the terminal, use a charging/communication cable.

When the Li-ion battery is not installed in the terminal, place the battery pack in the Dolphin QuadCharger.
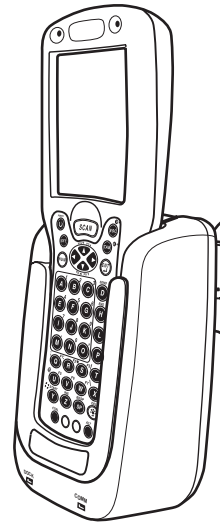
Initialize the Mobile Computer

1. Power on the device. The decode LED lights and the scan LED blinks for approximately three seconds. Do NOT press any keys while the terminal is booting up.
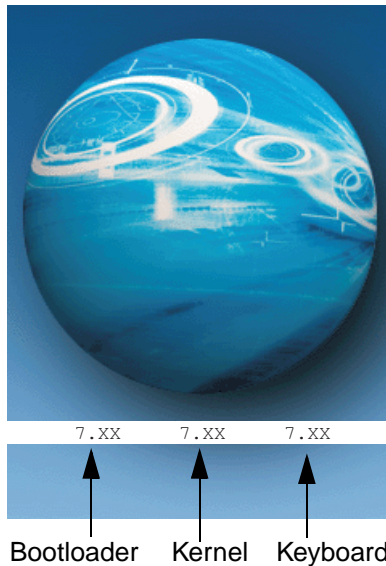
2. The terminal initializes and the splash screen displays for a few seconds. The Build numbers indicate the software version number.


```
7.XX      7.XX      7.XX
```

Bootloader   Kernel   Keyboard

3. The system performs a hard reset. When the display activates again, follow the instructions that appear.

4. You are prompted to align the screen by tapping the target five times. Use the stylus provided by Hand Held Products.

align screen

Tap the target firmly and accurately at each location on the screen. The target will continue to move until the screen is aligned.
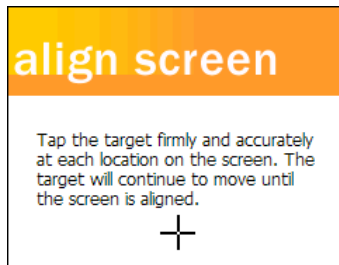
- Alignment should always be performed with a stylus designed for touch screen applications. The small point is required for accurate calibration.

- Press the stylus firmly into the center of the cross-hair target once and release. Do not "double-tap" the target.
- You can re-align the screen at any time by going to **Start** > **Settings** > **System** tab > **Screen**.

5. Complete the series of screens that teach you how to use the stylus and popup menus.

6. Setup is complete. Wait as your terminal begins auto-installing programs.

7. When Autoinstall is complete, the system performs a soft reset that ends on the Today screen.

Autoinstall

Autoinstall occurs after each hard reset. For each program that loads, a status bar indicates that the program is loading. Do NOT touch the keyboard or the screen while programs are loading.

All configurations of the Dolphin 9500 Series install Demos and Utilities. If the terminal is configured with a wireless radio, the appropriate radio drivers and utilities for each radio install.

After Autoinstall is complete, the terminal performs a soft reset automatically. When it finishes booting up after the soft reset, the Today screen appears - see page 9.

Today Screen

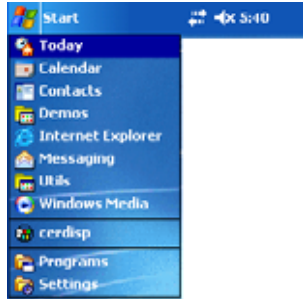When you turn on your device for the first time, you'll see the Today screen. It provides the tools you need to navigate the system.
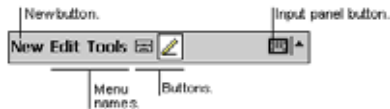

Navigation Bar

The navigation bar at the top of the screen displays the date and time and provides access to the Start menu.

Command Bar

The command bar along the bottom of the screen contains menus, appropriate application icons, and perform tasks.

Verifying Operations with Demos

Dolphin 9500 Series mobile computers contain Demos that you can use to verify imaging and decoding.

Verify Imaging

The Image Demo enables you to use the imager to capture an image.

1. Go to **Start** > **Demos** > **Image Demo**. The image demo opens.

2. Point the terminal at an object and press the SCAN key. A preview of the object appears on the terminal screen, and the decode and scan LEDs light.

3. Release the SCAN key. The image is captured. By default, the image saves to the My Device folder as "imagedemo.jpg." To save to a different location, tap **File** > **Save As** and select a new location.

4. Press the ESC key to close the demo.

For more information about taking an image, see Using the Imager on page 19.

Verify Decoding

The Scan Demo enables you to decode a sample bar code.

1. Go to **Start** > **Demos** > **Scan Demo**.

2. Aim the terminal at a bar code and press the SCAN key. The scan LED lights red, and a green aimer beam projects out from the scanner.

3. When a good scan is obtained, the decode LED lights solid green and the terminal beeps. The bar code readout appears on the screen.

4. Press the ESC key to close the demo.

Sample Bar Codes

Use the following bar codes to verify decoding:

Sample 128   Sample PDF417

Code 128   PDF417 Test Message

Note: The Dolphin 9551 and Dolphin 9501 support only 1D symbologies; use Code 128 to verify scanning.

For more information, see Decoding a Bar Code on page 19.

Verifying Radio Status

Dolphin 9500 Series terminals can be configured with 802.11b, Bluetooth™, GSM/GPRS (Dolphin 9500 only) radios or a combination of these radios.

Radio Driver Installation

Radio drivers install during the autoinstall whenever the mobile computer is initialized; when first turned on or after a hard reset. Only the appropriate drivers for your terminal's radio configuration install.

Radio Combinations

Dolphin 9500 Series terminals can be configured with more than one radio.

Co-located radios	**Co-operational radios**
You can have both radios installed but can operate only one at a time.	You can power up and operate both radios simultaneously.
• 802.11b and GSM/GPRS	• Bluetooth and 802.11b • Bluetooth and GSM/GPRS

Radio Manager

The Radio Manager enables you to choose which of the terminal's radios are powered up or down. When powered up, the radio is transmitting; when powered down, the radio is not transmitting.

Verify which radio is powered up after the autoinstall and soft reset are complete. When a single radio installs, its radio driver is powered up automatically. In general, when more than one radio installs, the terminal powers up the 802.11b radio. However, if a GSM radio is installed, the terminal powers up the GSM radio.

Verify the Radio Status

1. Go to **Start** > **Settings** > **Connections** tab > **Radio Manager**. The Radio Manager appears identifying which radio modules are installed on the terminal.

2. The highlighted entry is the radio that is currently powered up; its **Status** is Ready.
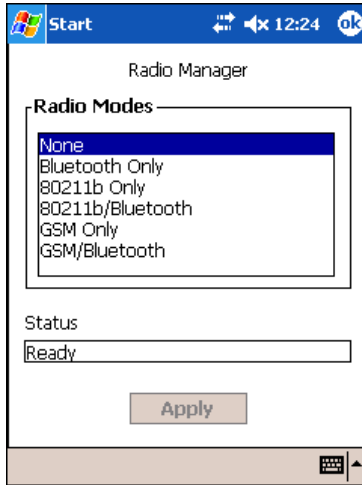
Powering up a Radio or Radio Combination

To successfully power up a radio, both the hardware module and the software driver must be installed on the terminal.

1. In the Radio Modes list, select the radio or radio combination.

2. Tap **Apply**. When the radio is powered up, the Status field reads "Success."

3. Tap **OK** to save and exit the Radio Manager.

For detailed information about the Radio Manager and radio options, see the Dolphin 9500 Series User's Guide.

Adjusting the Backlight

Both the keyboard and the display are backlit to enable better viewing in low-light conditions. All terminal configurations contain a Backlight key that toggles the keyboard backlight on and off; see Backlight, page 1-14. Backlight functionality differs for color and monochrome displays.

On a Color Display

The backlight for the color display is user-defined. There are two tabs: one for Battery and the other for External power. The options on each tab are the same.

Go to **Start** > **Settings** > **System** tab > **Backlight**. Backlight settings open displaying the Battery tab.

In the **Turn off backlight…** drop-down list, select the number of minutes you want to elapse before the backlight automatically turns off.

Select the **Turn on backlight…** option if you want the display backlight to turn on when the a button is pressed or the touch screen is tapped.

In the **Dim backlight if…** drop-down list, select the number of minutes you want to elapse before the backlight dims.

Move the **Backlight Intensity** slider to set the intensity of the backlight.

Tap **OK** to save settings. The display backlight functions according to the settings saved here.
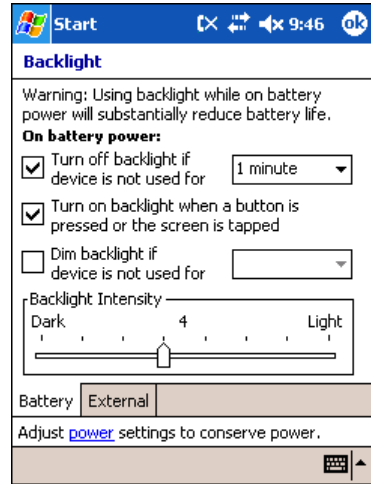
On a Monochrome Display

Backlight   The backlight for monochrome displays turns on and off when you press the Backlight key but not when you tap the screen.

Contrast   In addition to the backlight, monochrome displays feature contrast adjustment. You can adjust the contrast using the keyboard or the system settings.

Using the Keyboard

Press and hold

- Red + ESC to decrease the contrast
- Red + TAB to increase the contrast
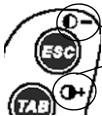
All three keyboards have red indicators over each key to indicate which key to press in combination with the red modifier key to adjust the contrast.

Using the System Settings

Tap **Start** > **Settings** > **System** tab > **Contrast**. The current settings display.

Use the slider to adjust the contrast to the desired setting.

The contrast instantly adjusts as you move the slider between **Light** and **Dark**.

Tap **OK** to save adjustments.

Entering Information

To enter information, you can use
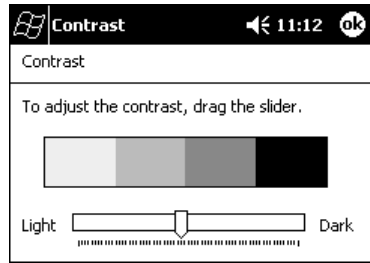
- the keyboard (page 14),
- the stylus on the touch screen (page 18),
- the imager (page 19).

Using the Keyboards

The Dolphin 9500 Series features three keyboard options: 35-key numeric/alpha, 43-key alpha/numeric, and 56-key full alpha/numeric. Each keyboard is backlit for easy viewing in various lighting conditions and contains centrally located keys for both right- and left-hand operation. Each keyboard also contains function, navigation and modifier keys.

Using the Function Keys

Name	Key	Function
Backlight		By default, the Backlight key turns the keyboard backlight on and off; see page 13.
Backspace		The BKSP key moves the cursor back one space each time the key is pressed. If you are typing text, the previous charac3ter is deleted each time this key is pressed. Press and hold to delete multiple characters. This key appears only on the 35- and 56-keyboards. On the 43-key keyboard, backspacing is achieved by pressing Red + SP keys.
Delete		The Delete key deletes the next character forward each time the key is pressed. This key appears only on the 35- and 56-key keyboards. On the 43-key keyboard, deleting is achieved by pressing Red + Backlight keys.
Enter		The Enter key confirms data entry.
Escape		The Escape key performs a cancel action.

Using the Function Keys

Name	Key	Function
Power	⏻	The Power key puts the terminal into and wakes the terminal from suspend mode. This is also known as suspend/resume.
SCAN	SCAN	The SCAN key activates the image/scan engine and "wakes" the terminals from suspend mode. Its position allows convenient one-handed engine activation.
Space	SP	The Space key moves the cursor one space.
Tab	TAB	The Tab key moves the cursor to the next tab stop or the next control (on a form, for instance).

Using the Navigation Keys

Located in the center of each keyboard for easy access with either hand, the navigation keys enable you to navigate the cursor through an application screen.

Press	To …
▲	Move the cursor up one row or line.
▼	Move the cursor down one row or line.
▶	Move the cursor one character to the right.
◀	Move the cursor one character to the left.

Using the Modifier Keys

Name & Key	Function
Shift SFT	The SFT key modifies only the next key pressed. In addition, you can double-tap SFT or press SFT + Red to toggle Caps Lock on and off.
CTRL and **ALT**	Functions of the ALT and CTRL keys depend on the software application in use and the keys pressed in combination with each.
Blue and **Red**	The blue and red keys are used in combination with other keys to type special characters and perform system functions. Each key modifies only the next key pressed. The overlay of each keyboard is color-coded to indicate the character typed or function performed when each key is pressed with the red or blue keys.

35-key Numeric/Alpha Keyboard

SCAN key

Power key
Shift key
Alpha Lock key

Navigation keys

Alpha Lock Indicators

Space key

Function keys

Backspace key

Escape key
Tab key
Enter key

Delete key

Backlight key

CTRL, Blue, Red, ALT Modifier keys
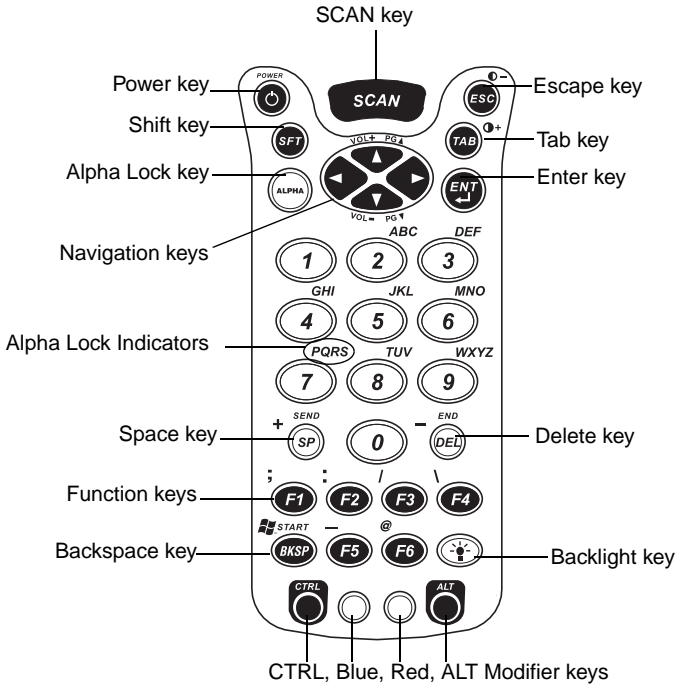
Alpha Lock Key

Because the 35-key keyboard defaults to numeric mode, the Alpha Lock key appears only on the 35-key keyboard. Numeric mode is when you type numbers with the number keys. Alpha mode is when you type letters with the number keys.

The Alpha Lock key enables you to toggle between numeric and alpha modes.

On the overlay, there are alpha lock indicators above specific number keys that specify the letter typed when you press that key in alpha mode. Please note that when typing in alpha mode, you must use the same multi-press method you would use when typing letters on a phone keypad. Each key press types the next letter in the sequence as displayed by the alpha lock indicator.

43-key Alpha/Numeric Keyboard

SCAN key

Power key — SCAN

Escape key

Shift key — Tab key

Number Lock key — Enter key

Navigation keys

Backlight key (use with SFT to delete)

Space key (use with SFT to backspace)

CTRL, Blue, Red, ALT Modifier keys
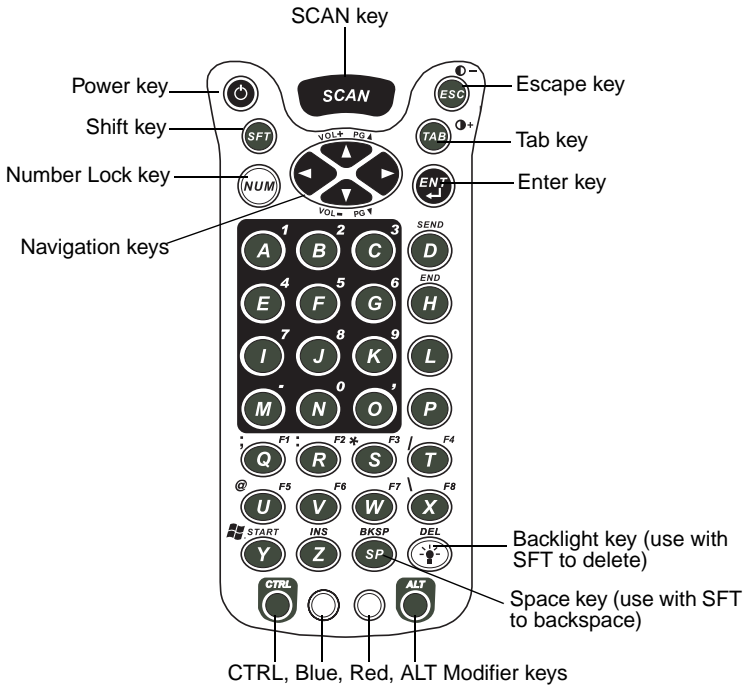
Number Lock Key

Because the 43-key keyboard defaults to alpha mode, the Number Lock key appears only on the 43-key keyboard. Alpha mode is when you type letters with the letter keys. Numeric mode is when you type numbers with the letter keys.

The Number Lock key enables you to toggle between alpha and numeric modes. On the overlay, there are number lock indicators above specific letter keys that specify the number typed when you press that key in numeric mode.

56-key Full Alpha/Numeric Keyboard

SCAN key

Power key

Backlight key

Shift key

Navigation keys

Insert key

Space key

Backspace key

Delete key

Escape key

Tab key

Enter key

CTRL, Blue, Red, ALT Modifier keys
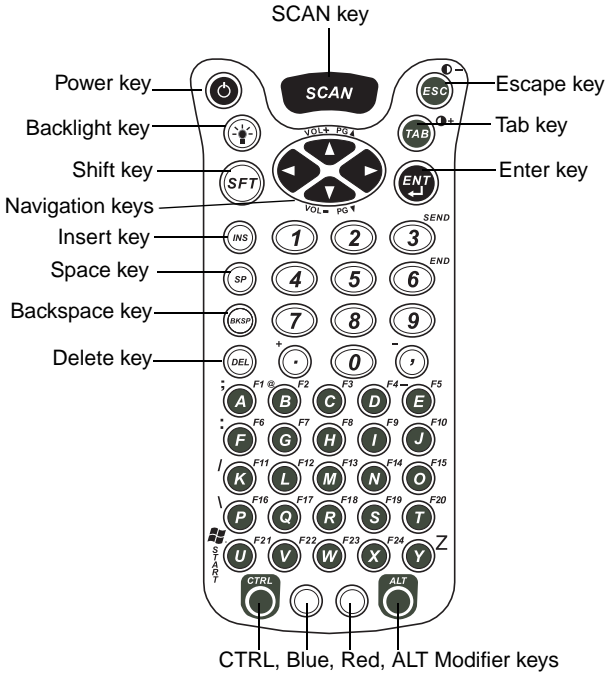
Key Combinations

In addition to the color-coded functions indicated on each overlay, there are keyboard combinations for specific functions and special characters on each keyboard. For charts of the key combinations associated with each keyboard, see the Appendix A of the Dolphin 9500 Series User's Guide.

Using the Stylus

The stylus functions as a mouse; generally, a tap is the same as a click.

Tap: Tap the touch screen once to open menu items and select options.

Drag: Hold the stylus on the screen and drag across the screen to select text and images. Drag in a list to select multiple items.

Tap & hold: Tap and hold the stylus on an item and a popup menu appears. On the pop-up menu, tap the action of the task you want to perform.

Use the stylus or your finger to select or enter information on the touch screen. Use of other objects, such as paper clips, pencils, or ink pens can damage the touch screen and will void the warranty.

Using the Imager

The terminal contains a compact image engine that instantly reads all popular 1D and 2D bar codes. It also supports omni-directional aiming and decoding for greater flexibility in handling the device in real-world settings.

The imager can also capture digital images, such as signatures and pictures of damaged inventory. Images are saved in industry-standard file formats.

Image Engine Options - Dolphin 9500 and Dolphin 9550

Name	Aimer	Decodes from …
IMAGETEAM™ 4100SR	Green aiming beam	2.5 to 12.5 in. (6.3 to 32 cm.)
IMAGETEAM™ 4300SR	Laser aimer	2.5 to 12.5 in. (6.3 to 32 cm.)
IMAGETEAM™ 4100SF	Green aiming beam	2.1 to 8.9 in. (5 to 22.6 cm.)
IMAGETEAM™ 4300SF	Laser aimer	2.1 to 8.9 in. (5 to 22.6 cm.)
IMAGETEAM™ 4100HD	Green aiming beam	2.2 to 6.5 in. (5.6 to 16.5 cm.)

Image Engine Options - Dolphin 9501 and Dolphin 9551

Name	Aimer	Decodes from …
SE1200HP	Long-range	5 mil - 2.75 to 7 in (0.07 to 0.17 m) 55 mil reflective - 5 to 50 in (.13 to 1.27 m)
SE1200LR	Long-range	10 mil - 10 to 24 in (0.25 to .6 m) 100 mil reflective - 66 to 232 in (1.67 to 5.9 m)
SE1200ALR	Long-range	13 mil - 18 to 39 in (0.45 to 1 m) 100 mil reflective - 102 to 363 in (2.6 to 9.2 m)

Decoding a Bar Code

See Sample Bar Codes on page 10 to practice decoding.

1. Point the Dolphin terminal directly at the bar code. The imager faces straight out the top panel. The green aiming beam should be oriented in line with the bar code to achieve optimal decoding.

2. Project the green aiming beam:
   - Press and hold the SCAN key OR
   - Press and hold the Scan Trigger on the Dolphin 9550 and Dolphin 9551.

3. The scan LED lights red.

Decode LED   Scan LED
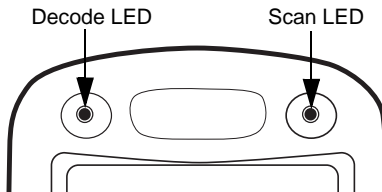
4. Center the aiming beam over the bar code. A range of 4–10 inches (10–25 cm) from the bar code is recommended.

5. When a bar code is successfully decoded, the decode LED lights green and the terminal beeps.

6. The bar code information is entered into the application in use.

Scanning Position Options

Dolphin 9500 and Dolphin 9550 terminals equipped with an IT4100SF/SR/HD support omni-directional aiming using a green aiming beam.

1D Linear Bar Code   2D Matrix Symbol
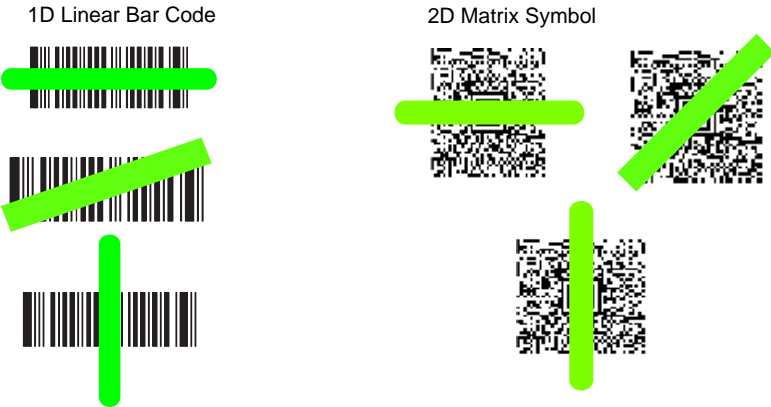
Dolphin 9500 and Dolphin 9550 terminals equipped with an IT4300SF/SR support omni-directional aiming with red laser aimers (1D bar code shown).

Dolphin 9551 and Dolphin 9501 terminals have a red aiming beam, read only 1D linear bar codes, and do not support omni-directional scanning.

Taking an Image

The image-capture process is an intuitive, split-second operation. The terminal is capable of saving images in a number of industry-standard file formats such as *.bmp, *.jpg and *.png. The default file format for images is a grayscale *.jpg.

Note: The Dolphin 9551 and Dolphin 9501 do **not** support image capture.

1. Point the Dolphin terminal directly at the object. The imager points straight out the top panel.

2. To preview the image:
   • Press and hold the SCAN key.
   • Press and hold the Scan Trigger on the Dolphin 9550.

3. The display shows a preview of the object. This is a live video image of what the imager is currently viewing. It has a slightly degraded appearance compared to the captured image. This is normal.

4. Adjust the terminal's position until the object appears on the screen the way you want it to appear in the image.

5. Hold the terminal still and release the SCAN key or Scan Trigger. The scan and decode LEDs flash red, the touch screen flashes, and the captured image appears on the screen.

6. Unless otherwise specified by the application in use, the image is saved to the My Device folder. The image file can be uploaded to a host PC using Microsoft® ActiveSync® and a Dolphin communication peripheral.

Soft Reset (Warm Boot)

A soft reset re-boots the device without losing RAM data. You would perform a soft reset when

• the terminal fails to respond.
• after installing some software applications.
• after making changes to certain system settings, such as network cards.

1. Press and hold the CTRL + SFT keys for approximately five seconds.

2. The decode and scan LEDs flash for approximately three seconds as the terminal resets.

3. When the reset is complete, the Today screen displays.

Hard Reset (Cold Boot)

A hard reset resets the operating system, restores the terminal back to factory defaults, and resets the terminal after a bootloader, keyboard, and kernel upgrade.

A hard reset erases all of the data stored in RAM memory and all RAM installed applications.

1. Press and hold the CTRL + ESC keys for approximately five seconds.

2. The decode and scan LEDs flash for approximately three seconds.

3. The terminal re-initializes (see page 7 for details).

Suspend Mode

To put the Dolphin terminal into suspend mode manually, press and hold the Power key. To wake the Dolphin terminal from suspend mode, press the Power or SCAN keys. The terminal goes into suspend mode automatically when the terminal is inactive for a programmed period of time.

Communications

Dolphin 9500 Series terminals communicate with a host computer or peripheral device via the industrial-grade mechanical connector on the bottom panel, the IrDA port on the side panel, or an integrated wireless radio. For synchronization and data exchange, Dolphin terminals support Microsoft ActiveSync and the wireless connection.

For more information, refer to the Dolphin 9500 Series User's Guide.

Troubleshooting

Issue	Cause	Solution
Dolphin terminal does not power on or loses power quickly.	Li-ion battery is not installed properly.	Verify that the Li-ion battery is seated securely in the battery well so that the battery contacts connect; see page 5
	Li-ion battery not fully charged.	Using a peripheral, fully charge the Li-ion battery for a minimum of four hours, re-install the battery (see page 5.), and power on again. For more information about batteries, see the Dolphin 9500 Series User's Guide.
	A Li-ion battery from a company other than Hand Held Products is installed.	Use of any battery not sold/manufactured by Hand Held Products may damage the terminal and/or the battery and will void the warranty.
Dolphin terminal turns itself off.	Terminal is in suspend mode.	Dolphin terminals are programmed to go into Suspend Mode automatically after a period of inactivity. The default is three minutes running on battery power. These settings can be changed from one to five minutes on battery or external power. Go to **Start** > **Settings** > **System** tab > **Power**.
Tapping a button or icon does not perform the associated task.	The screen is not aligned.	Go to **Start** > **Settings** > **System** tab > **Screen** > **Align Screen**. Tap the target as directed; see page 7.

Troubleshooting

Issue	Cause	Solution
Receive message that the memory is full.	Too many files stored on the terminal.	Delete unnecessary files. Upload files to a host PC or device with enough memory to store them.
	Storage memory is set too low for the applications in use.	Adjust the storage memory allocation. Go to **Start** > **Settings** > **System** tab > **Memory**. Use the slider to increase the storage memory.
	Too many applications are installed on the terminal.	Remove unnecessary programs. Go to **Start** > **Settings** > **System** tab > **Remove Programs**. Select the program in the list and tap **Remove**. The Remove Programs function in Settings removes programs from RAM memory.
Terminal not accepting scan data.	The scan is not functioning properly.	Verify scanning with the Image Demo; see page 10.
	The bar code is unreadable.	Verify the state of the bar code to see if it is unreadable.
	The terminal has not been programmed for the type of bar code scanned.	Verify the type of bar code and if the terminal has been programmed to decode it. To see the bar code types the Dolphin terminal can decode by default, go to **Start** > **Demos** > **Scan Demo** > **Options** menu > **Symbologies**. A list of symbologies appears; the symbologies selected in this list are the symbologies that the terminal can decode.
The radio is not transmitting.	The radio is not powered up.	Verify that the radio is powered up in the Radio Manager. See Verifying Radio Status on page 11.
Slow system performance.	Too many programs are running.	Go to **Start** > **Settings** > **System** tab > **Memory**. You can check the Program memory on the Main tab. To stop a running program, tap the **Running Programs** tab. To stop one program, select that running program and tap **Stop**. You can stop all running programs by tapping **Stop All**.

Product Service and Repair

Hand Held Products provides service for all its products through service centers throughout the world. To obtain warranty or non-warranty service, return the unit to Hand Held Products (postage paid) with a copy of the dated purchase record attached. Contact the appropriate location below to obtain a Return Material Authorization number (RMA #) before returning the product.

North America

Hand Held Products Corporate Offices
Telephone: (800) 782-4263, Option 3
Fax: (704) 566-6015
E-mail: naservice@handheld.com

America Latina

Hand Held Products America Latina
Teléfono: (239) 263-7600
Fax: (239) 263-9689
E-mail: laservice@handheld.com

Brazil

Hand Held Products Brazil
Telephone: +55 (21) 2176-0250
Fax: +55 (21) 2176-0249
E-mail: suporte@handheld.com

Europe, Middle East, and Africa

Hand Held Products Europe
Telephone:+ 31 (0) 40 29 01 633
Fax: + 31 (0) 40 2901631
E-mail: euservice@handheld.com

Asia Pacific

Hand Held Products Asia/Pacific
Telephone: +852-2511-3050
Fax: +852-2511-3557
E-mail: apservice@handheld.com

Japan

Hand Held Products Japan
Telephone: +81-3-5770-6312
Fax: +81-3-5770-6313
E-mail: apservice@handheld.com

Online Product Service and Repair Assistance

You can also access product service and repair assistance online at www.handheld.com.

Technical Assistance

If you need assistance installing or troubleshooting your scanner, please call your Distributor or the nearest Hand Held Products technical support office:

North America/Canada:

Telephone: (800) 782-4263, option 4 (8 a.m. to 6 p.m. EST)
Fax number: (315) 685-4960
E-mail: *natechsupport@handheld.com*

Europe, Middle East, and Africa:

Telephone-
European Ofc: Int+31 (0) 40 29 01 600
U.K. Ofc: Int+44 1925 240055
E-mail: *eutechsupport@handheld.com*

Asia Pacific:

Telephone: Int+852-3188-3485 *or* 2511-3050
E-mail: *aptechsupport@handheld.com*

America Latina:

Teléfono: (704) 998-3998, opción 8
E-mail: *latechsupport@handheld.com*

Online Technical Assistance

You can also access technical assistance online at: www.handheld.com.

Limited Warranty

Hand Held Products, Inc. ("Hand Held Products") warrants its products to be free from defects in materials and workmanship and to conform to Hand Held Products' published specifications applicable to the products purchased at the time of shipment. This warranty does not cover any Hand Held Products product which is (i) improperly installed or used; (ii) damaged by accident or negligence, including failure to follow the proper maintenance, service, and cleaning schedule; or (iii) damaged as a result of (A) modification or alteration by the purchaser or other party, (B) excessive voltage or current supplied to or drawn from the interface connections, (C) static electricity or electro-static discharge, (D) operation under conditions beyond the specified operating parameters, or (E) repair or service of the product by anyone other than Hand Held Products or its authorized representatives.

This warranty shall extend from the time of shipment for the duration published by Hand Held Products for the product at the time of purchase ("Warranty Period"). Any defective product must be returned (at purchaser's expense) during the Warranty Period to Hand Held Products' factory or authorized service center for inspection. No product will be accepted by Hand Held Products without a Return Materials Authorization, which may be obtained by contacting Hand Held Products. In the event that the product is returned to Hand Held Products or its authorized service center within the Warranty Period and Hand Held Products determines to its satisfaction that the product is defective due to defects in materials or workmanship, Hand Held Products, at its sole option, will either repair or replace the product without charge, except for return shipping to Hand Held Products.

EXCEPT AS MAY BE OTHERWISE PROVIDED BY APPLICABLE LAW, THE FOREGOING WARRANTY IS IN LIEU OF ALL OTHER COVENANTS OR WARRANTIES, EITHER EXPRESSED OR IMPLIED, ORAL OR WRITTEN, INCLUDING, WITHOUT LIMITATION, ANY IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE.

HAND HELD PRODUCTS' RESPONSIBILITY AND PURCHASER'S EXCLUSIVE REMEDY UNDER THIS WARRANTY IS LIMITED TO THE REPAIR OR REPLACEMENT OF THE DEFECTIVE PRODUCT. IN NO EVENT SHALL HAND HELD PRODUCTS BE LIABLE FOR INDIRECT, INCIDENTAL, OR CONSEQUENTIAL DAMAGES, AND, IN NO EVENT, SHALL ANY LIABILITY OF HAND HELD PRODUCTS ARISING IN CONNECTION WITH ANY PRODUCT SOLD HEREUNDER (WHETHER SUCH LIABILITY ARISES FROM A CLAIM BASED ON CONTRACT, WARRANTY, TORT, OR OTHERWISE) EXCEED THE ACTUAL AMOUNT PAID TO HAND HELD PRODUCTS FOR THE PRODUCT. THESE LIMITATIONS ON LIABILITY SHALL REMAIN IN FULL FORCE AND EFFECT EVEN WHEN HAND HELD PRODUCTS MAY HAVE BEEN ADVISED OF THE POSSIBILITY OF SUCH INJURIES, LOSSES, OR DAMAGES. SOME STATES, PROVINCES, OR COUNTRIES DO NOT ALLOW THE EXCLUSION OR LIMITATIONS OF INCIDENTAL OR CONSEQUENTIAL DAMAGES, SO THE ABOVE LIMITATION OR EXCLUSION MAY NOT APPLY TO YOU.

All provisions of this Limited Warranty are separate and severable, which means that if any provision is held invalid and unenforceable, such determination shall not affect the validity of enforceability of the other provisions hereof.

The limited duration of the warranty for Dolphin 9500 Series is as follows:

• Dolphin 9500 and Dolphin 9550 terminals with an integrated imager are covered by a two-year limited warranty.
• Dolphin 9551 and Dolphin 9501 terminals with an integrated laser engine are covered by a one-year limited warranty.
• Touch screens are covered by a one-year limited warranty.
• The limited duration of the warranty for the Dolphin 9500 Series HomeBase, Mobile Base, Mobile Charger, Net Base, ChargeBase, and QuadCharger is for one year.
• The limited duration of the warranty for batteries is one year. Use of any battery not sold/manufactured by Hand Held Products may damage the terminal and/or the battery and will void the warranty. Batteries returned to Hand Held Products in a reduced state may or may not be replaced under this warranty. Battery life will be greatly increased when following the battery instructions in the Dolphin 9500 Series User's Guide.

- Use of any peripheral not manufactured/sold by Hand Held Products will void the warranty. This includes but is not limited to: cables, power supplies, cradles, and docking stations.
- Use only power adapters approved for use by Hand Held Products. Failure to do so may result in improper operation or damage to the unit and will void the warranty.

Hand Held Products, Inc. extends these warranties only to the first end-users of the products. These warranties are non-transferable.

Regulatory and Safety Approvals for Dolphin 9500 Series

Parameter	Specification
U.S.A Canada European Community	FCC Part 15, Class B ICES-003 EN 55022 (CISPR 22) Class B EN60950 EN60825-1 EN55024:1998

The CE Mark on the product indicates that the system has been tested to and conforms with the provisions noted within the 89/336/EEC Electromagnetic Compatibility Directive and the 73/23/EEC Low Voltage Directive.

For further information, please contact:

Hand Held Products, Inc.
Nijverheidsweg 9
5627 BT Eindhoven
The Netherlands

Hand Held Products shall not be liable for use of our product with equipment (i.e., power supplies, personal computers, etc.) that is not CE marked and does not comply with the Low Voltage Directive.

FCC Compliance

Dolphin mobile computers meet or exceed all applicable standards and have been manufactured to the highest level of quality.

To see the specific labels associated with RF terminals configurations, see Chapter 1 of the Dolphin 9500 Series User's Guide.

Dolphin 9500 Series Batch Terminal

Dolphin 9500 Series Batch terminals comply with part 15 of the FCC rules. Operation is subject to the following two conditions:

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

Dolphin 9500 Series RF Terminal with 802.11b and/or Bluetooth Radio

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.

2. This device 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 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. 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 or more of the following measures:

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

If necessary, the user should consult the dealer or an experienced radio/television technician for additional suggestions. The user may find the following booklet helpful: "Something About Interference." This is available at FCC local regional offices. Our company is not responsible for any radio or television interference caused by unauthorized modifications of this equipment or the substitution or attachment of connecting cables and equipment other than those specified by our company. The correction is the responsibility of the user. Use only shielded data cables with this system.

In accordance with FCC 15.21, changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

This device and its antenna must not be co-located or operating in conjunction with any other antenna or transmitter. To maintain compliance with FCC RF exposure guidelines for body-worn operation, do not use accessories that contain metallic components other than specified by the manufacturer.

Canadian Compliance

This Class B digital apparatus complies with Canadian ICES-003. Operation is subject to the following two conditions:

1. This device may not cause harmful interference.

2. This device must accept any interference received, including interference that may cause undesired operation.

To prevent radio interference to the licensed service, 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 est conforme à la norme NMB-003 du Canada.

RF, Regulatory, and Safety Agency Approvals for 802.11b and Bluetooth

Parameter	Specification
RF Approvals U.S.A Canada	 FCC Part 15.247 RSS 210

RF, Regulatory, and Safety Agency Approvals for GSM

Parameter	Specification
RF Approvals U.S.A Canada	 FCC Part 24 RSS 133

Dolphin 9500 Series 802.11b and/or Bluetooth R&TTE Compliance Statement

The Dolphin RF are in conformity with all essential requirements of the R&TTE Directive (1999/5/EC). This equipment has been assessed to the following standards:

Parameter	Specification
R&TTE	EN 300 328-2:2000 EN 301 489-1 (2002-08) EN 301 489-17 (2002-08) EN 60950:2000 EN 50361:2001

This product is marked with C € 0681 ① in accordance with the Class II product requirements specified in the R&TTE Directive, 1999/5/EC. The equipment is intended for use throughout the European Community.

PAN European Frequency Range: 2.402 - 2.480 GHz

Restrictions for use in France are as follows:

• Indoor use - Maximum power (EIRP*) of 100 mW for the entire 2400-2483.5 MHz
• Outdoor use - Maximum power (EIRP*) of 100 mW for the 2400-2454 MHz band and maximum power (EIRP*) of 10 mW for the 2454-2483 MHz band.

Dolphin 9500 GSM R&TTE Compliance Statement

The Dolphin 9500 terminal is the **only** terminal that supports a GSM/GPRS radio.

The Dolphin RF is in conformity with all essential requirements of the R&TTE Directive (1999/5/EC).

This equipment has been assessed to the following standards:

Parameter	Specification
R&TTE	EN 301 511: 2000 EN 301 489-1 (2002-08) EN 301 489-7 (2002-08) EN 60950:2000 EN 50361:2001

Pacemakers, Hearing Aids, and Other Electrically Powered Devices

Most manufacturers of medical devices adhere to the IEC 601-1-2 standard. This standard requires devices to operate properly in an EM Field with a strength of 3V/m over a frequency range of 26 to 1000MHz.

The maximum allowable field strength emitted by the Dolphin is 0.3V/m according to Subpart B of Part 1 of the FCC rules. Therefore, the Dolphin RF has no effect on medical devices that meet the IEC specification.

Microwaves

The radio in the Dolphin RF terminal operates on the same frequency band as a microwave oven. Therefore, if you use a microwave within range of the Dolphin RF terminal you may notice performance degradation in your wireless network. However, both your microwave and your wireless network will continue to function. The Dolphin Batch terminal does not contain a radio, and therefore, is not affected by microwave ovens.

Care and Cleaning of the Dolphin 9500 Series

When needed, clean the image engine window and the LCD display with a clean, non-abrasive, lint-free cloth. The terminal can be cleaned with a damp cloth.

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