



Viper-NET™

User's Manual

DATALOGIC

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DATALOGIC S.p.A.
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Viper-NET™ - User's Manual

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DATALOGIC



REFERENCES

CONVENTIONS

This manual uses the following conventions:

“User” refers to anyone using a Viper-NET™ Terminal.

“Terminal” refers to the Viper-NET™ Terminal.

“You” refers to the System Administrator or Technical Support person using this manual to install, configure, operate, maintain or troubleshoot a Viper-NET™ Terminal.

REFERENCE DOCUMENTATION

For further information regarding Viper-NET™ refer to the SDK Help on-Line.

SERVICES AND SUPPORT

Datalogic provides several services as well as technical support through its website. Log on to **www.datalogic.com** and click on the links indicated for further information including:

- **PRODUCTS**

Search through the links to arrive at your product page where you can download specific **Manuals** and **Software & Utilities**

- **SERVICES & SUPPORT**

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E-mail form and listing of Datalogic Subsidiaries

SAFETY REGULATIONS



NOTE

Read this manual carefully before performing any type of connection to the Viper-NET™ terminal.

The user is responsible for any damages caused by incorrect use of the equipment or by inobservance of the indication supplied in this manual.

GENERAL SAFETY RULES

- Use only the components supplied by the manufacturer for the specific Viper-NET™ terminal being used.
- Do not attempt to disassemble the Viper-NET™ terminal, as it does not contain parts that can be repaired by the user. Any tampering will invalidate the warranty.
- When replacing the batteries or at the end of the operative life of the Viper-NET™ terminal, disposal must be performed in compliance with the laws in force.
- Do not submerge the Viper-NET™ terminal in liquid products.

LASER SAFETY

The laser light is visible to the human eye and is emitted from the window indicated in the figure.

This product complies with 21 CFR Subchapter J

CAUTION-CLASS 2
LASER LIGHT
WHEN OPEN
DO NOT STARE
INTO BEAM

AVOID EXPOSURE
LASER LIGHT
IS EMITTED FROM
THIS APERTURE

LASER LIGHT - DO NOT STARE INTO BEAM
CLASS 2 LASER PRODUCT
MAX. OUTPUT RADIATION 1.4 mW - EMITTED WAVE LENGTH 630-680 nm
EN60825-1:2001

Laser output window

DATALOGIC S.P.A. Via Candini, 2 Calderara di Reno (BO) Italy
Model VIPER-NET 301 - 102

S/N: D05100000 12 - 14 Vdc Max 1A
Manufactured September 2005
FCC ID: OMJ0010 contains FCC ID: LDK102040

218441 N2468

C US

I	D	F	E
La luce laser è visibile all'occhio umano e viene emessa dalla finestra indicata nella figura.	Die Laserstrahlung ist für das menschliche Auge sichtbar und wird am Strahlaustrittsfenster ausgesendet (siehe Bild).	Le rayon laser est visible à l'oeil nu et il est émis par la fenêtre désignée sur l'illustration dans la figure.	La luz láser es visible al ojo humano y es emitida por la ventana indicada en la figura.
LUCE LASER NON FISSARE IL FASCIO APPARECCHIO LASER DI CLASSE 2 MINIMA POTENZA DI USCITA: LUNGHEZZA D'ONDA EMESSA: CONFORME A EN 60825-1 (2001)	LASERSTRAHLUNG NICHT IN DER STRAHL BLINKEN PRODUKT DER LASERKLASSE 2 MAXIMALE AUSGANGLEISTUNG: WELLENLÄNGE: ENTSPR. EN 60825-1 (2001)	RAYON LASER EVITER DE REGARDER LE RAYON APPAREIL LASER DE CLASSE 2 PUISSANCE DE SORTIE: LONGUEUR D'ONDE EMISE: CONFORME A EN 60825-1 (2001)	RAYO LÁSER NO MIRAR FIJO EL RAYO APARATO LÁSER DE CLASE 2 MÁXIMA POTENCIA DE SALIDA: LONGITUD DE ONDA EMITIDA: CONFORME A EN 60825-1 (2001)

ENGLISH

The following information is provided to comply with the rules imposed by international authorities and refers to the correct use of your terminal.

STANDARD LASER SAFETY REGULATIONS

This product conforms to the applicable requirements of both CDRH 21 CFR 1040 and EN 60825-1 at the date of manufacture.

For installation, use and maintenance, it is not necessary to open the device.



CAUTION

Use of controls or adjustments or performance of procedures other than those specified herein may result in exposure to hazardous visible laser light.

The product utilizes a low-power laser diode. Although staring directly at the laser beam momentarily causes no known biological damage, avoid staring at the beam as one would with any very strong light source, such as the sun. Avoid that the laser beam hits the eye of an observer, even through reflective surfaces such as mirrors, etc.

ITALIANO

Le seguenti informazioni vengono fornite dietro direttive delle autorità internazionali e si riferiscono all'uso corretto del terminale.

NORMATIVE STANDARD PER LA SICUREZZA LASER

Questo prodotto risulta conforme alle normative vigenti sulla sicurezza laser alla data di produzione: CDRH 21 CFR 1040 e EN 60825-1.

Non si rende mai necessario aprire l'apparecchio per motivi di installazione, utilizzo o manutenzione.



ATTENZIONE

L'utilizzo di procedure o regolazioni differenti da quelle descritte nella documentazione può provocare un'esposizione pericolosa a luce laser visibile.

Il prodotto utilizza un diodo laser a bassa potenza. Sebbene non siano noti danni riportati dall'occhio umano in seguito ad una esposizione di breve durata, evitare di fissare il raggio laser così come si eviterebbe qualsiasi altra sorgente di luminosità intensa, ad esempio il sole. Evitare inoltre di dirigere il raggio laser negli occhi di un osservatore, anche attraverso superfici riflettenti come gli specchi.

DEUTSCH

Die folgenden Informationen stimmen mit den Sicherheitshinweisen überein, die von internationalen Behörden auferlegt wurden, und sie beziehen sich auf den korrekten Gebrauch vom Terminal.

NORM FÜR DIE LASERSICHERHEIT

Dies Produkt entspricht am Tag der Herstellung den gültigen EN 60825-1 und CDRH 21 CFR 1040 Normen für die Lasersicherheit.

Es ist nicht notwendig, das Gerät wegen Betrieb oder Installations-, und Wartungsarbeiten zu öffnen.



ACHTUNG

Jegliche Änderungen am Gerät sowie Vorgehensweisen, die nicht in dieser Betriebsanleitung beschrieben werden, können ein gefährliches Laserlicht verursachen.

Der Produkt benutzt eine Laserdiode. Obwohl zur Zeit keine Augenschäden von kurzen Einstrahlungen bekannt sind, sollten Sie es vermeiden für längere Zeit in den Laserstrahl zu schauen, genauso wenig wie in starke Lichtquellen (z.B. die Sonne). Vermeiden Sie es, den Laserstrahl weder gegen die Augen eines Beobachters, noch gegen reflektierende Oberflächen zu richten.

FRANÇAIS

Les informations suivantes sont fournies selon les règles fixées par les autorités internationales et se réfèrent à une correcte utilisation du terminal.

NORMES DE SECURITE LASER

Ce produit est conforme aux normes de sécurité laser en vigueur à sa date de fabrication: CDRH 21 CFR 1040 et EN 60825-1.

Il n'est pas nécessaire d'ouvrir l'appareil pour l'installation, l'utilisation ou l'entretien.



ATTENTION

L'utilisation de procédures ou réglages différents de ceux donnés ici peut entraîner une dangereuse exposition à lumière laser visible.

Le produit utilise une diode laser. Aucun dommage aux yeux humains n'a été constaté à la suite d'une exposition au rayon laser. Eviter de regarder fixement le rayon, comme toute autre source lumineuse intense telle que le soleil. Eviter aussi de diriger le rayon vers les yeux d'un observateur, même à travers des surfaces réfléchissantes (miroirs, par exemple).

ESPAÑOL

Las informaciones siguientes son presentadas en conformidad con las disposiciones de las autoridades internacionales y se refieren al uso correcto del terminal.

NORMATIVAS ESTÁNDAR PARA LA SEGURIDAD LÁSER

Este aparato resulta conforme a las normativas vigentes de seguridad láser a la fecha de producción: CDRH 21 CFR 1040 y EN 60825-1.

No es necesario abrir el aparato para la instalación, la utilización o la manutención.



ATENCIÓN

La utilización de procedimientos o regulaciones diferentes de aquellas descritas en la documentación puede causar una exposición peligrosa a la luz láser visible.

El aparato utiliza un diodo láser a baja potencia. No son notorios daños a los ojos humanos a consecuencia de una exposición de corta duración. Eviten de mirar fijo el rayo láser así como evitarían cualquiera otra fuente de luminosidad intensa, por ejemplo el sol. Además, eviten de dirigir el rayo láser hacia los ojos de un observador, también a través de superficies reflectantes como los espejos.

RADIO COMPLIANCE

In radio systems configured with portable terminals and access points, the frequencies to be used must be allowed by the spectrum authorities of the specific country in which the installation takes place. Be absolutely sure that the system frequencies are correctly set to be compliant with the spectrum requirements of the country.

The Radio Card used in this product automatically adapts to the frequencies set by the system and does not require any parameter settings.



NOTE

For RadioReady versions, the correct conformity label for your radio model must be applied to the Viper-NET™ terminal to indicate that the terminal is in conformity with the directives related to the Viper-NET™/RF version.

The following shows the correspondence between the Viper-NET™ models and the Radio modules:

- Viper-NET™ 300-XXX for 802.11b (Wi-Fi) radio cards
- Viper-NET™ 100-XXX for radio ready models
- Viper-NET™ 301-XXX for 802.11b (Wi-Fi) radio cards + Bluetooth®

INFORMATION FOR THE USER

ENGLISH

Contact the competent authority responsible for the management of radio frequency devices of your country to verify the eventual necessity of a user license. Refer to the web site <http://europa.eu.int/comm/enterprise/rte/spectr.htm> for further information.

ITALIANO

Prendi contatto con l'autorità competente per la gestione degli apparati a radio frequenza del tuo paese, per verificarne l'eventuale necessità della licenza d'uso. Inoltre puoi trovare ulteriori informazioni al sito: <http://europa.eu.int/comm/enterprise/rte/spectr.htm>.

FRANÇAIS

Contactez l'autorité compétente en la gestion des appareils à radio fréquence de votre pays pour vérifier la nécessité du permis d'usage. Pour tout renseignement vous pouvez vous adresser au site web:

<http://europa.eu.int/comm/enterprise/rte/spectr.htm>.

DEUTSCH

Um die Notwendigkeit der Verwendungslizenz zu prüfen, wenden Sie sich an die Behörde, die auf der Radiofrequenzgerätsführung Ihres Lands bewandert ist. Weitere Informationen sind verfügbar auf dem Web Site:

<http://europa.eu.int/comm/enterprise/rte/spectr.htm>.

ESPAÑOL

Contacta con la autoridad competente para la gestión de los dispositivos de radio frecuencia de tu país, para verificar si es necesario la licencia de uso. Además se puede encontrar mas información en el sitio web:

<http://europa.eu.int/comm/enterprise/rte/spectr.htm>.



BLUETOOTH® APPROVAL

This product is equipped with the following certified Bluetooth module:

<u>Product Name</u>	<u>Bluetooth ID</u>
Datalogic Bluetooth Radio Module	B01322

FCC

This device must be opened by qualified personnel only.

Modifications or changes to this equipment without the expressed written approval of Datalogic could void the authority to use the equipment.

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 which may cause undesired operation.

All Wi-Fi models contain FCC ID: LDK102040.

WARNING: FCC RF EXPOSURE GUIDELINES

To satisfy FCC RF exposure compliance requirements, this device should be used in hand-held, hand-operated configurations only. The device and its antenna must maintain a separation distance of 20 cm or more from a person's body, except for the hands and wrists, to satisfy RF exposure compliance.

This device is designed to be used in a person's hands and its operating configurations do not support normal transmissions while it is carried in pockets or holsters next to a person's body.

This device must not be co-located or operated in conjunction with any other transmitting device.

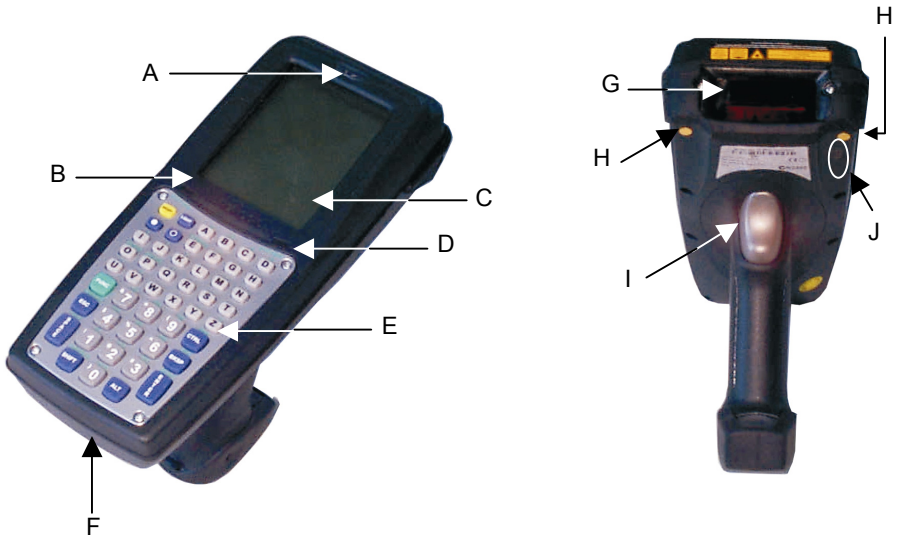
POWER SUPPLY

For battery charging, this device is intended to be supplied by a UL Listed or CSA Certified Power Unit marked "Class 2" or "LPS" output rated 12-14 V, minimum 1 A which supplies power directly to the charger via the jack connector.

COMPLIANCE



GENERAL VIEW



Key:

- A) Good Read LED
- B) Battery low / Keyboard status / User programmable LED
- C) Display
- D) Charging status LED
- E) Keyboard
- F) Connector for direct RS232 or USB connection
- G) Laser beam output window
- H) Recharge contacts
- I) Trigger
- J) IrDA port

1 INTRODUCTION

1.1 VIPER-NET™ TERMINAL DESCRIPTION

The Viper-NET™ is the latest addition in Datalogic's Mobile@work™ family for industrial environments.

The pistol shape, superior protection class, great drop resistance, and wide operating temperature range make the Viper-NET™ the ideal solution for warehouse and distribution center environments.

The rugged case of the Viper-NET™ houses the latest mobile and wireless technologies, including the Intel® XScale™ @ 400 MHz powerful processor. A bright and reflective TFT daylight readable color display with touch screen provides an optimal interface.

The terminal is always ready to use thanks to numerous communication ports (IrDA, RS232, USB). The Windows CE.NET architecture allows data capture, collection and communication with simple icons and intuitive graphic interface.

The Viper-NET™ product line offers two scan engine models: Laser High Performance (high visibility) and Laser Extra Long Range (autofocus), allowing codes to be read from near contact to several meter distances. These different options make it possible to respond to any warehouse or retail need.

Wireless communication is guaranteed thanks to RF WLAN technology, compliant with the IEEE 802.11b (Wi-Fi) standard. The Viper-NET™ product line includes Bluetooth® models, allowing connection with printers or other equipment with the same technology.

A full set of accessories and software tools, two keyboard options, easy to use interfaces, and long-lasting Li-Ion batteries make the Viper-NET™ ideal for the harshest mobile applications.

1.2 BLUETOOTH® MODULE

Viper-NET™ XX1-XXX models are equipped with a Bluetooth® module for radio communications to other devices which use this standard, for example BT printers.

Connections are not guaranteed at temperatures below 0° C.

1.3 PACKAGE CONTENTS



Viper-NET™ - Package Contents

The Viper-NET™ terminal package contains:

- 1 Viper-NET™ terminal;
- 1 rechargeable battery pack;
- 1 CD-ROM Datalogic-NET SDK (Windows CE .NET SDK for Datalogic Terminals);
- 1 user's manual;
- 3 styluses with clips and 3 bi-adhesive strips;
- 1 frame with 3 overlays;

Any other packages will contain the accessories necessary for the Viper-NET™ terminal connection to the host computer and to the network: the cradle, power supply, and one or more connection cables.

Remove all the components from their packaging, check their integrity and congruity with the packing documents.



CAUTION

Keep the original packaging for use when sending products to the technical assistance center. Damage caused by improper packaging is not covered under the warranty.



NOTE

Rechargeable battery packs are not initially charged. Therefore the first operation to perform is to charge them. See paragraph 4.1.

1.4 ACCESSORIES

❑ **Charger**

94A154840 MBC9600 multi-slot battery charger (4 slots)

❑ **Batteries**

94ACC4661 B-9600 LI BATTERY PACK 2000 mAh@7.2 V

❑ **Power Supply**

FPS18 Power Supply for Viper-NET™ terminal (through CAB-405 or CAB-406) and for the MBC9600 multi-slot battery charger:

94ACC4595 FPS18 power supply without cord

94ACC1150 Power cord EU 3- pin

94ACC1160 Power cord AUS 3- pin

❑ **Cables**

94A051000 CAB-405 cable for RS232 direct connection between the terminal and the PC. It also provides a power jack for connection to the FPS18.

94A051001 CAB-406 cable for USB direct connection between the terminal and the PC. It also provides a power jack for connection to the FPS18.

❑ **Various**

94ACC1260 Pouch Style DL9600 (5 pcs)

94ACC1272 Functional Case Viper-NET™

94ACC1240 Shoulder Strap (5 pcs)

94ACC1250 Heavy Duty Belt (5 pcs)

94ACC1230 Swivel for Functional Case (10 pcs)

94ACC1301 Stylus Pen (20 pcs)

94ACC1291 Belt Holster Right for Viper-NET™

94ACC1292 Belt Holster Left for Viper-NET™

2 CONNECTIONS

2.1 TERMINAL CONNECTION TO THE HOST COMPUTER

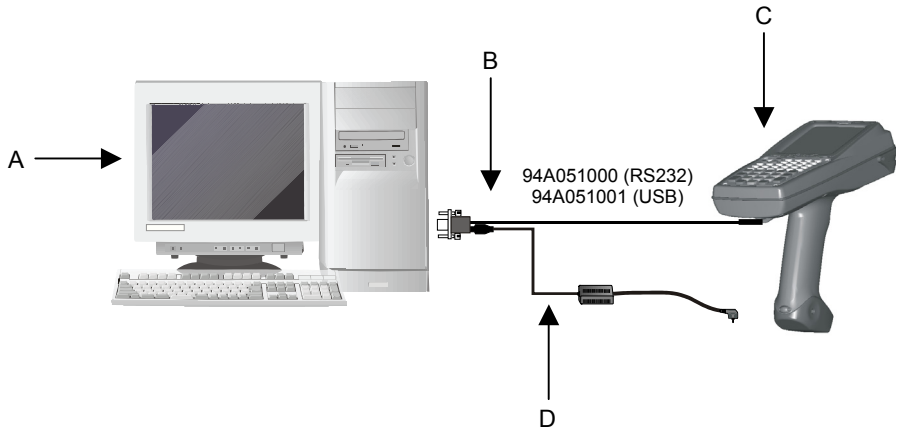
2.1.1 RS232/USB Direct Connection

You can use a cable to connect the Viper-NET™ terminal to a host computer to transfer data.

This cable also allows connection to an external power supply to charge the batteries.



USB communication may not be completely guaranteed while batteries are simultaneously in charge. Avoid the CAB-406 connection to power supply when USB link is active.

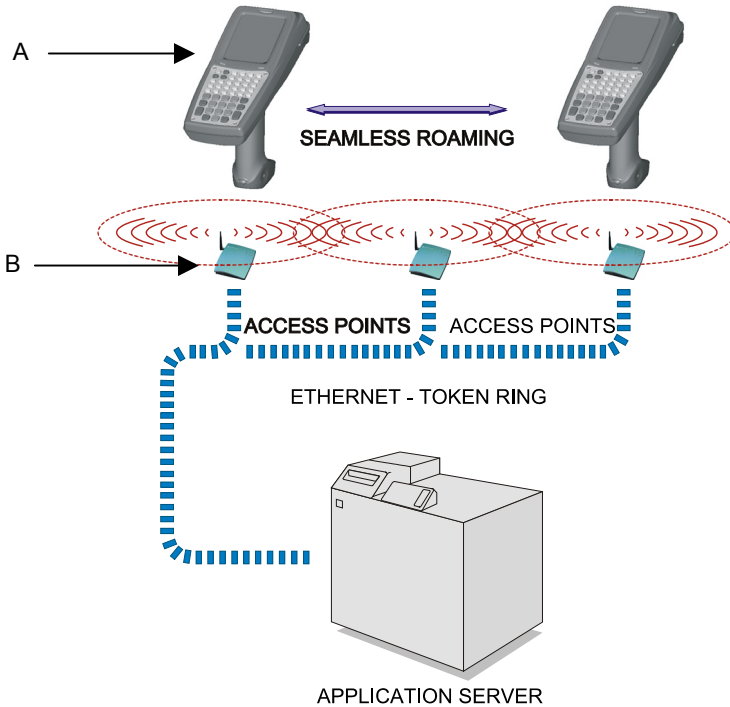


Key:

- | | | | |
|---|--------------------------|---|---------------------|
| A | Host computer | C | Viper-NET™ terminal |
| B | RS232 cable or USB cable | D | Power supply |

2.1.2 WLAN Connections

Viper-NET™ Wi-Fi models can communicate with the host using the on-board radio frequency module and an Access Point connected to the host computer.



Key:

- A) Viper-NET™ terminal
- B) Access point

2.1.3 WPAN Connections

Viper-NET™ Bluetooth® models can communicate with a Bluetooth® device, such as a printer, within a range of 10 m, using the on-board Bluetooth® module.



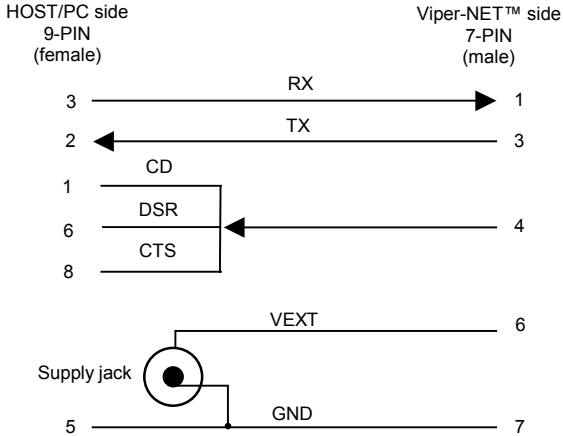
Key:

- A) Viper-NET™ terminal
- B) Bluetooth® printer

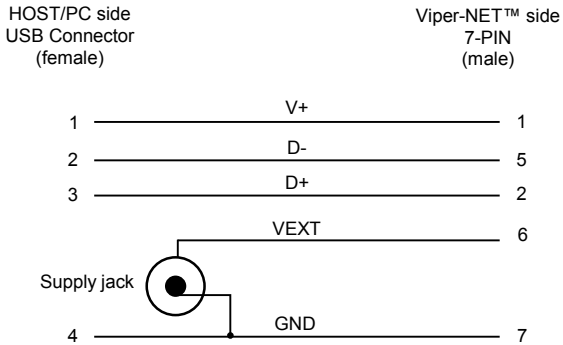
2.2 CONNECTION CABLES

The following cable is listed with its order number.

□ **RS232 Direct Connection: cable 94A051000**



□ **USB Direct Connection: cable 94A051001**



3 USE AND FUNCTIONING

The use of the Viper-NET™ terminal depends on the application software loaded. However there are several parameters that can be set and utilities that can be used to perform some basic functions such as barcode scanning, communications, file management, etc.

3.1 TERMINAL STARTUP

The Viper-NET™ terminal turns on when the batteries or the external supply are inserted.

After the batteries are installed, use the [ON/OFF] key or the trigger button to turn on the terminal. Use the [OFF] key to turn it off.

As soon as the terminal is on, the Windows CE .NET desktop configuration will appear on the screen.



Use the stylus as suggested in paragraph 3.2 to select icons and options.

The terminal goes into power-off (low power with display off), when it is no longer used for more than a programmable timeout, which is defined in the POWER applet of the Control Panel. In this mode it can be awakened (resuming operation) by the [ON/OFF] key or a trigger press.



NOTE

The terminal can also be awakened or turned off by the application program.

3.2 USING THE STYLUS

The stylus selects items and enters information. The stylus functions as a mouse.

Tap:	Touch the screen once with the stylus to open 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-and-hold:	Tap and hold the stylus on an item to see a list of actions available for that item. On the pop-up menu that appears, tap the action you want to perform.

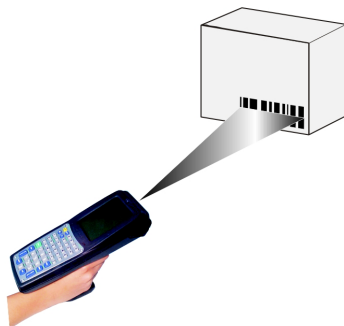
The stylus is factory aligned; however, it is possible to align the cursor on the screen with the tip of the stylus. Enter the STYLUS applet of the Control Panel and tap the center of each target that appears on the screen with the tip of the stylus.

3.3 BARCODE SCANNING

To scan barcodes, point the Viper-NET™ terminal laser beam onto the code from a distance within the reading range while pressing the trigger. See the reading diagrams in chapter 0 for the reading range of your model.

The lighted band emitted by the laser must completely intercept the barcode as shown in the figure below. If enabled, the Good Read LED and the emission of an acoustic signal will indicate that the scan has taken place correctly.

To enable the barcode scanning refer to par. 3.7.1



3.4 DESCRIPTION OF THE KEYS (32-KEY MODELS)

This version of the Viper-NET™ terminal provides a keyboard having a total of 32 keys.

The keyboard can be divided as follows:



3.4.1 System Control and Power Keys

	By pressing this key and the terminal trigger simultaneously, a system software reset is performed.
--	---

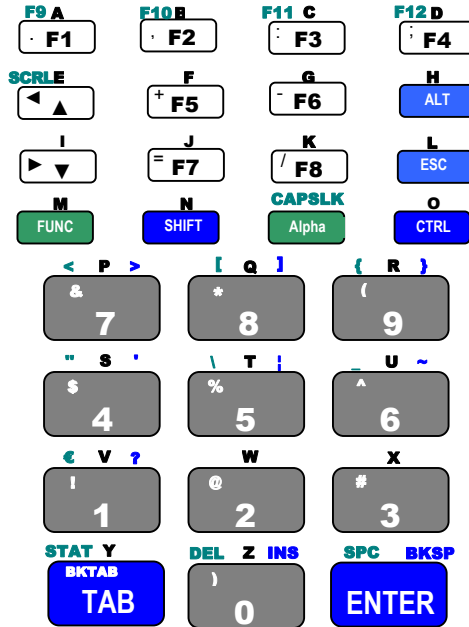
	By pressing these keys and the terminal trigger simultaneously, a system hardware reset is performed.
--	---

	Powers the terminal ON or OFF.
--	--------------------------------

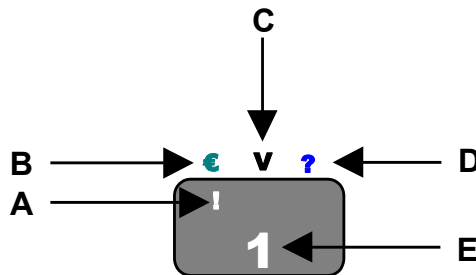
	Switch on/off the display backlight.
--	--------------------------------------

3.4.2 Key Selection

The following image shows the function, numeric and special keys provided on the keyboard:



Some of these keys carry extra symbols and are logically divided in up to 5 sections according to the following figure:



Each section corresponds to a symbol that can be obtained using the corresponding keyboard method according to the following scheme:

- A) function of the key when preceded by a SHIFT key press;
- B) function of the key when preceded by a FUNC key press;
- C) function of the key when in Alpha mode;
- D) function of the key when preceded by a CTRL key press;
- E) function of the key when directly pressed.

3.4.3 Special Key Sequences



This sequence locks the arrow keys so that they are always active to "scroll" through display selections. Pressing this sequence again returns the arrow keys to their normal function (singularly selectable with FUNC).



The ALT key press preceding any keyboard key or key sequence takes the same effect as on a standard PC.
Ex.: ALT - F8 corresponds to ALT - F8 on a PC.



The CTRL key press preceding any keyboard key enables the character positioned on the right upper part above the key.
Ex: CTRL - 6 corresponds to the ~ character.



The FUNC and SHIFT key press preceding any keyboard key corresponds to the SHIFT + key press on the PC.
Ex.: FUNC - SHIFT - F5 corresponds to SHIFT - F5 on a PC.



The FUNC and CTRL key press preceding any keyboard key corresponds to the CTRL + key press on the PC.
Ex.: FUNC - CTRL - F8 corresponds to CTRL - F8 on a PC.



The SHIFT key press preceding any keyboard key enables the character positioned on the left upper corner of the key.
Ex: SHIFT - 5 corresponds to the % character.



The FUNC key press preceding any keyboard key enables the character positioned on the left upper part above the key.

Ex: FUNC - 5 corresponds to the \ character.



The Alpha key press enters a special mode through which it is possible to digit all the alphabetic characters positioned above the keys.

To exit the Alpha mode and return to the keyboard normal functioning it is necessary to press the Alpha key again.



The FUNC key and Alpha key pressed in the stated sequence when not in Alpha mode switch the case of the characters positioned above the keys.

To use the alphabetic characters it is necessary to enter the alpha mode.

**NOTE**

Once the Alpha mode has been entered, press the Alpha key again to exit this mode. Otherwise, it will not be possible to use other keyboard functions.

3.5 DESCRIPTION OF THE KEYS (48-KEY MODELS)

This version of the Viper-NET™ terminal provides a keyboard having a total of 48 keys.

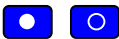
The keyboard can be divided as follows:



3.5.1 System Control and Power Keys



By pressing this key and the terminal trigger simultaneously, a system software reset is performed.



By pressing these keys and the terminal trigger simultaneously, a system hardware reset is performed.



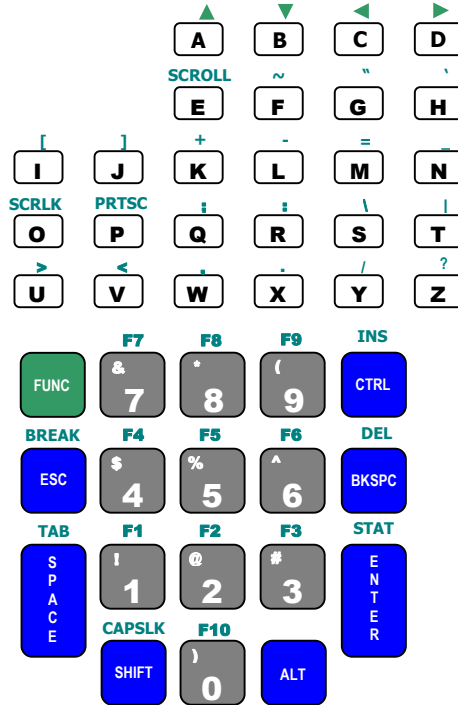
Powers the terminal ON or OFF



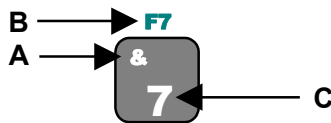
Switch on/off the display backlight.

3.5.2 Key Selection

The following image shows the alphabetic, numeric and special keys provided on the keyboard:



Some of these keys carry extra symbols and are logically divided in up to 3 sections according to the following figure:



Each section corresponds to a symbol that can be obtained using the corresponding keyboard method according to the following scheme:

- A) function of the numeric key when preceded by a SHIFT key press; if pressing an alphabetic key after the SHIFT key, it switches between lower and upper case characters;
- B) function of the key when preceded by a FUNC key press;
- C) function of the key when directly pressed.

3.5.3 Special Key Sequences



This sequence locks the arrow keys so that they are always active to "scroll" through display selections. Pressing this sequence again returns the arrow keys to their normal function (singularly selectable with FUNC).



The ALT key press preceding any keyboard key or key sequence takes the same effect as on a standard PC.
Ex.: ALT - FUNC - 8 corresponds to ALT - F8 on a PC.



The CTRL key press preceding any keyboard key or key sequence takes the same effect as on a standard PC.
Ex: CTRL - J corresponds to CTRL - J on a PC.

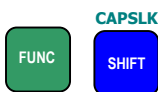


On the Viper-NET™, the [SHIFT] key corresponds to the PC one. By pressing it with alphabetic keys it allows switching between upper and lower case characters.

If the SHFT key precedes another numeric key, it selects the character positioned on the left upper corner of the key.
Ex: SHIFT - A corresponds to SHIFT - A on a PC.
SHIFT - 3 corresponds to #.



The FUNC key press preceding any keyboard key enables the character displayed above each key. By pressing it with numeric keys it selects the F1-F10 function.
Ex: FUNC - J corresponds to J.



If you want to toggle the keyboard case for all the subsequent letters, use the FUNC - SHIFT sequence. The FUNC - SHIFT sequence has no effect on numeric keys.

3.6 STATUS INDICATORS

3.6.1 LED Status





The Viper-NET™ provides three different LEDs signaling the terminal status.

LED	STATUS	
Charging status (right side)	Green pulse	it goes on for a few seconds when the external supply or the battery supply has been recognized.
	Green blinking	it blinks during slow charge.
	Green constant	it is constant once the charging process has been completed.
	Red constant	it is constant while charging.
	Green/Red	they turn on alternatively while discharging.
	Orange blinking	it blinks when a charging error has occurred.
Battery Low	Red blinking	it blinks when the battery is running down.
Keyboard Status (left-side)	Green constant*	it is constant when Alpha mode is selected (numeric models only).
Good Read (top)	Green flashing	it flashes as soon as a code has been read. The number and duration of flashes is configurable through the barcode setup applet in the control panel.

* This LED is available to the application program.

3.6.2 Status Bar

The Status Bar provides information about the time, the battery level, and the decoding status.

ICONS	DESCRIPTION
Time and Battery Icons	
17.00	It shows the time
	They are representative of five different icons indicating the battery level. The icon is green, yellow, or red colored according to the power left (green when $\geq 41\%$, yellow between 40% and 21%, red when $\leq 20\%$).
	It shows the battery is charging
Decoding Status Icons	
	It shows the decoder is active
	It shows the decoder is not active



Status Bar

3.7 DATA CAPTURE CONFIGURATION

From the Taskbar, tap the "Data Capture" icon to open a drop-down menu. Data Capture can also be accessed from the Control Panel.



By selecting the *Info* item from this drop-down menu you can access information about the Scanner and the Software; the *Configure* item opens the configuration applet (Data Capture Configuration Window), while *Capture* accesses the data capture applet (Data Capture Window) which enables code reading. The last menu item (*Wedge*) enables Wedge Emulation.

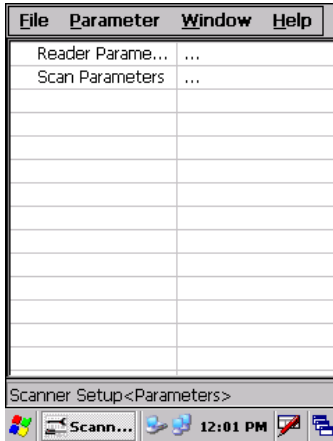
3.7.1 Configure

The Configuration applet contains the barcode scanning configuration parameters in a directory tree structure. The available barcode parameters are divided into two groups: Reader Parameters and Scan Parameters.

The Reader Parameters depend on the type of scanner module installed on the terminal and allow barcode configuration (i.e. enable/disable Code 39, check digit control, etc.).

The Scan Parameters are common to all scanner modules and allow control of the scanning device (i.e. beeper control, LED control, laser timeout, etc.).

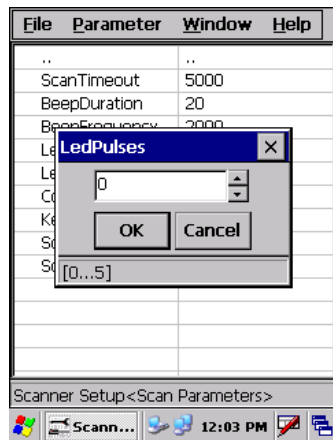
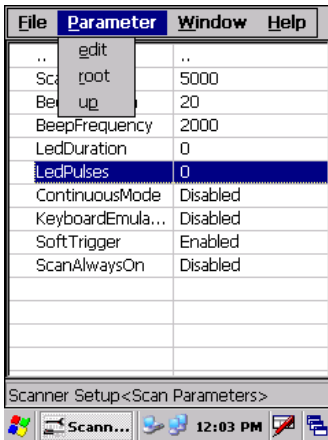
Each Data Capture screen window corresponds to a branch of the tree, and the name of the current branch is displayed at the bottom of each screen window.



Data Capture Configuration Window

The screen format shows two columns where the left column indicates branches or parameters. Branches have three dots in the right column (...). You can navigate through the tree structure using the stylus or keyboard arrows directly on the item field or from the menu.

Parameters have their corresponding current values in the right column. You can edit parameter values using the stylus or keyboard arrows directly on the item field or from the menu. To change a value for example, select the line of the value to be changed, choose Edit from the Parameter Menu then choose a new value from the values listed in the box (see following figures).



Selecting Data Capture Setup Parameters

Alternatively using the stylus, you can tap once directly on the value on the right column, continue tapping until the desired value is reached.

To activate a new configuration select the File ->Save Menu to send the new configuration to the barcode decoding software and save the new configuration. This will save the configuration to non-volatile memory preventing loss at the next system reset.

Reader Parameters

The barcode reading parameters and values are dependent upon the type of scanner module mounted in your terminal. For a detailed list of parameters and of their configuration procedures, please refer to the SDK Help file on the CD.

Scan Parameters

The Scan Parameters are common to all scanner modules and allow control of the scanning device. The Scan parameters are described as follows:

Scan Timeout: the maximum time, in milliseconds, during which the scanner remains on without decoding any barcode.

Beep Duration: the time interval, in milliseconds, during which the beeper will sound when the scanner reads a code. To disable the beeper, set this value to 0.

Beep Frequency: determines the frequency in Hertz of the beeper.

Continuous Mode: when enabled, the scanner can only be turned off by releasing the SCAN key, or if Soft Trigger is enabled, by the application program. Continuous Mode overrides Scan Timeout.

Keyboard Emulation: if enabled all scanned data are transformed into keyboard events and can therefore be displayed and saved to a file as if input from the terminal keyboard.

Soft Trigger: when enabled, the laser can be turned on/off by the application software.

Scan Always On: enables the scanner for barcode reading independently from the application software.

Default Settings

The following tables contain the default values for the major barcode setup parameters, according to the type of scan engine mounted on the terminal. For a complete list of parameters and of their configuration procedures, please refer to the SDK Help file on the CD.

SCAN PARAMETERS	HP	XLR
Scan Timeout	5000	5000
Beep Duration	20	20
Beep Frequency	2000	2000
LED Duration	0	0
LED Pulses	0	0
Continuous Mode	Disabled	Disabled
Keyboard Emulation	Disabled	Disabled
Soft Trigger	Enabled	Enabled
Scan Always On	Disabled	Disabled

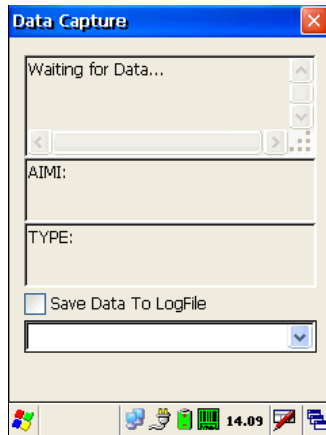
GENERAL READER PARAMETERS	HP	XLR
Barcode Symbology Identifier	None	None
Aim Mode	Timed Hold	Timed Hold
Aim Duration	0	0

SYMBOLGY SPECIFIC READER PARAMETERS	HP	XLR
UPC A	Enabled	Enabled
UPC E	Enabled	Enabled
UPC E1		Disabled
EAN 8	Enabled	Enabled
EAN 13	Enabled	Enabled
EAN Bookland		Disabled
Code 39	Enabled	Enabled
Code 39 Full ASCII	Disabled	Disabled
Code 32	Disabled	Disabled
Code 39 Trioptic		Disabled
2/5: Interleaved	Enabled	Enabled
2/5: Industrial	Disabled	Disabled
2/5: Matrix	Disabled	
Code 128	Enabled	Enabled
EAN 128	Enabled	Enabled
ISBT 128		Disabled

SYBOLOGY SPECIFIC READER PARAMETERS	HP	XLR
Codabar	Enabled	Disabled
MSI	Enabled	Disabled
Plessey	Disabled	
Code 93	Disabled	Disabled
Code 11	Disabled	

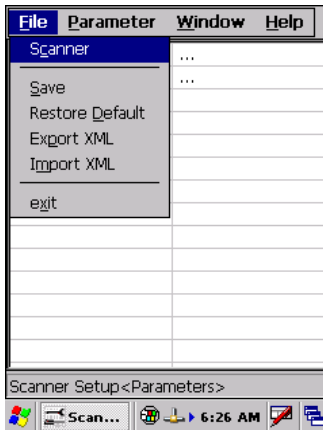
3.7.2 Capture

The Data Capture applet (Capture) enables code reading.



Data Capture Window

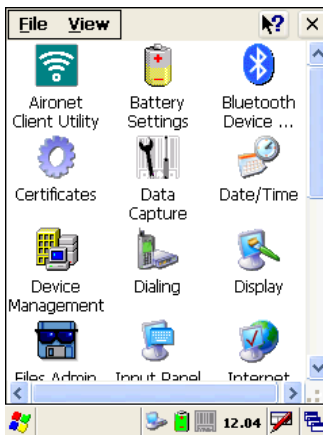
Data Capture can also be enabled through the Configuration applet by selecting File ->Scanner from the main menu, or by enabling the parameter Scan Always On in the Scan Parameters branch.



Enabling the Data Capture

3.8 CONTROL PANEL

The main window of the Windows CE .NET control panel is shown below as it appears on the terminal when launched from Start ->Settings ->Control Panel; APPLLET programs are displayed on the desktop as icons; one icon corresponds to each APPLLET.



Control Panel

3.8.1 Registry

The REGISTRY ADMIN applet provides management of Windows CE .NET registry.

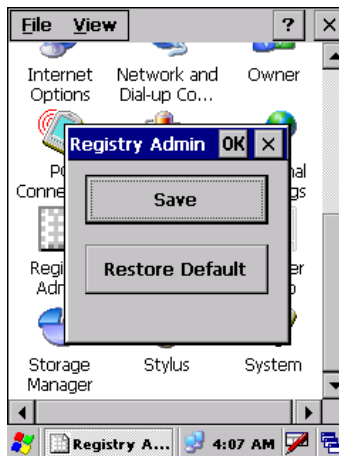


Select the REGISTRY ADMIN applet by double tapping the Registry Admin icon.

The Registry Administration Main window appears. Two functions are available:

- Save Registry allows permanently saving the Windows configuration (example: custom configuration of screen desktop background color, or network adapter configuration) to non-volatile memory (SAVE button)
- Restore Default Registry allows restoring the initial factory default configuration (Restore Default button). After restoring the factory default configuration, you must perform a software reset (see par. 3.4.1 or 3.5.1)

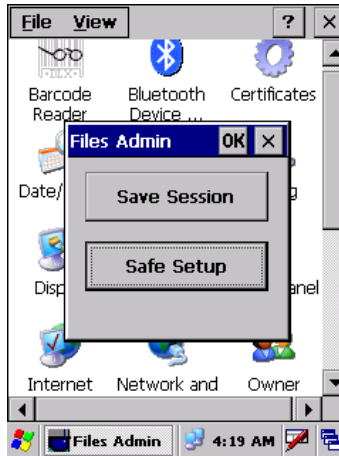
Saving the registry to non-volatile memory guarantees the persistence of the Windows configuration in case of battery replacement.



Registry Administration Window

3.8.2 Files Admin

The FILES ADMIN applet enables control of the permanence of files in the System Folder. Two functions are available on the Files Admin Main window by means of two buttons:



Files Admin Main Window

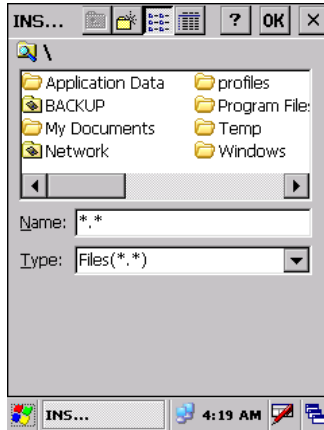
Save Session: with this button all files will be permanently saved in the \Windows directory in non-volatile memory. This function guarantees the steady maintenance of every file produced during the current working session - even of sub-directories and relevant files - with the exception of the files belonging to the FLASH image. These current working session files will be backed-up in the \Backup\Windows directory.

At the next hardware reset, the files previously saved in the \Backup\Windows directory will be restored to the Windows directory (see BACKUP DIRECTORY FILE MANAGEMENT 3.10).

Safe Setup: with this button, the installation of software programs will be saved to non-volatile memory (Backup directory). Before doing this, it will be checked that the Backup directory has enough space to save the files. If the directory space is not enough, an error message will be shown and the program will exit the Safe Setup function.

Two activating procedures are available:

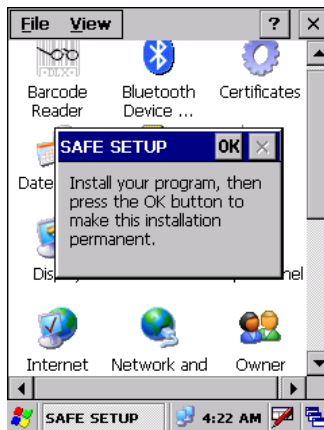
- Select an installation file (for example, a .CAB cabinet file) from the Safe Setup mask.



Safe Setup First Mask

Then select \Windows or a relevant sub-directory in the path box. Then, Safe Setup will recognize the new files and directories present in the \Windows directory, and will copy them to the \Backup\Windows directory. At the next hardware reset, these files will be restored (see BACKUP DIRECTORY FILE MANAGEMENT 3.10).

- Simply skip the first mask. When it closes, a new mask will pop up: it will enable any type of installation (even remote ones like ActiveSync® installations). Make sure the installation directory is \Windows or one of its sub-directories. After installation, tap OK: Safe Setup will save the new files in the \Backup\Windows directory.



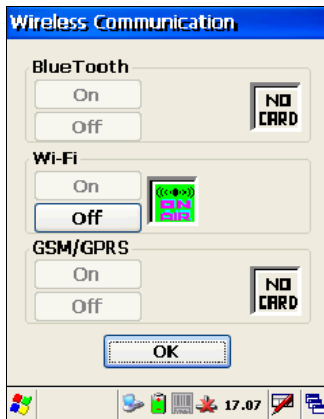
Safe Setup Second Mask

3.8.3 Wireless Communications

The WIRELESS COMMUNICATIONS applet provides management of the Bluetooth® module and of the Wi-Fi Card.



Select the WIRELESS COMMUNICATIONS applet by double tapping the Wireless Communications icon. The following window will appear:



Wireless Communications Window

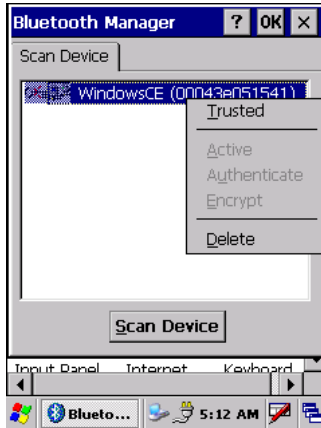
3.8.4 Bluetooth® Manager Device Setup

In order to enable a Bluetooth® device for communication with the Viper-NET™ terminal you must perform the discovery procedure and enable the device as follows:

1. Place the Bluetooth® device within the range of the Viper-NET™ terminal (10 meters).
2. From the Viper-NET™ Control Panel, select and run the Bluetooth® Device Properties applet.
3. Run the Discovery procedure: "Scan Device". The following window will appear:



4. Select the discovered device and check "Trusted" in the menu.



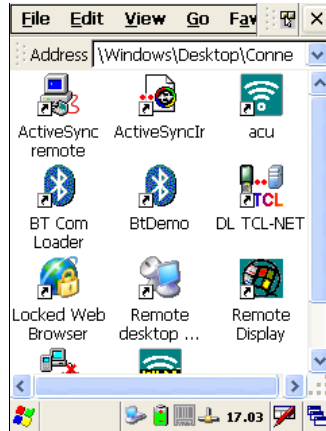
5. Activate the trusted device by checking "Active".



6. Close the Bluetooth[®] Manager by selecting OK.

3.9 WINDOWS CONNECTIONS

From the Desktop, double tap on the "Connection" folder to open the following window:



Windows Connections

3.9.1 Microsoft® ActiveSync®

Microsoft® ActiveSync® gives you the possibility to connect your desktop computer to your Viper-NET™ Terminal and synchronize the information on them. Synchronization compares the data on the Viper-NET™ Terminal with that on the desktop computer and updates both computers with the most recent information.

With ActiveSync®, it is possible to:

- Back up and restore Viper-NET™ Terminal data.
- Copy files between Viper-NET™ Terminal and desktop computer.
- Synchronize files by selecting a synchronization mode.

It is possible to constantly synchronize while connected to a desktop computer or, alternatively, synchronization can be performed only when the synchronize command is chosen. You can select which information types are synchronized and control how much data is synchronized.



NOTE

By default, ActiveSync® does not automatically synchronize all types of information. Use ActiveSync® options to turn synchronization on and off for specific information types.

For example:

Synchronize Microsoft Word and Microsoft Excel files between the Viper-NET™ Terminal and the desktop computer. The files will automatically be converted to the correct format.

You can establish a connection by Serial cable, by USB cable or by network. Moreover, if you have a Viper-NET™ Cradle you can connect your Viper-NET™ Terminal putting it into the cradle and connecting via Infrared using Serial cradle cable or USB cradle cable.



NOTE

Visit the following Microsoft Web site for the latest in updates, technical information, and samples:

<http://www.microsoft.com/windowsmobile/resources/downloads>

ActiveSync® Remote

After a Partnership between terminal and desktop computer is established, it is also possible to establish a remote connection via Wireless LAN: disconnect the actual connection via ActiveSync® by double tapping the ActiveSync® connection icon on the taskbar and press Disconnect, then go to the \Windows\Desktop\Connection folder and double tap the ActiveSync® remote icon. In the dialog box that will appear it will be possible to choose a method to connect to the desktop computer. Choose Network Connection and press the Connect button:



NOTE

To set up your network connection you have to correctly set up your wireless connection. These settings depend on the wireless card that you have installed on your Viper-NET™ Terminal and on your wireless network settings. For more information about these settings contact your network administrator.

3.9.2 Remote Desktop Connection

The establishment of a terminal connection with a Windows Server can be obtained by double tapping the Terminal Client in the \Window\Desktop\Remote Desktop Connection folder. This type of connection makes it possible to see one's own desktop computer on the terminal screen, as well as to work as if one were at a desktop computer screen.

3.10 BACKUP DIRECTORY FILE MANAGEMENT

All of the Windows CE .NET system files reside in RAM (volatile memory) except for the Backup directory, which resides in FLASH (non-volatile memory). Therefore the contents of the Backup directory are persistent even if the terminal is re-booted or the battery is changed.

You can save your more important files that you don't want to lose due to terminal re-boot, in the Backup directory or create a sub-directory within Backup.

Even though the Windows Directory resides in RAM, it often contains files or sub-directories created by the user or by installation programs that you don't want to lose at re-boot. To keep these files persistent it is necessary to copy them to the directory \Backup\Windows. This directory doesn't exist originally (only Backup exists), and therefore it must be created. At the next hardware reset, before activating the shell, Windows CE .NET will copy the contents including all sub-directories of \Backup\Windows to \Windows.

Likewise, to maintain files that must be run at Windows CE .NET startup, (i.e. .exe, .lnk, .vb, .htm, etc.), it is necessary to copy them to the directory \Backup\Startup. This directory does not exist originally (only Backup exists), and therefore it must be created. The application programs will be run after any type of re-boot (both software and hardware reset).

As an alternative to the Safe Setup function, it is possible to copy the .cab files to the directory \Backup\Cabfiles (the Cabfiles sub-directory doesn't exist originally and must therefore be created) and perform a terminal cold boot to have the application installed. Once these files are copied to the directory \Backup\Cabfiles, the application will be run after each re-boot.

From the second cold boot on, a message may be displayed such as "<application name> is already installed. Re-install?". This message blocks the boot process. Press the [Enter] key to continue the system initialization.

4 MAINTENANCE

**NOTE**

Rechargeable battery packs are not initially charged. Therefore the first operation to perform is to charge them. See par. 4.1.

4.1 CHARGING THE BATTERIES

The battery autonomy varies according to factors, such as the frequency of barcode scanning, RF usage, etc.

When the batteries are low, the red LED positioned beneath the left lower corner of the display blinks and a warning acoustic signal is emitted.

It is possible to recharge the batteries by using the FPS18 external power supply directly connected to either CAB-405 (for RS232 connection) or CAB-406 (for USB connection), see par. 2.1.1. Alternatively, it is also possible to recharge the batteries by using the CC9600 cradle.

The charging process is signaled by a bi-colored charging status LED positioned beneath the right lower corner of the display (see par. 3.6.1).

If the battery pack is removed from the terminal, it can be recharged by inserting it into the MBC9600 multi-slot battery charger.

**CAUTION**

If the batteries are new or have not been recharged for a long time, it is necessary to perform two or three charging and discharging cycles (complete use) before they can reach their maximum charge capability.

The maximum time required to recharge a completely run-down battery pack is about 5 hours for Li-Ion batteries.

4.2 REPLACING THE BATTERIES

To correctly replace the batteries, proceed as follows.

- 1- Turn off the Viper-NET™ terminal.
- 2- Press the lock button as indicated in the figure below:



- 3- Remove the battery pack by pulling down the lower part of the handle:



- 4- Replace the battery pack, insert and press it back into the handle until the lock button is automatically closed:

**CAUTION**

Risk of explosion if the battery is replaced by an incorrect type. Dispose of the old batteries as required by the relevant laws in force.

**NOTE**

In order to guarantee an adequate operating autonomy, when replacing the battery pack the terminal checks the battery energy level. If the battery is not sufficiently charged, Viper-NET™ does not turn on (when pressing the ON button).

In this case, either substitute the battery pack with a charged one (sufficiently charged) or insert Viper-NET™ into a powered cradle or plug it into the direct power supply.

4.3 CLEANING THE TERMINAL

Periodically clean the Viper-NET™ terminal with a slightly dampened cloth. Do not use alcohol, corrosive products or solvents.

5 TECHNICAL FEATURES

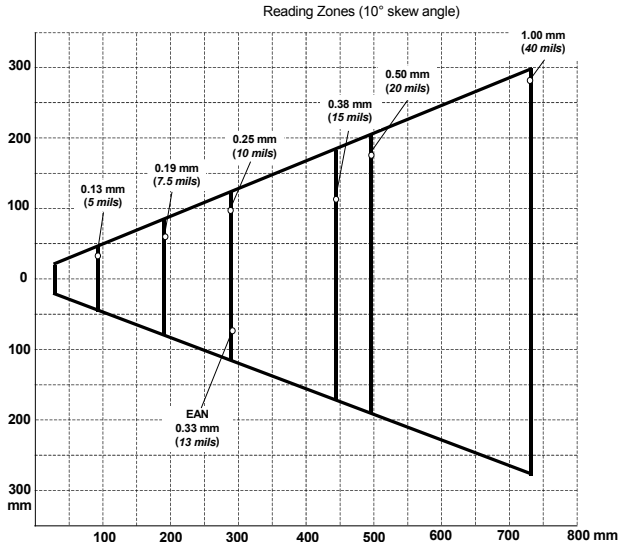
5.1 TECHNICAL DATA

	Viper-NET™ XXX-1XX HP	Viper-NET™ XXX-6XX XLR
Optical Features		
Maximum resolution	0.13 mm / 5 mils	0.19 mm / 7.5 mils
Skew angle	± 55°	± 60°
Pitch angle	± 65°	± 65°
Scan rate	35 ± 5 scan/sec	33.8 – 45.4 scan/sec
Depth of field	See reading diagrams on the next page	
Light source laser scanner	VLD, wavelength 630–680 nm	
Safety class	Class II EN 60825-1/CDHR	
Electrical Features		
Power		
DC supply	14 V ± 5%	
Battery pack	2 cell Li-Ion 2000 mAh@ 7.2 V (nominal)	
Internal backup battery	Rechargeable Li-Ion 30mAh	
Hardware Features		
FLASH	32 MB	
RAM	64 MB	
Microprocessor	Intel XScale PXA 255 400 MHz	
Buzzer	2 piezoelectric buzzers	
LED	Keyboard Status/Battery low (two-color LED) Charging Status (two-color LED) User Programmable (green LED)	
Display	64K Color TFT LCD with 320 x 240 pixel resolution, with LED backlight and touch screen	
Keyboard	32 silicone-covered rubber keys 48 silicone-covered rubber keys	
Mechanical Features		
Dimensions (LxWxH)	23.5 x 10.5 x 18 cm / 9.25 x 4.13 x 7.08 in	
Weight	808 g / 28.5 oz (with Li-Ion) 835 g / 29.5 oz (with Li-Ion and PC card)	

Environmental Features		
Working temperature	-10° to + 50 °C / 14° to 122 °F	
Storage temperature	-20° to +70 °C / -4° to 158 °F	
Humidity	90% non condensing <= 40 °C	
Protection	IP64	
ESD protection	4 KV contact discharge, 8 KV air discharge	
Drop resistance	1.8 m / 5.9 ft	
Programming Features		
Operating system	Windows CE .NET 4.2	
Decoded barcodes	EAN/UPC; Code 39; 2/5 Codes; Plessey; Codabar; Code 128; MSI; Code 93; Code 11,	
Communication Features		Windows CE .NET COM Port
Optical interface	IrDA 1.0	COM4
Serial interface	RS232	COM1
	USB 1.1	COM6
Wireless Features		
WLAN	IEEE 802.11b DSSS Wi-Fi	
WPAN	IEEE 802.15 Bluetooth® (Class 2) Version 1.1	

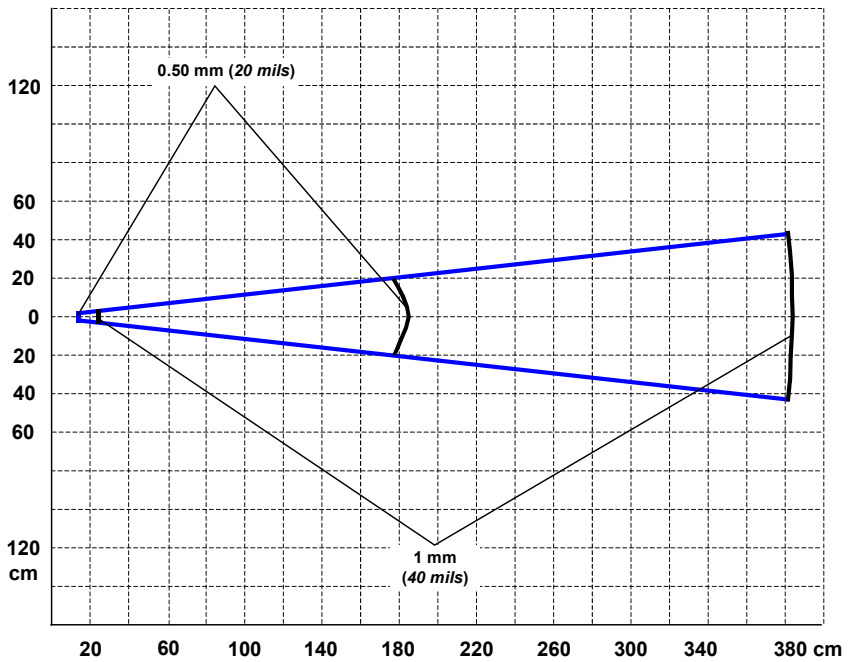
5.2 READING DIAGRAMS

Viper-NET™ XXX-1XX HP



Viper-NET™ XXX-6XX

Reading Zones (10° skew angle)



6 TEST CODES

High Density Codes

0.25 mm (10 mils)

Code 39



17162

2/5 Interleaved



0123456784

Code 128



test

EAN 13

80%



8 012345 000012

EAN 8

80%



6450 9723

Medium Density Codes

0.38 mm (15 mils)

Code 39



17162

Interleaved 2/5



0123456784

Code 128



test

EAN 13



8 012345 000012

EAN 8



6450 9723

Low Density Codes

0.50 mm (20 mils)

Code 39



17162

Interleaved 2/5



0123456784

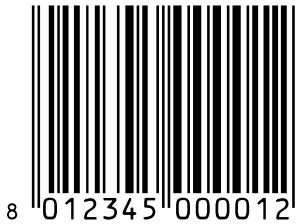
Code 128



test

EAN 13

120%



8 012345 000012

EAN 8

120%



6450 9723

GLOSSARY

Access Point

A device that provides transparent access between Ethernet wired networks and IEEE 802.11 interoperable radio-equipped mobile units. Hand-held terminals, or other devices equipped with radio cards, communicate with wired networks using Access Points (AP). The mobile unit (terminal), may roam among the APs in the same subnet while maintaining a continuous, seamless connection to the wired network.

Barcode

A pattern of variable-width bars and spaces which represents numeric or alphanumeric data in binary form. The general format of a barcode symbol consists of a leading margin, start character, data or message character, check character (if any), stop character, and trailing margin. Within this framework, each recognizable symbology uses its own unique format.

Baud Rate

A measure for data transmission speed.

Bit

Binary digit. One bit is the basic unit of binary information. Generally, eight consecutive bits compose one byte of data. The pattern of 0 and 1 values within the byte determines its meaning.

Bits per Second (bps)

Number of bits transmitted or received per second.

Bluetooth®

A standard radio technology using a proprietary protocol.

Byte

On an addressable boundary, eight adjacent binary digits (0 and 1) combined in a pattern to represent a specific character or numeric value. Bits are numbered from the right, 0 through 7, with bit 0 the low-order bit. One byte in memory can be used to store one ASCII character.

Decode

To recognize a bar code symbology (*e.g.*, Codabar, Code 128, Code 3 of 9, UPC/EAN, etc.) and analyze the content of the bar code scanned.

EEPROM

Electrically Erasable Programmable Read-Only Memory. An on-board non-volatile memory chip.

Flash Disk

Non-volatile memory for storing application and configuration files.

Host

A computer that serves other terminals in a network, providing services such as network control, database access, special programs, supervisory programs, or programming languages.

Liquid Crystal Display (LCD)

A display that uses liquid crystal sealed between two glass plates. The crystals are excited by precise electrical charges, causing them to reflect light outside according to their bias. They use little electricity and react relatively quickly. They require external light to reflect their information to the user.

Light Emitting Diode (LED)

A low power electronic light source commonly used as an indicator light. It uses less power than an incandescent light bulb but more than a Liquid Crystal Display (LCD).

RAM

Random Access Memory. Data in RAM can be accessed in random order, and quickly written and read.

RF

Radio Frequency.

RTC

Real Time Clock.

Terminal

A Datologic portable computer product.

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Viper-NET™ XXX-XXX Pistol Grip Terminal e tutti i suoi modelli
and all its models
et tous ses modèles
und seine modelle
y todos sus modelos

sono conformi alla Direttiva del Consiglio Europeo sottoelencata:
are in conformity with the requirements of the European Council Directive listed below:
sont conformes aux spécifications de la Directive de l'Union Européenne ci-dessous:
der nachstehenden angeführten Direktive des Europäischen Rats entsprechen:
cumple con los requisitos de la Directiva del Consejo Europeo, según la lista siguiente:

1999/5/EEC R&TTE

Questa dichiarazione è basata sulla conformità dei prodotti alle norme seguenti:
This declaration is based upon compliance of the products to the following standards:
Cette déclaration repose sur la conformité des produits aux normes suivantes:
Diese Erklärung basiert darauf, daß das Produkt den folgenden Normen entspricht:
Esta declaración se basa en el cumplimiento de los productos con las siguientes normas:

ETSI EN 301 489-17, August 2002:	ELECTROMAGNETIC COMPATIBILITY AND RADIO SPECTRUM MATTERS (ERM); ELECTROMAGNETIC COMPATIBILITY (EMC) STANDARD FOR RADIO EQUIPMENT AND SERVICES; PART 17: SPECIFIC CONDITIONS FOR 2.4 GHZ WIDEBAND TRANSMISSION SYSTEM AND 5 GHZ HIGH PERFORMANCE WLAN EQUIPMENT
EN 60950-1, December 2001:	INFORMATION TECHNOLOGY EQUIPMENT – SAFETY – PART 1: GENERAL REQUIREMENTS
EN 300 328-2, December 2001:	ELECTROMAGNETIC COMPATIBILITY AND RADIO SPECTRUM MATTERS (ERM); WIDEBAND TRANSMISSION SYSTEMS; DATA TRANSMISSION EQUIPMENT OPERATING IN THE 2.4 GHZ ISM BAND AND USING SPREAD SPECTRUM MODULATION TECHNIQUES; PART 2: HARMONIZED EN COVERING ESSENTIAL REQUIREMENTS UNDER ARTICLE 3.2 OF THE R & TTE DIRECTIVE

Lippo di Calderara, 08/02/2005

Ruggero Cacioppo
Ruggero Cacioppo
Quality Assurance Laboratory Manager