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## IBM VALUEPOINT FOR AS/400

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[Announcement Letter Number 193-315 dated October 18, 1993](#)

[US - Last Revised on October 18, 1993](#)

### Brief Description of Announcement, Charges, and Availability

ValuePoint (TM) for AS/400 (R) models are expandable client workstations that can be easily integrated with the AS/400 for client/server operations. Preinstalled hardware and software configurations attach to the AS/400 via Twinax, Ethernet or Token-Ring networks.

Each of the attractively-priced offerings is intended to provide a packaged solution to help you save time installing software and setting up your system. Designed for the Microsoft Windows (1) client environment, ValuePoint for AS/400 enables you to run applications on the AS/400, the personal computer, or both (client/server applications) within one flexible, multi-session workstation.

ValuePoint for AS/400 offerings include:

#### Hardware:

- o IBM ValuePoint 6381 system
- o Choice of IBM enhanced or basic keyboards
- o Choice of preinstalled communication adapter cards

#### Preinstalled Software:

- o DOS 6.1 and MS Windows 3.1
- o PC Support/400 Workstation V2R2 Feature (5738-PC1)
- o RUMBA/400 V2R2 Feature (5738-PC1)
- o LAN Support Program Version 1.33
- o Communication Driver

The following table shows the comparison of major features and functions among all ValuePoint for AS/400 models.

Machine Type	6381							
Model	FP0	FR0	FN0	FN1	MP0	MR0	MN0	MN1
CPU	486SX-25				486DX-33			
Slots x Bays	3 X 3							
RAM	4MB							
Hard Disk (MB)	120MB				212MB			
Attachment Card								
Twinax	X				X			
Token-Ring		X				X		
Ethernet-10Base2			X				X	
Ethernet-10BaseT				X				X

Planned Availability Date: November 18, 1993.

(TM) Trademark of International Business Machines Corporation.

(R) Registered trademark of International Business Machines Corporation.

(1) Trademark of Microsoft Corporation.

#### IN BRIEF . . .

- o Preinstalled hardware and software eases set up of client workstations for the AS/400
- o Eight models based on the popular IBM ValuePoint 6381
- o Choice of connections:
  - Twinax
  - Token-Ring
  - Ethernet
- o Designed for Microsoft Windows client environment
- o Meets IBM's high standards of quality and reliability
- o Offers IBM service and support

## Customer Letter Section

### END-USER PRODUCTIVITY

The preinstallation of DOS, Windows, Communication Adapter Feature, PC Support/400 and RUMBA/400 greatly eases the setup of the workstation. The convenience of installing this prepackaged solution results in considerable time savings and lessens the need for technical expertise at the installation site.

### BUSINESS SOLUTION

The ValuePoint for AS/400 provides in one package the components needed for a high-function PC workstation on an AS/400 system.

### GROWTH ENABLEMENT

The ValuePoint for AS/400 incorporates the advanced support required by modern client/server applications. It becomes the preferred workstation for an AS/400 Microsoft Windows client.

It can execute host-based AS/400 applications, DOS and Windows programs and client/server applications.

Growth toward client/server applications in an AS/400 environment is greatly enhanced with the ValuePoint for AS/400 ensuring compatibility with PC upgrades as the customer's needs increase.

The ValuePoint for AS/400 is preloaded with PC Support/400 V2R2. If, at any time, the AS/400 is updated with a different release of PC Support/400, the customer can use the update function built into the PC Support/400 product to have the AS/400 update the ValuePoint client workstation with the matching level of PC Support/400.

### PRODUCT POSITIONING

The following models are available:

- o 6381-FPO: Based on 6381-F30 (486SX, 25MHz, 3 x 3, 120MB, 4MB) 5250 Twinax
- o 6381-FRO: Based on 6381-F30 Token-Ring
- o 6381-FNO: Based on 6381-F30 Ethernet 10Base2
- o 6381-FN1: Based on 6381-F30 Ethernet 10BaseT
- o 6381-MPO: Based on 6381-M30 5250 Twinax (486SX, 33MHz, 3 x 3, 212MB, 4MB)
- o 6381-MRO: Based on 6381-M30 Token-Ring

o 6381-MNO: Based on 6381-M30 Ethernet 10Base2

o 6381-MN1: Based on 6381-M30 Ethernet 10BaseT

#### EDUCATION SUPPORT

For PC Support/400 education support, refer to descriptions of classroom and self-study courses contained in the SKILL DYNAMICS (TM) CATALOG OF EDUCATION (G320-1244). Call Skill Dynamics, an IBM Company, at 800-IBM TEACH (426-8322) for schedules and enrollments.

#### PUBLICATIONS

The following publications are shipped with the product. Contact your IBM representative to order additional copies.

TITLE	ORDER NUMBER	PART NUMBER
User's Guide Package		
-- 6381 FXX	S71G-4136	71G4136
User's Guide Package		
-- 6381 MXX	S71G-4137	71G4137

Additional copies of the following publications are not available.

PS/ValuePoint (TM) for AS/400

Setup Directions		21F1796
IBM DOS 6.1		71G4203
MS Windows Version 3.1		71G4264
LAN Support Program Version 1.33		93F2456
Guide to Operations, Twinax		95F1205
Guide to Operations, Token-Ring		73G2033
Guide to Operations, Ethernet		60G3301

The following publications may be ordered from your IBM representative.

TITLE	ORDER NUMBER	PART NUMBER
PC Support/400: DOS User's Guide	SC41-8199	C418199
PC Support/400: DOS Installation Administration Guide	SC41-0006	C410006
Hardware Maintenance Service with Diskette	S71G-4139	71G4139

PS/ValuePoint Technical

Information Manual

S71G-1873

71G1873

## TECHNICAL INFORMATION

### SPECIFIED OPERATING ENVIRONMENT

**REQUIREMENTS:** The AS/400 software preloaded on ValuePoint for AS/400 operates as part of a licensed program for the AS/400. The software that runs on ValuePoint for AS/400 is dependent on the software installed in the AS/400.

The AS/400 prerequisite software includes:

- o PC Support/400
- o RUMBA/400

### PHYSICAL SPECIFICATIONS

#### MACH

TYPE/ MODEL NUMBER	PROC/ MHZ	SLOTS/ BAYS	STD. (MB/ NS)	MEM. VRAM	STD. HF (MB)	GRAP- HICS ADAPTER	COMM CARD
6381FP0	486SX-25	3X3	4MB/70	512KB	120	SVGA-LB	Twinax
6381FR0	486SX-25	3X3	4MB/70	512KB	120	SVGA-LB	TR
6381FN0	486SX-25	3X3	4MB/70	512KB	120	SVGA-LB	Enet2
6381FN1	486SX-25	3X3	4MB/70	512KB	120	SVGA-LB	EnetT
6381MP0	486DX-33	3X3	4MB/70	512KB	212	SVGA-LB	Twinax
6381MR0	486DX-33	3X3	4MB/70	512KB	212	SVGA-LB	TR
6381MN0	486DX-33	3X3	4MB/70	512KB	212	SVGA-LB	Enet2
6381MN1	486DX-33	3X3	4MB/70	512KB	212	SVGA-LB	EnetT

#### COMMON TO ALL MODELS:

- o One 3.5-inch, 1.44MB diskette drive standard
- o 4MB memory standard.
- o 512KB video RAM standard (DRAM)
- o External (L2) cache sockets on planar board (MXX models only)
- o VESA Local Bus SVGA video: 640 x 480, 800 x 600, 1024 x 768, 1280 x 1024
- o MFI enabled (entry level, with 132 column support in some graphic modes)
- o Two Serial ports (9-pin)
- o One Parallel port
- o Keyboard port
- o Pointing device port

- o IBM Enhanced or Basic keyboards

- o Mouse

The standard hard files for the ValuePoint for AS/400 are 120MB and 212MB.

#### DRIVE SPECIFICATIONS:

Formatted capacity*	120MB**	212MB**
Average media data rate	12Mb/sec	17-31Mb/sec
Average seek time	15ms	13ms
Average latency	8.5ms	9.0ms
Sector Interleave	1:1	1:1
Interface	AT (R) (IDE)	AT (IDE)
Lookahead Buffer (Cache)	64KB	128KB

\* Actual user-accessible capacity may vary slightly based on different operating environments.

\*\* MB = Million Bytes

#### MECHANICAL SPECIFICATIONS:

- o 6381 Dimensions/Weights

- Width: 360 mm (14.2 inches)
- Depth: 420 mm (16.5 inches)
- Height: 122 mm (4.8 inches)
- Weight: 8.1 kg (17.8 pounds) (Min. configuration)
- Weight: 10.1 kg (22.3 pounds) (Max. configuration)

- o Electrical

- 100-watt power supply; dual voltage, controlled by switch on back of unit
- 100-125 (nominal) V ac; 50-60 Hz; 4 Amp (max)
- 200-245 (nominal) V ac; 50-60 Hz; 2 Amp (max)

- o Ambient Air Temperature

- System on: 10.0 (degs) -- 32.0 (degs) C (50 (degs) -- 90 (degs) F at 0 to 2134 m) (0 to 7000 feet)
- System off: 10.0 (degs) -- 43.0 (degs) C (50 (degs) -- 110 (degs) F at 0 to 2134 m) (0 to 7000 feet)

- o Noise Level

- Declared Acoustical Noise Emissions (idle mode): LWAd = 4.8 bels

NOTE: The noise emission level stated is the declared (upper limit) A-weighted sound power level, in bels, for a random sample of machines, typically configured and operating in idle mode; that is, powered on, but no DASD read/write or other I/O activity. All measurements have been made in accordance with ANSI S12.10, and reported in conformance with ISO 9296.

#### EQUIPMENT APPROVALS:

- o FCC -- Certified to comply with Part 15 FCC Rules, Class B limits
- o UL -- UL 1950, First Edition (U.S. legal -- OSHA)
- o CSA -- C22.2 No. 950 (Canadian legal)
- o NOM

All ValuePoint for AS/400 systems are ISO capable when used with an ISO capable monitor and appropriate software.

#### OPERATING ENVIRONMENT:

- o Temperature: 10 (degs) to 32 (degs) C (50 (degs) to 90 (degs) F)
- o Relative Humidity: 8% to 80%
  
- o Heat Output: 515 Kcal/Hr or BTU (max.)
- o Electrical power:
  - 90 -- 137V ac, .30 KVA (max.)
  - 180 -- 265V ac, .30 KVA (max.)
- o Capacity of Exhaust: 8.5 Cubic meter/min. 20 CMF
- o Noise level: 5.2 DB
- o Leakage and starting current: 450uA/77Ampere

#### MACHINE REQUIREMENTS

MONITORS: Monitors supported by the IBM ValuePoint 6381 systems are:

- o 63XX series color monitors (VGA and SVGA modes)
- o 85XX series color monitors (VGA only)
- o 9524, 9525, 9521 and 9527 color monitors

NOTE: The 6317, 6324, 6325, 9524 and 9525 color monitors are ISO 9241-3 enabled.

NOTE: All other 95XX monitors are not supported on ValuePoint systems.

VIDEO: The IBM PS/ValuePoint 6381 system has Video Electronics Standard Association (VESA) Local Bus SVGA graphics. Operating system/driver support is required to provide the following SVGA modes. Drivers for DOS and Windows are provided.

All models support the following VGA and high performance SVGA video modes:

- o 640 x 480 x 16 (60, 72Hz) (512KB)
- o 640 x 480 x 256 (60, 72Hz) (512KB)
- o 640 x 480 x 64K (60, 72Hz) (1MB)
- o 640 x 480 x 16M (60Hz) (1MB)
- o 800 x 600 x 16 (56, 60, 72Hz) (512KB)
- o 800 x 600 x 256 (56, 60, 72Hz) (512KB)
- o 800 x 600 x 64K (56, 60Hz) (1MB)
- o 1024 x 768 x 16 (60, 70, 72Hz) (512KB)
- o 1024 x 768 x 256 (60, 70, 72Hz) (1MB)
- o 1280 x 1024 x 16 (43Hz) (I) (1MB)

NOTE: All modes are non-interlaced unless otherwise noted. (I) indicates interlaced.

NOTE: The monitor attached should support the modes and frequencies desired.

MFI modes 2, 3 and 4 are supported. MFI mode 5 (132 columns) is supported in some graphics modes.

#### PROGRAMMING REQUIREMENTS:

OPERATING SYSTEM SOFTWARE: The operating system environments for ValuePoint for AS/400 will be DOS Version 6.1 and Microsoft Windows 3.1. This operating system will be preinstalled on all models.

COMPATIBILITY: ValuePoint for AS/400 models are compatible with the IBM Personal Computer, Personal Computer XT (TM) and Personal Computer AT (R) at the BIOS interface level (BIOS not identical) and at most hardware interfaces. IBM ValuePoint 6381 models have been designed to maintain compatibility with existing personal computer software and non-timing dependent features. Due to the high level of integration, some features, such as Personal Computer XT and Personal Computer AT memory upgrades and graphic adapters are not supported.

ValuePoint for AS/400 has not been tested with all non-IBM features/options.

#### LIMITATIONS:

- o With 32-bit addressing the maximum memory address space on ValuePoint for AS/400 models is 64MB. Of this 64MB memory address space, the system requires 384K for its use. This leaves a maximum of 63.6MB of the memory address space for customer



usage. An additional 128KB of the memory address space is required for system usage if BIOS/POST is copied to RAM for execution.

- o 72-pin (80ns, 70ns) single RAS Memory SIMMs, 64MB maximum memory.
- o Maximum External (L2) cache memory supported is 256KB (MXX models).
- o Maximum Video RAM supported is 1MB.
- o Maximum number of hard files supported is 2.
- o Maximum IDE hardfile size supported is 528MB.
- o Maximum number of diskette drives supported is 2.
- o SVGA DOS/Windows support is on the video driver diskettes shipped with the systems
- o The IBM Token-Ring Network Adapter II is designed and recommended to be used in systems with a maximum of 16MB of memory.
- o If all I/O card slots are populated, average wattage of the I/O cards should be limited to 8.5 Watts. Populating all I/O card slots with options that have an average load of greater than 8.5 Watts will cause recommended thermal limits in the I/O card area to be exceeded.

#### PLANNING INFORMATION

**CUSTOMER RESPONSIBILITIES:** The ValuePoint for AS/400 is designated as customer setup (CSU).

**CABLE ORDERS:** The communication attachment cable (Twinax, Token-Ring, Ethernet) is not included and must be ordered separately.

The part numbers listed below may be changed or discontinued by the supplier due to business need. Refer to these part numbers as an initial reference point.

#### Cabling:

ValuePoint for AS/400 requires customer-supplied cables to connect the AS/400. The following are recommended cables for Ethernet, Token-Ring or Twinaxial connections and assumes an existing AS/400 installation with a defined cabling system.

Cables may be secured through either Black Box Corporation or IBM PC Direct at 800-IBM-2YOU (426-2968) as indicated below. If customized or Ethernet cables are required, they may be secured through Black Box Corporation at 412-746-5105.

- o Ethernet Cables-Order ONE of the following: (Note: ThinNet is

used for the 10Base2 Ethernet Adapter)

- ThinNet 20ft coaxial cable with coaxial connectors on each end Black Box Part Number BBM-LCN300-0020-MM
- ThinNet Custom coaxial cable with coaxial connectors on each end Black Box Part Number BBM-LCN300-LENGTH-MM
- 10BASE-T 20ft. cable with RJ-45 connectors on each end Black Box Part Number BBM-EYN735MS-0020-MM
- 10BASE-T Custom cable with RJ-45 connectors on each end Black Box Part Number BBM-EYN735MS-LENGTH-MM

o Token-Ring Cables-Order One of the following:

- IBM Token-Ring PC Adapter Cable 8 ft. with a DB9 connector at one end and a IBM Cabling System Type 1 Data Connector at the other IBM Part Number 6339098, Black Box Part Number BBM-EVNTRD9-0008

(For customers desiring unshielded twisted-pair wiring for attachment to the IBM Token-Ring Network, the following CUSTOM UTP cable is available through Black Box Corporation.)

- UTP 8-foot cable with a DB9 connector on one end and a RJ-45 at the other Black Box Part Number BBM-LT057

o Twinaxial Cables-Order ONE of the following in addition to the required cable:

- IBM Enhanced 5250 Display Station Emulation Integrated Cable Assembly (Y Cable), allows connection between the 5250 Emulation Adapter 15-pin D connector and a standard twinaxial cable. IBM Part Number 6403635, Black Box Part Number DBM-EW030
- IBM 5250 Emulation Data Connector Cable (Y Cable Alternative), allows connection between the 5250 Emulation Adapter 15-pin D connector and a shielded twisted-pair IBM Cabling System Type 1 Data Connector. IBM Part Number 60G1043
- IBM 5250 Emulation UTP Cable (Y Cable Alternative), allows connection between the 5250 Emulation Adapter 15-pin D connector and an unshielded twisted-pair RJ-11 connector. IBM Part Number 60G1042

o Sample Cables for the above from Black Box Corporation:

Twinaxial Cable (for Y Cable)

- Standard 20 ft. Twinaxial Cable with male connectors on each end Black Box Part Number EWN010-MM-0020
- Custom Twinaxial Cable with male connectors on each end Black Box Part Number EWN010-MM-LENGTH
- Shielded Twisted-Pair Cables for use with IBM 5250 Emulation Data Connector Cable (IBM Part Number 60G1043)
- 30 ft. Shielded Twisted Pair Cable with IBM Cabling System Type 1 Data Connectors on each end Black Box Part Number EVNTRPC-0030
- Custom Shielded Twisted Pair Cable with IBM Cabling System Type 1 Data Connectors on each end Black Box Part Number EVNTRPC-LENGTH
- Unshielded Twisted-Pair Cables for use with IBM 5250 Emulation UTP Cable (IBM Part Number 60G1042) Custom Unshielded Twisted-Pair Cable with RJ-11 jacks on each end Black Box Part Number EYN720MS-MM-LENGTH

#### HELPWARE (R) SUPPORT

##### o HelpCenter (R)

The customer can ask any questions about the following products by calling the IBM Personal Systems HelpCenter at

800-772-2227.

- ValuePoint for AS/400 Hardware
- IBM DOS 6.1
- Microsoft Windows Version 3.1
- LAN Support Program Version 1.33

An IBM representative will work with you to answer questions, refer you to other support offerings, including education, and other solutions necessary to ensure customer satisfaction.

##### o Support is provided for PC Support/400 and RUMBA/400 as follows:

- IBM provides a wide range of technical support services designed to help maximize a customer's information system resources by supplementing the technical staff with skilled IBM AS/400 specialists and support services.

Ongoing technical support services are available for AS/400 products including PC Support/400 and RUMBA/400, for a fee

on both an hourly and subscription basis from the AS/400 Support Family or your IBM representative. These technical support services include installation support, operational assistance, remote and on-site consulting, system planning and design, project management, development and implementation. For additional information, contact an IBM representative, IBM Business Partner, or call 800-AS400-15 (274-0015) option 5.

## PACKAGING:

## PRODUCT

## SHIPMENT GROUP

ValuePoint

for AS/400

6381-XXX

## SYSTEM UNIT CARTON

System Unit (6381-XXX)

Selected LAN adapter

(Twinax, Token-Ring or Ethernet)

## SHIPMENT GROUP CARTON

Setup Sheet

Publications packet

with diskette.

SVGA DOS Driver Publications

Line Cord (US and Canada

110V models)

Mouse

DOS Version 6.1 and Microsoft

Windows 3.1 preinstalled.

Licensed Program Specifications

ValuePoint for AS/400 Setup Directions

Publications by LAN adapter type

Twinax

Enhanced Display Station

Emulation Adapter

Guide to Operations and

Diagnostic Diskette.

Token-Ring

Local Area Network Support Program

Version 1.33

Token-Ring Network 16/4 Adapter  
Hardware Library Guide to Operations  
Ethernet  
Local Area Network Support Program  
Version 1.33  
IBM ISA Ethernet Adapters  
Installation and Testing Instructions

KEYBOARD CARTON

IBM Enhanced Keyboard (P/N 61G2838)  
(Default)

or

IBM Basic Keyboard (P/N 71G4644)

NOTE: Diskettes shipped with the product, in addition to the base model, include the backup diskette for the LAN support program (for Token-Ring or Ethernet) and the Diagnostics for communication card.

WORLD TRADE CONSIDERATIONS: NLS support is provided for the following countries/languages:

- o Arabic
- o Belgian Dutch
- o Belgian French
- o Brazilian Portuguese
- o Bulgarian Cyrillic
- o Canadian French
- o Czech
- o Slovak
- o Denmark
- o Finland
- o France
- o Germany
- o Greece
- o Hungary
- o Israel
- o Italy
- o Latin American Spanish
- o Netherlands
- o Norway
- o Poland

- o Portugal
- o Russian Cyrillic
- o Serbian Cyrillic
- o South Africa
- o Spain
- o Sweden
- o Switzerland French
- o Switzerland German
- o Turkey
- o UK English
- o Yugoslavia

The NLS support includes PC national language code page support, national language keyboard support, multilingual nomenclature, and translated documentation and machine readable information as required by the individual countries.

#### SECURITY, AUDITABILITY AND CONTROL

Refer to PS/ValuePoint 6381 Hardware Announcement 193-230.

User management is responsible for evaluation, selection and implementation of security features, administrative procedures and appropriate controls in application systems and communications facilities.

#### TERMS AND CONDITIONS

VOLUME DISCOUNT: Volume purchasing is not available under the Volume Discounts section of the IBM Customer Agreement.

CUSTOMER FULFILLMENT OPTION APPLIES: Yes.

#### WARRANTY PERIOD:

- o System Hardware -- One year
- o DOS, Windows, LAN Support Programs -- Three months.

LICENSING: DOS, Windows and the LAN Support Program are licensed under the terms and conditions of the IBM Program License Agreement. A copy of this agreement is included in the documentation that ships with the system.

PC Support/400 Workstation V2R2 Feature (5738-PC1) and RUMBA/400 V2R2 Feature (5738-PC1) are licensed under the terms and conditions of the IBM Customer Agreement (ICA). The terms and conditions of these are unchanged, except for Volume Discounting and Testing Period do not apply. Customers must have a licensed copy of

PC Support/400. Refer to Software Announcements 292-070, February 18, 1992 and 292-458, September 1, 1992.

WARRANTY SERVICE: IBM On-Site Repair (IOR), 8:00 a.m. to 5:00 p.m. Monday through Friday.

ALTERNATIVE SERVICE: A warranty upgrade providing coverage 24 hours a day, 7 days a week is available for an additional charge.

IBM MAINTENANCE SERVICE (POST WARRANTY): IBM On-Site Repair (IOR), 8:00 a.m. to 5:00 p.m. Monday through Friday.

24 hour-a-day, 7 day-a-week coverage is available for an additional charge.

NOTE: Non-IBM products installed in a ValuePoint system either on Warranty or Maintenance Service may be serviced by IBM. Additional service support charges may apply. Refer to the CHARGES section.

IBM HOURLY SERVICE RATE CLASSIFICATION: One.

IBM Warranty Service, Maintenance Service or IBM Hourly Service may be obtained by calling 800-IBM-SERV (426-7278). IBM Hourly Service is available at the applicable rate and terms, including element exchange price if applicable.

VOLUME MAINTENANCE OPTION: None.

MID-RANGE SYSTEM OPTION: The announced product is an eligible machine for the Mid-Range System Option of the IBM Customer Agreement (ICA).

ELIGIBLE TYPES	DISCOUNT	
	THREE-YEAR	FIVE-YEAR
6381	5%	5%

CORPORATE SERVICE OPTION: The announced product is an eligible machine for the Corporate Service Option of the ICA.

	DISCOUNT	
	THREE-YEAR	FIVE-YEAR
Network	7%	7%
System	5%	5%

EXTENDED MAINTENANCE OPTION: The announced product is an eligible machine under the Extended Maintenance Option\* of the ICA.

CENTRAL FACILITY MAINTENANCE SERVICE OPTION: The announced product is an eligible machine for Central Facility Maintenance Service Option\* of the ICA.

The minimum number of machines required to be at the central

facility before requesting maintenance service is six machines. The Additional Maintenance Charge Factor is currently 0.5 hours. The terms and conditions are stated in the Attachment for Central Facility Maintenance Service Option.

\* A revised exhibit will be available at a later date.

PRODUCT AVAILABILITY STATUS: New product available.

FIELD INSTALLABLE FEATURES: Yes.

MODEL CONVERSIONS: No.

CUSTOMER SETUP: Yes.

LICENSED INTERNAL CODE: No.

EDUCATION PRICE (EP): An Education Price is available from IBM PC Direct, at 800-IBM-2YOU (426-2968).

#### CHARGES

PRODUCT CHARGES: These products are available from IBM Authorized AS/400 Remarketers and from IBM PC Direct. Contact an IBM Authorized AS/400 Remarketer or IBM PC Direct for prices.

#### ALTERNATIVE AND MAINTENANCE SERVICE CHARGES

ALTERNATIVE SERVICE CHARGES: Charges to upgrade warranty coverage from 8:00 a.m. to 5:00 p.m., Monday through Friday, to 24 hours a day, 7 days a week.

IBM COVERAGE 24 X 7\*:

o 6381 Models: \$30.

#### ANNUAL MINIMUM MAINTENANCE CHARGES:

MACHINE TYPE/ MODEL	IBM ON-SITE (8AM-5PM)	IBM COVERAGE (24 X 7*)	CENTRAL FACILITY
			MAINTENANCE
			CHARGE (CFMS)
6381 -- FP0	\$120	\$162	\$114
6381 -- FR0	120	162	114
6381 -- FN0	120	162	114
6381 -- FN1	120	162	114
6381 -- MP0	141	190	133
6381 -- MR0	141	190	133
6381 -- MN0	141	190	133
6381 -- MN1	141	190	133

SERVICE SUPPORT CHARGE FOR NON-IBM PRODUCTS IN VALUEPOINT PRODUCTS:



	IBM	IBM
	ON-SITE	COVERAGE
	(8AM-5PM)	(24 X 7*)
Warranty	\$30	\$30
Maintenance Service	30	30

\* 24 x 7 = 24 hours a day, 7 days a week.