



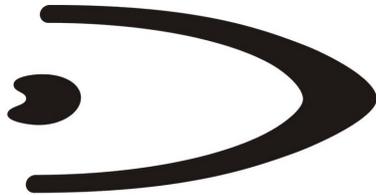
DL TCL for CE

User's Manual



DL TCL for CE

USER'S MANUAL





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DL TCL for CE

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This manual refers to DL TCL for CE software version 1.0.0 and later.

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1 GENERAL INFORMATION

1.1 DL TCL for CE

Datalogic Terminal Emulation Client (DL TCL) for CE is a software providing VT100, VT220 and IBM5250 Telnet terminal emulation on Datalogic RF portable terminals having an hardware architecture for Windows CE operating system.

For some parameters of the DL TCL for CE it is possible to define their new values directly from the terminal. In particular, a series of multi-setup menus allows:

- Managing the scanner parameter;
- Selecting 4 different fonts;
- Mapping the keyboard;
- Managing beeper and backlight;
- Logging events;
- Autologin;
- Relocating lines;
- Managing different scrolling modes;
- Managing the printer through electrical or IrDA interface.

In addition, the user may also configure the main parameters of the following radio types:

- Cisco 340 / 350 (IEEE 802.11b)
- Lucent / Artem (IEEE 802.11b)
- Symbol 11 Mb (IEEE 802.11b)

DL TCL for CE satisfies all the connection modes required by your application.

In association with the DL Keep Connecting™ software package, the terminal loading DL TCL for CE can try a connection up to 4 PCs communicating with a remote Host. Once connected to one of these PCs (Keep Connecting PC), the terminal can manage up to 4 different emulation sessions.

1.1.1 DL TCL for CE Operating Modes

DL TCL for CE can be used for radio transmission with an Host or with a "Keep Connecting" PC which is connected to a remote Host through a network connection:

- Direct Host Mode
- KC Mode

In "Direct Host Mode" DL TCL for CE runs on an RF terminal in VTxxx or IBM5250 Telnet emulation which communicates via radio with a Host PC. The terminal can be configured by simply setting the DL TCL for CE configuration menus.

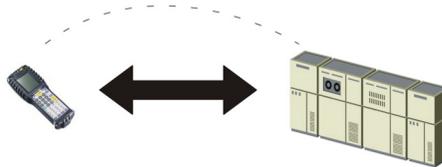


Figure 1 - Direct Host Mode

In "KC Mode" DL TCL for CE interacts with the DL Keep Connecting™ installed in a "Keep Connecting" PC (KC PC) communicating with a remote Host by means of a network connection. The configuration files can be saved and sent via radio to the terminal loading the FTP protocol.

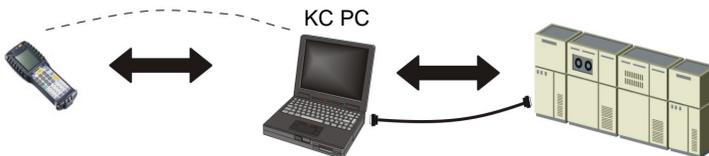


Figure 2 – Keep Connecting Mode

2 INSTALLATION

2.1 SYSTEM REQUIREMENTS

In order to run the DL TCL for CE, it is necessary to have at least the following:

- Datalogic Windows CE device;
- a network interface card (NIC) connected to a local network using the TCP/IP protocol.

2.2 INSTALLING DL TCL for CE ONTO THE TERMINAL

The DL TCL for CE can be installed or upgraded through a PC installation process. This method is available only for Windows CE devices connected to a PC. The installation program has to be run on the PC, in order to download the necessary files onto the Windows CE device.

To install the DL TCL for CE through the PC installation method follow the given procedure:

1. ensure that the Windows CE device is connected to the PC and synchronized with it;
2. double-click the setup.exe icon on your PC and follow the instructions appearing in the dialog box below:

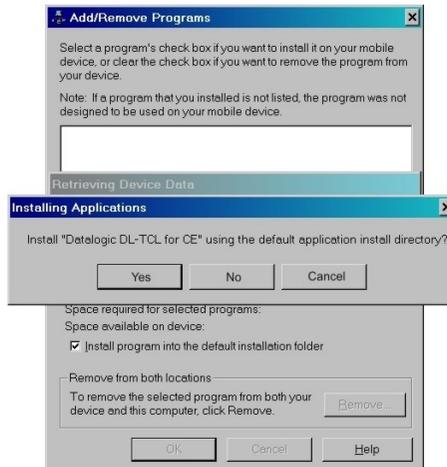


Figure 3 – Installing DL TCL for CE

3. once the installation has been completed, the following message appears:

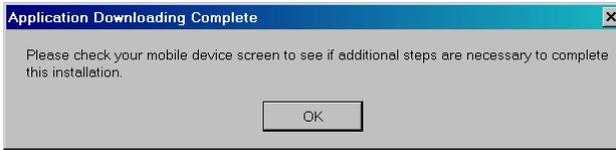


Figure 4 – Checking your Device Screen

Now, all necessary files are downloaded onto the Windows CE device.

2.3 STARTING DL TCL FOR CE CLIENT

To start DL TCL for CE tap the Start button on the screen and select the DL TCL option from the Programs list **OR** double tap the DL TCL icon available on the desktop.

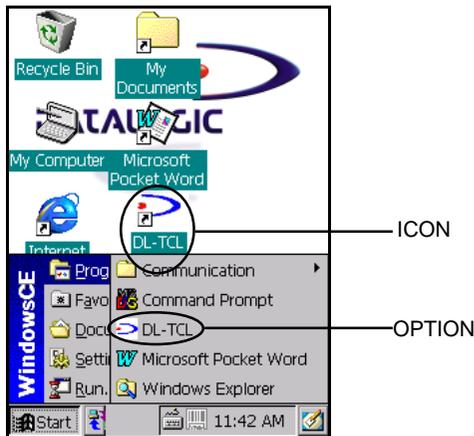


Figure 5 – Starting DL TCL for CE

3 DL TCL for CE CONFIGURATION FROM TERMINAL

Once the DL TCL for CE application and configuration files have been downloaded onto the terminal, it is possible to change the value for most of the defined parameters directly from the terminal by using the DL TCL for CE control panel.

When launching the DL TCL for CE program for the first time, the opening mask appears:



Figure 6 – Opening Mask

To enter the control panel press the [ESC] key on the terminal display to open the dialog box where you are asked to type your password:



Figure 7 – Entering Password

Once the correct password has been inserted (the default password is empty), it is possible to enter the DL TCL for CE control panel (see par. 3.1).

The password can be modified after entering the main setup menu for the first time.

By pressing the "Enter" key you try the connection with a Host PC or KC PC. If no Host PC or KC PC is available for radio communication, the program sends an error message.

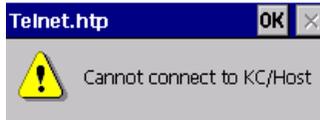


Figure 8 - Error Message

Press the [Enter] key or tap OK in the message box to return to the opening mask.

If the connection is successful the user is connected to the Host PC or KC PC.

During the connection the following special function keys are available:

- Exit emulation: by pressing the "Exit Emulation Key" ([F10] is the default value) the following dialog box appears allowing to quit the terminal emulation at any time and display the opening mask:

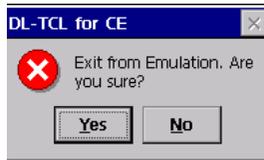


Figure 9 - Exit Emulation Dialog Box

This procedure requires exiting all sessions (see par. 3.1.4 for details);

- Input panel: by pressing the [ALT]+[K] key sequence, it is possible to enable/disable the Windows CE input panel.

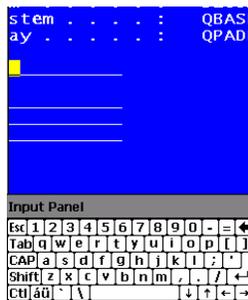


Figure 10 - Input Panel

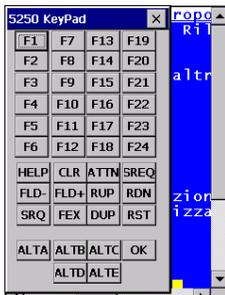
- Enable scroll bar: by pressing the [ALT] + [S] key sequence, it is possible to enable/disable the horizontal and vertical scroll bars.



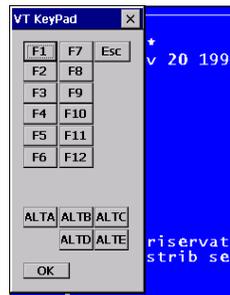
Figure 11 - Horizontal and Vertical Scroll Bars

- Emulation keypad: by pressing the [ALT] + [F] key sequence, it is possible to enable/disable the special keypad, which allows the user to send the emulated function keys.

5250 Keypad



VT 100/220 Keypad



3.1 MAIN SETUP MENU

The DL TCL for CE control panel appears as follows:

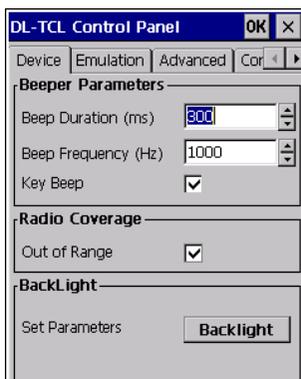


Figure 12 – Control Panel

All parameters and folders can be selected by using either the stylus or the following keyboard keys:

- **[Enter]:** if pressed, it validates the selection and allows saving the configuration when exiting the control panel.
- **Arrow Keys:** if pressed, they allow scrolling all pages horizontally.
- **[Tab]:** If pressed, it allows scrolling each page vertically.

The main setup menu is shared by all Datalogic RF portable terminals. Different parameters will be signaled.



NOTE

By pressing the [SHIFT] and [ESC] keys simultaneously, it is possible to enter the terminal configuration menu in text mode.

3.1.1 Device Menu

This menu allows defining the main parameters of the terminal:

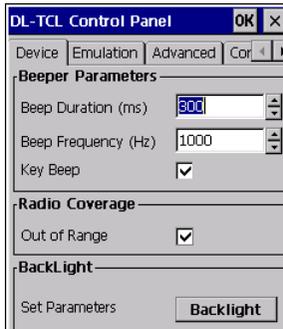


Figure 13 – Device Menu

Beep Duration

It defines the alarm beep duration in milliseconds.

Beep Frequency

It defines the beep frequency in hertz.

Key Beep

It enables/disables a beep emission at any key press.

Out of Range

If checked, it allows the DL TCL for CE to automatically signal if during data transmission a terminal is out of the area covered by the Access Point (**only available for CISCO Radio**).

Backlight

This button opens a further dialog box where setting the related parameters:



Figure 14 – Display Properties

3.1.2 Emulation Menu

It allows defining the emulation parameters:

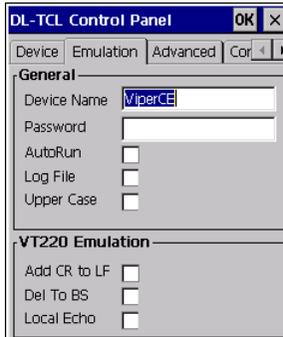


Figure 15 – Emulation Menu

Device Name

It defines the name of the terminal performing the connection.

Password

It defines the password to type when starting a DL TCL for CE session.

Auto Run

It enables/disables the terminal automatic connection on startup of DL TCL for CE or on closure/connection failure

Log File

It enables/disables the event log to track the events.

Upper Case

It enables/disables the conversion of all barcode data and keyboard digits to upper case characters.

Add CR to LF

If checked, it adds the [CR] or [CR] + [LF] characters to the data format when pressing the [Enter] key in the keyboard.

Del to BS

It enables/disables the delete command when pressing the Backspace (BS) key on the terminal keyboard.

Local Echo

It enables/disables the terminal Local Echo.

3.1.3 Advanced Menu

It allows to configure the advanced configuration features:

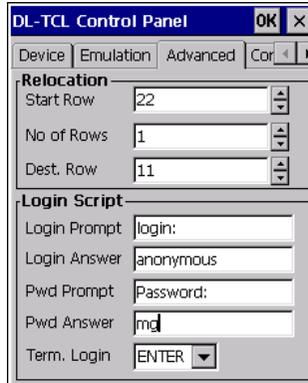


Figure 16 – Advanced Menu

Start Row

It defines the line number (from 1 to 25) of the physical screen to be relocated on the logical screen of the terminal.

Number of Rows

It defines the total number of rows to be relocated.

Destination Row

It defines the line number (from 1 to 25) of the terminal logical screen where the relocated line(s) will be placed to.

Login Prompt

It defines the login prompt received from the host.

Login Answer

It defines the value of the login.

Password Prompt

It defines the password prompt received from the host.

Password Answer

It defines the value of the password.

Login Termination Key

It defines the character sent as terminator of the login field.

3.1.4 Connection Menu

It allows configuring the connection between the application and the remote host:

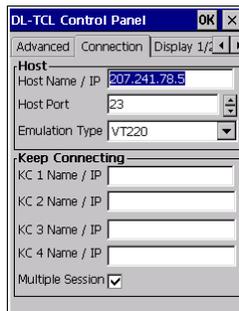


Figure 17 - Network Menu

Host Name/IP

It defines the address to be used by the terminal when connecting to the PC.

Host Port

It defines the TCP/IP port to be used by the terminal for connection to the Host PC.

Emulation Type

It defines the type of the emulation to be run on the terminal.

KCn Name/IP

It defines the address for the 4 Keep Connecting (KC) Host PCs listed in the mask.

Multiple Session

It defines the type of connection to be used by the terminal to interact with applications running on the remote Host and provided by the KC PC. If unchecked, the terminal works in Single Mode trying to connect to the first KC PC available. If checked, the terminal works in Multiple Mode but in this case it can manage up to 4 different sessions:

- **Single Mode:** the Multiple Session parameter is set to off and the terminal tries to connect to the first KC PC available. First, it tries to connect to KC HOST 1 and, if not available, to KC HOST 2..4. In case of failure, the terminal will try to connect to the Host PC by entering automatically the Direct Host Mode (see par. 1.1.1 for details). If even the Host PC cannot be found, the terminal displays the opening mask allowing to start the configuration or configuration again.
Once a KC PC is found, the terminal enters Mode 1 (only one session is allowed) and starts working within the desired application running on the remote Host the KC PC is connected to.
By pressing the [ALT][0] keys in sequence the program returns to the Applications mask allowing to change the session the terminal is connected to. The current session is signaled in reverse video within the list. Once a new session is set, the current one is automatically disabled and the terminal starts emulating a new application/application session. If no change has been made, press [Enter] to return to the current session.
- **Multiple Mode:** the Multiple Mode option is set to on. The terminal works as in Single Mode but in this case it can manage up to 4 different sessions (Mode 1, Mode2, Mode 3 and Mode 4) at the same time. It is possible to switch from one application to another by pressing the following keys in sequence:
[ALT][1] = Mode 1
[ALT][2] = Mode 2
[ALT][3] = Mode 3
[ALT][4] = Mode 4
Applications mask as in Single Mode. In this case, the selection of a new session causes the closure of the substituted one while the other sessions remain active. For Viper™ CE 48-Key Model the key sequence switching from one application to another is the following:
[ALT][B] = Mode 1
[ALT][C] = Mode 2
[ALT][D] = Mode 3
[ALT][E] = Mode 4
[ALT][A] = Returns to Application Mask as in Single Mode

3.1.5 Display Menu

It allows configuring the font type for the application:

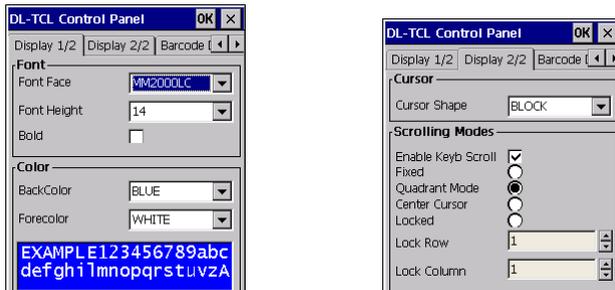


Figure 18 – Display Menu

Font Face

It defines the font type to be used. All Windows CE fixed space font styles are available. The defined font will be adopted as soon as the terminal emulation is started. Once the emulation session is closed, the font selection is restored to the default value. Available fonts are:

- Monofonto
- Crystal
- MM2000LC
- Courier New

Font Height

It defines the height of the font to be used.

Bold

It enables/disables the bold attribute.

BackColor

It defines the background color of the terminal screen. The selected color is displayed in the preview dialog box.

ForeColor

It defines foreground color of the text. The selected color is displayed in the preview dialog box.

Cursor Shape

It defines the shape of the cursor.

Enable Keyb Scroll

If checked, it enables the keyboard scrolling through the CTRL+arrow key sequence; while, if unchecked, the keyboard scrolling is disabled and the CTRL+arrow key sequence turns to its normal function.

Scrolling Modes

The screen may be scrolled by choosing one of the following modes:

- Fixed: the terminal display is always locked at column 0 and row 0.
- Quadrant mode: The entire host screen (80x25) is divided in different quadrants, where each of them defines the maximum number of characters (columns X lines) available for the defined font set. In AS400 emulation, if the active input field is completely inside a quadrant, the display will be placed to this quadrant. While the input fields that cross quadrant boundaries will result in a shift to the left or right of the quadrant to include completely the field. For the VT emulation, where the field concept is not included in the standard, the display will be placed in the same quadrant where the cursor resides.
- Center Cursor: the cursor will be maintained in the screen center.
- Locked: the display is locked at the position specified by the Lock Row and Lock Column parameters.

Lock Row

It defines the row locking the display.

Lock Column

It defines the column locking the display.

3.1.6 Barcode Data Entry Menu

It allows configuring the entry of barcode data:

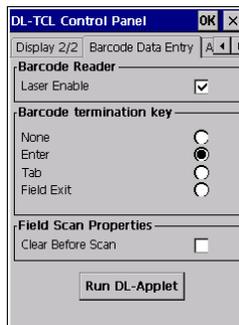


Figure 19 – Barcode Data Entry

File	Parameter	Window	Help
..	..		
	ScanTimeout	5000	
	BeepDuration	10	
	BeepFrequency	2000	
	LedDuration	0	
	LedPulses	1	
	ContinousMode	Disabled	
	KeyboardEmula...	Disabled	
	SoftTrigger	Enabled	
	ScanAlwaysOn	Disabled	

Figure 21 – Reader Parameters

File	Parameter	Window	Help
..	..		
	Text Formatting	...	
	Decoding Globals	...	
	Code39	...	
	TwoOfFive	...	
	Plessey	...	
	Codabar	...	
	Code128	...	
	Code11	...	
	Code93	...	
	MSI	...	
	UpcEan	...	

Figure 22 – Scan Parameters

3.2 ABOUT

This menu shows information about DL TCL for CE version, TCLPANEL version, Machine name and IP address:

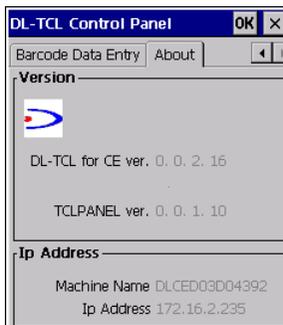


Figure 23 – About Menu

4 TERMINAL ERROR MESSAGES

During the terminal normal functioning some error messages may appear on the display.

The following table lists and explains all error messages:

Error Message	Description
Cannot connect to KC/Host	No Host PC or KC PC is available for radio communication.
Error on Password	A wrong password has been inserted.
Connecting KC1...	The terminal is trying to connect to KC HOST 1. A similar message is also displayed when trying connection to other KC Hosts.
Reset and free memory.	An error has occurred during memory allocation. It is advised to reset the terminal.
Connection closed by remote host. Warning! Session Closed by Remote Host.	The connection has been terminated by the remote host.
NOT AVAILABLE CONNECTION	The connection is not available because it has been terminated by the remote host. This message appears only when working in Multiple Mode connection with a session still active.
Warning! Machine not enabled to open *.INI file. Press any key to Continue.	At startup the program did not find the required configuration files.
Host Disconnected... If you want Escape press ESC else the System tries to Reconnect in about 3 seconds...	This message appears only when the Autorun parameter (Emulation menu) is enabled. It signals that the terminal has been disconnected from the Host PC or the session has been terminated. It will try to reconnect within 3 seconds... If a new connection attempt is not required, it may be skipped by pressing the [ESC] key.

5 DL TCL for CE EXTENDED COMMANDS

5.1 PROPRIETARY COMMANDS

The proprietary commands allow exploiting standard features performed by the Datalogic portable terminals.

The following table lists all commands managing the barcode reading by enabling/disabling the terminal laser reader or by selecting the barcode symbology to be read:

Symbology	Command
Codabar	ESC\$<0/1>a&
Code 11	ESC\$<0/1>b&
Code 128	ESC\$<0/1>c&
Code 39	ESC\$<0/1>d&
Code 39 CIP	ESC\$<0/1>e&
Code 93	ESC\$<0/1>f&
Interleaved 2/5	ESC\$<0/1>g&
Italian pharmaceutical	ESC\$<0/1>h&
EAN-13	ESC\$<0/1>i&
EAN-8	ESC\$<0/1>l&
EAN-128	ESC\$<0/1>m&
MSI	ESC\$<0/1>n&
UPC-A	ESC\$<0/1>o&
UPC-E	ESC\$<0/1>p&
Enable All	ESC\$<0/1>x&
Disable All	ESC\$<0/1>y&

The <0/1> string indicates the two possible values, where 0 disables the option and 1 enables it.

Other commands are provided in the following table for the scanner and keyboard management:

Function	Command
Enable keyboard only	ESC[d1I\$
Enable scanner only	ESC[d2I\$
Enable scanner and keyboard	ESC[d0I\$
Enable alphabetic digit	ESC[d1I&
Enable numeric digit	ESC[d2I&
Enable alphanumeric digit	ESC[d3&
Enable keyboard default	ESC[d0I&

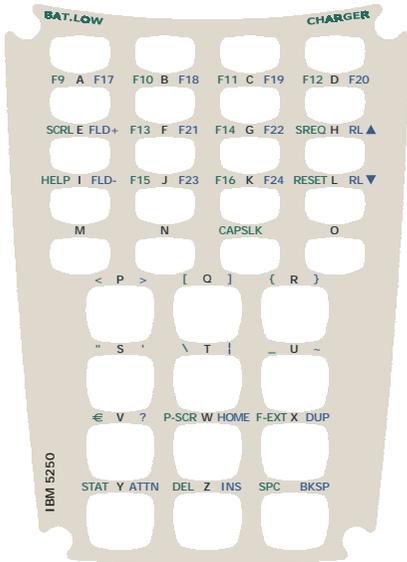
The following table lists four commands to set the font type:

Font type	Command
Courier New	ESC # a
Crystal	ESC # b
MM2000LC	ESC # c
Monofont	ESC # d

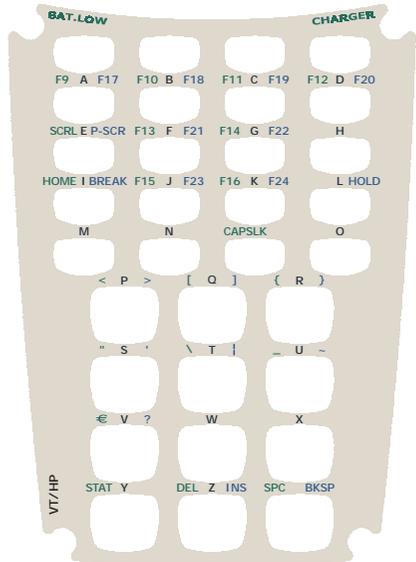
A TERMINAL EMULATION KEYBOARD OVERLAYS

A.1 VIPER™ CE TERMINAL

The following image shows the keyboard overlay of the Viper™ CE 32-key model for 5250 and VT/HP terminal emulation:

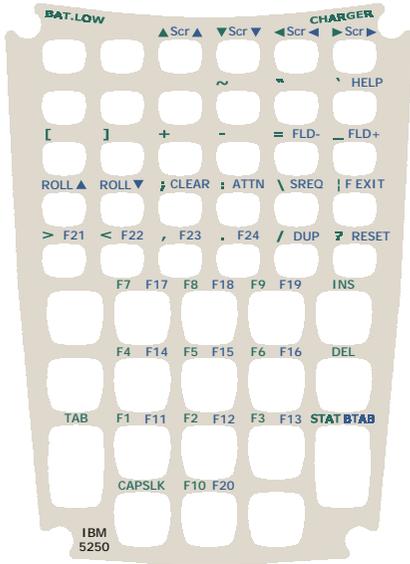


5250 Terminal Emulation

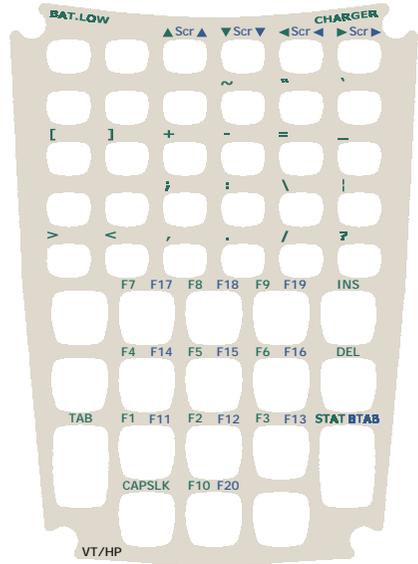


VT/HP Emulation

The following image shows the keyboard overlay of the Viper™ CE 48-key model for 5250 and VT/HP terminal emulation:



5250 Terminal Emulation



VT/HP Terminal Emulation