

## 2536DW Interactive Terminal

**INTRODUCTION**

The Wang Model 2536DW Interactive Terminal is compatible with the Wang Computer System (CS) Central Processing Unit (CPU), the Wang MicroVP Series CPU, and the Wang 2200 Series CPU. The 2536DW Interactive Terminal is ergonomically designed for maximum comfort in the office environment.

**Special Features**

The 2536DW Interactive Terminal is designed to support data processing applications, graphics applications, and an optional Wang CS Word Processing (WP) software package. Word processing allows the user to create, edit, and print full-length documents. The graphics option allows the user to create highlighted displays, boxes, and special graphics figures.

Other special features include self-test diagnostics, repeating keys, user-selectable configuration, and a printer interface that allows the user to print out a cathode ray tube (CRT) display.

**Standard Features**

The 2536DW Interactive Terminal CRT display can be tilted to provide a comfortable viewing angle; the brightness can be adjusted to accommodate lighting conditions or operator preference. The CRT is connected by a 4-ft (1.2 m) cable to a low-profile, Wang Professional Computer (PC)-style, detachable keyboard. Both the CRT and the keyboard surfaces have a matte-finish to minimize glare.

**THE CRT DISPLAY**

The 2536DW Interactive Terminal includes a 12-in. (30.5 cm) CRT screen display with a 25-line, 80 characters-per-line capacity. The 2536DW Interactive Terminal normally operates in 24-line mode, compatible with other CS, MicroVP Series, and 2200 Series Interactive Terminals, with the 25th line as an assignable option. The default screen display is black on white with a user-selectable option for a white on black display. The CRT displays a full 128-character set, including uppercase and lowercase alphabetic characters, some foreign language characters, special symbols, and underlining. The CRT also displays an alternate character set

of graphics characters and box graphics. Display speed is approximately 2,000 characters per second at 38,400 baud. A cursor resembling an underscore indicates where the next character will appear on the CRT display.

The 2536DW Interactive Terminal defines a character display attribute for each position on the CRT display. By using special codes before displaying a character or a string of characters, the programmer can produce the output in either bright or normal intensity, blinking or nonblinking, underlined, or reversed video.

More than one attribute can be assigned to a character which can allow, for example, both reversed video and blinking portions on a screen display. Error messages,



Figure 1. 2536DW Interactive Terminal

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input fields, and other special notes can be emphasized by using the appropriate character attributes.

### **Graphics**

The 2536DW Interactive Terminal provides box graphics for drawing horizontal and vertical lines and character graphics for displaying solid figures, such as bars.

Box graphics are used for drawing horizontal or vertical lines on the screen, enabling forms to be depicted, or fields to be separated by lines or boxes. Horizontal lines are drawn between character lines on the CRT screen, while vertical lines are drawn through the center of character positions.

Characters contained within a box do not interfere with the line segments. A prompt contained within a box, for example, can be rewritten a number of times without altering or erasing the box itself. Consequently, box graphics can increase the readability of a dense display without reducing the capacity of that display.

Character graphics divide the character position into six equal areas. Character codes allow one or more of these areas to be displayed on the screen. Adjacent areas of two graphics characters touch, making it possible to create continuous light or dark areas on the screen. When combined with display attributes, character graphics are useful in constructing bar graphs, histograms, and other special displays.

### **THE KEYBOARD**

The detachable keyboard consists of a typewriter keyboard, a numeric keypad, program control keys, and 16 special function keys that can be programmed to perform up to 32 user-defined functions. The keys are ideally suited for high-speed typing or data entry. All keys provide adjustable audio feedback and they repeat when held down. A program-controlled audio alarm with adjustable volume minimizes operator monitoring by signaling when special conditions occur.

The keyboard can produce both uppercase and lowercase characters for data processing and word processing applications. It can also produce uppercase characters only for data processing applications.

#### **Word Processing Support**

The 2536DW Interactive Terminal supports the optional CS WP software package. This software package adds word processing capabilities similar to those of the Wang VS Word Processing System and the Wang Office Information System (OIS).

The Word Processing features include

- Operator prompts and automatic word wraparound
- Automatic indexing for superscripts and subscripts
- Automatic centering, indenting, and decimal alignment

- Global searching and replacing
- Text moving and text copying
- Right margin justification
- Inserting and deleting characters, words, lines, paragraphs, or entire sections of text
- Recording commonly used words, phrases, or standard paragraphs for easy recall and display

The 2536DW Interactive Terminal includes special keys to support program editing and the optional CS WP software package. These keys include the cursor control keys and the editing keys INSERT, DELETE, PREV SCRNL, and NEXT SCRNL. The additional word processing keys INDENT, PAGE, CENTER, DEC TAB, FORMAT, MERGE, NOTE, STOP, SRCH, REPLC, COPY, MOVE, COMMAND, SUPERSCRIP, and GO TO PAGE simplify document creation and revision. The CENTER key automatically centers a line of text. The MOVE key allows text to be moved within a document. The REPLC key allows one character-defined sequence to be replaced by another.

### **THE PRINTER PORT**

Each 2536DW Interactive Terminal can support its own printer for program output and hard copies of CRT displays. From the keyboard, a user can initiate a dump of the display screen to the terminal printer. The printer can reproduce

all the standard characters present on the screen. This screen dump feature requires no special software and can be performed at any time.

Any supported Wang printer or plotter with a 36-pin Wang Centronics-parallel cable connection can be plugged into the printer connector on the terminal. A Wang-supplied, direct connection cable or an optional modem cable can be plugged into the RS-232-C-compatible connector on the terminal. Refer to the Wang Express Catalog for ordering information.

## TERMINAL/CPU INTERFACE

The 2536DW Interactive Terminal can be attached locally to the CS, MicroVP Series, or 2200 Series CPU at distances of up to 2,000 ft (606.1 m) or remotely via modems and telephone lines.

Communication between the 2536DW Interactive Terminal and the CPU is asynchronous and full-duplex, with selectable line speeds ranging from 300 to 38,400 bits per second. To accelerate communications between the terminal and the CPU, the system performs automatic data compression on information transmitted to each terminal.

Figures 2 through 4 illustrate how the 2536DW Interactive Terminals can be attached to the CS, MicroVP Series, and 2200 Series CPUs using the Wang 2236MXD Terminal Processors, the Wang 2236MXE Terminal Processors, and the Wang 22C32 Triple Controllers.

## DIAGNOSTICS

The 2536DW Interactive Terminal performs self-testing diagnostics when powered on. These diagnostics check terminal conditions

before use. If the unit fails one of the tests, the terminal alarm sounds, alerting the user to the failure. These tests allow the customer service representative to quickly identify the problem and minimize downtime.

## CONFIGURATION

The 2536DW Interactive Terminal is completely configurable from the keyboard. The 2536DW Interactive Terminal displays a configuration menu from which the user may select options. These options include language, baud rate, parity, screen display (black on white or white on black), and volume control. The default settings are initially displayed. Once the user selects different options, these new options become the new defaults for subsequent power on.

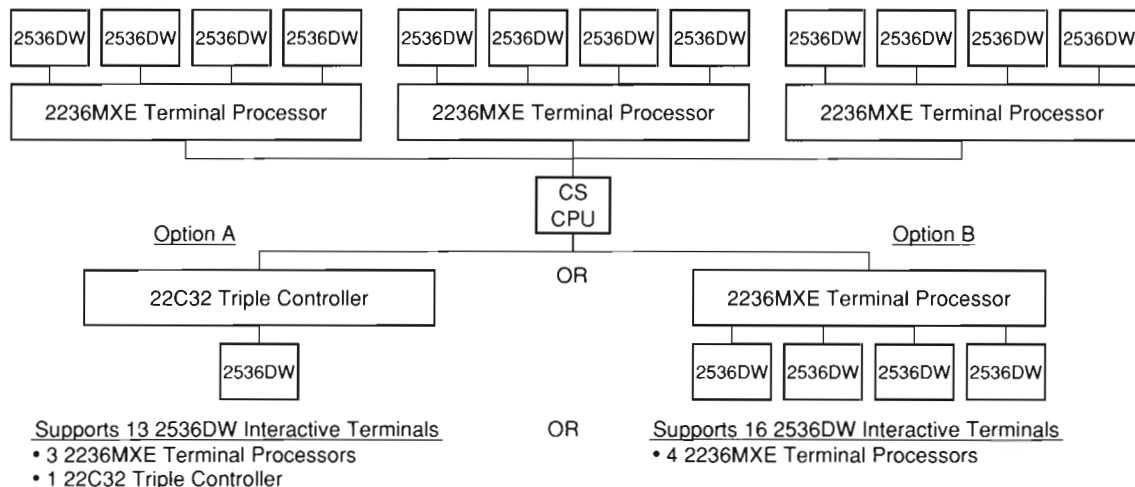
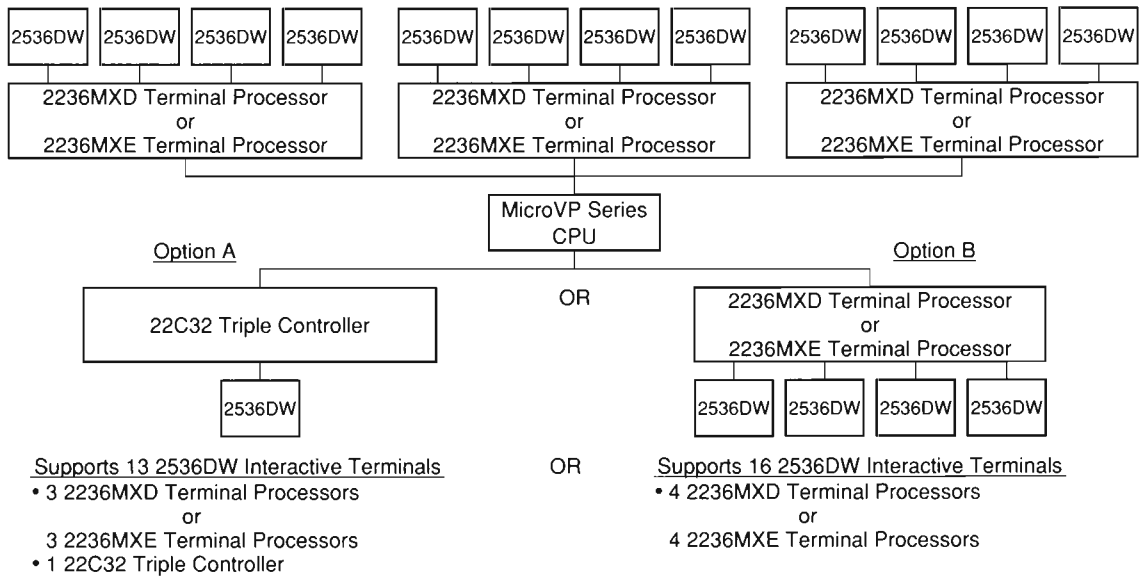
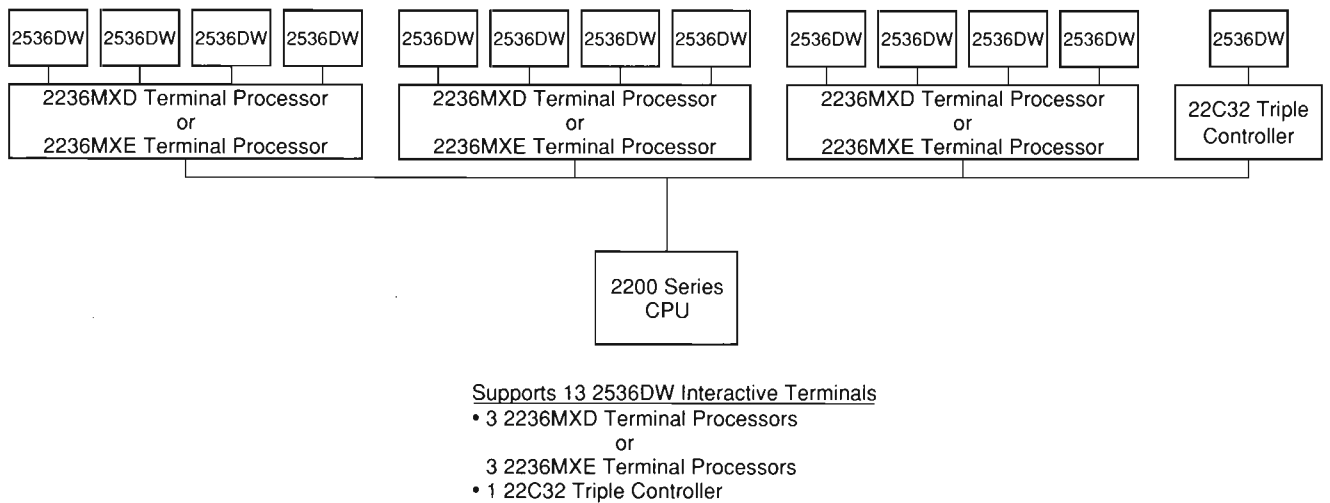


Figure 2. Attaching 2536DW Interactive Terminals to CS CPU



**Figure 3. Attaching 2536DW Interactive Terminals to MicroVP Series CPU**



**Figure 4. Attaching 2536DW Interactive Terminals to 2200 Series CPU**

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## SPECIFICATIONS

### Monitor

**Height**

11.5 in. (29.2 cm)

**Depth**

10.8 in. (27.4 cm)

**Width**

13.0 in. (33.0 cm)

**Weight**

15.0 lb (6.8 kg)

### CRT

**Display Size**

12.0 in. diagonal (30.5 cm)

**Capacity**

25 lines, 80 characters per line

**Character Height**

0.16 in. (0.41 cm)

**Character Width**

0.09 in. (0.23 cm)

### Keyboard

**Height**

1.70 in. (4.3 cm)

**Depth**

7.80 in. (19.8 cm)

**Width**

18.30 in. (46.5 cm)

**Weight**

4.50 lb (2.0 kg)

### Keyboard Interface

62.5 KHz, Asynchronous

### Character Set

The character set contains 128 characters including uppercase and lowercase letters; each character is assigned one or more attributes for high-or low-intensity display, blinking, reverse video, or underlining. An additional alternate character set consisting of 64 graphics characters and other special symbols is supplied. It is also capable of displaying line segment (box) graphics, separate from either character set.

### Character Format

When communicating with a CS, MicroVP Series, or 2200 Series

- 1 start bit, 1 stop bit
- 8 data bits plus odd parity
- (11 bits per character)

Other selectable character format

- 1 start bit, 1 stop bit
- 8 data bits, no parity
- (10 bits per character)

### Communication Mode

Asynchronous, full-duplex

### Transmission Rate

Manually selected for each terminal at 300, 600, 1200, 2400, 4800, 9600, 19.2K, or 38.4K baud. (A 2236MXE Terminal Processor and the MXE microcode included in revision 3.2 (or higher) of the CS,

MicroVP Series, or 2200 Series Operating System are required to run at 38.4K baud.)

### Power Requirements

115 or 230 Vac  $\pm$  10%  
50 or 60 Hz  $\pm$  1.0 Hz  
100 W, 60 W typical

### Operating Environment

**Temperature**

60° to 90°F (15° to 32°C)

**Relative Humidity**

(noncondensing)

20% to 80% (allowable)

35% to 65% (recommended)

### Cabling

**Standard**

One 8-ft (2.4 m) cable connects the terminal to the power source. One 25-ft (7.6 m) direct connection (standard) cable connects the terminal to the CPU.

**Optional**

Cabling is available in 100 ft (30.4 m) increments for direct connection up to 1,000 ft (304.0 m) or in 250 ft (76.2 m) increments from 1,250 ft (378.8 m) to 2,000 ft (606.1 m). Modem cables are available in lengths of 12 ft (3.7 m) with extensions of 25 ft (7.6 m) and 50 ft (15.2 m). Refer to the Wang Express Catalog for ordering information.

*Standard Warranty Applies*

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*Wang Laboratories, Inc., reserves the right to change specifications without prior notice.*