WANG

CUSTOMER MARKETING

2200 Systems

Product Catalog 1983

TO ORDER CALL:
(800) 225-0978
(617) 453-7069

INTRODUCTION

Wang Customer Marketing is a new service for users of Wang systems. This service provides you a simple and direct channel to order or inquire about Wang 2200 products. Any new products that you order will be installed and maintained by the same customer engineering people who serve you now.

This catalog will help you plan your 2200 System upgrade or expansion by presenting the products and options currently available and describing the various upgrade paths. You should consider upgrading or expanding your system if you want to do any of the following:

- Increase productivity
- Improve quality and timeliness of information
- Increase storage capacity
- Accommodate future growth

The products described in this catalog can make your 2200 System more productive and versatile. To help you select the right products, the configuration guide in the System Planner section shows compatibility of products with the different 2200 processors. Moreover, the Wang Customer Marketing group is just an 800 telephone number away; call us to answer your questions or to provide any assistance you require to place your order.

WHERE TO FIND

PERIPHERALS 1
- **WORKSTATIONS** 2
- **PRINTERS** 4
- **PRINTER ACCESSORIES** 11
- **STORAGE DEVICES** 13

DATA COMMUNICATIONS AND SOFTWARE OPTIONS 15

SYSTEM PLANNER 23
- **PROCESSORS** 24
- **CONTROLLERS** 30
- **CONFIGURATION GUIDE** 32
- **UPGRADES** 36

ORDERING INFORMATION 39

Prices and product specifications are effective as of 3/1/83 and are subject to change without notice. Prices are in U.S. dollars and for delivery in the U.S.

Copyright © Wang Laboratories, Inc., 1983

PERIPHERALS

PERIPHERALS
PERIPHERALS
PERIPHERALS
PERIPHERALS

NOTE

Rated printer speeds are averages estimated for a wide range of print jobs. Actual throughput may vary depending upon the application and configuration.

WORKSTATIONS

MODEL 2336DW WORKSTATION

The Model 2336DW Integrated Workstation is ergonomically designed for operator comfort and convenience. This interactive workstation is compatible with all 2200 Series VP, MVP, SVP, and LVP Central Processing Units (CPUs).

The workstation consists of a compact CRT display and a separate keyboard. The CRT features a tiltable display that can be adjusted to suit the operator's line of vision and to minimize reflections. The lightweight keyboard is connected to the terminal by a 6-foot cable and can be positioned for operator convenience. All surfaces, including keycaps, feature matte finishes that minimize glare.

The Model 2336DW supports both word processing (WP) and data processing (DP) applications. To run WP applications, the optional 2200 Word Processing Software Package is required. This package provides capabilities similar to those offered on Wang's Word Processing System, Office Information System, and VS/Integrated Information System.

Operational features include automatic word wraparound; automatic centering, indenting, and decimal alignment; global search and replace; text movement; text copy; and right-margin justification.

A full 128-character set is displayable and includes uppercase and lowercase letters, numbers, and special characters. The Model 2336DW also provides a graphics capability. By using the normally unused portions of each character position, the user can create box graphics that allow line segments to be drawn at any character position. In addition, a set of 64 graphic symbols is available to provide geometric design. An optional printer can be connected to a rear panel jack on the terminal, providing a hard copy of screen images.

SPECIAL FEATURES AND BENEFITS

- Nonglare surfaces to help reduce eye fatigue
- Tiltable CRT display
- Supports WP and DP applications

Model	Price	Monthly Maintenance
2336DW Integrated Workstation	$2,000	$22

WORKSTATIONS

MODEL 2336DE WORKSTATION

The Model 2336DE Interactive Workstation is an ergonomically designed terminal that supports data processing applications on all Wang 2200 Series VP, MVP, SVP, and LVP Central Processing Units (CPUs).

The workstation consists of a compact CRT display and a separate keyboard. The CRT features a tiltable display that can be adjusted to suit the operator's line of vision and to minimize reflections. The lightweight keyboard is connected to the terminal by a 6-foot cable and can be positioned for operator convenience. All surfaces, including keycaps, feature matte finishes that minimize glare.

The workstation displays a full 128-character set that includes uppercase and lowercase letters, numbers, and special characters. The Model 2336DE also provides graphics capability. By using the normally unused portions of each character position, box graphics can be created that allow line segments to be drawn at any character position. In addition, a set of 64 graphic symbols is available to provide geometric design. A jack provided on the rear panel allows the user to connect a printer directly to the terminal for a hard copy of the screen.

Model	Price	Monthly Maintenance
2336DE Interactive Workstation	$2,000	$22

MODEL 2282 GRAPHIC CRT

The Model 2282 Graphic CRT provides high resolution CRT plotting and fully automatic alphanumeric lettering capability to the 2200 system. Uses for the Graphic CRT include the preparation of bar graphs, pie charts, engineering drawings, graphics of standard mathematical functions, and maps.

The Model 2282 consists of a 12-inch diagonal CRT screen that can display 800X by 512Y locations. A 112-character ASCII set contains uppercase and lowercase letters that can be plotted in 15 character sizes. The CRT is controlled and programmed from the CPU using PLOT, PRINT, and $GIO statements. In addition, a Set Character Spacing command can be used to print a character string vertically, horizontally, or diagonally. The user can connect a Model 2231W-3 Line Printer to the Graphic CRT to produce a hard copy of the screen. When it is not copying a CRT image, the Model 2231W-3 printer responds to normal CPU commands.

Model	Price	Monthly Maintenance
2282 Graphic CRT	$3,600	$21

PRINTERS

MODEL 2231W-3 GRAPHIC MATRIX PRINTER

The Model 2231W-3 Matrix Printer is fast, quiet, and produces alphanumeric or highly detailed graphic output. It is compatible with all Wang 2200 Series processors. Additionally, the user can connect the printer directly to the Graphic CRT.

The Model 2231W-3 uses a 7 × 8 dot matrix to print an ASCII set of 112 characters consisting of uppercase and lowercase letters, numbers, and symbols. The Model 2231W-3 prints either normal or expanded characters at speeds of up to 120 characters per second. The printer has a 132-character buffer that receives a full line of data from the processor.

Normal Character Set

```
 !"#$%&'()*+,-./
0123456789:;<=>?
@ABCDEFGHIJKLMNO
PQRSTUVWXYZ[ß]↑←
°abcdefghijklmno
pqrstuvwxyz§£éç
```

Expanded Character Set

```
 !"#$%&'()*+,-./
0123456789:;<=>?
@ABCDEFGHIJKLMNO
PQRSTUVWXYZ[ß]↑←
°abcdefghijklmno
pqrstuvwxyz§£éç
```

When connected to the Model 2282 Graphic CRT, the printer generates strips of 800 × 8 dots until it produces an accurate hard copy of the graphic image. In addition, normal print commands are processed while the printer is connected to the Graphic CRT.

The Model 2231W-3 feeds paper from the front and controls the paper by a two-channel vertical format tape. The printer accommodates paper widths from 3.5 inches to 13.5 inches and uses forms up to four parts (plus the original).

SPECIAL FEATURES AND BENEFITS

- Standard and expanded characters
- Copies graphic images
- 120 cps

Model	Price	Monthly Maintenance
2231W-3 Matrix Printer	$3,800	$39

MODEL 2231W-6 HIGH DENSITY MATRIX PRINTER

The Model 2231W-6 Matrix Printer features high-quality output and rapid, quiet operation. It is compatible with all Wang 2200 Series processors.

The Model 2231W-6 uses a high-density dot matrix to print an ASCII set of 96 characters consisting of uppercase and lowercase letters, numbers, and symbols. The Model 2231W-6 prints normal or expanded characters at speeds up to 70 characters per second. Both 10- and 12-pitch fonts are included to produce line widths of 110 and 132 characters (standard), respectively. The printer has a 132-character buffer that receives a full line of data from the processor.

10-Pitch Character Set

```
 !"#$
%&'()*+,-./01234
56789:;<=>?@ABCD
EFGHIJKLMNOPQRST
UVWXYZ[\]↑_`abcd
efghijklmnopqrst
uvwxyz{|}~
EXPANDED
PRINT
```

12-Pitch Character Set

```
 !"#$
%&'()*+,-./01234
56789:;<=>?@ABCD
EFGHIJKLMNOPQRST
UVWXYZ[\]↑_`abcd
efghijklmnopqrst
uvwxyz{|}~
EXPANDED
PRINT
```

The Model 2231W-6 feeds paper from the front, and controls the paper by a two-channel vertical format tape. The printer accommodates paper widths from 3.5 inches to 13.5 inches and uses forms up to four parts (plus the original). Additional features, such as program control over pitch selection, highlighting, and underscore, make the Model 2231W-6 ideal for generating business and scientific reports.

SPECIAL FEATURES AND BENEFITS

- Typewriter-like output
- 70 cps
- Standard and expanded characters
- 10- or 12-pitch fonts

Model	Price	Monthly Maintenance
2231W-6 Matrix Printer	$3,300	$39

PRINTERS

MODELS 2233 AND 2235 BIDIRECTIONAL MATRIX PRINTERS

The Models 2233 and 2235 Matrix Printers provide reliable, high-quality output for the Wang 2200 family of processors. These low-cost printers differ only in speed and character density.

Both models are bidirectional and use either a 7 × 9 dot matrix or a 9 × 9 dot matrix to print an ASCII set of 96 characters. Included in the character set are uppercase and lowercase letters, numbers, and symbols. The printers can produce normal or expanded characters in either 10-pitch or 12.2-pitch. Using normal-size characters, both models can print line lengths up to 132 characters at 10-pitch and 158 characters at 12.2-pitch. The Model 2233 prints at speeds up to 100 characters per second (cps) at 10-pitch and 120 cps at 12.2-pitch. The Model 2235 prints up to 181 cps at 10-pitch and 222 cps at 12.2-pitch.

Character Set

10-Pitch

```
 !"#$%&'()*+,-./
0123456789:;<=>?
@ABCDEFGHIJKLMNO
PQRSTUVWXYZ[\]↑_
`abcdefghijklmno
pqrstuvwxyz{|}~
EXPANDED
PRINT
```

12.2-Pitch

```
 !"#$%&'()*+,-./
0123456789:;<=>?
@ABCDEFGHIJKLMNO
PQRSTUVWXYZ[\]↑_
`abcdefghijklmno
pqrstuvwxyz{|}~
EXPANDED
PRINT
```

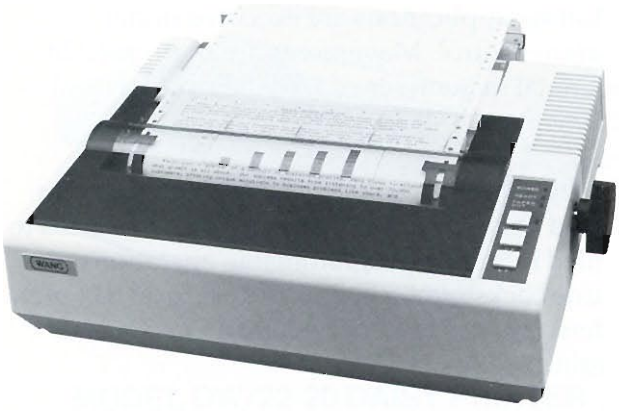
Control of both the Model 2233 and Model 2235 is completely programmable with an extensive selection of control codes. These codes support vertical format control, highlighted printing, selection of vertical line density (6 or 8 lines per inch), carriage return, full and partial line feed, forms feed, and pitch selection. These printers accommodate paper widths from 3.5 inches to 14.9 inches and use forms up to five parts (plus the original).

SPECIAL FEATURES AND BENEFITS

- Choice of print speed and density
- Standard and expanded characters
- 10- or 12.2-pitch fonts
- Program control

Model	Price	Monthly Maintenance
2233 Matrix Printer	$2,500	$35
2235 Matrix Printer	$3,500	$48

PRINTERS



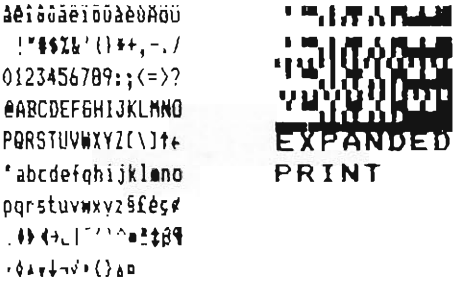
MODEL 2245 MATRIX PRINTER

The Model 2245 is a compact, bidirectional matrix printer designed as a local printer or as a low-speed, low volume system printer. It is compatible with all Wang 2200 Series processors.

The Model 2245 uses a 9 × 9 dot matrix to print a full set of 128 characters consisting of uppercase and lowercase letters, numbers, and symbols. The printer produces line lengths of up to 80 characters at 10-pitch and 132 characters at 16.5-pitch at an average speed of 80 characters per second. When attached to a 2200 "DE" or "DW" workstation, the Model 2245 prints box and character graphics as they appear on the screen. The Model 2245 is the only Wang printer that produces box graphic output from a 2200 workstation.

10-Pitch Character Set

16.5-Pitch Character Set



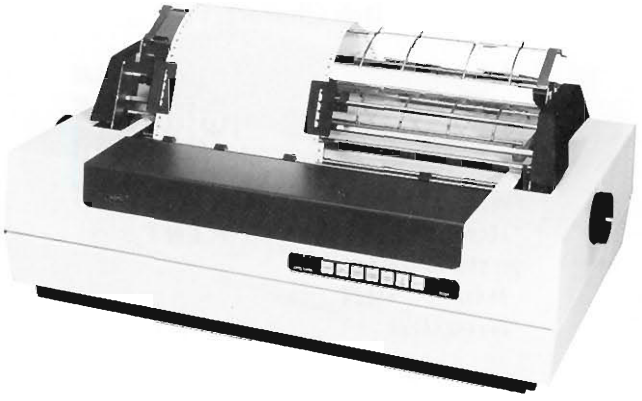
The Model 2245 accommodates paper widths from 4.5 inches to 10.0 inches and forms of up to two parts (plus the original). Control codes enable a program to control printer functions. These codes allow highlighted printing, vertical tabulation, selection of vertical line density (6 or 8 lines per inch), form feed, and pitch selection.

SPECIAL FEATURES AND BENEFITS

- Economical
- Compact
- Hard copy of CRT images
- 10- or 16.5-pitch fonts

Model	Price	Monthly Maintenance
2245 Matrix Printer	$1,000	$15

PRINTERS



MODELS 2281W AND 2281WC DAISY PRINTER/PLOTTERS

The Models 2281W and 2281WC are bidirectional daisy printers that provide letter-quality output and digital plotting capability for the Wang 2200 family of processors. Model 2281WC and 2281W printers differ only in carriage width; the Model 2281WC features a wide carriage design.

Both models are bidirectional and use interchangeable daisy wheels to print uppercase and lowercase letters, numbers, and symbols in 10- or 12-pitch format. Buffer capacity for a print line is dependent upon the pitch selected. The Model 2281W prints up to 132 characters per line at 10-pitch and 157 characters per line at 12-pitch. Because of a wide carriage design, the Model 2281WC can print a 180-character line at 10-pitch and a 216-character line at 12-pitch. Both printers operate at an average speed of 30 characters per second (cps).

Sample Character Set

```
ABCDEFGHIJKLMNOPQRSTUVWXYZ
abcdefghijklmnopqrstuvwxyz
1234567890/.,?;:'"][=+-_)(
*&¢%$#@!
```

Plotting applications are executed under program control. Movements are performed in horizontal increments of 1/60 inch and vertical increments of 1/48 inch.

A special set of programmable commands can be used to accurately position preprinted forms to be filled in. Other programmable operations include backspace, tab, line feed, vertical tab, plot, underscore, move, carriage return, and set left margin.

The Model 2281W accommodates paper widths from 3.5 inches to 15.0 inches, and the Model 2281WC handles paper up to 20.5 inches in width. Forms consisting of the original and as many as five copies can be printed. Both printers support optional monodirectional forms tractors, bidirectional forms tractors, and twin sheet feeders.

SPECIAL FEATURES AND BENEFITS

- Letter-quality output
- Plotting capabilities
- Wide carriage model
- Interchangeable print wheels

Model	Price	Monthly Maintenance
2281W Daisy Printer	$4,500	$49
2281WC Wide Carriage Printer	$6,000	$49

PRINTERS

MODEL DW/22-20 DAISY PRINTER

The Model DW/22-20 bidirectional daisy printer is especially suited to Word Processing applications providing letter-quality output in a variety of typestyles for 2200 Series processors. This economical printer features quiet operation and increased reliability due to fewer moving parts and adjustments.

The Model DW/22-20 uses interchangeable plastic print wheels to provide character sets in 10- or 12-pitch format. Character sets include uppercase and lowercase letters, numbers, and symbols. The Model DW/22-20 prints line lengths of up to 132 characters at 10-pitch and 158 characters at 12-pitch at an average rate of 20 characters per second.

Sample Character Set

```
ABCDEFGHIJKLMNOPQRSTUVWXYZ
abcdefghijklmnopqrstuvwxyz
1234567890/.,?;:'"][=+-_)(
*&¢%$#@!
```

Control codes enable a program to control printer functions. Programmable operations include backspace, tab, line feed, vertical tab, form feed, underscore, and carriage return.

The Model DW/22-20 accommodates paper widths from 4.5 inches to 15.0 inches and forms of up to five parts (plus the original). Options include a monodirectional forms tractor, a bidirectional forms tractor, a twin sheet feeder, and an envelope feeder.

SPECIAL FEATURES AND BENEFITS

- Economical
- Letter-quality output
- Interchangeable print wheels

Model	Price	Monthly Maintenance
DW/22-20 Daisy Printer	$2,695	$37

MODEL 2273 BAND PRINTER

The Model 2273 Band Printer is a medium duty, solid character, impact printer that provides high-quality output for the 2200 Series of processors. Two versions of this printer are available and differ only in print speed.

Both models use interchangeable print bands that are available in a variety of character sets and typestyles. The 64-character bands contain uppercase letters, numbers, and symbols, and the 96-character bands contain lowercase letters as well. The user can easily remove and replace bands to meet various printing requirements. The Model 2273-1 prints up to 250 lines per minute (lpm), and the Model 2273-2 prints up to 600 lpm.

64-Character Set

```
ABCDEFGHIJKLMNOPQRSTUVWXYZ
0123456789
!"#$%&'()*+,-./:;<=>?@[\]^_
```

96-Character Set

```
ABCDEFGHIJKLMNOPQRSTUVWXYZ
abcdefghijklmnopqrstuvwxyz
0123456789
!"#$%&'()*+,-./:;<=>?@[\]^_`{|}~
```

The Model 2273 can print special forms by program control or manually by the Forms Length Selector switch. The Vertical Format Unit (VFU), under software control, controls page length and provides rapid vertical tabbing. The printer can process paper from 3.0 inches to 15.0 inches in width and forms containing up to 6 parts (including the original). Other features include built-in diagnostic checks and status indicators, adjustable print density, and an impact intensity control.

SPECIAL FEATURES AND BENEFITS

- High-quality, solid character output
- Interchangeable print bands
- Fast

Model	Price	Monthly Maintenance
2273-1 250 lpm Band Printer	$ 8,500	$ 96
2273-2 600 lpm Band Printer	$12,000	$137

PRINTER ACCESSORIES

TWIN SHEET FEEDERS

The Twin Sheet Feeder option is designed for Models DW/22-20, 2281W, and 2281WC Printers. Several models are available to accommodate different sizes of paper. This electronically controlled option automatically and continuously feeds paper to the printer as needed. With the two paper bins supplied, it is possible to use two different types of paper, such as letterhead and plain bond, when printing a document.

Model	Price	Monthly Maintenance
The following models use 8 1/2" × 11" paper or 8 1/2" × 14" paper.		
TSF-20 for Model 2281W	$2,000	$21
TSF-22 for Model 2281WC	$2,000	$21
TSF-51 for Model DW/22-20	$2,000	$21
The following models use 8 1/4" × 11" paper or 8 1/4" × 14" paper.		
TSF-21 for Model 2281W	$2,000	$21
TSF-23 for Model 2281WC	$2,000	$21
TSF-53 for Model DW/22-20	$2,000	$21

PRINTER ACCESSORIES

ENVELOPE FEEDERS

The envelope feeder is an option for Models 2281W and DW/22-20 printers used in word processing applications. It is electronically operated and automatically feeds standard-size business envelopes (#7 3/4, #9, or #10) to the printer. The operator determines the margins through the Print Document menu and the format of the address list used, and the printer addresses the envelopes and routes them to a receiving tray. The input hopper is easy to load and holds up to 300 envelopes of the same size. The envelope feeder can be easily removed to allow regular printer use.

Model	Price	Monthly Maintenance
EF-11 Envelope Feeder for Model 2281W	$2,000	$33
EF-21 Envelope Feeder for Model DW/22-20	$2,000	$33

FORMS TRACTORS

Both monodirectional and bidirectional forms tractors are available for 2200 daisy printers. The monodirectional tractor continuously feeds form paper in one direction only, and the bidirectional feeder continuously feeds in either forward or reverse direction. Both tractors accept various paper widths and multipart (up to six) forms. Racks are provided to contain ingoing and outgoing paper flow.

Model	Price	Monthly Maintenance
FT-2 Monodirectional Tractor for DW/22-20	$250	N/A
OP-124 Monodirectional Tractor for 2281WC	$250	N/A
BFT-1 Bidirectional Tractor for 2281W and DW/22-20	$300	N/A
BFT-2 Bidirectional Tractor for Model 2281WC	$300	N/A

STORAGE DEVICES

MODEL 2280/2280N DISK DRIVES

The Model 2280/2280N Disk Drives provide varying amounts of on-line storage for Wang 2200MVP, LVP, and VP CPUs. The 2280 models include the 22C14 Disk Processing Unit (DPU). Model 2280N drives are identical to the Model 2280 drives, but they do not include a DPU; Model 2280N drives are configured with the DPU as a second drive. The Model 2280/2280N disk drives consist of a single, removable disk platter with 13.4 Mb of storage and from 13.4 Mb to 67 Mb of fixed storage, depending on the model. Removable platters are compatible with all models in the 2280 series and can be stored off-line, providing backup and unlimited storage potential.

Model	Price	Monthly Maintenance
2280-1, 26.8 Mb Disk Drive and 22C14 DPU	$19,000	$196
2280-2, 40.2 Mb Disk Drive and 22C14 DPU	$20,000	$206
2280-3, 80.4 Mb Disk Drive and 22C14 DPU	$21,000	$216
2280N-1, 26.8 Mb Disk Drive	$17,000	$175
2280N-2, 40.2 Mb Disk Drive	$18,000	$186
2280N-3, 80.4 Mb Disk Drive	$19,000	$196

MODEL 2270A DISKETTE DRIVE

The Model 2270A Diskette Drive is available as a single, dual, or triple drive unit for 2200MVP, LVP, and VP systems. These drives support 8-inch, single-sided, single density, hard-sectored diskettes (each approximately .25 Mb capacity). In addition, Wang 3740 Diskette Compatibility Software allows IBM 3740 diskettes to be used for data retrieval or storage on the 2200 system. The Model 2270A diskette drive supports all disk operations in the Wang BASIC and BASIC-2 instruction sets.

Model	Price	Monthly Maintenance
2270A-1, .25 Mb Single Diskette Drive	$3,200	$36
2270A-2, .50 Mb Dual Diskette Drive	$4,700	$53
2270A-3, .75 Mb Triple Diskette Drive	$6,200	$70

STORAGE DEVICES

MODEL 2229 CARTRIDGE TAPE DRIVE

The Wang Cartridge Tape Drive is a peripheral device that uses a 1/4-inch magnetic tape cartridge to store data. The Cartridge Tape Drive is designed primarily to provide reliable backup for Wang systems with fixed disk drives. The versatility of the Cartridge Tape Drive allows users to define other applications, including storage of word processing documents, copying specified files (including documents), and transferring information between compatible Wang 2200 systems.

The 1/4-inch magnetic tape cartridge is a convenient, cost-effective medium that replaces floppy diskettes or removable hard disks in many applications. The Cartridge Tape Drive uses four recording tracks and a recording density of 6400 bits per inch (bpi) to store up to 15 Mb of data (using 16K blocks) on a 450-foot tape cartridge. Tape speeds are 30 inches per second (ips) during record/read, and 70 ips during rewind.

Model	Price	Monthly Maintenance
2229 Cartridge Tape Drive	$6,000	$53

MODEL 2209A TAPE DRIVE

The Model 2209A Magnetic Tape Drive is an input/output peripheral that can store large amounts of data on reels of magnetic tape. Magnetic tape is a cost-effective medium that can either back up or exchange files, libraries, or volumes of information between one system and another.

The Model 2209A uses the phase encoded (PE) recording mode to store up to 35 Mb (in 4K blocks) of data on a 10 1/2 inch tape at density of 1600 bits per inch (bpi). Tapes conform to the industry-wide IBM/ANSI format conventions for nine-track tapes and can be translated into most other nine-track formats with the appropriate user-written conversion routines. Tape speed is 75 inches per second (ips) for read/write operations and 200 ips during rewind.

Model	Price	Monthly Maintenance
2209A Nine-Track Tape Drive	$15,000	$128

DATA COMMUNICATIONS AND SOFTWARE OPTIONS

DATA COMMUNICATIONS AND SOFTWARE OPTIONS

DATA COMMUNICATIONS AND SOFTWARE OPTIONS

DATA COMMUNICATIONS AND SOFTWARE OPTIONS

DATA COMMUNICATIONS AND SOFTWARE OPTIONS

DATA COMMUNICATIONS

Wang offers a wide variety of hardware and software packages to support numerous data communications applications on the 2200MVP, VP, SVP, and LVP. The following tables show the different controllers and software options available. Please note that several communications controllers include software packages, while others do not. Because each user's applications may differ and hardware/software requirements may vary, it is recommended that you consult a Wang sales representative or communications specialist to discuss your particular applications.

B/C SERIES DATA COMMUNICATIONS CONTROLLERS

(includes software packages)

Model	Description	License Fee	Monthly Maintenance
2227B	Buffered Asynchronous Controller and Asynchronous Software (specify MVP, LVP, or VP)	$ 750	$17
2228B	8K Controller and IBM Bisynchronous Batch Software (specify MVP, LVP, or VP)	$1,500	$17
2228C	Controller and software for IBM 3275 Emulation (specify MVP, LVP, or VP)	$1,700	$19
OP-27B	Buffered Asynchronous Controller Asynchronous Software for SVP	$ 750	$19
OP-28B	8K Controller and IBM Bisynchronous Batch Software for SVP	$1,500	$19
OP-28C	Controller and IBM 3275 Emulation Software for SVP	$1,700	$22

OTHER DATA COMMUNICATIONS HARDWARE

Model	Description	Price	Monthly Maintenance
2207A	I/O Interface Controller (RS-232-C)	$600	$ 4
2227N	Null Modem	$ 50	N/A
2228N	Null Modem	$ 50	N/A
2236LRS	SVP Local/Remote Switch	$150	N/A

DATA COMMUNICATIONS

B/C SERIES DATA COMMUNICATIONS SOFTWARE

(use with B/C series controllers only)

Model	Description	License Fee	Monthly Maintenance
195-0047-3	Burroughs Poll/Select Communications for use with 2228B or 2228C (VP, MVP)	$ 100	N/A
195-0047-5	Burroughs Poll/Select Communications for use with 2228B or 2228C (LVP); OP-28B or OP-28C (SVP)	$ 100	N/A
195-2056-3	Asynchronous Communications for 2227B, 2228B, or 2228C (VP, MVP)	$ 100	N/A
195-2056-5	Asynchronous Communications for 2227B, 2228B, or 2228C (LVP); OP-27B, OP-28B, or OP-28C (SVP)	$ 100	N/A
195-2057-3	IBM Bisynchronous Batch Protocol (2780/ 3780) for 2228B or 2228C (VP, MVP)	$ 100	N/A
195-2057-5	IBM Bisynchronous Batch Protocol (2780/ 3780) for 2228B or 2228C (LVP); OP-27B, OP-28B, or OP-28C (SVP)	$ 100	N/A
195-2168-3	Remote Control and Maintenance for 2227B, 2228B, or 2228C (VP, MVP)	$ 150	N/A
195-2168-5	Remote Control and Maintenance for 2227B, 2228B, or 2228C (LVP); OP-27B, OP-28B, or OP-28C (SVP)	$ 150	N/A
195-2277-3	UNIVAC Uniscope 100/200 Single Station Emulation for 2227B, 2228B, or 2228C (VP, MVP)	$1,000	N/A
195-2277-5	UNIVAC Uniscope 100/200 Single Station Emulation for 2227B, 2228B, or 2228C (LVP); OP-27B, OP-28B, or OP-28C (SVP)	$1,000	N/A
195-2278-3	CDC UT200 Emulation for 2227B, 2228B, or 2228C (VP, MVP)	$1,000	N/A
195-2278-5	CDC UT200 Emulation for 2227B, 2228B, or 2228C (LVP); OP-27B, OP-28B, or OP-28C (SVP)	$1,000	N/A
195-2297-3	UNIVAC 1004 RMS-1 Batch Emulation for 2227B, 2228B, or 2228C (VP, MVP)	$1,000	N/A
195-2297-5	UNIVAC 1004 RMS-1 Batch Emulation for 2227B, 2228B, or 2228C (LVP); OP-27B, OP-28B, or OP-28C (SVP)	$1,000	N/A

DATA COMMUNICATIONS

D SERIES DATA COMMUNICATIONS CONTROLLERS

(software packages NOT included)

Model	Description	Price	Monthly Maintenance
2228D-4	64K Controller; RS-232-C/V.24	$2,000	$30
2228D-4E	64K Controller; RS-232-C/V.24 and RS-366/V.25	$2,000	$30
2228D-4X	64K Controller; X.21	$2,000	$30
2228D-8E	128K Controller; RS-232-C/V.24 and RS-366/V.25	$2,500	$30
2228D-8X	128K Controller; X.21	$2,500	$30
OP28D-4	64K Controller; RS-232-C/V.24	$2,000	$30
OP-28D-4E	64K Controller for SVP; RS-232-C/V.24 and RS-366/V.25	$2,000	$30
OP-28D-4X	64K Controller for SVP; X.21	$2,000	$30
OP-28D-8E	128K Controller for SVP; RS-232-C/V.24 and RS-366/V.25	$2,500	$30
OP-28D-8X	128K Controller for SVP; X.21	$2,500	$30

D SERIES DATA COMMUNICATIONS SOFTWARE

(for 64K, 2228D-4, and OP28D-4 controllers)

Model	Description	License Fee	Monthly Maintenance
195-2159-3	3271 BSC Emulation for MVP	$1,000	N/A
195-2159-5	3271 BSC Emulation for LVP and SVP	$1,000	N/A

INTEGRATED COMMUNICATIONS UTILITIES SOFTWARE

(for D series controllers)

Model	Description	License Fee	Monthly Maintenance
195-2192-3	Integrated Communications Services Utilities (ICS) for MVP	$ 200	N/A
195-2192-5	Integrated Communications Services Utilities (ICS) for LVP and SVP	$ 200	N/A

D SERIES DATA COMMUNICATIONS SOFTWARE

(requires 64K 2228D-4E or OP28D-4E Controller and ICS Utilities software unless otherwise noted)

Model	Description	License Fee	Monthly Maintenance
195-2193-3	ICS 2780/3780 Emulation for MVP (includes 2200-2200 and WPS Protocol)	$ 200	N/A
195-2193-5	ICS 2780/3780 Emulation for LVP, SVP (includes 2200-2200 and WPS Protocol)	$ 200	N/A
195-2201-3	ICS TTY Protocol for MVP (requires a time-sharing host system)	$ 200	N/A
195-2201-5	ICS TTY Protocol for LVP, SVP (requires a time-sharing host system)	$ 200	N/A
195-2200-3	Remote WangNet Facility for MVP (requires a host VS system)	$ 500	N/A
195-2200-5	Remote WangNet Facility for LVP, SVP (requires a host VS system)	$ 500	N/A
	Requires 128K and ICS Utilities		
195-2199-3	IBM 3274 Emulation, SNA/SDLC for MVP	$1,250	N/A
195-2199-5	IBM 3274 Emulation, SNA/SDLC for LVP, SVP	$1,250	N/A

SOFTWARE OPTIONS

WORD PROCESSING SOFTWARE

Although the 2200MVP, SVP, LVP, and VP computers are designed primarily for data processing applications, they also support optional software packages including Word Processing Software. Word Processing Software requires a minimum of 32K main memory (64K to perform background printing), 1.25 Mb of disk space (fixed-disk suggested), and a 28K partition for each workstation.

When used with a 2236DW or 2336DW Workstation, Word Processing Software allows the user to create and edit documents, print documents, and perform other functions. Editing features include the insertion and deletion of text, copy or move text to different lines or pages, and super copy or super move sections of text to another document. Additional editing features include center, tab, indent, search, global pagination, and global hyphenation. The Print Document menu allows the operator to control the number of pages and copies to be printed, page numbering, and left margin. Other functions supported by Word Processing Software are Special Print Functions, Document Index, Document Filing, Advanced Functions, Utilities, Glossary, and Supervisory Functions.

SPECIAL FEATURES AND BENEFITS

- Easy to learn
- Powerful editing capabilities
- Advanced functions

Model	License Fee	Monthly Maintenance
195-2174-3 WP Software for VP, MVP	$2,000	N/A
195-2174-5 WP Software for SVP, LVP	$2,000	N/A

DATAMERGE

DATAMERGE is a highly interactive utility that integrates word processing documents and data processing files. This option is supported on 2200MVP, LSVP, VP, and VP processors with Word Processing Software and requires 28K of user memory.

With user-defined criteria, DATAMERGE can selectively access files created with the IDEAS (Release 1 or Release 2) software option. Selection criteria can be composed of over 300 selections consisting of data fields, relational operators (equal, not equal, greater than, less than), and logical comparisons (AND and OR operators). In addition, DATAMERGE can sort and process designated record fields using the Record Processing module.

Another feature of DATAMERGE is its ability to merge records with previously created word processing documents. Documents must contain merge codes and field names of processed data fields. As each record is read, the field value is written into the document in the corresponding field name. The merge option can also be invoked from user-written programs.

SPECIAL FEATURES AND BENEFITS

- Easy to use
- Sorts and processes records
- Merges data with WP documents

Model	License Fee	Monthly Maintenance
195-2208-3 DATAMERGE for VP, MVP	$250	N/A
195-2208-5 DATAMERGE for SVP, LVP	$250	N/A

SOFTWARE OPTIONS

P.R.I.S.M.

The Wang Powerful Resource for Information and System Management (P.R.I.S.M.) is a software system that interacts with a data base to provide inquiry, modification, processing, and output of data. P.R.I.S.M. is compatible with 2200MVP, SVP, LVP, and VP processors with Word Processing Software and requires 28K of user memory.

Because it is highly interactive and requires no programming, P.R.I.S.M. can be used by nontechnical personnel. When performing an inquiry, the user is guided through steps that establish data selection criterion (for example, select records for salespersons in the New England area with monthly sales greater than $50,000). The user can create selection criteria composed of over 150 selection conditions depending upon the fields' attributes. In addition to selecting specified data records, users can create a process definition by which the system can sort, group, or mathematically process (for example, list customers alphabetically and by state, list overdue accounts by amount and within a region, and keep running sales totals for accounts in a given area).

P.R.I.S.M. affords the user a wide range of output options. Reports can be displayed on the screen, saved, or printed out. The system can create specialized formats on the screen and then print them out in the same format. Also, P.R.I.S.M. can merge the results of an inquiry with a previously created word processing document.

SPECIAL FEATURES AND BENEFITS

- Easy to use
- Extensive data manipulation capabilities
- Flexible output

Model	License Fee	Monthly Maintenance
195-2217-3 Wang P.R.I.S.M. for VP, MVP	$1,500	N/A
195-2217-5 Wang P.R.I.S.M. for SVP, LVP	$1,500	N/A

IDEAS® (Release 2)

IDEAS (Release 2) is a development tool used to create BASIC-2 applications for 2200MVP, SVP, LVP, and VP computers. Utilities allow the user to access, create, or modify data files; define formats for printed reports; and perform other functions. A file management system formats files, provides efficient disk management, and performs other file maintenance functions.

Programs to access data files are generated with the aid of data file definitions and screen displays. Data file definitions are created and modified through a set of Data File utilities, which allow the user to modify fields and subfields within a record. Screen Mask utilities allow the user to develop the screens necessary to support interactive applications. Screens or subscreens are displayed following the entry of designated fields. In addition, screens can be chained to other screens or to user-written programs.

The Report Generation utility allows the user to design reports that meet specified criteria. Reports can access data from up to seven different files, and specific fields can be accessed from any file. Other utilities include Report/Form Printing, File Recovery, Application Program Menu, and Sort.

SPECIAL FEATURES AND BENEFITS

- Easy creation and modification of files
- Efficient file management
- Flexible report generation

Model	License Fee	Monthly Maintenance
195-2209-3 IDEAS (Release 2) for VP, MVP	$1,500	N/A
195-2209-5 IDEAS (Release 2) for SVP, LVP	$1,500	N/A

IDEAS is a registered trademark of Wang Laboratories, Inc.

SOFTWARE OPTIONS

WANG SOFTWARE SUPPORT

With the purchase of a Wang software license, customers can receive the most current release of a software product. Optional fee-based services are available that include product documentation and training. The extent of entitled and optional support services available from Wang varies for each software product. Contact Wang Customer Marketing for more information.

APPLICATIONS SOFTWARE

THIRD-PARTY VENDOR PROGRAM

Wang Laboratories, Inc., is the industry leader in providing our customers with complete solutions, including application software and support. Application software is the key to a successful data processing installation. Wang's home office Vendor Sales Development department and field vendor management organization work closely with over 1200 independent software suppliers who offer Wang-compatible application products for a wide range of industry solutions. To ensure our users maximum satisfaction with our data processing equipment, Wang is committed to providing the proper support to our third-party software supplier organization.

For further information regarding the software suppliers in your area and the application products they offer, contact your District Vendor Manager. He will be happy to discuss your hardware and software application needs and identify the software supplier who is best able to provide you with effective software solutions.

SYSTEM PLANNER

SYSTEM PLANNER

SYSTEM PLANNER

SYSTEM PLANNER

SYSTEM PLANNER

PROCESSORS

The following section is provided to enhance your understanding of the 2200 product line and to facilitate your decision to expand/upgrade your 2200 system. Included are descriptions of the current 2200 Processors and compatible Controllers, 2200 System Configuration Diagrams, and 2200 CPU Memory Upgrades.

2200 PROCESSORS

The Wang 2200 family of systems consists of four primary models: the 2200MVP, SVP, LVP, and VP*. For the LVP and MVP, Option C is available and offers expanded memory. The following 2200 Processor Overview outlines some of the major differences between these systems.

2200 PROCESSOR OVERVIEW

	VP	SVP	LVP	MVP	LVPC	MVPC
Minimum Memory	16K	32K	32K	32K	64K	64K
Maximum Memory	64K	128K	256K	256K	512K	512K
Maximum Workstations	1	3	12	13	13	13
Number of Ports	9	3	3	9	7	7

The 2200 operating system can support a maximum of 16 concurrent jobs by allowing the user to configure available memory into partitions of varying size. The operator can access any one job via the terminal, while other jobs continue to run in the background. The 2200 systems offer further versatility through multiprogramming features. Programmers can write routines that coordinate the activities of several programs running simultaneously and allow these programs to share routines, system devices, and data files.

These 2200 systems support BASIC-2, a Wang-enhanced version of BASIC. BASIC-2 contains extensions that facilitate writing, documenting, and debugging programs and provides powerful language capabilities for a wide range of applications. The BASIC-2 math package supports numerous mathematical and trigonometric functions and provides accuracy to 13 digits.

*The Model 2200VP is no longer offered for sale. However, a wide variety of VP System enhancement products are available from Wang Laboratories, Inc.

PROCESSORS

2200SVP

The Model 2200SVP is a compact processor that provides one, two, or three users with high performance in a variety of applications. The basic model is a single-user system. However, a new controller, Option W, permits the addition of a second and third terminal to the 2200SVP. By utilizing a user-defined, fixed-partition memory configuration, the Model 2200SVP offers efficient memory organization and fast multiprocessing capabilities. With appropriate hardware/software, Model 2200SVP applications can include program development, data processing, word processing, and data communications.

The basic 2200SVP configuration consists of the SVP processor with 32K of user memory (64K or 128K optional), an integral diskette drive, and connector ports for an interactive terminal and printer. Utilities software and hardware/software packages to support data communications are optional.

The standard Model 2200SVP Diskette Drive uses a dual-sided, double-density (DSDD) diskette to provide up to 1 Mb of storage. In addition to the standard diskette drive, the Model 2200SVP cabinet supports one optional drive: either a second DSDD diskette drive or a Winchester-style disk drive. The fixed drive consists of a hard disk with storage capacities of 2 Mb, 4 Mb, or 8 Mb. The entire drive is sealed to minimize the effects of environmental factors (such as dust) on reliability and data integrity.

2200LVP

The Model 2200LVP is a high-performance, economical processor that can support up to 12 users simultaneously. The user creates fixed memory partitions, and the CPU allocates intervals of processing time to each partition. Multiple users, each assigned a partition, can run programs concurrently. An extremely efficient CPU results in a fast response time, regardless of the number of partitions in use. Properly configured, the Model 2200LVP can perform program development, data processing, word processing, and data communications applications.

The basic 2200LVP configuration consists of the LVP processor with 3 I/O slots, 32K of user memory, and an integral 1 Mb DSDD diskette drive. Optional memory increments increase memory size to 64K, 128K, or 256K. Other options include external diskette or disk drives, plotters, printers, utilities software, and hardware/software to support data communications.

In addition to the standard diskette drive, the Model 2200LVP supports an optional Winchester-style disk drive. The fixed drive consists of a hard disk with storage capacities of 2 Mb, 4 Mb, or 8 Mb. The entire drive is sealed to minimize the effects of environmental factors (such as dust) on reliability and data integrity.

PROCESSORS

2200MVP

The Model 2200MVP is a high-performance processor that can simultaneously support up to 13 users and up to 16 concurrent jobs. The user creates fixed memory partitions, and the CPU allocates intervals of processing time to each partition. Multiple users, each assigned one or more partitions, can run programs concurrently. An extremely efficient CPU provides a fast response time, regardless of the number of partitions in use. Properly configured, the Model 2200MVP can perform program development, data processing, word processing, and data communications applications.

The basic 2200MVP configuration consists of the MVP processor with 9 I/O slots on an extended chassis and 32K of user memory. Options include memory increments of 64K, 128K, and 256K, floppy diskette and hard disk drives, plotters, printers, and applications software. Communications controllers and software to support popular communication protocols are available as well.

OPTION C
2200LVPC/2200MVPC

The 2200 Series Option C enables the 2200 Series MVP and LVP processors to support levels of main memory beyond 256K while maintaining peripheral and software compatability with the basic 2200MVP or 2200LVP configuration. MVP and LVP processors equipped with the C option support up to 13 users and 16 concurrent jobs.

The Model 2200LVPC configuration includes a chassis with 7 I/O slots, 64K of memory, and a dual-sided, double-density diskette drive. In addition to the options supported by the 2200LVP, the 2200LVPC supports memory increments of 384K and 512K and fixed disk drives with 16 Mb or 32 Mb capacity.

The Model 2200MVPC includes a chassis with 7 I/O slots and 64K of memory. Options include 384K and 512K of main memory and all peripherals and software supported by the 2200MVP.

MODEL 2200SVP PRICES

STORAGE OPTIONS	MAIN MEMORY	32K	64K	128K
Single DSDD Diskette Drive	Model Number	2200SVP-8X	2200SVP-16X	2200SVP-32X
	Purchase Price	$4,500	$5,700	$6,900
	Monthly Maintenance	$ 68	$ 78	$ 93
Dual DSDD Diskette Drive	Model Number	2200SVP-8A	2200SVP-16A	2200SVP-32A
	Purchase Price	$5,700	$6,900	$8,100
	Monthly Maintenance	$ 82	$ 92	$ 107
Single DSDD Diskette Drive with 2 Mb Fixed Disk Drive	Model Number	2200SVP-8B	2200SVP-16B	2200SVP-32B
	Purchase Price	$6,700	$7,900	$9,100
	Monthly Maintenance	$ 98	$ 108	$ 123
Single DSDD Diskette Drive with 4 Mb Fixed Disk Drive	Model Number	2200SVP-8C	2200SVP-16C	2200SVP-32C
	Purchase Price	$7,500	$8,700	$9,900
	Monthly Maintenance	$ 110	$ 120	$ 135
Single DSDD Dikette Drive with 8 Mb Fixed Disk Drive	Model Number	2200SVP-8D	2200SVP-16D	2200SVP-32D
	Purchase Price	$9,000	$10,200	$11,400
	Monthly Maintenance	$ 125	$ 135	$ 150
3-Workstation Capability	Model Number	SVP OPTION-W		
	Purchase Price	$1,000		
	Monthly Maintenance	N/A		

PROCESSORS

MODEL 2200LVP PRICES

STORAGE OPTIONS	MAIN MEMORY	32K	64K	128K	256K
Single DSDD Diskette Drive	Model Number	2200LVP-8X	2200LVP-16X	2200LVP-32X	2200LVP-64X
	Purchase Price	$7,300	$8,500	$9,700	$12,100
	Monthly Maintenance	$ 80	$ 108	$ 170	$ 267
Single DSDD Diskette Drive with 2 Mb Fixed Disk Drive	Model Number	200LVP-8B	2200LVP-16B	2200LVP-32B	2200LVP-64B
	Purchase Price	$9,500	$10,700	$11,900	$14,300
	Monthly Maintenance	$ 110	$ 138	$ 200	$ 297
Single DSDD Diskette Drive with 4 Mb Fixed Disk Drive	Model Number	2200LVP-8C	2200LVP-16C	2200LVP-32C	2200LVP-64C
	Purchase Price	$10,300	$11,500	$12,700	$15,100
	Monthly Maintenance	$ 122	$ 150	$ 212	$ 309
Single DSDD Diskette Drive with 8 Mb Fixed Disk Drive	Model Number	2200LVP-8D	2200LVP-16D	2200LVP-32D	2200LVP-64D
	Purchase Price	$11,800	$13,000	$14,200	$16,600
	Monthly Maintenance	$ 137	$ 165	$ 227	$ 324

MODEL 2200MVP PRICES

MAIN MEMORY	32K	62K	128K	256K
Model Number	2200MVP-8	2200MVP-16	2200MVP-32	2200MVP-64
Purchase Price	$4,300	$5,500	$6,700	$9,100
Monthly Maintenance	$ 87	$ 117	$ 183	$ 287

MODEL 2200MVPC PRICES

MAIN MEMORY	64K	128K	256K	384K	512K
Model Number	2200MVPC-16	2200MVPC-32	2200MVPC-64	2200MVPC-96	2200MVPC-128
Purchase Price	$6,000	$7,200	$9,600	$12,000	$14,400
Monthly Maintenance	$ 100	$ 115	$ 145	$ 175	$ 205

MODEL 2200LVPC PRICES

STORAGE OPTIONS	MAIN MEMORY	64K	128K	256K	384K	512K
Single DSDD Diskette Drive	Model Number	2200LVPC-16X	2200LVPC-32X	2200LVPC-64X	2200LVPC-96X	2200LVPC-128X
	Purchase Price	$9,000	$10,200	$12,600	$15,000	$17,400
	Monthly Maintenance	$ 124	$ 139	$ 169	$ 199	$ 229
Single DSDD Diskette Drive with 2 Mb Fixed Disk Drive	Model Number	2200LVPC-16B	2200LVPC-32B	2200LVPC-64B	N/A	N/A
	Purchase Price	$11,200	$12,400	$14,800		
	Monthly Maintenance	$ 154	$ 169	$ 199		
Single DSDD Diskette Drive with 4 MB Fixed Disk Drive	Model Number	2200LVPC-16C	2200LVPC-32C	2200LVPC-64C	2200LVPC-96C	2200LVPC-128C
	Purchase Price	$12,000	$13,200	$15,600	$18,000	$20,400
	Monthly Maintenance	$ 166	$ 181	$ 211	$ 241	$ 271
Single DSDD Diskette Drive with 8 Mb Fixed Disk Drive	Model Number	2200LVP-16D	2200LVP-32D	2200LVP-64D	2200LVPC-96D	2200LVPC-128D
	Purchase Price	$13,500	$14,700	$17,100	$19,500	$21,900
	Monthly Maintenance	$ 181	$ 196	$ 226	$ 256	$ 286
Single DSDD Diskette Drive with 16 Mb Fixed Disk Drive	Model Number	2200LVPC-16E	2200LVPC-32E	2200LVPC-64E	2200LVPC-96E	2200LVPC-128E
	Purchase Price	$15,500	$16,700	$19,100	$21,500	$23,900
	Monthly Maintenance	$ 183	$ 198	$ 228	$ 258	$ 288
Single DSDD Diskette Drive with 32 Mb Fixed Disk Drive	Model Number	2200LVPC-16F	2200LVPC-32F	2200LVPC-64F	2200LVPC-96E	2200LVPC-128E
	Purchase Price	$17,500	$18,700	$21,100	$23,500	$25,900
	Monthly Maintenance	$ 186	$ 201	$ 231	$ 261	$ 291

CONTROLLERS

DEVICE CONTROLLERS

Several types of device controllers are available to interface between 2200 compatible peripherals and 2200 Central Processing Units. 2200 controllers support a varied number and mix of peripheral devices. Some are single device controllers, and others can support two, three, or four devices while occupying a single CPU I/O slot.

Workstations connect to the 2200MVP, LVP, or VP CPUs with either a 2236MXD Terminal Processor, a 2236MXE Terminal Processor, or a 22C32 Triple Controller (that has been revised to current standards). The 2200MVP and LVP CPUs each support up to three 2236MXD or 2236MXE Terminal Processors. Each 2236MXD supports up to four 2236DE or 2236DW Workstations, and the 2236MXE supports up to four 2236DE, 2236DW, 2336DW, or 2336DE Workstations. The 22C32 Triple Controller supports a single workstation and can be used on 2200MVP, LVP, and VP CPUs. The 2200SVP requires no terminal processors or controllers since peripherals connect directly to the terminal connector on the chassis.

2200 printers can be attached locally to a "D", DE", or "DW" Workstation or directly to the system via the 22C02 Printer Controller, the 22C11 Dual Controller, or the 22C32 Triple Controller. The Graphic CRT connects to the 2200 system in the same manner as a printer.

The Model 2270A Diskette Drive and Model 2280 Disk Drive connect to 2200VP, MVP, and LVP CPUs with the Model 22C11 Dual Controller, the 22C32 Triple Controller, or the 22C03 Diskette Controller. Bundled with the Model 2280 Disk Drive is the 22C14 Disk Processing Unit, which allows the connection of a second 2280N Disk Drive. The 2209A Nine-Track and 2229 Cartridge Tape Drives include their own controllers when purchased.

MULTIPLEXING CONTROLLERS

The Model 2211 Printer Multiplexer allows a single printer or plotter to be shared by up to four different 2200 processors. The multiplexer consists of a compact chassis that contains a power supply and electronics, connectors, a select button, and four channel indicator lamps. Standard cables (included) that connect the multiplexer to the processors are 12 feet long, and optional extension cables (25-ft and 50-ft lengths) can be used on any one channel. The Select button controls access to the printer and designates which of the four print channels will be used. Once the printer is selected for use on one system, it remains under control of that system until manually switched to another.

Up to four CPUs can be multiplexed to a previously purchased Model 2260C or 2260BC Fixed Removable Disk Drive by using Model 2230 MXA-1/MXB-1 controller boards and the Model 22C13 Disk Multiplexing Controller. The Model 2230 MXA-1 is a "master" board that connects to the primary CPU. The Model 2230 MXB-1 is a "slave" that is installed in each of the other CPUs accessing the disk drive. Only the primary CPU connects to the disk drive; other CPUs connect to each other and to the primary CPU in a daisy chain fashion.

Up to three VP, MVP, or LVP CPUs can share a Model 2280 Disk Drive or a pair of Model 2280 and 2280N Disk Drives by using the Model 22C80 Disk Multiplexing Controller. The Model 2280MUX Disk Multiplexing Unit is installed in the Model 22C14 Disk Processing Unit (DPU) and replaces the Disk Drive Controller. Each CPU connects to the DPU, allowing the DPU to control all communication between the CPUs and the disk drive(s).

CONTROLLERS

DEVICE CONTROLLER PRICES

Model	Description	Price	Monthly Maintenance
2236MXD	Four-Port Terminal Processor (supports four terminals)	$1,200	$10
2236MXE	Four-Port Terminal Processor (supports four terminals)	$1,400	$10
22C32	Triple Controller (supports one terminal, one printer, and one diskette drive)	$1,000	$ 5
22C02	Printer/Plotter Controller (supports one printer and Graphics CRT)	$ 200	$ 3
22C11	Dual Controller (supports one printer and one diskette drive)	$ 300	$ 4
22C03	Diskette Controller (supports one diskette drive)	$ 200	$ 3
22C14	Disk Processing Unit (supports up to two fixed/removable disk drives)	$7,000	$50

MULTIPLEXING CONTROLLER PRICES

Model	Description	Price	Monthly Maintenance
2211M	Printer Multiplexer	$1,000	$15
2230MXA-1	Master Daisy Chain Disk Multiplexer Controller	$ 800	$ 5
2230MXB-1	Slave Daisy Chain Disk Multiplexer Controller	$ 500	$ 3
22C13	2260C Series Disk Multiplexing Controller	$1,000	$ 5
2280MUX	2280 Disk Multiplexing Controller	$2,000	$20
22C80	Disk Multiplexing Controller	$ 500	$ 5

CONFIGURATION GUIDE

MVP, LVP, VP PRINTER AND DISKETTE/DISK CONTROLLER CONSTRAINTS

- 2200 MVP, LVP, and VP Systems accommodate a total of three system printer controllers including the 22C02 Printer Controller, the 22C11 Printer/Diskette Controller, and the 22C32 Triple Controller.
- 2200 MVP, LVP, and VP Systems accommodate a total of three diskette/disk drive controllers, including the 22C03 Diskette Controller, the 22C11 Printer/Diskette Controller, the 22C32 Triple Controller, and the bundled diskette/disk drive controller.

MVPC, LVPC OPTIONS

The MVP and LVP with Option C differ from the basic system configurations in the following ways.

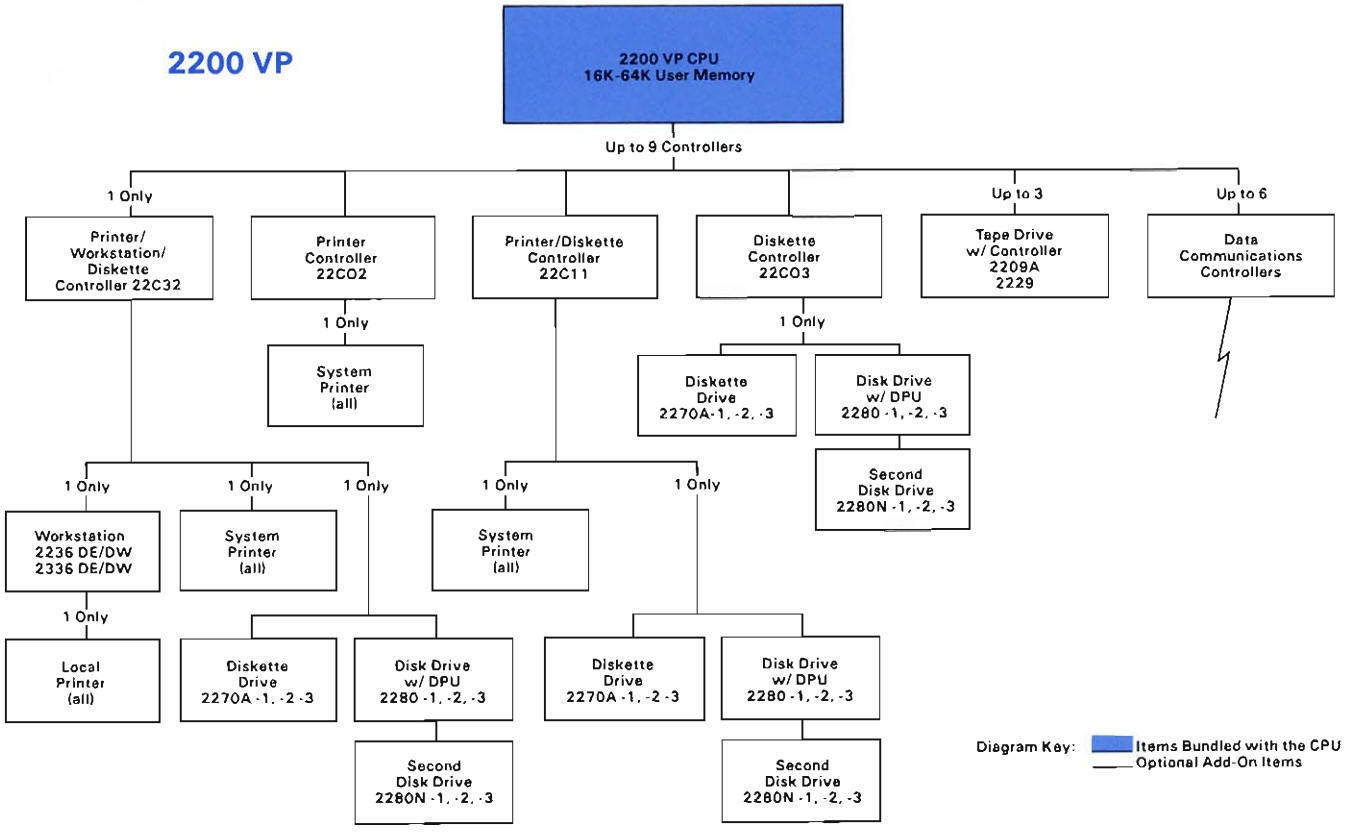
	MVPC	LVPC
Controller Maximum:	7	7
User Memory:	64K-512K	64K-512K
Bundled Fixed Drive:	N/A	2/4/8/16/32 Mb

CONFIGURATION GUIDE

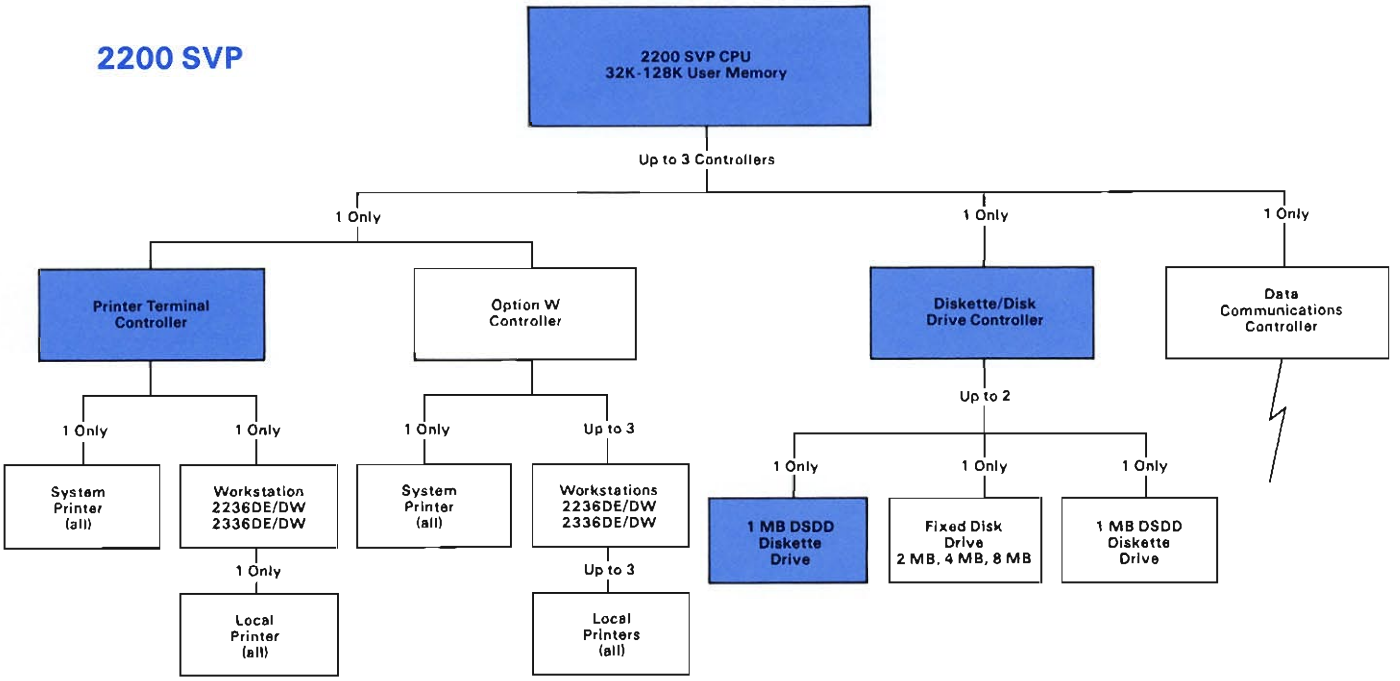
The following 2200 system diagrams reflect configurations, not system architecture. Your configuration should be based upon a combination of hardware/software that satisfies your particular applications. Included in each 2200 system diagram are the principal 2200 Central Processing Units, current device controllers, and the corresponding peripherals. In addition, system maximums for the number of controllers and supported devices have been indicated for each CPU. To determine the compatibility of any previously purchased devices not reflected in these diagrams, please call Wang Customer Marketing.

CONFIGURATION GUIDE

2200 VP



2200 SVP



CONFIGURATION GUIDE

2200 LVP

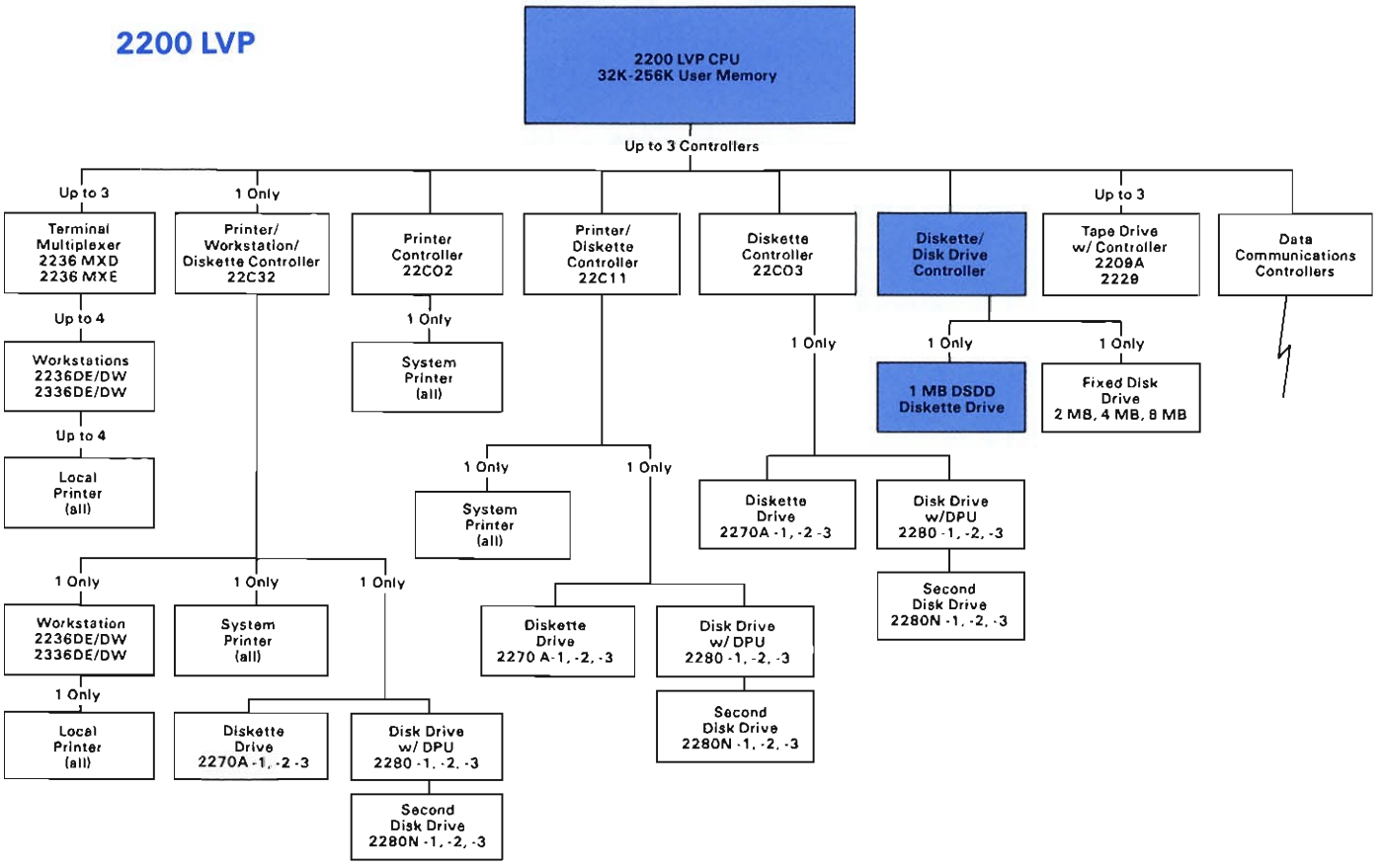


Diagram Key: Items Bundled with the CPU
Optional Add-On Items

CONFIGURATION GUIDE

2200 MVP

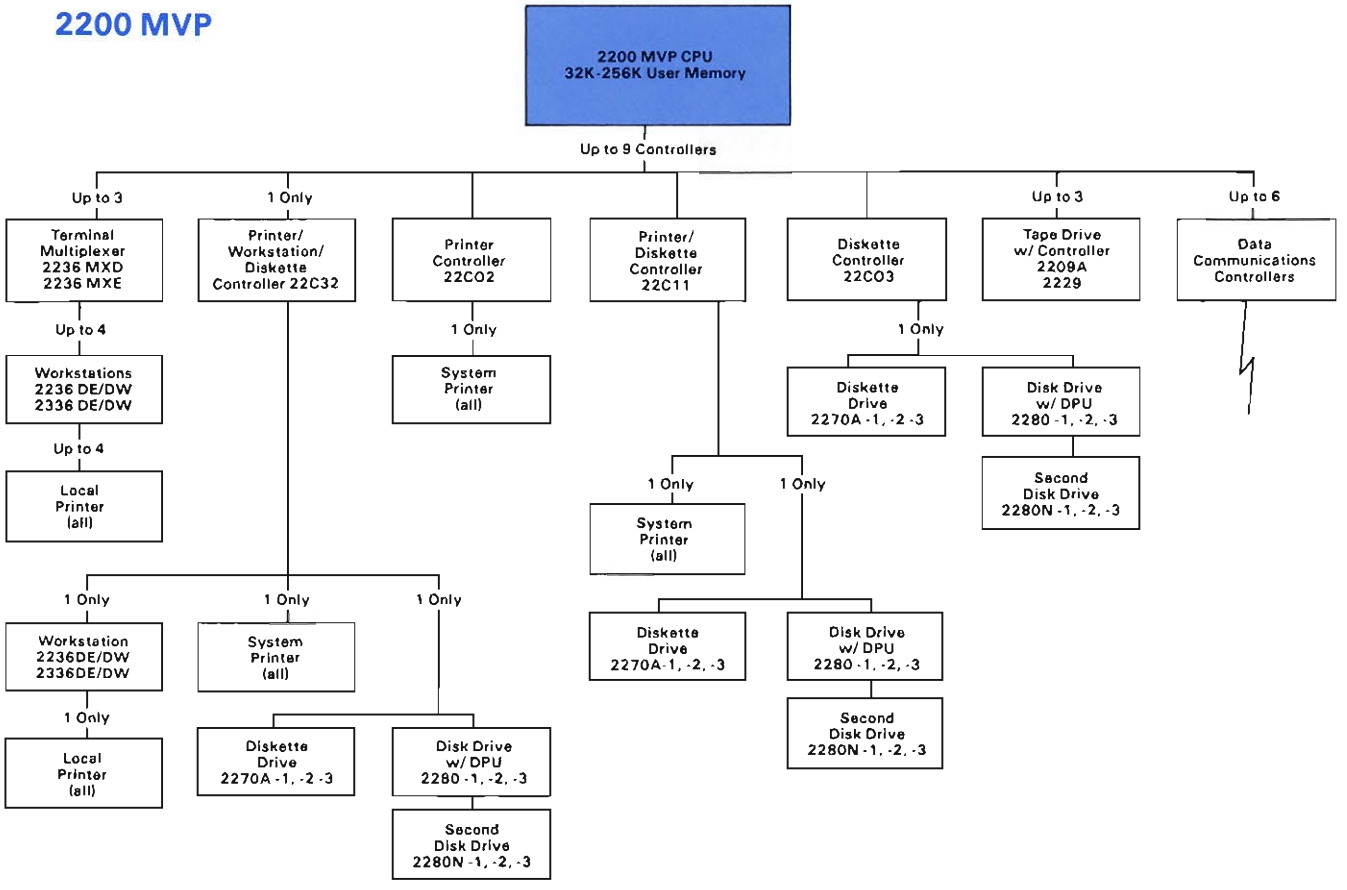


Diagram Key: Items Bundled with the CPU
Optional Add-On Items

UPGRADES

CPU UPGRADES

Upgrade	Description	Price
UJ-900	VP to MVP CPU conversion	$ 1,500
UJ-5026	VP to MVPC CPU conversion	$ 2,000
UJ-5027	MVP to MVPC CPU conversion	$ 1,500
UJ-5028	LVP to LVPC CPU conversion	$ 1,500
UJ-5031	VP/SVP/MVP/LVP Security	$ 400
UJ-5043	Multiprocessing Option	$ 1,000

NOTE

The following SVP to LVPC CPU upgrades include a 2336DW Workstation, a 2236MXD Terminal Controller, and a 22CO2 Printer Controller.

UJ-6009	SVP-8X to LVPC-16C	$13,200
UJ-6010	SVP-8A to LVPC-16C	$12,100
UJ-6011	SVP-8B to LVPC-16C	$11,100
UJ-6012	SVP-8C to LVPC-16C	$10,500
UJ-6013	SVP-16X to LVPC-16C	$11,700
UJ-6014	SVP-16A to LVPC-16C	$11,100
UJ-6015	SVP-16B to LVPC-16C	$ 9,700
UJ-6016	SVP-16C to LVPC-16C	$ 9,200
UJ-6017	SVP-8D to LVPC-16D	$ 9,700
UJ-6018	SVP-16D to LVPC-16D	$ 8,200
UJ-6019	SVP-32A to LVPC-32C	$11,500
UJ-6020	SVP-32B to LVPC-32C	$ 9,000
UJ-6021	SVP-32C to LVPC-32C	$ 8,500
UJ-6022	SVP-32D to LVPC-32D	$ 8,000

CPU MEMORY UPGRADES

Upgrade	Description	Price
V1632	16K to 32K (VP, MVP)	$1,000
V1664	16K to 64K (VP, MVP)	$1,500
V16128	16K to 128K (MVP)	$2,400
V16256	16K to 256K (MVP)	$4,800
V16384	16K to 384K (MVP)	$7,200
V16512	16K to 512K (MVP)	$9,600

UPGRADES

NOTE

Memory upgrades to 384K and 512K require that the CPU be equipped with the MVP/LVP Option C.

CPU MEMORY UPGRADES

Upgrade	Description	Price
V3264	32K to 64K (VP, SVP, MVP, LVP)	$1,200
V32128	32K to 128K (SVP, MVP, LVP)	$2,400
V32256	32K to 256K (MVP, LVP)	$4,800
V32384	32K to 384K (MVP, LVP)	$7,200
V32512	32K to 512K (MVP, LVP)	$9,600
V4864	48K to 64K (VP, MVP)	$1,500
V48128	48K to 128K (MVP)	$2,400
V48256	48K to 256K (MVP)	$4,800
V48384	48K to 384K (MVP)	$7,200
V48512	48K to 512K (MVP)	$9,600
V64128	64K to 128K (MVP, LVP)	$1,200
V64256	64K to 256K (MVP, LVP)	$3,600
V64384	64K to 384K (MVP, LVP)	$6,000
V64512	64K to 512K (MVP, LVP)	$8,400
V96128	96K to 128K (MVP)	$1,000
V96256	96K to 256K (MVP)	$3,400
V96384	96K to 384K (MVP)	$5,800
V96512	96K to 512K (MVP)	$8,200
V128256	128K to 256K (MVP, LVP)	$2,400
V128384	128K to 384K (MVP, LVP)	$4,800
V128512	128K to 512K (MVP, LVP)	$7,200
V192256	192K to 256K (MVP)	$1,500
V192384	192K to 384K (MVP)	$3,900
V192512	192K to 512K (MVP)	$6,300
V256384	256K to 384K (MVP, LVP)	$2,400
V256512	256K to 512K (MVP, LVP)	$4,800
V384512	384K to 512K (MVP, LVP)	$2,400

NOTE

Memory upgrades to 384K and 512K require that the CPU be equipped with an MVP/LVP Option C.

UPGRADES

FIXED DISK UPGRADES

Upgrade	Description	Price
UJ-5007	SVP-X to SVP-A	$1,750
UJ-5022	SVP-X to SVP-C (2 Mb Drive)	$3,000
UJ-5023	SVP-X to SVP-C (4 Mb Drive)	$4,000
UJ-5042	SVP-X to SVP-D (8 Mb Drive)	$5,000
UJ-5008	LVP-X to LVP-B (2 Mb Drive)	$2,200
UJ-5009	LVP-X to LVP-C (4 Mb Drive)	$3,000
UJ-5010	LVP-X to LVP-D (8 Mb Drive)	$4,500
UJ-5032	LVP-X to LVP-E (16 Mb Drive)	$6,500
UJ-5033	LVP-X to LVP-F (32 Mb Drive)	$8,500
UJ-6007	SVP-A to SVP-B (Dual Diskette to 2 Mb Drive)	$3,000
UJ-6008	SVP-A to SVP-C (Dual Diskette to 4 Mb Drive)	$4,000
UJ-5041	SVP-A to SVP-D (Dual Diskette to 8 Mb Drive)	$5,000
UJ-5001	SVP/LVP-B to SVP/LVP-C (2 Mb to 4 Mb Drive)	$1,000
UJ-6003	SVP/LVP-B to SVP/LVP-D (2 Mb to 8 Mb Drive)	$2,500
UJ-6005	SVP/LVP-C to SVP/LVP-D (4 Mb to 8 Mb Drive)	$2,500
UJ-5034	LVP-B to LVP-E (2 Mb to 16 Mb Drive)	$4,600
UJ-5035	LVP-B to LVP-F (2 Mb to 32 Mb Drive)	$6,600
UJ-5036	LVP-C to LVP-E (4 Mb to 16 Mb Drive)	$4,000
UJ-5037	LVP-C to LVP-F (4 Mb to 32 Mb Drive)	$6,000
UJ-5038	LVP-D to LVP-E (8 Mb to 16 Mb Drive)	$3,500
UJ-5039	LVP-D to LVP-F (8 Mb to 32 Mb Drive)	$5,500
UJ-5040	LVP-E to LVP-F (16 Mb to 32 Mb Drive)	$4,000

NOTES

Fixed Disk upgrades to 16 Mb and 32 Mb require that the CPU be equipped with an MVP/LVP Option C.

For information and prices on terminal, printer, controller board, and other disk upgrades, please contact Wang Customer Marketing.

ORDERING INFORMATION

ORDERING INFORMATION
ORDERING INFORMATION
ORDERING INFORMATION
ORDERING INFORMATION

ORDERING INFORMATION

HOW TO PLACE AN ORDER OR GET FURTHER ASSISTANCE

You can contact Wang Customer Marketing by telephone, mail, or Telex to place an order or inquiry.

Telephone: (800) 225-0978 or (617) 453-7069 (between 8:30 AM and 5:00 PM Eastern Time). From Alaska or Hawaii, please use the 617 number.

Mail: Wang Customer Marketing
One Industrial Avenue
Lowell, MA 01851
M/S 1309B

Telex: 947-421 or 947-451
M/S 1309B

A Wang Customer Marketing representative will be available when you call to answer your questions and assist you in planning additions to your 2200 Series computer.

ORDER PLACEMENT

When ordering, please provide the following information.

- Purchase order number
- Items to be ordered
- Bill-to and ship-to addresses
- Method of shipment
- Your Wang customer number (if known)

Use the order form provided or your own purchase order. Be sure to indicate the number, description, and quantity of each item you are ordering. You may complete the pricing extensions and total if you want. Wang will review your order to ensure its accuracy and to add freight and applicable taxes to your invoice.

Please indicate whether your order is tax exempt; if so, please provide your exemption certificate. Please fill out the order form completely, including authorization for the order.

When we receive your order, we will contact you for order details and for technical assistance. We will also send you a Wang standard Sales Agreement for official company signature. The Sales Agreement contains complete terms and conditions, including software licensing, warranty, and maintenance arrangements. When we receive the signed Sales Agreement and the required deposit, we will schedule your equipment for shipment and notify you accordingly.

Most items in the *2200 Product Catalog* may be leased or rented. A Customer Marketing representative can provide you with further information about leasing arrangements and rental fees.

Attention Federal Government Buyers: for GSA prices, terms, and conditions, please call Wang Customer Marketing.

WANG

Wang Customer Marketing
One Industrial Avenue
Lowell, Massachusetts 01851
M/S 1309B

To order call:
(800) 225-0978 or
(617) 453-7096
Telex: 947-421
947-451

ORDER FORM

Customer Number (if known) | Purchase Order Number | Date

Bill To:

Ship To:

Customer Contact: ( ) _____ _____
Phone | Name

Salesperson: _____

Model Number	Description	Quantity	Unit Price	Total Price

Sub Total

_____ _____
Authorized Signature | Date

Plus Installation Charge

Special Instructions:

Sub Total*

State/Local Taxes: Yes No**

Total Amount

*For Alaska, add 10% to all equipment and maintenance prices.

**If tax exempt status is claimed, your exemption certificate must be provided.

TERMS

The following general terms and conditions are covered in the standard Sales Agreement.

1. All products are shipped FOB Wang's facility. Unless otherwise instructed, Wang selects the method of shipment and the carrier.
2. Payment for products and services is made 30 days from date of shipment. A 3% discount is allowed if payment is received by Wang at least 10 days before the estimated shipping date.
3. Wang reserves the right to make partial shipments.
4. Acceptance of Wang-installed products is signified by satisfactory completion of Wang's standard test procedure and verified by a Wang Call Report Form signed by a Wang representative and a customer representative. If installation is not performed by Wang, the date of acceptance shall be the date of delivery.
5. Prices are exclusive of all taxes.
6. An order may be canceled by a written notice received 30 days before scheduled shipment.

Complete terms and conditions are stated in the standard Sales Agreement.

TRADE-INS

Wang Laboratories, Inc., accepts certain Wang-manufactured items for trade-in credit when accompanied by a customer order for the purchase of new equipment. For a complete explanation of trade-in policies and allowances, please call a Wang Customer Marketing representative at (800) 225-0978 or (617) 453-7069.

PRICES

All prices and specifications are subject to change without notice. Orders are billed at prices in effect at the time your order is received.

WARRANTY

There is a limited 90-day warranty on all hardware. Items found to be defective may be replaced or repaired at Wang's option. A complete warranty statement is included in the Wang standard Sales Agreement.

Attention Federal Government Buyers: for GSA prices, terms, and conditions, please call Wang Customer Marketing.

WANG

WANG

Wang Customer Marketing
One Industrial Avenue
Lowell, Massachusetts 01851
M/S 1309B

To order call:
(800) 225-0978 or
(617) 453-7096
Telex: 947-421
947-451

ORDER FORM

Customer Number (if known) | Purchase Order Number | Date

Bill To:

Ship To:

Customer Contact: ( ) _____ _____
Phone | Name

Salesperson: _____

Model Number	Description	Quantity	Unit Price	Total Price

Sub Total _____

_____ _____
Authorized Signature | Date

Plus Installation Charge _____

Special Instructions:

Sub Total* _____

State/Local Taxes: Yes No** _____

Total Amount _____

*For Alaska, add 10% to all equipment and maintenance prices.

**If tax exempt status is claimed, your exemption certificate must be provided.

TERMS

The following general terms and conditions are covered in the standard Sales Agreement.

1. All products are shipped FOB Wang's facility. Unless otherwise instructed, Wang selects the method of shipment and the carrier.
2. Payment for products and services is made 30 days from date of shipment. A 3% discount is allowed if payment is received by Wang at least 10 days before the estimated shipping date.
3. Wang reserves the right to make partial shipments.
4. Acceptance of Wang-installed products is signified by satisfactory completion of Wang's standard test procedure and verified by a Wang Call Report Form signed by a Wang representative and a customer representative. If installation is not performed by Wang, the date of acceptance shall be the date of delivery.
5. Prices are exclusive of all taxes.
6. An order may be canceled by a written notice received 30 days before scheduled shipment.

Complete terms and conditions are stated in the standard Sales Agreement.

TRADE-INS

Wang Laboratories, Inc., accepts certain Wang-manufactured items for trade-in credit when accompanied by a customer order for the purchase of new equipment. For a complete explanation of trade-in policies and allowances, please call a Wang Customer Marketing representative at (800) 225-0978 or (617) 453-7069.

PRICES

All prices and specifications are subject to change without notice. Orders are billed at prices in effect at the time your order is received.

WARRANTY

There is a limited 90-day warranty on all hardware. Items found to be defective may be replaced or repaired at Wang's option. A complete warranty statement is included in the Wang standard Sales Agreement.

Attention Federal Government Buyers: for GSA prices, terms, and conditions, please call Wang Customer Marketing.

WANG

Wangwriter

Word Processing and Data Processing on One System

Now 2200 users can benefit from word processing and data processing capabilities with one Wangwriter System. With the 2200 Interactive Terminal Emulation (listed below), a Wangwriter can access a local or remote 2200 SVP, LVP, or MVP via the standard device controllers. During 2200 System connection, the Wangwriter's integral Daisy Wheel Printer serves as a local printer for data processing on-line print functions. The Wangwriter's extensive text processing capabilities are available when 2200 terminal emulation is not in use.

For more information on the Wangwriter, please contact Wang Customer Marketing.

Model	Description	Price	Monthly Maintenance
5524S	Single Diskette Wangwriter	$5,495	$75
5524D	Dual Diskette Wangwriter	$5,995	$87
W4-FTC-2236	Interactive Terminal Emulation Software and Controller	$ 200	N/A

WANG

The Office Automation Computer Company

Great New Products For WANG 2200 SYSTEMS

2336DW WORKSTATION
Integrates Data Processing, Word Processing and Graphics in one. Ergonomically designed for fatigue free operation and increased productivity (See page 2.)

DW22/20 PRINTER
Bidirectional Daisy Wheel Printer provides economical letter quality output (See page 9.)

(800) 225-0978/(617) 453-7069

WANG Customer Marketing
One Industrial Ave., Lowell, MA 01851

BULK RATE
U.S. POSTAGE
PAID
WANG LABORATORIES
INC.

Printed in U.S.A. 700-7731