# PR1ME

# Prime
# System Terminal
# PST100

9/82

## Features

- Microprocessor-controlled, 128-ASCII character, buffered display terminal

- Tilt-and-swivel display with detached, sculptured keyboard

- Large 381 mm (15-inch) diagonal non-glare display

- 22 user-programmable function keys, plus full editing and character attribute functions

- Multi-page operation available with user-selectable scroll speeds

- Menu-selectable configuration options

- International character sets

- Self-test diagnostic capabilities

- Quiet operation suitable for office use

- Modular design for ease of installation and maintenance

- Supported by a wide range of industry-standard systems software products and applications packages

## Description

The Prime System Terminal Model 100 (PST100) is a high-throughput, alphanumeric display terminal ideal for applications requiring interactive or block-mode communications using local or remote connections. Designed for ease of use, the PST100 features a typewriter-style keyboard with a 15-key numeric pad to facilitate data entry, and a monitor that tilts and swivels for maximum operator comfort.

Microprocessor-controlled for ease of configuration, the PST100 can interface with all Prime hardware products. It features an auxiliary serial printer port to meet local hardcopy requirements. And because it's designed for easy installation, users can remove and relocate the terminal without Field Engineering assistance.

## Video Display

The PST100's 381mm (15-inch) diagonal measure screen format is 24 lines with 80 characters per line. A 25th line provides prompts on terminal and system modes, error messages and an 80-character message buffer. To enhance readability, the raster-scan monitor presents a maximum of 1,920 high-resolution characters using a 7 x 9 dot matrix with lowercase descenders. International character sets include English, French and German.

The PST100 provides a range of visual display attributes for user convenience. These include normal and decreased intensity, underline, blink, reverse video, invisible and strike-through data fields. User-selectable cursor options are reverse video block, underline or blinking underline – all non-destructive. Function keys control cursor positioning.

To facilitate operation, the PST100 features a two-page display memory with page controls and four user-selectable scroll speeds. This lets the system send up to 3,840 characters to the terminal at high speed, while allowing users to control the data display rate.

## Keyboard

The PST100 keyboard is detached and movable for maximum operator comfort. For connection to the base, it features a lightweight coiled cord that's fully hidden when the keyboard is adjacent to the video monitor. To minimize operator training, the keyboard features a sculptured, typewriter layout and a supplementary 15-key numeric pad that speeds high-volume data entry. Labelled standard function keys that identify editing capabilities facilitate operation. Single keystrokes let users insert a character, delete a character or line, tab and back tab, plus scroll up and down. Both standard and user-programmable function keys speed processing and increase operator productivity. Additionally, adjustable audio keyboard click, margin alarm and error tone help increase accuracy.

Line-drawing and block-graphics capabilities make the PST100 suitable for meeting business graphic needs. Bar charts, block diagrams and form-outlines can be displayed with a variety of special graphic characters.

## Communications

For standard communications with Prime systems, the PST100 uses Prime's Asynchronous Multi-line Controller (AMLC) or Intelligent Communications Subsystem, Model 1 (ICS1) for EIA (RS-232-C/CCITT V.24) connections. Connection to the host can be direct or through a variety of modems. Transmission rates are switch- or menu-selectable from 50 bps to 19.2K bps. Parity is switch-selectable for ODD, EVEN, IGNORE or NONE.

The PST100 provides full ANSI line protocol, as well as a Prime specific compressed control protocol, for greater line efficiency. Reduced line overhead provides remote users and public packet-switching network users more cost-effective communications.

## Self-Diagnostics

Featuring built-in, ROM-resident diagnostics, the PST100 automatically tests itself upon power-up. In addition, the processor, communications interface, keyboard logic, ROM and screen modules are individually testable and can be tested by the user at any time. Diagnostic LED indicators make it easy to isolate problems, while the terminal's modular design allows for easy part replacement.

## Software

The PST100 is supported on all Prime computer systems by the PRIMOS® operating system. This sophisticated software system supports a wide range of industry-standard, high-level languages including FORTRAN '66 and '77, ANSI '74 COBOL, BASIC/VM, RPG II, PL/I, PASCAL and Macro Assembler.

Software utilities compatible with the PST100 include the Prime Source-level Debugger for fast program development; EMACS, an interactive screen editor; and the Forms Management System (FORMS) for interactive screen formatting. Additionally, the PST100 can be used with the Prime Office Automation System.

## Specifications

### Monitor
Control: Microprocessor
Type: Cathode ray tube
Display: Raster scan, non-interlaced
Deflection: Magnetic
Phosphor: P136, white
Screen size: 381mm (15") diagonal measure
Display format: 24 lines x 80 columns; 1,920 characters; 25th status/system message line
Display memory: One or two pages; 3,840 characters maximum
Character size: 7 x 9 dot matrix
Refresh rate: 60Hz

### Keyboard
Style: Typewriter layout, detached
Cable length: 482.6 mm (19") coiled, 1.9 M (72") expanded
User-programmable function keys: 22
Keypad: 15-key numeric
Cursor control: Up, down, left, right, home, auto repeat

### Character Set/Attributes
Character set: 128 ASCII
Line drawing: 8 graphic symbols
Block graphics: 64 symbols
Visual attributes: Normal and decreased intensity, underline, blink, reverse video, invisible, strike-through
Logical attributes: Modified data, must enter, must fill, selected for transmission, protected, numeric-only, either left- or right-justified, alphabetic-only, alphanumeric
Cursor: Underline, blinking underline or reverse video block

### Communications
Line interface: EIA (RS-232-C/CCITT V. 24)
Transmission mode: Full/half-duplex
Transmission rate: Selectable 50 bps to 19.2K bps asynchronous
Protocol: XON/OFF
Parity: ODD, EVEN, IGNORE or NONE
Operating modes: Character-interactive or block-mode

### Auxiliary Interface
Serial, bidirectional
EIA (RS-232-C/CCITT V.24)
Transparent printing (keyboard control)

## Physical

Display module: 39 cm W x 32 cm H x 41 cm
D (15.25" W x 12.5"H x 16.0"D); 10 kg (22 lbs.)
Keyboard module: 49 cm W x 7.6 cm H x
20.5 cm D (19.5" W x 3.0" H x 8.25" D);
3.2 kg (7 lbs.)
Logic module: 49 cm W x 7.6 cm H x 33 cm D
(19.5" W x 3.0" H x 13.0" D); 3.6 kg (8 lbs.)

## Power

Voltage: 180-264 VRMS or 90-132 VRMS
Phase: Single
Frequency: 47-63Hz
Power consumption: 70 W, maximum

## Environmental

Operating temperature: 10°C - 40°C (50°F -
104°F)
Storage temperature: −18°C - 60°C (0°F - 140°F)
Maximum operating altitude: 3,046 M
(10,000')
Maximum storage altitude: 12,183 M (40,000')
Operating relative humidity: 5% - 80%
(no condensation)
Storage relative humidity: 0% - 95%
(no condensation)
Heat dissipation: 170 Btu/hr (50 W)
Cooling: Natural convection

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