



**TDV 2115**  
**Teletype Compatible Data Display**

**TDV 2116**  
**Intelligent Display Terminal**

**TANDBERG** 



## TDV 2115

The Tandberg TDV 2115 is a TTY replacement in the TDV 2100-series of display terminals, a family based on a set of basic modules. The concept is designed with human factors in mind, and emphasis is especially put on such features as the large 16" screen with an anti-reflection cover plate, and large, clear and stable characters.

The cover plate is available in green or yellow. The low power consumption enables a soundless terminal without a ventilation fan.

Two video modes: Normal/underline and attribute.

The cursor can be customer specified to be underscored or block cursor, blinking or steady. The cursor is fully addressable.

The various available detachable keyboards include upper and lower case letters as standard. The screen contains 25 lines with 80 characters per line, and the characters are built up by 7 x 9 dot matrix. Plug-in modularity of printed circuit boards and modules are advantages enhancing the flexibility and ease of service.

## Features:

- Large CRT 16"
- Full upper/lower case character set
- 25 lines with 80 characters per line
- Anti-reflection filter. Selection of green or yellow colour
- Addressable cursor
- Detachable keyboard,
- Various keyboards available
- 7 x 9 character matrix
- Low power consumption
- One of two video modes, underline/normal or attribute mode
- Communication interface CCITT V-24/EIA RS232C and TTY current loop
- Asynchronous speeds from 110 to 19200 baud
- Switch selectable, parity and internal or external echo
- Silent operation – no fan
- Large characters



The units above show the standard colour variants.



Rear panel view showing connectors for V-24/current loop and printer (TDV 2116), eight position speed selector, six terminal set up switches, bell volume potentiometer and CPU reset switch (TDV 2116).

## TDV 2116

The TDV 2116 is based on the TTY compatible terminal TDV 2115 utilizing the large 16" anti-reflection screen with large, clear and readable characters. The micro-computer board with 8080 processor makes it an intelligent terminal with 2 k RAM and up to 8 k PROM and printer interface.

For further extension the unit is equipped with two additional slots for memory or interfaces.

The user programs can be stored in PROMS or loaded from the host computer.

Special symbols or semi-graphics are customer specified options.

## Features:

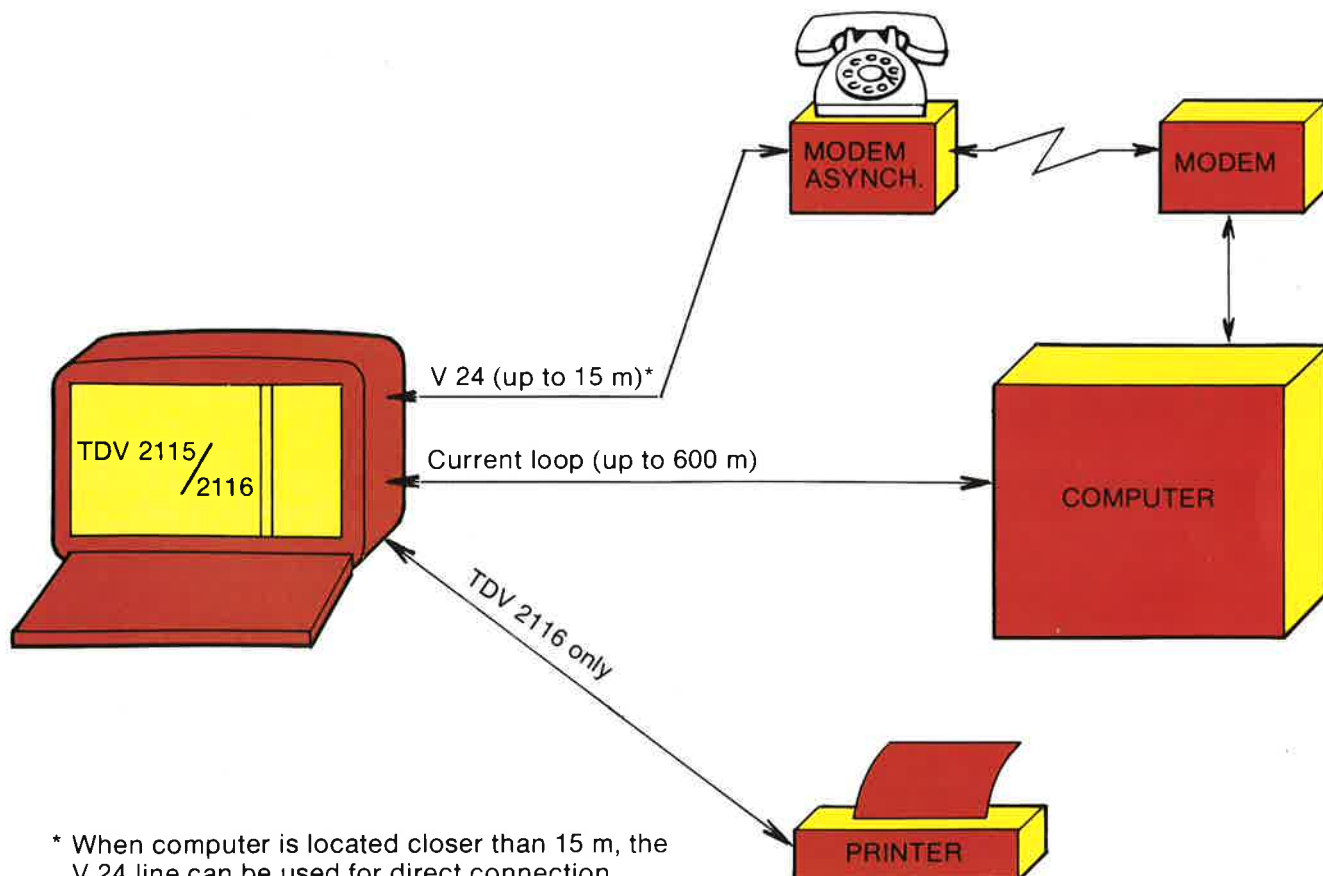
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- Low power consumption
- One of two video modes, underline/normal or attribute mode
- Communication interface CCITT V-24/EIA RS232C and TTY current loop
- Asynchronous speeds from 110 to 19200 baud
- Switch selectable, parity and internal or external echo
- Silent operation – no fan
- Large characters
- Several different video modes: Normal, underline, invisible, low intensity, inverse video and blinking.
- Minimum configuration contains two 8080 CPU's with firmware monitors and 4k bytes of random access semiconductor memory (RAM).



*The products are designed with easy and fast servicing in mind.*

## Types of communication links for TDV 2115 / 2116



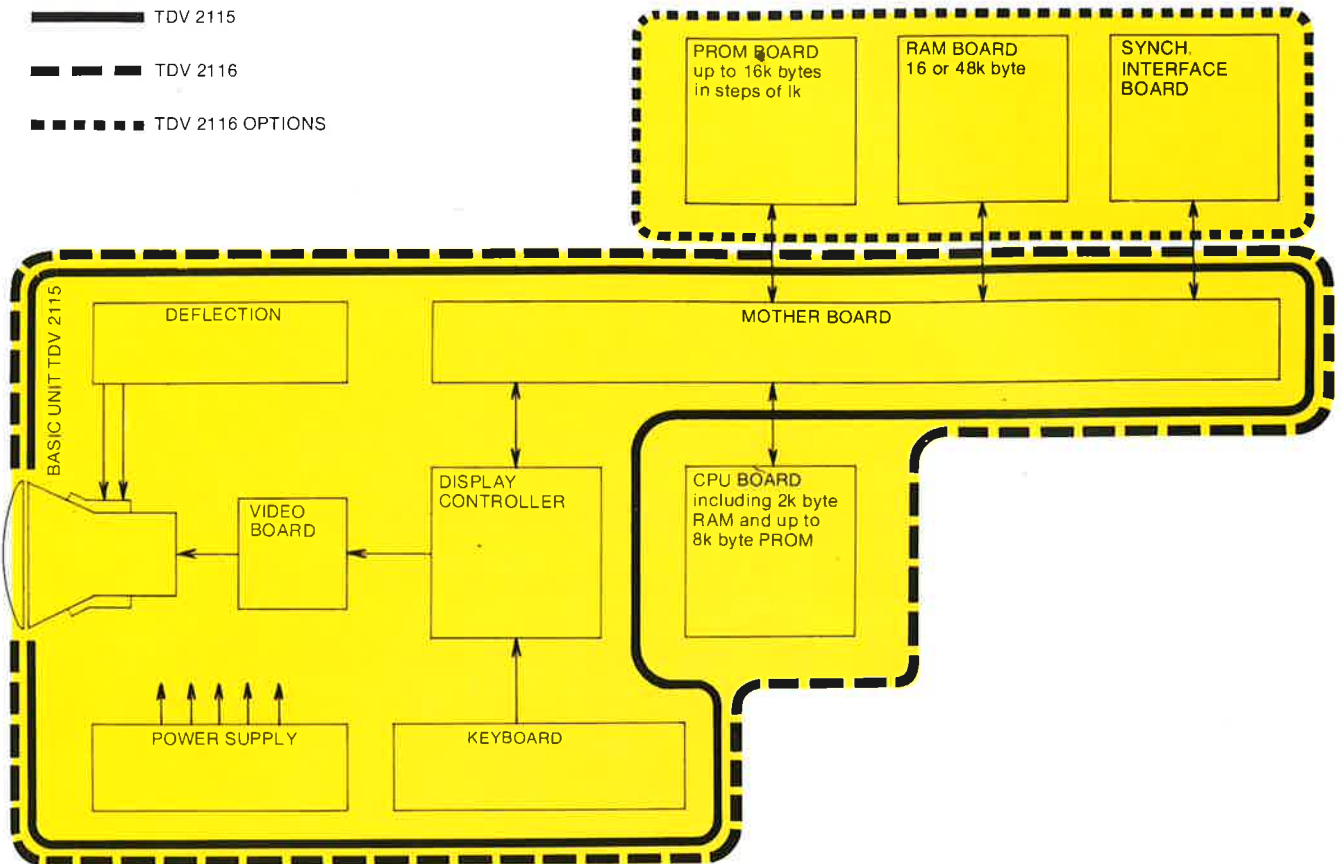
\* When computer is located closer than 15 m, the V 24 line can be used for direct connection.

## Block Diagram for TDV 2115/2116

— TDV 2115

- - - TDV 2116

⋯ TDV 2116 OPTIONS



## Software

The TDV 2116 can be delivered with firmware to operate as an intelligent form handling terminal, or as a slave terminal in a cluster system.

The form handling firmware enables the operator to edit data before transmission. Character and line insert-or-delete plus character overwrite are incorporated. Partial page transmission is also possible.

As a form handling terminal, the user has available powerful editing functions, and may define fields of different types on the screen either from the keyboard or receive a form from a host computer. The firmware performs checking of data on entry according to the defined form.

When used as a slave in a cluster system, the TDV 2116 is programmed from the master unit in the cluster or from the host computer. This makes it possible to use a TDV 2116 with several different communication protocols if required. Dependent on the programming of the master unit, each slave may be programmed independently, thus allowing different slaves to work with different applications simultaneously.

When installing an optional RAM board and appropriate software (firmware), the terminal can store up to 24 pages of information, and selectively operate in page or roll mode. Appropriate software will also enable the terminal to emulate other types of terminals.

# Technical specifications

## Display characteristics

Screen size:	406 mm (16") diagonal 330 × 260 mm (13" × 10,2")
Viewing area:	300 × 220 mm (11,8 × 8,6")
Phosphor:	P4 (White) The screen is equipped with a coloured anti-reflection filter.
Characters per line:	80
Number of lines:	25
Cursor:	Factory selectable block or underscore, blink or steady. Cursor is directly addressable.
Character size:	3,2 × 5,8 mm (0,12" × 0,23")
Character generation:	7 × 9 dot matrix
Character set:	95 standard
Video modes:	Factory selectable underline/normal, attribute or TDV 2000*mode.
Special functions:	Roll up, roll down, erase line, erase page, video on and video off.
Refresh rate:	50 Hz

## Transmission:

Input/output:	Conforms to CCITT V-24 and EIA RS232C (Modem). Teletype current loop 20 mA with built-in floating power supply and opto-couplers.
Mode:	Asynchronous character by character full duplex as standard. Internal or external echo.
Code:	US ASCII
Data rate:	Eight position switch selectable 110-300-600-1200-2400-4800-9600-19200 baud.
Parity:	Even, odd or none, switch selectable.
Stop bits:	One or two, switch selectable.
Transmission status given by LED-lamps on keyboard.	

## Physical and electrical specifications

Power:	220V ± 10% / 50Hz 120 Watts
Cabinet dimensions:	Width 480 mm (18,9") Height 400 mm (15,7") Depth 415 mm (16,3")
Keyboard dimensions:	Width 480 mm (18,9") Height 90 mm (3,5") Depth 230 mm (9,1")
Weight:	Main unit: 21 kg (47 lbs) Keyboard: 3,2 kg (7 lbs)
Operating temperature range:	0-40°C *TDV 2000 is a former Tandberg display unit.

# TDV 2116 additional technical specifications

Display modes:	Underline, blink, low intensity, inverse video, invisible and normal.
CPU-board:	Built-in 8080A CPU with 2k bytes of static RAM and up to 8k bytes of PROM (firmware), and printer interface.
Transmission:	Asynchronous, character by character or block mode. Full duplex. Internal or external echo.
Options:	The two spare card slots may be equipped with the following optional modules. 1) 16k or 48k of RAM memory 2) 16k of PROM memory 3) Synchronous interface

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Specifications are subject to change.