



# PERFORMER (PT200) Terminal

## Features

### *PT200™ Terminal*

Microprocessor-controlled, 256-ASCII-character, buffered display terminal

Optional bit-mapped graphics supports the Tektronix 4010/4014 interface

Optional color monitor displays up to 14 shades

Tiltable display with detached, sculptured keyboard

Large 14" (355mm) diagonal, non-glare bezzelled screen and choice of three phosphors

26 character-attribute and editing function keys, plus 26 application-function keys

80- or 132-column screen display; folded-page support for 160 columns

Multipage operation available with user-selectable scroll speeds

Self-test diagnostic capabilities

Internationalized operation; nine languages available

Silent operation suitable for office use

New "deferred" customer service option\*

Supported by a wide range of Prime® systems software products and applications packages

## *PERFORMER™ PC Option*

IBM PC and XT compatibility for commodity software and hardware options

Simultaneous use as PT200 terminal and personal computer with easy switching between the two modes

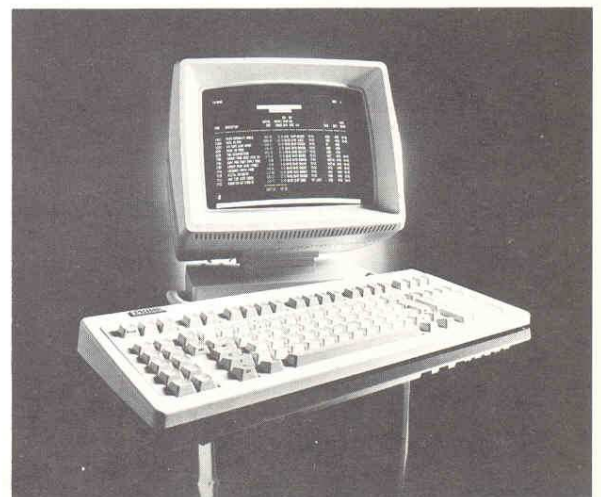
Available in either dual diskette or 10MB Winchester/single diskette versions

"Shared mode" feature allows PC and host applications to be displayed on the same screen

Using PRIMELINK™ interconnect software, "virtual disk" feature allows PC files to be stored on host

Selected third-party application software available from and supported by Prime\*

A variety of PC service options for hardware and Prime-supplied software\*



## Description

The PERFORMER (PT200) terminal is a versatile, high-throughput, alphanumeric display terminal ideal for a variety of business applications requiring character- and block-mode capabilities. An asynchronous terminal, it can operate with both local and remote connections. The PT200 can emulate an IBM 3270 terminal when used with PRIME/SNA™ software to connect to networks supporting IBM's Systems Network Architecture (SNA).

Designed to be easy to use, the PERFORMER terminal features an advanced keyboard, which can support many word- and data-entry functions. The monitor tilts, and has a coated screen designed to reduce glare for maximum user comfort. The PT200 is compatible with all 50 Series™ superminicomputers under the PRIMOS® operating system.

As needs change and grow, users can upgrade the basic PERFORMER terminal by adding graphics or IBM-compatible PC options.

The microprocessor-controlled PERFORMER terminal is simple to configure, so the customer can install it. Initially, however, a Prime Customer Service Representative may be required to install the PC option and graphics option.

## Video Display

The PERFORMER terminal's monochrome, 14" (355mm) diagonal, non-glare screen offers a choice of amber, green or white phosphors. To further reduce reflections and glare, a bezel surrounds the display area. A color monitor is also available as an alternative.

Users may choose from four screen formats, which can be user- or program-controlled. In addition to the standard 24 lines with 80 characters-per-line display, a two-page capability provides 48 lines. Another format permits the display of 27 lines with up to 132 characters each. Even text or other material that is 160 columns wide can be accommodated through horizontal scrolling. Each format has an additional status line that displays parameters and messages. A folded-page feature allows a specified number of columns (perhaps containing labels) to be stationary while the display scrolls behind or below the stationary area.

There are a number of visual display attributes for the user's convenience. These include underline, strike-through, normal or reduced intensity, reverse video, blink and invisible mode. The screen automatically dims after 15 minutes, protecting against images burning into it. Pressing any key, or the receipt of new data from the host will restore the image.

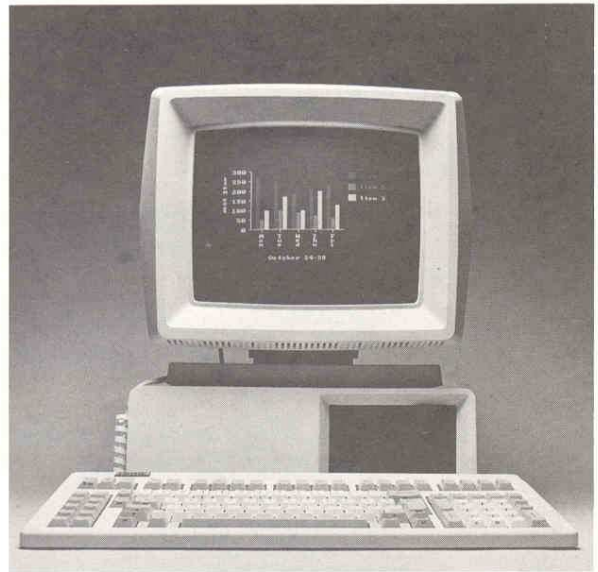
The user can easily set brightness, key click, screen format and many other character attributes through a menu. These settings, stored in non-volatile memory, can remain in place even after power is switched off: the PT200 can also be returned to the default settings. Alternatively, a programmer can control the appropriate display attributes for a particular application.

## Keyboard

The PT200 keyboard is detached and moveable for maximum user comfort. It connects to the base with a lightweight coiled cord, which is hidden when the keyboard is adjacent to the monitor.

The low-profile keyboard has a sculptured, typewriter-style QWERTY layout designed to adhere to the ISO standard. This minimizes operator training. The keyboard is also specifically designed to provide a consistent user interface. Special keys are grouped together for specific functions such as SNA and 3270 emulation. To speed data entry and editing, 26 labeled function keys enable users to delete or insert characters, clear the screen, scroll the display and perform many other operations with a single keystroke.

The keyboard also features 26 application-specific function keys. Five of these keys have LEDs to indicate the currently operating mode (e.g., displaying all capital letters instead of capitals and lower case). The user can also adjust the keyboard click and margin bell, display intensity and scrolling rate to help increase accuracy. Even when the PT200 is turned off, it can remember the setting of these attributes.



PERFORMER PC Option\*\*

Users can turn their PT200 terminals into IBM-compatible personal computers by adding the PERFORMER PC option. The upgrade gives PERFORMER terminal users all the benefits of personal computing, with the ability to run hundreds of PC-DOS based commodity application software programs, such as Lotus 1-2-3™ and Wordstar™. At the same time, they have access to department-level processing on their 50 Series systems. In one unit, users have the performance and features of the PT200 and an industry-standard personal computer with IBM PC and XT capability.

The PERFORMER terminal with the PC option is far more than just a PC. Users can run word processing, spreadsheets, graphics, integrated decision support systems or data management packages locally. They can also use the unit as a 50 Series terminal to run host applications such as the Prime Office Automation System (Prime OAS), FORMS and Prime INFORMATION™ data management software.

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#### *Hardware*

The PERFORMER PC option hardware consists of a two-board upgrade to the PT200 terminal, a connecting cable and a system unit module. Unlike many other PCs, the PERFORMER PC option incorporates a PC graphics controller and a flexible disk controller into the system unit. This design frees up option slots that these features would otherwise use.

The system unit module contains the 8088 processor, 256KB of memory (expandable to 640KB), five expansion adapter slots, and either dual diskette or 10MB Winchester/single diskette drives. The unit is designed so that customers can install PC hardware options, such as an 8087 math co-processor and an additional 10MB disk drive unit. Because the PERFORMER PC option is IBM PC compatible, it will accept commercially-available PC hardware options.

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#### *Four Display Modes*

A key feature of the PERFORMER PC option is its ability to display data in four screen formats: PC mode, PT200 terminal mode, PC terminal mode (displaying PC text in PT200 terminal character format), and shared screen mode. Shared mode lets the user run and display both a PC and a host application simultaneously. Users who need fast and frequent access to the host database can switch between modes with just a few simple keystrokes.

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#### *PRIMELINK™ Interconnect Software*

PRIMELINK communications software connects the PERFORMER PC option (and other IBM PC-compatible personal computers) to 50 Series systems. Its "virtual disk" capability essentially increases the storage capacity of the PC option by allowing PC files to be stored on the 50 Series host in MS-DOS™ (PC-DOS compatible) format.

The PRIMELINK transport mechanism is also used by other PC-to-Prime services. For example, users can transfer documents created with MultiMate™ word processing software to the host Prime OAS. The format is converted automatically.

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#### *PC Software*

There are hundreds of commercially-available, PC-DOS-based software programs for the PERFORMER PC option. Additionally, Prime is offering a set of programs selected to meet the major productivity needs of most users. Available through Prime Telemarketing,\* this software includes development tools, word processing software, integrated packages and more. Prime backs up its PC software offerings with Prime PC TELEGUIDE, a phone-in PC software help facility.

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#### *Graphics\*\* and Color*

An optional graphics board enables the PT200 to operate as high-quality graphics terminal for software that supports the popular Tektronix 4010/4014 interface. The board provides fully bit-mapped graphics to develop high resolution (720 x 300 pixels) displays. It is excellent for creating detailed line drawings, bar and pie charts and other business graphics.

Image™ and Tell-A-Graf™ graphics packages and other application software that works with the 4010/4014 interface can run on the PT200. The PERFORMER terminal can also display drawings created with the PRIME MEDUSA™ modeling program.

Even without the graphics option, the PT200 has line drawing and block graphics features that enable it to create basic bar charts, block diagrams and flow diagrams.

An optional color monitor offers the advantage of a full color display to improve the presentation and clarity of spreadsheets and text. The monitor will display up to eight colors, six of which have two intensities, for a total of 14 shades (including black and white).

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#### *Communications*

For standard communications with Prime systems, the PERFORMER terminal uses Prime's Asynchronous Multi-Line Controller (AMLC) or Intelligent Communications Subsystem, Model 1 (ICS1) or Model 2 (ICS2) for EIA (RS-232-C/CCITT V.24) connections. It can connect to the host directly or through a variety of modems. Transmission rates are switch- or menu-selectable from 50 bps to 19.2Kbps. Parity is switch-selectable for ODD, EVEN, IGNORE or NONE.

The terminal provides greater line efficiency through a full ANSI line protocol. Reduced line overhead gives remote users and public packet-switching network users more cost-effective communications.

## Self-Diagnostics

With built-in, ROM-resident diagnostics, the PERFORMER terminal automatically tests itself upon power-up. Also, the user can test the processor, communications interface, keyboard logic, ROM and screen modules at any time.

## Software

The PRIMOS operating system supports the PERFORMER terminal on all 50 Series systems. This sophisticated software system supports a wide range of industry-standard, high-level languages including FORTRAN 77, COBOL 74, BASIC/VM, RPG II, PL/I-G, Pascal, and C.

All Prime application software programs work with the terminal; over time they will better exploit such special features as its 132-column display. Software utilities compatible with the PERFORMER terminal 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. The terminal can also work with the Prime Office Automation System and Prime INFORMATION data management software.

## Prime Telemarketing

With Prime Telemarketing, customers can order PT200 terminals, options, upgrades, accessories and software directly from Prime by calling a toll-free telephone number. In addition to the fast turnaround (usually 72 hours), customers benefit from a minimum 5% discount on all phone orders except memory, printers and special orders.

Prime Telemarketing offers a wide variety of other products – from documentation to communication cables. Call 1-800-343-2533 from anywhere in the U.S. between 8:30 am and 8:00 pm, Eastern Time.

## Customer Service

Prime services are designed to complement and enhance the overall effectiveness of our products. We offer a choice of several hardware service options, including Deferred Service\* for customers with many PT200 terminals (including the PERFORMER PC option). Under Deferred Service, a Prime Customer Service Representative will service all PT200 terminals and options from a central customer location, install field change orders at no cost, and conduct all remedial maintenance on a delayed basis.

## PC Services\*

Prime has created several service features specifically for PERFORMER PC option users. The PC CENTER is a customer support center staffed by a group of dedicated PC support specialists. Users requiring assistance can reach the PC CENTER by calling a toll-free telephone number. The PC CENTER also offers Prime PC TELEGUIDE, a phone-in service for micro-software help. We also offer time-block contracts for PC software.

All of our service offerings are backed by the skill of hundreds of systems analysts and field engineers, so Prime can provide the support your system needs for maximum uptime, anywhere in the world.

\* Currently available in the U.S. Check with your local Prime Marketing Representative for availability in other countries.

\*\* The PERFORMER PC option and graphics option are mutually exclusive.

## Specifications

### Monitor

Control:	Microprocessor
Display:	Raster scan, non-interlaced
Phosphor:	White, amber or green
Screen size:	14" (355 mm) diagonal measure
Display formats:	24 lines x 80 columns, 1,920 characters, 25th line status/system message line; 27 lines x 132 columns, 3,564 characters, 28th line status/system message line; 24 lines x 160 columns and 48 lines x 80 columns available with hardware scrolling
Display memory:	3,840 characters max.
Character size:	7 x 9 dot matrix
Refresh rate:	60 Hz.

(Specifications continued on next page)

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**Keyboard**

Style:	Detached, low profile, typewriter layout
Cable length:	19" (482.6mm) coiled, 48" (1.9 M) expanded
User-programmable function keys:	26
Keypad:	22-key numeric
Cursor control:	Up, down, left, right; scrolls – up, down, left, right

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**Character Set/Attributes**

Character set:	256 ANSI multinational
International keyboards:	U.S., U.K. English, French, German, Danish, Swiss French, Swiss German, Norwegian, Swedish/ Finnish
International Menus:	English, French, German
Line drawing:	Eight graphic symbols
Block graphics:	64 symbols
Visual attributes:	Normal and reduced 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, blinking block, reverse video block

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**Communications**

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

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**Auxiliary Interface**

Serial, XON/XOFF Protocol
EIA (RS-232-C/CCITT V.24)
Transparent pass-through from host
50-19,000 baud

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**Physical**

Display module:	15.25" (39cm) W x 12.5" (32cm) H x 16" (41cm) D; 22 lbs. (10kg)
Keyboard module:	19.5" (50cm) W x 3" (7.6cm) H x 8.25" (21cm) D; 7 lbs. (3.2kg)
PC option chassis:	16" (48.3cm) W x 5.75" (14.6cm) H x 15.25" (38.8cm) D; 23.2 lbs. (12.6kg)

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**Power**

Voltage:	180-264 VRMS or 90-132 VRMS
Phase:	Single
Frequency:	50Hz or 60Hz
Power consumption:	70 Watts maximum 165 Watts maximum with PC option

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**Environmental**

Operating temperature:	50°F-95°F (10°C-35°C)
Storage temperature:	-8°F-117°F (-22°C-47°C)
Maximum operating altitude:	10,000' (3,046 M)
Operating relative humidity:	20%-90% (no condensation)
Storage relative humidity:	5%-95% (no condensation)
Heat dissipation:	239 Btu/hr. (70 Watts) 563 Btu/hr. (165 Watts) with PC option

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**PERFORMER PC Option**

CPU:	8088
Clock speed:	4.77 MHz
Main memory:	256KB
Storage:	Two 360KB floppy diskette drives, or one 360KB floppy diskette drive and one 10MB hard disk drive
Media:	5.25" double-sided, double density (48 TPI)
Output:	One serial port standard (parallel port available with memory expansion board)
Expansion slots:	Five IBM-compatible
Operating system:	Microsoft MS-DOS 2.11 (PC-DOS compatible) bundled with PC option

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