



Viper™ CE
User's Manual



Viper™ CE

USER'S MANUAL



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

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1 GENERAL INFORMATION

1.1 VIPER™ CE TERMINAL DESCRIPTION

The Viper™ CE is a Windows CE based pistol grip terminal belonging to the rugged Mobile@work™ product line for industrial environments.

It has been conceived to provide the highest productivity and comfort in demanding environments and to solve any warehouse management application thanks to its advanced barcode scanning and data processing technology.

Since industrial environments are characterized by day-long use, the Viper™ CE has been designed with the user in mind: lightweight and well balanced together with a hand-fitting shape provide the best user comfort in its product class.

It provides users a very flexible solution powered by the standard Windows CE 3.0 Operating System and based on state-of-the-art hardware architecture.

The various laser scanning models offer excellent reading features including a laser raster model that is optimized for aggressive performance on high-density PDF417 and Micro PDF labels.

The Viper™ CE features a large, bright, easy-to-read 1/4 VGA color display with touch screen option. The 3.8-inch high contrast color TFT LCD display (240 x 320 pixels) is ideal for indoor/outdoor use and helps users work more efficiently in all ambient light conditions.

Furthermore, to allow the operator to cover more than one work shift, the Viper™ CE uses rechargeable, long-lasting Lithium-Ion batteries.

The Viper™ CE product line offers both models with integrated IEEE 802.11b standard wireless communication (11 Mb/sec throughput) as well as models exploiting the RadioReady concept, thanks to which the most diffused WLAN (Wireless Local Area Network) PC-cards can be successfully used.



Key:

- A) User Programmable LED
- B) Keyboard status/Battery low 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
- K) Stylus with clip (3 each)

1.2 PACKAGE CONTENTS

The Viper™ CE terminal package contains:

- 1 Viper™ CE terminal;
- 1 CD-ROM Windows CE SDK for Datalogic Terminals
- 3 styluses with clips
- 1 user's manual and attached documentation;
- 1 rechargeable battery pack;

Any other packages will contain the accessories necessary for the Viper™ CE 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 5.1.

2 SAFETY REGULATIONS



NOTE

Read this manual carefully before performing any type of connection to the Viper™ CE 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.

2.1 GENERAL SAFETY RULES


- Use only the components supplied by the manufacturer for the specific Viper™ CE terminal being used.
- Do not attempt to disassemble the Viper™ CE 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™ CE terminal, disposal must be performed in compliance with the laws in force.
- Do not submerge the Viper™ CE terminal in liquid products.

2.2 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


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.

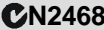
CAUTION LASER LIGHT WHEN OPEN AVOID EXPOSURE TO BEAM	AVOID EXPOSURE LASER LIGHT IS EMITTED FROM THIS APERTURE		LASER LIGHT - DO NOT STARE INTO BEAM OR VIEW DIRECTLY WITH OPTICAL INSTRUMENTS CLASS 2 LASER PRODUCT MAX. OUTPUT RADIATION 1.4 mW - EMITTED WAVE LENGTH 630-680 nm EN60825-1:1994
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Laser output window

Model No. Viper™ CE XXXXXXXX

S/N.
DATALOGIC S.P.A.
Via Candini, 2
Calderara di Reno (BO)
Italy





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 (1994)	LASERSTRAHLUNG NICHT IN DER STRAHL BLINKEN PRODUKT DER LASERKLASSE 2 MAXIMALE AUSGANGLEISTUNG: WELLENLÄNGE: ENTSPR. EN 60825-1 (1994)	RAYON LASER EVITER DE REGARDER LE RAYON APPAREIL LASER DE CLASSE 2 PUISSANCE DE SORTIE: LONGUER D'ONDE EMISE: CONFORME A EN 60825-1 (1994)	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 (1994)

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.

2.3 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™ CE terminal to indicate that the terminal is in conformity with the directives related to the Viper™ CE/RF version.

The following shows the correspondence between the Viper™ CE Radio models and the PCMCIA card manufacturers:

- Viper™ CE-X3XX for CISCO radio cards
- Viper™ CE-X4XX for SYMBOL radio cards
- Viper™ CE-X5XX for LUCENT/ARTEM/ORINOCO radio cards

2.3.1 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/rtte/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/rtte/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>.



2.4 FCC COMPLIANCE

This compliance refers only to the Viper™ CE batch version.




CAUTION

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.

This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

3 CONNECTIONS

3.1 TERMINAL CONNECTION TO THE HOST COMPUTER




CAUTION

Before continuing with this phase be sure both the computer and the Viper™ CE terminal are turned off.

3.1.1 RS232/USB Direct Connection

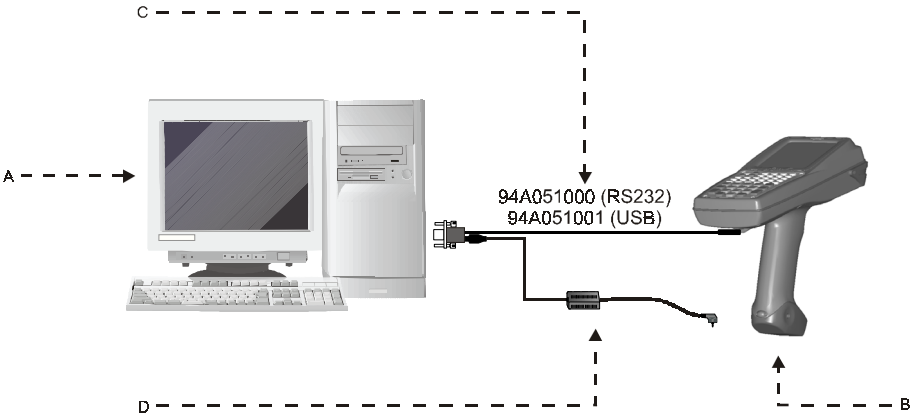
You can use a cable to connect the Viper™ CE terminal to a host computer to transfer data.

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



CAUTION

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.

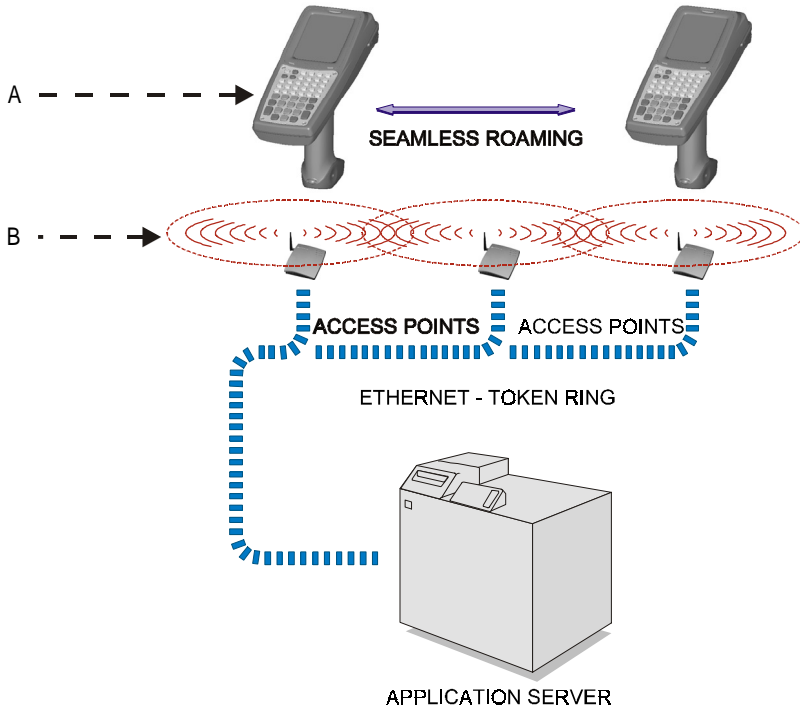


Key:

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

3.1.2 RF Connection

Viper™ CE RF versions can communicate with the host using the on-board radio frequency module and an Access Point connected to the host computer.



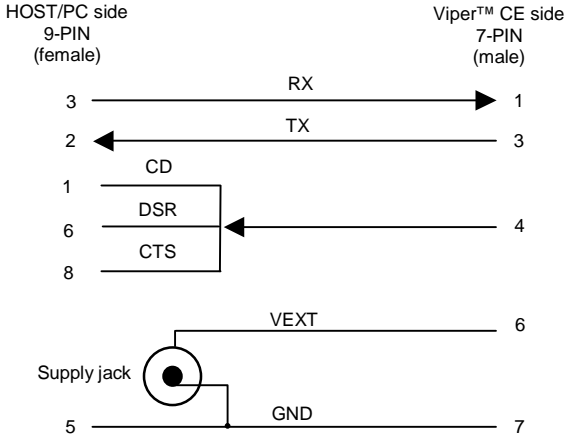
Key:

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

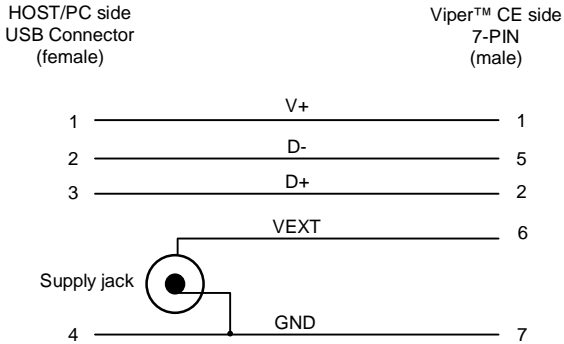
3.2 CONNECTION CABLES

The following cable is listed with its order number.

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



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



4 USE AND FUNCTIONING

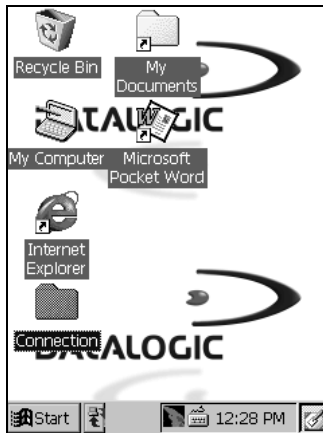
The use of the Viper™ CE terminal depends on the application software loaded. However there are several parameters that can be set and utilities that can be used to perform some basic functions such as barcode scanning, communications, file management, etc.

4.1 TERMINAL STARTUP

The Viper™ CE 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 desktop configuration will appear on the screen.



Use the stylus as suggested in paragraph 4.2 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.

4.2 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.

4.3 BARCODE SCANNING

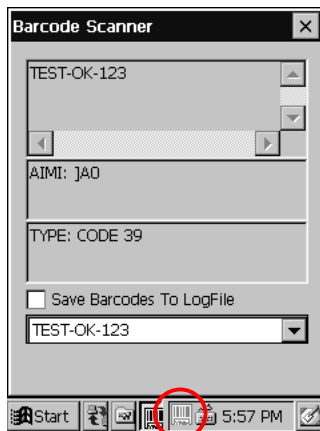
Even if no application program is running on the Viper™ CE terminal, you can enable it for barcode scanning by choosing one of the following methods:

- open the Barcode Reader application by double tapping on the "Barcode Reader" icon in the Control Panel.



- from the Barcode Setup applet in the Control Panel, set the parameter "Scan Always On" in the "Scan Parameters" menu.

The availability of scanning functions is evidenced by the presence of the barcode icon in the Taskbar Status area at the bottom of the screen (see figure below).

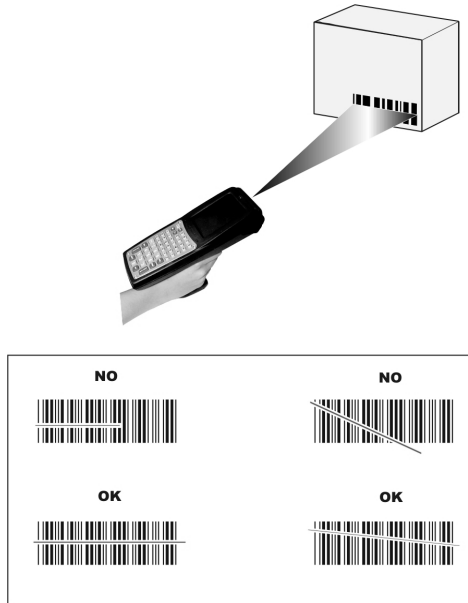


Barcode Scanning Enabled Icon

4.3.1 Linear Barcode Scanning

To scan linear barcodes, point the Viper™ CE terminal laser beam onto the code from a distance within the reading range while pressing the trigger. See the reading diagrams in chapter 6.2 for the reading range of your model.

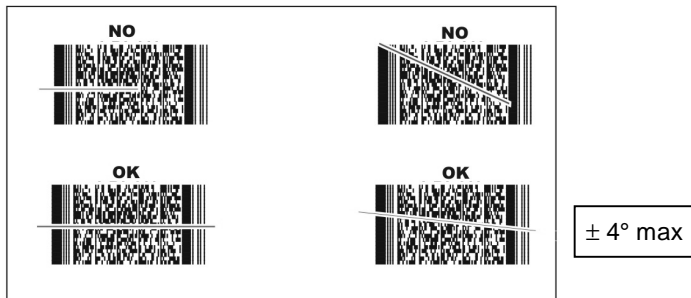
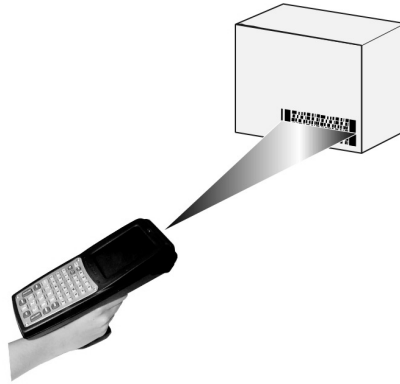
The lighted band emitted by the laser must completely intercept the barcode as shown in the figure below. If enabled, the Good Read LED and the emission of an acoustic signal will indicate that the scan has taken place correctly.



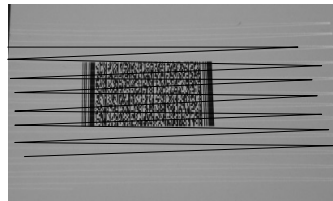
4.3.2 2D Barcode Scanning

To scan 2D barcodes, point the Viper™ CE terminal laser beam onto the code from a distance within the reading range while pressing the trigger. See the reading diagrams in chapter 6.2 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.



The terminal automatically recognizes the 2D code and will produce a raster pattern which fully covers the code so that it can be read; therefore you do not have to move the terminal to read the code.



4.4 DESCRIPTION OF THE KEYS (32-KEY MODELS)

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

The keyboard can be divided as follows:



4.4.1 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.



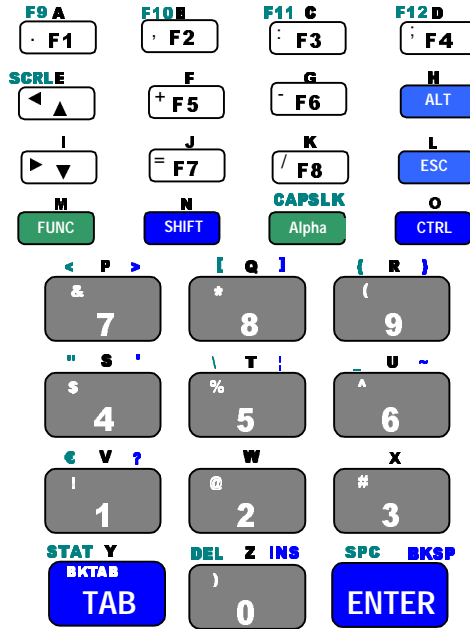
Powers the terminal ON or OFF.



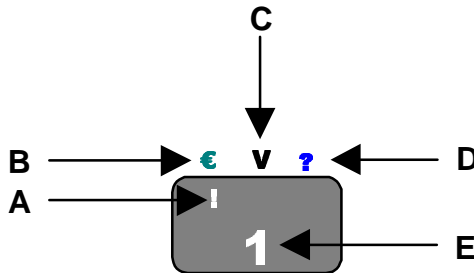
Switch on/off the display backlight.

4.4.2 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.

4.4.3 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.

4.5 DESCRIPTION OF THE KEYS (48-KEY MODELS)

This version of the Viper™ CE terminal provides a keyboard having a total of 48 keys. The keyboard can be divided as follows:



4.5.1 System Control and Power Keys

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

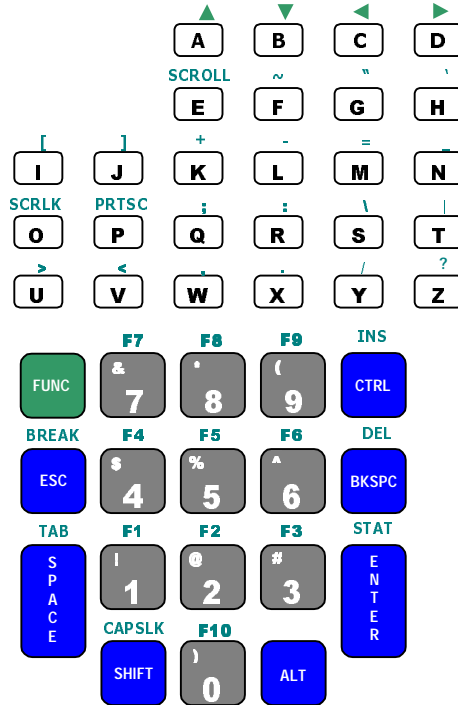
	By pressing these keys and the terminal trigger simultaneously, a system hardware reset is performed.
--	---

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

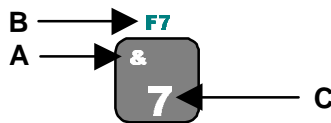
	Switch on/off the display backlight.
--	--------------------------------------

4.5.2 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.

4.5.3 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.

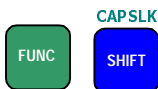


On the Viper™ CE, the [SHIFT] key corresponds to the PC one. By pressing it with alphabetic keys it allows switching between upper and lower case characters.

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 #.



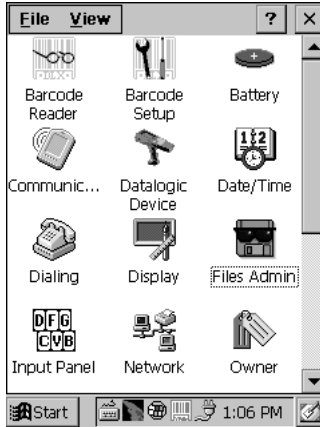
The FUNC key press preceding any keyboard key enables the character displayed above each key. By pressing it with numeric keys it selects the F1-F10 function.
Ex: FUNC - J corresponds to J.



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.

4.6 CONTROL PANEL

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



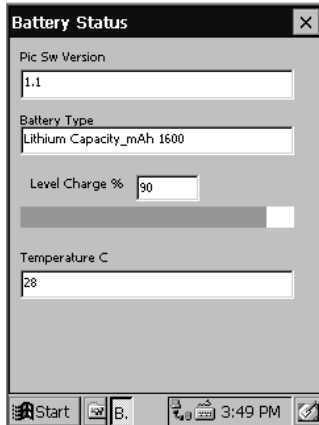
Control Panel

4.6.1 Battery Status

This applet provides information about current battery status.



Select the BATTERY applet by double tapping the battery icon. The Battery Status window appears. Four items can be viewed in this window: version of battery recharge software - type of battery - battery charging status - battery temperature in degrees Celsius.



Battery Status Window

4.6.2 Registry

The REGISTRY ADMIN applet provides management of Windows CE registry.

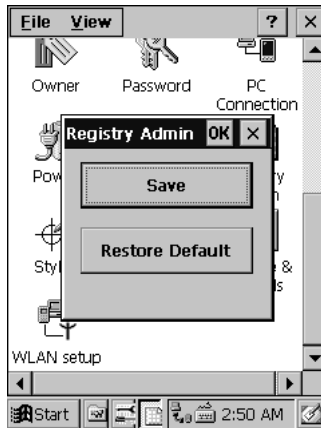


Select the REGISTRY ADMIN applet by double tapping the Registry Admin icon.

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. 4.4.1 or 4.5.1)

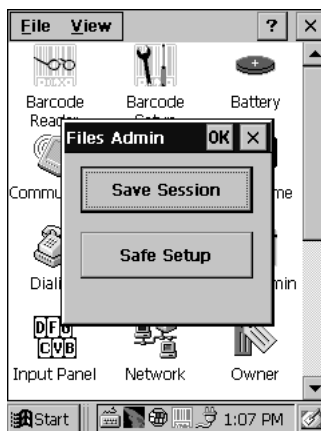
Saving the registry to non-volatile memory guarantees the persistence of the Windows configuration in case of battery replacement.



Registry Administration Window

4.6.3 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

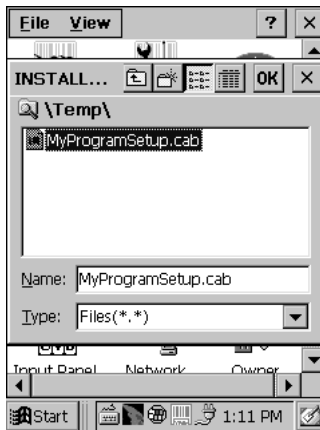
Save Session: with this button all files will be permanently saved in the \Windows directory in non-volatile memory. This function guarantees the steady maintenance of

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 4.8).

Safe Setup: with this button, the installation of software programs will be saved to non-volatile memory. Two activating procedures are available:

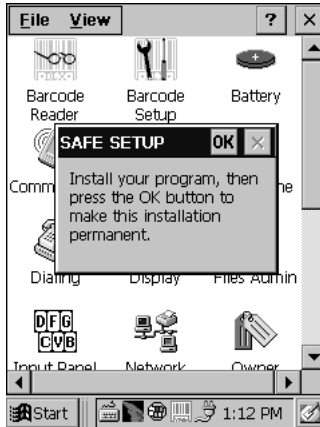
- Select an installation file (for example, a .CAB cabinet file) from the Safe Setup mask.



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 4.8).

- 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

4.6.4 Barcode Setup



This 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 laser 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 laser modules and allow control of the scanning device (i.e. beeper control, LED control, laser timeout, etc.).

Each Barcode Setup 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.

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 laser module mounted in your terminal. For a list of default values see the following paragraph, "Default Values". 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 laser 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 laser 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.

LED Duration: determines the duration in milliseconds of each 'Good Read LED' pulse.

LED Pulses: determines the number of pulses the 'Good Read LED' will blink when the scanner reads a code.

Continuous Mode: when enabled, the laser can only be turned off by releasing the hardware trigger, 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	1D VALUES	2D VALUES
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	1D VALUES	2D VALUES
Barcode Symbology Identifier	None	None
Linear Code Severity	Medium	
Security Level		2
Direction Redundancy		Disabled
Quiet Zone Type	Standard	

SYMBOLGY SPECIFIC READER PARAMETERS	1D VALUES	2D VALUES
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	Disabled
2/5: Industrial	Disabled	Disabled
2/5: Matrix	Disabled	

SYBOLOGY SPECIFIC READER PARAMETERS	1D VALUES	2D VALUES
Code 128	Enabled	Enabled
EAN 128	Enabled	Enabled
ISBT 128		Disabled
Codabar	Enabled	Disabled
MSI	Enabled	Disabled
Plessey	Disabled	
Code 93	Disabled	Disabled
Code 11	Disabled	
PDF417		Enabled
Micro PDF417		Disabled

4.6.5 WLAN Setup Radio Configuration

The configuration of radio parameters varies depending on the type of WLAN PC card installed on the reader. The Viper™ CE RadioReady models are compatible with the most diffused WLAN PC cards for wireless communication. To access the menus and screen options available for terminals with WLAN PC cards installed, it is necessary to first launch the WLAN SETUP applet by double tapping the icon.



WLAN Setup Window

Viper™ CE WLAN SETUP will immediately recognize the type of PC card installed and will accordingly display the specific radio module configuration window.

4.6.6 Datalogic Device

DATALOGIC DEVICE is an applet that displays information regarding the Viper™ CE terminal features, i.e. serial number, software version, etc.

Double tap the DATALOGIC DEVICE icon to view the information.



Datalogic Device Window

4.7 MICROSOFT® ACTIVESYNC®

Microsoft ActiveSync gives you the possibility to connect your desktop computer to your Viper CE Terminal and synchronize the information on them. Synchronization compares the data on the Viper CE 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 CE Terminal data.
- Copy files between Viper CE 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 CE 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 CE Cradle you can connect your Viper CE 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>

4.7.1 ActiveSync Automatic Connection (Recommended)

Before a connection can be established, install ActiveSync on a desktop computer from the Windows® CE SDK for Datalogic Terminals CD.

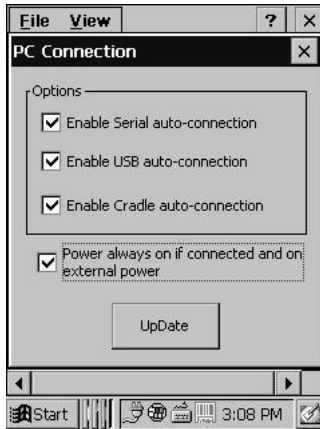
After installation is completed, the ActiveSync Setup Wizard helps establish connection of the Viper CE Terminal to the desktop computer by looking for your device on one of the available connections. By default the Viper CE Terminal does not make an automatic connection. The best (recommended) way to work with ActiveSync is to enable the auto-connection settings.

To activate this feature, open the Control Panel and double tap the PC Connection icon:



PC Connection Icon

The following dialog box will appear:



ActiveSync Dialog Box

By checking every box it is possible to enable the Serial, USB and Cradle auto-connections.

By checking the last check box, the terminal will be prevented from going to suspend mode during an ActiveSync connection, if the terminal is on external power.

To make these settings effective, press the UpDate button. Now whenever a physical connection is established with the Viper CE Terminal, either by inserting a cable into it or by placing it into the Cradle, the connection will be recognized and ActiveSync will automatically be started.

ActiveSync on the desktop computer side will ask if you want to establish a Partnership or a Guest connection (also called Standard connection). This depends on the ActiveSync version installed on the desktop computer. If a Partnership is chosen, information between the Viper CE Terminal and the desktop computer can be synchronized, and synchronization settings can be customized. The first synchronization process will automatically begin as soon as the user finishes the wizard setup.

4.7.2 ActiveSync Manual Connection

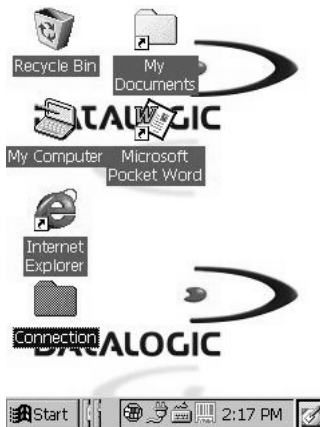
Alternatively, one can manually start the ActiveSync connections. To do this, first disable the automatic connection feature (default): open the Control Panel and double tap the PC Connection icon. By unchecking the boxes it is possible to disable the Serial, USB and Cradle auto-connections. Press the UpDate button to apply these settings.

ActiveSync automatically recognizes which cable is inserted: therefore, by choosing the \Windows\Desktop\Connection folder and double tapping ActiveSync direct, the right connection will start. For example if you have inserted the serial cable this connection will start. If you want to establish a connection via Infrared you have to double tap the ActiveSync IR icon.



NOTE

Be sure that this type of connection is also enabled on the ActiveSync of the desktop computer.



The Connection Folder

4.7.3 ActiveSync Remote

After a Partnership between terminal and desktop computer is established, it is also possible to establish a remote connection via Ethernet: 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:



ActiveSync Remote Icon



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 CE Terminal and on your wireless network settings. For more information about these settings contact your network administrator.

4.7.4 Terminal Services Client

The establishment of a terminal connection with a Windows Server can be obtained by double tapping the Terminal Client in the \Window\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.

This kind of connection is possible only if the Windows desktop computer supports Windows Terminal Services. For more information about these services visit the Microsoft Web Site. (<http://www.microsoft.com/>).

4.8 BACKUP DIRECTORY FILE MANAGEMENT

All of the Windows CE 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 will copy the contents including all sub-directories of \Backup\Windows to \Windows.

Likewise, to maintain files that must be run at Windows CE 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).

4.9 LED INDICATORS

The Viper™ CE 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 (left-side)	Red blinking	it blinks when the battery is running down.
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.

5 MAINTENANCE



NOTE

Rechargeable battery packs are not initially charged. Therefore the first operation to perform is to charge them. See par. 5.1.

5.1 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. 3.1.1. 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. 4.9).

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.

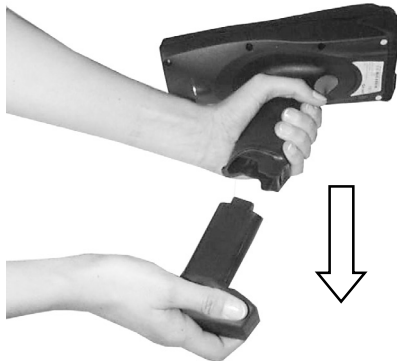
5.2 REPLACING THE BATTERIES

To correctly replace the batteries, proceed as follows.

- 1- Turn off the Viper™ CE 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

Dispose of the old batteries as required by the relevant laws in force.

5.3 CLEANING THE TERMINAL

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

6 TECHNICAL FEATURES

6.1 TECHNICAL DATA

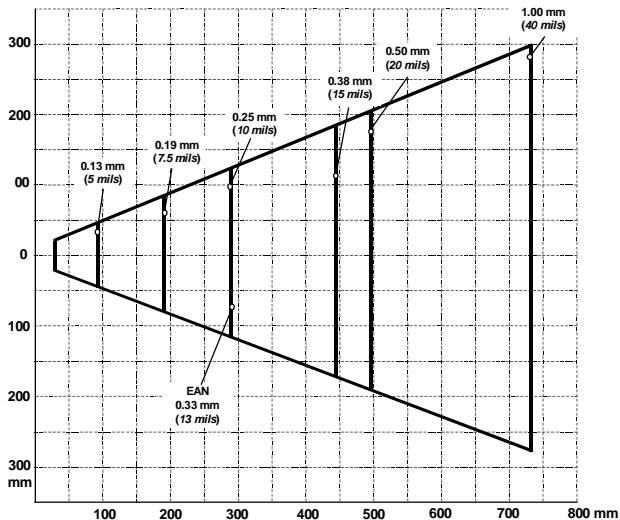
	Viper™ CE-1xxx Standard	Viper™ CE-2xxx Long Range	Viper™ CE-3xxx PDF
Optical Features			
Maximum resolution	0.13 mm / 5 mils	0.25 mm / 10 mils	0.17 mm / 6.6 mils
Skew angle	± 55 °	± 60°	± 30°
Pitch angle	± 65°	± 65°	± 15°
Scan rate - horizontal	35 ± 5 scan/sec	35 ± 5 scan/sec	590 ± 5 scan/sec
Scan rate - vertical			22 ± 2 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 1800 mAh@ 7.2 V (nominal)		
Internal backup battery	Vanadium pentoxide lithium rechargeable 50 mAh		
Hardware Features			
FLASH	32 MB		
RAM	64 MB		
Microprocessor	StrongARM 206 MHz		
Mechanical Features			
Dimensions (LxWxH)	23.5 x 10.5 x 18 cm / 9.25 x 4.13 x 7.08 in		
Weight	768 g / 27.1 oz (with Li-Ion) 795 g / 28 oz (with Li-Ion and PC card)		
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 backlight and touch screen		
Keyboard	32 silicone covered rubber keys 48 silicone covered rubber keys		

Environmental Features	
Working temperature	0° to + 50 °C / 32° to 122 °F
Storage temperature	-20° to +70 °C / -4° to 158 °F
Humidity	90% non condensing
Protection	IP54
ESD protection	4 KV contact discharge, 8 KV air discharge
Drop resistance	1.8 m / 5.9 ft
Programming Features	
Operating system	Windows CE 3.0
Decoded barcodes - laser 1D and 2D models	EAN/UPC; Code 39; 2/5 Codes; Plessey; Codabar; Code 128; MSI; Code 93; Code 11, PDF417 and Micro PDF417
Communication Features	
Optical interface	IrDA 1.0
Serial interface	RS232 USB 1.1
RF Communication Features	
Frequency	2.4 GHz - spread spectrum
Power output	In compliance with ETS 300-328

6.2 READING DIAGRAMS

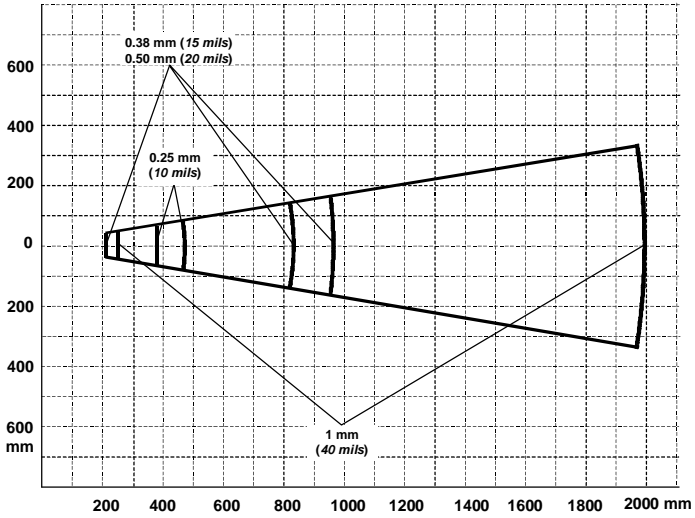
Viper™ CE-1xxx Standard

Reading Zones (10° skew angle)



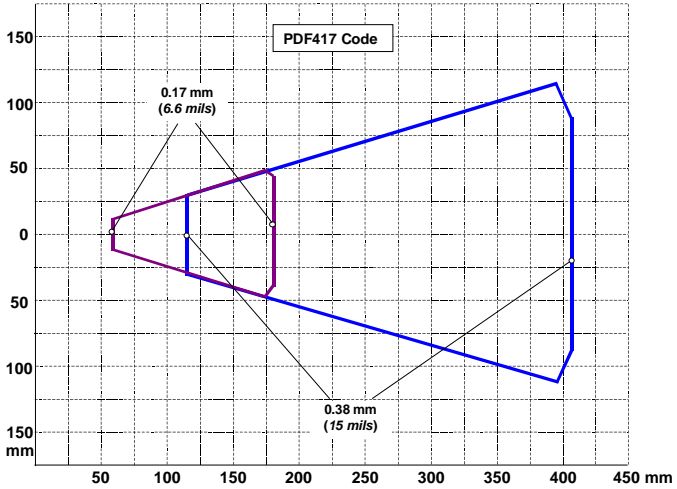
Viper™ CE-2xxx Long Range

Reading Zones (10° skew angle)



Viper™ CE-3xxx PDF

Reading Zones (10° skew angle)



A VIPER™ CE ACCESSORIES

□ **Charger**

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

□ **Batteries**

94ACC4661 B-9600 LI BATTERY PACK 1800 mAh@7.2 V

□ **Power Supply**

FPS18 Power Supply for Viper™ CE 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

94ACC1170 Power cord USA 3- pin

94ACC1180 Power cord UK 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™ CE

94ACC1240 Shoulder Strap (5 pcs)

94ACC1250 Heavy Duty Belt (5 pcs)

94ACC1230 Swivel for Functional Case (10 pcs)

94ACC1273 Kit Stylus Pen + Holder (3 pcs)

DATALOGIC S.p.A.,
Via Candini, 2
40012 - Lippo di Calderara
Bologna - Italy



dichiara che
declares that the
déclare que le
bescheinigt, daß das Gerät
declare que el

Viper CE-XXXX RR 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 alle Direttive del Consiglio Europeo sottoelencate:
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:

89/336/EEC EMC Directive e 92/31/EEC, 93/68 /EEC *emendamenti successivi
and further amendments
etses successifs amendements
undspäteren Abänderungen
y succesivas enmiendas*

Basate sulle legislazioni degli Stati membri in relazione alla compatibilità elettromagnetica ed alla sicurezza dei prodotti.

On the approximation of the laws of Member States relating to electromagnetic compatibility and product safety.

Basée sur la législation des Etats membres relative à la compatibilité électromagnétique et à la sécurité des produits.
Über die Annäherung der Gesetze der Mitgliedsstaaten in bezug auf elektromagnetische Verträglichkeit und Produktsicherheit entsprechen.

Basado en la aproximación de las leyes de los Países Miembros respecto a la compatibilidad electromagnética y las Medidas de seguridad relativas al producto.

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 suiv antes:

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:

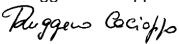
EN 55022, AUGUST 1994:

LIMITS AND METHODS OF MEASUREMENTS OF RADIO DISTURBANCE
CHARACTERISTICS OF INFORMATION TECHNOLOGY EQUIPMENT (ITE)

EN 61000-6-2, APRIL 1999:

ELECTROMAGNETIC COMPATIBILITY (EMC).
PART 6-2: GENERIC STANDARDS – IMMUNITY FOR INDUSTRIAL ENVIRONMENTS

Lippo di Calderara, 11/07/2003

Ruggero Cacioppo

Quality Assurance Laboratory Manager



dichiara che
declares that the
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Viper CE-XXXX RF-3 Pistol Grip Terminal e tutti i suoi modelli
and all its models
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sono conformi alla Direttiva del Consiglio Europeo sottoelencata:
are in conformity with the requirements of the European Council Directive listed below:
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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:

EN 60950, October 1996: SAFETY OF INFORMATION TECHNOLOGY EQUIPMENT, INCLUDING ELECTRICAL BUSINESS EQUIPMENT

ETSI EN 300 328-2, July 2000: ELECTROMAGNETIC COMPATIBILITY AND RADIO SPECTRUM MATTERS (ERM); WIDE-BAND 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

ETSI EN 301 489-17, September 2000: ELECTROMAGNETIC COMPATIBILITY AND RADIO SPECTRUM MATTERS (ERM); ELECTROMAGNETIC COMPATIBILITY (EMC) STANDARD FOR RADIO EQUIPMENT AND SERVICES; PART 17: SPECIFIC CONDITIONS FOR WIDEBAND DATA AND HIPERLAN EQUIPMENT

Lippo di Calderara, 11/07/2003

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