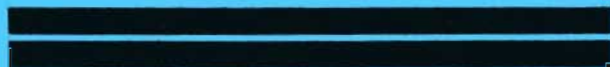
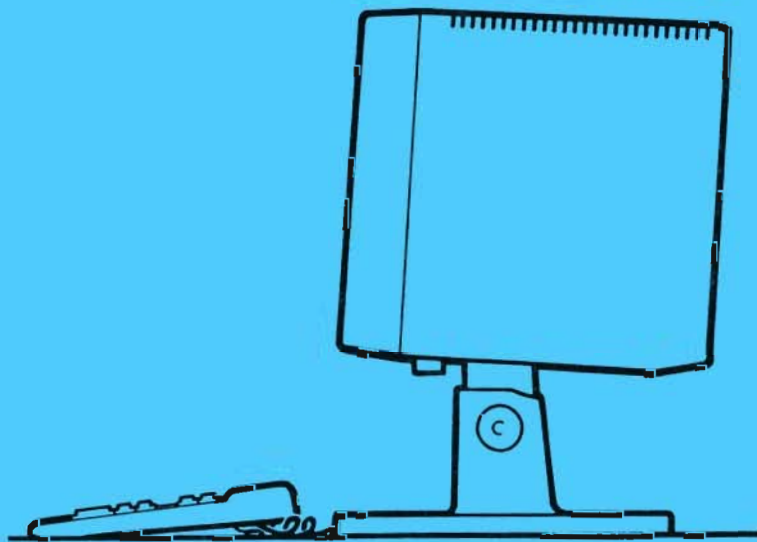


TANDBERG DATA



TDV 2200 SERIES DISPLAY TERMINALS

TDV 2200 and TDV 2200 S User's Guide





TDV 2200 and TDV 2200 S User's Guide

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4	All pages	Minor errors corrected Some sections have been rewritten

Related publications available from our Sales Department:

Publ. no.	Part no.	Title
--	--	TDV 22xx S Functional Specifications *
--	--	TDV 22xx Functional Specifications *

* For each standard version of the TDV 2200 series terminal there is a publication available that describes the functional characteristics of the terminal.

Specify version when ordering (TDV 2215 S, TDV 2220 S, etc.)

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We appreciate any comments on this publication.

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INTRODUCTION

This user's guide is intended for readers with little or no technical background.

The terminal is used for communication with a computer, and since the terminal's behaviour is totally dependent on the program running in the computer, this user's guide cannot give a complete description on how to use the terminal in a typical work-situation. Please refer to your local operating instructions.

However, this guide gives you a few ideas on how to obtain the best possible working conditions, and tells you how to change the terminal's "operator switches" (also called convenience switches). Furthermore, it contains a description on how to program the so-called PUSH-keys.

System programmers are advised to study the "Functional Specifications" available for each version of the TDV 2200 terminal.

NOTE: Unless specifically noted, the term TDV 2200 applies to both TDV 2200 and TDV 2200 S throughout this book.

WARNING!

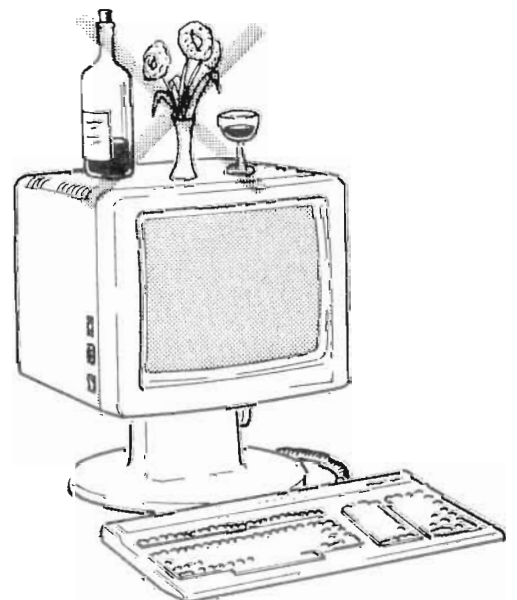
The wall outlet, to which the power plug is connected, must be grounded!

WARNING!

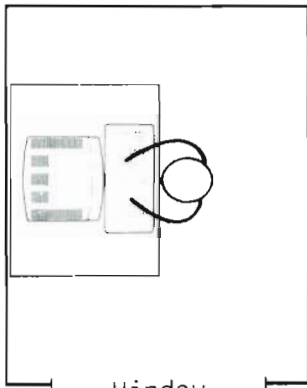
Do not cover the ventilation slots on top of the terminal. Blocked slots may cause the terminal to overheat.

Never place paper clips, coins or drinks on top of the terminal. Such objects will, if they enter the interior, cause serious damage to the electronic components.

Do not remove covers!
Refer servicing to qualified personnel!
No internal operator serviceable parts.
No work should be attempted on an exposed chassis by anyone not familiar with servicing procedures and precautions!

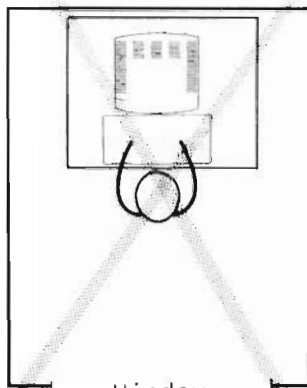


LOCATION IN THE ROOM



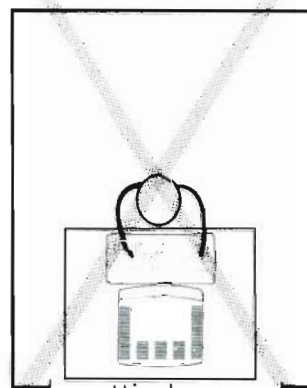
Window

CORRECT



Window

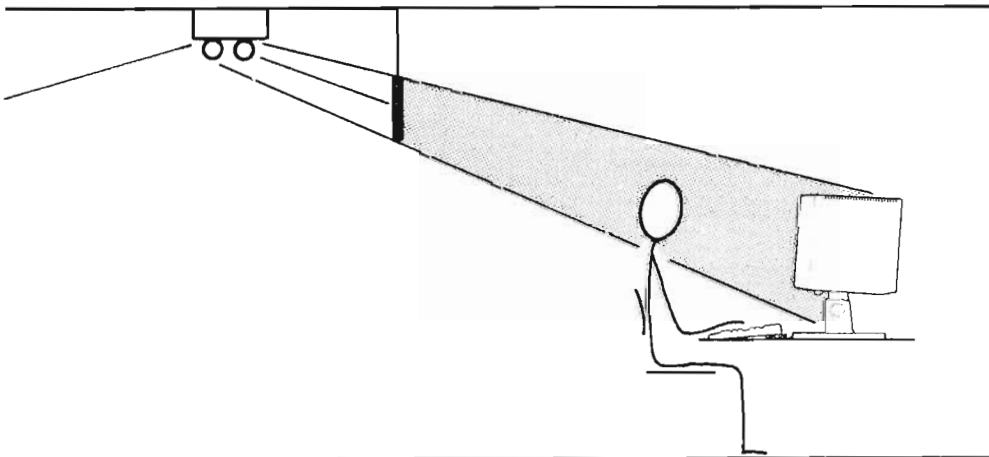
WRONG



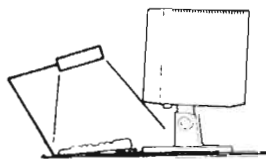
Window

WRONG

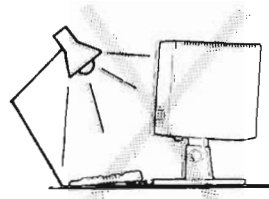
Avoid large light contrasts in the operator's viewing area.



Try to avoid "spot" lamps in the room. Use lamps based on the indirect lighting principle (see above).



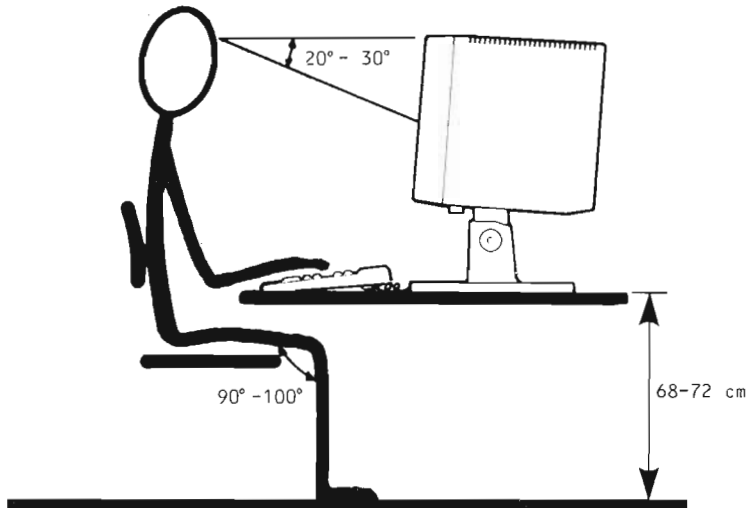
CORRECT



WRONG

Avoid glare and reflections from other light sources on the screen.

WORKING POSTURE



The keyboard is connected to the display unit by a flexible twisted cable which allows freedom in finding the best position for both units.

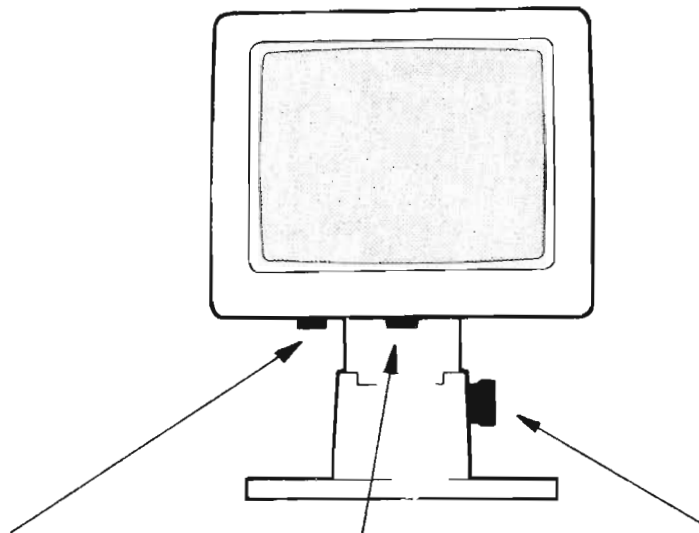
The desk plate, on which the keyboard is placed, should be high enough to allow room for the knees, and low enough for the forearms to be as horizontal as possible when the hands rest on the keyboard. Statistical surveys indicate that heights in the range 68 to 72 cm from floor to desk plate fit most operators. Desks with adjustable legs are available.

The chair should be adjusted so that the operator's legs make an angle of 90 to 100 degrees when the feet rest on the floor. A foot rest will often help to provide the best possible working posture.

The height of the display unit should be adjusted so that a line from the middle of the screen to the eyes makes an angle of 20 to 30 degrees with the horizontal.

Adjusting Tilt, Swivel and Height

The terminal is placed on a stand where tilt, swivel and height can be adjusted in all directions, in order to create an agreeable workplace. By tilting and turning the screen, disturbing reflexes can be eliminated, or at least reduced.



Tilt

Turn this knob until the display unit can be tilted easily while remaining stable at any angle. Find a comfortable angle, and secure it by tightening the knob.

Swivel

Turn this knob until the display unit can be swivelled easily. Find a comfortable angle, and secure it by tightening the knob.

Height

Pull this knob out, and turn to adjust to desired height. Make sure that the knob is securely locked when adjustment is completed.

Video Time-out

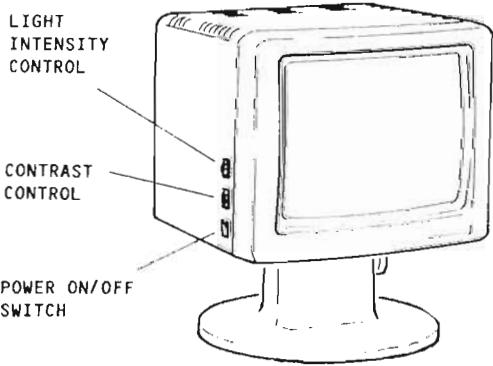
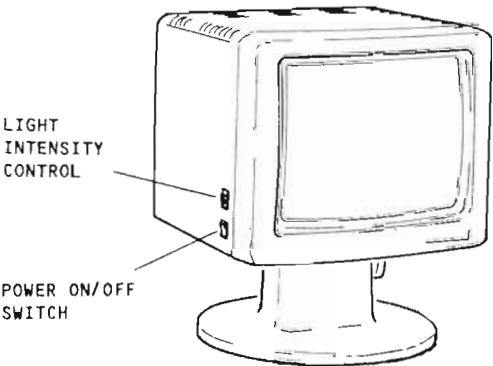
If the terminal is set up with video time-out, the screen will be turned off after approximately ten minutes if there has been no activity. This is done to conserve the phosphorus of the tube. It will be turned on again as soon as there is any activity, e.g. pressing a key on the keyboard or outputting a character on the screen from the application program.

Turning On the Terminal

The power on/off switch is located on the left-hand side of the terminal. If you press this switch, both the display unit and the keyboard will be turned on (or off).

Adjusting Contrast and Light Intensity

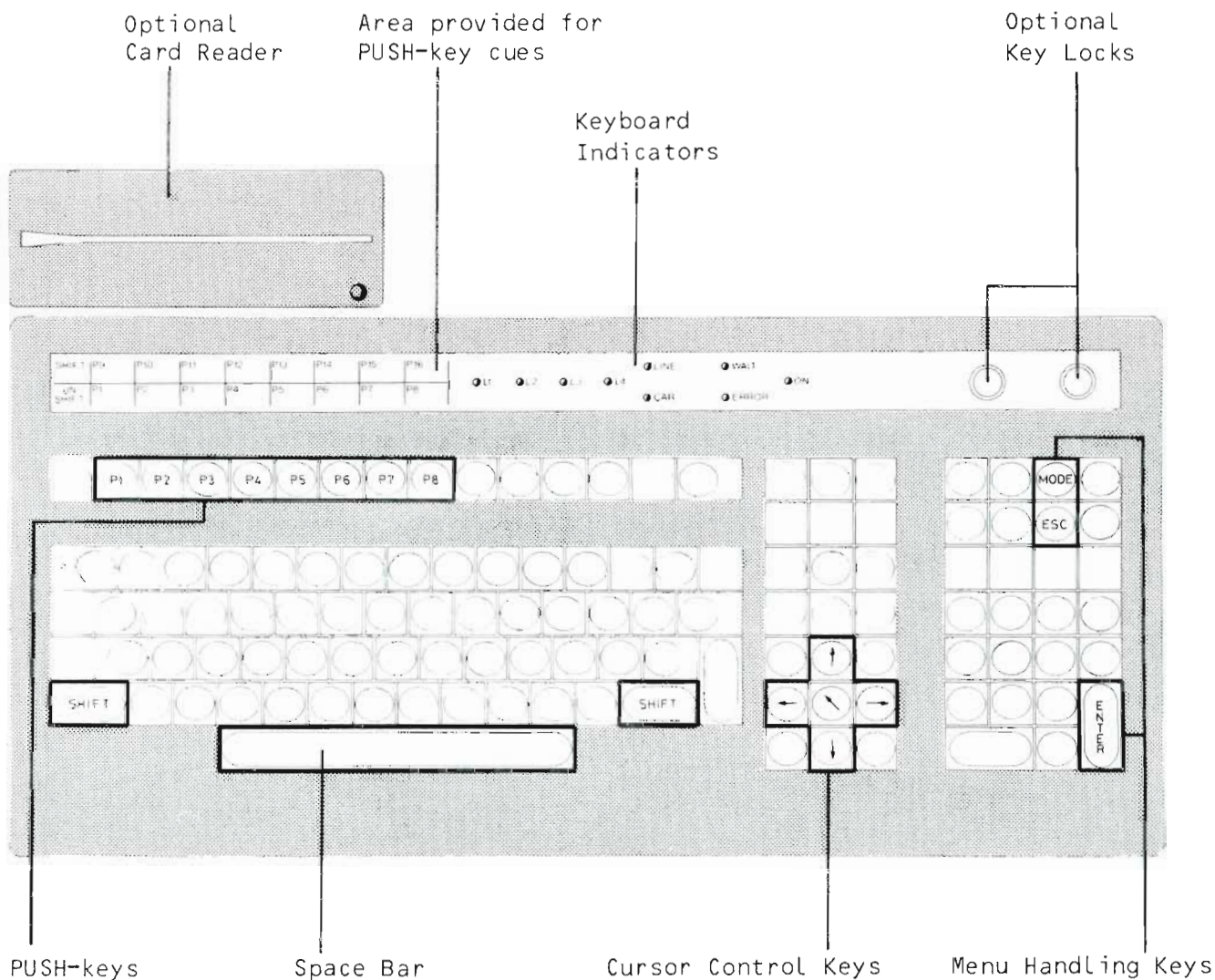
There is a major difference between the TDV 2200 S and the TDV 2200 with respect to adjusting contrast and light intensity. Read the appropriate column below.

TDV 2200 S	TDV 2200
<p data-bbox="331 663 459 696"><u>Contrast</u></p> <p data-bbox="331 725 798 981">Use the contrast control to adjust the contrast between characters and background. Recommended contrast is obtained by turning the control to mid-position. The control is located above the power on/off switch.</p> <p data-bbox="331 1048 571 1081"><u>Light Intensity</u></p> <p data-bbox="331 1111 813 1301">The light intensity control is located above the contrast control. Adjust the intensity according to the light conditions in the room.</p>  <p data-bbox="331 1480 443 1559">LIGHT INTENSITY CONTROL</p> <p data-bbox="331 1637 427 1682">CONTRAST CONTROL</p> <p data-bbox="331 1749 475 1794">POWER ON/OFF SWITCH</p>	<p data-bbox="903 663 1031 696"><u>Contrast</u></p> <p data-bbox="903 725 1334 853">No contrast adjustment. The contrast between characters and background is kept on a constant level.</p> <p data-bbox="903 1048 1142 1081"><u>Light Intensity</u></p> <p data-bbox="903 1111 1385 1301">The light intensity control is located above the power on/off switch. Adjust the intensity according to the light conditions in the room.</p>  <p data-bbox="903 1592 1015 1659">LIGHT INTENSITY CONTROL</p> <p data-bbox="903 1749 1046 1794">POWER ON/OFF SWITCH</p>

KEYBOARD

The keyboard of the terminal is not much different from that of a typewriter. It has more keys and indicators, but it is still fairly easy use. Each version of the TPV 2200 series has its own keyboard layout which differs slightly from one version to another. In the illustration below, only the keys and indicators mentioned in this user's guide are shown.

Note that the functions and operation of the keyboard depend on the actual application program running. Therefore, this user's guide does NOT contain descriptions of each specific key. Please consult your local operating instructions for details.



NOTE 1: The ESC key may be located somewhere else on some versions.

NOTE 2: The ENTER key is on some versions called CR, but the position is the same.

NOTE 3: The PUSH-keys (P1-P8) are labelled F1-F8 on some versions. The use depends on the switch settings of the terminal.

Optional Key Locks

Two security locks, available as options, may be installed in the keyboard. They will be located in the upper right-hand corner.

Lock 1, the leftmost one, will prevent unauthorized personnel from changing Soft-switches and PUSH-keys. When in the locked position, the switch menus cannot be changed. An exception is the Convenience switch menu which will be open regardless of the position of lock 1.

Lock 2 will prevent unauthorized personnel from gaining access to the terminal. When in the locked position, the screen will be turned off and no input from the keyboard will be accepted. When unlocked, the screen will be turned on again and the keyboard will be ready for normal operation.

Optional Card Reader

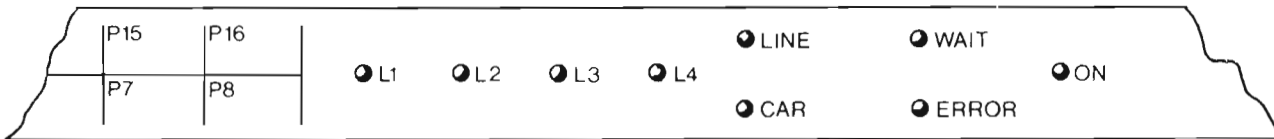
An optional magnetic card reader may be connected to the keyboard on some of the versions of the TDV 2200 terminal. The operation of the card reader will depend on the actual application program running. Please consult your local operating instructions.

A Useful Key for the Operator



This key is used together with SHIFT to enter the Configuration Menu in order to alter the Soft-switches, PUSH-keys or Tabulation Rack. Must be pressed twice (together with SHIFT).

KEYBOARD INDICATORS



Special Indicators

Consult your local operating instructions for the meaning of the following indicators:

L1, L2, L3 and L4

Status Indicators

- LINE** Indicates that the terminal is on-line.
- CAR** Indicates the present state of the carrier detect signal from the modem.
- WAIT** Indicates that the terminal tries to go on-line, but the modem does not respond properly.
- ERROR** Indicates that an error condition is detected in the received data stream.
It can be turned off by pressing the CLEAR key.

Power On Indicator

ON indicates that the power is turned on.

Audio-visual Error Indication

Blinking ERROR indicator means that a malfunction is detected during power up of the terminal.

The soft-switches, PUSH-keys and Tabulation Rack are stored permanently in a memory (EAROM). In case of a malfunction in this memory, the bell will sound continuously, and the following message will appear on the screen:

"Error in EAROM! Call System Operator!"

You can turn off the bell by pressing any key, but the terminal cannot be used until serviced.

CONFIGURATION MENU

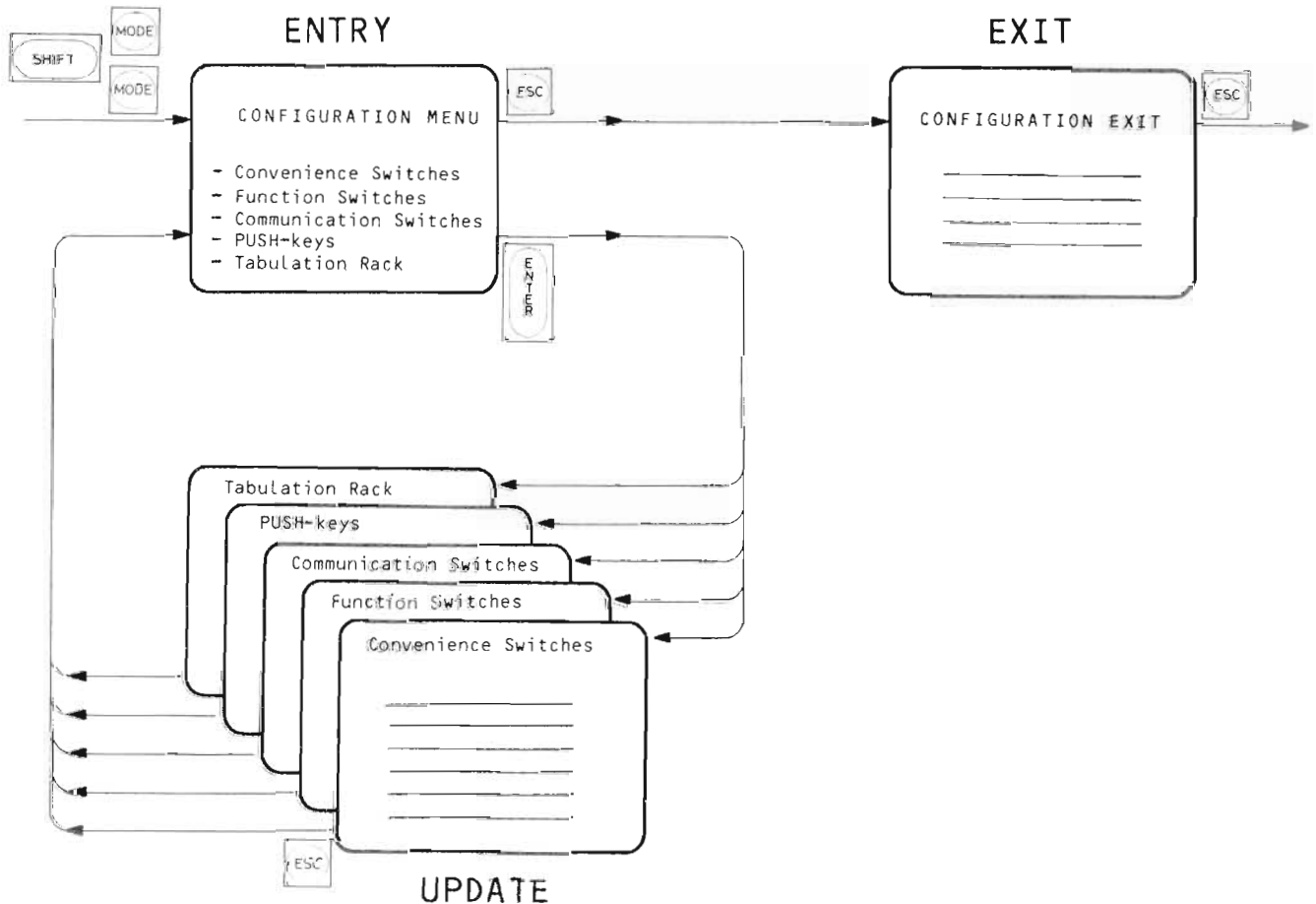
The terminal can be set up in several ways to operate in different installations. The setting up can be easily accomplished with the Soft-switches in the Configuration Menu. Changing the switch settings can be done from the keyboard or from a program in the host computer.

The Soft-switch menus are grouped at three levels. You enter at level ENTRY and exit at level EXIT. At level UPDATE there are several sub-menus where the actual updating takes place.

If your terminal is of the combinational type, e.g. TDV 2270 or TDV 2271, the line "Alternative Mode" will appear in the Configuration Menu. By pressing ENTER when this line is selected, the Configuration Menu for the alternative terminal will appear.

The programming of the PUSH-keys and the altering of the Convenience switches and Tabulation Rack are described in detail on the following pages.

The menus are structured as shown in this figure:



CONVENIENCE SWITCHES

The configuration and the initial setting-up of the terminal are done by Soft-switches programmed from the keyboard. Alteration of the Soft-switches is normally done by the person responsible for the installation.

However, a group of switches are called "Convenience switches" since these switches concern the operator's personal preference only. They may be altered freely by the operator since the settings of these switches do not influence the application program running.

The switch settings are stored in a temporary and a permanent storage:

temporary storage : the settings are stored only as long as the terminal is on.

permanent storage : the settings are stored permanently (even after power has been switched off).



How to Alter the Convenience Switch Settings

Perhaps you don't like the "Block Cursor"? Would you rather use the "Underline" type? And what about the clicking sound on each keystroke? Do you like it or does it get on your nerves? Don't panic!

Here is what you can do:

- 1) Keep SHIFT depressed and press MODE twice.
You are now in the "Configuration Menu".
- 2) Select the "Convenience Switches" by using the CURSOR UP (↑) or CURSOR DOWN (↓) keys.
- 3) Press ENTER.
The Convenience switch menu is now displayed. The menu shows the switches and their present settings.
- 4) Use the CURSOR UP (↑) or CURSOR DOWN (↓) keys to select the switch you want to alter.
- 5) Press ENTER.
The possible settings of this switch are now displayed.
- 6) Use the CURSOR RIGHT (→) or CURSOR LEFT (←) keys to select the switch setting you want.
- 7) Press ENTER.
- 8) Press the ESC key to return to the "Configuration Menu".
- 9) Press the ESC key once more to get to the "Configuration Exit".
- 10) Now you must make a choice.
Use the CURSOR UP (↑) or CURSOR DOWN (↓) keys to select between the possibilities in the "Configuration Exit":

Make Switches Permanent
Reset to Initial Switches
(Make Tabulation Rack Permanent)
(Reset to Initial Tabulation Rack)

- If you want the new switch settings to be valid only as long as the terminal is switched on, just press ESC.
- To store the new switch settings permanently, select "Make Switches Permanent", then press ENTER followed by ESC.
The new settings will be "remembered" even after the terminal has been switched off.
- If you want to ignore all the new switch settings, select "Reset to Initial Switches", and then press ENTER followed by ESC.
The initial switch settings will be valid.

At this point the new switch setting will be operational, and you will be back where you were before you started to alter the Convenience switches.

PUSH-KEY PROGRAMMING

The PUSH-keys (Programmable Utility for String Handling) enable the operator to generate a sequence of characters by pressing one single key.

The eight PUSH-keys work in both shift and unshift mode, thus allowing 16 different often used text strings or code sequences to be programmed and stored. The programmed PUSH-keys are stored in a memory which conserves the contents even when power is switched off.

Note that some of the PUSH-keys may already have been used by the application program. These may normally NOT be re-programmed by the operator, and PUSH-key programming is probably prohibited.

(The message "Prohibited" will start flashing on the screen if PUSH-key programming is attempted, but not allowed).

If in doubt, consult the person responsible for the installation.

However, if PUSH-key programming is allowed, this is how to do it:

- 1) Keep SHIFT depressed and press the MODE key twice.
You are now in the "Configuration Menu".
- 2) Select the "PUSH-key Menu" by using the CURSOR UP (↑) or CURSOR DOWN (↓) keys.
- 3) Press ENTER.
- 4) Use the Cursor Control keys (↑)(↓)(←)(→) to move around in the menu area until you have reached the desired position.
- 5) Start writing.
- 6) When you have finished writing your text strings, press the ESC key to return to the "Configuration Menu".
- 7) Press the ESC key once more to get to "Configuration Exit".
- 8) Press the ESC key once more to return to normal operation. Your text strings are now stored in a memory, and can be fetched by pressing the PUSH-keys P1 to P16.

Practical Hint

The keyboard is equipped with fields for writing PUSH-key cues. Make a note with a pencil in each field to tell what each PUSH-key contains.

Example:

SHIFT	P9 <i>Telex</i>	P10 <i>TD</i>	P11	P12	P13	P14
UN - SHIFT	P1	P2	P3	P4	P5	P6

(P9 = Telex 17002 tdata n P10 = Tandberg Data A/S)

TABULATION RACK

The tabulation rack enables the operator to set the tabulation setting in the terminal. It gives the tabulation stops for all 24 lines on the screen.

To alter the tabulation rack, proceed as follows:

- 1) Keep SHIFT depressed and press MODE twice.
You are now in the "Configuration Menu".
- 2) Select "Tabulation Rack" by using the CURSOR UP (↑) or CURSOR DOWN (↓) keys.
- 3) Press ENTER.
The "Tabulation Rack" is now displayed.
- 4) Move the cursor to the position where a tabulation stop is desired by using the CURSOR LEFT (←) or CURSOR RIGHT (→) keys.
(The cursor position is displayed).
- 5) Press any key (except the space bar).
This will cause a tabulation stop to be set, indicated by a + sign in the relevant position.
You may set as many tab stops as you like on one line.
- 6) If you want to remove one or more tabulation stops, press the space bar when the cursor is in the relevant position(s).
- 7) Press the ESC key to return to the "Configuration Menu".
- 8) Press the ESC key once more to get to the "Configuration Exit".
- 9) Now you must make a choice.
Use the CURSOR UP (↑) and CURSOR DOWN (↓) keys to select between the possibilities in the "Configuration Exit":

- (Make Switches Permanent)
- (Reset to Initial Switches)
- Make Tabulation Rack Permanent
- Reset to Initial Tabulation Rack

- If you want the new tab settings to be stored only as long as the terminal is switched on, just press ESC.
- To store the new tab setting permanently, select the line "Make Tabulation Rack Permanent", and press ENTER followed by ESC. The new tab setting will be "remembered" even after the terminal has been switched off.
- If you want to ignore the new tab setting, select "Reset to Initial Tabulation Rack", and press ENTER followed by ESC. The initial (permanent) tabulation rack will be used.

