

IBM PERSONAL SYSTEM/2 AND IBM PERSONAL COMPUTER PRODUCT REFERENCE,
VERSION 4.0

April 6, 1987

International Business Machines
Information Systems Group
Workstations Marketing, Department 7W7
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White Plains, New York 10604

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The prices stated are for your information
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As of April 6, 1987

PREFACE

The prices stated are for your information only and are subject to change. IBM's products can only be ordered under the terms and conditions of IBM's applicable agreements. For more information, contact your IBM representative.

--- KEY ---

A - Z	(Upper Case) Items are available on Quantity Discount Agreement
A - z	(Lower Case) Items are available on Volume Purchase Agreement
#	Personally Developed Software (call 1-800-IBM-PCSW to order)
\$	Vendor-Logo items (no PCAC support, purchase and maintenance by special bid, in quantities of 20 or more)
*	Items do not bear the IBM Trademark
**	Items are supported through a Technical Support Location
N/A	Not available.
N/C	No charge when ordered in reasonable quantities through an IBM Marketing Representative.
PCTB	PC Technical Directory publication (call 1-800-IBM-PCTB or your IBM Marketing Representative to order)
W/D	Withdrawn from marketing.

Change bars indicate changes since April 2, 1987.

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SPECIAL PROMOTIONAL OFFERINGS

RT PC AIX OPERATING SYSTEM PROMOTIONAL OFFERING

On February 17, 1987, IBM announced a promotion that provides credit for the licensing price of the IBM Advanced Interactive Executive (AIX) toward the purchase of an RT PC New Model Series Upgrade Kit. This applies to customers who purchase an RT PC Model 15, 20, 25, or A25 and the upgrade kit, and obtain the AIX software directly from IBM during the promotional period.

The intent of the promotion is to encourage customers who may be interested in the new models of the RT PC to accept delivery of the existing models before new ones become available. The promotion makes it possible to upgrade to a new model for a net cost of about \$200 (price of the upgrade kit of \$2495, less credit for the purchase price of AIX 1.1 unit one price of \$2295). The overall system cost (old model, plus upgrade) can be significantly less than the cost of a new model RT PC, yet results in an equivalent configuration.

Every AIX 1.1 shipped after February 17, 1987, will contain a Promotion Certificate valid from April 15, 1987 through July 31, 1987, which provides to the customer return of the value paid for AIX 1.1 toward the purchase of the New Model Series Upgrade Kit.

For more information, see your IBM Marketing Representative.

STORE EXPRESS TRIAL PROGRAM

IBM is announcing a three month trial program for IBM products used in retail stores. The trial will allow a customer the opportunity to evaluate the benefits of a point-of-sale system and a store-level application system. The IBM products eligible for the trial include

- an IBM 4680 Store System configuration,
- IBM 4680 system software,
- IBM 4680 sales application software,
- an IBM Series/1 configuration,
- IBM Series/1 system software
- Store Item Receiving Program Product,
- Store Item Management Program Offering.

The trial program may be entered between November 1, 1986, and June 30, 1987. For further information, see your IBM Marketing Representative.

SPECIAL PROMOTION FOR THE IBM 5140 PC CONVERTIBLE

Effective November 4, 1986, IBM announces a promotional offering that provides customers who purchase an IBM 5140 PC Convertible within the promotional period

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the IBM Personal Computer Disk Operating System (DOS) Version 3.2 licensed program with charges waived. IBM 5140 PC Convertible Models 002 and 022 shipped from IBM on or after November 1, 1986 and on or before April 30, 1987, will include a copy of DOS 3.2 (3.5in diskette) with charges waived.

These programs cannot be returned to IBM and cannot be exchanged or refunded for credit. These programs will not count toward any Quantity Discount Agreement (QDA) or special bid quantity commitment.

This offering is available to customers purchasing IBM 5140 PC Convertibles directly from IBM.

VOLUME PROCUREMENT

The following are abstracts from (and paraphrases of) the major quantity-purchasing agreements which apply to the IBM Personal Computer. Important information has been omitted for brevity. See your IBM Marketing Representative for complete details of these agreements.

HARDWARE - VOLUME PROCUREMENT AGREEMENT

1. The terms below are from Exhibit 32WS-14, form Z125-9076-14, dated April, 1987.

If you have a different agreement in effect, its terms will govern your purchases. Under certain circumstances, you may cancel an existing VPA without penalty in order to accept the terms of the new Agreement. See your IBM Marketing Representative for details.

2. Contract Period Duration: 12 Months from Commencement Date
3. Eligible Machines:

All machines in Category A will be aggregated to determine the Quantity of Eligible Machines for Category A.

-----Category A**-----					
Discount Group:					
1	2	3	4	5	6
5140	3290	3104	3178	3101	3193
5160	5271	3179		3161	3194
5162	5273	3180		3162	
5170		3191		3163	
5171		3192		3164	
5173		3196			
8530		3197			
8550		3205			
8560		3278			
8580		3279			
		8775			

Figure 1. VPA Hardware Category A

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-----Category B-----

Discount Group:

-----1-----

2

3

3363	5279	3295	3979
4055	5378	5272	
4865	5379		
4869	8503		
5144	8512		
5145	8513		
5151	8514		
5153	1593(b)		
5154	1596(b)		
5167	1597(b)		
5178	1599		
5278			

Figure 2. VPA Hardware Category B

Category C	Category D	Category E	Category F
---------------	---------------	---------------	---------------

3174	3299	5294	3852
3274			4201
3276			4202
5294(c)			4207
			4208
			4216
			5169
			5181
			5201
			5216
			5223
			6180
			7372

Figure 3. VPA Hardware Categories C-F

Category G	Category H	Category J	Category K
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5277	1560	3117	5209
	1561	3118	
	1581		
	Giltronix		

Figure 4. VPA Hardware Categories G-K

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4. Discount Schedule

Quantity of Eligible Machines	-----Category A-----					
	Discount Group					
	1	2	3	4	5	6
5-19	N/A	16%	6%	10%	N/A	N/A
20-49	12%	20	9	15	6%	6%
50-99	12	25	12	25	9	6
100-149	16	25	12	25	9	9
150-249	20	30	15	30	15	9
250-499	27	30	18	35	21	12
500-999	27	30	21	40	21	12
1000 and up	30	30	24	40	21	15

Category B: See Note 1 Below.

Figure 5. VPA Discount Schedule, Category A

Quantity of Eligible Machines	Category C	Category D
5-14	9%	See
15-19	15	Note 2
20-29	20	Below
30-49	25	
50-84	30	
85-119	35	
120 and up	40	

Figure 6. VPA Discount Schedule, Categories C-D

Quantity of Eligible Machines	Category F	Category G	Category H	Category J
20-49	12%	12%	12%	12%
50-149	16	16	16	16
150-249	20	20	20	20
250-499	24	24	20	24
500-999	27	27	20	27
1000 and up	30	30	20	30

Figure 7. VPA Discount Schedule, Categories F-J

Quantity of Eligible Machines	Category K
5-14	6%
15-19	9
20-29	12
30-49	15
50 and up	20

Figure 8. VPA Discount Schedule, Category K

Greater discounts are available for a commitment of 500 or more selected machines in Category A via the Volume Procurement Agreement or by Special Bid.

(b) The 1593, 1596, and 1597 are not eligible for discounts greater than 20%.

(c) The 5294 Remote Control Unit counts toward the Total Quantity of Machines by Category but is not eligible for discounts greater than 20%.

NOTE 1: All machines in Discount Groups 1, 2, and 3 in Category B will receive the Discount Percent and Terms applicable for machines in the corresponding Discount Groups of Category A. The two Categories do not aggregate together for dermining the Category A discount.

NOTE 2: All machines in Category D will receive the Discount Percent and Terms applicable for machines in Category C. The two Categories do not aggregate together for dermining the Category C discount.

If you order a feature for installation in a machine in Discount Group 1 or 2 of Category A (other than a 3290) during the Contract Period, the feature receives a Discount Percent equal to that for the machine in which the feature will be installed. Features that could be ordered for machines on either Group will receive the Discount Percent applicable to Group 1.

5. Price Protection: (The customer is protected from price increases during the period of the Agreement).
6. Adjustment Charges: If the customer purchases fewer machines than contracted for, the customer will be charged a Reconciliation Charge per unit shipped. This charge is calculated as follows:
 - a. Subtract the discount percentage actually earned (if any, based on the number of units accepted) from the contracted discount percentage to yield the unearned discount percentage.
 - b. Convert the unearned discount percentage to a whole number (e.g., 6% becomes 6).
 - c. Multiply the resulting number by the applicable Reconciliation Charge shown below to determine the Reconciliation Charge per unit shipped.

RECONCILIATION CHARGES (RC)

-----Category A-----
Discount Group:
-----1----- -----2----- -----3----- -----4----- -----5-----
Type RC Type RC Type RC Type RC Type RC

4950	\$65	3290	\$75	3104	\$25	3178	\$10	3101	\$10
5140	20	5271	45	3179	20			3161	10
5150	25	5273	55	3180	20			3163	10
5160	30			3191	15			3164	15
5162	45			3192	18				
5170				3196	15				
-068	45			3205	30				
-099	50			3278	25				
-239	55			3279	25				
-319	55			5251	25				
-339	55			5291	25			3193	\$30
-495	90			5292	25			3194	30
-496	108			8775	40				
-599	50								
-739	55								
-839	65								
-849	65								
-899	65								
-919	55								
-939	55								
5171	75								
5371	50								
5373	55								
8530	25								
8550	40								
8560	65								
8580	90								

-----6-----
Type RC

Figure 9. VPA Reconciliation Charges, Category A

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-----Category B-----
Discount Group:
-----1-----2-----3-----
Type RC Type RC Type RC

3363	\$30	3295	\$40	3279	\$ 5
4055	50	5272	10		
4865	4				
4869	5				
5144	2				
5145	4				
5151	3				
5153	7				
5154	9				
5161	30				
5167	8				
5175	15				
5178	6				
5278	35				
5279	20				
5378	85				
5379	35				
8503	5				
8512	10				
8513	10				
8514	20				

Figure 10. VPA Reconciliation Charges, Category B

Category -----C-----		Category -----D-----		Category -----F-----	
Type	RC	Type	RC	Type	RC
3174	\$120	3299	\$10	3852	\$10
3274	140			4201	6
3276	80			4202	8
5294	35			4207	8
				4208	11
				4216	22
				4971	8
				5169	40
				5181	2
				5201	15
				5202	8
				5216	20
				5223	15
				6180	20
				7371	15
				7372	20

Figure 11. VPA Reconciliation Charges, Categories C-F

Category ----G-----		Category ----H-----		Category ----J-----		Category ----K-----	
Type	RC	Type	RC	Type	RC	Type	RC
5277	\$4	1560	\$20	3117	\$15	5209	\$60
		1561	35	3118	20		
		1581	7				

Figure 12. VPA Reconciliation Charges, Categories G-K

7. The Customer may optionally extend the contract period once for three months with protected prices, subject to IBM approval, by committing to a quantity of machines that is approximately 25% higher than that in the Customer's original contract.
8. END USER CERTIFICATION: The Customer represents that the Customer is purchasing the machines for use within its own business enterprise and not for remarketing.
9. CUSTOMER FULFILLMENT OPTION:

OVERVIEW: An IBM customer who has a qualifying contract may select the most convenient, authorized sources for eligible IBM Personal Computers and related products. Purchases from all such sources will count toward fulfillment of the contract, provided that the purchases are reported to IBM in a timely manner. In particular, such purchases under the mix-and-match contracts will assist the customer in qualifying for deeper discounts on their non-PC workstation purchases (e.g., 3270's). IBM support offerings will be available to customers with qualifying contracts regardless of the authorized sources selected for their purchases.

DETAILS: Machines designated below which are purchased from an IBM Authorized Dealer, on or after June 16, 1986, and during the Contract Period, count towards the respective Total Quantity of Machines by Category. Adjustment Charges do not apply to such machines. Such sales by the Dealer to the Customer shall be under the Dealer's terms and conditions. Machines purchased from the Dealer and subsequently returned to the Dealer will not count toward this Total, nor will used machines; returns of machines must also be reported to IBM. The Customer will provide IBM with the machine type and model, serial number, date of purchase, and dealer name and address within one month of the purchase.

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Category A	Category B	Category C
-----	-----	-----
4860 004	3852 002	4863 001
067	4201 All	5144 001
5140 002	4202 001	5145 001
022	4207 All	5151 001
5150 166	4208 All	5153 001
176	4216 020	5154 001
5160 068	5169 002	5167 001
078	5201 001	5175 001
086	002	8503 All
087	5202 All	8512 All
088	5216 001	8513 All
089	002	8514 All
267	5223 001	
268		
277		Category D
278		-----
5162 286		3363 All
5170 068		4869 All
099		
239		
319		
339		
5171 168		
339		
8530 All		
8550 All		
8560 All		
8580 All		

Figure 13. Customer Fulfillment Option Categories

Effective January 26, 1987, IBM customers with a qualifying Industrial Computer VPA or special bid may purchase eligible machines from IBM, authorized IBM Industrial Computer Distributors, or Industrial Application Remarketers.

Industrial Computers
5531
7531
7532
7552
Industrial Computer Displays
5532-001
7534-001

Figure 14. Customer Fulfillment Option Categories - Industrial

Effective January 27, 1987, IBM customers with a qualifying RT-PC VPA or special bid may purchase eligible machines from IBM or IBM authorized dealers.

Eligible Machines

6150
6151
6153
6154
6155
6157

Figure 15. Customer Fulfillment Option Categories - RT-PC

HARDWARE - QUANTITY PURCHASE PLAN

HARDWARE - ORDERING

System units, displays, printers, and some other items carry 7-digit type and model numbers. For example, one of the PC system units has the number "5150-104." Ordering a "5150-104" would result in the shipment of that model of PC system unit.

Attachments, adapters, cables, and similar items carry 4-digit feature codes. These items are often called features. For example, the standard parallel printer cable has the feature code "5612." Feature codes are always paired with an ordering vehicle (type and model number) in an order.

When you order a feature at the same time as the device it will be installed within (or attached to), the feature code is paired with the type and model of that device; the device becomes the ordering vehicle for the feature. For example, if you order "5150-104" with feature code "5612," IBM will ship a PC system unit and a printer cable.

When you order a feature separately, the feature code is paired with a special type and model called a "special" ordering vehicle. A special ordering vehicle is a type and model number created solely for the purpose of providing a base for ordering feature codes. All PC special ordering vehicles end in "-ZZZ," for example, "5150-ZZZ." For example, if you order "5150-ZZZ" with feature code "5612," IBM will ship a printer cable by itself.

Usually there is only one special ordering vehicle for a given feature code. When there is more than one, care must be used. For example, feature code "4910" can be ordered on either "5150-ZZZ" (IBM will ship a PC Color Graphics Monitor Adapter), or on "5271-ZZZ" (IBM will ship a 3270-PC All-Points Addressable Adapter).

This Reference can be formatted to provide a cross reference which gives the ordering vehicles valid for each feature code. This cross reference, if specified, will be found at the beginning of the index.

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When no special ordering vehicle exists for the feature you wish to add, IBM will need the type and model of the base unit, the serial number of the base unit, and the feature code you wish to add. Specify that your order is a "Miscellaneous Equipment Specification" (MES).

SINGLE SHIPMENT VOLUME OFFERING (PC AND TOKEN-RING NETWORKS)

A single-shipment volume offering is available for the IBM Token-Ring Network PC Adapter Feature and for the IBM PC Network Adapter Feature.

This offering applies to quantities contained in one customer order that are shipped in a single shipment to a single location, where the customer accepts delivery of all features. The offering may not be combined with any other discounts or allowances.

Customers will be able to order these features at reduced prices in quantities of 8 or 20.

Returns of adapter features ordered under this offering will only be considered for credit if they are returned in the same quantities as ordered.

Features purchased under this offering are intended for use within the customer's own business enterprise and not for remarketing.

Charges			
Description	Part Number	Feature Code	SSVO Price
IBM Token-Ring Network PC Adapter			
Quantity of 8	6339100	0370	\$ 4,726
Quantity of 20	6339100	0371	11,398
IBM PC Network Adapter			
Quantity of 8	6450213	0372	\$ 4,386
Quantity of 20	6450213	0373	10,578

Figure 16. Single Shipment Volume Offering Pricing

SOFTWARE - QUANTITY DISCOUNT AGREEMENT

1. The terms below are from Exhibit 3580-8, form Z125-3580-08, dated April 2, 1987.

If you have a different agreement in effect, its terms will govern your purchases. Under certain circumstances, you may cancel an existing QDA without penalty in order to accept the terms of the new Agreement. See your IBM Marketing Representative for details.

As of April 6, 1987

2. Contract Period Duration: 12 Months from the Commencement Date.

3. Discount Schedule:

Applies individually to each category.

The Quantity Discount Agreement provides a discount based on the total quantity of licensed programs committed from a designated category.

Quantity of Programs by Category	Discount Percent
20-49	12%
50-149	16%
150-249	20%
250-499	24%
500-999	27%
1000-1499	30%
1500 and up	35%*

* Applies only to products ordered on
5871-BBB, 5872-BBB, 5873-BBB, 5874-BBB, or 5876-BBB.

Figure 17. QDA Discount Levels

4. ADDITIONAL LICENSES: For Eligible Licensed Programs identified in this Exhibit as Programs for which Additional Licenses are available (AL Programs), in lieu of distribution from IBM, the Customer is permitted to copy machine readable program materials. Prior to ordering an Additional License for an AL Program, the Customer must be licensed to use the AL Program and have acquired at least one program package for each such AL Program. A "program package" includes the media on which the machine readable program materials are recorded, documentation, and other associated materials.

For each Additional License ordered and accepted by IBM, the Customer is authorized to make a single additional copy of the machine-readable program materials of an AL Program (an Additional License Copy). Additional License Copies are licensed under the IBM Program License Agreement contained in the QDA, as modified by this section.

An Additional License Copy may be a copy:

- downloaded to a machine,
- recorded on portable media,
- made by any other electronic means.

Documentation in printed form may not be copied.

Ordering

Additional Licenses for AL Programs may be ordered by the Customer under the

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QDA. Orders for Additional Licenses will be accepted only for quantities of 20 or more per AL Program.

No copies may be transferred to third parties. Labeling, auditability, and control requirements also exist. See the full text of the Agreement for details.

5. Settlement Charges: Settlement Charges have been eliminated.
6. The Customer may optionally extend the contract period once for three months with protected prices, subject to IBM approval, by committing to a quantity of programs that is approximately 25% higher than that in the Customer's original contract.
7. The customer is responsible for providing administrative and installation support at locations to which programs will be shipped.
8. END USER CERTIFICATION: The Customer represents that the Customer is licensing the programs bearing the IBM Trademark for use within its own business enterprise and not for remarketing.

THE FOLLOWING SECTION APPLIES ONLY TO THE PROGRAMS INDICATED IN THE ELIGIBLE LICENSED PROGRAM LIST WITH A DOUBLE ASTERISK (**).

9. TECHNICAL SUPPORT LOCATION/IBM SUPPORT CENTER SERVICE: The customer will identify to IBM a Technical Support Location in the United States or Puerto Rico. The Technical Support Location may register several Service Coordinators for eligibility to obtain IBM Support Center Service. Updates will be provided through object code refreshes. See "Technical Coordinator Program" on page 213.

THE FOLLOWING SECTION DOES NOT APPLY TO ADDITIONAL LICENSES, PROGRAM PACKAGE UPGRADES, AND THOSE ELIGIBLE LICENSED PROGRAMS INDICATED IN THE ELIGIBLE LICENSED PROGRAM LIST WITH AN ASTERISK (*).

10. TESTING PERIOD: For each Eligible Licensed Program which is in a category listed in the QDA, the Customer may order up to three copies of each such program for a testing period. The testing period will commence ten days after shipment of the program from IBM and end in two months or at the end of the Contract Period or the end of the Contract period as extended, which ever occurs first. At the end of the testing period, the Customer may elect to keep the evaluation copies and be billed by IBM, or the customer may elect to return the evaluation copies to IBM or destroy all evaluation copies of the program. The evaluation copies may not be transferred to any other party during the testing period.

SOFTWARE - ORDERING

Program categories are indicated in the product list by a letter which follows the four-digit feature code at the beginning of each entry. All programs of a given category assort together for determining the quantity discount that applies.

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This Reference can be formatted to provide a cross reference which gives the ordering vehicles valid for each feature code. This cross reference, if specified, will be found at the beginning of the index.

Category	Type/Model
A	5871-AAA, 5872-AAA, 5873-AAA, 5874-AAA, 5876-AAA
B	5871-BBB, 5872-BBB, 5873-BBB, 5874-BBB, 5876-BBB

Figure 18. QDA Ordering Vehicles

The categories below were used by earlier agreements. They are reproduced here for reference.

Category	Type/Model
L	5870-LLL or 5870-LLA
M	5875-MMM or 5875-MMA

Figure 19. QDA Ordering Vehicles (Old)

The above information applies to the Quantity Discount Agreement currently being offered by IBM. Certain previous agreements required ordering all software on an ordering vehicle number created by adding "-XXX" to the type (first four digits) of the system unit, e.g. "5150-XXX."

Software which is not covered under the Quantity Discount Agreement and which bears no other ordering vehicle is ordered under 5875-XXX.

REDISTRIBUTION OF PC SOFTWARE

The IBM PC Program License Agreement permits the customer to execute a given program on only a single machine at a time, and applies to all PC software marketed by IBM.

The customer may wish to redistribute certain IBM program modules as part of applications the customer has developed. IBM provides two Agreements which make this redistribution possible:

- The IBM PC Licensed Program Redistribution Agreement (Z125-3519, for redistribution to end users unaffiliated with the redistributor)
- The Amendment to the IBM Program License Agreement (Customer Redistribution) (Z125-3527, for redistribution within the redistributor's organization)

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If the customer's requirements are such that it is necessary to redistribute to both affiliated and unaffiliated end users, both agreements must be completed. The charges for redistribution to either category of users are the same, and there is no additional charge to redistribute to both environments.

The current cost of this service is a one-time charge of \$100 for registration as a Licensed Redistributor, in addition to the fee listed in the Exhibit for each application (not each copy of each application) containing IBM programs to be redistributed. The maximum total payment for applications used only within the internal organization of the customer is \$1000.

1) One Time Charge: \$100

2) Application Charges:

IBM Program Name	Item No.	Application Charge
-----	-----	-----
BASRUN.EXE	6135997	\$ 50
BASRUN20.EXE		
ISAM.EXE		
REBUILD.EXE		
COBRUN.EXE	6277763	50
PCSORT.EXE	6277783	700
REBUILD.EXE		
ADM.COM	6277784	100
INIT_VDI.EXE	6277785	500
(This Application Charge also includes all program files beginning with the letters VDI and ending with the letters .SYS that run with the VDI Controller Module VDI.SYS)		
Graphics Development Toolkit V.1.1	6280076	800

Figure 20. Redistribution Charges

The completed forms are to be mailed to IBM at P.O Box 1328, Department 5W4/236-2, Boca Raton, FL 33429.

The above terms and conditions apply only to redistribution within the United States and Puerto Rico. Other agreements apply outside that area.

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SOFTWARE - INDUSTRIAL COMPUTER SOFTWARE QUANTITY DISCOUNT AGREEMENT

1. Contract Period Duration: 18 Months from the Commencement Date.
2. Eligible Licensed Programs: See the section of Industrial Software, below.
3. Discount Schedule:

Applies individually to each category.

Discount Percent	Quantity of Programs by Category
10%	3-4
15%	5-14
20%	15-24
25%	25 and up

Figure 21. Industrial PC Software Discount Levels

4. Settlement Charges:

Category	A	B	C	D
Settlement Charge per Program	\$25	\$25	\$25	\$25

Figure 22. Industrial PC Settlement Charges

5. END USER CERTIFICATION: The Customer represents that the Customer is licensing the programs for use within its own business enterprise and not for re-marketing.
6. The customer is responsible for providing administrative and installation support at locations to which programs will be shipped.

HARDWARE AND SOFTWARE - PC/RT AMENDMENTS

HARDWARE - PC/RT VOLUME PROCUREMENT AMENDMENT

1. Contract Period Duration: 12 Months from the Commencement Date.
2. Eligible Machines:

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Category A	Category B	Category C
6150	6153	6157
6151	6154	
	6155	

Figure 23. PC/RT Hardware Categories

3. Discount Schedule

Discount Percent	---Quantity of Eligible Machines---		
	Category A	Category B	Category C
6%	4-6	4-6	4-6
12%	7-9	7-9	7-9
16%	10-12	10-12	10-12
20%	13-15	13-15	13-15
24%	16-18	16-18	16-18
27%	19-21	19-21	19-21
30%	22-24	22-24	22-24
33%	25-49	25-49	25-49
34%	50 and up	50 and up	50 and up

Figure 24. PC/RT Discount Levels

For features ordered for installation on an eligible machine during the Contract Period, the Discount Percent will be the machine Discount Percent for the applicable Category, with a maximum of 30%.

4. Price Protection: (The customer is protected from price increases during the period of the Agreement).
5. Settlement Charges: This charge will be assessed for each machine committed to but not taken during the Contract Period.

Category A	Category B	Category C
\$150	\$ 20	\$ 20

Figure 25. PC/RT Settlement Charges

6. End-User Certification: The Customer represents that the Customer is purchasing the machines for use within its own business enterprise and not for remarketing.

SOFTWARE - PC/RT LICENSED PROGRAMS QUANTITY DISCOUNT AGREEMENT

1. Contract Period Duration: 12 Months from the Commencement Date.
2. Eligible Licensed Programs: See the section of PC/RT Software, below.
3. Discount Schedule:

Applies individually to each category.

Discount Percent	Quantity of Programs by Category
11%	4-6
17%	7-9
22%	10-12
27%	13-15
32%	16-18
36%	19-21
39%	22-24
42%	25-49
43%	50 and up

Figure 26. PC/RT Software Discount Levels, Category A

Discount Percent	Quantity of Programs by Category
6%	4-6
12%	7-9
16%	10-12
20%	13-15
24%	16-18
27%	19-21
30%	22-24
33%	25-49
34%	50 and up

Figure 27. PC/RT Software Discount Levels, Category B

4. Adjustment Charges: (If the customer purchases fewer licenses than contracted for in any category, any unearned discount taken is repaid to IBM. There will also be a charge, calculated as one percent of the undiscounted value of the licenses actually accepted, added to the Adjustment Charge.)
5. End User Certification: The Customer represents that the Customer is licensing the programs bearing the IBM trademark for use within its own business enterprise and not for remarketing.

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SOFTWARE - IBM CAD/CAM PROGRAMS VOLUME LICENSE AMENDMENT

1. Contract Period Duration: 12 Months from the Commencement Date.
2. Eligible Licensed Programs:

Category A	Category B	Category C	Category D	Category E
-----	-----	-----	-----	-----
5669-193	5669-167	5669-192	5669-206	5669-207
		5713-ABF		5669-208
		5713-ABG		5669-209
Category F				

5713-AAP				
5713-AAW				
5713-AAX				
5713-AYY				
5713-AAZ				

Figure 28. IBM CAD/CAM Program Categories

3. Discount Schedule:

Discount Percent	---Quantity of Eligible Machines----		
	Category A	Category B	Category C
5%	5-10	5-20	N/A
10%	11-20	21-50	N/A
15%	21-30	51-100	6-10
20%	31 and up	101-150	N/A
25%		151 and up	11-25
30%			26-50
35%			51 and up

Figure 29. CAD/CAM Software Discount Categories A-C

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Discount Percent	---Quantity of Eligible Machines---		
	Category D	Category E	Category F
5%	N/A	N/A	N/A
10%	N/A	N/A	6-10
15%	N/A	3-8	11-25
20%	3-4	N/A	26-50
25%	N/A	N/A	51 and up
30%	5 and up	9 and up	
35%			

Figure 30. CAD/CAM Software Discount Categories D-E

4. Price Protection: (The customer is protected from price increases during the period of the Agreement).
5. Settlement Charges: This charge will be assessed for each program committed to but not taken during the Contract Period.

Category A	Category B	Category C
\$150	\$ 20	\$ 80
Category D	Category E	
\$ 15	\$ 75	

Figure 31. CAD/CAM Settlement Charges

SOFTWARE - IBM VOLUME LICENSE AMENDMENT FOR CAD/CAM LICENSED PROGRAMS

1. Contract Period Duration: 12 Months from the Commencement Date.
2. Eligible Licensed Programs:

Category A	Category B	Category C
-----	-----	-----
5669-191	5713-AAL	5713-AAN 5713-AAM

Figure 32. Eligible Programs, CAD/CAM VLA

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3. Discount Schedule:

Discount Percent	-----Quantity-----		
	Category A	Category B	Category C
5%	N/A	5-10	See
10%	N/A	11-20	Note
15%	6-10	21-30	Below
20%	N/A	31 and up	
25%	11-25		
30%	26-50		
35%	51 and up		

Figure 33. CAD/CAM Software Discount Levels

NOTE: Licensed Programs in Category C will receive the same Discount Percent and associated terms and conditions received by the programs in Category B but are not added together with Category B programs for determining the Category B discount.

4. End User Certification: The Customer represents that the Customer is licensing the programs for use within its own business enterprise and not for re-marketing.
5. Settlement Charges: This charge will be assessed for each program committed to but not taken during the Contract Period.

Category A	Category B	Category C
-----	-----	-----
\$50	\$85	N/A

Figure 34. CAD/CMA Settlement Charges

6. The customer is responsible for providing administrative and installation support at locations to which programs will be shipped.

MAINTENANCE - VOLUME MAINTENANCE AMENDMENT

The Volume Maintenance Amendment is available to customers who own the covered machines, or who are the primary users of the machines and who are authorized by the owner to include them under the amendment.

During the first year that machines are under the Amendment, the discount percentage will be based upon the total quantity of Qualifying Machines the customer commits will be under the Amendment at the end of the first year. The total quantity may also include those under warranty if the customer commits to include them under the Amendment immediately following the expiration of the war-

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warranty.

If, at the end of the first year, IBM determines that the total quantity of Qualifying Machines under the Amendment and under warranty is less than the committed quantity, IBM will bill the customer for any unearned discount.

The discount percentage used during the second year will be the percentage actually earned during the first year, including those committed machines on warranty at the end of the first year.

The discount percentage used in subsequent years will be based on the number of Qualifying Machines actually under the Amendment (not under warranty) at the end of the prior year.

The customer may increase the committed quantity during the first year, and may place additional machines under the Agreement at any time. If the new quantity results in a higher discount, the new discount will apply to machines placed under the amendment on or after the date that IBM issues a revised Supplement indicating the new confirmed quantity.

Only one type of service may be specified under an Amendment for any given machine type invoiced under a specific Customer Number.

Qualifying Machines

The quantity of machines of these types committed to or under the Amendment determines your Discount.

4860	5162	8530
4950	5170*	8550
5140	5171T	8560
5150	5271	8580
5155	5273	
5160	5371	
	5373	

* When Customer Carry-In Repair is selected for this Machine Type, it is not subject to the Volume Maintenance Amendment and therefore is not included in the Quantity of Qualifying Machines.

Figure 35. VMA Qualifying Machines

Discount Schedule

Quantity of Qualifying Machines	Minimum Quantity	Discount Percent
150-499	150	15%
500-999	500	20%
1000 and up	1000	25%

Figure 36. VMA Discount Levels

Eligible Machines

Maintenance for these machines may be discounted by the percentage determined above.

3852 Color Printer	5181 Compact Printer
4055 InfoWindow Display	5201 Quietwriter**
4201 Proprinter	5216 Wheelprinter
4202 Proprinter XL	5223 Wheelprinter E
4207 Proprinter X24	5272 Color Display
4208 Proprinter XL24	6180 Color Plotter
4216 Pers. Pageprinter	8503 Mono Display
4863 PCjr Display	8512 Color Display
4865 3.5in Dette Drive	8513 Color Display
4869 Diskette Drive	8514 Color Display
4971 Printer	1537 Hayes Transet
5144 Conv Mono Display	1538 HP Plotters
5145 Conv Color Display	1543 HP Thinkjet Printer
5151 Mono Display	1551 Epson Printers
5152 Printer	1552 Okidata Printers
5153 Color Display	1556 Amdek Mono Display
5154 Enhanced Display	1560 Tecmar Tape Backup
5161 Expansion Unit	1561 Tecmar Tape Backup
5167 Mono Display T	1575 Hayes Smartmodem
5169 Quietwriter T	1580 Amdek 300 Monitors
5173 PCNetwork Expander	
5175 Pro. Display	
5178 Translator Unit	

** When Customer Carry-In Repair is selected for this Machine Type, it is not subject to the Volume Maintenance Amendment.

Figure 37. VMA Eligible Machines

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MAINTENANCE - CORPORATE SERVICE AMENDMENT

The Corporate Service Amendment (CSA) to the IBM Maintenance Agreement provides for adjustment of maintenance charges on or after January 1, 1987, for customers who have data processing systems or networks and can demonstrate effective systems management control procedures, as defined by IBM, and determined by a detailed on-site assessment.

The Corporate Service Amendment has two options, a System Option for machine types installed in the customer's data center environment and a Network Option for machine types capable of attachment to a customer's telecommunications network.

The Electronic Customer Communications Option (ECCO) is a required function within the Network Option. ECCO is an IBM Personal Computer-based communications link with IBM. ECCO will allow customers who manage network service requirements from a central help desk to communicate with IBM regarding service via a telecommunications link. Using a customer-supplied PC with dial-up capabilities, the help desk will be able to request IBM service and to receive status updates on active IBM service calls.

Customers may obtain this offering, for eligible machines, following a qualification determination and payment of an initialization charge. The maintenance charge adjustment is established by machine type and is dependent upon the length of term selected by the customer, either one or three years.

For more information, see your IBM Marketing Representative.

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IBM SOLUTIONPAC OFFERINGS

IBM SOLUTIONPAC - LOCAL AREA NETWORK IMPLEMENTATION SERVICES

The LAN Implementation Services offerings assure logical design and provide physical network design, network product installation, end-user network orientation, and telephone assistance to the customer installing an IBM Token-Ring Network or an IBM PC Network.

LAN IMPLEMENTATION SERVICES I

LAN Implementation Services I assumes a simple environment with no wiring closets, wiring panels, or distribution racks. The LAN interconnection is accomplished through one or more 8228 Multistation Access Units for Token-Ring Networks. IBM Patch Cables or equivalents are used as the cabling system. For the IBM PC Network the IBM PC Network Cabling Kit (which includes the IBM 5178 PC Network Translator Unit) is the interconnection method. Neither bridging nor gateways are acceptable in the LAN Implementation Services definition of a simple environment.

IBM will review and document the logical design of the network as provided by the customer. IBM will provide a network physical design, including a written report outlining the physical requirements for the installation. IBM will install IBM Personal Computer workstations, selected workstation features and LAN software under this agreement.

IBM will install, configure, and test the IBM Token-Ring or IBM PC Network software on each network station, excluding applications software.

Local area network end-user orientation and customer telephone assistance for a period of 60 days are also included.

LAN IMPLEMENTATION SERVICES II AND IIA

LAN Implementation Services II and IIA assume a more complex environment where wiring closets, wiring panels, distribution racks, and/or 8228s are required. LAN Implementation Services II and IIA support multi-ring bridges and the presence of gateways.

Version IIA is for customers who already have the IBM Cabling System installed.

IBM will review and document the logical design of the network as provided by the customer. IBM will provide a network physical design, including a specification of work for installation of the IBM Cabling System to be installed by the customer.

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LAN IMPLEMENTATION SERVICES III

LAN Implementation Services III assumes that LAN Implementation Services II or IIa criteria have been satisfied.

IBM will install IBM Personal Computer workstations, selected workstation features and LAN software under this agreement.

IBM will install, configure, and test the IBM Token-Ring or IBM PC Network software on each network station, excluding applications software.

Local area network end-user orientation and customer telephone assistance for a period of 60 days are also included.

CHARGES

LIS-I	LAN Implementation Services I - Base Fee	1500
LIS-I	LAN Implementation Services I - Fee per Workstation	150
LIS-II	LAN Implementation Services II - Base Fee (inc. up to 100 drops)	9000
LIS-II	LAN Implementation Services II - Fee per 50 additional drops	500
LIS-IIa	LAN Implementation Services IIa - Base Fee (inc. up to 100 drops)	3500
LIS-IIa	LAN Implementation Services IIa - Fee per 50 additional drops	500
LIS-III	LAN Implementation Services III - Base Fee	1000
LIS-III	LAN Implementation Services III - Fee per Workstation	170

IBM SOLUTIONPAC - PERSONAL PUBLISHING

The IBM SolutionPac Personal Publishing System and Personal Publishing Option enhance the IBM PC family by providing the facilities to electronically design and layout documents, which contain text in a variety of type styles and graphics, for the application commonly known as "Desktop Publishing." Ninety days of end user usage and defect support is included.

The IBM SolutionPac Personal Publishing System includes:

- IBM Personal System/2 Model 30 (8530)
- IBM Personal System/2 Display (8503 or 8513)
- IBM Personal System/2 Mouse (FC 8770)
- IBM Personal Pageprinter (4216)
- IBM Personal Pageprinter Adapter
- IBM Personal Pageprinter Adapter Program
- IBM and Vendor environment/application software

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The IBM SolutionPac Personal Publishing Option upgrades an existing 5162, 5170, or 8530 and includes:

- IBM Personal Pageprinter (4216)
- IBM Personal Pageprinter Adapter
- IBM Personal Pageprinter Adapter Program
- IBM and Vendor environment/application software

The IBM and Vendor software referred to above includes:

- support for the full PostScript language
- Microsoft Windows
- Aldus Pagemaker

IBM SolutionPac, Personal Publishing System, with 8530 and Monochrome Display (3Q87)	8553
IBM SolutionPac, Personal Publishing System, with 8530 and Color Display (3Q87)	8988
IBM SolutionPac, Personal Publishing Option, to upgrade XT/286, AT, or 8530 (3Q87)	5793
Installation fee, SolutionPac Personal Publishing System (3Q87)	290
Installation fee, SolutionPac Personal Publishing Option (3Q87)	335

IBM SOLUTIONPAC - BRANCH BANKING AUTOMATION

IBM has customizing services for selected Branch Banking Automation software. IBM Information Services - Professional Services will provide fee offerings to help customers plan, design, customize, and implement the following Personal Computer-based products:

- BANCStar 4700 Series
- Branchbanker 4700
- Safe Deposit 4700
- Currency Control 4700
- Loan Loss Control 4700

Customers can select from a list of service offerings that best fit their implementation requirements.

The fee offerings include:

Finance Software Planning

This is a fixed-price consulting service, performed on the customer's premises, that will produce a project plan which identifies the tasks required to install the customer's selected software. As part of the offering, the customer will receive an application customizing guide and instructions to assist in identifying unique application requirements.

Finance Software Design

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This is a fixed-price consulting service, performed on the customer's premises using Joint Application Design techniques to complete the application mark-up document.

Finance Software Customizing

Customizing the software products is performed by a Finance Industry Customer Support Team located at an IBM facility in Charlotte, North Carolina for a fixed price. The customizing service results in either machine-readable or source code, and appropriate documentation.

Customizing is limited to the use of standard customizing facilities available in each product. If further customizing is required, IBM can propose modification services through the use of exits provided by the product.

Finance Software Implementation Assistance

Services are available for those customers needing implementation assistance for the customized software.

IBM SOLUTIONPAC - STORE INSTALLATION SERVICES

IBM Store Installation Services consist of six individual service offerings for retail stores customers. These services are designed to assist customers to easily install IBM Point-of-Sale systems and IBM In-Store processors in their stores by selecting the service offering(s) from IBM that match their needs.

The 4680-related offerings are:

IBM 4680 INSTALLATION PLANNING

IBM will provide a unique, tailored installation package including loop wiring and addressing information.

IBM 4680 INSTALLATION (PILOT STORES)

IBM will unpack, assemble, and connect to existing wiring, customize (by entering the provided parameters), load application code, and test the IBM 4680 system at the customer's pilot location(s).

IBM 4680 APPLICATION INSTALLATION AND CUSTOMIZATION

IBM will install the IBM 4680 operating system and the General Sales Application, the Grocery Sales Application, or the Drug Sales Application on the

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customer's IBM 4680 system. IBM will customize (by entering the provided parameters) the application and system software.

Other services, not outlined below in "Charges," are also available.

CHARGES

4680 Installation Planning, per store location	650
4680 Installation for the first 5170 store controller, the first 4683, and the first 3687, plus software	650
Installation for each additional 5170 store controller, installed at the same location at the same time	175
Installation for each additional 4683, installed at the same location at the same time	115
Installation for each additional 3687, installed at the same location at the same time	60
Installation for each 5153, installed at the same location at the same time	60
Installation for each 5178, installed at the same location at the same time	60
4680 Application Software Installation and Customization for each store installation	4750

IBM SOLUTIONPAC - CONSTRUCTION INDUSTRY SERIES

The IBM SolutionPac - Construction Industry Series offerings each provide a combination of (1) accounting and information handling licensed programs for a specific construction environment, (2) installation and education services, and (3) end user support. These SolutionPacs can assist construction firms requiring financial information on a real-time basis and desiring specialized reports and inquiries with the options to add other accounting applications and networking. The support services in these offerings include installation of the SolutionPac software, education on the use of the SolutionPac, and technical support through a response line for 90 days.

This SolutionPac is a service of selected IBM Authorized PC Dealers and Value Added Dealers, and is based on a series of Timberline Software products.

IBM SOLUTIONPAC - BUSINESS ADVISER FINANCIAL ACCOUNTING

The IBM SolutionPac - Business Adviser Financial Accounting offerings each provide a combination of (1) financial accounting and information handling licensed programs, (2) installation and education services, and (3) end user support.

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These SolutionPacs can assist small businesses requiring financial information on a real-time basis and desiring specialized reports and inquiries with the options to add other accounting applications and networking. The support services in these offerings include installation of the SolutionPac software, education on the use of the SolutionPac, and IBM support through an 800 number for 90 days.

This SolutionPac is a service of selected IBM Authorized PC Dealers and Value Added Dealers, and is based on IBM Business Adviser software.

IBM SOLUTIONPAC - DOCTOR'S OFFICE MANAGEMENT

IBM SolutionPac - Doctor's Office Management provides packaged software and services to the medical professional. The applications are designed to meet the need of the professional in handling office functions such as billing, insurance, accounts receivable, patient-record keeping, and appointment scheduling. This SolutionPac also includes program installation, end user education, and technical support through an 800 number for 90 days.

This SolutionPac is a service of selected IBM Authorized PC Dealers and Value Added Dealers, and is based on IBM Doctor's Office Management software.

IBM SOLUTIONPAC - CADWRITE DESIGN AND DRAFTING SYSTEM

IBM SolutionPac - CADwrite Design and Drafting System is a two-dimensional drafting system with isometric capability targeted for the single workstation personal computer. The SolutionPac includes CADwrite and PC DOS. This SolutionPac also includes program installation, education on use of the SolutionPac, and IBM support through an 800 number for 90 days.

This SolutionPac is a service of selected IBM Authorized PC Dealers and Value Added Dealers, and is based on CADwrite Design and Drafting System software.

IBM SOLUTIONPAC - LEGAL PROFESSION SERIES

The IBM SolutionPac - Legal Profession Series provides application support to improve productivity in the legal environment. Each configuration includes Manac-Omnilaw as a prerequisite and at least one additional application module from IBM or Manac. The Lawyer's Assistant configuration includes a prepackaged set of Assistant Series modules, and the Law Firm Secretarial configuration includes IBM Displaywrite/4, IBM Displaywrite Legal Support, and IBM Index Support. All other modules are provided by Manac. The support services in this offering include installation of the SolutionPac software, education on use of the SolutionPac, and IBM support through an 800 number for 90 days.

This SolutionPac is a service of selected IBM Authorized PC Dealers and Value Added Dealers.

MODEL/FC VPA	DESCRIPTION	PRICE
PROCESSORS - PERSONAL SYSTEM/2 (EXCEPT 8530)		

Personal System/2 system units are not compatible with standard PC, PC/XT, or PC/AT adapters.

Personal System/2 system units require a Personal System/2 analog display.

8550-021 a	Personal System/2 Model 50 (1MB) w/ 10MHz 80286 CPU, Enhanced Keyboard, Keylock, Clock/Calendar, 3.5in 1.44MB Diskette, 20MB Fixed Disk, and integrated display, DASD, serial/parallel, pointing device adapter	3595
8560-041 a	Personal System/2 Model 60 (1MB) w/ 10MHz 80286 CPU, Enhanced Keyboard, Keylock, Clock/Calendar, 3.5in 1.44MB Diskette, 44MB Fixed Disk, and integrated display, DASD, serial/parallel, pointing device adapter	5295
8560-071 a	Personal System/2 Model 60 (1MB) w/ 10MHz 80286 CPU, Enhanced Keyboard, Keylock, Clock/Calendar, 3.5in 1.44MB Diskette, 70MB Fixed Disk, and integrated display, DASD, serial/parallel, pointing device adapter (2Q87)	6295
8580-041 a	Personal System/2 Model 80 (1MB) w/ 16MHz 80386 CPU, Enhanced Keyboard, Keylock, Clock/Calendar, 3.5in 1.44MB Diskette, 44MB Fixed Disk, and integrated display, DASD, serial/parallel, pointing device adapter (7/87)	6995
8580-071 a	Personal System/2 Model 80 (2MB) w/ 16MHz 80386 CPU, Enhanced Keyboard, Keylock, Clock/Calendar, 3.5in 1.44MB Diskette, 70MB Fixed Disk, and integrated display, DASD, serial/parallel, pointing device adapter (7/87)	8495
8580-111 a	Personal System/2 Model 80 (2MB) w/ 20MHz 80386 CPU, Enhanced Keyboard, Keylock, Clock/Calendar, 3.5in 1.44MB Diskette, 115MB Fixed Disk, and integrated display, DASD, serial/parallel, pointing device adapter (4Q87)	10995

PERSONAL SYSTEM/2 SUPPORT PUBLICATIONS (EXCEPT 8530)

S68X-2247	Quick Reference, Personal System/2 Model 50	45
S68X-2213	Quick Reference, Personal System/2 Model 60	45
S68X-2259	Quick Reference, Personal System/2 Model 80-041, -071	45
68X2284	Quick Reference, Personal System/2 Model 80-111	45

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MODEL/FC VPA	DESCRIPTION	PRICE
S68X-2246	Setup Sheet, Personal System/2 Model 50	3
S68X-2209	Setup Sheet, Personal System/2 Model 60	3
S68X-2222	Hardware Maintenance Service, Personal System/2	175
S68X-2255	Hardware Maintenance Service Supplement, Personal System/2 Model 80-041, -071	75
S68X-2286	Hardware Maintenance Service Supplement, Personal System/2 Model 80-111	75
S68X-2221	Hardware Maintenance Reference, Personal System/2	125
S68X-2254	Hardware Maintenance Reference Supplement, Personal System/2 Model 80-041, -071	50
S68X-2287	Hardware Maintenance Reference Supplement, Personal System/2 Model 80-111	50
S229-9605	Hardware Maintenance Binder, Personal System/2	??
S68X-2224	Technical Reference Manual, Personal System/2 (Model 50, 60 systems)	125
S68X-2256	Technical Reference Manual, Personal System/2 (Model 80-041, -071)	125
S68X-2285	Technical Reference Manual Update, Personal System/2 (Model 80-111)	125
S68X-2260	Technical Reference Manual, Personal System/2 (BIOS)	75
S229-9606	Technical Reference Binder, Personal System/2	??

PROCESSOR FEATURES - PERSONAL SYSTEM/2 (EXCEPT 8530)

3001 a	IBM Personal System/2 80287 Math Co-Processor	525
3002 a	IBM Personal System/2 80387 Math Co-Processor (for 8580 model 041, 071) (3Q87)	795
8720 a	IBM Personal System/2 80387 Math Co-Processor (for 8580 model 111) (4Q87)	1195

MEMORY - PERSONAL SYSTEM/2 (EXCEPT 8530)

3006 a	IBM Personal System/2 80286 Memory Expansion Option (.5MB standard, maximum 2MB)	549
3012 a	IBM Personal System/2 80286 Memory Expansion Kit (.5MB, for use on FC 3006)	165
S68X-2227	Technical Reference Manual, 80286 Memory Expansion, Personal System/2	6
3009 a	IBM Personal System/2 80386 System Board Memory Expansion Kit (1MB, for 8580-041 only) (7/87)	695

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MODEL/FC VPA	DESCRIPTION	PRICE
3019 a	IBM Personal System/2 80386 Memory Expansion Option (2MB standard, max. 6MB) (7/87)	1595
3064 a	IBM Personal System/2 80386 Memory Expansion Kit (2MB, for use on FC 3019) (7/87)	1295
S68X-2257	Technical Reference Options/Adapters Manual, 2MB-6MB Memory Expansion Option, Personal System/2	10
8722 a	IBM Personal System/2 80386 System Board Memory Expansion Kit (2MB, for 8580-111 only) (4Q87)	1295
3920 a	IBM 2MB Expanded Memory Adapter/A (XMA) for Personal System/2 Models 50 and 60, supported by 3270 Workstation Program as XMA, EMS, and VDISK, (10/87)	1045
SA23-1043	Technical Reference Manual, 2MB Expanded Memory Adapter/A (XMA)	??
SA23-1032	Hardware Maintenance Service Update, 2MB Expanded Memory Adapter/A (XMA)	??

DIRECT-ACCESS STORAGE DEVICES, PERSONAL SYSTEM/2 (EXCEPT 8530)

3057 a	IBM Personal System/2 1.44MB Diskette Drive (3Q87)	245
S68X-2225	Technical Reference Manual, 720KB/1.44MB Diskette Drive, Personal System/2	6
8760 a	Personal System/2 5.25in External Diskette Drive Adapter/A for attaching 4869-1 to Personal System/2 except 8530 (5/87)	60
S68X-2219	Technical Reference Manual, 20MB Fixed Disk Drive, Personal System/2 Model 50	10
S68X-2226	Technical Reference Manual, Fixed Disk Adapter, Personal System/2 Model 50	12
S68X-2234	Technical Reference Manual, ESDI Adapter/A, Personal System/2	12
3046 a	IBM Personal System/2 44MB Fixed Disk Drive (for 8560-041, 8580-041) (3Q87)	1395
S68X-2233	Technical Reference Manual, 44MB Fixed Disk Drive, Personal System/2	6
3051 a	IBM Personal System/2 70MB Fixed Disk Drive (ESDI technology, for 8560-071, 8580-071, 8580-111) (3Q87)	2395
S68X-2235	Technical Reference Manual, 70MB Fixed Disk Drive, Personal System/2	6
8730 a	IBM Personal System/2 115MB Fixed Disk Drive (ESDI technology, for 8560-071, 8580-071, 8580-111) (4Q87)	3495

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MODEL/FC VPA	DESCRIPTION	PRICE
S68X-2236	Technical Reference Options/Adapters Manual, 115MB Fixed Disk, Personal System/2	6
8700 b	Internal Optical Disk Drive (200MB, removable media, write once) (installs in Personal System/2 Model 60 and 80) (4Q87)	2700
3363-A11 b	External Optical Disk Drive (200MB, removable media, write once) (attaches to Personal System/2 except Model 30) (3Q87)	2950

TAPE BACKUP DEVICES, PERSONAL SYSTEM/2 (EXCEPT 8530)

4160	6157 Tape Attachment Adapter for Personal System/2, req. SY-TOS Tape Utilities V.2 (9/87)	350
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MISCELLANEOUS FEATURES, PERSONAL SYSTEM/2 (EXCEPT 8530)

8770 a	IBM Personal System/2 Mouse (two-button mechanical, attaches to integrated pointing-device port, also for 8530)	95
S68X-2229	Technical Reference Manual, Mouse, Personal System/2	6

DISPLAYS AND ATTACHMENTS, PERSONAL SYSTEM/2 (EXCEPT 8530)

Computer by means of the IBM Display Adapter, FC 4050. The IBM Display Adapter provides enhanced function for the 8530.

The following displays are supported on the IBM Personal

8503-001 b	Personal System/2 Monochrome Display (12in Diagonal) (64 grey shades, 80 character x 25 line, 720H x 400V resolution (640H x 480V graphics), .35 Megapel	250
8512-001 b	Personal System/2 Color Display (14in Diagonal) (256 colors from palette of 256K, 80 character x 25 line, 720H x 400V resolution (640H x 480V graphics), .35 Megapel	595
5004 a	Color Display Stand for 8512 Display	35
8513-001 b	Personal System/2 Color Display (12in Diagonal) (256 colors from palette of 256K, 80 character x 25 line, 720H x 400V resolution (640H x 480V graphics), .35 Megapel	685

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MODEL/FC VPA	DESCRIPTION	PRICE
8514-001 b	Personal System/2 Color Display (16in Diagonal) (256 colors from palette of 256K, up to 146 character x 51 line, 1024H x 768V resolution, .79 Megapel (6/87)	1550
S68X-2206	Technical Reference Manual, 8503, 8512, 8513 Displays for Personal System/2	6
S68X-2214	Technical Reference Manual, 8514 Display for Personal System/2	6
S68X-2218	Hardware Maintenance Reference Supplement, Personal System/2 8514 Display	6
All models of the Personal System/2 contain integrated monochrome and color graphics adapters for analog displays. The following features provide enhanced functions.		
4054 a	IBM Display Adapter 8514/A for Personal System/2 (exc. 8530) (Supports 8514 with 1024x768x16 color, performance improvements, 146 char x 51 lines, also grey scale) (6/87)	1290
4081 a	IBM 8514 Memory Expansion Kit for Personal System/2 (exc. 8530) (attaches to FC 4054) provides 256 colors from palette of 256K colors plus 64 grey levels on mono displays (6/87)	270
S68X-2251	Technical Reference Manual, Display Adapter 8514/A, Personal System/2	10
S68X-2248	Technical Reference Manual, Display Adapter 8514/A, Personal System/2	10
S68X-2249	Hardware Maintenance Reference Supplement, Personal System/2 Display Adapter 8514/A	6
S68X-2250	Hardware Maintenance Service Supplement, Personal System/2 Display Adapter 8514/A	6
S68X-2279	Display Adapter 8514/A Interface Application Developer's Tutorial	25

IMAGE DEVICE ATTACHMENT - PERSONAL SYSTEM/2 (EXCEPT 8530)

1029 a	3117 Adapter/A for Personal System/2 (exc. 8530) (Connects 3117, Pers Sys/2, Req. cable FC 3005)	280
SC18-2153	Technical Reference, 3117 Adapter/A	9.95
SK2T-0952	Hardware Maintenance and Service, 3117 Adapter/A	30
1028 a	High Speed Adapter/A for Personal System/2 (exc. 8530) (Connects 3118, or 3117 with Expansion Unit to Pers Sys/2 at 1mbps RS422, req. serial communications cable FC 0217) (5/87)	295
SC18-2155	Technical Reference, High Speed Adapter/A	13.25

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MODEL/FC VPA	DESCRIPTION	PRICE
SK2T-0953	Hardware Maintenance and Service, High Speed Adapter/A	23.75

MODEL/FC VPA	DESCRIPTION	PRICE
COMMUNICATIONS HARDWARE AND SOFTWARE - PERSONAL SYSTEM/2 (EXCEPT 8530)		

GENERAL

All models of the Personal System/2 contain integrated serial and parallel adapters. The following features provide enhanced functions.

3042 a	IBM Personal System/2 Multi-Protocol Adapter/A (supports async, BSC, HDLC, SDLC to 19.2KBPS)	295
S68X-2220	Technical Reference Manual, Multi-Protocol Adapter/A, Personal System/2	12

ASYNCHRONOUS COMMUNICATION, PERSONAL SYSTEM/2 (EXCEPT 8530)

See also the Multi-Protocol Communication Adapter/A

0349 a	IBM Personal System/2 300/1200 Internal Modem/A (asynchronous)	395
S68X-2275	Technical Reference Manual, Internal Modem/A, Personal System/2	6
S68X-2274	Hardware Maintenance Reference Supplement, 300/1200 Modem/A	12
3033 a	IBM Personal System/2 Dual Async Adapter/A (2 independent async ports to 19.2KBPS, max. 3 per system)	210
S68X-2217	Technical Reference Manual, Dual Async Adapter/A, Personal System/2	6

TWINAXIAL S/36, S/38 ATTACHMENT, PERSONAL SYSTEM/2 (EXCEPT 8530)

6279 a	IBM System 36/38 Workstation Emulation Adapter/A and Quick Reference (incl. Diagnostics, 12/87)	620
6293 a	IBM System 36/38 Workstation Emulation Attachment Cable (12/87)	65
SY31-9053	IBM System 36/38 Workstation Emulation Adapter Hardware Maintenance and Service (12/87)	??
SA21-9862	IBM System 36/38 Workstation Emulation Adapter Technical Reference (12/87)	??
SA21-9925	IBM System 36/38 Workstation Emulation Adapter/A Quick Reference and Diagnostics (12/87)	??

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MODEL/FC VPA	DESCRIPTION	PRICE
6286 A	IBM System 36/38 Workstation Emulation Program V.1.0 (4 sessions, graphics support) (3.5in) Test Period 2 months, Warranted, Central Service to 12/90 (12/87)	160
6287 A	IBM System 36/38 Workstation Emulation Program Convenience Kit, (incl. FC 6286, 6297, 6293, SA21-9925) Test Period 2 months, Warranted, Central Service to 12/90 (12/87)	845
SC21-8068	System 36/38 Workstation Emulation Program Technical Reference (12/87)	??

COAXIAL COMMUNICATIONS, PERSONAL SYSTEM/2 (EXCEPT 8530)

2000 a	IBM 3270 Connection for Personal System/2 (coax adapter) (5/29/87, except attachment to 8580-041/-071 available 9/25/87)	595
G126-0190	3270 Connection Quick Reference and Diagnostics (5/29/87)	??
GA23-0339	3270 Connection Technical Reference (5/29/87)	??

LOCAL AREA NETWORKS, PERSONAL SYSTEM/2 (EXCEPT 8530)

IBM TOKEN-RING NETWORK, PERSONAL SYSTEM/2 (EXCEPT 8530)

8228-KT3	IBM Token-Ring Network Starter Kit/A (1-8228, 1-Component Housing, 4-TR PC Adapter/A, 4-TR PC Cable, 4-30ft. Jumper Cable, 4-LAN Support Pgm, 4-LAN Pgm 1.2, TR Starter Kit Guide) (5/87)	4710
4790 a	IBM Token-Ring Network Adapter/A for Personal System/2 (function equivalent to Adapter II)	795
8881 a	Remote Program Load for Token-Ring Network Adapter/A (EPROM) (6/87)	90
6466690	Update to Token-Ring Network PC Adapter Technical Reference for the Adapter/A (Chapter 9)	??
83X9112	IBM Token-Ring Network Adapter/A Hardware Maintenance Reference and Service Manual	270

IBM PC NETWORK, PERSONAL SYSTEM/2 (EXCEPT 8530)

1222 a	IBM PC Network Adapter II/A (broadband, 1 per PC, incl. 9-ft. coax, req. LAN Support Program or PC Network Protocol Driver)	570
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MODEL/FC VPA	DESCRIPTION	PRICE
S68X-2263	IBM PC Network Adapter II/A Technical Reference	21.25
S68X-2271	IBM PC Network Hardware Maintenance and Service Supplement/A	8.50
1223 a	IBM PC Network Baseband Adapter/A (req. LAN Support Program)	470
S68X-2264	IBM PC Network Baseband Adapter/A Technical Reference	21.25

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MODEL/FC VPA

DESCRIPTION

PRICE

As of April 6, 1987

MODEL/FC VPA

DESCRIPTION

PRICE

OPERATING SYSTEM/2 SOFTWARE

OS/2 OPERATING SYSTEMS AND PROGRAMMING AIDS

OPERATING SYSTEM/2 AND COMPILERS

7900 A	IBM Operating System/2 V.1.1 Extended Edition (3.5in) Test Period 2 months, Warranted, Central Services for 12 months from availability ** (availability will be announced 4Q87)	795
7899 A	IBM Operating System/2 V.1.1 Extended Edition (5.25in) Test Period 2 months, Warranted, Central Services for 12 months from availability ** (availability will be announced 4Q87)	795
0634 A	ADDITIONAL LICENSE, IBM Operating System/2 V.1.1 Extended Edition	595
0660 C	DOCUMENTATION ONLY, IBM Operating System/2 V.1.1 Extended Edition	N/A
0661 B	UPGRADE, IBM Operating System/2 V.1.0 Standard Edition to Extended Edition 1.1 (3.5in) (through ??)	645
0662 B	UPGRADE, IBM Operating System/2 V.1.0 Standard Edition to Extended Edition 1.1 (5.25in) (through ??)	645
0644 B	ADDITIONAL LICENSE of UPGRADE, IBM Operating System/2 V.1.0 Standard Edition to Extended Edition 1.1	460
0809 A	IBM Operating System/2 V.1.1 Standard Edition (3.5in) Test Period 2 months, Warranted, Central Services for 12 months from availability **	325
0810 A	IBM Operating System/2 V.1.1 Standard Edition (5.25in) Test Period 2 months, Warranted, Central Services for 12 months from availability **	325
0640 A	ADDITIONAL LICENSE, IBM Operating System/2 V.1.1 Standard Edition	290
0642 C	DOCUMENTATION ONLY, IBM Operating System/2 V.1.1 Standard Edition	??
0811 A	IBM Operating System/2 V.1.1 Standard Edition Programmer's Toolkit, Test Period 2 months, Warranted, Central Service for 12 months from availability ** (available ??)	750
0812 A	IBM Operating System/2 V.1.1 Standard Edition Technical Reference, Test Period 2 months, Warranted, Central Service for 12 months from availability ** (available ??)	200

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MODEL/FC VPA	DESCRIPTION	PRICE
0923 A	IBM Operating System/2 V.1.0 Standard Edition (3.5in) Test Period 2 months, Warranted, Central Services for 12 months from availability ** (1Q88)	325
0925 A	IBM Operating System/2 V.1.0 Standard Edition (5.25in) Test Period 2 months, Warranted, Central Services for 12 months from availability ** (1Q88)	325
0639 A	ADDITIONAL LICENSE, IBM Operating System/2 V.1.0 Standard Edition	290
0641 C	DOCUMENTATION ONLY, IBM Operating System/2 V.1.0 Standard Edition	??
0927 A	IBM Operating System/2 V.1.0 Standard Edition Programmer's Toolkit, Test Period 2 months, Warranted, Central Service for 12 months from availability ** (1Q88)	750
0928 A	IBM Operating System/2 V.1.0 Standard Edition Technical Reference, Test Period 2 months, Warranted, Central Service for 12 months from availability ** (1Q88)	200
6280197	Transitional Offering, Upgrade DOS 3.X to Operating System/2 V.1.0 (3.5in, available through 3Q88)	200
6280199	Transitional Offering, Upgrade DOS 3.X to Operating System/2 V.1.0 (5.25in, available through 3Q88)	200
0820 A	IBM Macro Assembler/2 (1Q88) Test Period 2 months	225
0822 A	IBM BASIC Compiler/2 (1Q88) Test Period 2 months	595
0818 A	IBM C/2 Compiler (1Q88) Test Period 2 months	525
0816 A	IBM Cobol/2 Compiler (1Q88), Test Period 2 months	900
0824 A	IBM FORTRAN/2 Compiler (1Q88) Test Period 2 months	595
0826 A	IBM PASCAL/2 Compiler (1Q88) Test Period 2 months	595

GRAPHICS SOFTWARE, OPERATING SYSTEM/2

0930 A	IBM Operating System/2 Graphics Development ToolKit, Test Period 2 months (1Q88)	1100
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WORD PROCESSING PROGRAMS, OPERATING SYSTEM/2

IBM DISPLAYWRITE 4/2 SERIES FOR OPERATING SYSTEM/2

1121 A	DisplayWrite 4/2 (3.5in) Test Period 2 months, Warranted, Central Service for 90 days (1Q88)	495
1122 A	DisplayWrite 4/2 (5.25in) Test Period 2 months, Warranted, Central Service for 90 days (1Q88)	495
0663 A	ADDITIONAL LICENSE, DisplayWrite 4/2	425

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MODEL/FC VPA	DESCRIPTION	PRICE
0665 C	DOCUMENTATION ONLY, DisplayWrite 4/2	70
1124 B	UPGRADE, DisplayWrite 4 to DisplayWrite 4/2 (3.5in) (through ??)	125
1123 B	UPGRADE, DisplayWrite 4 to DisplayWrite 4/2 (5.25in) (through ??)	125
0664 B	ADDITIONAL LICENSE of UPGRADE, DisplayWrite 4 to DisplayWrite/2	100

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MODEL/FC VPA

DESCRIPTION

PRICE

As of April 6, 1987

MODEL/FC VPA

DESCRIPTION

PRICE

IBM PERSONAL SYSTEM/2 MODEL 30 AND PERSONAL COMPUTER PROCESSORS AND FEATURES

PC SUPPORT PUBLICATIONS

2510 a Guide to Operations Manual - IBM PC (order via PCTB)	50
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PROCESSORS - PC/XT VERSIONS

The following system units are based on a planar board (motherboard) capable of holding up to 640KB of memory

5160-268 a IBM PC/XT System Unit (256KB) w/enhanced keyboard, and one Half-high Diskette drive	1395
5160-278 a IBM PC/XT System Unit (256KB) w/enhanced keyboard, and two Half-high Diskette drives	1545
5160-089 a IBM PC/XT System Unit (640KB) w/enhanced keyboard, one 20MB Fixed Disk, one Half-high Diskette drive, and ASYNC Comm adapter	2660

PC/XT SUPPORT PUBLICATIONS

3085 a PC/XT Guide to Operations (models 089, 268, 278) (order via PCTB)	80
3089 a Technical Reference Manual - IBM PC/XT (640KB motherboard models and Portable) (order via PCTB)	49.75
2511 a Guide to Operations Manual - IBM PC/XT (prior models) (order via PCTB)	50

PROCESSORS - PC/XT 286 VERSIONS

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PROCESSORS - PERSONAL SYSTEM/2 MODEL 30

The Personal System/2 Model 30 supports many PC and PC/XT adapters.

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MODEL/FC VPA	DESCRIPTION	PRICE
	Personal System/2 system units require a Personal System/2 analog display.	
8530-002 a	Personal System/2 Model 30 (640KB) w/ 8MHz 8086 CPU, Enhanced Keyboard, Keylock, Clock/Calendar, two 3.5in 720KB Diskette Drives, and integrated display, DASD, serial/parallel, pointing device adapter	1695
8530-021 a	Personal System/2 Model 30 (640KB) w/ 8MHz 8086 CPU, Enhanced Keyboard, Keylock, Clock/Calendar, 3.5in 720KB diskette, 20MB Fixed Disk, and integrated display, DASD, serial/parallel, pointing device adapter	2295

SUPPORT PUBLICATIONS - PERSONAL SYSTEM/2 MODEL 30

S68X-2239	Personal System/2 Model 30 Setup Instructions	3
S68X-2230	Personal System/2 Model 30 Guide to Operations	45
S68X-2201	Personal System/2 Model 30 Technical Reference Manual	75
S68X-2205	Technical Reference Manual Supplement, 8530 Fixed Disk Drive	6
S68X-2202	Personal System/2 Model 30 Hardware Maintenance Service	30
S68X-2203	Personal System/2 Model 30 Hardware Maintenance Service Reference Supplement	10
5162-286 a	IBM PC/XT 286 System Unit (640KB) w/ 6MHz 80286 CPU, Serial/Parallel Adapter, Enhanced Keyboard, Clock/Calendar, 20MB Fixed Disk, High-Capacity Diskette Drive and Adapter	2810
72X8498	Battery, PC/XT 286 Clock	8.95
	The PC/XT 286 also supports the 720KB 3.5in Diskette Drive (FC 0357) of the PC/AT	
0359 a	High Capacity Diskette Drive (1.2MB), PC/XT 286	275
0360 a	360KB 5.25in Diskette Drive, PC/XT 286	225

PC/XT 286 SUPPORT PUBLICATIONS

3216	IBM PC/XT 286 Guide to Operations (order via PCTB)	65
3210	Technical Reference Manual - PC/XT 286 (order via PCTB)	50

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MODEL/FC VPA	DESCRIPTION	PRICE
PROCESSORS AND OPTIONS - PC/AT VERSIONS		
5170-068 a	IBM PC/AT System Unit (256KB) w/ 6MHz 80286 CPU, PC/AT Keyboard, Keylock, Clock/Calendar, one High-Capacity Diskette Drive and Adapter	3395
5170-319 a	IBM PC/AT System Unit (512KB) w/ 8MHz 80286 CPU, PC/AT Keyboard, Keylock, Clock/Calendar, one High-Capacity Diskette Drive, one 30MB Fixed Disk and Adapter, and Serial/Parallel Adapter	4595
5170-339 a	IBM PC/AT System Unit (512KB) w/ 8MHz 80286 CPU, Enhanced Keyboard, Keylock, Clock/Calendar, one High-Capacity Diskette Drive, one 30MB Fixed Disk and Adapter, and Serial/Parallel Adapter	4595

PC/AT SUPPORT PUBLICATIONS

3102 a	Guide to Operations Manual - IBM PC/AT (8MHz motherboard model 339) (order via PCTB)	80
0066 a	Guide to Operations Manual - IBM PC/AT (6MHz models) (order via PCTB)	49.50

PROCESSORS - 3270-PC VERSIONS

For associated software, see "Coaxial Communication (3270-PC Family)" on page 91.

5271 models with XMA or the Enhanced Keyboard require 3270-PC Control Program Version 3.0 or later.

The following system units are based on a planar board (motherboard) capable of holding up to 256KB of memory.

5271-002 a	IBM 3270-PC (256KB) w/3270-PC Keyboard and one Dual-Sided Diskette Drive (Discount Group A2) (W/D 7/2/87)	3620
5271-004 a	IBM 3270-PC (384KB) w/3270-PC Keyboard and two Dual-Sided Diskette Drives, Printer Adapter (Discount Group A2) (W/D 7/2/87)	4075
5271-006 a	IBM 3270-PC (384KB) w/3270-PC Keyboard and one Dual-Sided Diskette Drive, one 10MB Disk Drive, Printer Adapter (Discount Group A2) (W/D 7/2/87)	4575

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MODEL/FC VPA	DESCRIPTION	PRICE
The following system units are based on a planar board (motherboard) capable of holding up to 640KB of memory		
5271-030 a	IBM 3270-PC (640KB) w/3270-PC Keyboard and one Half-Height Diskette Drive, Printer Adapter (Discount Group A2) (W/D 7/2/87)	3860
5271-P30 a	As model 030, but with Enhanced Keyboard (Discount Group A2) (W/D 7/2/87)	3860
5271-031 a	IBM 3270-PC (256KB + XMA) w/3270-PC Keyboard and one Half-Height Diskette Drive, Printer Adapter (Discount Group A2) (W/D 7/2/87)	4870
5271-P31 a	As model 031, but with Enhanced Keyboard (Discount Group A2) (W/D 7/2/87)	4870
5271-050 a	IBM 3270-PC (640KB) w/3270-PC Keyboard and two Half-Height Diskette Drives, Printer Adapter (Discount Group A2) (W/D 7/2/87)	4010
5271-P50 a	As model 050, but with Enhanced Keyboard (Discount Group A2) (W/D 7/2/87)	4010
5271-051 a	IBM 3270-PC (256KB + XMA) w/3270-PC Keyboard and two Half-Height Diskette Drives, Printer Adapter (Discount Group A2) (W/D 7/2/87)	5020
5271-P51 a	As model 051, but with Enhanced Keyboard (Discount Group A2) (W/D 7/2/87)	5020
5271-070 a	IBM 3270-PC (640KB) w/3270-PC Keyboard and one Half-Height Diskette Drive, 20MB Fixed Disk, Printer Adapter (Discount Group A2) (W/D 7/2/87)	4200
5271-P70 a	IBM 3270-PC (640KB) w/Enhanced Keyboard and one Half-Height Diskette Drive, 20MB Fixed Disk, Printer Adapter (Discount Group A2)	4200
5271-071 a	IBM 3270-PC (256KB + XMA) w/3270-PC Keyboard and one Half-Height Diskette Drive, 20MB Fixed Disk, Printer Adapter (Discount Group A2) (W/D 7/2/87)	5210
5271-P71 a	IBM 3270-PC (256KB + XMA) w/Enhanced Keyboard and one Half-Height Diskette Drive, 20MB Fixed Disk, Printer Adapter (Discount Group A2)	5210

In addition to the options listed below, these models of the 3270-PC (only) support the following PC options:

- 3325 - 360KB Half-Height Diskette Drive
- 3326 - 20MB Fixed Disk Drive
- 3327 - 20MB Fixed Disk Adapter

5730 a	3270-PC Keyboard (replacement if ordered separate)	295
5790 a	Programmed Symbols Adapter (Discount Group A2) for 5271	800
4910 a	All Points Addressable Adapter for 5271 (Discount Group A2)	550
4505 a	Printer/Memory Adapter w/128KB Memory (Discount Group A2)	305
4500 a	256KB Memory Adapter (installs on FC4505, Discount Group A2)	290

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MODEL/FC VPA	DESCRIPTION	PRICE
3910 a	IBM 2MB Expanded Memory Adapter (XMA) for 5271, 5273, supported by 3270 Workstation Program as XMA, EMS, and VDISK, incl. printer adapter	1295
3350 a	Expanded Memory Adapter (XMA, 1MB + Printer Adapter, Discount Group A2, part numbers 59X9973 and 8649447	1230
3360 a	Expanded Memory 1MB Module Kit (1MB additional, mounts on FC3350, Discount Group A2)	365
8V0196	RPQ to attach 5271 to 4701	N/C
5272-001 b	Color Display for 3270-PC (14in Diagonal) (8 color, 25 line x 80 character, 720H x 350V resolution, .25 Megapel, 9 x14 character cell) (Discount Group B2)	995

The 5271 also supports the 5151 PC Monochrome Display as an as an alternative to the 5272 Color Display.

3270-PC SUPPORT PUBLICATIONS

GA23-0179	3270-PC Introduction and Preinstallation Planning Manual	N/C
3520	3270-PC Hardware Maintenance and Service Manual (models 30, 50, 70)	60.25
3530	3270-PC Hardware Maintenance and Service Manual (640KB motherboard models exc. 30, 50, 70)	65.75

PROCESSORS - 3270-PC/AT VERSIONS

For associated software, see "Coaxial Communication (3270-PC Family)" on page 91.

The 5273 models require DOS 3.1 and 3270-PC Control Program Version 2.1 or later.

5273 models with XMA or the Enhanced Keyboard or an 8MHz motherboard require 3270-PC Control Program Version 3.0 or later.

5273-020 a	IBM 3270-PC/AT (6MHz, 512KB) w/3270-PC Keyboard and one High-Capacity Diskette Drive, Serial/Parallel Adapter (Discount Group A2) (W/D 7/2/87)	5745
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MODEL/FC VPA	DESCRIPTION	PRICE
5273-041 a	IBM 3270-PC/AT (6MHz, 640KB) w/3270-PC Keyboard and two High-Capacity Diskette Drives, Serial/Parallel Adapter (Discount Group A2) (W/D 7/2/87)	6370
5273-042 a	Same as model 41 plus Extended Graphics Adapter (Discount Group A2) (W/D 7/2/87)	6920
5273-061 a	IBM 3270-PC/AT (6MHz, 640KB) w/3270-PC Keyboard and one High-Capacity Diskette Drive, 20MB Disk Drive, Serial/Parallel Adapter (Discount Group A2) (W/D 7/2/87)	6695
5273-062 a	Same as model 61 plus Extended Graphics (Discount Group A2) (W/D 7/2/87) Adapter	7245
5273-070 a	IBM 3270-PC/AT (8MHz, 640KB) w/3270-PC Keyboard and one High-Capacity Diskette Drive, 30MB Disk Drive, Serial/Parallel Adapter (Discount Group A2) (W/D 7/2/87)	6440
5273-P70 a	IBM 3270-PC/AT (8MHz, 640KB) w/Enhanced Keyboard and one High-Capacity Diskette Drive, 30MB Disk Drive, Serial/Parallel Adapter (Discount Group A2)	6440
5273-071 a	IBM 3270-PC/AT (8MHz, 256KB + XMA) w/3270-PC Keyboard and one High-Capacity Diskette Drive, 30MB Disk Drive, (Discount Group A2) (W/D 7/2/87)	7170
5273-P71 a	IBM 3270-PC/AT (8MHz, 256KB + XMA) w/Enhanced Keyboard and one High-Capacity Diskette Drive, 30MB Disk Drive, (Discount Group A2)	7170
For Expanded Memory Adapter (XMA) see also FC 3910, the IBM 2M Expanded Memory Adapter.		
3355 a	Expanded Memory Adapter (XMA, 1MB + printer adapter, Discount Group A2, part numbers 59X9962 and 8649447)	1230
3360 a	Expanded Memory 1MB Module Kit (1MB additional, mounts on FC3355, Discount Group A2)	365
Ordering PS features: Order #4912 if a PS feature has previously been installed in the system unit, otherwise order #4911.		
4911 a	Extended Graphics Adapter (Short connectors) (Standard on models 42 and 62), for PC graphics 720h x 350v or 640h x 200v x 2 color, also 360h x 350v or 320h x 200v x 4 color (Discount Group A2)	550
4912 a	Extended Graphics Adapter (Long connectors) (Standard on models 42 and 62) for PC graphics, 720h x 350v or 640h x 200v x 2 color, also 360h x 350v or 320h x 200v x 4 color (Discount Group A2)	550
Order #5792 if an XGA feature has previously been installed in the system unit, or an XGA feature is concurrently ordered, otherwise order #5791.		

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MODEL/FC VPA	DESCRIPTION	PRICE
	Whichever feature is chosen, if it is ordered separately for field setup, order under 5273-ZZZ.	
5791 a	Programmed Symbols (PS) Adapter (Short connectors) for host graphics, six 190-symbol sets (Discount Group A2)	800
5792 a	Programmed Symbols (PS) Adapter (Long connectors) for host graphics, six 190-symbol sets (Discount Group A2)	800
3005	5085 Attachment to 3270-PC/AT, Incl. Graphics Interface Control Program, Warranted, Central Service for 90 days or to 6/87 (Order on 5085)	2045
9600	Graphics Interface Control Program (separately) Warranted, Central Service for 90 days or to 6/87	250

Also accepts the following PC/AT and 3270-PC options:

- 5272-001 - 3270-PC Color Display
- 5151-001 - PC Monochrome Display
- 0205 - 20MB Fixed Disk Drive
- 0206 - High Capacity Diskette Drive
- 0207 - Dual-Sided Diskette Drive
- 0209 - 128KB Memory Expansion Option
- 0211 - Math Co-Processor Option
- 0218 - Floor Standing Enclosure

3270-PC/AT SUPPORT PUBLICATIONS

GA23-0271	3270-PC/AT Supplement to Introduction and Preinstallation Planning Manual	N/C
GA23-0252	Guide to Operations - 3270-PC/AT	N/C
GA23-0253	Hardware Problem Determination - 3270-PC/AT	N/C
6005	Hardware Maintenance and Service Manual - 3270-PC/AT (If not ordered with 5273, order under 5273-ZZZ)	63

PROCESSORS - 3270-PC PLASMA DISPLAY VERSIONS

For associated software, see "Coaxial Communication (3270-PC Family)" on page 91.

Requires 3270-PC Control Program Version 1.2.1.
These models may also use FC5730, 4500, and 4505.

5271-024 a	IBM 3270-PC (384KB) w/3270-PC Keyboard and two Dual-Sided Diskette Drives, Printer Adapter (Discount Group A2) (W/D 7/2/87)	5415
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MODEL/FC VPA	DESCRIPTION	PRICE
5271-026 a	IBM 3270-PC (384KB) w/3270-PC Keyboard and one Dual-Sided Diskette Drive, one 10MB Disk Drive, Printer Adapter (Discount Group A2) (W/D 7/2/87)	5915
	See 'PC Displays and Adapters' for the 3295 Display.	

PROCESSORS - 3270-PC / G AND GX VERSIONS

For associated software, see "Coaxial Communication (3270-PC Family)" on page 91.

PROCESSORS AND OPTIONS

The 3270-PC/AT /G and /GX require DOS 3.1 and the 3270-PC Graphics Control Program Version 2 or later.

5373-160 a	IBM 3270-PC/AT /G/GX (6MHz, 512KB) w/Display/Mouse/Tablet Adapter, Serial/Parallel Adapter, one High-Capacity Diskette Drive, one 20MB Disk Drive, 3270-PC Keyboard	5535
5373-A60 a	Same as Model 160 except APL Keyboard	5535
5373-161 a	IBM 3270-PC/AT /G/GX (6MHz, 640KB) w/Display/Mouse/Tablet Adapter, Serial/Parallel Adapter, one High-Capacity Diskette Drive, one 20MB Disk Drive, 3278/79 Emulation Adapter, 3270-PC Keyboard	6480
5373-A61 a	Same as Model 161 except APL Keyboard	6480
5373-162 a	IBM 3270-PC/AT /G/GX (6MHz, 512KB + 512KB) w/80287, Display/Mouse/Tablet Adapter, Serial/Parallel Adapter, one High-Capacity Diskette Drive, one 20MB Disk Drive, 3278/79 Emulation Adapter, 3270-PC Keyboard	6800
5373-A62 a	Same as Model 162 except APL Keyboard	6800
5373-A29 a	IBM 3270-PC/AT/G (8MHz, 512KB + 512/2MB expansion) w/Display/Mouse/Tablet Adapter, Serial/Parallel Adapter, 80287, High-Capacity Diskette Drive, 30MB Disk Drive, 3270-PC APL Keyboard	6810
5373-A39 a	IBM 3270-PC/AT/GX (8MHz, 512KB + 512/2MB expansion) w/Display/Mouse/Tablet Adapter, Serial/Parallel Adapter, 80287, High-Capacity Diskette Drive, 30MB Disk Drive, 3270-PC APL Keyboard	6810

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MODEL/FC VPA	DESCRIPTION	PRICE
5373-E29 a	IBM 3270-PC/AT/G (8MHz, 512KB + 512/2MB expansion) w/Display/Mouse/Tablet Adapter, Serial/Parallel Adapter, 80287, High-Capacity Diskette Drive, 30MB Disk Drive, Enhanced Keyboard	6810
5373-E39 a	IBM 3270-PC/AT/GX (8MHz, 512KB + 512/2MB expansion) w/Display/Mouse/Tablet Adapter, Serial/Parallel Adapter, 80287, High-Capacity Diskette Drive, 30MB Disk Drive, Enhanced Keyboard	6810
5730 a	Standard 3270-PC Keyboard (incl.overlay)	295
5731 a	APL 3270-PC Keyboard (incl. overlay)	295
3907 a	IEEE-488 Adapter and Cable for 5371 models (Cable is PN 6450601, incl.in FC 3907)	545
(Use FC 1503 to order the IEEE-488 Adapter for 5373 models. Use FC 5040 to order IEEE-488 Cable for FC 1503.)		
5277-001 g	IBM Optical Mouse	340
5083-002	Graphics Tablet	650
1511 a	Cursor (Crosshair Mouse or 'Puck')	175
6351 a	Stylus	100
6248435	5083-2 PC Attach Power Supply and Cable, attaches tablet to PC, XT, AT, req. async. adapter, AT also req. FC 0242 or FC 0217	150
The following kits upgrade a PC/AT model 068 or 099 to a 3270-PC/AT/PC/G or /GX.		
Order FC 3112 or 3113 for documentation. FC 2507 may be added for 3278/79 emulation. FC 5730 or 5731 keyboards may be added.		
7001 a	3270-PC/AT/G Option Kit (Upgrade 6MHz 5170 to /G, incl. display / mouse / tablet adapter, mouse / tablet cable, keyboard cable)	770
7011 a	3270-PC/AT/G Option Kit (Upgrade 5170-319/339 to /G, incl. display / mouse / tablet adapter, mouse / tablet cable, keyboard cable)	770
7002 a	3270-PC/AT/GX Option Kit (Upgrade 6MHz 5170 to /GX, incl. display / mouse / tablet adapter, mouse / tablet cable, keyboard cable, VDI drivers)	770
7012 a	3270-PC/AT/GX Option Kit (Upgrade 5170-319/339 to /GX, incl. display / mouse / tablet adapter, mouse / tablet cable, keyboard cable, VDI drivers)	770

IBM 3270-PC/G /GX SUPPORT PUBLICATIONS

GA33-3157	Introducing the IBM-3270/PC/G and /GX Ranges of Workstations	N/C
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MODEL/FC VPA	DESCRIPTION	PRICE
GA33-3158	3270-PC/G and /GX Ranges of Workstations: Planning Guide	N/C
3112 b	3270-PC/AT/G Guide to Operations and Maintenance Information Manual (order on 5278-002)	N/C
3113 b	3270-PC/AT/GX Guide to Operations and Maintenance Information Manual (order on 5378-701)	N/C
7003 a	3270-PC/G Guide to Operations and Maintenance Information Manual (order on 5371-ZZZ)	N/C
7004 a	3270-PC/GX Guide to Operations and Maintenance Information Manual (order on 5371-ZZZ)	N/C

PC/G DISPLAY OPTIONS

5278-001 b	Display Attachment Unit	2530
7003 a	Specify attachment to 5371 (Guide to Operations, Maintenance Information, same as FC above)	N/C
3112 b	Specify attachment to 5373 (Guide to Operations, Maintenance Information, same as FC above)	N/C
5278-002 b	Display Attachment Unit for PC/AT /G	2530
3112 b	Specify attachment to 5373 (Guide to Operations, Maintenance Information, same as FC above)	N/C
5279-001 b	14in Display (8 color, 80 character x 32-49 line, 720Hx512V resolution, .37 Megapel, host character cell 9x16 or 9x10, or 8x16 in PC session)	960
7675 a	Stand with Tilt, Swivel, Height adjust	200
7676 a	Stand with Tilt, Swivel adjust	N/C

PC/GX DISPLAY OPTIONS

5378-C01 b	Display Attachment Unit - Color	5815
7004 a	Specify attachment to 5371 (Guide to Operations, Maintenance Information, same as FC above)	N/C
3113 b	Specify attachment to 5373 (Guide to Operations, Maintenance Information, same as FC above)	N/C
5378-M01 b	Display Attachment Unit - Monochrome	5465
7004 a	Specify attachment to 5371 (Guide to Operations, Maintenance Information, same as FC above)	N/C
3113 b	Specify attachment to 5373 (Guide to Operations, Maintenance Information, same as FC above)	N/C
5335	5378 Microcode Upgrade Kit for use with 3270-PC/AT (5373)	N/C
5379-C01 b	19in Display - Color (16 color, 80 character x 50 line, 1024Hx1024V resolution, 1.00 Megapel, 12x20 character cell)	2520
5379-M01 b	19in Display - Monochrome (2 color, 80 character x 50 line, 1024Hx1024V resolution, 1.00 Megapel, 12x20 character cell)	1925

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MODEL/FC VPA	DESCRIPTION	PRICE
PROCESSORS - PC/XT/370 AND PC/AT/370 VERSIONS		
For associated software, see "VM/PC" on page 141.		
The motherboard of the PC/AT/370 contains 512KB. The S/370 Feature Card Set contains another 512KB for the use of the S/370 processor, making a total of 1MB. In PC mode, 640KB of that total is useable by the 80286.		

5170-919	a IBM PC/AT System Unit (8MHz, 1MB) w/std. AT keyboard, serial/parallel adapter, one 30MB Fixed Disk, one High-Capacity Diskette drive, S/370 AT Feature Card Set, 3278/79 Adapter	7290
5170-939	a IBM PC/AT System Unit (8MHz, 1MB) w/Enhanced keyboard, serial/parallel adapter, one 30MB Fixed Disk, one High-Capacity Diskette drive, S/370 AT Feature Card Set, 3278/79 Adapter	7290
6115	a IBM PC/AT S/370 Option Kit to upgrade existing PC/AT, order 3278/79 adapter separately	2100

PC/AT/370 SUPPORT PUBLICATIONS

2527	a Technical Reference Manual - IBM PC/AT/370	28
2529	a Hardware Maintenance & Service (Manual and Advanced Diagnostic Diskette) for the IBM PC/AT/370	60
2980	a Hardware Maintenance & Service for the 3278/79 Emulation Adapter in the IBM PC/AT/370	22

PROCESSORS - SERIES/1 VERSIONS

For associated software, see "Series/1 PC Operating Systems" on page 140.

5170-496	a Series/1 PC/AT System Unit (8MHz) w/std. AT keyboard, 20MB fixed disk, 1MB diskette drive, 1MB memory, I/O controller, 6-port host/terminal attach card, serial/parallel attachment	10695
0401	a 3101 Display Cable, 15m	100
3629	a Six-Port Terminal/Host Adapter for 4 RS-422 ports, 2 RS-232 ports for async/BSC to 9600 bps	750

Also supports the following 5170 options in Series/1 mode:

- 0205 - 20MB Fixed Disk Drive
- 0206 - High Capacity Diskette Drive
- 0207 - Dual Sided Diskette Drive
- 0210 - 30MB Fixed Disk Drive
- 0215 - Serial/Parallel Adapter

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MODEL/FC VPA	DESCRIPTION	PRICE
• 0216	- Display Stand	
• 0217	- Serial Adapter Cable	
• 0218	- Floor Standing Enclosure	
• 0242	- Serial Adapter Connector	
• 1003	- 64KB Memory Module Kit	
F/C 1003 is for Series/1 processor storage upgrades. Must be ordered in 128KB increments.		
• 1204	- Binary Synchronous Communication Adapter	
• 1205	- SDLC Communication Adapter	
• 4900	- Monochrome Display and Printer Adapter	
• 4910	- Color Graphics Monitor Adapter	

SERIES/1 PC SUPPORT PUBLICATIONS

2241	a Guide to Operations - S/1 PC/AT	49.50
2242	a Hardware Maintenance and Service Manual - S/1 PC/AT	295
2243	a Technical Reference Manual - S/1 PC/AT	30
2491	a Installation and Setup Guide - S/1 PC/AT	29.50

PROCESSORS - 4680 PC VERSION

For a special promotional offering on the following item, see "Store Express Trial Program" on page 1.

For associated software, see "4680 Operating System for 5170 Point-of-Sale" on page 144.

5170-849	a IBM PC/AT System Unit (8MHz, 512KB)w/80286 CPU, Enhanced Keyboard, Keylock, Clock/Calendar, High-Capacity Diskette Drive, 30MB Fixed Disk+Adapter, Serial/Parallel Adapter, Store Loop Adapter	5670
4683-001	Point-of-Sale Terminal (attach to Store Loop driven by 5170 Store Controller)	2780
4683-002	Point-of-Sale Terminal (attach to 4683-001)	1265

Specify one of the following lock inserts for each printer (FC 3380), cash drawer (FC 3360, 3361), or keyboard (FC 3320).

9201	Lock insert, randomly selected, with 2 keys	N/C
9202	(FC's 9292-9221, PN's 4783902-4783921) Lock insert, specific, with 2 keys	N/C
9223	Lock insert, non-operating	N/C
3339	Shopper Display, 8-Position Numeric (9/87)	205

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MODEL/FC VPA	DESCRIPTION	PRICE
3340	Operator Display, 2 Rows of 20 Characters (9/87)	275
3342	Display Extension Cable (for use when FC3339 or FC3340 are separated from 4683 base) (9/87)	47
3343	40-Character Alphanumeric Display	360
3344	Alphanumeric Display Cable, Integrated	11
3345	Alphanumeric Display Cable, Distributed	42
3354	300mm (12in) Monochrome Display	290
3355	Cable for 300mm Display	65
3356	Tilt, Swivel Pedestal for 300mm Display	20
6316710	127mm (5in) Monochrome Display	280
6316852	Cable for 127mm Display, Distributed	65
3352	346mm (14in) Color Display, 480 or 1920 Characters (9/87)	680
3353	346mm (14in) Color Display Cable (9/87)	75
3359	346mm (14in) Color Display Pedestal (9/87)	20
3320	50-key Modifiable Keyboard	264
3322	84-key Alphanumeric Keyboard, Modifiable, w/Mgr Keylock (req. FC3325 or FC3326) (9/87)	490
3325	Keyboard Cable, Integrated	14
3326	Keyboard Cable, Distributed	38
3330	Keybutton Kit, Retail Format	5
3357	Line Cord, 9-foot	10
3358	Line Cord, 6-foot	10
3360	Cash Drawer, Fixed Till	205
3361	Cash Drawer, Adjustable Till	209
3364	Cash Drawer Cable, Integrated	10
3365	Cash Drawer Cable, Distributed	27
3380	Printer	724
3384	Printer Cable, Integrated	31
3385	Printer Cable, Distributed	69
4000	Feature Expansion A	475
4001	Feature Expansion B	315
4002	Feature Expansion C	524
4003	Feature Expansion D	586
4010	Magnetic Stripe Reader	182
4012	Security Base	21
4014	Adapter for 3687 Checkout Scanner Model 2	174
4016	Magnetic Wand Reader	378
4020	Asynchronous Communication Cable, RS-232C	87
4022	Asynchronous Communication Cable, RS232C or Current Loop	96
4024	Non-IBM OCR Hand-Held Reader Cable	98
4030	Base Unit Cable for 4683-2, 6 meters	44
4032	Base Unit Cable for 4683-2, 20 meters	107
4034	Base Unit Cable for 4683-2, 4 meters	90
3466	Non-IBM Special Attachment Cable	40
4026	Non-IBM Scale Cable	76
4028	Non-IBM Coin Dispenser Cable	55
8002	Second Store Loop Adapter	835
8003	Store Loop Cable	41

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MODEL/FC VPA	DESCRIPTION	PRICE
1520-A02	Hand-Held Scanner (req. FC 3326 for attachment to 4683)	1735
9512	4683 Power Cable, 4.3m (14ft) Locking (specify code)	N/C
9510	4683 Power Cable, 4.3m (14ft) Non-Locking (specify code)	N/C
9513	4683 Power Cable, 1.8m (6ft) Locking (specify code)	N/C
9511	4683 Power Cable, 1.8m (6ft) Non-Locking (specify code)	N/C
1584-S01	Toledo Scales, Scale Model 8213-006 (special bid only)	619
1584-S02	Toledo Scales, Scale Model 8213-007 (special bid only)	599
6724	Remote Display for Toledo Scales 8213-007 with 7-ft. cable (special bid only)	100
6725	Remote Display for Toledo Scales 8213-007 with 25-ft. cable (special bid only)	112

PROCESSORS - 4700 PC VERSION

Requires 4700 PC Application Services, FC 4406.

Supports a number of 4700 printers, keyboards, and magnetics devices.

5160-470 a	IBM PC/XT System Unit (256KB) w/107-key administrative keyboard (=4700 FC 4607), 4700 FCS Input Option, one Dual-Sided Diskette Drive (no Async adapter)	3065
6361605	4700 PC Hardware Maintenance and Service Manual	??
6049 a	FCS Input Option, non-PC/AT (attach 4700 keyboards, mag. stripe readers, remote IPL requires 3278/79 emulation adapter)	650
6065 a	FCS Input Option, PC/AT (attach 4700 keyboards, mag. stripe readers, remote IPL requires 3278/79 emulation adapter)	650
6052 a	FCS Output Option, non-PC/AT (attach 4700 printers, re-direct PC output to 4700)	625
6068 a	FCS Output Option, PC/AT (attach 4700 printers, re-direct PC output to 4700)	625
6054 a	FCS Security Option, non-PC/AT (Set master and session keys, encryption interface program)	550
6069 a	FCS Security Option, PC/AT (Set master and session keys, encryption interface program)	550

Also supports the following 5160 and 5170 options:

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MODEL/FC VPA	DESCRIPTION	PRICE
•	IBM 4201 - Proprinter	
•	IBM 5151 - Monochrome Display	
•	IBM 5152 - Printer	
•	IBM 5153 - Color Display	
•	IBM 5154 - Enhanced Color Display	
•	0202 - 256KB Memory Module Kit (PC/AT)	
•	0203 - 512KB Memory Expansion Option (PC/AT)	
•	0205 - 20MB Fixed Disk Drive (PC/AT)	
•	0206 - High Capacity Diskette Drive (PC/AT)	
•	0207 - Dual-Sided Diskette Drive (PC/AT)	
•	0209 - 128KB Memory Expansion Option (PC/AT, Input and Security Options only)	
•	0210 - 30MB Fixed Disk Drive (PC/AT)	
•	0211 - Math Co-Processor (PC/AT)	
•	0215 - Serial/Parallel Adapter (PC/AT)	
•	0217 - Serial Adapter Cable (PC/AT)	
•	0218 - Floor Standing Enclosure (PC/AT)	
•	0220 - Prototype Adapter (PC/AT)	
•	0242 - Serial Adapter Connector (PC/AT)	
•	1003 - 64KB Memory Module Kit (non-PC/AT)	
•	1013 - 64/256KB Memory Expansion Option (non-PC/AT)	
•	1200 - Enhanced Graphics Adapter	
•	1201 - Graphics Memory Expansion Card	
•	1203 - Graphics Memory Module	
•	2074 - Asynchronous Communication Adapter (non-PC/AT)	
•	2500 - 10MB Fixed Disk (non-PC/AT)	
•	2501 - Fixed Disk Adapter (non-PC/AT)	
•	2507 - 3278/79 Emulation Adapter	
•	2887 - Display Station Emulation Adapter	
•	3810 - 5.25in Double-Sided Diskette Drive	
•	4900 - Monochrome Display and Printer Adapter	
•	4910 - Color/Graphics Monitor Adapter	
•	5200 - Printer Adapter (non-PC/AT)	
•	6052 - 4700 FCS Output Option (non-PC/AT)	
•	6054 - 4700 FCS Security Option (non-PC/AT)	

PROCESSORS - TEMPEST PC VERSIONS AND OPTIONS

The following TEMPEST systems are composed of a system unit with a model 4451 TEMPEST Monochrome Display.

4450----	TEMPEST PC System Unit/Display 'TPC1' (192KB) w/TEMPESTed keyboard, monochrome display adapter, two Dual-Sided Diskette drives, Async adapter, SDLC Communications adapter, and RS232C Serial Printer Adapter	
	Commercial price	5995
	Government price	5035

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MODEL/FC VPA	DESCRIPTION	PRICE
The following TEMPEST systems are composed of a system unit with a model 4451 TEMPEST Monochrome Display.		
4455----	TEMPEST PC/XT System Unit/Display 'TPC2-1' (256KB) w/TEMPESTed keyboard, monochrome display/printer adapter, Dual-Sided Diskette drive, and 10MB Fixed Disk drive	
	Commercial price	7640
	Government price	6112
4455----	TEMPEST PC/XT System Unit/Display 'TPC2-2' (256KB) w/TEMPESTed keyboard, monochrome display/printer adapter, Dual-Sided Diskette drive, and 2 5MB Removable Disk drives	
	Commercial price	9515
	Government price	7612
100A496	Additional 5MB Disk Cartridge	
	Commercial price	243
	Government price	136
4455----	TEMPEST PC/XT System Unit/Display 'TPC2-3' (256KB) w/TEMPESTed keyboard, monochrome display/printer adapter, two Dual-Sided Diskette drives	
	Commercial price	7340
	Government price	5872
The following TEMPEST systems are composed of a system unit with a TEMPEST Color Display.		
4455----	TEMPEST PC/XT System Unit/Display 'TPC2-4' (256KB) w/TEMPESTed keyboard, color display adapter, printer adapter, Dual-Sided Diskette drive, and 10MB Fixed Disk drive	
	Commercial price	8978
	Government price	7182
4455----	TEMPEST PC/XT System Unit/Display 'TPC2-5' (256KB) w/TEMPESTed keyboard, color display adapter, printer adapter, Dual-Sided Diskette drive, and 2 5MB Removable Disk drives	
	Commercial price	10853
	Government price	8682
100A496	Additional 5MB Disk Cartridge	
	Commercial price	243
	Government price	136
4455----	TEMPEST PC/XT System Unit/Display 'TPC2-6' (256KB) w/TEMPESTed keyboard, color display adapter, printer adapter, two Dual-Sided Diskette drives	
	Commercial price	8678
	Government price	6942

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MODEL/FC VPA	DESCRIPTION	PRICE
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The following are commercial prices for additional TEMPESTed features for the TPC2 models.

256KB Memory Expansion	476
8087 Co-Processor	223
3278/79 Emulation Adapter	1825
Async Communications Adapter	195
SDLC Communications Adapter	314
2nd Parallel Printer Adapter	253

The following are government prices for additional TEMPESTed features for the TPC2 models.

256KB Memory Expansion	333
8087 Co-Processor	156
3278/79 Emulation Adapter	1460
Async Communications Adapter	156
SDLC Communications Adapter	251
2nd Parallel Printer Adapter	202

The following TEMPEST systems are composed of a system unit with a TEMPESTed 5272 Color Display. They are NOT AVAILABLE to non-GSA customers.

4456----	TEMPEST 3270-PC System Unit/Display 'TPC3' (640KB) w/TEMPESTed keyboard, color display adapter, printer adapter, Dual-Sided Diskette drive, and 2 5MB Removable Disk drives	
	Government price	11195
100A496	Additional 5MB Disk Cartridge	
	Government price	136
4459----	TEMPEST PC/AT System Unit/Display 'TPC4-1A' (512KB) w/TEMPESTed keyboard, EGA, 4451 Mono Display, 360KB Diskette Drive	
	Commercial price	9591
	Government price	7673
4459----	TEMPEST PC/AT System Unit/Display 'TPC4-1B' (512KB) w/TEMPESTed keyboard, EGA, 4451 Mono Display, 1.2MB Diskette Drive	
	Commercial price	9633
	Government price	7706
4459----	TEMPEST PC/AT System Unit/Display 'TPC4-2A' (512KB) w/TEMPESTed keyboard, Mono Display/Printer Adapter, 4451 Mono Display, 360KB Diskette Drive	
	Commercial price	9295
	Government price	7436
4459----	TEMPEST PC/AT System Unit/Display 'TPC4-2B' (512KB) w/TEMPESTed keyboard, Mono Display/Printer Adapter, 4451 Mono Display, 1.2MB Diskette Drive	
	Commercial price	9295
	Government price	7436

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MODEL/FC VPA	DESCRIPTION	PRICE
4459----	TEMPEST PC/AT System Unit/Display 'TPC4-3A' (512KB) w/TEMPESTed keyboard, EGA, 4461 Enhanced Color Display, 360KB Diskette Drive Commercial price	11466
	Government price	9173
4459----	TEMPEST PC/AT System Unit/Display 'TPC4-3B' (512KB) w/TEMPESTed keyboard, EGA, 4461 Enhanced Color Display, 1.2MB Diskette Drive Commercial price	11508
	Government price	9206

The following are commercial prices for additional
TEMPESTed features for the TPC4 models.

20MB Fixed Disk Drive	1095
1-10MB Internal Removable Cartridge Disk Drive	2088
2-10MB Internal Removable Cartridge Disk Drives	3600
Serial/Parallel I/O Adapter	484
128KB RAM Expansion	350
512KB RAM Expansion (2 max.)	295
Militarized Advanced Communication Controller (AdCom 2-M)	1594
Memory Expansion Option--Graphics	199
Memory Module--Graphics	259
80287 Co-Processor	375

The following are government prices for additional
TEMPESTed features for the TPC4 models.

20MB Fixed Disk Drive	712
1-10MB Internal Removable Cartridge Disk Drive	1670
2-10MB Internal Removable Cartridge Disk Drives	2880
Serial/Parallel I/O Adapter	387
128KB RAM Expansion	227
512KB RAM Expansion (2 max.)	192
Militarized Advanced Communication Controller (AdCom 2-M)	1275
Memory Expansion Option--Graphics	129
Memory Module--Graphics	168
80287 Co-Processor	244

The following TEMPESTed products are available to
governmental and commercial customers. The system
units DO NOT include a display.

5171-168 a	IBM PC/AT System Unit TEMPESTed (512KB) w/ 8MHz 80286, Enhanced Keyboard, Clock/Calendar, High-Capacity Diskette Drive, Disk Adapter, Serial/Parallel Adapter	5995
5171-339 a	IBM PC/AT System Unit TEMPESTed (512KB) w/ 8MHz 80286, Enhanced Keyboard, Clock/Calendar, High-Capacity Diskette Drive, 30MB Fixed Disk and Adapter, Serial/Parallel Adapter	7395

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MODEL/FC VPA	DESCRIPTION	PRICE
3003 a	IBM Monochrome Display and Printer Adapter, TEMPESTed (Supports 5167)	950
5167-001 b	IBM Monochrome Display TEMPESTED (11.5in Diagonal) (2 color, 80 character x 25 line, 720H x 350V resolution, .25 Megapixel, 9x14 character cell)	750
5169-002 f	Quietwriter Printer T Model 2 (Like Quietwriter Model 2, adds TEMPEST certification, req. cable FC 3009) See TM 5201 for printer options	4950
3009 a	IBM Personal Printer Cable T (TEMPESTed cable for parallel printers)	130

PROCESSORS - INDUSTRIAL VERSIONS

The IBM Industrial Computers and Displays are available on the IBM Industrial Computer Volume Procurement Amendment.

7531-041	IBM PC/AT System Unit (6MHz, 512KB) Hardened, w/Hardened Keyboard and one High-Capacity Diskette drive	6145
7532-041	IBM PC/AT System Unit (6MHz, 512KB) Hardened, 19in rack mountable, w/Hardened Keyboard and one High-Capacity Diskette drive	6370
6019	20MB Fixed Disk Drive (Customer Setup)	1695
6045	20MB Fixed Disk Drive (Plant Installed)	1475
6038	High Capacity Diskette Drive	275
6039	Dual-Sided Diskette Drive	225
6001	Combination Adapter Cable	75
6020	Combination Adapter II, Async adapter, parallel printer adapter, timer, thermal sensor	450
6023	Rack Mounting Slides (7532 only)	47
6024	Keyboard Mounting Kit (7532 only)	180
6025	Display Mounting Kit (7532 only)	350
6040	128KB Memory Board (Attaches to Combination Adapter II)	415
6044	Display Mounting Parts Kit (7532 only)	4

The 7531 and 7532 also support the following PC/AT options:

- 0203 - 512KB Memory Expansion Option
- 0209 - 128KB Memory Expansion Option
- 0211 - Math Co-Processor Option
- 0213 - PC Network Adapter (and associated cabling components)
- 0215 - Serial/Parallel Adapter (and associated cable and connector)
- 0220 - Prototype Adapter
- 1200 - Enhanced Graphics Adapter
- 1201 - Graphics Memory Expansion Card
- 1203 - Graphics Memory Module
- 1204 - Binary Synchronous Communications Adapter
- 1205 - SDLC Communication Adapter
- 1206 - PC Cluster Adapter (and cables)

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MODEL/FC VPA	DESCRIPTION	PRICE
• 1502	- Data Acquisition and Control Adapter (and distribution panel)	
• 1503	- General Purpose Interface Bus Adapter	
• 4910	- Color/Graphics Monitor Adapter	
7552-040	IBM PC/AT System Unit (10MHz, 512KB) Hardened, for use without keyboard or display via Remote Terminal Interface	6770
7552-140	IBM PC/AT System Unit (10MHz, 512KB) Hardened, 10MB fixed disk for use without keyboard or display via Remote Terminal Interface	9370
6070	80287 Math Co-Processor for 7552	530
6072	Battery for 7552 (Power to system for 10 sec. of operation during power failure, mutually exclusive with FC6073)	180
6073	External Voltage Module for 7552 (Mutually exclusive with FC6072)	330
6074	Memory Adapter for 7552 (512KB included, accepts up to 3MB via FC6075)	1100
6075	512KB Memory Expansion for 7552	250
6076	Card Shroud for 7552 (Spare)	110
6077	IBM PC Feature Adapter for 7552 (One required for each PC feature card to be installed, mates PC feature to card shroud)	195
6080	Disk/Diskette Adapter Module for 7552 (Supports up to 2 10MB Fixed Disks and 1 720KB 3.5in Diskette, standard in 7552-140)	1400
6081	Diskette Drive for 7552 (720KB, 3.5in)	375
6082	10MB Fixed Disk Drive for 7552 (Maximum 2, 1 Standard in 7552-140)	1330
6094	Prototype Card for 7552	245
6095	Memory Adapter and Card Shroud for 7552 (Combines FC6074, FC6076)	1210
6096	Filters for 7552	35
6097	Keyboard Rack Mount Hardware for 7552	680
6098	Floor Mount Kit for 7552	600
6078	Remote Terminal Interface for 7552 (Via program 5601-053, allows remote Industrial Computer to provide terminal and program load functions thru keyboard port)	500
6221	SPECIFY CODE, FC6078 installed in a 5531	N/C
6222	SPECIFY CODE, FC6078 installed in a 7531 or 7532	N/C
6223	SPECIFY CODE, FC6078 installed in a 7552	N/C

The 7552 also supports the following PC/AT options, via feature 6077 (the PC Adapter):

- 0213 - PC Network Adapter (and associated cabling components)
- 0215 - Serial/Parallel Adapter (and associated cable and connector)
- 1200 - Enhanced Graphics Adapter
- 1201 - Graphics Memory Expansion Card
- 1203 - Graphics Memory Module
- 1204 - Binary Synchronous Communications Adapter

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MODEL/FC VPA	DESCRIPTION	PRICE
• 1205	- SDLC Communication Adapter	
• 1502	- Data Acquisition and Control Adapter (and distribution panel)	
• 1503	- General Purpose Interface Bus Adapter	
• 3390	- IBM Token-Ring Network PC Adapter (and cable)	
• 5063	- IBM Token-Ring Network PC Adapter II	
• 6050/6160	- Real Time Interface Co-Processor (ARTIC, and support cards)	
The following displays are also supported:		
• 5532	- Industrial Color Display	
• 7534	- Industrial Graphics Display	
5531-011	IBM PC/XT System Unit (256KB) Hardened, w/Hardened Keyboard, one Dual-Sided Diskette drive, and Serial / Parallel / Clock Card (separate VPA)	2975
6000	Combination Adapter	445
6001	Combination Adapter Cable	75
6002	Keylock Option Kit	10
6017	10MB Fixed Disk Drive, Adapter, and Cable (Factory Installed)	1355
6018	10MB Fixed Disk Drive, Adapter, and Cable (Customer Setup)	1520

Also supports the following PC options:

• 0213	- PC Network Adapter (and associated cabling components)	
• 1002	- Math Co-Processor Option	
• 1003	- 64KB Memory Module Kit	
• 1013	- 64/256KB Memory Expansion Option	
• 1200	- Enhanced Graphics Adapter	
• 1201	- Graphics Memory Expansion Card	
• 1203	- Graphics Memory Module	
• 1204	- Binary Synchronous Communications Adapter	
• 1205	- SDLC Communication Adapter	
• 1206	- PC Cluster Adapter (and cables)	
• 1502	- Data Acquisition and Control Adapter (and distribution panel)	
• 1503	- General Purpose Interface Bus Adapter	
• 1509	- PC/XT/370 Option Kit	
• 2074	- Asynchronous Communication Adapter	
• 2507	- 3278/79 Emulation Adapter	
• 2879	- Enhanced Display Station Emulation Adapter (and cable)	
• 2880	- Enhanced 5250 Emulation Installation Convenience Kit	
• 3810	- 5.25in Double-Sided Diskette Drive	
• 4910	- Color/Graphics Monitor Adapter	
5532----	Industrial Color Display	850
7534-001	Enhanced Industrial Color Display (Ruggedized version of 5154, sep. VPA, req. FC1200)	1175
6034	Installation and Operation Guide, 7534	10
6026	Shaded Screen Cover for 7534	83
6027	Optically Coated Glass Cover for 7534	99

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MODEL/FC VPA	DESCRIPTION	PRICE
IBM INDUSTRIAL COMPUTER SUPPORT PUBLICATIONS		
6046	Guide to Operations - Industrial PC/AT	50
6036	Guide to Operations - Industrial PC/AT (Rack mount)	50
6032	Technical Reference Manual - Industrial PC/AT	65
6035	Technical Reference Options and Adapters - Industrial PC/AT	295
6047	Installation and Setup - Industrial PC/AT	30
6037	Installation and Setup - Industrial PC/AT (Rack mount)	30
6033	Hardware Maintenance & Service (Manual and Advanced Diagnostic Diskette) for the IBM Industrial PC/AT	295
6089	Installation and Operations - 7552 Industrial Computer	150
6086	Hardware Maintenance & Service (Manual and Advanced Diagnostic Diskette) for the IBM 7552 Industrial Computer	245
6006	Guide to Operations - Industrial PC/XT	55
6003	Technical Reference Manual - Industrial PC/XT	75
6035	Technical Reference Options and Adapters	295
6029	Installation and Setup - Industrial PC/XT	30
6004	Hardware Maintenance & Service (Manual and Advanced Diagnostic Diskette) for the IBM Industrial PC	155

PROCESSORS - PC CONVERTIBLE

The Enhanced LCD Display is standard on all PC Convertibles shipped beginning January 26, 1987.

For a special promotional offering on the following item, see "Special Promotion for the IBM 5140 PC Convertible" on page 1.

5140-002 a IBM PC Convertible (256KB) w/Integrated 78-Key Keyboard, Enhanced LCD Screen, two 3.5in Diskette Drives, 80C88 Processor, AC Adapter, Battery Pack, Applications, Diagnostics, Guide to Ops. 1695

For a special promotional offering on the following item, see "Special Promotion for the IBM 5140 PC Convertible" on page 1.

5140-022 a IBM PC Convertible (256KB) w/Integrated 78-Key Keyboard, Enhanced LCD Screen, two 3.5in Diskette Drives, 80C88 Processor, AC Adapter, Battery Pack, Diagnostics, Guide to Ops. 1675

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MODEL/FC VPA	DESCRIPTION	PRICE
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In addition to the options listed below, the PC Convertible supports:

•	4201 - IBM Proprinter	
•	4863 - IBM PCjr Color Display	
•	5152 - IBM Graphics Printer	
•	5153 - IBM PC Color Display	
•	5841 - IBM 1200bps Modem	
•	0020 - PCjr Connector for TV	
•	0021 - PCjr Adapter Cable for PC Color Display	
•	2067 - Communications Adapter Cable	
•	5612 - Parallel Printer Cable	
	6010 a Enhanced LCD Display (retrofit, standard in all Convertibles shipped after January 26, 1987)	250
	6030 a 256KB Memory Card (maximum 2 installable)	345
	4005 a 128KB Memory Card (maximum 2 installable)	160
	4010 a Printer, attaches to back of system unit, 40CPS serial thermal or thermal transfer, sheet or roll paper	295
	4055 a Printer Cable, 22in, allows detached connection with FC4010	45
	4015 a Serial/Parallel Adapter, attaches to back of system unit	80
	4026 a Enhanced Internal Modem, 300 and 1200 baud, 'AT' and IBM command set, mounts in system unit	450
	4025 a Internal Modem, 300 and 1200 baud, IBM command set, mounts in system unit	225
	4020 a CRT Display Adapter, attaches to back of system unit, connects 4683, 5144, 5145, or 5153, or TV set (AC only)	255
5144-001 b	PC Convertible Monochrome Display (9in diagonal, 2 color, 640H x 200V resolution, 80 character x 25 line, .13 megapixel, 8x8 character cell, AC only)	180
5145-001 b	PC Convertible Color Display (13in diagonal, 320H x 200V resolution, .06 megapixel, speaker, AC only)	400
4040 a	IBM PC Convertible Speech Adapter	495
59X9966	Speech Adapter Installation and Problem Determination Procedures, Guide to Writing BASIC Speech Programs	??
	4060 a Battery Charger (trickle charger, not for concurrent operation)	25
	4065 a Automobile Power Adapter	25
	4090 a Carrying Case, Standard (soft-sided, accomodates system unit, attached printer, accessories, supplies)	84
	4095 a Carrying Case, Compact (soft-sided, system unit in main compartment, printer and accessories in expandable pocket)	44

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MODEL/FC VPA	DESCRIPTION	PRICE
PC CONVERTIBLE SUPPORT PUBLICATIONS		
4075 a	Guide to Operations Manual - IBM PC Convertible (incl. Setup, Diagnostics, System Applications) (order via PCTB)	65
4076 a	Guide to Operations Manual - IBM PC Convertible (incl. Diagnostics only)	50
4080 a	Technical Reference Manual - IBM PC Convertible (order via PCTB)	75
4082 a	Technical Reference Manual Update #2 for Enhanced LCD, 256KB Memory Card, Enhanced Internal Modem	5.20
4085 a	Hardware Maintenance and Service Manual - IBM PC Convertible (order via PCTB)	150
4088 a	Hardware Maintenance and Service Update #3 for Enhanced LCD, 256KB Memory Card, Enhanced Internal Modem	3.05

IBM PORTABLE PC SUPPORT PUBLICATIONS

PROCESSORS AND OPTIONS - PCJR

4860-004	PCjr System Unit/Keyboard, 64KB, 2 Cartridge Slots, Transformer	362
4860-067	PCjr System Unit/Keyboard, 128KB, 2 Cartridge Slots, Transformer, 360KB Diskette Drive	439
4863-001	IBM PCjr Color Display (13in Diagonal) (16 color, 320H x 200V resolution)	359
0005	360KB PCjr Diskette Drive	170
0006	Power Expansion Attachment	99
0007	64KB Memory and Display Expansion	140
0008	PCjr Internal Modem	99
0009	PCjr Parallel Printer Attachment	99
0010	PCjr Attachable Joy Stick	20
0012	PCjr Keyboard Cord	13
0013	PCjr Cordless Keyboard Overlays (Set of 5)	10
0020	PCjr Connector for TV (also for PC Convertible)	10
0021	PCjr Adapter Cable for Color Display (also for PC Convertible)	20
0022	PCjr Adapter Cable for Cassette	10

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MODEL/FC VPA	DESCRIPTION	PRICE
0023	PCjr Carrying Case	25
0024	PCjr Speech Attachment	300
0026	PCjr Adapter Cable for Serial Devices	10
0031	128KB Memory Expansion Attachment	199
7520 b	Mouse Systems PCjr Mouse (on 1599-B01)	195

PCJR SUPPORT PUBLICATIONS

2292	Guide to Operations Manual - IBM PCjr (order via PCTB)	21.25
2293	Technical Reference Manual - IBM PCjr (order via PCTB)	35
2294	Hardware Maintenance & Service for the IBM PCjr (order via PCTB)	88

PROCESSOR FEATURES

1005 a	BIOS Update Kit, PC	30
1002 a	Math Co-Processor Option (8087 - 8088 chips), PC, PC/XT	230
5001 a	Math Co-Processor Option (8087 chip), Personal System/2 Model 30	310
0211 a	Math Co-Processor (80287 chip), PC/AT	375
3047	AST I/O Plus II Card (Serial Port, Clock) (special bid only)	185
3048	AST I/O-S Plus II Card (2 Serial Ports, Clock) (special bid only)	235
3049	AST I/O-P Plus II Card (Serial Port, Parallel Port, Clock) (special bid only)	235
3050	AST I/O-SP Plus II Card (2 Serial Ports, Parallel Port, Clock) (special bid only)	285
3100	AST I/O Mini Board I/OM 1 (Serial Port, Clock) (special bid only)	185
3102	AST I/O Mini Board I/OM 2 (2 Serial Ports, Clock) (special bid only)	235
3101	AST I/O Mini Board I/OM-P (Serial Port, Parallel Port, Clock) (special bid only)	235
3103	AST I/O Mini Board I/OM-SP (2 Serial Ports, Parallel Port, Clock) (special bid only)	285

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MODEL/FC VPA	DESCRIPTION	PRICE
0215 a	Serial/Parallel Adapter (9-pin Async + Printer), PC/AT, Note--requires either Serial Adapter Cable (FC 0217) or Serial Adapter Connector (FC 0242) to attach to RS-232 devices	150
1400 a	Prototype Card, PC, PC/XT	35
0220 a	Prototype Adapter, PC/AT	35
1300 a	Game Control Adapter	45

MEMORY - PC AND PC/XT SYSTEM UNITS

3905 a	IBM 2MB Expanded Memory Adapter (XMA) for 5160, 5170, and 8530, supported by IBM 3270 Workstation Program as XMA, EMS, and VDISK, incl. printer adapter	1295
SA23-1033	Technical Reference Manual, 2MB Expanded Memory Adapter (XMA)	8.75
SA23-1031	Hardware Maintenance Service Update, 2MB Expanded Memory Adapter (XMA)	53.75

The cards listed below are NOT for installation in PC/AT's, PC/XT 286's, or PC/AT-based system units.

1001 a	16KB Memory Expansion Option, PC, PC/XT	30
1003 a	64KB Memory Module Kit, PC, PC/XT	20
1013 a	64/256KB Memory Expansion Option, PC, PC/XT	190
1209 a	IBM 256KB Memory Expansion Option (short card), PC, PC/XT	150
3336 a	128KB Memory Module Kit (for installation on 640KB-class PC/XT system boards only)	38
3337 a	256KB Memory Module Kit (for installation on 640KB-class PC/XT system boards only)	75
7800 b	AST ComboPlus Model MC-256 SPC (on 1596-A01) with Parallel Port, Serial Port, Clock/Calendar, 256K of memory	695
7802 b	AST MegaPlus II Model MGII-256P (on 1597-A01) with Parallel Port, Serial Port, Clock/Calendar 256K of memory expandable to 512K	745
7806 b	AST SixPakPlus Model SPK-064 (on 1597-A01) with Serial Port, Parallel Port, Clock/Calendar, 64K of memory, expandable to 384K	395
7809 b	AST SixPakPlus Model SPK-192 (on 1597-A01) with Serial Port, Parallel Port, Clock/Calendar, 192K of memory, expandable to 384K	595
7812 b	AST SixPakPlus Model SPK-384 (on 1597-A01) with Serial Port, Parallel Port, Clock/Calendar, 384K of memory	895

MODEL/FC VPA	DESCRIPTION	PRICE
3057	AST RAmpage! Expanded Memory Board (256KB) (special bid only)	395
3058	AST RAmpage! Expanded Memory Board (512KB) (special bid only)	495
3059	AST RAmpage! Expanded Memory Board (1MB) (special bid only)	795
3060	AST RAmpage! Expanded Memory Board (2MB) (special bid only)	1295
3061	AST RAmpage! I/O Expanded Memory Board (256KB) Incl. Serial and Parallel Adapters (special bid only)	545
3062	AST RAmpage! I/O Expanded Memory Board (512KB) Incl. Serial and Parallel Adapters (special bid only)	645
3063	AST RAmpage! I/O Expanded Memory Board (1MB) Incl. Serial and Parallel Adapters (special bid only)	945
3064	AST RAmpage! I/O Expanded Memory Board (2MB) Incl. Serial and Parallel Adapters (special bid only)	1445

MEMORY, PC/AT AND PC/XT286 SYSTEM UNITS

For Expanded Memory Adapter (XMA) see also FC 3905, the IBM 2MB Expanded Memory Adapter (not for PC/XT286)

The following cards are NOT for installation in other than PC/AT, PC/XT 286, or PC/AT-based system units.

0202	a 256KB Memory Module Kit, PC/AT	75
3338	a 128/640KB Memory Expansion Option, PC/AT (128KB at 512KB location, 512KB at 1MB location, XT/286 not supported)	350
3343	a 512KB/2MB Memory Expansion Option, PC/AT (only above 1MB, XT/286 is supported)	475
3339	a 512KB Memory Module Kit, PC/AT (for use with FC3338 and FC3343)	165
3395	a IBM .5 to 3MB Memory Expansion Adapter, multifunction, includes Serial/Parallel Adapter function (with Guide to Operations), PC/AT (supports split addressing, XT/286 is supported)	595
3397	a 512KB Memory Module Kit (2-256KB modules, for use with FC3395) PC/AT	165
3400	a IBM .5 to 6MB Memory Expansion Adapter, multifunction, includes Serial/Parallel Adapter function (with Guide to Operations), PC/AT (supports split addressing, XT/286 is supported)	749

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MODEL/FC VPA	DESCRIPTION	PRICE
3402 a	1MB Memory Module Kit (2-512KB modules, for use with FC 3400 or FC 3395) PC/AT	349
3404	Guide to Operations, .5 to 3MB Memory Expansion Adapter, and .5 to 6MB Memory Expansion Adapter, PC/AT	20
3408	Technical Reference Manual, .5 to 3MB Memory Expansion Adapter, and .5 to 6MB Memory Expansion Adapter, PC/AT	25
3406	Hardware Maintenance and Service, .5 to 3MB Memory Expansion Adapter, and .5 to 6MB Memory Expansion Adapter, PC/AT	50
7850 b	Tecmar Maestro-128K (on 1596-D01) with 128K Memory, Serial Port, Parallel Port, Security Option, Software	589
7851 b	Tecmar Maestro-380K (on 1596-D01) with 380K Memory, Serial Port, Parallel Port, Security Option, Software	889
7852 b	Tecmar Maestro-640K (on 1596-D01) with 640K Memory, Serial Port, Parallel Port, Security Option, Software	1189
7853 b	Tecmar Maestro-1664K (on 1596-D01) with 1664K Memory, Serial Port, Parallel Port, Security Option, Software	2876
7854 b	Tecmar Maestro-2560K (on 1596-D01) with 2560K Memory, Serial Port, Parallel Port, Security Option, Software	4589
3030	AST Advantage! 128 Multifunction Board (128KB, Serial Port, Parallel Port) (special bid only)	595
3031	AST Advantage! 128-S Multifunction Board (128KB, 2 Serial Ports, Parallel Port) (special bid only)	645
3032	AST Advantage! 512 Multifunction Board (512KB, Serial Port, Parallel Port) (special bid only)	645
3033	AST Advantage! 512-S Multifunction Board (512KB, 2 Serial Ports, Parallel Port) (special bid only)	695
3034	AST Advantage! 1125 Multifunction Board (1125KB, Serial Port, Parallel Port) (special bid only)	945
3035	AST Advantage! 1125-S Multifunction Board (1125KB, 2 Serial Ports, Parallel Port) (special bid only)	995
3038	AST Advantage! 3000 Multifunction Board (3MB, Serial Port, Parallel Port) (special bid only)	1945
3039	AST Advantage! 3000-S Multifunction Board (3MB, 2 Serial Ports, Parallel Port) (special bid only)	1995
3052	AST RAMvantage! Extended Memory Board (128KB) (special bid only)	345
3053	AST RAMvantage! Extended Memory Board (512KB) (special bid only)	445
3054	AST RAMvantage! Extended Memory Board (1MB) (special bid only)	745
3056	AST RAMvantage! Extended Memory Board (3MB) (special bid only)	1545

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MODEL/FC VPA	DESCRIPTION	PRICE
DIRECT-ACCESS STORAGE DEVICES		
3780 a	Diskette Drive Adapter, PC, PC/XT	125
3325 a	5.25in Half-Height Dual-Sided Diskette Drive (360KB), PC/XT	225
3258 a	3.5in Half-Height Dual-Sided Diskette Drive (720KB), PC/XT	170
4865-001 b	External Diskette Drive, 3.5in for PC, PC/XT, Portable (720KB) Driven by std. diskette adapter, Inc. Guide to Operations	395
4865-002 b	External Diskette Drive, 3.5in, for PC/AT Inc. Guide to Operations	395
8750 a	Personal System/2 5.25in External Diskette Drive Adapter/A for attaching 4869-1 to Personal System/2 Model 30 (5/87)	60
3326 a	20MB Fixed Disk, PC/XT	630
3327 a	20MB Fixed Disk Adapter, PC/XT	200
3363-A01 b	External Optical Disk Drive (200MB, removable media, write once) (attaches to PC, PC/XT, PC/AT, 8530) (2Q87)	2950
0206 a	High Capacity (1.2MB) Diskette Drive, PC/AT	275
0207 a	Dual-sided Diskette Drive (360KB), PC/AT	225
0357 a	Internal Diskette Drive, 3.5in for 8MHz PC/AT and PC/XT 286 (720KB), not supported as drive A or with 4865-2	170
0205 a	20MB Fixed Disk Drive, PC/AT	W/D
0210 a	30MB Fixed Disk Drive, PC/AT	1795
0468 a	Upgrade PC/AT BIOS, add 30MB drive	1795

TAPE BACKUP DEVICES

4156 a	6157 Tape Attachment Adapter, PC	350
0842 A	SY-TOS/IBM 6157 Tape Utilities V.2.0 (backup/restore, library utilities driving 6157 from 8530, 8550, 8560, 8580), Test Period 2 months (9/87)	100
0955 A	SY-TOS/IBM 6157 Tape Utilities V.1.0 (backup/restore, library utilities driving 6157 from PC, XT, AT, 3270-PC)	70
1560-A01 h	Tecmar Q60H Stand-alone Tape Backup Subsystem (60MB tape)	2144
7701 b	Tecmar Q60AT Stand-alone Tape Backup Subsystem (60MB tape, mounts internal to PC/AT chassis)	1695
1561-A01 h	Tecmar Q60W20 Disk/Tape Subsystem (60MB tape, 20MB disk, not for PC/AT)	3495

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MODEL/FC VPA	DESCRIPTION	PRICE
1561-B01 h	Tecmar Q60W20AT Disk/Tape Subsystem (60MB tape, 20MB disk, PC/AT only)	3195
7700 b	Tecmar PCHOST (Tape backup units contain one attachment card, PCHOST allow attachment of subsequent PC's to same tape unit)	149
6714	Tallgrass TG-1020i Tape Backup (special bid only)	895

A REALTIME INTERFACE CO-PROCESSOR (ARTIC)

See the section on Industrial Software for listings of software supporting ARTIC.

The ARTIC Multiport card features four or eight ports with 19.2kbps async and 38.4kbps HDLC/SDLC. All eight ports may run at 9.6kbps concurrently.

6240 a	A RealTime Interface Co-Processor (ARTIC) Multiport adapter, 4 ports, 128KB, Control Program on 5.25in diskette (10/87)	1060
6241 a	A RealTime Interface Co-Processor (ARTIC) Multiport adapter, 4 ports, 128KB, Control Program on 3.5in diskette (10/87)	1060
6242 a	512KB Memory Expansion for ARTIC Multiport, replaces base 128KB with 512KB (10/87)	285
6245 a	Four-Port Expansion for ARTIC Multiport, provides 4 additional RS-232/V.24 ports (10/87)	180
6246 a	EIA RS-232 Multiport Interface Cable for ARTIC Multiport, 1 78-pin connector to 8 25-pin connectors, 10/87)	210
6058 a	IBM Realtime Interface Co-Processor (ARTIC) Multiport, Technical Reference	185
6059 a	IBM Realtime Interface Co-Processor (ARTIC) Multiport, Hardware Maintenance and Service	100

The ARTIC card features two serial ports with a max speed of 64kbps on one, 19.2kbps on the other. Max of 2 interface cards per ARTIC.

6050 a	A RealTime Interface Co-Processor (ARTIC) driver card for multiple industrial programmable controllers, 128KB, Control Program on 5.25in diskette	1295
6165 a	A RealTime Interface Co-Processor (ARTIC) driver card for multiple industrial programmable controllers, 128KB, Control Program on 3.5in diskette (5160, 5170 only)	1295
6160 a	A RealTime Interface Co-Processor (ARTIC) driver card for multiple industrial programmable controllers, 512KB, Control Program on 5.25in diskette	1695

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MODEL/FC VPA	DESCRIPTION	PRICE
6166 a	A RealTime Interface Co-Processor (ARTIC) driver card for multiple industrial programmable controllers, 512KB, Control Program on 3.5in diskette (5160, 5170 only)	1695
6051 a	EIA RS-232C/CCITT V.24 Interface Board for ARTIC	130
6064 a	EIA RS-422A Interface Board for ARTIC	245
6053 a	CCITT V.35 Interface Board for ARTIC	210
6066 a	20mA Current Loop Interface Board for ARTIC	190
6055 a	128KB Memory Expansion for ARTIC (for FC6050 and 6165 only)	175
6161 a	512KB Memory Expansion for ARTIC (for FC6160 and 6166 only)	300
6056 a	RS-232C Direct Attach Interface Cable, 2m, for ARTIC	100
6057 a	RS-232C Modem Attach Interface Cable, 2m, for ARITC	115
6061 a	CCITT V.35 Interface Cable, 2m, for ARTIC	200
6058 a	Technical Reference Manual, ARTIC	185
6059 a	Hardware Maintenance and Service Manual, ARTIC	100

GENERAL PURPOSE INTERFACE BUS ADAPTER

1503 a	IBM PC General Purpose Interface Bus (14-device IEEE-488, 300KB DMA rate) (Use FC 3907, which includes a cable, to order the IEEE-488 Adapter for 5371 models.)	295
4201 A	IBM PC General Purpose Interface Bus (IEEE-488) Programming Support	89

DATA ACQUISITION/CONTROL ADAPTER

See also Labtech Notebook, FC 9586.		
1502 a	IBM PC Data Acquisition/Control Adapter (4-A/D @ 15k/sec, 2-D/A @ 25k/sec, both 12-bit, 16-channel digital TTL I+O @ 25k/sec)	975
1504 a	IBM PC Data Acquisition/Control Distribution Panel	190
4202 A	IBM PC Data Acquisition/Control Adapter Programming Support	175

See also Labtech Notebook, FC 9586, for additional DACA support

KEYBOARDS

6279940	Keyboard Template (3, for Enhanced Keyboard)	4.95
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MODEL/FC VPA	DESCRIPTION	PRICE
6341707	Clear Keycaps (60, with paper inserts, for Enhanced Keyboard)	50
6341704	Paper Inserts for Clear Keycaps (300)	30
1351710	Blank Light Keycaps (60, for Enhanced Keyboard)	25
1351728	Blank Dark Keycaps (60, for Enhanced Keyboard)	25
1351717	Keycap Removal Tool (6, for Enhanced Keyboard)	11

MISCELLANEOUS

6011 a	IBM PC Music Feature (336 voices available, 8 played simultaneously)	495
SA23-1035	Technical Reference Supplement, PC Music Feature	??
SA23-1029	Hardware Maintenance and Service Supplement, PC Music Feature	??
9103 A	Microsoft Mouse (BUS 6.0) *	175
7530 b	Mouse Systems PC, XT Mouse	195
5083-11A	Graphics Tablet (CursorPad, 6.14in x 6.14in)	385
5083-12A	Graphics Tablet (11.5in x 11.5in)	535
1511	Cursor (Crosshair Mouse or 'Puck')	150
6351	Stylus	100
4010	Cable to attach RT PC to 5083 Tablets (2.50m)	60
4020	Cable to attach PC or PC/XT (5150, 5160) to 5083 Tablets (1.83m)	40
4025	Cable to attach PC/AT or PC/XT 286 (5170, 5162) to 5083 Tablets (1.83m)	40
4050	5083 Power Supply for 5150, 5160, 5162, 5170 to 5083-11A, -12A attaches tablet to PC, XT, AT, req. async. adapter plus appropriate cable above	65
8654210	Bracket Kit (narrower card brackets for PC/XT)	3.95
7515 b	FTG Light Pen FT-156 (on 1597-A01)	195
3177	IBM PC Keylock Feature for PC, PX/XT	50
0218 a	Floor-Standing Enclosure, PC/AT	165
1585-S01	Topaz Powermaker Micro Uninterrupted Power System Model 84126-57	1185

DISPLAYS AND ATTACHMENTS, PC

4050 a	IBM Display Adapter (Personal System/2 Display Adapter) for PC, PC/XT, PC/AT, and 8530 (Supports 8503, 8512, 8513, 8514 with 640x480x16 color through 320x200x256 color graphics, also grey scale) (7/87)	595
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MODEL/FC VPA	DESCRIPTION	PRICE
S68X-2216	Hardware Maintenance and Service Update - Personal System/2 Display Adapter	30
S68X-2238	Hardware Maintenance Reference Update - Personal System/2 Display Adapter	6
Initial shipments of InfoWindow in 4Q86 will support one videodisk player via RS232. Support of two players via IEEE-488 and 'sound over still' will be included 2Q87.		
4055-001 b	IBM InfoWindow Display (13in Diagonal, dual frequency RGB/NTSC, 64 color, 640H x 200/350V resolution, .22 Megapel, overlay live video, speakers, synthetic speech, touch sensitive, videodisk attach)	4195
GX27-3671	IBM InfoWindow Guide to Operations	N/C
SX27-3665	IBM InfoWindow Hardware Maintenance and Service	??
8575140	InfoWindow Tilt/Swivel Display Base	70
6952300	InfoWindow Power Cord, 9-foot (standard cord is 6-foot)	10
5040 f	IEEE-488 Cable for InfoWindow	102
5240 a	InfoWindow Enhanced Graphics Adapter (IEGA) for use with 8530 and InfoWindow (7/87)	723
6583 a	Enhanced Graphics Adapter Jumper Card (connects EGA to GPIB card for control by InfoWindow)	40
SX27-3756	EGA Jumper Card Hardware Maintenance and Service Manual	??
SK2T-0297	InfoWindow Guide to Operations	??
5151-001 b	IBM Monochrome Display (11.5in Diagonal) (2 color, 80 character x 25 line, 720H x 350V resolution, .25 Megapel, 9x14 character cell)	275
4900 a	IBM Monochrome Display and Printer Adapter (Supports 5151)	250
3051	Preview! Monochrome Graphics Card (special bid only)	399
5153-001 b	IBM Color Display (13in Diagonal) (16 color, 80 character x 25 line, 640H x 200V resolution, .13 Megapel, 8x8 character cell)	680
4910 a	IBM Color/Graphics Monitor Adapter (Supports 5153 with 640x200x2 color through 160x200x8 color graphics)	244
3043	Hercules Color Card, incl. parallel port, light pen interface (special bid only)	245
5154-001 b	IBM Enhanced Color Display (13in Diagonal) (64 color, 80 character x 25 line, 640H x 350V resolution, .22 Megapel, 8x14 character cell)	849
1200 a	IBM Enhanced Graphics Adapter (64KB) Supports 5151, 5153, 5154 w/640x350x4-color on 5154 and 256-character loadable set, character cell size programmable to 8H x 32V	524

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MODEL/FC VPA	DESCRIPTION	PRICE
1201 a	Memory Expansion Card (64KB) for Enhanced Graphics Adapter Supports 640x350x16 color on 5154 and 512-character loadable set	199
1203 a	IBM Graphics Memory Module (128KB) for Enhanced Graphics Adapter Memory Card Adds smooth scroll, pan, graphics pages, 1024-character loadable set	259
3295-001 b	Plasma Monitor (19in Diagonal) (2 color, 104-160 character x 46-64 line, 960H x 768V resolution, .74 Megapixel, 6x12 - 9x16 character cell) (Discount Group B2)	3695
3001 b	Optional 5-meter cable for 3295 (Discount Group B2)	95
3025 a	3295 (Plasma Display) Adapter (incl. Guide to Operations)	1495
GA23-0237	IBM PC Information Panel (3295) Guide to Operations (incl. Enhanced Control Programming Interface Support diskette)	N/C
SA23-0207	IBM PC Information Panel (3295) Programming Guide and Reference	51.50
SY27-2575	IBM PC Information Panel (3295) Hardware Maintenance and Service	50
7801 B	Emulex/Persyst BoB/MG Monochrome/Color Graphics Board (4 color or grey levels, 80 character x 25 line, 640H x 400V max. resolution, 8X8/9x14 character cell)	249
1556-S01	Amdek Video 310A (amber phosphor) (special bid only)	230
0216 a	Display Stand (Tilt/Swivel)	69

PRINTER ATTACHMENTS, PC

GENERAL

5200 a	Printer Adapter (for 5152, 4201, etc.)	75
1537-A01	Hayes Transet 1000 Multifunction Buffer (128KB print buffer) (special bid only)	399
1537-B01	Hayes Transet 1000 Multifunction Buffer (512KB print buffer) (special bid only)	399
7501	PC, PX/XT Accessory Kit for Hayes Transet (special bid only)	40
7502	PC/AT Accessory Kit for Hayes Transet (special bid only)	40
7503	Cable, S1 Port to PC, PX/XT (serial) for Hayes Transet (special bid only)	33

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MODEL/FC VPA	DESCRIPTION	PRICE
7504	Cable, S1 Port to printer (serial) for Hayes Transet (special bid only)	33
7505	Cable, P1 Port to printer (serial) for Hayes Transet (special bid only)	33
7506	Cable, P1 Port to printer (parallel) for Hayes Transet (special bid only)	33
7507	Cable, S1 Port to modem for Hayes Transet (special bid only)	33
7508	Cable, S2 Port to PC/AT for Hayes Transet (special bid only)	33
1581-A01	Giltronix Serial Peripheral Sharing Device, Model 8007 (Shares serial printer among up to 8 PCs, req. male-male serial attach cable PN 6343332, and serial cables to PCs)	695

IMAGE DEVICE ATTACHMENT, PC

4925 a	3117 PC Adapter (connects 3117, PC family, req. cable FC3005)	240
3005 a	3117-PC Cable	65
GA18-2477	3117 Scanner and PC Adapter Guide to Operations	53.75
GK2T-0954	Supplement of 3117 Adapter Guide to Operations	15.75
SK2T-0956	Supplement of 3117 Adapter, Hardware Maintenance and Service	15.75
4920 a	High-Speed Adapter (connects 3118, or 3117 with Expansion Unit to PC family at 1mbps RS422, req. serial communications cable FC 2067)	295
GA18-2476	Guide to Operations - High Speed Adapter	25.50
SC18-2117	High Speed Adapter Technical Reference	19
SY18-2167	High Speed Adapter Hardware Maintenance and Service	26.25
SK2T-0955	Supplement of High Speed Adapter, Guide to Operations and Hardware Maintenance and Service	15.75

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MODEL/FC VPA

DESCRIPTION

PRICE

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MODEL/FC VPA

DESCRIPTION

PRICE

COMMUNICATIONS HARDWARE AND SOFTWARE

GENERAL

2067 a	Communications Adapter Cable (ASC/BSC/SDLC) (not for use with PC/AT Serial/Parallel Adapter)	65
0217 a	Serial Adapter Cable (10-foot long cable), PC/AT	65
0242 a	Serial Adapter Connector (10in long cable), PC/AT	35
5841-001	IBM 75-1200bps Synchronous-Asynchronous Modem (Separate VPA)	609
5842-001	IBM 75-2400bps Synchronous-Asynchronous Modem (Separate VPA)	719
GA27-3738	Guide to Operations, 5842 Modem	25
0837 A	IBM 3270 Workstation Program V.1.1, Warranted, Central Service to 9/88 ** (1Q88, except National Language Support 2Q88)	495
0652 A	ADDITIONAL LICENSE, IBM 3270 Workstation Program V.1.1	395
0800 A	IBM 3270 Workstation Program V.1.0, Warranted, Central Service to 9/87 (6/26/87, except support for Personal System/2 M60 and M80 9/25/87) **	495
0651 A	ADDITIONAL LICENSE, IBM 3270 Workstation Program V.1.0, Warranted, Central Service to 9/87 (6/26/87) **	395
0801 B	UPGRADE, PC 3270 Emulation Program V.2 or V.3 or 3270-PC Control Program V.1.22, 2.1, 3.0 to IBM 3270 Workstation Program V.1.0 (through 3/88)	250
0654 B	ADDITIONAL LICENSE of UPGRADE, PC 3270 Emulation Program V.2 or V.3 or 3270-PC Control Program V.1.22, 2.1, 3.0 to IBM 3270 Workstation Program V.1.0	190
0831 B	UPGRADE, PC 3270 Emulation Program, Entry V.1.0 or V.1.1 to IBM 3270 Workstation Program V.1.0 (through 3/88)	325
0655 B	ADDITIONAL LICENSE of UPGRADE, PC 3270 Emulation Program, Entry V.1.0 to IBM 3270 Workstation Program V.1.0	245
SA23-0343	IBM 3270 Workstation Program, Programming Guide	112
9969 A	PC 3270 Emulation Program Version 3.0 (standalone and LAN support, LAN coax gateway 5 sessions, SDLC 32 sessions, non-gateway via BSC 3274, SRPI/ECF, 5.25in+3.5in) Warranted, Central Service 90 days or to 6/88	475
0601 A	ADDITIONAL LICENSE, PC 3270 Emulation Program Version 3.0	??
9972	UPGRADE, PC 3270 Emulation Program Version 2.0 to PC 3270 Emulation Program Version 3.0 (thru 7/87)	75

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MODEL/FC VPA	DESCRIPTION	PRICE
0619 B	ADDITIONAL LICENSE of UPGRADE, PC 3270 Emulation Program Version 1.0 to PC 3270 Emulation Program Version 3.0	??
0620 B	ADDITIONAL LICENSE of UPGRADE, PC 3270 Emulation Program Version 2.0 to PC 3270 Emulation Program Version 3.0	??
9970	UPGRADE, 3270 Emulation Entry Program, Entry Level to PC 3270 Emulation Program Version 3.0	240
0621 B	ADDITIONAL LICENSE of UPGRADE, PC 3270 Emulation Program, Entry V.1 to PC 3270 Emulation Program Version V.3.0	??
9971	UPGRADE, PC Network SNA 3270 Emulation Program to PC 3270 Emulation Program Version 3.0 (thru 7/87)	75
SC23-0960	IBM PC 3270 Emulation Program V.3 Application Program Interface (API) and Host Reference	25

NOTE: PC 3270 Emulation Program V.2 is not supported for coaxial attachment to a 3174.

9951 A	PC 3270 Emulation Program Version 2.0 (standalone and LAN support, LAN gateway 5 sessions via coax or 32 sessions via SDLC, coax attach is via SDLC 3274 only) (W/D 4/87)	425
9953	Upgrade 3270 Emulation Entry Program, Entry Level to PC 3270 Emulation Program Version 2.0	240
SC23-0892	Application Programming Interface Manual and Host Reference for PC 3270 Emulation V.2	25
8575345	IBM 3270 Emulation Memory Management Enhancement, swap PC 3270 Emuln Pgm V.2 or later in/out of memory by hotkey, req. Carousel Program by SoftLogic (5/1/87)	20
0841 A	Advanced Program-to-Program Communication for the IBM PC V.1.11 (SNA LU 6.2 on SDLC and Token-Ring, 3.5in+5.25in) Central service to 6/30/87 (5/29/87)	165
0849 A	Programming Guide, Advanced Program-to-Program Communication for the IBM PC (3.5in+5.25in) (5/29/87)	170
7038 A	Advanced Program-to-Program Communication for the IBM PC, (SNA LU 6.2 on SDLC and Token-Ring) Central service to 6/30/87	150
0851 A	ADDITIONAL LICENSE, Advanced Program-to-Program Communication for the IBM PC	??
3653 A	Distributed Data Management/PC (DDM/PC) V.1 for communication to CICS, S/36, S/38, req. APPC/PC or appropriate PS/3X product Warranted, Central Service to 12/88 (3Q87)	395
7610 b	Emulex DCP-88/VM-128K with DCP/EXEC Operating System (on 1596-B01)	1400
7611 b	Emulex DCP-88/VM-256K with DCP/EXEC Operating System (on 1596-B01)	1825
7612 b	Emulex DCP-88/VM-128K (on 1596-B01)	1200
7613 b	Emulex DCP-88/VM-256K (on 1596-B01)	1625

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MODEL/FC VPA	DESCRIPTION	PRICE
4451 A	IBM Mainframe Communication Assistant V.1.05 (part of Assistant Series, async or coax, adds support of PC Convertible) (on 5.25in diskette)	199
0603 A	ADDITIONAL LICENSE, IBM Mainframe Communication Assistant V.1.05 (on 5.25in diskette)	??
4452 A	IBM Mainframe Communication Assistant V.1.05 (part of Assistant Series, async or coax, adds support of PC Convertible) (on 3.5in diskette)	199
4449	Upgrade Mainframe Communication Assistant to V.1.05	85
9760 A	Micro-Translator by Metro-Mark Integrated Systems * (convert TDCC or ANSI data, create and generate acceptance/rejection advice, dial EDI/BDI)	1995
5664-309	PROFS Personal Computer Support (async or coax, process notes, read but not update documents, local notelog/maillog) DSL0 also available, Central Service	
4766	One-time option 1-100 users	6000
4767	One-time option 101-500 users (req. FC 4766)	3000
4768	One-time option 501-1000 users (req. FC 4766, 4767)	3000
4769	Monthly option 1-100 users	300
4770	Monthly option 101-500 users (req. FC 4769)	150
4771	Monthly option 501-1000 users (req. FC 4769, 4770)	150
9228 A	PROFS/Personal Computer Connection (PROFS/PC squared) (async or coax), Central service to 6/86	219
6148 A	Personal Services/PC V.1.3 (DISOSS/370, S/38 Office, peer-peer, async or coax, 3278/79 em. adapt., 3270-PC), Warranted, Central service 6 mo. notice or to 12/88 ** (9/87)	299
6149	Upgrade Personal Services/PC to V.1.3 (through 3/88)	35
0912 A	Personal Services/PC V.1.2 (DISOSS/370, S/1 Office, peer-peer, async or coax, 3278/79 em. adapt., 3270-PC), Warranted, Central service 6 mo. notice or to 12/87 **	275
0911	Upgrade PS/PC to V.1.2 (through 3/87)	35
SC30-3286	DISOSS Version 3 Release 2 Support for Personal Services/PC	3.60
SC30-3332	Personal Services/FC Technical Reference	16
5798-DZD	Videotex/370 V.2, CICS SNA and X.25 Videotex preparation and presentation, works with PC/Videotex-Graphic Artist Facility, PC/Colorview, PC/Videotex, Central service to 12/89	85000

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MODEL/FC VPA	DESCRIPTION	PRICE
5798-DTW	Videotex/370, CICS SNA and X.25 support for Videotex preparation and presentation, works with PC/Videotex-Graphic Artist Facility (VTXGRAF), PC/Colorview, and PC/Videotex, Central service to 9/87	75000
5003 a	Personal System/2 Data Migration Facility (moves data one way from PC to Personal System/2, req. parallel adapter and cable on sending system)	33

NETWORK MANAGEMENT (GENERAL)

5669-024	NetView/PC, support for non-SNA devices (Token-Ring, Rolm CBX, non-IBM), Alerts sent to Netview, remote console, req. ARTIC card, Warranted, Central Service 6 mo. notice or to 12/91 (2Q87)	2000
52205	NetView/PC ROLM Alert Monitor, NetView/PC application to monitor ROLM CBX, some non-ROLM PBX's (Order from ROLM, 3Q87) Central Service to 12/91	6500
52200	NetView/PC ROLM Call Detail Collector, NetView/PC application to do call accounting on ROLM CBX, some non-ROLM PBX's (Order from ROLM, 3Q87) Central Service to 12/91	6500

See also the Token-Ring Network Manager V.1.1, which can operate with NetView/PC to provide remote management of Token-Ring Networks

ENHANCED CONNECTIVITY FACILITIES

Enhanced Connectivity Facilities support the Server Requester Programming Interface (SRPI) and require MVS/XA TSO/E R.3 or VM/SP R.4. in the host.

SRPI requires 3270-PC Control Program V.3 or PC 3270 Emulation Program V.3 in the PC or 3270-PC.

SC23-0959	IBM Programmer's guide to the Server-Requester Programming Interface (SRPI) for the IBM PC and IBM 3270 PC	25
5664-327	IBM CMS Servers/Requesters for SRPI (3Q87), req. VM/SP R.4, Warranted, Central Service 6 mo. notice (monthly charge, also available for graduated one-time charge)	850

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MODEL/FC VPA	DESCRIPTION	PRICE
5665-396	IBM TSO/E Servers/Requesters for SRPI (3Q87), req. TSO/E R.3 and MVS/XA, Warranted, Central Service 6 mo. notice (monthly charge)	1350
--	Upgrade Attachment/370+ to IBM PC Requesters	188
6066 A	Host Data Base View Facility (HDBV) V.2, get data from IC/1(VM), QMF, TIF, AS, format for DIF, Filing Assistant, PDS, Symphony, 123, dBase, Multiplan, or print, uses SRPI or Mainframe Commo Asst	495
6091	Upgrade HDBV V.1 to V.2	125

ASYNCHRONOUS

GENERAL

For sharing of asynchronous ports as Network resources, see the Asynchronous Communications Server Program (FC 2003).

See also the Multiprotocol Communications Adapter for Async, BSC, and SDLC communications (FC 8001).

4805 a	IBM 75-1200bps Internal Async Modem (short card)	499
4829 a	IBM 75-2400bps Internal Async Modem (short card)	569
SA27-3739	Guide to Operations, 2400bps Internal Modem	35
SA27-3740	Technical Reference, 2400bps Internal Modem	30
SA27-3741	Hardware Maintenance and Service, 2400bps Internal Modem	60
2074 a	ASYNCH Adapter (included with fixed-disk models of the PC/XT)	70
7619	AST-FourPort/XN Communications Board (4 RS-232 ports to 9600 baud, cable included, for Xenix in PC/AT) (special bid only)	495
4032 A	Asynchronous Communications Support V.2	65
0604 A	ADDITIONAL LICENSE, Asynchronous Communications Support V.2	??
9226 A	PC/Colorview (Videotex), Central service for 90 days or to 4/87	115
4206 A	IBM PC Graphics Terminal Emulator (Tektronix 4010/4100 protocols, ADM3A) (W/D 5/8/87)	319
0914 A	PC/Host (3270 emulation, background file transfer, terminal and printer sessions plus PC hotkey, req. 3708 w/FC3524 or 3710 and host 3270-PC File Transfer Program)	200

As of April 6, 1987

MODEL/FC VPA	DESCRIPTION	PRICE
4100 A	IBM PC Personal Communications Manager (W/D 5/8/87)	109
6276538 #	Portfolio Management System (communicate with Dow Jones)	99.95
6276622 #	Portfolio Management System Reference Book	10
5798-DQG	Series/1 Department Office Control System (EDX, FC9045), Central service to 12/86	1980
5799-TNG	Series/1 Intelligent Workstation PRPQ V.2 Warranted, Central service 6 mo. notice	175
5799-TGC	Series/1 Intelligent Workstation PRPQ V.1 Warranted, Central service to 6/85	150
9299 A	SmarTerm 100 (DEC VT100, 101, 102, 52 emulator) by Persoft *	149
5732-019	System/88 IBM PC Terminal Support Release 2 (Release 3 available 2Q87) (Order FC 9080, 4000)	100
9229 A	PC/Videotex for the PC/XT V.B1.10 supporting Enh. Graphic Display), Warranted, Central service to 11/86	275
9376 A	PC/Videotex-Graphic Artist Facility (VTXGRAF) for use with PC/Videotex and Videotex/370, supports 5082-2 tablet, Central service for 90 days or to 1Q88	2500
9230 A	PC/Videotex for the PCjr, Warranted, Central service to 11/86 (W/D 3/87)	239
6071 A	PC/VTXACCESS for the IBM PC Central service for 90 days	65
9186	WESTLAW Communications Session Manager by Direct Aid, Inc. *	350
4042 A	IBM 3101 Emulation	149
0605 A	ADDITIONAL LICENSE, IBM 3101 Emulation	149
2113	3101 Emulation Extensions (file transfer, highlighting, hotkey) Central service to 3/86	15

SERIES/1 PC CONNECTIVITY OPTION

5710-RTJ IBM Series/1 PC Connectivity Option

Common Sign and Menu System

9001	Asset Assignment	
2109	License Fee (no media)	440
3025	DSKT 2 256 b/s - Object Code	
3027	DSKT 2 256 b/s - Source Code	

Printer Emulation for the IBM Personal Computer

9001	Asset Assignment	
2110	License Fee (no media)	350

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MODEL/FC VPA	DESCRIPTION	PRICE
3026	DSKT 2 256 b/s - Object Code	
3028	DSKT 2 256 b/s - Source Code	
	Series/1 Pregenerated Operating Environment (requires RPS 6.1, Multiple Terminal Manager, Intelligent Workstation PRPQ, and other PRPQ's)	
9001	Asset Assignment	
2108	DSKT 2 256 b/s - Pregenerated Operating Environment/Process Charge	150

WATERLOO AND WATCOM MICRONET & LANGUAGES (SEE GB20-2339)

5793-AAP	Waterloo and WATCOM Languages, incl. APL, BASIC, COBOL, FORTRAN, and Pascal interpreters, Waterloo Sys. Lang., assembler (host and PC programs), Central service for 1 year or to 10/87	
9001	Asset Assignment	N/C
2004	Waterloo Languages for 30 IBM PC's	4950
2005	Waterloo Languages for VM/CMS	6600
5793-AAN	Waterloo PC Network Release 1.1 and Waterloo HOSTCM Program (Series/1 and host file servers, printer sharing, DOS support, 3277 emulation), Central service for 1 year or to 10/87	
9001	Asset Assignment	N/C
2000	Standalone Series/1 Support	1650
2001	Channel-attached 4994 and S/1 Server (adds 3277 emulation, host libraries)	1650
2002	VM Server (requires FC2001)	1650
2003	CMS HOSTCM Programs (37X5-attach PC network and CMS file transfer without S/1)	330

DISPLAYWRITER/PERSONAL COMPUTER ATTACHMENT

6403664	IBM Displaywriter/XT and PC Attach Convenience Kit Incl. 6403728 and FC 0102	535
6403728	IBM Displaywriter/Personal Computer Attach Convenience Kit Incl. Cable, DW and PC Diskettes, Guide, and two Wrap Plugs (PC and XT also require FC 0102)	495
6403729	IBM Attachment Cable	295
6403730	IBM Wrap Plugs	75
6403731	Attach Program Diskettes	300

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MODEL/FC VPA	DESCRIPTION	PRICE
BINARY SYNCHRONOUS AND SDLC COMMUNICATION		
8001 a	Multiprotocol Communications Adapter (Asc, BSC, SDLC)	475
1204 a	BSC Adapter (PC, XT, and PC/AT)	240
4037 A	Binary Synchronous 3270 Emulation	769
4210 A	IBM PC DisplayComm (BSC) Communications V.1.1 (IBM 2770/3780 and IBM 2780 Emulation)	409
0606 A	ADDITIONAL LICENSE, IBM PC DisplayComm (BSC) Communications V.1.1	??
4187 A	IBM PC DisplayComm (BSC) Communications (IBM 2770/3780 and IBM 2780 Emulation)	409
1205 a	SDLC Adapter (PC, XT, and PC/AT)	240
4036 A	SNA 3270 Emulation and 3770 RJE Support	769
5799-BRQ	8100 DPPX/SP PC RJE File Transfer, Warranted, Central service 12 mo. notice	1010
9178 A	IBM PC SNA 3790 Batch Communications Program, Central service to 3/88	385
2874 A	Remote 5250 Emulation Program (S/36-38)	195
0608 A	ADDITIONAL LICENSE, Remote 5250 Emulation Program	??

TWINAXIAL S/34, S/36, S/38 ATTACHMENT

For remote SDLC 5250 emulation, see the Remote 5250 Emulation Program (FC 2874).

2910 A	IBM Enhanced 5250 Emulation Installation Convenience Kit V.2.12 for S/34, S/36, and S/38, incl. 2912, 2877, and 2871 (5.25in+3.5in) **	845
2871 a	Enhanced Display Station Emulation Adapter	595
2912 A	Enhanced 5250 Emulation Program V.2.12 (5.25in+3.5in)	160
0609 A	ADDITIONAL LICENSE, Enhanced 5250 Emulation Program V.2.12 (5.25in+3.5in)	??
2913	Upgrade Enhanced 5250 Emulation Program V.2.1 to V.2.12 (through 11/3/87)	92
9705	Enhanced Keyboard Appendix (required to run Enhanced 5250 Emulation Program with PCs having the Enhanced Keyboard)	N/C
2877 a	Integrated Attachment Cable	90

The 'Workstation Feature' of PC Support/36 allows Token-Ring attached PCs to emulate 5250 terminals. See also S/35 LAN Communications Program.

As of April 6, 1987

MODEL/FC VPA	DESCRIPTION	PRICE
5727-WS1	PC Support/36 (for 5360/5362) Supports DSEA, Remote SDLC, Token-Ring for Virtual Disk/Printer, 5250 emulation, Warranted, Central service 6 mo. notice	
4765	Monthly License Charge Option	48
4764	One-Time Charge Option	700
9681	DSLO One-Time Charge	615
6248	Workstation Feature (LAN-attached PCs as S/36 terminals) Asset Assignment (2Q87)	N/C
4401	Workstation Feature Monthly Charge Option (2Q87)	100
4400	Workstation Feature One-Time Charge Option (2Q87)	1500
4402	Workstation Feature DSLO One-Time Charge (2Q87)	1320
5727-WS6	PC Support/36 (for 5364) Supports DSEA, Remote SDLC, Token-Ring for Virtual Disk/Printer, 5250 emulation, Warranted, Central service 6 mo. notice	
4790	One-Time Charge Option	280
9703	DSLO One-Time Charge	210
6181	Workstation Feature (LAN-attached PCs as S/36 terminals) Asset Assignment (2Q87)	N/C
4121	Workstation Feature One-Time Charge Option (2Q87)	600
6517	Workstation Feature DSLO One-Time Charge (2Q87)	450
5714-PC1	PC Support/38 (replaces 5799BTZ and 5799BKP) Supports DSEA (FC2887), Enhanced DSEA (FC2879), or remote SDLC 5250 emulation (FC2067), Warranted, Central service 6 mo. notice	
4582	Basic License for 5714-PC1	995
6550	Expansion Feature (additional concurrent users, enhanced virtual printer support, performance)	350
9582	DSLO License for 5714-PC1	876
5799-BNZ	File Support Utility PRPQ S/34, Warranted, Central service for 90 days	300
5799-BNY	File Support Utility PRPQ S/36, Warranted, Central service for 90 days	300
5799-BKP	File Support Utility PRPQ S/38, Warranted, Central service for 90 days	300
9235 A	Attachment/36 Edition (for PC) (requires FC 2886 and Data Edition program), Warranted, Central service for 90 days or to 12/86	165
5727-BRK	Attachment/36 (for S/36, FC9049), Warranted, Central service 6 mo. notice	1155

COAXIAL COMMUNICATION (3270-PC FAMILY)

For hardware, see "Processors - 3270-PC Versions" on page 49, "Processors - 3270-PC/AT Versions" on page 51, "Processors - 3270-PC Plasma Display Versions" on page 53, and "Processors - 3270-PC / G and GX Versions" on page 54.

As of April 6, 1987

MODEL/FC VPA	DESCRIPTION	PRICE
	The IBM 3270-PC Control Program can be upgraded to the IBM 3270 Workstation Program	
1505 A	3270-PC Control Pgm (for 5271, exc. m 24/26) V.1.2.2, Central service to 12/86 ** (W/D 7/10/87)	329
3010 A	3270-PC Control Pgm (for 5271, m22/24/26) V.1.2.1, Central service to 6/86 ** (1.2.2 recommended for m 2/4/6) (W/D 7/10/87)	329
6168460	Virtual Device Interface Update Kit for V.1 and V.2	N/C
3005 A	3270-PC Control Program (for 5273) V.2.1, Central service to 9/86 ** (W/D 7/10/87)	329
3015	Workstation Update Kit for 2.0 to 2.1 (order on 5875-UPG) (W/D 7/10/87)	65
5700 A	3270-PC Control Program Version 3.0 (XMA, Enhanced Keyboard, 8MHz PC/ATs) ** Central service to 12/87 (W/D 7/10/87)	450
5800	Upgrade 3270-PC Control Program to Version 3.0 (W/D 7/10/87)	200
0835 A	3270-PC High-Level Language Application Program Interface V.3.1 for Workstation Program V.1, incl. C interface and National Language Support (2Q88) **	195
0635 A	ADDITIONAL LICENSE, 3270-PC High-Level Language Application Program Interface V.3.1 for 5271 and 5273 **	155
5797 A	3270-PC High-Level Language Application Program Interface V.3.0 for 5271 and 5273, Central service to 12/87 **	195
0602 A	ADDITIONAL LICENSE, 3270-PC High-Level Language Application Program Interface V.3.0 for 5271 and 5273	??
5802	Upgrade High-Level Language Application Program Offering to Version 3.0	95
6276654 #	EzAPI (interpretive command language for writing HLLAPI programs, incl. logic, disk I/O, req. HLLAPI)	74.95
GG24-1687	3270-PC, A Guide to API Programming	N/C
5798-DXX	IBM Professional Work Manager (execution environment for host and PC applns, packaged APIs for logon and host applns, req. ISPF/PC, HLLAPI, hard disk, use FC4433+FC9075) Central Service to 8/88	385
3245 A	3270-PC/AT/G/GX Graphics Control Program Version 3.21 (for 5373 G/GX), req. 1MB PC memory, Central service 6 mo. notice or to 2/87 **	550

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MODEL/FC VPA	DESCRIPTION	PRICE
5668-820	Storage Tube Simulator Program (GDDM calls and extensions to emulate Tektronix Plot 10 calls on G/GX, req. Tektronix code), Warranted	
4757	One-Time Charge Option	2750
4749	Monthly License Charge Option	300
6047 A	3270-PC/AT/GX 3277GA (Graphics Attachment) Emulator (GCP not required) Central Service to 12/88 **	1000
	See the 3270-PC Color Graphics Applications (GGXA) graphical editor, FC 1508	
5664-281	3270-PC File Transfer Program VM/SP 2.1, Warranted, Central service 6 mo. notice	600
5665-311	3270-PC File Transfer Program MVS/TSO, Warranted, Central service 6 mo. notice	600
5798-DQH	3270-PC File Transfer Program CICS/VS	660
	The above three programs are also for the 3278/79 Emulation Adapter and the IBM PC Network SNA 3270 Program.	
9360 A	3270-PC File Transfer Express DPCX/DOSF and DPPX/SP2, with printer sharing, Central service to 12/86	79
9801	Lotus/Answer (convert data from Answer/DB into Lotus, Symphony format) Central Service to 12/88 *	550
9802	dBase/Answer (convert data from Answer/DB into dBase, Framework format) Central Service to 12/88 *	550
5798-DWG	Answer/DB, host server for Lotus/Answer, dBase/Answer, runs under IMS or CICS to access IMS or VSAM data, Central Service to 12/88 (NOTE: other feature codes are needed to specify tape density, etc.)	
4410	One-Time Charge for Answer/DB under IMS/DC	35000
4411	One-Time Charge for Answer/DB under CICS	20000

COAXIAL COMMUNICATION (3278/79 EMULATION ADAPTER)

See also the 4700 Finance Communication System.

See also the Answer/DB, Lotus/Answer, and dBase/Answer products under Coaxial Communication (3270-PC) above.

See also the PC 3270 Emulation Program under Communications Hardware and Software (General) above.

As of April 6, 1987

MODEL/FC VPA	DESCRIPTION	PRICE
5050 a	Advanced IBM PC 3278/79 Emulation Adapter (short card, replaces and is equivalent to old FC2507)	595
0803 A	IBM PC 3270 Emulation Program, Entry V.1.2 (not supported on EGA) Test Period 2 months, Warranted, Central Service to 9/26/88 ** (9/25/87)	325
0633 A	ADDITIONAL LICENSE, IBM PC 3270 Emulation Program, Entry V.1.2	270
0804 B	UPGRADE, PC 3270 Emulation Program Entry Level V.1.0 to V.1.2 (through 6/25/88)	150
0637 B	ADDITIONAL LICENSE of UPGRADE, PC 3270 Emulation Program Entry Level V.1.0 to V.1.2	110
0843 B	UPGRADE, PC 3270 Emulation Program Entry Level V.1.1 to V.1.2 (through 6/25/88)	75
0638 B	ADDITIONAL LICENSE of UPGRADE, PC 3270 Emulation Program Entry Level V.1.1 to V.1.2	55
1037 A	IBM PC 3270 Emulation Program, Entry V.1.1 ** (replaces 3278/79 Emulation Control Pgm, adds HLLAPI subset, not supported on EGA) (support for 8550 and 8560-041 added 5/29/87)	250
0600 A	ADDITIONAL LICENSE, IBM PC 3270 Emulation Program, Entry V.1.1 **	??
1137	UPGRADE, PC 3270 Emulation Program, Entry V.1.0 to V.1.1 (through 11/16/87)	75
0618 B	ADDITIONAL LICENSE of UPGRADE, PC 3270 Emulation Program, Entry V.1.0 to V.1.1	75
8975 A	IBM PC 3270 Emulation Program, Entry V.1 (replaces 3278/79 Emulation Control Pgm, adds host keyboard and color redefinition, faster file transfer, TopView and LAN) (W/D 5/21/87)	185
SA23-0268	IBM PC 3278/79 Emulation Adapter Guide to Operations and Diagnostics	??
6575 a	IBM PC 3278/79 Emulation Adapter Technical Reference for the Advanced Adapter (FC 5050)	6
2336 a	IBM PC 3278/79 Emulation Adapter Technical Reference Addendum (for the original adapter)	16
6585 a	IBM PC 3278/79 Emulation Adapter Hardware Maint. and Service Addendum (for the advanced adapter)	43
2337 a	IBM PC 3278/79 Emulation Adapter Hardware Maint. and Service Addendum (for the original adapter)	22
7045 A	Personal COmputer MONitor (PECOMON, response time, availability monitor), Central service to 2/14/88	325
9234 A	Attachment/370 Edition (for PC) (requires Data Edition program and FC2507), Warranted, Central service for 90 days or to 3/87	219
9740 A	Attachment/370+ (for PC with 3278/79 card, 3270-PC) (requires Data Edition program), Warranted, Central service for 90 days or to 5/88	300
5665-336	Attachment/MVS (for MVS, FC9029/9031), Warranted, Central service 6 mo. notice	
4593	Monthly Charge Option	1000
4594	One-time Charge Option	22000

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MODEL/FC VPA	DESCRIPTION	PRICE
5664-290	Attachment/VM (for VM, FC9029/9031), Warranted, Central service 6 mo. notice	
4780	Monthly Charge Option	800
4781	One-time Charge Option	17600
SH24-5087	PC/VM Programmer's Guide	3.35
7022 A	VM Bond Rel.2 (Virtual disks, message reception, REXX/PC, 3278/79 emuln, PC request host services, req.5664-298 Rel.2), Warranted, Central service 6 mo. notice or 12/87 **	250
7043 A	VM Bond Technical Coordinator Support package Rel.2 (required for NSC support, contains one copy of FC7022 and FC4143), Warranted, Central service 6 mo. notice or to 6/86	400
	Release 2.1 of PC/VM Bond adds support for VM/SP Release 5, PC Enhanced Keyboard, 3174, and PC DOS 3.2	
6128 A	VM Bond Rel.2.1 (Virtual disks, message reception, REXX/PC, 3278/79 emuln, PC request host services, req.5664-298 Rel.2.1), Warranted, Central service 6 mo. notice or 12/87 **	250
6132 M	VM Bond Technical Coordinator Support package Rel.2.1 (required for NSC support, contains one copy of FC6128 and FC4143), Warranted, Central service 6 mo. notice or to 6/86	400
5664-298	PC Bond Rel.2.1 (Host support for FC7077), Warranted, Central service Rel.2 6 mo. notice, Rel.1 to 6/30/86	
9001	Asset assignment	
5466	1600 BPI tape media	
5467	6250 BPI tape media	
5465	3480 Tape Cartridge	
4566	One-Time Charge Option	2000
4547	Monthly Charge Option	135
4406 A	4700 PC Application Services (supports FCS Input/Output/Security Options), Warranted, Central service 6 mo. notice or to 9/89	300
7625 b	DCA Irma Card (on 1597-S01)	1195

COAXIAL COMMUNICATION (ATTACH TO EXISTING 3278/3279)

5318	IBM 3278 PC Adapter (3278 Portion) for m1-4 S/N A0000-N9999, 9V000-9W999	850
5317	IBM 3278 PC Adapter (3278 Portion) for m5, other m4	850

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MODEL/FC VPA	DESCRIPTION	PRICE
5799-WXJ	8100 DPPX/SP 3278/9 Attach File Transfer, Warranted, Central service 12 mo. notice	N/C

8100 LOOP ATTACHMENT

7630 b 8100 PC Adapter RLOOP Kit (on 1593-A01)	1275
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LOCAL AREA NETWORKS

See also "IBM SolutionPac Offerings" on page 27 for the LAN Implementation Solutions, which incorporate some of the following products.

G320-0893	The Information Connection - A Selection Guide to Local Area Networks and Media	N/C
	For remote SDLC 3270 emulation on the PC and Token-Ring Networks, see the IBM PC 3270 Emulation Program Version 2 (FC 9951).	
7803 A	IBM Local Area Network Support Program, provides NETBIOS and IEEE 802.2 interfaces for new adapters, (3.5in+5.25in) Test Period 2 months, Warranted, Central Service to 9/88 **	50
0631 A	ADDITIONAL LICENSE, IBM Local Area Network Support Program **	28
0632 C	DOCUMENTATION ONLY (Final Version) IBM Local Area Network Support Program	19
5227 C	DOCUMENTATION ONLY (Interim Version) IBM Local Area Network Support Program	19
1081 A	IBM PC Network Program V.1.2, enhanced performance, disk cache, up to 254 sessions depending on adapter (support for 8580 will be available 9/87)	175
0645 A	ADDITIONAL LICENSE, IBM PC Network Program V.1.2	135
0646 C	DOCUMENTATION ONLY, IBM PC Network Program V.1.2	30
1129 B	UPGRADE, IBM PC Local Area Network Program V.1.0 or V.1.1 to V.1.2 (through 1/88)	80
0647 B	ADDITIONAL LICENSE of UPGRADE, IBM PC Local Area Network Program V.1.0 or V.1.1 to V.1.2	60
0083 A	IBM PC Local Area Network Program V.1.10 (replaces IBM PC Network Program) (W/D 10/7/87)	125
PX0027	IBM PC Local Area Network IPL, allows remote IPL to another PC from server on PC Network or Token Ring, (order FC 4098, 5836, 9001)	34

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MODEL/FC VPA	DESCRIPTION	PRICE
7036 A	IBM Interconnect Program, connect PC Net-PC Net, PC Net-Token-Ring, Central service to 6/30/87, req. Token-Ring NETBIOS Program with Token-Ring Net **	495
8391 A	IBM Local Area Network Asynchronous Connection Server Pgm, up to 32 sess on dedicated gateway, Token and PC Net (3.5in+5.25in) Test Period 2 months, Warranted, Central Service to 12/88 (12/87)	1200
2003 A	IBM Asynchronous Communications Server Program for the IBM Token-Ring Network and PC Network	495
9396	IBM Local Area Network PrintManager (shares 3820 printer, also for Corvus Omninet) Central service to 9/86	800
6276586 #	PC Network Remote Control (run programs on other LAN PC's, view other PC's displays, for any NETBIOS LAN)	24.95
6276562 #	PC Network Remote Control (6 copies)	99
7771 A	IBM Remote NETBIOS Access Facility (telephone access to server, network functions from remote PC, for any NETBIOS LAN, runs both in gateway and remote PC)	195
8910 A	IBM LAN Manager V.1.0 for Token-Ring or broadband PC Net, manages multi-ring networks (5.25in+3.5in) Test Period 2 months, Warranted, Central Service to 6/89 ** (12/87)	1995
8913	IBM LAN Manager Upgrade, upgrade IBM Token-Ring Network Manger to LAN Manager V.1.0 (12/87, through 9/88)	500
8873 A	IBM PC 3270 Emulation LAN Management Program V.1.0, resides in PC 3270 Emulation gateway, manages small remote ring, (5.25in+3.5in) Warranted, Central Service to 6/89 ** (12/87)	995
9691 A	NetWare Bridge by Novell * (interconnect PC Net, Cluster) V.2.0A	395
9689 A	Novell Advanced NetWare/86 * V.2.0A	1595
9780	Novell Advanced NetWare/286 * V.2.0A (Non-Dedicated)	2195
9766	Novell Advanced NetWare/286 * V.2.0A (Dedicated)	2195
4159 A	IBM PC Classroom LAN Administration System (CLASS), V.1.0 (Installation aid for IBM education software under Netware/86 program)	995

IBM TOKEN-RING NETWORK

See "Single Shipment Volume Offering (PC and Token-Ring Networks)" on page 12 for the terms of the Single Shipment Volume Discount Offering for the Token-Ring Network PC Adapter.

As of April 6, 1987

MODEL/FC VPA	DESCRIPTION	PRICE
8228-KT1	IBM Token-Ring Network Starter Kit (1-8228, 1-Component Housing, 4-TR PC Adapter, 4-TR PC Cable, 4-30ft. Jumper Cable, 4-TR NETBIOS Pgm, 4-TR LAN Pgm, TR Starter Kit Guide) (W/D 7/2/87)	4065
SK2T-0299	IBM Token-Ring Network Starter Kit Guide	34.50
8228-KT2	IBM Token-Ring Network Starter Kit (1-8228, 1-Component Housing, 4-TR PC Adapter, 4-TR PC Cable, 4-30ft. Jumper Cable, 4-LAN Support Pgm, 4-LAN Pgm 1.2, TR Starter Kit Guide) (5/87)	4350
SK2T-0303	IBM Token-Ring Network Starter Kit Guide, 2nd Edition (5/87)	55
3391 a	IBM Token-Ring Network PC Adapter	695
0370	8 Token-Ring Network PC Adapters, Single-Shipment Volume Offering	4726
0371	20 Token-Ring Network PC Adapters, Single-Shipment Volume Offering	11398
83X7839	Remote Program Load (RPL) EPROM RPQ to do remote IPL via Token-Ring Adapter FC 3391 (also called RPQ 8Q0561) fits in socket on adapter, req. RPQ FC PX0027 or equivalent in server	80
5063 a	IBM Token-Ring Network PC Adapter II, Required for Industrial PC, Token-Ring Bridge, and S/36 Attachment	895
3390 a	IBM Token-Ring Network PC Adapter Cable	35
83X7839	Remote Program Load (RPL) EPROM RPQ to do remote IPL via Token-Ring Adapter II FC 5063 (also called RPQ 8Q0561) fits in socket on adapter, req. RPQ FC PX0027 or equivalent in server	80
6042	IBM Token-Ring Network PC Adapter Diskette (3.5in) provides adapter handler Adapter and Adapter II for 8530, included with adapters after April 2, 1987)	N/C
6043	IBM Token-Ring Network PC Adapter Hardware Maintenance and Service Addendum for 8530	20
See also the Advanced Program-to-Program Communication Program (FC 7038) for support of SNA LU 6.2 on the Token-Ring Network		
7037 A	IBM Token-Ring NETBIOS Program, Central service to 6/30/87 (W/D 7/10/87)	35
0910 A	IBM Token-Ring NETBIOS Program, V.1.1 (Adds support for attachment of 3270-PC to Token-Ring, 3.5in+5.25in) Warranted, Central service to 12/87 ** (W/D 7/10/87)	35
7860 A	IBM Token-Ring Network Bridge Program V.1.1, adds centralized multi-ring LAN management, (3.5in+5.25in) Test Period 2 months, Central Service 90 days notice or 6/89 **	1495

As of April 6, 1987

MODEL/FC VPA	DESCRIPTION	PRICE
8880 A	Upgrade Token-Ring Network Bridge Program V.1.0 to V.1.1 (through 9/30/88)	130
0908 A	IBM Token-Ring Network Bridge Program V.1.1, Creates bridges between rings, Central Service 90 days notice or 12/87 **	1495
6041 A	IBM Token-Ring Network Bridge Installation Kit, Incl. program, 2 Adapter-II's	3285
0907 A	IBM Token-Ring Network Manager (problem determination, error recovery) Central Service 90 days notice or to 12/87 ** (W/D 7/10/87)	1495
0931 A	IBM Token-Ring Network Manager V.1.1 (problem determination, error recovery), can work with NetView/PC, Warranted, Central Service to 12/88 (2Q87) **	1495
0933	Upgrade Token-Ring Network Manager V.1 to V.1.1 (2Q87)	75
For S/36 LAN Communications, see also PC Support/36 which is required for LAN connection		
3098 a	System/36 LAN Attachment Adapter (extra, for gateway PC/AT, note that FC 3098 is also shipped as part of 536X LAN Attachment Feature) (2Q87)	600
5727-LC1	IBM System/36 5360/5362 LAN Communications (links S/36, Token-Ring via dedicated PC/AT, supports 5250 and 3278 emulation via PC Support/36) Warranted, Central Service 6 mo. notice (2Q87)	
4404	Monthly Charge Option	75
4403	One-Time Charge Option	925
9520	DSLO One-Time Charge	814
5727-LC6	IBM System/36 5364 LAN Communications, Warranted, Central Service 6 mo. notice (2Q87)	
4122	One-Time Charge Option	695
9887	DSLO One-Time Charge	521

IBM TOKEN-RING NETWORK SUPPORT PUBLICATIONS

69X7830	IBM Token-Ring Network PC Adapter Technical Reference (Including the Adapter II)	195
6165880	IBM Token-Ring Network PC Adapter Hardware Maintenance and Service	250

IBM PC NETWORK

1220 a	PC Network Adapter II (broadband, 1 per PC, incl. 9-ft. coax, req. LAN Support Program or PC Network Protocol Driver)	570
S68X-2223	IBM PC Network Adapter II Technical Reference	21.25

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MODEL/FC VPA	DESCRIPTION	PRICE
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See "Single Shipment Volume Offering (PC and Token-Ring Networks)" on page 12 for the terms of the Single Shipment Volume Discount Offering for the Token-Ring Network PC Adapter.

0213 a	PC Network Adapter (broadband, 1 per PC, incl. 9-ft. coax)	595
0372	8 PC Network Adapters, Single-Shipment Volume Offering	4046
0373	20 PC Network Adapters, Single-Shipment Volume Offering	9758
0061 A	IBM PC Network Protocol Driver, supports new PC Net adapters and Personal System/2, and up to 61 sessions in a server, Test Period 2 months	100
0666 A	ADDITIONAL LICENSE, IBM PC Network Protocol Driver	81
9762 A	IBM PC Network Analysis Program	1295
0607 A	ADDITIONAL LICENSE, IBM PC Network Analysis Program	??
S68X-2265	IBM PC Network Adapter Technical Reference	17.25
1221 a	IBM PC Network Baseband Adapter (baseband, req. LAN Support Program)	470
S68X-2267	IBM PC Network Baseband Adapter Technical Reference	21.25

IBM SERIES/1-PC CHANNEL ATTACHMENT FEATURE

S/1 file server-print server for attached PC's. Also serves as an inter-net bridge for PC Network. Supported on S/1 processors: 4954, 4955, 4956, 4959, or 4965.

Feature codes 4000 and 4001 are ordered as features on the S/1 processor. They are also available for a monthly rental charge. For more information, see your IBM representative.

4000	S/1 to PC Channel Attach Feature (S/1 Controller Card, PC Channel Extender Card)	3265
4001	S/1 to PC Channel Attach Cable (12-ft cable)	435
5719-CN1	IBM Series/1-PC Connect Version 1 (sep.QDA), Warranted, Central service to 3/88	
9720	Asset registration	400
2123	Media distribution and process charge	34

As of April 6, 1987

MODEL/FC VPA	DESCRIPTION	PRICE
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IBM PERSONAL COMPUTER CLUSTER SYSTEM

0027	IBM PCjr Cluster Attachment	250
1206 a	IBM Personal Computer Cluster Adapter	340
1207 a	IBM Personal Computer Cluster Cable Kit	110

IBM SYSTEM/36 (5364) CONSOLE ATTACHMENT

The 5364 console is an IBM PC, XT, or AT which is directly attached to the 5364 via a cable. This console provides the functions of system control panel, initial program load, diagnostics, and communications support, as well as execution of PC applications.

4548 a	5364 Driver Card (extra, for replacement)	229
2205 a	Hardware Maintenance and Service Manual for the 5364 Driver Card	80
3606 a	Stick-on Keytop Labels--PC Style (extra)	4.70
3641 a	Stick-on Keytop Labels--5250 Style (extra)	4.70

SPERRY TERMINAL EMULATION

7603 b	Chi Sperry Terminal Emulation Board	745
7602 b	Chi Sperry Terminal Emulation Board (PN 55X3355) with Cables (PN 55X3356)	795

VOICE COMMUNICATIONS

See also the Telephone Access to Office Systems Program for touch-tone access to PS/36 and PS/38, FC 7039

8982 a	IBM Personal Telephone Manager Adapter	187
8989 A	IBM Personal Telephone Manager Program (for the Personal Telephone Manager Adapter), Central service for 90 days or to 12/31/87	40
SX27-3686	Guide to Operations - Personal Telephone Manager Adapter	60
SX27-3657	Technical Reference Manual - Personal Telephone Manager Adapter	14.50
SX27-3656	Hardware Maintenance & Service for the Personal Telephone Manager Adapter	23.25

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MODEL/FC VPA	DESCRIPTION	PRICE
4771 a	Voice Communications Option (includes Voice Communications Adapter and Operating Subsystem, cables, guide, diagnostics)	995
4839 a	Voice Communications Adapter (does not include and not FCC Approved without Voice Communications Operating Subsystem program)	950
0708 A	IBM PC Voice Communications Operating Subsystem	65
The following programs all require the Voice Communications Option.		
0743 A	IBM PC Voice Communications Application Program Interface (API) Reference	149
2004 A	Personal Telephone Manager for Voice Communications Option, Central Service for 90 days or to 12/31/87	70
0741 A	IBM PC Voice/Phone Assistant (answering-machine functions)	149
0742 A	IBM PC Voice-Activated Keyboard Utility (voice input to PC applications or DOS, hands-off operation)	99
0740 A	IBM PC Augmented Phone Services (telephone aid, voice synthesis, touch-tone input for speech/hearing impaired)	149
5002 a	Speech Adapter, Personal System/2 Model 30	345
S68X-2207	Technical Reference Manual Supplement, 8530 Speech Adapter	13

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MODEL/FC VPA

DESCRIPTION

PRICE

PC-DOS SOFTWARE

PC-DOS OPERATING SYSTEMS AND PROGRAMMING AIDS

PC-DOS OPERATING SYSTEM AND COMPILERS

0957 A	IBM PC Disk Operating System (DOS) 3.3 (Includes support for Personal System/2) (3.5in+5.25in)	120
0648 A	ADDITIONAL LICENSE, IBM PC Disk Operating System (DOS) 3.3	99
0650 C	DOCUMENTATION ONLY, IBM PC Disk Operating System (DOS) 3.3	35
→ 0958 B	UPGRADE any release of PC DOS to DOS 3.3 (through 12/87) (3.5in+5.25in)	75
0649 B	ADDITIONAL LICENSE of UPGRADE, any release of PC DOS to DOS 3.3 (through 12/87)	60
0057 A	IBM PC Disk Operating System (DOS) 3.2 on 5.25in diskettes (Includes support for Token-Ring Network) (W/D 7/10/87)	95

For a special promotional offering on the following item, see "Special Promotion for the IBM 5140 PC Convertible" on page 1.

0058 A	IBM PC Disk Operating System (DOS) 3.2 on 3.5in diskettes (Includes support for PC Convertible) (W/D 7/10/87)	95
4211 A	IBM PC Disk Operating System (DOS) 3.1 (Includes support for PC/AT, PC Network) (W/D 7/10/87)	85
4120 A	IBM PC Disk Operating System (DOS) 2.1 (Includes support for PC/XT and PCjr)	85
4193 A	IBM Personal Computer Macro Assembler V.2.0 on 5.25in diskettes	189
0077 A	IBM Personal Computer Macro Assembler V.2.0 on 3.5in diskettes	189
4216 A	IBM Personal Computer BASIC Compiler V.2.0 (on 5.25in diskettes)	539
0078 A	IBM Personal Computer BASIC Compiler V.2.0 (on 3.5in diskettes)	539

See "Redistribution of PC Software" on page 15 for information on redistributing programs prepared using the BASIC Compiler.

4101	IBM PCjr BASIC Interpreter	75
0072 A	IBM PC C Compiler Version 1 (incl. four memory models, math co-processor support, MAKE, symbolic debug, on 5.25in diskettes)	495

As of April 6, 1987

MODEL/FC VPA	DESCRIPTION	PRICE
0081 A	IBM PC C Compiler Version 1 (incl. four memory models, math co-processor support, MAKE, symbolic debug, on 3.5in diskettes)	495
0814 A	IBM COBOL Compiler V.2.0 (Early Release of IBM COBOL/2, adds support for DOS 3.2, 3.3) Test Period 2 months	900
4011 A	IBM COBOL Compiler V.1 (W/D 7/10/87)	379

See "Redistribution of PC Software" on page 15 for information on redistributing applications prepared using the IBM COBOL Compiler.

9646 A	VS COBOL Workbench 1.3 by Micro Focus*	3290
9756 A	Micro Focus COBOL Runtime License * (authorizes 50 copies of applications generated with VS COBOL Workbench)	2250
4127 A	IBM PC FORTRAN Compiler V.2	385
0844 A	IBM PC Professional FORTRAN V.1.30, Adds support for DOS 3.2 and 3.3, Test Period 2 months	649
4200 A	IBM PC Professional FORTRAN V.1.0 by Ryan-McFarland (W/D 7/10/87)	649
9639 A	Golden Common LISP (GCLISP) *	495
0667 A	IBM PC Pascal Compiler V.2.02, Adds support for DOS 3.2 and 3.3, Test Period 2 months	385
4128 A	IBM PC Pascal Compiler V.2 (W/D 7/10/87)	385
9588 A	Turbo Pascal by Borland International (5.25in) *	99.95
9799 A	Turbo Pascal by Borland International (3.5in, for PC Convertible, Personal System/2) (5/1/87) *	99.95
9637 A	micro-PROLOG Professional *	395

OPERATING ENVIRONMENTS, MENU SYSTEMS

4062 A	IBM Personal Computer FileCommand (W/D 5/8/87)	39
6276558 #	FileCommand II (FLIST-like)	24.95
4111 A	IBM PC Fixed Disk Organizer (5.25in)	55
0813 A	IBM PC Fixed Disk Organizer (3.5in+5.25in)	55
9768 A	General Business Facility by Metro-Mark Integrated Systems * (data entry screens, also entry into BDI document)	1995
9384 A	Interactive System Productivity Facility Version 2 (ISPF/EZ-VU II Development Facility), Warranted, Central service for 90 days or to 1/89	495
GC34-4103	Application Development Hints and Tips for ISPF EZ-VU Development Facility	N/C
9383 A	Interactive System Productivity Facility Version 2 (ISPF/EZ-VU II Runtime Facility), Warranted, Central service for 90 days or to 1/89	59
0617 A	ADDITIONAL LICENSE, Interactive System Productivity Facility Version 2 (ISPF/EZ-VU II Runtime Facility)	??

As of April 6, 1987

MODEL/FC VPA	DESCRIPTION	PRICE
9385 M	IBM PC Organizer (req.EZ-VU Runtime), Warranted, Central service for 90 days or to 4/87	165
6276656	Task Director (menu selection for program execution)	29.95
0802 A	TopView Version 1.12, Warranted, Central service for 90 days or to 3/31/87 (3.5in+5.25in)	175
4453 A	TopView Version 1.10, Warranted, Central service for 90 days or to 3/31/87	175
4454 A	TopView Programmer's Toolkit Version 1.10, Warranted, Central service for 90 days or to 3/31/87 (order via PCTB)	429
9811 A	Microsoft Windows (5.25in) *	99
9793 A	Microsoft Windows for Personal System/2 (3.5in) (5/1/87) *	99

PROGRAMMING AIDS

9782 A	Above Disc by Teleware West * (allow software written for LIM EMS 3.2 standard to use disk or extended memory in lieu of EMS memory adapter)	99.95
9219 A	IBM PC Automated Information Management, Central service to 9/86	429
9753 A	CO-Maps by Micro-Focus*, IMS/MFS + CICS/BMS COBOL map creation aid on PC	1000
9752 A	CO-Math by Micro-Focus*, mathematics extensions for COBOL	200
9754 A	CO-Graphics by Micro-Focus*, graphics primitives for COBOL	250
9751 A	CO-Reports by Micro-Focus*, report generation assistance for COBOL	300
9374 A	Cross-System Product/Application Execution (EZ-RUN), Warranted, Central service for 90 days or to 7/87	135
9375 A	Cross-System Product/Application Generation (EZ-PREP, req.ISPF/EZ-VU Runtime), Warranted, Central service for 90 days or to 7/87	1319
6276518 #	DOS File Tracker (locate files, catalog, subdirectory search)	29.95
6276593 #	DOS File View (browse)	24.95
6276607 #	DOS Memories (read text scrolled off screen, keyboard macros)	39.95
6276594 #	Dos Enhanced Debug	29.95
6276625 #	Extended BASIC Programming, Incl. Language Extension System--BASIC (8087 support), BASIC Memory Extender (data storage above 64kb), UnNumber (remove unreferenced line numbers)	34.95

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MODEL/FC VPA	DESCRIPTION	PRICE
6276530 #	File Facility (extend PATH to open's for all file types)	24.95
6276606 #	JoyMouse (joystick, mouse control of cursor)	19.95
6276584 #	Language Extension System - Assembler (for MASM V.1)	24.95
9531 A	MATH/PC-LIBRARY by IMSL * (FORTRAN subroutines)	440
6276603 #	PCWATCH (interrupt trace)	49.95
6276521 #	Print Buffer On-Line (in-memory spooler)	24.95
6276573 #	Personal Print Control (spooler)	34.95
4186 A	IBM PC Print Screen Utility Program	35
4143 A	IBM PC Professional Debug Facility (incl. NMI card)	165
9451 A	Sidekick by Borland International (5.25in)*	84.95
9804 A	Sidekick by Borland International for PC Convertible, Personal System/2 (3.25in) (5/1/87) *	84.95
6276572 #	Short Hand (keyboard macros)	19.95
4138 A	IBM Personal Computer Sort Version 1 (W/D 5/8/87)	189

See "Redistribution of PC Software" on page 15 for information on redistributing applications which contain the IBM PC Sort program.

6276568 #	Source Maintenance System	24.95
9532 A	STAT/PC-LIBRARY by IMSL * (FORTRAN subroutines)	440
6276543 #	Object Library Maintenance	19.95
6276550 #	Structured Assembler Translator	39.95
6276618 #	Structured BASIC Facility	54.95
6276575 #	SuperC (file comparison with resynchronization)	29.95
6276517 #	Utilities I (File Compress and Expand, DOS Command Retriever)	19.95
6276520 #	Utilities II (File Locator, Backup and Unmark, DOS Tree Display)	19.95
6276574 #	Utilities III (Sort, Loadram/Saveram, Compare, Patch, ERRORLOG)	24.95
6276647 #	PC/VSAM (keyed and sequential I/O like VSAM, incl. record locking for LANs, record length to 4087 bytes, file size to 132MB, 5 language interfaces)	149.95
6276648 #	PC/VSAM for IBM BASIC Compiler V.1 or V.2	49.95
6276649 #	PC/VSAM for IBM C	49.95
6276650 #	PC/VSAM for Turbo Pascal	49.95
6276651 #	PC/VSAM for IBM Pascal V.1 or V.2	49.95
6276652 #	PC/VSAM for IBM Macro Assembler V.1 or V.2	49.95
6276662 #	PC/VSAM Runtime Code Only (PCVSAM.COM)	24.95
6276663 #	PC/VSAM Runtime Code Only (5 copies)	89.95

GENERAL PURPOSE PROGRAMS

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MODEL/FC VPA	DESCRIPTION	PRICE
GENERAL		
9540 A	Andrew Tobias' Managing Your Money *	199.95
6276635 #	Browstext (Browse or Edit files of any size, incl. hex display and edit, directory select)	49.95
6276616 #	Checkbook I/O	34.95
6276617 #	PC Checkbook	24.95
5669-191	Computer-Integrated Electrical Design Series (CIEDS)/Design Capture/AT (FC5858, Category A of separate CIEDS/AT Agreement) Central service for 90 days or to 5/88	6000
6276639 #	CP-Edit (like XEDIT, macro capability)	29.95
6276557 #	Daily Organizer (appointment calendar)	24.95
4172 A	Electric Poet	75
9389 A	IBM PC Engineering Simulation Program (Differential equation solver), Central service to 4/87	439
6276528 #	Executive Phone Directory	44.95
6276533 #	Executive Phone Directory with message feature	49.95
6276524 #	Executive Phone Directory build your own	149.95
6276629 #	File Conversion Utility (Convert selected rows and columns of data from ASCII text file to Lotus-retrievable file)	24.95
9291 A	Harvard Total Project Manager, Harvard Software *	495
9622 A	Interactive System Productivity Facility PC Editor (ISPF/EZ-VU Editor) Warranted, Central service for 90 days or to 6/87	150
6276589 #	Introductory Editor	19.95
6276590 #	JustEdit	19.95
9586 A	Labtech Notebook (supports IBM DAC Adapter, GPIB board, MAGIC/L language for lab work) *	895
6276637 #	Lite Editor (Full screen editor, outliner)	24.95
9592 A	MSC/pal 2 (3-D stress and vibration analysis, static and dynamic) by MacNeal Schwendler *	1995
9593 A	MSC/mate (mathematical manipulation of matrices) by MacNeal Schwendler *	495
9594 A	MSC/case (numerical evaluation of structural engineering equations) by MacNeal Schwendler *	895
4051 A	Personal Editor	109
6276560 #	Personal Editor II (5.25in) (adds multiple windows, DOS commands, better macros to PE I)	49.95
6276701 #	Personal Editor II (3.5in) (adds multiple windows, DOS commands, better macros to PE I)	49.95
6276644 #	Personal Editor II Reference Book	10
6276513 #	Personal Scientific Calculator	29.95
6276522 #	Phone Directory On-Line (popup phone directory and dialer)	24.95
6276523 #	Phone Directory and Print Buffer On-Line	39.95
6276588 #	Plan-A-Year (monthly budgeting)	19.95
4048 A	Professional Editor	139
6276661 #	Professional Font Facility (resident printer control, translates printer character output to graphic fonts)	39.95

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MODEL/FC VPA	DESCRIPTION	PRICE
6276500 #	Project Planning and Scheduling	149.95
9410 A	Microsoft Project V.3.0 CMB (contains both 5.25in and 3.5in diskettes) *	395
9356 A	RS/1 by Bolt Beranek and Newman, Central Service for 90 days or to 3/87	2159
6276501 #	STATLIB 1 (12 APL workspaces for statistical analysis and linear programming, req. IBM APL)	149.95
6276539 #	STATLIB 2 (10 APL workspaces for advanced analysis, req. IBM APL)	149.95
9249 A	SuperProject Plus * (5.25in+3.5in)	495

IBM ASSISTANT SERIES

See also the Mainframe Communication Assistant program and the IBM PC Voice/Phone Assistant.

The Assistant Series products and upgrades listed below are packaged with both 5.25in and 3.5in diskette copies of the programs.

9958 A	IBM DisplayWrite Assistant	195
4457 A	IBM Filing Assistant V.2	195
4458 A	IBM Graphing Assistant V.2	195
4459 A	IBM Reporting Assistant V.2	175
4460 A	IBM Writing Assistant V.2	195
4461 A	IBM Planning Assistant V.2	195
4462 A	IBM Project Assistant V.1	195
4477	Upgrade Filing Assistant V.1 to V.2 (through 5/15/87)	75
4478	Upgrade Graphing Assistant V.1 or 1.01 to V.2 (through 5/15/87)	75
4479	Upgrade Reporting Assistant V.1 to V.2 (through 5/15/87)	75
4480	Upgrade Writing Assistant V.1 or 1.01 to V.2 (through 5/15/87)	75
4481	Upgrade Planning Assistant V.1 to V.2 (through 5/15/87)	75
9903	Upgrade Writing Assistant V.1 or 1.01, or Displaywrite 1 to DisplayWrite Assistant (through 5/15/87)	100

The Assistant Series products listed below are packaged with only 5.25in diskette copies of the programs.

4306 A	IBM Document Retrieval Assistant	149
4089 A	IBM Drawing Assistant	169

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MODEL/FC VPA	DESCRIPTION	PRICE
IBM PERSONAL DECISION SERIES		

See also the Attachment/36 and Attachment/370 programs.

PRODUCTIVITY PRODUCTS

PDS V.2 adds LAN support, English-language queries to V.1 function

6060	A	Data Edition V.2 (prereq. for others) Warranted, Central service for 90 days or to 2/89 (5.25in)	255
0612	A	ADDITIONAL LICENSE, Data Edition V.2	??
0626	C	DOCUMENTATION ONLY, Data Edition V.2	??
6061	A	Reports+ Edition V.2, Warranted, Central service for 90 days or to 2/89 (5.25in)	185
0615	A	ADDITIONAL LICENSE, Reports+ Edition V.2	??
0629	C	DOCUMENTATION ONLY, Reports+ Edition V.2	??
6062	A	Plans+ Edition V.2, Warranted, Central service for 90 days or to 2/89 (5.25in)	425
0614	A	ADDITIONAL LICENSE, Plans+ Edition V.2	??
0628	C	DOCUMENTATION ONLY, Plans+ Edition V.2	??
6063	A	Network+ Edition (adds data sharing for up to 12 PCs) Warranted, Central service for 90 days or to 2/89 (5.25in)	395
0613	A	ADDITIONAL LICENSE, Network+ Edition	??
0627	C	DOCUMENTATION ONLY, Network+ Edition	??
6065	A	English Access Edition, Warranted, Central service for 90 days or to 2/89 (5.25in)	395
0616	A	ADDITIONAL LICENSE, English Access Edition,	??
0630	C	DOCUMENTATION ONLY, English Access Edition,	??
6085	A	Data Edition V.2 (prereq. for others) Warranted, Central service for 90 days or to 2/89 (3.5in)	255
6075	A	Reports+ Edition V.2, Warranted, Central service for 90 days or to 2/89 (3.5in)	185
6076	A	Plans+ Edition V.2, Warranted, Central service for 90 days or to 2/89 (3.5in)	425
6077	A	Network+ Edition (adds data sharing for up to 12 PCs) Warranted, Central service for 90 days or to 2/89 (3.5in)	395
6079	A	English Access Edition, Warranted, Central service for 90 days or to 2/89 (3.5in)	395
6117		Upgrade PDS Data Edition V.1 to V.2 (5.25in, thru 11/87)	150
6118		Upgrade PDS Reports+ Edition V.1 to V.2 (5.25in, thru 11/87)	115
6119		Upgrade PDS Plans+ Edition V.1 to V.2 (5.25in, thru 11/87)	220

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MODEL/FC VPA	DESCRIPTION	PRICE
6133	Upgrade PDS Plans Edition V.1 to Plans+ V.2 (5.25in, thru 11/87)	320
1097	Upgrade PDS Words Edition V.1 to DisplayWrite 4 (5.25in, thru 11/87)	380
6125	Upgrade PDS Data Edition V.1 to V.2 (3.5in, thru 11/87)	150
6126	Upgrade PDS Reports+ Edition V.1 to V.2 (3.5in, thru 11/87)	115
6127	Upgrade PDS Plans+ Edition V.1 to V.2 (3.5in, thru 11/87)	220
6134	Upgrade PDS Plans Edition V.1 to Plans+ V.2 (3.5in, thru 11/87)	320
1096	Upgrade PDS Words Edition V.1 to DisplayWrite 4 (3.5in, thru 11/87)	380
1098	Upgrade PDS Words Edition V.1 to DisplayWrite Assistant (5.25in+3.5in, thru 11/87)	80

The following programs are available on 5.25in diskette.

9367 A	Data Edition (prereq. for others, enh. 9/85 to allow installation of DisplayWrite) Warranted, Central service for 90 days or to 9/86	275
9370 A	Reports+ Edition, Warranted, Central service for 90 days or to 9/86	165
9368 A	Graphs Edition, Warranted, Central service for 90 days or to 11/86	225
9372 A	Words Edition (enh. 9/85 to support revisable interchange with Displaywrite 1, 2, or 3, and spell check with Word Proof) Warranted, Central service for 90 days or to 11/86	165
9369 A	Plans Edition, Warranted, Central service for 90 days or to 1/87	165
9215 A	Plans+ Edition, Warranted, Central service for 90 days or to 3/87	335
9190 A	Data Training Edition, Warranted, Central service for 90 days or to 9/86	79
9191 A	Reports+ Training Edition, Warranted, Central service for 90 days or to 5/31/87	95

The following programs are available on 3.5in diskette.

9625 A	Data Edition (prereq. for others, enh. 9/85 to allow installation of DisplayWrite) Warranted, Central service for 90 days or to 9/86	275
9626 A	Reports+ Edition, Warranted, Central service for 90 days or to 9/86	165
3821 A	Graphs Edition, Warranted, Central service for 90 days or to 11/86	225
9627 A	Words Edition Warranted, Central service for 90 days or to 11/86	165

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MODEL/FC VPA	DESCRIPTION	PRICE
9628 A	Plans Edition, Warranted, Central service for 90 days or to 1/87	165
9629 A	Plans+ Edition, Warranted, Central service for 90 days or to 3/87	335

PRODUCTIVITY EXTENSIONS

9373 A	Mailing Labels Edition, Central service for 90 days or to 9/85	75
9363 A	Asset Catalog Edition, Central service for 90 days or to 9/85	75
9362 A	Prospect Tracking Edition, Central service for 90 days or to 9/85	75
9188 A	Client Time/Cost Accounting Edition, Central service for 90 days or to 9/85	75
9189 A	Appointment Calendar Edition, Central service for 90 days or to 10/85	75

BUSINESS PROGRAMS

GENERAL

	IBM Cable Data Management System (for IBM Cabling System, order thru IBM Direct) Central service to 1/86	450
4157 A	IBM Doctor's Office Manager for the IBM Personal Computer	2749
9543 A	Excelerator V.1.7 (systems analysis) *	7500
5785-DFW	Executive Data Link (EDL) for COPICS - file extract RPQ, Central Service to 12/88	
9001	Asset Registration	N/C
4600	One-Time Charge	10000
4601	Monthly Charge	500
9029	VSE 1600 bpi Tape	N/C
9031	VSE 6250 bpi Tape	N/C
9129	MVS 1600 bpi Tape	N/C
9131	MVS 6250 bpi Tape	N/C
5726-SS1	Executive Data Link (EDL) for System/34 MAPICS - file extract RPQ	2500
5727-SS1	Executive Data Link (EDL) for System/36 MAPICS - file extract RPQ	2500
5798-RRP	Executive Data Link (EDL) for CMAS/34	2750
5798-RRZ	Executive Data Link (EDL) for System/36 CMAS	2750

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MODEL/FC VPA	DESCRIPTION	PRICE
4065 A	IBM PC Insurance Agency System	2500
6276566 #	Member Services (organization membership data base, accounts)	29.95
9420 A	PCemas (Educational Management Accounting System) *	4995
9421 A	PCemas Report Generator *	250
6276614 #	Programmed Evaluation of Contract Option Strategies	249.95
6276646 #	Programmed Evaluation of Contract Option Strategies Reference Book	10
6276666 #	Real Estate Investment Package	24.95

BPI SYSTEMS

4026 A	General Accounting	425
4027 A	Accounts Receivable	425
4028 A	Payroll	425
4029 A	Job Cost	550
4030 A	Inventory Control	425

BUSINESS ADVISER SERIES

9630 A	General Accounting, Warranted, Central Service for 90 days or to 12/31/89 (5.25in)	995
6055 A	General Accounting, Warranted, Central Service for 90 days or to 12/31/89 (3.5in)	995
9700 A	Accounts Payable, Warranted, Central Service for 90 days or to 12/31/89 (5.25in)	995
6056 A	Accounts Payable, Warranted, Central Service for 90 days or to 12/31/89 (3/5in)	995
9701 A	Accounts Receivable, Warranted, Central Service for 90 days or to 12/31/89 (5.25in)	995
6057 A	Accounts Receivable, Warranted, Central Service for 90 days or to 12/31/89 (3.5in)	995
9702 A	Payroll, Warranted, Central Service for 90 days or to 12/31/89 (5.25in)	995
6058 A	Payroll, Warranted, Central Service for 90 days or to 12/31/89 (3.5in)	995
9704 A	Inventory Control Edition (5.25in)	995
6067 A	Inventory Control Edition (3.5in)	995
9705 A	Order Entry Edition (5.25in)	995
6067 A	Order Entry Edition (3.5in)	995
9706 A	Information Management Edition (5.25in)	995
6069 A	Information Management Edition (3.5in)	525

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MODEL/FC VPA	DESCRIPTION	PRICE
9703 A	Network Extension (1 per remote user, to 8 active users), Warranted, Central Service for 90 days or to 12/31/89 (5.25in)	245
6059 A	Network Extension (1 per remote user, to 8 active users), Warranted, Central Service for 90 days or to 12/31/89 (3.5in)	245

IBM BUSINESS MANAGEMENT SERIES - APPLICATION EDITIONS

9193 A	General Ledger Edition, Warranted, Central service for 90 days or to 12/88	775
9194 A	Accounts Payable Edition, Warranted, Central service for 90 days or to 12/88	775
9195 A	Accounts Receivable Edition, Warranted, Central service for 90 days or to 12/88	775
9196 A	Payroll Edition, Warranted, Central service for 90 days or to 12/88	775
9197 A	Order Entry and Invoicing Edition, Warranted, Central service for 90 days or to 12/88	775
9198 A	Inventory Accounting Edition, Warranted, Central service for 90 days or to 12/88	775
9208 A	Business Management Series LAN Access Edition (one copy per networked user, up to four remote users, supports above applications) Warranted, Central service for 90 days or to 12/88	245
	(Token-Ring support for BMS LAN Access)	
9200 A	Financial Extensions Edition, Warranted, Central service for 90 days or to 9/86	275
9201 A	Accounting Extensions Edition, Warranted, Central service for 90 days or to 9/86	275

IBM BUSINESS MANAGEMENT SERIES - TRAINING EDITIONS

9202 A	General Ledger Training Edition, Warranted, Central service for 90 days or to 12/88	95
9203 A	Accounts Payable Training Edition, Warranted, Central service for 90 days or to 12/88	95
9204 A	Accounts Receivable Training Edition, Warranted, Central service for 90 days or to 12/88	95
9205 A	Payroll Training Edition, Warranted, Central service for 90 days or to 12/88	95
9206 A	Order Entry and Invoicing Training Edition, Warranted, Central service for 90 days or to 12/88	95
9207 A	Inventory Accounting Training Edition, Warranted, Central service for 90 days or to 12/88	95

As of April 6, 1987

MODEL/FC VPA	DESCRIPTION	PRICE
IBM COPIER MANAGEMENT INFORMATION SYSTEM (CMIS)		
CMIS will be withdrawn 4/20/87)		
Complete system consists of PC, Terminal Communications Adapter Kit, CMIS Licensed Program, DOS 1.1, Copier Control Device, and Copier Interface Device.		
1614	Terminal Communications Adapter Kit (at controlling PC)	860
1677	CMIS Licensed Program (requires DOS 1.1)	2000
6821001	Copier Control Device Kit (at each copier) (Contains Copier Control Device, Cable, and Signal Adapter if required)	
6501	Kit 1 - IBM Series III	1970
6502	Kit 2 - IBM Copier II	1880
6503	Kit 3 - Xerox 660, 720, 813, 840, 914, 1000, 1824, 1860, 2400, 3600-I, 3600-III, 4000, 4500, 5400, 5600, 7000	1970
6504	Kit 4 - Xerox 740, Kodak 100, 150, 200, 250	1970
6505	Kit 5 - Xerox 1045, 2600, 3100, 3100LDC, 3107, 3109, 3400, 3450	1970
6506	Kit 6 - Xerox 1035, 2300, 2830	1645
6507	Kit 7 - Xerox 8200, 9200, 9400, 9500	1645
6508	Kit 8 - Xerox 1075	1645
6509	Copier Control Device (Spare)	1415
6510	CMIS System Kit (test adapters, cables)	220
6512	CCD-to-Wall Cable, User's Manual (Spare)	110
6513	PC-to-Wall Cable (Spare)	110
6514	CCD-to-Modem Cable (Spare)	110
6515	Signal Adapters for Kit 1 (Spare)	355
6516	Signal Adapters for Kits 2-5 (Spare)	355
276999	IBM Copier Interface Device RPQs	
6801	Copier II	400
6802	Model 10	600
6803	Model 20	600
6805	Model 30	600
6806	Model 40	600
6808	Model 60	600

As of April 6, 1987

MODEL/FC VPA	DESCRIPTION	PRICE
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(Non-IBM copier interfaces must be ordered through an appropriate non-IBM vendor.)

Removal kits:	IBM		
	Standard	IBM	IBM
	Third	Billing	Resetttable
	Party	Meter	Copy
	Interface	System	Counter
Copier II	673027	A278	973086
Model 10	973024	A736	973086
Model 30	074001	174932	973086
Model 40	074001	174932	973086
Model 60	5988	5989	600604

MANAC SYSTEMS; INFORMATION SYSTEMS FOR ATTORNEYS SERIES 500

9509 A Client and Lawyer Financial System *	975
9510 A Client Files, Conflict and Dates Systems *	450
9511 A Law Firm Financial - System *	450
9580 A Litigation Support System Version B *	450

4700 BANKING SOFTWARE

See also "IBM SolutionPac Offerings" on page 27 for the Branch Banking Automation offering which incorporates some of the following products.

0784 A BANCstar 4700 Account Opening *	750
0785 A BANCstar 4700 Mortgage Loan *	1995
0786 A BANCstar 4700 Consumer and Commercial Loan *	1995
0787 A BANCstar 4700 Mortgage, Consumer, and Commercial Loan *	2995
0788 A BANCstar 4700 Generator (Customization, installation aid) *	4500
0793 M BRANCHBANKER 4700 (4700 attach, bank service marketing) by Ampersand * (new version) Central service 6 mo. notice	500
0790 M Safe Deposit 4700 by Interactive Planning *	800
0791 M Currency Control 4700 by Interactive Planning *	1500
0792 M Loan Loss Control 4700 by Interactive Planning *	1500

As of April 6, 1987

MODEL/FC VPA	DESCRIPTION	PRICE
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DATA BASE PROGRAMS

See also the integrated families of programs under "General Purpose Programs," such as "IBM Assistant Series" on page 108, and "IBM Personal Decision Series" on page 109.

9506 A	Clout (English extension for R:Base) *	249
9089 A	Data Base Manager II - The Integrator by Alpha Software Corp. *	295
6276659 #	DB/Editor/Writer II (data bases up to 16MB, macro capability, calculations, can use 8087, record size to 1024 bytes)	64.95
9445 A	dBASE III Plus 1.1 by Ashton-Tate * (5.25in)	695
9105 A	dBASE III Plus by Ashton-Tate * (3.5in)	695
6276665 #	INFOPC (cardfile database)	49.95
9413 A	Javelin V.1.1 *	695
9492 A	REVELATION *	950
9493 A	Network REVELATION 4-User Upgrade *	500
9812 A	REVELATION Tutorial *	24.95
9507 A	R:B 4000 Extended Report Writer *	150
9641 A	R:Base Series 5000 with RBEDIT by Microrim *	495
9422 A	R:Base 5000 Multi-User by Microrim *	700
9761 M	R:Base System V by Microrim, incl. multi-user LAN support *	700

GRAPHICS SOFTWARE

See also the integrated families of programs under "General Purpose Programs," such as "IBM Assistant Series" on page 108, and "IBM Personal Decision Series" on page 109. Graphics programs which support specific applications are included under their application heading. Communications programs which support graphics are included under the communications heading.

5796-TBP	CADAM Drawing Viewing on IBM PC and Industrial Computer -- Host Product for VM and MVS, formats drawing for viewing on PC, Central Service to 1/88	1250
5850	1600 bpi Tape of 5796-TBP	N/C
5851	6250 bpi Tape of 5796-TBP	N/C
5852	3480 Cartridge of 5796-TBP	N/C
5796-TBQ	CADAM Drawing Viewing on IBM PC and Industrial Computer -- PC Product, view drawing on CGMA, EGA, 3270-PC APA, req. 8087/80287, Central Service to 1/88	750
5858	5.25in diskette of 5796-TBQ	N/C

As of April 6, 1987

MODEL/FC VPA	DESCRIPTION	PRICE
9411 A	Microsoft Chart V.2.01 COMBO * (contains both 5.25in and 3.5in diskettes)	295
9242 A	Chart-Master 6.2 by Decision Resources *	375
9417 A	DIAGRAM-MASTER (org charts, Gantt charts, free-form) by Decision Resources *	345
9495 A	Energraphics V.2 by Enertronics Research*	595
2906 A	GDDM-PCLK V.1.0, adds alternate graphics session to PC 3270 workstation emulators via hotkey, req. host GDDM-PCLKF for CMS or TSO, Test Period 2 months, Warranted, Central Service to 5/88	50
2908 A	ADDITIONAL LICENSE, GDDM-PCLK V.1.0	38
2907 C	DOCUMENTATION ONLY, GDDM-PCLK V.1.0	15
9286 A	Graphwriter Basic Set by Graphic Communications *	395
9287 A	Graphwriter Combination Set by Graphic Communications *	595
9288 A	Graphwriter Extension Set by Graphic Communications *	395
6276636 #	Lines Plus (Diagramming, drawing with box characters)	24.95
6276611 #	Multimedia Presentation Aid	24.95
9452 A	Overhead Express V.1.11 CMB *	95
6276537 #	PC Palette	39.95
6276640 #	PC Palette Utility (Plot PC Palette files on 737X plotters, additional fonts, ready-made pictures)	19.95
6276653 #	Personal Expression (text editor, font editor, print transparencies and type styles)	29.95
6276628 #	Picture Draw (Freehand drawing, fonts, simple drafting)	24.95
6276508 #	Personal Computer Picture Graphics	29.95
6276660 #	Presentation Creation (print text, imbed graphics, type styles, font editor, picture library)	39.95
7034 A	IBM PC SlideWrite	225
6276631 #	Special Effects with Slides (Use Picture Draw, PC Palette, PC Picture Graphics for fade-in, pan)	24.95
1508 A	IBM 3270-PC Color Graphics Applications (GGXA) (graphics editor, plotter for 3270-PC/G/GX), Warranted, Central service to 12/86 **	395
1519 A	IBM 3270-PC Color Graphics Charting (GGXC) (interactive chart utility for 3270-PC/G/GX), Warranted, Central service 6 mo. notice or 12/86 **	395
9810 A	35MM Express V.4.0 (drive Polaroid Palette from PC data) *	695

GEM SERIES BY DIGITAL RESEARCH

9521 A	GEM Collection (GEM Write and GEM Paint) *	199
9522 A	GEM Desktop *	49.95
9693 A	GEM Draw *	249
9692 A	GEM Graph *	249
9686 A	GEM Wordchart *	149

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MODEL/FC VPA	DESCRIPTION	PRICE
IBM IMAGE SOFTWARE		
0805 A	IBM Image Support Facility 2 V.1.1, subroutines for driving scanners, processing images, Test Period 2 months	95
0806	Upgrade IBM Image Support Facility 2 V.1 to V.1.1 (through 1/88)	32
0921 A	IBM Image Support Facility 2 V.1, subroutines for driving scanners, processing images (W/D 7/10/87)	95
5785-EDW	IBM PC Image Document Utility (end-user application for display, limited edit, scan using 3117 or 3118 or Scanmaster, specify FC 4622 and 9074), Central Service to 9/88, req. FC 0921	240
6113 A	IBM ImagEdit (capture image from scanner, scale, rotate, copy, trim, erase, annotate, freehand drawing) Test Period 2 months, Warranted, Central Service for 90 days or to 6/89 (3Q87)	395
9707	IBM PC Image Processing System, Central service to 6/87	310

IBM INFOWINDOW SOFTWARE

See also the section on 'Educational Programs' for specific classes that use InfoWindow.

5157 A	IBM InfoWindow Control Program V.1.2 (3.5in+5.5in) Test Period 2 months (7/87)	180
2416	Upgrade InfoWindow Control Program V.1.0 to V.1.2	50
5139 A	IBM InfoWindow Control Program V.1.0	180
4504 A	InfoWindow Presentation Editor, Define multimedia presentation, use with Presentation Interpreter, Req. InfoWindow Control Pgm, Central Service for 90 days or 6/89 *	4975
4505 A	InfoWindow Presentation Interpreter, Display multimedia presentation defined with Presentation Editor, Req. InfoWindow Control Pgm, Central Service for 90 days or 6/89 *	135
3823 A	Video/Passage Authoring System V.1.0 Warranted, Central Service for 90 days or to 3/89	7200
3822 A	Video/Passage Presentation System V.1.0 Warranted, Central Service for 90 days or to 3/89	265
6086 A	Video/Passage Authoring System V.1.1 (2Q87) Adds support for 2 videodisk players via IEEE-488, Warranted, Central Service for 90 days or to 3/89	7200
6087 A	Video/Passage Presentation System V.1.1 (2Q87) Adds support for 2 videodisk players via IEEE-488, Warranted, Central Service for 90 days or to 3/89	265

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MODEL/FC VPA	DESCRIPTION	PRICE
6088	Video/Passage Authoring Upgrade Kit to V.1.1 (2Q87)	95
6089	Video/Passage Presentation Upgrade Kit to V.1.1 (2Q87)	35
6094 A	InfoWindow PILOT - Authoring (develop courseware for InfoWindow) Central Service to 1Q89	2050
6095 A	InfoWindow PILOT - Presentation Central Service to 1Q89	200
4502 M	Learning System/1 Authoring System (LS/1) Courseware authoring for use with InfoWindow	5000
4503 M	Learning System/1 Presentation System (LS/1) For use with InfoWindow	125

MICRO CADAM FOR PC/AT

5713-AAL	MICRO CADAM Convenience Kit for the PC/AT, Central Service for 90 days or to 6/3/88	
9001	Asset Registration	N/C
5868	MICRO CADAM Convenience Kit Machine-Readable Material	N/C
4470	MICRO CADAM Convenience Kit Basic License (includes program documentation, mouse, program-function keyboard, asset-protection chip, interface board)	8000
5713-AAL	MICRO CADAM Licensed Program (only) for the PC/AT, Central Service for 90 days or to 6/3/88	
9001	Asset Registration	N/C
5858	MICRO CADAM Licensed Program Machine-Readable Material	N/C
4469	MICRO CADAM Licensed Program Basic License (includes program documentation, asset-protection chip)	6025
5713-AAN	MICRO CADAM Geometry Interface Program for the PC/AT, Central Service for 90 days or to 6/3/88	
9001	Asset Registration	N/C
5858	MICRO CADAM Geometry Interface Program Machine-Readable Material	N/C
4472	MICRO CADAM Geometry Interface Program Basic License (includes program documentation, asset-protection chip)	1500
5713-AAM	MICRO CADAM Data Transfer Utility, Central Service for 90 days or to 6/3/88	
9001	Asset Registration	N/C
5858	MICRO CADAM Data Transfer Utility Machine-Readable Material	N/C

As of April 6, 1987

MODEL/FC VPA	DESCRIPTION	PRICE
4471	MICRO CADAM Data Transfer Utility Basic License (includes program documentation, asset-protection chip)	1250

IBM PC STORYBOARD

4401 A	IBM PC Storyboard Plus (see also PC PicturePak), Test Period 2 months, Warranted, Central service for 90 days or to 6/89 (6/87)	350
0999 B	UPGRADE, IBM PC Storyboard to Storyboard Plus (through 3/25/88)	140
9352 A	IBM PC Storyboard (see also PC PicturePak), Warranted, Central service for 90 days or to 3/87 (W/D 7/10/87)	275
9096 A	PC PicturePak - Eye Openers (Storyboard extensions) *	195
9585 A	PC PicturePak Holidays (Storyboard images for 18 holidays) *	195
9589 A	PC PicturePak The PC Family (Storyboard images of PC hardware and software) *	195
9814 A	PC PicturePak - TypeStyles (18 Storyboard typefaces) *	195

VIRTUAL DEVICE INTERFACE

See "Redistribution of PC Software" on page 15 for information on redistributing applications containing VDI driver modules.

4205 A	IBM PC Graphical File System (ANSI metafile/GKS) (W/D 5/8/87)	189
4203 A	IBM PC Graphical Kernel System (ANSI GKS) (W/D 5/8/87)	319
0929 A	IBM PC Graphics Development ToolKit V.1.2, Test Period 2 months	495
S68X-2280	Display Adapter 8514/A 1.20 VDI Drivers for Graphics Development Toolkit V.1.2	30
0922 B	UPGRADE, Graphics Development Toolkit V.1.1 to V.1.2 (through 12/87)	250

See "Redistribution of PC Software" on page 15 for information on redistributing programs prepared using the Graphics Development Toolkit V.1.10.

0076 A	IBM PC Graphics Development ToolKit Version 1.10 (order via PCTB) (W/D 10/7/87)	495
4204 A	IBM PC Plotting System (VDI system) (W/D 5/8/87)	245

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MODEL/FC VPA	DESCRIPTION	PRICE
0456	IBM 5279 Color Display VDI 1.10 Driver (for Graphics Development Toolkit 1.10, Standalone)	N/C

INDUSTRIAL SOFTWARE

The following vendor-logo program offerings are for use with IBM 5531, 7531, and 7532 Industrial Computers.

Quantity discounts are via a separate Industrial Computer Exhibit to the QDA. QDA categories below are from that Exhibit, not the standard PC Exhibit.

5793-AGN B	!Barsoft by ASAP Systems (Barcode Label Design and Printing)	
9080 B	Asset Registration	N/C
6500 B	Barsoft Software	995
6501 B	Barsoft Manual	75
5793-AEY A	CAMM (Computer-Aided Manufacturing Management)	
9001 A	Asset Registration	N/C
6504 A	CAMM System Kit (required, prereq. for all other features)	200
6505 A	CAMM DSE Analytical Module, Standard Graphics	500
6506 A	CAMM DSE Analytical Module, Enhanced Graphics	950
6507 A	CAMMGraph Build/Display, Enhanced Graphics	4100
6508 A	CAMMGraph Display, Enhanced Graphics	1900
6509 A	Offline Controller/Setup, Allen-Bradley	500
6510 A	Offline Controller/Setup, Analogic	500
6511 A	Offline Controller/Setup, General Electric	500
6525 A	Offline Controller/Setup, Modicon	500
6526 A	Offline Controller/Setup, Texas Instruments	500
6512 A	Offline Controller/Setup, Turnbull Control Systems	500
6627 A	Floor Manager (reqd for each operator station)	1250
6629 A	Device Driver, Allen-Bradley	500
6631 A	Device Driver, Analogic	500
6632 A	Device Driver, General Electric	500
6633 A	Device Driver, Modicon	500
6635 A	Device Driver, Texas Instruments	500
6636 A	Device Driver, Turnbull Control Systems	500
6517 A	Extra CAMM Manuals, Allen-Bradley	45
6518 A	Extra CAMM Manuals, Analogic	45
6519 A	Extra CAMM Manuals, General Electric	45
6529 A	Extra CAMM Manuals, Modicon	45
6530 A	Extra CAMM Manuals, Texas Instruments	45
6520 A	Extra CAMM Manuals, Turnbull Control Systems	45
5793-AHB B	Allen-Bradley Communication Protocol Program for CAMM using ARTIC	
9080 B	Asset Registration	
6639 B	One-Time Charge	500
6640 B	User's Guide (Additional)	65

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MODEL/FC VPA	DESCRIPTION	PRICE
5793-AGZ B	General Electric Communication Protocol Program for CMM using ARTIC	
9080 B	Asset Registration	
6647 B	One-Time Charge	500
6648 B	User's Guide (Additional)	65
5793-AHA B	Gould Modicon Communication Protocol Program for CMM using ARTIC	
9080 B	Asset Registration	
6610 B	One-Time Charge	500
6615 B	User's Guide (Additional)	65
5793-AGY B	Texas Instruments Communication Protocol Program for CMM using ARTIC	
9080 B	Asset Registration	
6641 B	One-Time Charge	500
6642 B	User's Guide (Additional)	65
5793-AGT C	Cribware by Applied Control Software (Tool Crib Inventory)	
9080 C	Asset Registration	N/C
6567 C	Cribware Software	2500
6551 C	Cribware Manual	53
5793-AGP C	Easylabel by Tharo Systems (Barcode Label Design and Printing)	
9080 C	Asset Registration	N/C
6568 C	Easylabel Software	2500
6550 C	Easylabel Manual	125
5793-AGF C	Energy 2.0 by Systems Associates for Butler, Elan, Futronix, Honeywell, and OPTO-22 subsystems	
9080 C	Asset Registration	N/C
6585 C	Energy 2.0 Software	6000
6586 C	Extra Energy 2.0 Manuals	55
5793-AGQ C	The Fix by Intellution (Process Control, Monitoring, Digital and Analog I/O)	
9080 C	Asset Registration	N/C
6536 C	The Fix Software with EPROM for IBM Color/Graphics Adapter	4500
6537 C	The Fix Software with EPROM for IBM Enhanced Graphics Adapter	4500
6595 C	BASIC Language Data Base Access for The Fix	395
6546 C	BASIC Language Data Base Access User's Guide, Additional	28
6596 C	C Language Data Base Access for The Fix	395
6547 C	C Language Data Base Access User's Guide, Additional	28
6597 C	Online Spreadsheet Interface for The Fix	250
6593 C	Online Report Package for The Fix	150
6598 C	Historical Trending for The Fix	650
6549 C	Historical Trending User's Guide, Additional	28
5793-AGX C	Engineering/Development portion of The Fix	
9080 C	Asset Registration	N/C

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MODEL/FC VPA	DESCRIPTION	PRICE
6522 C	Engineering/Development Software with EPROM for IBM Color/Graphics Adapter	2100
6523 C	Engineering/Development Software with EPROM for IBM Enhanced Graphics Adapter	2100
5793-AGW C	Runtime portion of The Fix	
9080 C	Asset Registration	N/C
6502 C	The Fix, Runtime, with EPROM for IBM Color/Graphics Adapter	2675
6503 C	The Fix, Runtime, with EPROM for IBM Enhanced Graphics Adapter	2675
6587 C	IBM Digital/Analog Adapter Device Driver	795
6588 C	Arcosystems Device Driver	795
6589 C	Allen-Bradley Device Driver	1095
6590 C	Data Translation Device Driver	795
6591 C	Gould Modicon Device Driver	1095
6592 C	Opto 22 Device Driver	795
6594 C	OEM Device Driver Tool Kit, The Fix	1250
6538 C	User's Guides, Set, The Fix	125
6539 C	User's Guide, IBM DACA, The Fix	28
6540 C	User's Guide, Arcosystems, The Fix	28
6541 C	User's Guide, Allen-Bradley, The Fix	28
6542 C	User's Guide, Data Translation, The Fix	28
6543 C	User's Guide, Gould Modicon, The Fix	28
6544 C	User's Guide, Opto 22, The Fix	28
5793-ACW C	Fleet Maint (Vehicle Maintenance Scheduler)	
9001 C	Asset Registration	N/C
6570 C	Fleet Maint Software	3950
6571 C	Fleet Maint Manual, extra	53
5798-DZJ	Industrial Monitoring and Automation System, Personal Computer Workstation Modules (part of 5798-DXW, req. EGA or PGC, use FC 9074+4023) Central Service to 12/88	450
5793-AGR C	Loopworks by Equinox Data (Process Monitoring and Control, Digital/Analog I/O)	
9080 C	Asset Registration	N/C
6569 C	Loopworks Software	2995
6535 C	Loopworks Manual	105
5793-AFD C	MEDIA-FLEX (Maintenance Work and Parts Inventory Management)	
9001 C	Asset Registration	N/C
6532 C	Maintenance Management Software	5995
6558 C	Maintenance Management Manual, extra	113
5793-AGB C	MEDIA-FLEX (Preventive Maintenance Management)	
9001 C	Asset Registration	N/C
6521 C	Preventive Maintenance Software	3995
6556 C	Inventory Module Upgrade (Makes 5793-AGB equivalent to 5793-AFD)	3000
6557 C	Preventive Maintenance Manual, extra	113

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MODEL/FC VPA	DESCRIPTION	PRICE
5793-AFF C	Micro Maint (Maintenance Scheduler) by Diagonal Data	
9001 C	Asset Registration	N/C
6561 C	Micro Maint Software	4950
6562 C	Micro Maint Manual, extra	53
6600 C	CAMM Interface Module	550
5793-AFC C	Minute Man (Part Profile Generator)	
9001 C	Asset Registration	N/C
6564 C	Minute Man Software	4990
6566 C	Minute Man Manual, extra	53
5793-AFA B	Quality Alert (Statistical Quality Control)	
9001 B	Asset Registration	N/C
6559 B	Quality Alert Software	795
6560 B	Quality Alert Manual, extra	38
5601-053 D	Remote Terminal Interface Utility Programs for the IBM Industrial Computers (Support Remote Terminal Interface Adapter for industrial PCs into 7552)	
9001 D	Asset Registration	N/C
4594 D	One Time Charge	240
5099 D	Diskettes and manual	N/C
5793-AEZ B	SQCpack (Statistical Quality Control)	
9001 B	Asset Registration	N/C
6553 B	SQCpack Software	595
6555 B	SQCpack Manual, extra	38
6554 B	SQCpack Instruction Videotapes (VHS, 12 tapes)	5600
5793-ACX C	Taylor Industrial Software (Controller Programmer)	
9001 C	Asset Registration	N/C
6572 C	Allen-Bradley PLC-2 Ladder Logic Documentation Package	2500
6601 C	Allen-Bradley PLC-2 Up/Downline Loading	350
6602 C	Allen-Bradley PLC-2 Wiring Diagram Generator	500
6625 C	Draftec	950
6609 C	Draftec User's Guide (Additional)	55
6576 C	User's Guide (Additional)	55
6603 C	Cable to Connect Industrial PC to Allen-Bradley Data Highway	85
6579 C	Cable to Connect Industrial PC to Allen-Bradley Terminal	75
5793-AHH B	Taylor Industrial Software (Controller Programmer)	
9001 B	Asset Registration	N/C
6622 B	Allen-Bradley PLC-2 Offline Programming	1250
6623 B	User's Guide (Additional)	55
6603 B	Cable to Connect Industrial PC to Allen-Bradley Data Highway	85
6579 B	Cable to Connect Industrial PC to Allen-Bradley Terminal	75
5793-AGC C	Taylor Industrial Software (Controller Programmer)	

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MODEL/FC VPA	DESCRIPTION	PRICE
9001 C	Asset Registration	N/C
6573 C	Allen-Bradley PLC-3 Software	2500
6577 C	User's Guide (Additional)	55
6625 C	Draftec	950
6609 C	Draftec User's Guide (Additional)	55
6603 C	Cable to Connect Industrial PC to Allen-Bradley Data Highway	85
6579 C	Cable to Connect Industrial PC to Allen-Bradley Terminal	75
6583 C	Allen-Bradley PLC-3 Ladder Logic Documentation Package	2500
6602 C	Allen-Bradley PLC-3 Wiring Diagram Generator	500
5793-AHC B	Taylor Industrial Software (Controller Programmer)	
9001 B	Asset Registration	N/C
6605 B	Allen-Bradley 1774-PLC Ladder Logic Documentation Package	1250
6606 B	Allen-Bradley 1774-PLC Ladder Logic User's Guide (Additional)	55
6603 B	Cable to Connect Industrial PC to Allen-Bradley Data Highway	85
6579 B	Cable to Connect Industrial PC to Allen-Bradley Terminal	75
5793-AHD B	Taylor Industrial Software (Controller Programmer)	
9001 B	Asset Registration	N/C
6618 B	Modicon Micro-84 Documentation Package	1250
6604 B	Cable to Connect Industrial PC to Modicon P190	75
6619 B	User's Guide (Additional)	55
5793-AHE B	Taylor Industrial Software (Controller Programmer)	
9001 B	Asset Registration	N/C
6607 B	Modicon Micro-84 Ladder Logic Documentation Package	1250
6613 B	Modicon Wiring Diagram Generator	500
6625 B	Draftec	950
6609 B	Draftec User's Guide	55
6604 B	Cable to Connect Industrial PC to Modicon P190	75
6608 B	User's Guide (Additional)	55
5793-AHF C	Taylor Industrial Software (Controller Programmer)	
9001 C	Asset Registration	N/C
6611 C	Modicon 584/884/984 Ladder Logic Documentation Package	2500
6613 C	Modicon Wiring Diagram Generator	500
6614 C	Modicon 584/984 Up/Downline Loading	350
6625 C	Draftec	950
6609 C	Draftec User's Guide (Additional)	55
6604 C	Cable to Connect Industrial PC to Modicon P190	75
6612 C	User's Guide (Additional)	55
5793-AHG C	Taylor Industrial Software (Controller Programmer)	
9001 C	Asset Registration	N/C

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MODEL/FC VPA	DESCRIPTION	PRICE
6616 C	Texas Instruments Ladder Logic Documentation Package	2500
6617 C	User's Guide (Additional)	55
5601-052 D	Language Extensions for the IBM 7552 (BASIC, C, ASM, Pascal subroutines for orderly shutdown on power loss, set alarms, read/write CMOS)	
9001 D	Asset Registration	N/C
4591 D	One-Time Charge	395
5184 D	Publication and diskettes	N/C

ARTIC SUPPORT SOFTWARE

5669-179 B	Communication Subsystem V.1.1 for ARTIC, incl. User's Guide	
9001 B	Asset Registration	N/C
5137 B	Distribution on 5.25in Diskette	N/C
5146 B	Distribution on 3.5in Diskette	N/C
4638 B	One-Time Charge	475
SC28-8009	User's Guide, ARTIC Communications Subsystem	85
5669-177 D	IBM Realtime Control Program DOS Support (ASM macros, utilities)	
9001 D	Asset Registration	N/C
4640 D	One-Time Charge	80
5139 D	5.25in Diskette	N/C
5148 D	3.5in Diskette	N/C
5669-176 B	IBM Realtime Interface Co-Processor Developer's Kit (high-level language interface for BASIC, PASCAL, C, examples, debugger, format dump)	
9001 B	Asset Registration	N/C
4639 B	One-Time Charge	1850
5138 B	5.25in Diskette	N/C
5149 B	3.5in Diskette	N/C
5601-060 B	IBM Realtime Interface Co-Processor C Language Support	
9001 B	Asset Registration	N/C
4000 B	One-Time Charge	430
5201 B	5.25in Diskette	N/C
5020 B	3.5in Diskette	N/C

INTEGRATED PROGRAMS

See also the integrated families of programs under "General Purpose Programs," such as "IBM Assistant Series" on page 108, and "IBM Personal Decision Series" on page 109.

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MODEL/FC VPA	DESCRIPTION	PRICE
9503 A	Electric Desk by Electric Software *	345
9805 A	Electric Desk (Academic Edition) on 5.25in diskette *	63.95
9806 A	Electric Desk (Academic Edition) on 3.5in diskette *	63.95
9807 A	Electric Desk (Academic Edition) on PCjr cartridge *	86
9694 L	Electric Desk (Academic Edition) User's Guide *	12.95
9446 A	Framework II 1.1 by Ashton-Tate *	695
9129 A	SuperCalc 4 Release 1.0 by Sorcim * (5.25in+3.5in)	495
9448 A	Symphony 1.2 by Lotus Development *	695
9512 A	Symphony Spelling Checker *	139
9513 M	Symphony Text Outliner	139
9047 A	1-2-3 Version 2.01 by Lotus Development (5.25in)	495
9769 M	1-2-3 Version 2.01 by Lotus Development (3.5in)	495

WORD PROCESSING PROGRAMS

See also the integrated families of programs under "General Purpose Programs," such as "IBM Assistant Series" on page 108, and "IBM Personal Decision Series" on page 109.

GENERAL

9757 A	Electronic Document Exchange (EDE) Reformats business documents into ANSI X.12 *	5000
9104 A	Microsoft Word V.3.1 CMB (contains both 5.25in and 3.5in diskettes) *	450
9161 A	MultiMate by MultiSoft *	495
4179 A	IBM PC PCWriter (5520-like) (W/D 5/8/87)	215
6276613 #	PC Print (create, edit fonts, sideways print, print control)	24.95
6276615 #	Personal Correspondence Manager (menus for SCRIPT/PC, PE, Word Proof)	39.95
6276604 #	PrintDW (convert DW1, DW2 printer streams to pure ASCII)	19.95
6276638 #	Script/PC II (compatible with Script/VS R.3 GML)	99.95
6276645 #	Script/PC II Reference Book	20
6276514 #	Select-a-Font (9 graphics fonts, print controls)	24.95
9453 A	Sideways *	69.95
9444 A	Sign-Master by Decision Resources, Inc. *	245
6276536 #	The StarProof Bridge (use WordProof to check WordStar files)	19.95
9505 A	ThinkTank *	195

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MODEL/FC VPA	DESCRIPTION	PRICE
9787 A	Turbo Lightning (dictionary lookup, spelling checker (3.5in) for Personal System/2) (5/1/87) *	99.95
9542 A	T3 Scientific Word Processor by Triad Computing *	595
9409 A	Word III/Samna *	550
4071 A	Word Proof	65
6276564 #	Word Proof II (5.25in, spell check, synonyms, editor, anagrams)	39.95
6276700 #	Word Proof II (3.5in, spell check, synonyms, editor, anagrams)	39.95
9266 A	WordPerfect 4.2 by Satellite Software International (5.25in) *	495
9785 A	WordPerfect by Satellite Software International (3.5in, for Personal System/2) *	495

DESKTOP PUBLISHING

9791 A	PageMaker (page layout and electronic pasteup, 5.25in) *	695
9794 A	PageMaker for Personal System/2 (page layout and electronic pasteup, 3.5in) (5/1/87) *	695

IBM PC DISPLAYWRITE SERIES

9904 A	IBM PC DisplayWrite 4, (5.25in diskettes) Warranted, Central Service for 90 days or to 3/88	495
9913 A	IBM PC DisplayWrite 4, (3.5in diskettes) Warranted, Central Service for 90 days or to 3/88	495
0611 A	ADDITIONAL LICENSE, IBM PC DisplayWrite 4	495
0668 C	DOCUMENTATION ONLY, IBM PC DisplayWrite 4	495
9905	Upgrade DisplayWrite 3 V.1.1 (5.25in) to DisplayWrite 4 (through 7/87)	75
9914	Upgrade DisplayWrite 3 V.1.1 (3.5in) to DisplayWrite 4 (through 7/87)	75
9918	Upgrade DisplayWrite 3 V.1.0 (5.25in) to DisplayWrite 4 (through 7/87)	175
9919	Upgrade DisplayWrite 3 V.1.0 (3.5in) to DisplayWrite 4 (through 7/87)	175
6070 A	DisplayWrite Index Support (index, table of contents for DW3 and DW4)	125
4190 A	IBM PC DisplayWrite Legal Support	179
4197 A	IBM PC DisplayWrite Medical Support	179
0845 A	IBM PC DisplayWrite 3, V.1.1 (5.25in diskettes)	450
9766 A	IBM PC DisplayWrite 3, V.1.1 (3.5in diskettes)	450
S126-4050	DisplayWrite 2 template for use on 3270-PC	.30
9903	Upgrade Writing Assistant V.1 or 1.01, or Displaywrite 1 to DisplayWrite Assistant (through 5/15/87)	100

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MODEL/FC VPA	DESCRIPTION	PRICE
5799-BKE	Host-DisplayWriter Document Interchange (HDDI)	
	Initial License Charge	1165
2105	Monthly Charge	265

MICROPRO SERIES

9160 A	WordStar Professional *	495
9573 A	WordStar 2000 *	495
9575 A	WordStar 2000 Plus *	595

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MODEL/FC VPA

DESCRIPTION

PRICE

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MODEL/FC VPA

DESCRIPTION

PRICE

SUPPORT PUBLICATIONS

SUPPORT PUBLICATIONS - POLICY

Publications listed below as no charge (N/C) are typically free when ordered in reasonable quantities from your IBM Marketing Representative.

ZE22-7025	Now that you have a PC, Personal Computing means Personal Involvement	N/C
ZE22-7026	Software Guidelines for PC Users	N/C
GX20-2430	Information Systems Security: Executive Checklist	N/C
G320-9280	Good Security Practices for Personal Computers	N/C
G320-9295	Good Security Practices for Control of Off-Site Terminals and Software Usage	N/C
G321-0077	IBM Systems Journal, Vol.23, No.3, 1984 (Issue dedicated to articles on workstations)	N/C
SH19-6265	Implementation Guide for an Information Centre	19.50
G320-0147	Technical Coordinator's Guide to Training the End User	N/C
G320-0152	Technical Coordinator's Guidelines	N/C
G320-0151	Administrative Tools for the Technical Coordinator	N/C
G520-5024	Role of a Workstation Resource Center	N/C
G320-0772	Workstation Resource Center Planning and Implementation Guide	N/C

SUPPORT PUBLICATIONS - MANAGING END USER COMPUTING

These modules are intended for presentation by IBM Marketing Representatives as part of IBM's structured planning methodology. They are to be used in the context of a joint IBM-customer program for the development of end-user computing.

Publications listed below as no charge (N/C) are typically free when ordered in reasonable quantities from your IBM Marketing Representative.

GBOF-1689	Bill of Forms for Managing End-User Computing Series, orders all N/C manuals listed below	N/C
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EXECUTIVE DIRECTION

G520-4233	Executive Brochure	N/C
G320-0735	Presentation Guide	N/C
G320-0736	Assessment Guide	N/C

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MODEL/FC VPA	DESCRIPTION	PRICE
GV21-5007	Videodisc	130
ZV20-8537	Videotape	N/C
G320-0693	Presenter's Guide	N/C
G520-5037	Facts Folder	N/C

SUPPORT ORGANIZATION

G320-0737	Presentation Guide	N/C
G320-0738	Assessment Guide	N/C

PLANNING FOR USER NEEDS

G320-9301	Presentation Guide	N/C
G320-9302	Assessment Guide	N/C
G320-9303	Implementation Guide	N/C

JUSTIFICATION

G320-9284	Presentation Guide	N/C
G320-9285	Assessment Guide	N/C
G320-9286	Implementation Guide	N/C
G320-9287	User's Guide	N/C

WORKSTATION MANAGEMENT

G320-0716	Presentation Guide	N/C
G320-0721	Assessment Guide	N/C

ACCESS TO DATA

G320-9366	Presentation Guide	N/C
G320-9367	Assessment Guide	N/C

SUPPORT PUBLICATIONS - PC SEMINAR PROCEEDINGS

As of April 6, 1987

MODEL/FC VPA	DESCRIPTION	PRICE
	Publications listed below as no charge (N/C) are typically free when ordered in reasonable quantities from your IBM Marketing Representative.	
G320-9307	IBM PC Seminar Proceedings V.1.2--DOS 2.0 and 1.1 Comparison, 8087, Compatibility Guidelines, Macro Assembler	N/C
G320-9308	IBM PC Seminar Proceedings V.1.3--DOS 2.1, 2.0, and 1.1 compared, PCjr Architecture and Compatibility, Cartridge BASIC, Personal Communication Mgr	N/C
G320-9309	IBM PC Seminar Proceedings V.2.1--Software support center, International compatibility requirements, PC Cluster Program	N/C
G320-9310	IBM PC Seminar Proceedings V.2.2--Software support center, International compatibility requirements, PC Cluster Program IBM PC Cluster	N/C
G320-9311	IBM PC Seminar Proceedings V.2.3--PC Cluster, PCjr Cartridges, Sort 1.00, FORTRAN 1.00, Pascal 2.00	N/C
G320-9312	IBM PC Seminar Proceedings V.2.4--PC/AT Architecture and Compatibility, DOS 3.0	N/C
G320-9313	IBM PC Seminar Proceedings V.2.5--IBM PC Network Overview, Hardware, NETBIOS, and Program	N/C
G320-9314	IBM PC Seminar Proceedings V.2.6--TopView	N/C
G320-9315	IBM PC Seminar Proceedings V.2.7--Professional Debug Facility	N/C
G320-9319	IBM PC Seminar Proceedings V.2.8--PC Network SMB Protocol	N/C
G320-9316	IBM PC Seminar Proceedings V.2.9--IBM PC Xenix	N/C
G320-9317	IBM PC Seminar Proceedings V.2.10--Graphical Kernel System, File System, Plotting System, Professional FORTRAN, Data Acquisition Adapter, GPIB Adapter	N/C
G320-9318	IBM PC Seminar Proceedings V.2.11--Enhanced Graphics Adapter	N/C
G320-9320	IBM PC Seminar Proceedings V.3.1--PC Information Panel (3295)	N/C
G320-9321	IBM PC Seminar Proceedings V.3.2--BASIC Compiler 2.0, memory information, modular programming, ISAM files, library manager	N/C
G320-9322	IBM PC Seminar Proceedings V.3.3--IBM PC C Compiler	N/C
G320-9323	IBM PC Seminar Proceedings V.3.4--IBM Asynchronous Communication Server Protocol	N/C
G320-9324	IBM PC Seminar Proceedings V.3.5--IBM PC Voice Communications Option	N/C
G320-9325	IBM PC Seminar Proceedings V.4.1--IBM PC Xenix V.2	N/C
G320-9326	IBM PC Seminar Proceedings V.4.1--IBM PC System Extensions (incl. DOS 3.2, LAN 1.1, PC 3270 Emulation V.2), IBM PC Enhanced Keyboard	N/C
G320-9327	IBM PC Seminar Proceedings V.4.3--IBM PC Convertible	N/C

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MODEL/FC VPA	DESCRIPTION	PRICE
G360-2697	IBM PC Seminar Proceedings V.4.4--IBM PC Interfaces, PC 3270 Presentation Space API, Advanced Program-to-Program Commo., Document Content Architecture, Enhanced Connectivity Facil., Interrupt Sharing	N/C

SUPPORT PUBLICATIONS - OPTIONS AND ADAPTERS TECHNICAL REFERENCE

The following manual covers these options and adapters:

Expansion Unit
 Monochrome Display
 Color Display
 Monochrome Display/Printer Adapter
 Color Graphics Monitor Adapter
 Color Printer
 Compact Printer
 Parallel Printer Adapter
 5.25in Diskette Drive
 5.25in Diskette Drive Adapter
 Asynchronous Communications Adapter
 Fixed Disk Drive Adapter
 64/256KB Memory Option
 Slimline Diskette Drive
 Graphics Printer
 SDLC Adapter
 Cluster Adapter
 Game Control Adapter
 10MB Fixed Disk Drive
 Bisynchronous Communications Adapter

2509 a	IBM PC Options and Adapters Technical Reference Manual, Base (order via PCTB)	125
SS34-0007	Options and Adapters (Enhanced Graphics Adapter and Display) (order via PCTB)	13
SS34-0009	Options and Adapters (Engineering/Scientific, including Data Acq. Controller, Prof. Graphics Controller, GPIB Card) (order via PCTB)	34
SS34-0010	Options and Adapters (PC/AT adapters, including Serial/Parallel, Fixed Disk, Diskettes, 128KB Memory, 512KB Memory) (order via PCTB)	13.25
3090 a	Update Options and Adapters (3.5in Internal Diskette Drive) (order via PCTB)	5.95
3091 a	Update Options and Adapters (20MB Fixed Disk Drive)	5.95
3092 a	Update Options and Adapters (20MB Fixed Disk Adapter, XT models 089, 268, 278) (order via PCTB)	5.95
SS34-0012	Options and Adapters (30MB Fixed Disk Drive) (order via PCTB)	5.95
9945	Options and Adapters (4865-001 and -002, 3.5in external diskette drive) (order via PCTB)	5.95

As of April 6, 1987

MODEL/FC VPA	DESCRIPTION	PRICE
9946	Update Options and Adapters (4865 -001 and -002, 3.5in external diskette drive adapter) (order via PCTB)	5.95
3093 a	Options and Adapters (Half-Height 5.25in Diskette Drive, PC and PC/XT) (order via PCTB)	5.95
3544 a	Options and Adapters (PC/AT 128/640KB Memory Expansion) (order via PCTB)	5.95
3075 a	Update Options and Adapters (PC/AT 512KB/2MB Memory Expansion) (order via PCTB)	5.95
SS34-0008	Options and Adapters (256KB Memory Expansion and Type 3 Diskette Drive) (order via PCTB)	9.95
3215	Update Options And Adapters (PC/XT 286 Fixed Disk and Diskette Drive Adapter) (order via PCTB)	6
3208	Update Options And Adapters (20MB Fixed Disk Drive for PC/XT models 286, 268, 278, 089) (order via PCTB)	7
SS34-0011	Options and Adapters (Voice Communications Adapter) (order via PCTB)	5.95
S229-9606	Options and Adapters Binder (order via PCTB)	7.45

SUPPORT PUBLICATIONS - HARDWARE MAINTENANCE AND SERVICE

3087 a	Hardware Maintenance & Service (Manual and Advanced Diagnostic Diskette) PC, PC/XT, PC/AT, Portable (order via PCTB)	195
3063 a	Update Hardware Maintenance & Service (3.5in Internal Diskette) (order via PCTB)	5.95
3109 a	Update Hardware Maintenance & Service (640KB motherboard PC/XT models 089, 268, 278) (order via PCTB)	9.95
3100 a	Update Hardware Maintenance & Service (8MHz motherboard PC/AT model 339) (order via PCTB)	9.95
3370 a	Hardware Maintenance and Service Supplement - 3270-PC/AT	65.75
3008 a	Hardware Maintenance and Service Supplement - 5171T PC/AT	4
0111	Update Hardware Maintenance & Service (4865 -001 and -002, 3.5in external diskette drive) (order via PCTB)	10
59X9964	Update Hardware Maintenance & Service (Convertible Speech Adapter)	??
8018 a	Hardware Maintenance and Service - Multiprotocol Communications Adapter	15.50
8024 a	Hardware Maintenance and Service - PC/AT Store Loop Adapter	17
3211	Hardware Maintenance and Service Update - PC/XT 286 (order via PCTB)	9.95
S229-9605	Hardware Maintenance and Service Binder (order via PCTB)	7.60

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MODEL/FC VPA	DESCRIPTION	PRICE
SUPPORT PUBLICATIONS - HARDWARE MAINTENANCE REFERENCE		
3088 a	Hardware Maintenance Reference (removal, replacement, adjustment instructions for PC, XT, AT, Portable) (order via PCTB)	150
3064 a	Update Hardware Maintenance Reference (3.5in Internal Diskette) (order via PCTB)	5.95
3108 a	Update Hardware Maintenance Reference (640KB motherboard PC/XT models 089, 268, 278) (order via PCTB)	5.95
3110 a	Update Hardware Maintenance Reference (8MHz motherboard PC/AT model 339) (order via PCTB)	5.95
0112	Update Hardware Maintenance Reference (4865 -001 and -002, 3.5in external diskette drive) (order via PCTB)	10
3212	Update Hardware Maintenance Reference (PC/XT 286 systems) (order via PCTB)	9.95

SUPPORT PUBLICATIONS - TECHNICAL REFERENCE MANUALS

0070 a	Technical Reference Manual - IBM PC/AT model 239 and 8MHz motherboard system units (order via PCTB)	105
3099 a	Technical Reference Manual Update (Update 3099/6280099 for 8MHz motherboard PC/ATs, esp. m339) (order via PCTB)	49.75
3007 a	Technical Reference Manual Supplement - 5171T PC/AT	5.25
59X9965	Technical Reference Manual Update (Convertible Speech Adapter)	??
8017 a	Technical Reference Manual - Multiprotocol Communications Adapter	11

SUPPORT PUBLICATIONS - OTHER

Publications listed below as no charge (N/C) are typically free when ordered in reasonable quantities from your IBM Marketing Representative.

0956	IBM PC DOS 3.3 Technical Reference Manual	85
4213	IBM PC DOS Technical Reference Manual (all releases prior to 3.3) (order via PCTB) (W/D 7/10/87)	109
6690 a	DOS 1.1 Reference Manual (spiral bound)	20
6280107	System Extension Installation and Planning Guide	N/C
0826 A	BASIC 3.3 Reference Manual (1Q88) Test Period 2 months	45

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MODEL/FC VPA	DESCRIPTION	PRICE
0075	BASIC 3.2 Reference Manual and binder (order via PCTB)	45
6691 a	BASIC 1.1 Reference Manual (spiral bound)	29.75
5010 a	BASIC 1.1 Reference Manual and binder	29.75
4702	IBM PCjr BASIC Reference Manual	11.25
GC20-8210	A Guide to IBM Personal Computers	N/C
6698 a	THE GUIDE to Personal Computer Offerings (also ordered as G520-0059)	3
G570-2091	Guide to Learning: Resources for Users of IBM Personal Computers	4.95
GC34-0588	Engineering and Scientific Programs for the IBM PC from non-IBM Sources	N/C
2229 a	Logo: Programming with Turtle Graphics	24
G320-9429	Workstation Positioning and Differentiation Reference Summary	N/C
GC20-8203	An Introduction to Local Area Networks	N/C
G320-0108	Local Area Networks: A Review	N/C
G520-5031	Positioning Local Area Networks (Differentiation of Cabling System, PC Network, Industrial LAN)	N/C
G321-5182	A Token-Ring Network for Local Data Communications (Reprint of Systems Journal V.22 N.1, 1983)	N/C

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MODEL/FC VPA

DESCRIPTION

PRICE

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MODEL/FC VPA

DESCRIPTION

PRICE

OTHER SOFTWARE

CP/M-86

4035 A	CP/M-86 Operating System by Digital Research, Inc.	259
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UNIX DIALECTS

PC/INTERACTIVE EXECUTIVE

9358 A	PC/Interactive Executive (UNIX-like) V.1.1 by Interactive Systems, Warranted	989
6317009	Upgrade V.1.0 to V.1.1 (through 12/31/85)	40
9397 A	IX CONNEXION Compiler (DIBOL), Central service to 7/87	850
9398 A	IX CONNEXION Runtime (DIBOL), Central service to 7/87	425
9214 A	Interactive FORTRAN (INFORT), Central service to 7/86	275
9217 A	Interactive Network and Message System (INNET/INMAIL/FTP), Central service to 7/86	329
9233 A	INword for PC/IX, Central service to 7/87	475
9343 A	IX Integrated WORD/MATH, Central service to 7/87	659
9350 A	IX RM/COBOL Compiler and Run Time Interpreter by Ryan McFarland, Central service to 7/87	825
9351 A	IX RM/COBOL Run Time Interpreter by Ryan McFarland, Central service to 7/87	249
9393 A	IX UltraCalc, Central service to 7/87	350
6135 A	PC Interface for IBM IX/370	??

IBM PC XENIX FOR THE PC/AT

9932 A	IBM PC Xenix V.2 (incl. publications listed below) Warranted, Central Service 6 mo. notice or to 10/87	599
SV21-8074	Xenix V.2 Documentation, Volume 1	34
SV21-8075	Xenix V.2 Documentation, Volume 2	38.50
SV21-8076	Xenix V.2 Documentation, Volume 3	81.50
SV21-8077	Xenix V.2 Documentation, Volume 4	45.25
9943 A	IBM PC Xenix Operating System Extensions V.1.0 Warranted, Central Service 6 mo. notice or to 10/87	475
SV21-8081	Using INed	19

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MODEL/FC VPA	DESCRIPTION	PRICE
SV21-8086	Using INmail/INnet/ftp/Connect	24.50
SN20-9782	Operating Systems Extensions User's Guide	17.75
9939 A	IBM PC Xenix Software Development System V.2 (incl. publications listed below) Warranted, Central Service 6 mo. notice or to 10/87	599
SV21-8078	IBM PC Xenix Software Development System V.2 Documentation Volume 1	34
SV21-8079	IBM PC Xenix Software Development System V.2 Documentation Volume 2	40.25
9941 A	IBM PC Xenix Text Formatting System V.2 (incl. publication listed below) Warranted, Central Service 6 mo. notice or to 10/87	199
SV21-8080	IBM PC Xenix Text Formatting System V.2 Guide	23.75
9615 A	IX CONNEXION Compiler (DIBOL) for Xenix, Central service to 7/87	975
9616 A	IX CONNEXION Runtime (DIBOL) for Xenix, Central service to 7/87	500
9392 A	IX Integrated WORD/MATH for Xenix, Central service to 7/87	800
9394 A	IX UltraCalc for Xenix, Central service to 7/87	395
9613 A	IX 3270-PLUS (3270 emulation, multi-session SDL), XENIX 1.0 only, by Rabbit Software, Central Service to 4/88	995

SERIES/1 PC OPERATING SYSTEMS

For associated hardware, see "Processors - Series/1 Versions" on page 57. For associated Series/1 applications, see your IBM Marketing Representative.

These programs are eligible for volume license discounting under the IBM Series/1 Licensed Program Exhibit.

5719-EM1	IBM Series/1 Input Output Executive (Provides PC device support for EDX and RPS), Warranted, Central service 6 mo. notice or to 3/88	
9737	Asset registration	715
2154	Media distribution and process charge V.1.1	40

EDX on the 4950 is supported for application execution only. Application development under EDX on the 4950 is not supported.

5719-XJ5	IBM Series/1 Event Driven Executive for the IBM Series/1 4950 System Unit (Requires Series/1 I/O Executive), Warranted, Central service to 3/88	
9764	Asset registration	750
2098	Media distribution and process charge, Version 5.1	21
2177	Media distribution and process charge, Version 5.2	21

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MODEL/FC VPA	DESCRIPTION	PRICE
	RPS on the 4950 is supported for application execution only. Application development under RPS on the 4950 is not supported.	
5719-PJ7	IBM Series/1 Realtime Programming System for the IBM Series/1 4950 System Unit (Requires Series/1 I/O Executive), Warranted, Central service to 3/88	
9766	Asset registration	2800
2122	Media distribution and process charge, Version 7.1	73
2175	Media distribution and process charge, Version 7.2	73
5776-DAF	Telex Interface Program/PC (TXIP/PC) Allows Series/1 5170 to act as telex traffic node with up to 4 telex I/O lines and one DTNL host line (FC9001, 4003, 2000), Central service to 3/89	7000

VM/PC

For associated hardware, see "Processors - PC/XT/370 and PC/AT/370 Versions" on page 56.

VM/PC OPERATING SYSTEM

7040 A	IBM Virtual Machine/Personal Computer V.2.01 for PC/AT/370 ** (Incl. TR LAN support, APL char set, spool RDR/PUN/CON), Warranted, Central service 6 mo. notice or to 12/87	1150
7041	VM/PC 2 Primer	25
5664-319	IBM VM/PC Host Server V.2 (VMPCSERV) Warranted, Central Service to 12/87	
9001	Asset Registration	N/C
5558	9/1600 bpi tape	N/C
5559	9/6250 bpi tape	N/C
4650	One Time Charge Option	2000
4651	Monthly Charge Option	135
4175 A	IBM Virtual Machine/Personal Computer V.1.1 ** (Incl. user's guide, VMPCSERV, support for AT/370, 3278/9 emul.), Warranted, Central service to 12/86	1150
SC24-5254	VM/PC User's Guide (additional copy)	25
4176	VM/PC 1.1 Primer	18
G320-0576	Example of an Interface Between VM/PC CMS and a Native Input/Output Device (Interfacing VM/PC to a PC plotter, etc.)	N/C
4174	VM/PC Primer	18

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MODEL/FC VPA	DESCRIPTION	PRICE
5798-DTL	TSO Host Server for PC/370 (TSOSERV), Central service to 7/86	2420
5799-CEE	VM/PC Toolkit-Base for the AT/370 (PRPQ P81010, CMS program I/O to PC graphics devices, async VMPCSERV, program to program communication with PC DOS programs)	405
5799-CED	VM/PC Toolkit-Host Programs for the AT/370 (PRPQ P81011, Async VMPCSERV on tape, Host REXX bindings in VDI syntax to GDDM)	500
5799-CEC	VM/PC Toolkit-VDI Graphics for the AT/370 (PRPQ P81014, High-level language bindings to VDI for VS FORTRAN, Pascal/VS, REXX, Assembler H for VM/PC programs)	460
SC28-1391	TSOSERV Program Description and Operations	4.50
SC28-1390	TSOSERV User's Guide	4.50

IBM PC/XT/370 LICENSE OPTION AMENDMENT WITH FEATURE NUMBERS

SC26-4120	VM/PC System/370 Language Supplement (Compiler implementation under VM/PC)	6
5668-899	APL2 (not for development, APL character set not supported)	
3020	Monthly Charge Option	49
3021	One-Time Charge Option	735
5748-AP1	VS APL (not for development, APL character set not supported)	
3011	Monthly Charge Option	49
3012	One-Time Charge Option	735
5740-M52	S/370 Automatically Programmed Tool (APT) Intermediate Contouring	
3011	Monthly Charge Option	50
3012	One-Time Charge Option	1000
5740-M53	S/370 Automatically Programmed Tool (APT) Advanced Contouring	
3013	Monthly Charge Option	75
3014	One-Time Charge Option	1500
5668-962	Assembler H	
3002	Monthly Charge Option	9
3011	One-Time Charge Option	432
5664-185	High-Accuracy Arithmetic (ACRITH) Subroutine Library Release 2	
3002	One-Time Charge Option	150
5668-996	IBM BASIC Processor and Library	
3003	Monthly Charge Option	21
3012	One-Time Charge Option	1008
5668-795	CICS/CMS Release 1	
	Monthly Charge Option	50
	One-Time Charge Option	900
5740-CB1	OS/VS COBOL Compiler and Library	

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MODEL/FC VPA	DESCRIPTION	PRICE
3006	Monthly Charge Option	19
3008	One-Time Charge Option	912
5740-LM1	OS/VS COBOL Library	
3007	Monthly Charge Option	6
3009	One-Time Charge Option	288
5734-CB4	COBOL Interactive Debug	
3003	Monthly Charge Option	21
3004	One-Time Charge Option	1008
5748-XXB	DMS/CMS	
3005	Monthly Charge Option	4
3009	One-Time Charge Option	144
5748-XX9	Document Composition Facility	
3003	Monthly Charge Option	18
3008	One-Time Charge Option	864
5798-PXJ	Dynamic Simulation Language/VS	
3045	Monthly Charge Option	45
3044	One-Time Charge Option	1000
5799-BTB	Elementary Math Library PRPQ #P81005	
3035	One-Time Charge Option	30
5748-F03	VS FORTRAN Compiler and Library	
3000	Monthly Charge Option	17
3006	One-Time Charge Option	816
5748-LM3	VS FORTRAN Library	
3001	Monthly Charge Option	4
3007	One-Time Charge Option	192
5668-903	VS FORTRAN Interactive Debug	
3006	Monthly Charge Option	24
3010	One-Time Charge Option	1152
5668-011	IIAS	
3008	Monthly Charge Option	60
3013	One-Time Charge Option	1890
5668-012	IIPS	
3009	Monthly Charge Option	18
3014	One-Time Charge Option	604
5748-MS1	VM/IPF (FLIST and BROWSE functions)	
3004	Monthly Charge Option	4
3010	One-Time Charge Option	196
5668-960	ISPF	
3007	Monthly Charge Option	10
3015	One-Time Charge Option	660
5664-172	ISPF/PDF (no disconn. virt. mach.)	
3000	Monthly Charge Option	17
3001	One-Time Charge Option	1085
5740-XM3	MPSX/370 incl.MIP/370	
3015	Monthly Charge Option	62
3016	One-Time Charge Option	1250
5796-PNQ	Pascal/VS	
3025	Monthly Charge Option	11
3028	One-Time Charge Option	554
5734-PL3	PL/I Optimizing Compiler and Lib.	
3000	Monthly Charge Option	21
3005	One-Time Charge Option	1008
5734-LM5	PL/I Transient Library	
3001	Monthly Charge Option	4

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MODEL/FC VPA	DESCRIPTION	PRICE
3006	One-Time Charge Option	192
5734-LM4	PL/I Resident Library	
3002	Monthly Charge Option	4
3007	One-Time Charge Option	192
5798-BDW	CMS Sort for VM/CMS & Extensions	
3037	One-Time Charge Option	132
5664-189	STAIRS/CMS	
3003	Monthly Charge Option	30
3004	One-Time Charge Option	660
5798-DYF	The Information Facility (TIF) V.2	
3047	Monthly Charge Option	50

4680 OPERATING SYSTEM FOR 5170 POINT-OF-SALE

See also "IBM SolutionPac Offerings" on page 27 for the Store Installation Services offering, which incorporates some of the following products.

The following items are discounted via the Volume License Amendment for IBM Store Systems Licensed Programs.

For a special promotional offering on the following item, see "Store Express Trial Program" on page 1.

5669-033	4680 Operating System for 5170 Point-of-Sale (based on Concurrent DOS-286, specify FC 9001, 4606, and 5898) Warranted, Central Service 6 mo. notice	1250
5669-033	4680 Operating System V.1.2 for 5170 Point-of-Sale (supports 2nd loop adapter, PC Network) (V.1.3 available 9/87) Warranted, Central Service 6 mo. notice	
9001	Asset Registration	N/C
4606	One-Time Charge	1250
5898	Media Selection (5.25in diskettes)	N/C
4642	Multiple-Controller Feature, One-Time Charge	625
5888	Multiple-Controller Feature, Media Selection (5.25in diskettes)	N/C

For a special promotional offering on the following item, see "Store Express Trial Program" on page 1.

5669-034	IBM 4680 BASIC (based on CB86, LINK-86, and LIB-86, specify FC 9001, 4607, and 5898) (V.1.2 available 9/87) Warranted, Central Service 6 mo. notice	2500
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For a special promotional offering on the following item, see "Store Express

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MODEL/FC VPA	DESCRIPTION	PRICE
Trial Program" on page 1.		
5669-031	IBM 4680 General Sales Application (written in 4680 BASIC, specify FC 9001, 4604, and 5898) Warranted, Central Service 6 mo. notice	
4641	One-Time Charge	900
7898	Source code for General Sales Application (optional)	10000
7040	General Sales Application Program Reference	??
8002	General Sales Application Program Reference (additional copies)	??

For a special promotional offering on the following item, see "Store Express Trial Program" on page 1.

5669-032	IBM 4680 Supermarket Application	N/C
9001	Asset Registration	N/C
4605	One-Time Charge	2250
5898	Media Selection (5.25in diskettes)	
4643	Source Code, One-Time Charge	10000
7898	Source Code, Media Selection	N/C

For a special promotional offering on the following item, see "Store Express Trial Program" on page 1.

5669-212	IBM 4680 Chain Drug Application (written in 4680 BASIC, specify FC 9001, 4660, and 5898) Warranted, Central Service 6 mo. notice	900
4661	Source code One Time Charge for Chain Drug Application (optional)	4000
3000	Source code Media Selection for Chain Drug Application (optional)	N/C
7040	Chain Drug Application Program Reference	??
8003	Chain Drug Application Program Reference (additional copies)	??

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MODEL/FC VPA

DESCRIPTION

PRICE

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MODEL/FC VPA

DESCRIPTION

PRICE

EDUCATIONAL PROGRAMS

4112	IBM PC Adventures in Math	39
6276609 #	The Combined Adventures with Numbers	39.95
6276582 #	Aeromathics	19.95
6276598 #	Algebra Drills	19.95
4024	Arithmetic Games Set 1	60
4025	Arithmetic Games Set 2	60
4053 A	BASIC Primer	65
4129 A	BASIC Primer Version 2	65
2290	Hands-On BASIC for the IBM PCjr (book)	17.50
4116	BASIC Made Easy for the IBM PCjr (book)	13.00
4137 A	IBM PC Bouncy Bee Learns Letters (5.25in)	70
4511 A	IBM PC Bouncy Bee Learns Letters (3.5in)	70
4536 A	IBM PC Bouncy Bee Learns Letters, LAN Package (5.25in)	420
4139 A	IBM PC Bouncy Bee Learns Words (5.25in)	70
4510 A	IBM PC Bouncy Bee Learns Words (3.5in)	70
4537 A	IBM PC Bouncy Bee Learns Words, LAN Package (5.25in)	420
6276605 #	Bridge Break 200	24.95
4094	IBM PC Bumble Games	45
4096	IBM PC Bumble Plot	45
4293 A	Comma Cat	49
9569 A	Computer Preparation for the SAT *	79.95
6276559 #	Countries, Capitals, and More!	24.95
4067 A	Dictionary Dog	49
6276552 #	Electronic Grammar (Parts of Speech)	24.95
4023	FACT TRACK	90
4098	Gertrude's Puzzles	49
4097	Gertrude's Secrets	49
6276633 #	Hopping Down the Math Trail	19.95
9046 A	The Instructor by Individual Software*	44.95
4304 A	I Can Be Anything	50
0915 A	InfoCourse: Spreadsheets for Professionals (runs on InfoWindow)	2000
4095	IBM PC Juggles' Butterfly	39
4066	Karel the Robot	150
4080	Learning to Use DOS 2.00 (book)	15
4165 A	Listen to Learn (talking word-processor) (5.25in)	195
4506 A	Listen to Learn (talking word-processor) (3.5in)	195
4538 A	Listen to Learn (talking word-processor), LAN Package (5.25in)	1170
4076 A	LOGO by Logo Computer Systems, Inc. (5.25in)	175
4731 A	LOGO by Logo Computer Systems, Inc. (3.5in)	175
4136 A	LOGO Learner (5.25in)	110
4515 A	LOGO Learner (3.5in)	110
6276512 #	Matrix Madness	19.95
6276551 #	Memory House	19.95
4104 A	Missing Letters (5.25in)	50
4507 A	Missing Letters (3.5in)	50
4530 A	Missing Letters, LAN Package (5.25in)	300

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MODEL/FC VPA	DESCRIPTION	PRICE
4072	IBM PC Monster Math	35
6276612 #	PC Morse Code	24.95
6276525 #	Morse Code Drills	19.95
6276585 #	Multipurpose Authoring Language	99.95
6276623 #	Multipurpose Authoring Language Reference Book	10
6024340	InfoCourse: Principle of the Alphabet Literacy System (PALS) V.1.0, Warranted, Central Service for 90 days or to 3/89 (runs on InfoWindow, 2Q87)	3750
4294 A	Primary Editor (children's word processor) (5.25in)	60
4767 A	Primary Editor (children's word processor) (3.5in)	60
4539 A	Primary Editor (children's word processor), LAN Package (5.25in)	360
9340 A	IBM Programmed Inquiry Learning or Teaching (PILOT), Central service to 8/86	219
9183 A	Professor DOS by Individual Software, Inc.*	59.95
4099	Rocky's Boots	50
4075 A	Teacher's Quiz Designer (5.25in)	75
4509 A	Teacher's Quiz Designer (3.5in)	75
4339 A	IBM PC Touch Typing for Beginners (5.25in)	85
4698 A	IBM PC Touch Typing for Beginners (3.5in)	85
4562 A	IBM PC Touch Typing for Beginners, LAN Package (5.25in)	510
4363 A	IBM PC Touch Typing for Beginners School Package (5.25in) (12 diskettes, 1 manual)	385
4700 A	IBM PC Touch Typing for Beginners School Package (3.5in) (12 diskettes, 1 manual)	385
4109	IBM PC Turtle Power	55
4079	Turtle Power Activity Book	15
4167	Turtle Power Thinker's Book	11.50
9088 A	Tutorial Set (Professor DOS + The Instructor) by Individual Software, Inc.*	94
9685 A	Typing INSTRUCTOR II*	49.95
4013 A	Typing Tutor (diskette version)	29
6276509 #	These United States	24.95
9252 A	Word Attack! by Davidson & Associates*	49.95
4447 M	Writing to Read V.3 (PCjr only), Program Kit (inc. Teacher's Manual, pgm, Work Journals, cassettes) (5.25in)	895
4513 A	Writing to Read V.3 (PCjr only), Program Kit (inc. Teacher's Manual, pgm, Work Journals, cassettes) (3.5in)	895
4450 M	Writing to Read V.3 (PCjr only), Accessory Kit (inc. games, cassettes)	211
4467 M	Writing to Read V.3 (PCjr only), Class Set (inc.30 Work Journals)	330
1186 L	Writing to Read V.3 (PCjr only), Teacher's Manual	37
4468 A	Get Set for Writing to Read (Kit, contains Alphabet and Sound Pgms, Manual, Workbooks, Audio Cassettes, etc.)	295
4469	Get set for Writing to Read Alphabet Book Set	6

MODEL/FC VPA	DESCRIPTION	PRICE
IBM PC BIOLOGY SERIES		

'School Packages' consist of one manual and 12 copies of the program diskette.

4316 A	Cell Functions: Growth and Mitosis (5.25in)	65
4317 A	Chemicals of Life I: The Structure of Matter (5.25in)	65
4344 A	Chemicals of Life II: Water, Carbohydrates, and Lipids (5.25in)	65
4409 A	Chemicals of Life III: Proteins and Nucleic Acids (5.25in)	65
4407 A	Cytology and Histology: Cells and Tissues (5.25in)	65
4412 A	The Environment I: Habitats and Ecosystems (5.25in)	65
4413 A	The Environment II: Cycles and Interactions (5.25in)	65
4346 A	Human Life Processes I: Cellular Physiology (5.25in)	65
4411 A	Human Life Processes II: Systems Level (5.25in)	65
4414 A	Human Life Processes III: Development and Differentiation (5.25in)	65
4318 A	Leaf: Structure and Physiology (5.25in)	65
4319 A	Light, Plants and Photosynthesis (5.25in)	65
4408 A	Mendelian Genetics: The Science of Inheritance (5.25in)	65
4345 A	Modern Genetics: Chromosomes and Coding (5.25in)	65
4320 A	Passive Transport: Diffusion and Osmosis (5.25in)	65
4343 A	Pathology: Diseases and Defenses (5.25in)	65
4321 A	Plants: Growth and Specialization (5.25in)	65
4415 A	Pollination and Fertilization: Seeds, Fruits, and Embryos (5.25in)	65
4410 A	Regulation and Homeostasis: Systems in Balance (5.25in)	65
4416 A	Taxonomy: Classification and Organization (5.25in)	65
4635 A	Cell Functions: Growth and Mitosis (3.5in)	65
4636 A	Chemicals of Life I: The Structure of Matter (3.5in)	65
4647 A	Chemicals of Life II: Water, Carbohydrates, and Lipids (3.5in)	65
4614 A	Chemicals of Life III: Proteins and Nucleic Acids (3.5in)	65
4732 A	Cytology and Histology: Cells and Tissues (3.5in)	65
4658 A	The Environment I: Habitats and Ecosystems (3.5in)	65
4656 A	The Environment II: Cycles and Interactions (3.5in)	65
4649 A	Human Life Processes I: Cellular Physiology (3.5in)	65
4616 A	Human Life Processes II: Systems Level (3.5in)	65
4657 A	Human Life Processes III: Development and Differentiation (3.5in)	65
4637 A	Leaf: Structure and Physiology (3.5in)	65

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MODEL/FC VPA	DESCRIPTION	PRICE
4638 A	Light, Plants and Photosynthesis (3.5in)	65
4733 A	Mendelian Genetics: The Science of Inheritance (3.5in)	65
4648 A	Modern Genetics: Chromosomes and Coding (3.5in)	65
4639 A	Passive Transport: Diffusion and Osmosis (3.5in)	65
4646 A	Pathology: Diseases and Defenses (3.5in)	65
4645 A	Plants: Growth and Specialization (3.5in)	65
4633 A	Pollination and Fertilization: Seeds, Fruits, and Embryos (3.5in)	65
4615 A	Regulation and Homeostasis: Systems in Balance (3.5in)	65
4655 A	Taxonomy: Classification and Organization (3.5in)	65
4391 A	Cell Functions: Growth and Mitosis School Package (5.25in)	295
4397 A	Chemicals of Life I: The Structure of Matter School Package (5.25in)	295
4394 A	Chemicals of Life II: Water, Carbohydrates, and Lipids School Package (5.25in)	295
4439 A	Chemicals of Life III: Proteins and Nucleic Acids School Package (5.25in)	295
4437 A	Cytology and Histology: Cells and Tissues School Package (5.25in)	295
4442 A	The Environment I: Habitats and Ecosystems School Package (5.25in)	295
4443 A	The Environment II: Cycles and Interactions School Package (5.25in)	295
4396 A	Human Life Processes I: Cellular Physiology School Package (5.25in)	295
4441 A	Human Life Processes II: Systems Level School Package (5.25in)	295
4444 A	Human Life Processes III: Development and Differentiation School Package (5.25in)	295
4388 A	Leaf: Structure and Physiology School Package (5.25in)	295
4393 A	Light, Plants and Photosynthesis School Package (5.25in)	295
4438 A	Mendelian Genetics: The Science of Inheritance School Package (5.25in)	295
4395 A	Modern Genetics: Chromosomes and Coding School Package (5.25in)	295
4389 A	Passive Transport: Diffusion and Osmosis School Package (5.25in)	295
4390 A	Pathology: Diseases and Defenses School Package (5.25in)	295
4392 A	Plants: Growth and Specialization School Package (5.25in)	295
4445 A	Pollination and Fertilization: Seeds, Fruits, and Embryos School Package (5.25in)	295
4440 A	Regulation and Homeostasis: Systems in Balance School Package (5.25in)	295
4446 A	Taxonomy: Classification and Organization School Package (5.25in)	295

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MODEL/FC VPA	DESCRIPTION	PRICE
4640 A	Cell Functions: Growth and Mitosis School Package (3.5in)	295
4641 A	Chemicals of Life I: The Structure of Matter School Package (3.5in)	295
4652 A	Chemicals of Life II: Water, Carbohydrates, and Lipids School Package (3.5in)	295
4619 A	Chemicals of Life III: Proteins and Nucleic Acids School Package (3.5in)	295
4617 A	Cytology and Histology: Cells and Tissues School Package (3.5in)	295
4662 A	The Environment I: Habitats and Ecosystems School Package (3.5in)	295
4660 A	The Environment II: Cycles and Interactions School Package (3.5in)	295
4654 A	Human Life Processes I: Cellular Physiology School Package (3.5in)	295
4621 A	Human Life Processes II: Systems Level School Package (3.5in)	295
4661 A	Human Life Processes III: Development and Differentiation School Package (3.5in)	295
4642 A	Leaf: Structure and Physiology School Package (3.5in)	295
4643 A	Light, Plants and Photosynthesis School Package (3.5in)	295
4618 A	Mendelian Genetics: The Science of Inheritance School Package (3.5in)	295
4653 A	Modern Genetics: Chromosomes and Coding School Package (3.5in)	295
4644 A	Passive Transport: Diffusion and Osmosis School Package (3.5in)	295
4651 A	Pathology: Diseases and Defenses School Package (3.5in)	295
4650 A	Plants: Growth and Specialization School Package (3.5in)	295
4634 A	Pollination and Fertilization: Seeds, Fruits, and Embryos School Package (3.5in)	295
4620 A	Regulation and Homeostasis: Systems in Balance School Package (3.5in)	295
4659 A	Taxonomy: Classification and Organization School Package (3.5in)	295
4544 A	Cell Functions: Growth and Mitosis LAN Package (5.25in)	390
4545 A	Chemicals of Life I: The Structure of Matter LAN Package (5.25in)	390
4564 A	Chemicals of Life II: Water, Carbohydrates, and Lipids LAN Package (5.25in)	390
4587 A	Chemicals of Life III: Proteins and Nucleic Acids LAN Package (5.25in)	390
4585 A	Cytology and Histology: Cells and Tissues LAN Package (5.25in)	390
4590 A	The Environment I: Habitats and Ecosystems LAN Package (5.25in)	390

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MODEL/FC VPA	DESCRIPTION	PRICE
4591 A	The Environment II: Cycles and Interactions LAN Package (5.25in)	390
4566 A	Human Life Processes I: Cellular Physiology LAN Package (5.25in)	390
4589 A	Human Life Processes II: Systems Level LAN Package (5.25in)	390
4592 A	Human Life Processes III: Development and Differentiation LAN Package (5.25in)	390
4546 A	Leaf: Structure and Physiology LAN Package (5.25in)	390
4547 A	Light, Plants and Photosynthesis LAN Package (5.25in)	390
4586 A	Mendelian Genetics: The Science of Inheritance LAN Package (5.25in)	390
4565 A	Modern Genetics: Chromosomes and Coding LAN Package (5.25in)	390
4610 A	Passive Transport: Diffusion and Osmosis LAN Package (5.25in)	390
4563 A	Pathology: Diseases and Defenses LAN Package (5.25in)	390
4549 A	Plants: Growth and Specialization LAN Package (5.25in)	390
4593 A	Pollination and Fertilization: Seeds, Fruits, and Embryos LAN Package (5.25in)	390
4588 A	Regulation and Homeostasis: Systems in Balance LAN Package (5.25in)	390
4594 A	Taxonomy: Classification and Organization LAN Package (5.25in)	390

INTRODUCTION TO GENERAL CHEMISTRY

9758 A	Introduction to General Chemistry, Starter Set * (inc. program, Teacher's Guide, Student Set Initialization)	590
9767 A	Introduction to General Chemistry, Student's Set * (inc. program, req. Starter Set to initialize)	150
9759 A	Introduction to General Chemistry, Network Version * (no Starter Set req'd)	1770

IBM PC COMBINING SENTENCES SERIES V.1.00

'School Packages' consist of one manual and 12 copies of the program diskette.

0946 A	IBM PC Combining Sentences, Level II (Third-Fourth Grade) Single Pack (5.25in)	110
0948 A	IBM PC Combining Sentences, Level III (Fifth-Sixth Grade) Single Pack (5.25in)	110

MODEL/FC VPA	DESCRIPTION	PRICE
0950 A	IBM PC Combining Sentences, Level IV (Seventh-Eighth Grade) Single Pack (5.25in)	110
4689 A	IBM PC Combining Sentences, Level II (Third-Fourth Grade) Single Pack (3.5in)	110
4690 A	IBM PC Combining Sentences, Level III (Fifth-Sixth Grade) Single Pack (3.5in)	110
4691 A	IBM PC Combining Sentences, Level IV (Seventh-Eighth Grade) Single Pack (3.5in)	110
0947 A	IBM PC Combining Sentences, Level II (Third-Fourth Grade) School Pack (5.25in)	495
0949 A	IBM PC Combining Sentences, Level III (Fifth-Sixth Grade) School Pack (5.25in)	495
0951 A	IBM PC Combining Sentences, Level IV (Seventh-Eighth Grade) School Pack (5.25in)	495
4692 A	IBM PC Combining Sentences, Level II (Third-Fourth Grade) School Pack (3.5in)	495
4693 A	IBM PC Combining Sentences, Level III (Fifth-Sixth Grade) School Pack (3.5in)	495
4694 A	IBM PC Combining Sentences, Level IV (Seventh-Eighth Grade) School Pack (3.5in)	495
4602 A	IBM PC Combining Sentences, Level II (Third-Fourth Grade) LAN Pack (5.25in)	660
4603 A	IBM PC Combining Sentences, Level III (Fifth-Sixth Grade) LAN Pack (5.25in)	660
4604 A	IBM PC Combining Sentences, Level IV (Seventh-Eighth Grade) LAN Pack (5.25in)	660

IBM PC EARTH SCIENCES SERIES

4121 A	Hydrologic Cycle (Single Copy) (5.25in)	55
4122 A	Ground Water (Single Copy) (5.25in)	55
4123 A	Surface Water (Single Copy) (5.25in)	55
4124 A	Moisture in the Atmosphere (Single Copy) (5.25in)	55
4322 A	Earthquakes (Single Copy) (5.25in)	55
4324 A	Landslides (Single Copy) (5.25in)	60
4323 A	Volcanos (Single Copy) (5.25in)	55
4117 A	Glacial Landforms (Single Copy) (5.25in)	55
4518 A	Hydrologic Cycle (Single Copy) (3.5in)	55
4516 A	Ground Water (Single Copy) (3.5in)	55
4519 A	Surface Water (Single Copy) (3.5in)	55
4520 A	Moisture in the Atmosphere (Single Copy) (3.5in)	55
4517 A	Earthquakes (Single Copy) (3.5in)	55
4522 A	Landslides (Single Copy) (3.5in)	60
4521 A	Volcanos (Single Copy) (3.5in)	55

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MODEL/FC VPA	DESCRIPTION	PRICE
4514 A	Glacial Landforms (Single Copy) (3.5in)	55
4532 A	Hydrologic Cycle (LAN Pack) (5.25in)	330
4533 A	Ground Water (LAN Pack) (5.25in)	330
4534 A	Surface Water (LAN Pack) (5.25in)	330
4535 A	Moisture in the Atmosphere (LAN Pack) (5.25in)	330
4550 A	Earthquakes (LAN Pack) (5.25in)	330
4552 A	Landslides (LAN Pack) (5.25in)	360
4551 A	Volcanos (LAN Pack) (5.25in)	330
4613 A	Glacial Landforms (LAN Pack) (5.25in)	330

IBM PC GEOMETRY SERIES V.1.00

'School Packages' consist of one manual and 12 copies of the program diskette.

0934 A	Geometry One: Foundations Single Pack (5.25in)	195
0937 A	Geometry Two: Proofs and Extensions Single Pack (5.25in)	195
4707 A	Geometry One: Foundations Single Pack (3.5in)	195
4728 A	Geometry Two: Proofs and Extensions Single Pack (3.5in)	195
0935 A	Geometry One: Foundations School Pack (5.25in)	975
0938 A	Geometry Two: Proofs and Extensions School Pack (5.25in)	975
4727 A	Geometry One: Foundations School Pack (3.5in)	975
4711 A	Geometry Two: Proofs and Extensions School Pack (3.5in)	975
0936 A	Geometry One: Foundations Student Guide	16
0939 A	Geometry Two: Proofs and Extensions Student Guide	16
4605 A	Geometry One: Foundations LAN Pack (5.25in)	1170
4606 A	Geometry Two: Proofs and Extensions LAN Pack (5.25in)	1170
0936 A	Geometry One: Foundations Student Guide	16
0939 A	Geometry Two: Proofs and Extensions Student Guide	16

IBM PC MATH CONCEPTS SERIES

'School Packages' consist of one manual and 12 copies of the program diskette.

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MODEL/FC VPA	DESCRIPTION	PRICE
4356 A	Level P (Preschool - Kindergarten) (5.25in)	150
4355 A	Level I (First - Second Grade) (5.25in)	175
4357 A	Level II (Third - Fourth Grade) (5.25in)	175
4427 A	Level III (Fifth - Sixth Grade) (5.25in)	195
4429 A	Level IV (Seventh - Eighth Grade) (5.25in)	195
4721 A	Level P (Preschool - Kindergarten) (3.5in)	150
4722 A	Level I (First - Second Grade) (3.5in)	175
4723 A	Level II (Third - Fourth Grade) (3.5in)	175
4724 A	Level III (Fifth - Sixth Grade) (3.5in)	195
4716 A	Level IV (Seventh - Eighth Grade) (3.5in)	195
4370 A	Level P (Preschool - Kindergarten) School Package (5.25in)	675
4368 A	Level I (First - Second Grade) School Package (5.25in)	789
4369 A	Level II (Third - Fourth Grade) School Package (5.25in)	789
4417 A	Level III (Fifth - Sixth Grade) School Package (5.25in)	879
4419 A	Level IV (Seventh - Eighth Grade) School Package (5.25in)	879
4712 A	Level P (Preschool - Kindergarten) School Package (3.5in)	675
4713 A	Level I (First - Second Grade) School Package (3.5in)	789
4714 A	Level II (Third - Fourth Grade) School Package (3.5in)	789
4715 A	Level III (Fifth - Sixth Grade) School Package (3.5in)	879
4725 A	Level IV (Seventh - Eighth Grade) School Package (3.5in)	879
4576 A	Level P (Preschool - Kindergarten) LAN Pack (5.25in)	900
4575 A	Level I (First - Second Grade) LAN Pack (5.25in)	1050
4577 A	Level II (Third - Fourth Grade) LAN Pack (5.25in)	1050
4595 A	Level III (Fifth - Sixth Grade) LAN Pack (5.25in)	1170
4596 A	Level IV (Seventh - Eighth Grade) LAN Pack (5.25in)	1170

IBM PC MATH PRACTICE SERIES

'School Packages' consist of one manual and 12 copies of the program diskette.

4353 A	Level I (First - Second Grade) (5.25in)	95
4354 A	Level II (Third - Fourth Grade) (5.25in)	95
4431 A	Level III (Fifth - Sixth Grade) (5.25in)	95
4432 A	Level IV (Seventh - Eighth Grade) (5.25in)	95

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MODEL/FC VPA	DESCRIPTION	PRICE
4663 A	Level I (First - Second Grade) (3.5in)	95
4664 A	Level II (Third - Fourth Grade) (3.5in)	95
4665 A	Level III (Fifth - Sixth Grade) (3.5in)	95
4666 A	Level IV (Seventh - Eighth Grade) (3.5in)	95
4372 A	Level I (First - Second Grade) School Package (5.25in)	429
4371 A	Level II (Third - Fourth Grade) School Package (5.25in)	429
4421 A	Level III (Fifth - Sixth Grade) School Package (5.25in)	429
4422 A	Level IV (Seventh - Eighth Grade) School Package (5.25in)	429
4667 A	Level I (First - Second Grade) School Package (3.5in)	429
4668 A	Level II (Third - Fourth Grade) School Package (3.5in)	429
4669 A	Level III (Fifth - Sixth Grade) School Package (3.5in)	429
4670 A	Level IV (Seventh - Eighth Grade) School Package (3.5in)	429
4573 A	Level I (First - Second Grade) LAN Package (5.25in)	570
4574 A	Level II (Third - Fourth Grade) LAN Package (5.25in)	570
4597 A	Level III (Fifth - Sixth Grade) LAN Package (5.25in)	570
4598 A	Level IV (Seventh - Eighth Grade) LAN Package (5.25in)	570

IBM PC PARTS OF SPEECH SERIES

'School Packages' consist of one manual and 12 copies of the program diskette.

4333 A	Level II (Third - Fourth Grade) (5.25in)	100
4334 A	Level III (Fifth - Sixth Grade) (5.25in)	100
4679 A	Level II (Third - Fourth Grade) (3.5in)	100
4680 A	Level III (Fifth - Sixth Grade) (3.5in)	100
4378 A	Level II (Third - Fourth Grade) School Package (5.25in)	450
4379 A	Level III (Fifth - Sixth Grade) School Package (5.25in)	450
4681 A	Level II (Third - Fourth Grade) School Package (3.5in)	450

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MODEL/FC VPA	DESCRIPTION	PRICE
4682 A	Level III (Fifth - Sixth Grade) School Package (3.5in)	450
4557 A	Level II (Third - Fourth Grade) LAN Package (5.25in)	600
4558 A	Level III (Fifth - Sixth Grade) LAN Package (5.25in)	600

PERSONAL COMPUTER INSTRUCTIONAL SYSTEM BY COMPUTER SYSTEMS RESEARCH

9173	Presentation System, Central service to 11/85	89
9174	Authoring System, Central service to 11/85	575
9175	Administration System, Central service to 11/85	439

IBM PC PHYSICS DISCOVERY SERIES VERSION 1

4403 A	Investigating Acceleration (5.25in)	75
4118 A	Investigating Atomic Models (5.25in)	75
4464 A	Investigating Electric Fields (5.25in)	75
4404 A	Investigating Gravitational Force (5.25in)	75
4402 A	Investigating Conservation of Energy (5.25in)	75
4465 A	Investigating Models of Light (5.25in)	75
4405 A	Investigating Thermal Energy (5.25in)	75
4466 A	Investigating Wave Interference (5.25in)	75
4624 A	Investigating Acceleration (3.5in)	75
4523 A	Investigating Atomic Models (3.5in)	75
4627 A	Investigating Electric Fields (3.5in)	75
4622 A	Investigating Gravitational Force (3.5in)	75
4625 A	Investigating Conservation of Energy (3.5in)	75
4626 A	Investigating Models of Light (3.5in)	75
4623 A	Investigating Thermal Energy (3.5in)	75
4628 A	Investigating Wave Interference (3.5in)	75
4581 A	Investigating Acceleration (LAN Package) (5.25in)	450
4612 A	Investigating Atomic Models (LAN Package, 4/9/87)(5.25in)	450
4599 A	Investigating Electric Fields (LAN Package) (5.25in)	450
4582 A	Investigating Gravitational Force (LAN Package) (5.25in)	450
4584 A	Investigating Conservation of Energy (LAN Package) (5.25in)	450
4600 A	Investigating Models of Light (LAN Package) (5.25in)	450
4583 A	Investigating Thermal Energy (LAN Package) (5.25in)	450

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MODEL/FC VPA	DESCRIPTION	PRICE
4601 A	Investigating Wave Interference (LAN Package) (5.25in)	450

PRIVATE TUTOR SERIES

4052 A	Private Tutor	55
4113 A	Private Tutor Version 2 (5.25in)	55
4508 A	Private Tutor Version 2 (3.5in)	55
6276532 #	Beyond Basic BASIC	24.95
4081 A	Learning to Program in BASIC	39
4069 A	Computers and Communications	39
4063 A	Learning DOS 2 for Private Tutor Version 2	45
6276567 #	FORTRAN Tutor	19.95
6276529 #	Algebra Tutor	34.95
4085 A	Capitalization Skills	55
4084 A	Language Skills	55
6276601 #	Multiplication Tables	24.95
4083 A	Punctuation Skills	55
4325 A	Reading Comprehension Skills	55
6276627 #	Spell Facts (Private Tutor series)	19.95
4086 A	Spelling Skills	55
4326 A	Vocabulary Building Skills	55
4327 A	Word Knowledge Skills	55
4297 A	Basic Number Concepts	55
4305 A	Math Computation Skills	55
4307 A	Preparing for Geometry and Algebra	55
4308 A	Solving Math Word Problems	55
4078	Writing Private Tutor Courses for the IBM PC	14.50
6276602 #	Private Tutor Presenter 1.10	24.95
4531 A	Private Tutor Version 2, LAN Package (5.25in)	330
4528 A	Capitalization Skills, LAN Package (5.25in)	330
4527 A	Language Skills, LAN Package (5.25in)	330
4526 A	Punctuation Skills, LAN Package (5.25in)	330
4553 A	Reading Comprehension Skills, LAN Package (5.25in)	330
4529 A	Spelling Skills, LAN Package (5.25in)	330
4554 A	Vocabulary Building Skills, LAN Package (5.25in)	330
4611 A	Word Knowledge Skills, LAN Package (5.25in)	330
4540 A	Basic Number Concepts, LAN Package (5.25in)	330
4541 A	Math Computation Skills, LAN Package (5.25in)	330
4542 A	Preparing for Geometry and Algebra, LAN Package (5.25in)	330
4543 A	Solving Math Word Problems, LAN Package (5.25in)	330

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MODEL/FC VPA	DESCRIPTION	PRICE
IBM PC PUNCTUATION SERIES V.1.0		

'School Packages' consist of one manual and 12 copies of the program diskette.

0940	A Punctuation Series Level II (Third-Fourth Grade) Single Pack (5.25in)	110
0942	A Punctuation Series Level III (Fifth-Sixth Grade) Single Pack (5.25in)	110
0944	A Punctuation Series Level IV (Seventh-Eighth Grade) Single Pack (5.25in)	110
4695	A Punctuation Series Level II (Third-Fourth Grade) Single Pack (3.5in)	110
4696	A Punctuation Series Level III (Fifth-Sixth Grade) Single Pack (3.5in)	110
4697	A Punctuation Series Level IV (Seventh-Eighth Grade) Single Pack (3.5in)	110
0941	A Punctuation Series Level II (Third-Fourth Grade) School Pack (5.25in)	495
0943	A Punctuation Series Level III (Fifth-Sixth Grade) School Pack (5.25in)	495
0945	A Punctuation Series Level IV (Seventh-Eighth Grade) School Pack (5.25in)	495
4719	A Punctuation Series Level II (Third-Fourth Grade) School Pack (3.5in)	495
4717	A Punctuation Series Level III (Fifth-Sixth Grade) School Pack (3.5in)	495
4718	A Punctuation Series Level IV (Seventh-Eighth Grade) School Pack (3.5in)	495
4607	A Punctuation Series Level II (Third-Fourth Grade) LAN Pack (5.25in)	660
4608	A Punctuation Series Level III (Fifth-Sixth Grade) LAN Pack (5.25in)	660
4609	A Punctuation Series Level IV (Seventh-Eighth Grade) LAN Pack (5.25in)	660

IBM PC READING FOR INFORMATION

'School Packages' consist of one manual and 12 copies of the program diskette.

4358	A Level II (Third - Fourth Grade) (5.25in)	125
4359	A Level III (Fifth - Sixth Grade) (5.25in)	150
4360	A Level IV (Seventh - Eighth Grade) (5.25in)	150
4683	A Level II (Third - Fourth Grade) (3.5in)	125

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MODEL/FC VPA	DESCRIPTION	PRICE
4684	A Level III (Fifth - Sixth Grade) (3.5in)	150
4685	A Level IV (Seventh - Eighth Grade) (3.5in)	150
4386	A Level II (Third - Fourth Grade) School Package (5.25in)	565
4387	A Level III (Fifth - Sixth Grade) School Package (5.25in)	675
4366	A Level IV (Seventh - Eighth Grade) School Package (5.25in)	675
4686	A Level II (Third - Fourth Grade) School Package (3.5in)	562.50
4687	A Level III (Fifth - Sixth Grade) School Package (3.5in)	675
4688	A Level IV (Seventh - Eighth Grade) School Package (3.5in)	675
4578	A Level II (Third - Fourth Grade) LAN Package (5.25in)	750
4579	A Level III (Fifth - Sixth Grade) LAN Package (5.25in)	900
4580	A Level IV (Seventh - Eighth Grade) LAN Package (5.25in)	900

IBM PC READING FOR MEANING SERIES

'School Packages' consist of one manual and 12 copies of the program diskette.

4330	A Level I (Second Grade) (5.25in)	150
4336	A Level II (Third - Fourth Grade) (5.25in)	150
4337	A Level III (Fifth - Sixth Grade) (5.25in)	150
4338	A Level IV (Seventh - Eighth Grade) (5.25in)	150
4671	A Level I (Second Grade) (3.5in)	150
4672	A Level II (Third - Fourth Grade) (3.5in)	150
4673	A Level III (Fifth - Sixth Grade) (3.5in)	150
4674	A Level IV (Seventh - Eighth Grade) (3.5in)	150
4384	A Level I (Second Grade) School Package (5.25in)	675
4374	A Level II (Third - Fourth Grade) School Package (5.25in)	675
4375	A Level III (Fifth - Sixth Grade) School Package (5.25in)	675
4364	A Level IV (Seventh - Eighth Grade) School Package (5.25in)	675
4675	A Level I (Second Grade) School Package (3.5in)	675
4676	A Level II (Third - Fourth Grade) School Package (3.5in)	565

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MODEL/FC VPA	DESCRIPTION	PRICE
4677 A	Level III (Fifth - Sixth Grade) School Package (3.5in)	675
4678 A	Level IV (Seventh - Eighth Grade) School Package (3.5in)	675
4556 A	Level I (Second Grade) LAN Package (5.25in)	900
4559 A	Level II (Third - Fourth Grade) LAN Package (5.25in)	900
4560 A	Level III (Fifth - Sixth Grade) LAN Package (5.25in)	900
4561 A	Level IV (Seventh - Eighth Grade) LAN Package (5.25in)	900

SCIENTIFIC REASONING SERIES

4474 A	Concept Developments: Heat and Temperature, and Graphs (5.25in)	75
2448 A	Measurement Process: Distance and Area (5.25in)	75
4473 A	Ratio Reasoning: Crystals and Speed (5.25in)	75
2449 A	Scientific Models: Batteries and Bulbs, and Families (5.25in)	75
2447 A	Theory Formulation: Reflections and Patterns (5.25in)	75
4632 A	Concept Developments: Heat and Temperature, and Graphs (3.5in)	75
4730 A	Measurement Process: Distance and Area (3.5in)	75
4631 A	Ratio Reasoning: Crystals and Speed (3.5in)	75
4630 A	Scientific Models: Batteries and Bulbs, and Families (3.5in)	75
4729 A	Theory Formulation: Reflections and Patterns (3.5in)	75

IBM PC SPELLING SERIES

'School Packages' consist of one manual and 12 copies of the program diskette.

4347 A	Level I (First - Second Grade) (5.25in)	110
4348 A	Level II (Third - Fourth Grade) (5.25in)	110
4349 A	Level III (Fifth - Sixth Grade) (5.25in)	110
4720 A	Level I (First - Second Grade) (3.5in)	110
4708 A	Level II (Third - Fourth Grade) (3.5in)	110
4709 A	Level III (Fifth - Sixth Grade) (3.5in)	110
4380 A	Level I (First - Second Grade) School Package (5.25in)	495

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MODEL/FC VPA	DESCRIPTION	PRICE
4381 A	Level II (Third - Fourth Grade) School Package (5.25in)	495
4382 A	Level III (Fifth - Sixth Grade) School Package (5.25in)	495
4699 A	Level I (First - Second Grade) School Package (3.5in)	495
4726 A	Level II (Third - Fourth Grade) School Package (3.5in)	495
4710 A	Level III (Fifth - Sixth Grade) School Package (3.5in)	495
4567 A	Level I (First - Second Grade) LAN Package (5.25in)	660
4568 A	Level II (Third - Fourth Grade) LAN Package (5.25in)	660
4569 A	Level III (Fifth - Sixth Grade) LAN Package (5.25in)	660

IBM PC VOCABULARY SERIES

'School Packages' consist of one manual and 12 copies of the program diskette.

4350 A	Level II (Third - Fourth Grade) (5.25in)	110
4351 A	Level III (Fifth - Sixth Grade) (5.25in)	110
4352 A	Level IV (Seventh - Eighth Grade) (5.25in)	110
4701 A	Level II (Third - Fourth Grade) (3.5in)	110
4734 A	Level III (Fifth - Sixth Grade) (3.5in)	110
4703 A	Level IV (Seventh - Eighth Grade) (3.5in)	110
4376 A	Level II (Third - Fourth Grade) School Package (5.25in)	495
4377 A	Level III (Fifth - Sixth Grade) School Package (5.25in)	495
4365 A	Level IV (Seventh - Eighth Grade) School Package (5.25in)	495
4704 A	Level II (Third - Fourth Grade) School Package (3.25in)	495
4705 A	Level III (Fifth - Sixth Grade) School Package (3.25in)	495
4706 A	Level IV (Seventh - Eighth Grade) School Package (3.25in)	495
4570 A	Level II (Third - Fourth Grade) LAN Package (5.25in)	660
4571 A	Level III (Fifth - Sixth Grade) LAN Package (5.25in)	660

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MODEL/FC VPA	DESCRIPTION	PRICE
4572 A	Level IV (Seventh - Eighth Grade) LAN Package (5.25in)	660

IBM INFORMATION SYSTEMS MANAGEMENT INSTITUTE

GR20-4824	End User and Personal Computing Curriculum	N/C
GR20-4857	IBM Personal Computer Curriculum (combines SRI and ISMI courses)	N/C
G3653	Telecommunications Environment (3 days) covering telephony, common carriers, PBX's, voice/data integration	540
G4000	Locally Connected Personal Computers (2-1/2 day) for S/36-38, Token-Ring, PC Net, Rolm CBX connect	850
G4004	PC 3270 Emulation Advanced Products (2 days, Covers PC 3270 Emulation Program V.2, V.3)	540
G4005	Asynchronous Communications for the PC (2 days)	470
G4001	Network Connected Personal Computers (4-1/2 day) for 3270-PC, PC Net gateway, PC/370	1260
B3819	Implementing Graphics in a GDDM Host-Local Environment (2-1/2 day) for 3179/G, 3270-PC, GGXA, etc.	700
G3636	PC LAN Implementation and Tuning (3 days, Covers both PC Network and Token-Ring, esp. NETBIOS software)	660
G4003	PC Network Implementation and Tuning (2 days)	560
G3611	Token-Ring Network Implementation and Management (3-1/2 days)	770
B3821	IBM System/36 Office Using IBM PC's (3 day, DW3, PS/36, DW/36)	660
Y6068	Introduction to the IBM 4680 Store System (1/2 day)	N/C
E3622	Planning and Installing the IBM 4680 Sales Application (8 days)	2080
E3623	Programming the IBM 4680 General Sales Application (10 days)	3300
W9949	Information Center Consulting (2-1/2 day)	675
Y6201	InfoWindow Product Overview (1 day)	N/C
E3646	Video/PAssage Authoring Class (3 day)	660
E3647	InfoWindow Application Workshop (7 day)	2800
E3668	InfoWindow Presentation System Authoring Workshop (3 day)	720
E3653	Learning System/1 (LS/1) Authoring Workshop (4-1/2 day)	1080

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MODEL/FC VPA	DESCRIPTION	PRICE
SCIENCE RESEARCH ASSOCIATES - LEASED COURSES		
Many SRA courses are available through the IBM Guided Learning Centers at IBM Branch Offices at a charge per half day attended.		
32273	Personal Computing Concepts - Videotape	175
32275	Programming the IBM Personal Computer	125
Z2275	Programming the IBM Personal Computer (via GLC attendance at current half-day rate)	
32276	Business Programming in BASIC	125
Z2276	Business Programming in BASIC (via GLC attendance at current half-day rate)	
32279	Advanced File Processing in BASIC	125
Z2279	Advanced File Processing in BASIC (via GLC attendance at current half-day rate)	
32280	Advanced BASIC Programming Techniques	125
Z2280	Advanced BASIC Programming Techniques (via GLC attendance at current half-day rate)	
34552	IBM Personal Computer Architecture	150
32298	The IBM Personal Computer Advanced Technology	150
Z2298	The IBM Personal Computer Advanced Technology (via GLC attendance at current half-day rate)	
32281	Using IBM DisplayWrite 2	200
32284	Using IBM DisplayWrite 3	250
	Upgrade 'Using IBM DisplayWrite 2' course to 'Using IBM DisplayWrite 3' course	50
32266	Document Exchange: DisplayWrite 3 and System/36	90
Z2266	Document Exchange: DisplayWrite 3 and System/36 (via GLC attendance at current half-day rate)	
32271	Using the IBM Personal Computer and DOS	90
Z2271	Using the IBM Personal Computer and DOS (via GLC attendance at current half-day rate)	
32299	The IBM Personal Computer DOS (publication SR21-0572)	125
Z2299	The IBM Personal Computer DOS (via GLC attendance at current half-day rate)	
32278	Using the Lotus 1-2-3 Program	90
32292	Developing Computer-Based Training with PC PILOT	250
32274	Using the WordStar Program	90
32295	The IBM Personal Computer Network	175

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MODEL/FC VPA	DESCRIPTION	PRICE
Z2295	The IBM Personal Computer Network (via GLC attendance at current half-day rate)	
34550	Installation of Personal Services/PC with DISOSS	150
32401	UNIX Operating System: Introduction (60 day lease)	605
32401	UNIX Operating System: Introduction (12 month lease)	1100
Z2401	UNIX Operating System: Introduction (via GLC attendance at current half-day rate)	
32402	UNIX Operating System: Editing and Printing (60 day lease)	605
32402	UNIX Operating System: Editing and Printing (12 month lease)	1100
Z2402	UNIX Operating System: Editing and Printing (via GLC attendance at current half-day rate)	
32403	UNIX Operating System: Files and Directories (60 day lease)	605
32403	UNIX Operating System: Files and Directories (12 month lease)	1100
Z2403	UNIX Operating System: Files and Directories (via GLC attendance at current half-day rate)	
32404	UNIX Operating System: Text Formatting (60 day lease)	415
32404	UNIX Operating System: Text Formatting (12 month lease)	750
Z2404	UNIX Operating System: Text Formatting (via GLC attendance at current half-day rate)	
32405	UNIX Operating System: System Administration (60 day lease)	605
32405	UNIX Operating System: System Administration (12 month lease)	1100
Z2405	UNIX Operating System: System Administration (via GLC attendance at current half-day rate)	
32406	UNIX Operating System: Shell Programming (60 day lease)	605
32406	UNIX Operating System: Shell Programming (12 month lease)	1100
Z2406	UNIX Operating System: Shell Programming (via GLC attendance at current half-day rate)	
32407	UNIX Operating System: Program Development Tools (60 day lease)	605
32407	UNIX Operating System: Program Development Tools (12 month lease)	1100
Z2407	UNIX Operating System: Program Development Tools (via GLC attendance at current half-day rate)	
32153	308X Hardware Operator Training (12-mo. lease)	950
Z2153	308X Hardware Operator Training (via GLC attendance at current half-day rate)	
32151	3090 Hardware Operator Training (12-mo. lease)	950
Z2151	3090 Hardware Operator Training (via GLC attendance at current half-day rate)	

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MODEL/FC VPA	DESCRIPTION	PRICE
32192	MVS/SP Operator Training (60-day lease)	495
32192	MVS/SP Operator Training (12-month lease)	1250
32293	VM/SP Operator Training (60-day lease)	580
32293	VM/SP Operator Training (12-month lease)	1050
32181	Controlling JES2 (30-day lease) (Publication number SR20-8093)	280
32181	Controlling JES2 (60-day lease)	455
32181	Controlling JES2 (12-month lease)	825

FIELD INSTRUCTION SYSTEM (FIS) SELF STUDY

77514	Personal System/2 Model 30 Service	??
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TECHNICAL SEMINARS

In addition to education described elsewhere, the following seminars are available for presentation by IBM marketing personnel to Technical Coordinators and others. The publication numbers listed below are for student materials which would be used by attendees.

Publications listed below as no charge (N/C) are typically free when ordered in reasonable quantities from your IBM Marketing Representative.

G320-0135	PC 3270 Installation and Planning Seminar	N/C
G320-0146	PC/370 Workstations Planning and Installation Seminar	N/C
G320-0119	5520/PC Attachment Seminar	N/C
G320-0161	Local Area Network Concepts Seminar	N/C
G320-0139	IBM Office Information Architecture Seminar	N/C

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MODEL/FC VPA

DESCRIPTION

PRICE

MUSIC PROGRAMS

9798 A	COMPOSE (uses IBM PC Music Feature, 3.5in+5.25in)	
	(5/1/87) *	109.95
9784 A	PLAYREC (uses IBM PC Music Feature, 3.5in+5.25in)	
	*	77.95

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MODEL/FC VPA

DESCRIPTION

PRICE

As of April 6, 1987

MODEL/FC VPA	DESCRIPTION	PRICE
		GAMES
6276621 #	Alley Cat	24.95
6276502 #	Backgammon	19.95
6276503 #	Blackjack	24.95
6276592 #	Chess Games of the Grandmasters	19.95
6276535 #	Crypto-Mania (decode famous quotations)	24.95
6276577 #	Crypto-Mania Puzzle Pac (500+ added crypto puzzles)	19.95
9048 A	Flight Simulator by Microsoft *	49.95
6276511 #	Freddy's Rescue Roundup (formerly Roadrunner Rescue)	19.95
6276664 1	Imperial Space Command	49.95
6276519 #	Kaleidoscope (display pattern generator)	14.95
6276569 #	Liptocoe (maze game)	19.95
6276619 #	M.U.L.E	29.95
6276600 #	Music 101 (trivia questions on music)	19.95
6276553 #	Scattergrams (solve jumbled quotations)	19.95
6276563 #	Side-Swipe	14.95
6276565 #	Solitaire	19.95
6276608 #	Sports Appeal (sports trivia questions)	19.95
6276643 #	VERSO	19.95
6276620 #	The World's Greatest Baseball Game	29.95
6276599 #	Trivia 102	24.95
6276610 #	Trivia 103	24.95
6276534 #	Word Seeking	24.95
6276515 #	Zuran	19.95
6276516 #	3-K Trivia	24.95

As of April 6, 1987

MODEL/FC VPA

DESCRIPTION

PRICE

As of April 6, 1987

MODEL/FC VPA

DESCRIPTION

PRICE

PROCESSORS - RT-PC SYSTEM

For associated software, see "IBM RT-PC Advanced Interactive Executive" on page 177.

The IBM RT Personal Computer is discounted on a separate RT-PC Volume Procurement Agreement. The VPA categories listed below apply to that agreement only.

The following RT-PC system units are floor-standing devices, with enhanced expandability.

For a special promotional offering on the following item, see "RT PC AIX Operating System Promotional Offering" on page 1.

6150-020 a	RT-PC System Unit, incl. RISC Processor, RT Keyboard, 1.2MB Diskette, 40MB Fixed Disk and Adapter, 1MB Memory, 2 Async Ports	11900
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For a special promotional offering on the following item, see "RT PC AIX Operating System Promotional Offering" on page 1.

6150-025 a	RT-PC System Unit, incl. RISC Processor, RT Keyboard, 1.2MB Diskette, 70MB Fixed Disk and Adapter, 2MB Memory, 2 Async Ports	14050
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For a special promotional offering on the following item, see "RT PC AIX Operating System Promotional Offering" on page 1.

6150-A25 a	RT-PC System Unit, incl. RISC Processor, 1.2MB Diskette, 70MB Fixed Disk and Adapter, 2MB Memory, 2 Async Ports, 5080 Attachment	15620
6150-125 a	RT-PC System Unit, incl. higher-performance RISC Processor and floating-point processor, RT Keyboard, 1.2MB Diskette, 70MB Fixed Disk, EESDI Adapter, 4MB Fast Memory, 2 Async Ports (5/87)	16100
6150-B25 a	RT-PC System Unit, incl. higher-performance RISC Processor and floating-point processor, 5080 Attachment, 1.2MB Diskette, 70MB Fixed Disk, EESDI Adapter, 4MB Fast Memory, 2 Async Ports (5/87)	17670

The following RT-PC system units are desktop devices, with limited expandability.

6151-010 a	RT-PC System Unit, incl. RISC Processor, RT Keyboard, 1.2MB Diskette, 40MB Fixed Disk and Adapter, 1MB Memory (no additional disk drives allowed)	7900
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For a special promotional offering on the following item, see "RT PC AIX Operating System Promotional Offering" on page 1.

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MODEL/FC VPA	DESCRIPTION	PRICE
6151-015 a	RT-PC System Unit, incl. RISC Processor, RT Keyboard, 1.2MB Diskette, 70MB Fixed Disk and Adapter, 2MB Memory (no additional disk drives allowed)	9600
6151-115 a	RT-PC System Unit, incl. higher-performance RISC Processor and floating-point processor, RT Keyboard, 1.2MB Diskette, 70MB Fixed Disk, EESDI Adapter, 4MB Fast Memory (no additional disk drives allowed) (5/87)	10600

For a special promotional offering on the following item, see "RT PC AIX Operating System Promotional Offering" on page 1.

61X6833	Upgrade RT-PC models 010, 015, 020, 025, A25 to new processor	2495
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In addition to the options listed below, the RT-PC supports the following features. Excepting the Math Co-Processor, all features require an I/O slot for installation.

•	0203 - PC/AT 512KB Memory Option (used with FC 4756)	
•	0206 - PC/AT High Capacity Diskette Drive	
•	0207 - PC/AT Dual-Sided Diskette Drive	
•	0211 - PC/AT Math Co-Processor (used with FC 4756)	
•	0213 - PC Network Adapter (requires user-written programs)	
•	0215 - PC/AT Serial/Parallel Adapter	
•	0217 - PC/AT Communications Cable	
•	0242 - PC/AT Serial Adapter Connector	
•	1200, 1201, 1203 - Enhanced Graphics Adapter and Memory	
•	2507, 5050 - 3278/79 Emulation Adapter	
•	4900 - Monochrome Display/Printer Adapter	
•	5612 - PC Printer Cable	
4735 a	40MB Fixed-Disk Drive (maximum 3 drives)	1395
3428 a	PC/AT Fixed-Disk and Diskette Drive Adapter (required if a third Fixed Disk is to be configured, requires FC 8541 and an I/O slot)	650
6941	RT-PC 70MB ESDI Fixed-Disk Drive (req. FC6341)	2395
6341	RT-PC ESDI Magnetic Media Adapter (supports 2-FC6941 and 2 diskette drives)	650
3988	RT-PC 70MB Extended ESDI Fixed-Disk Drive (for model 125, B25 only) (5/87)	2395
3272	RT-PC 114MB Extended ESDI Fixed-Disk Drive (for model 125, B25) (4Q87)	3495
9332-240	RT-PC SCSI Direct Access Storage Device, 200MB, Rack Mount, Also available via monthly rental charge of \$850 (2Q87)	8500
9332-250	RT-PC SCSI Direct Access Storage Device, 200MB, Standalone, Also available via monthly rental charge of \$850 (2Q87)	8500

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MODEL/FC VPA	DESCRIPTION	PRICE
9332-440	RT-PC SCSI Direct Access Storage Device, 400MB, Rack Mount, Also available via monthly rental charge of \$1400 (2Q87)	14000
9332-450	RT-PC SCSI Direct Access Storage Device, 400MB, Standalone, Also available via monthly rental charge of \$1400 (2Q87)	14000
9822	Cable from RT-PC to first 9332 on a signal cable path (specify code on 9332, inc. terminator), 8m	N/C
9827	Cable from RT-PC to other 9332s on a signal cable path (specify code on 9332), 1m	N/C
SA21-9533	IBM 9332 (SCSI) Setting Up Manual	??
SA21-9534	IBM 9332 (SCSI) Analyzing Problems Manual	??
SA21-9535	IBM 9332 (SCSI) Reference Code Guide	??
SY31-0685	IBM 9332 (SCSI) Service Guide	??
SA21-9532	IBM 9332 (SCSI) Planning Guide	??
7000	RT-PC Small Computer System Interface Adapter for 9332 DASD, Supports attachment of up to 7 9332s (2Q87)	1080
3468	RT-PC Small Computer System Interface Adapter Cable (2Q87), 8m (additional, prefer specify code 9822 above)	95
3470	RT-PC Small Computer System Interface Device-to-Device Cable, 1m (additional, prefer specify code 9827 above) (2Q87)	75
4797 a	6157 Streaming Tape Drive Adapter, RT-PC (requires an I/O slot)	430
	The RT-PC also supports the PC/AT High-Capacity Diskette Drive (FC 0206) and the PC/AT Dual-Sided Diskette Drive (FC 0207). A maximum of 2 Diskettes Drives may be configured.	
8222 a	1MB System Memory Expansion (max. 1 additional on old models)	1445
4739 a	2MB System Memory Expansion (max. 1 additional on old models)	2545
3156 a	4MB System Memory Expansion (max. 2 on old models)	3500
7004 a	4MB Fast Memory Expansion (max. 2 on models 115, 125, B25)	3800
7008 a	8MB Fast Memory Expansion (max. 1 on models 115, 125, B25)	5000
8426 a	Mouse, 2-button	195
6815 a	Advanced Floating-Point Accelerator (IEEE standard, uses dedicated slot, 2Q87)	1995
4758 a	Floating-Point Accelerator (IEEE standard, uses dedicated slot)	850
4763 a	4-Port Asynch RS-232C Adapter (speeds to 19.2 kbps, distance to 50 feet without modem, requires I/O slot) (W/D 6/17/87)	425

As of April 6, 1987

MODEL/FC VPA	DESCRIPTION	PRICE
4764 a	4-Port Asynch RS422A Adapter (speeds to 19.2 kbps, distance to 4000 feet without modem, requires I/O slot) (W/D 6/17/87)	500
1356 a	Four-Port RS-232C Adapter (16-byte buffer, replaces FC 4763, speeds to 19.2 kbps, distance to 50 feet without modem, requires I/O slot, max. 4 adapters, 3Q87)	425
1357 a	Four-Port RS-422A Adapter (16-byte buffer, replaces FC 4764, speeds to 19.2 kbps, distance to 4000 feet without modem, requires I/O slot, max. 4 adapters, 3Q87)	500
3797 a	Token-Ring Network Adapter for RT-PC (requires customer-written drivers)	1095
3390 a	Token-Ring Attachment Cable for RT-PC	35
6810 a	IBM RT-PC Baseband Adapter for use with Ethernet	850
4762 a	RT-PC Multi-Protocol Communications Adapter (Asc, BSC, SDLC to 64kbps, 2 concurrent ports)	850
4812 a	RS-232C Modem Cable for Multi-Protocol Communications Adapter, 3m	96
4814 a	Autocall Unit Cable, 3m	84
4816 a	X.21 Modem Cable for Multi-Protocol Communications Adapter, 3m	89
4756 a	PC/AT Coprocessor Card (req. I/O slot, FC 0203 memory recommended for performance, also supports FC 0211 (80287 chip)	995
7893 a	System/370 Host Interface Adapter (Attachment via 5080 Graphics Channel Controller at 2MB/sec)	1795
7561 a	5080 Peripheral Adapter (Not required if RT-PC is attached to 5080, requires I/O slot, contains 3 ports)	425
4710 a	Lighted Program Function Keyboard (32-button, req. FC 7564, 7561)	550
8710 a	Dials Unit (8 dials, req. FC 7564, 7561)	950
7860 a	5080 Attachment Adapter (Model 020-025 only, standard in A25, req. an I/O slot)	1795
6153-001 b	Advanced Monochrome Graphics Display (12in Diagonal) (2 color, variable character cell, 720H x 512V resolution, .37 Megapixel)	610
4765 a	Advanced Monochrome Graphics Display Adapter (1024 x 512 bit map, displays 720 x 512 on 6153, req. an I/O slot)	775
6155-001 b	Extended Monochrome Graphics Display, RT-PC (15in Diagonal) (2 color, variable character cell, 1024H x 768V resolution, .79 Megapixel)	975
4768 a	Extended Monochrome Graphics Display Adapter (1024 x 1024 bit map, displays 1024 x 768 on 6155, req. an I/O slot)	1450

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MODEL/FC VPA	DESCRIPTION	PRICE
6154-001 b	Advanced Color Graphics Display (14in Diagonal) (64 color, variable character cell, 720H x 512V resolution, .37 Megapel)	1550
4766 a	Advanced Color Graphics Display Adapter (1024 x 512 x 4 bit map, palette of 16 colors from 64, displays 720 x 512 on 6154, req. an I/O slot)	1350
7658 a	Megapel Display Adapter (1024 x 1024 x 8 bit map, palette of 256 colors from 4096, supports 5081 and 5082, req. 2 I/O slots, req. FC2001 on 5081) inc. parallel printer adapter (5/87)	4500
7564 a	5080 Peripheral Cable Kit (1.2 meter)	53
7586 a	5083 Tablet Cable Kit (1.4 meter)	49
8245 a	ASCII Terminal Cable - RS-232C (9-pin, 3 meter)	55
8186 a	ASCII Terminal Cable - RS-232C (10-pin, 3 meter)	103
3913 a	ASCII Terminal Cable - RS-232C (10/25-pin, 3 meter) for attaching 316X terminals	70
7641 a	ASCII Terminal Cable - RS422A (6-pin, 3 meter)	42
4802 a	ASCII Terminal Cable - RS422A (6-pin, 20 meter)	78
8993 a	Serial Printer Cable (9-pin, 3 meter)	59
4803 a	Serial Printer Cable (10-pin, 3 meter)	64
4704 a	Modem Cable, RS-232C (10-pin, 3 meter)	64
8541 a	Fixed-Disk Attach Cable (attaches third Fixed Disk to second adapter)	52

RT-PC SUPPORT PUBLICATIONS

Each RT-PC System will be shipped with the
following four manuals (choosing the appropriate
maintenance manual)

SV21-8020	IBM RT-PC User Setup Guide	27.75
SV21-8021	Guide to Operations - RT-PC	20.25
SV21-8022	Problem Determination Guide - RT-PC	65
SV21-8026	Hardware Maintenance and Service Manual - RT-PC 6151	107
SV21-8025	Hardware Maintenance and Service Manual - RT-PC 6150	108
GA23-1058	IBM RT-PC Site Planning and Preparation	N/C
GC23-0784	IBM RT-PC Concepts	N/C
SV21-8024	IBM RT-PC Hardware Technical Reference	150

As of April 6, 1987

MODEL/FC VPA

DESCRIPTION

PRICE

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MODEL/FC VPA

DESCRIPTION

PRICE

IBM RT-PC ADVANCED INTERACTIVE EXECUTIVE

For associated hardware, see "Processors - RT-PC System" on page 171.

These programs are discounted under the separate RT-PC Discount Agreement. The VPA Categories listed below are for that agreement only.

For a special promotional offering on the following item, see "RT PC AIX Operating System Promotional Offering" on page 1.

5669-061 A	IBM RT-PC Advanced Interactive Executive V.1.1 (FC's 9001, 5034, 4532), Warranted, Central Service 6 mo. notice or to 2/1/89	2295
5601-061 A	IBM RT-PC Advanced Interactive Executive V.2.1 (FC 9001, 5007) Warranted, Central Service to 2/1/89, Incl. function of VRM V.2.1	2295
4512	Upgrade RT-PC AIX V.1.1 to V.2.1 (FC 9001, 5008)	395
5669-060 A	IBM RT-PC Virtual Resource Manager V.1.1 (FC's 9001, 5033, 4531) Warranted, Central Service 6 mo. notice or to 2/1/89	895
5601-062 A	IBM RT-PC Virtual Resource Manager V.2.1 (FC4513) function incl. in AIX 2.1, Warranted, Central Service to 2/1/89	895
4514	Upgrade RT-PC VRM V.1.1 to V.2.1	100
5669-057 B	RT-PC PC/AT Coprocessor Services V.1.1 (supports AT processor card in RT-PC, FC's 9001, 5030, 4528) Warranted, Central Service 6 mo. notice or to 2/1/88	550
5601-077 B	RT-PC X-Windows (windowing system) (FC4524, 9/25/87) Warranted, Central Service 6 mo. notice or to 1/1/89	650
5669-056 B	RT-PC BASIC Interpreter (FC's 9001, 5029, 4527) Warranted, Central Service 6 mo. notice or to 2/1/88	1000
	RT-PC Advanced C Compiler Support Offering (education, C Compiler Information PRPQ, hotline access) (5/15/87)	1995
5776-EBY B	RM/COBOL Compiler and Runtime System for the RT-PC (FC's 9001, 4005, 5001)	1950
5776-EBX B	RM/COBOL Runtime System for the RT-PC (FC's 9001, 4004, 5000)	400
5669-054 B	RT-PC Fortran 77 V.1.1 (FC's 9001, 5027, 4525) Warranted, Central Service 6 mo. notice or to 2/1/88	650

As of April 6, 1987

MODEL/FC VPA	DESCRIPTION	PRICE
5601-037 B	RT-PC VS Fortran V.1 (FC 4500) High compatibility with Host VS Fortran 2.1, Fortran 77, and VAX Fortran V.3, Warranted, Central Service 6 mo. notice or to 2/1/89 (5/15/87)	995
5601-037	Upgrade RT-PC Fortran 77 to RT-PC VS Fortran (FC4510)	395
5669-242 B	Common Lisp Application Environment for the RT-PC by Lucid, Inc. (FC's 9001, 4664, 5141) Compiler and Interpreter	900
5669-243 B	Common Lisp Development Environment for the RT-PC by Lucid, Inc. (FC's 9001, 4665, 5142) Compiler and Interpreter	4000
5669-055 B	RT-PC Pascal V.1.1 (FC's 9001, 5028, 4526) High compatibility with Pascal on PC, Warranted, Central Service 6 mo. notice or to 2/1/88	1000
5601-038 B	RT-PC VS Pascal V.1 (FC4501) High compatibility with Pascal/VS on S/370, Warranted, Central Service to 2/1/89	1000
5601-071 B	RT-PC Distributed Services (Ethernet or SDLC transparent access to remote files, applications) (FC4520, 6/87) Warranted, Central Service 6 mo. notice or to 2/1/89	850
5669-053 B	RT-PC INmail/INnet/File Transfer Program V.1.1 (FC9001, 5025, 4523) Warranted, Central Service 6 mo. notice or to 2/1/88	625
5601-039 B	RT-PC Workstation Host Interface Program (3270 Emulation, File Xfer, API, req. RT Host Interface Adapter) (FC4502) Warranted, Central Service to 2/1/89	995
5669-052 B	RT-PC 3278/79 Emulation V.1.1.1 (FC's 9001, 5025, 4523) Warranted, Central Service 6 mo. notice or to 2/1/88	500
5601-044 B	Network 3270-Plus (SNA) for RT-PC (FC4505) Coax or SDLC 3278, 3287, multiple sessions, file transfer	995
5601-045 B	Network 3270-Plus (BSC) for RT-PC (FC4506) Coax or BSC 3278, 3287, multiple sessions, file transfer	1195
5601-043 B	Network RJE-Plus (SNA) for RT-PC (FC4504) 2780, 3780, 3770 emulation	995
5601-042 B	Network RJE-Plus (BSC) for RT-PC (FC4503) 2780, 3780, 3770 emulation	1195
5669-058 B	RT-PC Structured Query Language/RT Data Base V.1.1(FC's 9001, 5031, 4529) Warranted, Central Service 6 mo. notice or to 2/1/88	1000
5601-064 B	RT-PC Structured Query Language/RT Data Base V.2.1 (FC4517) Warranted, Central Service to 2/1/88	1000
4518	Upgrade RT-PC SQL V.1.1 to V.2.1	200
5669-059 B	RT-PC Data Management Services V.1.1 (FC's 9001, 5032, 4530) (V.1.1.1 available 6/87) Warranted, Central Service 6 mo. notice or to 2/1/88	500
5669-100 B	RT-PC Applix IA (word processing, graphics, mail, calendar) (FC's 9001, 5052, 4550)	1995

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MODEL/FC VPA	DESCRIPTION	PRICE
5669-187 B	RT-PC RS/1 by Bolt, Beranek and Newman (FC's 9001, 5133, 4610) Warranted, Central Service 6 mo. notice or to 4/17/89	5500
5669-107 B	RT-PC IMSL Library * (FC's 9001, 5059, 4557)	3500
5669-106 B	RT-PC IMSL SFUN Library (FC's 9001, 5058, 4556)	1495
5669-104 B	RT-PC IMSL MATH/PROTRAN (FC's 9001, 5056, 4554)	2100
5669-105 B	RT-PC IMSL STAT/PROTRAN (FC's 9001, 5057, 4555)	1495
5669-103 B	RT-PC IMSL LP/PROTRAN (FC's 9001, 5055, 4553)	2700
5669-050 B	RT-PC Graphics Development Toolkit (FC's 9001, 5023, 4521) Warranted, Central Service 6 mo. notice or to 2/1/88	700
5669-064 B	RT-PC Graphics Terminal Emulator (FC's 9001, 5037, 4535) Warranted, Central Service 6 mo. notice or to 2/1/88	600
5669-063 B	RT-PC Plotting System (FC's 9001, 5036, 4534) Warranted, Central Service 6 mo. notice or to 2/1/88	600
5669-062 B	RT-PC Graphical File System (FC's 9001, 5035, 4533) Warranted, Central Service 6 mo. notice or to 2/1/88	600
5669-108 B	UNIRAS-RASPAK * (FC's 9001, 5060, 4558)	3550
5669-101 B	UNIRAS-RASPAK Solids * (FC's 9001, 5053, 4551)	4995
5669-102 B	UNIRAS-UNIMAP * (FC's 9001, 5054, 4552)	7650
5669-109 B	UNIRAS-GEOPAK * (FC's 9001, 5061, 4559)	6995
5669-110 B	UNIRAS-GEOINT * (FC's 9001, 5062, 4560)	1595
5669-111 B	UNIRAS-KRIGPAK * (FC's 9001, 5063, 4561)	3550
5669-112 B	UNIRAS-GIMAGE * (FC's 9001, 5064, 4562)	2595
5669-113 B	UNIRAS-SEISPAK * (FC's 9001, 5065, 4563)	7650
5669-114 B	UNIRAS-UNIGRAPH * (FC's 9001, 5066, 4564)	2995
5669-115 B	UNIRAS-BIZPAK * (FC's 9001, 5067, 4565)	2595
5669-117 B	UNIRAS-UNIEDIT * (FC's 9001, 5069, 4567)	2595
5669-086 B	RT-PC Workstation Publishing Software by Interleaf (FC's 9001, 5038, 4536)	1995
5601-070 B	RT Publishing Software by Interleaf (accepts drawings from IBM CAD systems, text from DW3 and DCF, others) (FC's 9001, 4519, 5015)	8200
5669-087 B	RT-PC SAMNA+ (FC's 9001, 5039, 4537)	1295
5669-088 B	RT-PC SOLOMON III General Ledger (FC's 9001, 5040, 4538)	995
5669-089 B	RT-PC SOLOMON III Accounts Receivable (FC's 9001, 5041, 4539)	995
5669-090 B	RT-PC SOLOMON III Accounts Payable (FC's 9001, 5042, 4540)	995
5669-091 B	RT-PC SOLOMON III Payroll (FC's 9001, 5043, 4541)	995
5669-092 B	RT-PC SOLOMON III Purchasing (FC's 9001, 5044, 4542)	995
5669-093 B	RT-PC SOLOMON III Order Entry/Invoicing (FC's 9001, 5045, 4543)	995

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MODEL/FC VPA	DESCRIPTION	PRICE
5669-094 B	RT-PC SOLOMON III Job Costing (FC's 9001, 5046, 4544)	1395
5669-095 B	RT-PC SOLOMON III Fixed Assets (FC's 9001, 5047, 4545)	995
5669-096 B	RT-PC SOLOMON III Sales Analysis (FC's 9001, 5048, 4546)	595
5669-097 B	RT-PC SOLOMON III Inventory (FC's 9001, 5049, 4547)	995
5669-098 B	RT-PC SOLOMON III Address and Mail List (FC's 9001, 5050, 4548)	395
5669-099 B	RT-PC SOLOMON III Database Reporter (FC's 9001, 5051, 4549)	995

These programs are discounted under the separate CAD/CAM Licensed Programs Agreement. The VPA Categories listed below are for that agreement only.

5669-193 A	Professional CADAM (FC's 9001, 5858, 4620) Warranted, Central Service 6 mo. notice or to 10/1/88	15000
5669-167 B	RT-PC graPHIGS R.3 (FC's 9001, 5858, 4608) (R.3.2 available 5/15/87) Warranted, Central Service 6 mo. notice	1000
5669-192 C	Computer-Integrated Electrical Design Series (CIEDS)/Design Capture/RT-PC (FC 9001, 4488, 5858) Warranted, Central Service to 7/1/88	8000
5713-ABF C	Computer-Integrated Electrical Design Series (CIEDS)/Engineering Access Routines (FC 9001, 4488, 5858) Warranted, Central Service to 7/1/88	5000
5713-ABG C	Computer-Integrated Electrical Design Series (CIEDS)/Interface, (FC 9001, 4489, 5858) Warranted, Central Service to 7/1/88	2000
5713-AAP C	Computer-Integrated Electrical Design Series (CIEDS)/Design Simulation Base/RT-PC (FC4473) Warranted, Central Service to 10/1/88	10000
5713-AAP F	Computer-Integrated Electrical Design Series (CIEDS)/Design Simulation Base/RT-PC (FC4473) (2Q87) Warranted, Central Service to 10/1/88	10000
5713-AAW F	Computer-Integrated Electrical Design Series (CIEDS)/Behavioral Simulator/RT-PC (FC4474) (2Q87) Warranted, Central Service to 10/1/88	20000
5713-AAX F	Computer-Integrated Electrical Design Series (CIEDS)/Logic Simulator/RT-PC (FC4475) (2Q87) Warranted, Central Service to 10/1/88	13500
5713-AAY F	Computer-Integrated Electrical Design Series (CIEDS)/Analog-Digital Simulator/RT-PC (FC4476) (2Q87) Warranted, Central Service to 10/1/88	12000
5713-AAZ F	Computer-Integrated Electrical Design Series (CIEDS)/Switched Capacitor Simulator/RT-PC (FC4477) (2Q87) Warranted, Central Service to 10/1/88	10000

As of April 6, 1987

MODEL/FC VPA	DESCRIPTION	PRICE
5669-206 D	CAEDS Base for the IBM RT-PC (FC's 9001, 5858, 4644) Warranted, Central Service to 10/88	1655
5669-207 E	CAEDS Object Modeler (FC's 9001, 5858, 4645) Warranted, Central Service to 10/88	6060
5669-208 E	CAEDS System Modeler (FC's 9001, 5858, 4646) Warranted, Central Service to 10/88	8230
5669-209 E	CAEDS Graphics Finite Element Modeler (FC's 9001, 5858, 4647) Warranted, Central Service to 10/88	8940

MUMPS-RT

9772 A	Micronetics Standard Massachusetts General Hospital Utility Multi-programming System (MSM-RT MUMPS)	1995
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MODEL/FC VPA

DESCRIPTION

PRICE

As of April 6, 1987

MODEL/FC VPA	DESCRIPTION	PRICE
PERIPHERAL DEVICES, CROSS-SYSTEM		

PRINTERS AND ATTACHMENTS

5612 a	Parallel Printer Cable	45
6031 a	Serial Printer Cable	45
5614 a	Printer Stand	45
S229-9600	Hardware Maintenance & Service (for Graphics and Compact Printer) (order via PCTB)	34.50
2383 a	Color Printer Hardware Maintenance and Service Manual (order via PCTB)	23.25
5441	Wheelwriter 3/5/6 Typewriter Feature Adapter Option, for typewriter serial numbers above 500,000 (U.S.)	60
5442	Wheelwriter 3/5 Typewriter Feature Adapter Option, for typewriter serial numbers below 500,001 (U.S.)	60
5447	Wheelwriter 3/5/6 Typewriter Feature Adapter Option, for typewriter serial numbers above 500,000 (Puerto Rico)	60
5449	Wheelwriter 3/5 Typewriter Feature Adapter Option, for typewriter serial numbers below 500,001 (Puerto Rico)	60
5420	Wheelwriter 3/5/6 Typewriter Printer Option	150
5421	Wheelwriter 3/5/6 Typewriter Display/Printer Option	300
5433	Quietwriter 7/8 Typewriter Feature Adapter Option (U.S.)	60
5448	Quietwriter 7/8 Typewriter Feature Adapter Option (Puerto Rico)	60
5435	Quietwriter 7/8 Typewriter Printer Option	150
5436	Quietwriter 7/8 Typewriter Display/Printer Option	300
8566	Electronic 65/85 PC Att - Typewriter part	285
8569	Electronic 65/85 PC Att - PC part	60
8570	Electronic 65/85 PC Att - Convenience kit	345
1551-B01	\$ Epson FX-185 Printer	699

IBM 3812 PAGEPRINTER

The 3812 is available on the 4214/5200 VPA.

As of April 6, 1987

MODEL/FC VPA	DESCRIPTION	PRICE
	The 3812 attaches to PC's via the Asynchronous interface. A 3812 may be shared via the Sharing Card (FC 3115), or the IBM LAN printer server functions.	
	In non-PC environments, a 3812 can also be driven by VM and S/3X hosts via Bisynchronous or Twinax attachment.	
	The customer is responsible for ordering and replacing the photoconductor, developer, and fuser units. One of each unit is shipped with each printer.	
3812-001	Pageprinter (maximum speed 12 pages/minute, 240x240 dpi resolution)	8235
3115	3812 Sharing Card (share 3812 among up to 8 PC's)	495
3050	3812 Printer Stand	325
3030	Cable, 3812-PC, 6 meter	79
3040	Cable, 3812-PC, 24 meter	119
3125	TEMPEST filter for 3812 (power line filter, instructions)	586
3135	TEMPEST Cable S-6 (6m long, RS-232C for PC attachment to 3812)	148
3140	TEMPEST Cable S-24 (24m long, RS-232C for PC attachment to 3812)	199
3130	TEMPEST Cable VM-6 (6m long, RS-232C for VM attachment to 3812)	148
	Note: when connecting FC 3030 or FC 3040 to an PC/AT-based PC or 3270-PC via the Serial/Parallel Adapter, FC 0217 or FC 0242 is required.	
9986	Power Cord (Chicago only)	14
1348339	Relocation Kit (order from Greencastle)	191
1348349	Toner Cartridges (2, yield 10,000 pp. ea.)	72
1348347	Photoconductor Unit (Yield 20,000 pp.)	139
1348330	Developer Unit (Yield 120,000 pp.)	469
1348331	Fuser Unit (Yield 120,000 pp.)	239
1348335	Cassette - Primary	85
1348336	Cassette - Alternate	79
6192333	Standard Operational Diskette, defaults to 5152 ASCII Character Set 2, 61 fonts total (Diskette shipped with 3812 defaults to Character Set 1)	??
9623 A	PC/DOS 3812 Pageprinter Driver, Central Service to 12/31/87	49

As of April 6, 1987

MODEL/FC VPA	DESCRIPTION	PRICE
9624 A	PC/DOS 3812 Pageprinter Font Management System (customize fonts, change defaults, create/maintain font library and graphics) Central Service to 12/31/87	375
	The PC/DOS 3812 Pageprinter Font Management System is recommended for use with the following typographic fonts.	
5669-161	Sonoran Serif (equivalent to Monotype Times New Roman) for 3812, Central Service to 12/31/87	
9001	Registration	N/C
4601	One-Time Charge	640
5124	5.25in Diskette	N/C
5669-162	Sonoran Sans Serif (equivalent to Monotype Arial) for 3812, Central Service to 12/31/87	
9001	Registration	N/C
4602	One-Time Charge	640
5125	5.25in Diskette	N/C
5669-163	Pi and Specials Fonts for 3812, Central Service to 12/31/87	
9001	Registration	N/C
4603	One-Time Charge	480
5126	5.25in Diskette	N/C

IBM 3812 SUPPORT PUBLICATIONS

G544-3265	IBM 3812 Pageprinter Introduction and Planning Guide	N/C
S544-3268	IBM 3812 Pageprinter Programming Reference	33.75
S544-3269	IBM 3812 Pageprinter Sharing Feature Installation Instructions	2
S544-3266	IBM 3823 Pageprinter Setup Instructions	5.10
S544-3267	IBM 3812 Pageprinter Guide to Operations	36.75

IBM 3820 PAGE PRINTER

See also "Local Area Networks" on page 96 for the IBM PC Network PrintManager program.

The IBM 3820 Page Printer is also available for a monthly rental charge. See your IBM representative for details.

The IBM 3280 Page Printer attaches to a PC, XT, or AT via an SDLC attachment card.

As of April 6, 1987

MODEL/FC VPA	DESCRIPTION	PRICE
3820-001	IBM Page Printer (maximum speed 12 pages/minute, 240x240 dpi resolution)	28350
3050	EIA Interface Attachment (requires cable) (Printer also available with S/370 Channel Attachment)	500
	Memory - Pattern Storage (specify at least one)	
3010	512KB (One card)	1700
3020	1024KB (One card, recommended minimum)	3000
3025	2048KB (Two 1024KB cards)	6000
3030	3072KB (Three 1024KB cards)	9000
3065	4096KB (Four 1024KB cards)	12000
3040	EIA Interface Cable - 12 Meter	125
3045	EIA Interface Cable - 6 Meter	90
1669113	IBM 3820 Toner (6-200 gram bottles)	88
1669151	IBM Developer Mix (1-550 gram bottle)	56
1669115	IBM 3820 Fuser Oil (1-900cc bottle)	56
1678261	IBM 3820 Paper Cassette	70
1348140	IBM 3820 B5 Paper Cassette	75
7034548	IBM Multi-System Paper (8-500 sheet reams)	39
7034550	IBM Multi-System Paper - Legal (8 reams)	50.75
3200 a	System/370 Channel Emulator for PC/AT, to drive 3820 with channel attach feature or other S/370 channel devices, incl. 10ft cable (PN 70X4865) (9/25/87)	2445
6146 A	Remote PrintManager, uses PC/AT with S/370 Channel Emulator to allow PSF/MVS to drive a remote 3820 over SDLC, Warranted, Central Service to 9/91	3295

IBM 3852 COLOR INK-JET PRINTER

6050 f	Starter Pac for 3852-001 (Misc.paper)	121.85
3852-002 f	IBM Color Jetprinter (20-50 CPS) (incl. one black, one color ink cartridge)	745
S544-3120	Technical Reference Manual - Color Jetprinter (3852-2)	20.85
6293884	Roll Paper, 8-1/2in x 125 ft, microperf at 11in, 4 rolls/box	
	Quantity 1-3, Unit price	32.00
	Quantity 4-29, Unit price	25.80
	Quantity 30-59, Unit price	23.75
	Quantity 60-119, Unit price	22.80
	Quantity 120+, Unit price	22.35
6293935	Cut-sheet paper, 8-1/2 x 11in 250 sheets	
	Quantity 1-3, Unit price	15.50
	Quantity 4-29, Unit price	12.50
	Quantity 30-59, Unit price	11.55
	Quantity 60-119, Unit price	11.10

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MODEL/FC VPA	DESCRIPTION	PRICE
	Quantity 120+, Unit price	10.80
1669310	Continuous form pinfeed paper, 8-1/2 x 11in, microperf, 250 sheets	14.75
6293933	Transparency Material, 8-1/2 x 11in, 50 sheets	
	Quantity 1-3, Unit price	65.00
	Quantity 4-29, Unit price	57.75
	Quantity 30-59, Unit price	53.70
	Quantity 60-119, Unit price	52.75
	Quantity 120+, Unit price	52.30
6293886	Ink Cartridge, Black	
	Quantity 1-4, Unit price	11.70
	Quantity 5-9, Unit price	9.85
	Quantity 10-19, Unit price	8.75
	Quantity 20-49, Unit price	8.00
	Quantity 50+, Unit price	7.25
6293888	Ink Cartridge, Color	
	Quantity 1-4, Unit price	16.75
	Quantity 5-9, Unit price	14.85
	Quantity 10-19, Unit price	13.75
	Quantity 20-49, Unit price	12.85
	Quantity 50+, Unit price	12.05

IBM 4201 PROPRINTER II AND 4202 PROPRINTER XL

4201-002 f	IBM Proprietary II (40-240 CPS) w/4K print buffer, (Incl. ribbon, Guide to Operations, continuous forms guide, power cord)	549
6328829	Ribbon, Proprietary II	9.25
8X9804	Proprietary II Guide to Operations	30
6328829	Ribbon Cartridge for Proprietary I	9.25
4202-001 f	IBM Proprietary XL (40-200 CPS, 14.3in Carriage, 4K buffer) (Incl. ribbon, Guide to Operations, continuous forms guide, power cord)	799
3000 a	Asynchronous Serial Interface Module	99
4000 a	5K Print Buffer (Acts as 8K Buffer in XL, Proprietary II)	35
1040150	Ribbon Cartridge for Proprietary XL	13.25
SC31-3711	Proprietary II/Proprietary XL Guide to Operations	16
SC31-3552	Proprietary Hardware Maintenance and Service Manual	70
SN31-8034	Proprietary II Hardware Maintenance and Service Supplement	??
SC31-2587	Proprietary Technical Reference Manual	28

IBM 4207 PROPRINTER X24 AND 4208 PROPRINTER XL24

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MODEL/FC VPA	DESCRIPTION	PRICE
4207-001 f	IBM Proprinter X24 (67-240cps, 24-pin, draft through letter quality, Incl.ribbon, Guide to Operations, continuous forms guide, power cord) (6/87)	799
	In addition to the options listed below, the Proprinter X24 supports the Serial Attach Module (FC 3000) of the Proprinter	
4927 a	Sheetfeed Option, Proprinter X24 (6/87)	199
4001 a	Fontset Option, Proprinter X24 (6/87)	109
4002 a	Fontset Diskettes, Proprinter X24 (6/87)	32
94X6122	Fontset Module, Proprinter X24 (6/87)	77
1040475	4207 Proprinter X24 Ribbon Cartridge (6/87)	11.50
4208-001 f	IBM Proprinter XL24 (67-240cps, 24-pin, 14.3in carriage, draft through letter quality, Incl.ribbon, Guide to Operations, continuous forms guide, power cord) (5/87)	1049
	In addition to the options listed below, the Proprinter XL24 supports the Serial Attach Module (FC 3000) of the Proprinter and the Fontset Options of the Proprinter X24 (FC 4001, 4002)	
4928 a	Sheetfeed Attachment, Proprinter XL24 (5/87)	249
1040414	4208 Proprinter XL24 Ribbon Cartridge	16
SC31-3793	IBM 4207 Proprinter X24 and 4208 Proprinter XL24 Guide to Operations	30
SA34-2002	IBM 4207 Proprinter X24 and 4208 Proprinter XL24 Hardware Maintenance and Service Supplement	30

IBM 4216 PERSONAL PAGEPRINTER

See also "IBM SolutionPac Offerings" on page 27 for the Personal Publishing Solutions, which incorporate some of the following products.

4216-020 f	Personal Pageprinter (maximum speed 6 pages/minute, 300x300 dpi resolution) (3Q87)	2199
6190603	Toner Cartridges, Personal Pageprinter (6/carton, price per cartridge) (3Q87)	29
6190604	Photoconductor Unit Kit, Personal Pageprinter (3Q87)	199
6190605	Cleaning Unit Kit, Personal Pageprinter (3Q87)	99
7001 a	Personal Pageprinter Adapter (3Q87)	1950

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MODEL/FC VPA	DESCRIPTION	PRICE
0852 A	IBM Personal Pageprinter Adapter Program (5.25in) Test Period 2 months (3Q87)	850
0853 A	IBM Personal Pageprinter Adapter Program (3.5in) Test Period 2 months (3Q87)	850
0854 A	IBM Personal Pageprinter Adapter/A Program (5.25in)	??

IBM 4250/II ELECTROCOMPOSITOR

4250-002	ElectroCompositor Printer (separate VPA, 600x600 dpi output by electroerosion process producing camera-ready paper or negatives, ca. 2-5 minutes/page)	21000
3930 1	4250 Print Adapter for PCXT/286, PC/AT, and 8530 (5/87)	2650
0961 B	4250 Print Driver	850
0962 A	Font - ITC Avante Garde, Medium	320
0963 A	Font - Monotype Baskerville, Medium	320
0964 A	Font - Monotype Bodini, Medium	320
0965 A	Font - Candida, Medium	320
0966 A	Font - Monotype Century, Medium	320
0967 A	Font - Monotype Century Schoolbook, Medium	320
0968 A	Font - Excelsior, Medium	320
0969 A	Font - Futura, Medium	320
0970 A	Font - Monotype Garamond, Medium	320
0971 A	Font - Helvetica, Medium	800
0972 A	Font - Optima, Medium	320
0973 A	Font - Palatino, Medium	320
0974 A	Font - Monotype Rockwell, Medium	320
0975 A	Font - ITC Souvenir Version 2, Medium	320
0976 A	Font - Monotype Times New Roman, Medium	320
0977 A	Font - Univers, Medium	640
0978 A	Font - ITC Avante Garde, Bold	320
0979 A	Font - Monotype Baskerville, Bold	320
0980 A	Font - Monotype Bodini, Bold	320
0981 A	Font - Candida, Bold	480
0982 A	Font - Monotype Century, Bold	320
0983 A	Font - Monotype Century Schoolbook, Bold	320
0984 A	Font - Excelsior, Bold	160
0985 A	Font - Futura, Bold	640
0986 A	Font - Monotype Garamond, Bold	320
0987 A	Font - Helvetica, Bold	640
0988 A	Font - Optima, Bold	320
0989 A	Font - Palatino, Bold	320
0990 A	Font - Monotype Rockwell, Bold	320
0991 A	Font - ITC Souvenir Version 2, Bold	320
0992 A	Font - Monotype Times New Roman, Bold	320
0993 A	Font - Univers, Bold	640
0994 A	Font - Helvetica, Light	640

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MODEL/FC VPA	DESCRIPTION	PRICE
0995 A Font	- ITC Souvenir Version 2, Light	320
0996 A Font	- Univers, Light	640
0997 A Font	- Typewriter Group	280
0998 A Font	- Engineering and Math Group	520

IBM 4975 BARCODE/OCR PRINTER

4975-02R	Serial printer, with RPQ 8V0262 and FC 1601 or 1610 can print barcode, large characters, and OCR-A from PC ASYNCH port, 160/40 CPS in draft/text mode	4175
9901	Optional 2.4 meter power cord	N/C
6100	Optional rear document insertion device	135

The following special printing cartridges enable the printing of barcode, large characters, and OCR-A. RPQ 8V0262 supports the printing of draft and text printing without these features.

1601	Special printing cartridge, field installed	360
1610	Special printing cartridge, plant installed	230

The 4975 is also available for a monthly rental charge. See your IBM Marketing Representative for details.

8V0262	RPQ to attach 4975 to PC ASYNCH port (cable, program diskette, manual)	250
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This RPQ is available only at the time of original manufacture of the 4975. It is not available for field upgrade.

IBM 5202 QUIETWRITER III PRINTER

5202-001 f	Quietwriter III Printer (80-274cps, thermal transfer, 8 concurrent fonts, APA graphics) Incl. Courier 10 Quiet Electronic Font, ribbon cartridge, printhead, wrap plug, accessory kit	1699
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In addition to the options listed below, the Quietwriter III supports the Sheetfeed (FC 7840) and Sheetfeed Paper Tray (FC 7880) of the Quietwriter

8214 f	Pinwheel Form Feed, Quietwriter III	99
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MODEL/FC VPA	DESCRIPTION	PRICE
8362 f	Sheetfeed Adapter Kit (single drawer, for Quietwriter III, prerequisite for FC 7840 Sheetfeed)	35
1318361	IBM Quietwriter III Sheetfeed Adapter Stand-Off	5.40
1318401	IBM Quietwriter III Sheetfeed Adapter Plug	31.50
9538 f	Dual Drawer Sheetfeed, Quietwriter III	849
6487467	Supply Paper Tray, Dual Drawer, Quietwriter III	55.25
6487465	Output Paper Tray, Dual Drawer, Quietwriter III	23.25
9620 f	Envelope Feed (req. FC 9538)	299
8659 f	Font Download Feature, Multilingual, with 16KB Download Cartridge	175
8670 f	Font Download Feature, Multilingual, without 16KB Download Cartridge	50
8459 f	Font Download Feature, Word Processing, with 16KB Download Cartridge	175
8570 f	Font Download Feature, Word Processing, without 16KB Download Cartridge	50
1318010	IBM Electronic Font III - Artisan 10, Letter Gothic 12, Gothic 17, Title PS	75
1318020	IBM Electronic Font III - Courier 10 Italic, Courier 12 Italic, Script 12, Boldface Italic PS	75
1318030	IBM Electronic Font III - Prestige Pica, Prestige Elite, Prestige 17, Modern PS	75
1318930	IBM Electronic Font III - OCR-A 10, OCR-B 10	75
1318800	IBM Electronic Font III - Blank Download	125
8632	Displaywrite series printer support table for Quietwriter III (3.5in)	N/C
8629	Displaywrite series printer support table for Quietwriter III (5.25in)	N/C
1299933	IBM QUIET III High Yield Printer Ribbon	17.50
1318154	IBM Quiet III Printhead	35
1342514	IBM Quietwriter III Line Cord (extra)	9.50
1318106	IBM Quietwriter III Dust Shield	12.50
S544-4082	IBM Quietwriter III Printer Guide to Operations	25
S544-4084	IBM Quietwriter III Printer Hardware Maintenance and Service	90
S544-4083	IBM Quietwriter III Printer Technical Reference	16
S544-4122	IBM Quietwriter III Printer Sheetfeed Option Guide to Operations	9
S544-4140	IBM Quietwriter III Printer Dual Drawer Sheetfeed Option Guide to Operations	11
S544-4141	IBM Quietwriter III Printer Dual Drawer Sheetfeed Option Hardware Maintenance and Service	60
S544-4144	IBM Quietwriter III Printer Font Download Option Guide to Operations	10

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MODEL/FC VPA	DESCRIPTION	PRICE
IBM 5201 QUIETWRITER PRINTER		
5201-002 f	Quietwriter Printer II (40-60cps, thermal transfer, APA graphics) Incl. Courier 10 Quiet Electronic Font, noncorrecting ribbon cartridge, printhead, wrap plug, accessory kit	1399
	Upgrade 5201 model 1 to model 2 (parts, does not include print head, ribbon, or installation) (W/D 7/2/87)	350
5201-001 f	Quietwriter Printer (40-60cps, thermal transfer) Incl. Courier 10 Quiet Electronic Font, ribbon cartridge, printhead, wrap plug, accessory kit (W/D 7/2/87)	1199
7840 a	Sheetfeed	350
7820 a	Pinwheel Forms Feed	99
1299642	IBM Quiet Correcting Ribbon	12
1299790	IBM Quiet Non-Correcting Ribbon	12
1340803	IBM Quiet Electronic Font PC - Prestige Elite	50
1340810	IBM Quiet Electronic Font PC - Courier 10	50
1340806	IBM Quiet Electronic Font PC - Prestige 15	50
1340830	IBM Quiet Electronic Font PC - Boldface	50
1341153	Accessory Kit (Incl. Line Cord, Paper Table, Quiet Cleaning Cartridge, Guide to Operations)	50.25
7940 f	IBM Quiet Printhead	20
7930 f	IBM Quiet Cleaning Cartridge	5.55
7910 f	Line Cord	7.75
7920 f	Paper Table	7.50
7880 f	Sheetfeed Paper Tray	40

IBM 5216 WHEELPRINTER

5216-001 f	Wheelprinter, Parallel interface (25cps, cut/continuous forms) Incl. Courier 10 ASCII printwheel, ribbon cartridge, Guide to Operations, req. cable FC6030 (W/D 7/2/87)	1499
5216-002 f	Wheelprinter, Serial interface (25cps, cut/continuous forms) Incl. Courier 10 ASCII printwheel, ribbon cartridge, Guide to Operations, req. cable FC6031 (W/D 7/2/87)	1499
6030 a	Parallel attachment cable	45
1299756	Single-strike ribbon	9.10
1299757	Multi-strike ribbon	15.25
1353502	Prestige Elite Printwheel	25.25
1353511	Courier 10 Printwheel	25.25
1353105	ASCII Artisan 10 Printwheel	25.25
1353909	ASCII Courier 10 Printwheel	25.25
1353116	ASCII Courier 12 Printwheel	25.25
1353112	ASCII Courier 15 Printwheel	25.25
1353101	ASCII Prestige Elite Printwheel	25.25
1353121	ASCII Gothic 15 Printwheel	25.25

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MODEL/FC VPA	DESCRIPTION	PRICE
1353125	ASCII Boldface PSM Printwheel	25.25
1353130	ASCII Essay PSM Printwheel	25.25
8655073	Cut Sheet Paper Tray - 8.5in	40
8655088	Cut Sheet Paper Tray - 8.27in	40
6295112	Supply Starter Pac, w/10 Multi-Strike Ribbons, Courier 10, Prestige Elite 12 Printwheels	154
6293724	Supply Starter Pac, w/18 Single-Strike Ribbons, Courier 10, Prestige Elite 12 Printwheels	158

IBM 5218 DISPLAYWRITER PRINTER FOR PC

4470 A	IBM 5218-PC Attach Convenience Pac (Cable, Program, Guide)	220
4471 a	IBM 5218-PC Printer Sharing Device	625
4472 A	IBM 5218-PC Printer Driver Program V.1.1	175
6113647	IBM 5218-PC Printer Attachment Cable	45
5218-A03	Displaywriter Printer (40CPS)	2460
5218-A04	Displaywriter Printer (60CPS)	2760
9203	5218 Specify--required for FCC Class B certification and power to Printer Sharing Device	N/C
7850	Tractor Feed for 5218 Printer	325
7870	Sheet Feed for 5218, w/o Envelope Feed	1850
7875	Sheet Feed for 5218, with Envelope Feed	2350

IBM 5223 WHEELPRINTER E MODEL 1

5223-001 f	5223 Wheelprinter E (16cps, parallel attachment)	699
5427 f	Acoustical Sound Hood	30
7840 f	Sheetfeed	350
7820 f	Pinwheel Forms Feed	75
8655073	Sheetfeed Paper Tray	40
1342514	Line Cord	7.75
1341078	Paper Table	7.50
	See the 5216 Wheelprinter for Cartridge Printwheels	
1337761	IBM Easystrike Correctable Ribbon	8.70
1337764	IBM Easystrike Multipurpose Ribbon Cassette	13.25
1356000	IBM Easystrike Fabric Ribbon Cassette	14.75

PLOTTERS

XY/750	IBM Instruments Plotter B-size, 8-pen	4500
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MODEL/FC VPA	DESCRIPTION	PRICE
6180-001 f	IBM Color Plotter, A-size, 8-pen, RS-232C Attach, pen speed 15.7in/sec (pen down), 20in/sec (pen up), resolution 0.001in, supplies kit	1285
6180-002 f	IBM Color Plotter, A-size, 8-pen, IEEE488 Attach, pen speed 15.7in/sec (pen down), 20in/sec (pen up), resolution 0.001in, supplies kit	1285
5010 f	Graphics Enhancement Cartridge, increases buffer from 60 to 1KB, char. sets from 5 to 19, 14 new commands, compatibility with HP 7475A	150
5050 f	RS-232C Cable between 6180 and PC	51
5060 f	6180 Programming Manual (=GA66-0501)	29
5070 f	Transparency Supplies Kit for 6180 (16 pens, 100 sheets film, available with original plotter order only)	130
5452382	Transparency Supplies Kit for 7371, 6180 (after initial order)	??
5457803	A-Size Quality Presentation Paper	??
6184-001	IBM Color Plotter, C/D-size, 8-pen, RS-232C Attach, pen speed 16.5in/sec (pen down), 19.7in/sec (pen up), resolution 0.001in, supplies kit	5400
5030	RS232C Cable between 6184 and PC (also req. FC0242 for PC/AT)	51
5050	GPIB (IEEE-488) Support Microcode Cartridge for 6184 (plant install only, req. FC5040)	295
5070	Programming Manual, 6184	22.25
6186-001	IBM Color Plotter, A-E size, 8-pen, cut sheet, RS-232C + RS-422A + IEEE-488 attach, pen speed 24in/sec, supports most HP 758xA drivers, resolution 0.00098in, supplies kit	9900
6186-002	IBM Color Plotter, A-E size, 8-pen, roll or cut sheet, RS-232C + RS-422A + IEEE-488 attach, pen speed 24in/sec, supports most HP 758xA drivers, resolution 0.00098in, supplies kit	11900
5030	RS232C Cable between 6186 and PC (also req. FC0242 for PC/AT)	51
5040	IEEE-488 Cable for 6186 (order on 6186 for 3270-PC/G/GX, additional, and for Infowindow)	102
5060	Drafting Plotter Supplies Kit, E Size, for 6186	392
5070	Programming Manual, 6186	35.75
7372-001 f	IBM Color Plotter, B-size, 6-pen, pen speed 15in/sec (pen down), 20in/sec (pen up), resolution 0.001in	1900
9910 f	RS-232-C Attachment Specify	N/C
9920 f	IEEE-488 Attachment Specify	N/C
7374-001	IBM Color Plotter, D-size, 8-pen, switch-selectable RS-232-C and IEEE-488 interface, pen speed 24in/sec, resolution 0.001in (W/D 6/3/87)	10000

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MODEL/FC VPA	DESCRIPTION	PRICE
7375-001	IBM Color Plotter, E-size, 8-pen, sheet feed, switch-selectable RS-232-C and IEEE-488 interface, pen speed 24in/sec, resolution 0.001in (W/D 6/3/87)	13100
7375-002	IBM Color Plotter, E-size and 36in roll, 8-pen, switch-selectable RS-232-C and IEEE-488 interface, pen speed 24in/sec, resolution 0.001in (W/D 6/3/87)	17200
5030	RS232C Cable between 7371/2/4/5 and PC (W/D 6/3/87)	51
2720020	IEEE-488 Cable for 737X (order on 737X, for 3270-PC/G/GX, additional, W/D 6/3/87)	102
5796-BDZ	Industry Standard Plotting Commands interface for CADAM, CATIA, CAEDS, CBDS, and GDQF for 7371/2/4/5 on host-attached PCs, Central service to 12/85	395
5668-860	IBM Color Plotter Support for the GDDM Graphics Data File for 7371/2/4/5 on host-attached PCs, Warranted, Central service 6 mo. notice	1100

DIRECT-ACCESS STORAGE DEVICES, EXTERNAL

4869-001 b	External Diskette Drive, 5.25in for Personal System/2 (360KB) Req. FC 8750 for attachment to 8530, FC 8760 for other models (5/87)	335
S68X-2272	Technical Reference Supplement, 4869-1 External Diskette Drive	??
S68X-2273	Hardware Maintenance Update (HMS & HMR), 4869-1 External Diskette Drive	??
3363-B01 b	External Optical Disk Drive (200MB, removable media, write once) (attaches to 3363-A01, -A11, FC 8700) (2Q87)	2365
63X4199	IBM Optical Disk Cartridge for 3363 (order via IBM Direct)	65
GC35-0104	Guide to Operations, 3363 Optical Disk Drive (order via PCTB)	??
SY32-7012	Technical Reference Manual, 3363 Optical Disk Drive (order via PCTB)	??
SY32-7007	Hardware Maintenance Service Manual, 3363 Optical Disk Drive (order via PCTB)	??

TAPE BACKUP DEVICES

6157-001 c	Streaming Tape Drive	1795
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MODEL/FC VPA	DESCRIPTION	PRICE
IMAGE DEVICES		
4555 a	3117 Extension Unit (connects 3117, PC family, req. PC async adapter and cable or High Speed RS422 Adapter)	700
3117-010 j	Scanner (30 sec/page, 240x240 pel resolution, flat-bed, paper size to 8.5x11, req. 3117 PC Adapter or 3117 Extension Unit)	1095
GA18-2478	3117 Scanner and 3117 Extension Unit Guide to Operations	8.85
SY18-2159	3117 Scanner Hardware Maintenance and Service	75.50
SY18-2105	3117 Scanner Technical Reference	26
3118-010 j	Scanner (12 sec/page, 240x240 pel resolution, feed-through, paper size to 8.5x14, req. High-Speed Adapter or async interface)	2350
3118-020 j	Scanner (12 sec/page, 240x240 pel resolution, automatic document feed to 30pp, paper size to 8.5x14in, req. High-Speed Adapter or async interface)	2750
6456893	Automatic Document Feed to upgrade 3118-010 to 3118-020 (through 4/87)	400
GA18-2475	3118 Scanner Guide to Operations	28.50
65X1814	Upgrade 3118 Scanner Guide to Operations for Automatic Document Feed (through 4/87)	36.95
SY18-2158	3118 Scanner Hardware Maintenance and Service	58
SC18-2104	3118 Scanner Technical Reference	33.75

COMMUNICATIONS DEVICES, CROSS-SYSTEM

IBM TOKEN-RING NETWORK

8228-001	Multistation Access Unit (attaches up to 8 devices, also attaches to other 8228's)	660
1078	IBM Cabling System Component Housing	99
8218-001	Token-Ring Network Copper Repeater (Extends drive distance to 750 meters between 8228s)	1095
3001	Rack Mounting Assembly	300
3002	Surface Mounting Brackets	20
8219-001	Token-Ring Network Optical Fiber Repeater (Extends drive distance to 2km between 8228s)	1650
3001	Rack Mounting Assembly	300
3002	Surface Mounting Brackets	20
8642551	Precut Token-Ring Patch Cable, 8ft, with Cabling System Connectors	38

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MODEL/FC VPA	DESCRIPTION	PRICE
8642552	Precut Token-Ring Patch Cable, 30ft, with Cabling System Connectors	55
6339134	Precut Token-Ring Patch Cable, 23m, with Cabling System Connectors	118
6339135	Precut Token-Ring Patch Cable, 46m, with Cabling System Connectors	195

TOKEN-RING NETWORK SUPPORT PUBLICATIONS

6165877	IBM Token-Ring Network Architecture Reference	295
GA27-3677	IBM Token-Ring Network Introduction and Planning Guide	N/C
GA27-3678	IBM Token-Ring Network Installation Guide	N/C
GA27-3714	IBM Token-Ring Network Telephone Twisted Pair Media Guide	N/C
SX27-3710	IBM Token-Ring Network Problem Determination Guide	59.60
GA27-3748	IBM Token-Ring Network Administrator's Guide	N/C
GG24-3062	IBM Token-Ring Network Bridges and Management	N/C

IBM PC NETWORK

GG24-1691	IBM PC Network and PC Network Program Introduction	N/C
S68X-2270	IBM NETBIOS Application Development Guide	49.25
5178-001 b	PC Network Translator Unit	595
0238 a	120V Transformer	N/C
S68X-2228	IBM Translator Unit and Cabling Options Technical Reference	9.25
S68X-2268	IBM PC Network Broadband Planning Guide	13.50
0230 a	Base Expander (for 9-72 PC's)	59
	Distance Kits (Adapter to Attach 8 PC's to Base Expander)	
	NOTE: Must order appropriate cabling segments in addition	
0231 a	Short Distance Kit (w/1-foot cord)	39
0232 a	Medium Distance Kit (requires 2 x FC 0237)	79
0233 a	Long Distance Kit (requires 4 x FC 0237)	89
	Cabling Segments (Attach PC to Distance Kit/Translator, and Distance Kit to Base Expander)	
0234 a	25-Foot Cabling Segment	29

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MODEL/FC VPA	DESCRIPTION	PRICE
0235 a	50-Foot Cabling Segment	39
0236 a	100-Foot Cabling Segment	59
0237 a	200-Foot Cabling Segment	99
2505 a	IBM PC Network Technical Reference Manual (order via PCTB)	195
S68X-2240	PC Network Hardware Maintenance and Service Manual (New Edition)	86.25
S229-9601	PC Network Hardware Maintenance and Service Manual (order via PCTB)	45
5173-001	IBM 5173 PC Network Baseband Extender (Separate VPA, joins up to 10 daisy-chains of up to 8 workstations, extends maximum radius to 400ft)	750
S68X-2266	IBM PC Network Baseband Extender Technical Reference	8.50
1226	IBM PC Network Baseband Extender Rack Mount Kit	50
1229	IBM PC Network Baseband Adapter Cable (serially connects PCs into daisy-chain or to Extender, 25ft, modular plugs both ends)	25
1228	IBM PC Network Baseband General Purpose Cable (connects PC to non-modular telephone receptacle, 25ft, modular plug one end)	35
1227	IBM Cabling System PC Network Baseband Cable (connects PC or Extender to Cabling System Jack, 25ft, modular plug plus Data Connector)	35
S68X-2269	IBM PC Network Baseband Planning Guide	17.50

EXPANSION SLOT USAGE

In the following layouts, the term "DASD Controller Adapter" refers to the PC/AT-based combination fixed-diskette and diskette adapter.

PC (5150)

Slot	Type	Item
------	------	------

1	Long	
2	Long	
3	Long	
4	Long	
5	Long	

Figure 38. 5150-104 Expansion Slot Usage

Slot	Type	Item
------	------	------

1	Long	
2	Long	
3	Long	
4	Long	
5	Long	Diskette Adapter

Figure 39. 5150-166, -176 Expansion Slot Usage

PC/XT (5160)

Slot	Type	Item
------	------	------

1	Long	
2	Long	
3	Long	
4	Long	
5	Long	
6	Long	Diskette Adapter
7	Short	
8	Short	

Figure 40. 5160-068, -078 Expansion Slot Usage

Slot	Type	Item
1	Long	
2	Long	
3	Long	
4	Long	
5	Long	Fixed Disk Adapter
6	Long	Diskette Adapter
7	Short	
8	Short	Async Adapter

Figure 41. 5160-086, -087 Expansion Slot Usage

PC/XT/370 (5160-589)

Slot	Type	Item
1	Long	
2	Long	3278/79 Emulation Adapter
3	Long	XT/370 Memory Card
4	Long	XT/370 Processor Card
5	Long	Fixed Disk Adapter
6	Long	Diskette Adapter
7	Short	Asynch Adapter
8	Short	

Figure 42. 5160-589 Expansion Slot Usage

PC/XT 286 (5162-286)

Slot	Type	Item
1	8-bit	
2	16-bit	
3	16-bit	Serial/Parallel Adapter
4	16-bit	
5	16-bit	
6	16-bit	DASD Controller Adapter
7	8-bit short	
8	8-bit short	

Figure 43. 5162-286 Expansion Slot Usage

PC/AT (5170)

Slot	Type	Item
1	8-bit	
2	16-bit	
3	16-bit	
4	16-bit	
5	16-bit	
6	16-bit	
7	8-bit	
8	16-bit	DASD Controller Adapter

Figure 44. 5170-068 Expansion Slot Usage

Slot	Type	Item
1	8-bit	
2	16-bit	
3	16-bit	
4	16-bit	
5	16-bit	
6	16-bit	
7	8-bit	Serial/Parallel Adapter
8	16-bit	DASD Controller Adapter

Figure 45. 5170-099, -239 Expansion Slot Usage

SERIES/1 PC/AT (5170-495)

Slot	Type	Item
1	8-bit	
2	16-bit	
3	16-bit	
4	16-bit	6-Port Host/Terminal Attachment
5	16-bit	
6	16-bit	Series/1 Processor
7	8-bit	Serial/Parallel Adapter
8	16-bit	DASD Controller Adapter

Figure 46. 5170-495 Expansion Slot Usage

PC/AT/370 (5170-599, -739)

Slot	Type	Item
1	8-bit	
2	16-bit	
3	16-bit	
4	16-bit	3278/79 Emulation Adapter
5	16-bit	AT/370 Memory Card
6	16-bit	AT/370 Processor Card
7	8-bit	Serial/Parallel Adapter
8	16-bit	DASD Controller Adapter

Figure 47. 5170-599, -739 Expansion Slot Usage

3270-PC (5271) WITH 5272 OR 5151 DISPLAY

Note that the Programmed Symbols or All-Points Addressable Adapter, if installed, must be placed in a slot immediately on either side of the Display Adapter, i.e., either slot 2 or slot 4.

Slot	Type	Item
1	Long	3270 System Adapter
2	Long	
3	Long	Display Adapter
4	Long	
5	Long	
6	Long	Diskette Adapter
7	Short	
8	Short	Keyboard Adapter

Figure 48. 5271-002 Expansion Slot Usage

Slot	Type	Item
1	Long	3270 System Adapter
2	Long	
3	Long	Display Adapter
4	Long	
5	Long	
6	Long	Diskette Adapter
7	Short	Printer/Memory Adapter
8	Short	Keyboard Adapter

Figure 49. 5271-004 Expansion Slot Usage

Slot	Type	Item
1	Long	3270 System Adapter
2	Long	
3	Long	Display Adapter
4	Long	
5	Long	Fixed Disk Adapter
6	Long	Diskette Adapter
7	Short	Printer/Memory Adapter
8	Short	Keyboard Adapter

Figure 50. 5271-006 Expansion Slot Usage

3270-PC (5271) WITH 3295 DISPLAY

The 3295 Display Adapter includes the functions of the Programmed Symbols and All-Points Addressable Adapters.

Slot	Type	Item
1	Long	3270 System Adapter
2	Long	
3	Long	Display Adapter (3295)
4	Long	
5	Long	
6	Long	Diskette Adapter
7	Short	Printer/Memory Adapter
8	Short	Keyboard Adapter

Figure 51. 5271-024 Expansion Slot Usage

Slot	Type	Item
1	Long	3270 System Adapter
2	Long	
3	Long	Display Adapter (3295)
4	Long	
5	Long	Fixed Disk Adapter
6	Long	Diskette Adapter
7	Short	Printer/Memory Adapter
8	Short	Keyboard Adapter

Figure 52. 5271-026 Expansion Slot Usage

Slot	Type	Item
1	Long	Printer Adapter
2	Long	
3	Long	Display Adapter
4	Long	
5	Long	
6	Long	Diskette Adapter
7	Short	3270 System Adapter
8	Short	Keyboard Adapter

Figure 53. 5271-030, -P30, -050, -P50 Expansion Slot Usage

Slot	Type	Item
1	Long	Expanded Memory/Printer Adapter
2	Long	
3	Long	Display Adapter
4	Long	
5	Long	
6	Long	Diskette Adapter
7	Short	3270 System Adapter
8	Short	Keyboard Adapter

Figure 54. 5271-031, -P31, -051, -P51 Expansion Slot Usage

Slot	Type	Item
1	Long	Printer Adapter
2	Long	
3	Long	Display Adapter
4	Long	
5	Long	Fixed Disk Adapter
6	Long	Diskette Adapter
7	Short	3270 System Adapter
8	Short	Keyboard Adapter

Figure 55. 5271-070, -P70 Expansion Slot Usage

Slot	Type	Item
1	Long	Expanded Memory/Printer Adapter
2	Long	
3	Long	Display Adapter
4	Long	
5	Long	Fixed Disk Adapter
6	Long	Diskette Adapter
7	Short	3270 System Adapter
8	Short	Keyboard Adapter

Figure 56. 5271-071, -P71 Expansion Slot Usage

3270-PC/AT (5273) WITH 5272 OR 5151 DISPLAY

If one of the Extended Graphics or Programmed Symbols Adpaters is installed, it must be placed in slot 2. If both the Extended Graphics and Programmed Symbols Adpaters are installed, they must be placed in slots 2 and 3.

Slot	Type	Item
1	8-bit	Display Adapter
2	16-bit	
3	16-bit	
4	16-bit	
5	16-bit	Keyboard Adapter
6	16-bit	Serial/Parallel Adapter
7	8-bit	3270 System Adapter
8	16-bit	DASD Controller Adapter

Figure 57. 5273-020 Expansion Slot Usage

Slot	Type	Item
1		8-bit Display Adapter
2		16-bit
3		16-bit
4		16-bit Memory Adapter
5		16-bit Keyboard Adapter
6		16-bit Serial/Parallel Adapter
7		8-bit 3270 System Adapter
8		16-bit DASD Controller Adapter

Figure 58. 5273-041 Expansion Slot Usage

Slot	Type	Item
1		8-bit Display Adapter
2		16-bit Extended Graphics Adapter
3		16-bit
4		16-bit Memory Adapter
5		16-bit Keyboard Adapter
6		16-bit Serial/Parallel Adapter
7		8-bit 3270 System Adapter
8		16-bit DASD Controller Adapter

Figure 59. 5273-042 Expansion Slot Usage

Slot	Type	Item
1		8-bit Display Adapter
2		16-bit
3		16-bit
4		16-bit Memory Adapter
5		16-bit Keyboard Adapter
6		16-bit Serial/Parallel Adapter
7		8-bit 3270 System Adapter
8		16-bit DASD Controller Adapter

Figure 60. 5273-061 Expansion Slot Usage

Slot	Type	Item
1	8-bit	Display Adapter
2	16-bit	Extended Graphics Adapter
3	16-bit	
4	16-bit	Memory Adapter
5	16-bit	Keyboard Adapter
6	16-bit	Serial/Parallel Adapter
7	8-bit	3270 System Adapter
8	16-bit	DASD Controller Adapter

Figure 61. 5273-062 Expansion Slot Usage

Slot	Type	Item
1	8-bit	Display Adapter
2	16-bit	
3	16-bit	
4	16-bit	128K Memory Adapter
5	16-bit	Keyboard Adapter
6	16-bit	Serial/Parallel Adapter
7	8-bit	3270 System Adapter
8	16-bit	DASD Controller Adapter

Figure 62. 5273-070, -P70 Expansion Slot Usage

Slot	Type	Item
1	8-bit	Display Adapter
2	16-bit	
3	16-bit	
4	16-bit	Expanded Memory/Printer Adapter
5	16-bit	Keyboard Adapter
6	16-bit	
7	8-bit	3270 System Adapter
8	16-bit	DASD Controller Adapter

Figure 63. 5273-071, -P71 Expansion Slot Usage

3270-PC/G/GX (5371)

Slot	Type	Item
1	Long	Display Adapter
2	Long	3270 System Adapter
3	Long	
4	Long	Keyboard/Tablet/Mouse
5	Long	
6	Long	Diskette Adapter
7	Short	Printer Adapter
8	Short	

Figure 64. 5371-012 Expansion Slot Usage

Slot	Type	Item
1	Long	Display Adapter
2	Long	3270 System Adapter
3	Long	
4	Long	Keyboard/Tablet/Mouse
5	Long	
6	Long	Diskette Adapter
7	Short	Printer Adapter
8	Short	

Figure 65. 5371-014 Expansion Slot Usage

Slot	Type	Item
1	Long	Display Adapter
2	Long	3270 System Adapter
3	Long	64/256 Memory Adapter
4	Long	Keyboard/Tablet/Mouse
5	Long	
6	Long	Diskette Adapter
7	Short	Printer/Memory Adapter
8	Short	

Figure 66. 5371-016 Expansion Slot Usage

3270-PC/AT/G/GX (5373)

In the configurations below, the "X" in the model number designates either "0" (as in "061") for normal keyboards, or "A" (as in "A61") for APL keyboards.

Slot	Type	Item
1	8-bit	
2	16-bit	
3	16-bit	
4	16-bit	
5	16-bit	
6	16-bit	Display/Mouse/Tablet
7	8-bit	Serial/Parallel Adapter
8	16-bit	DASD Controller Adapter

Figure 67. 5373-X60 Expansion Slot Usage

Slot	Type	Item
1	8-bit	3270 System Adapter
2	16-bit	128 KB Memory Expansion
3	16-bit	
4	16-bit	
5	16-bit	
6	16-bit	Display/Mouse/Tablet
7	8-bit	Serial/Parallel Adapter
8	16-bit	DASD Controller Adapter

Figure 68. 5373-X61 Expansion Slot Usage

Slot	Type	Item
1	8-bit	3270 System Adapter
2	16-bit	
3	16-bit	512 KB Memory Expansion
4	16-bit	
5	16-bit	
6	16-bit	Display/Mouse/Tablet
7	8-bit	Serial/Parallel Adapter
8	16-bit	DASD Controller Adapter

Figure 69. 5373-X62 Expansion Slot Usage

In the configurations below, the "X" in the model number designates either "A" (as in "A29") for APL keyboards, or "E" (as in "E29") for PC Enhanced keyboards.

Slot	Type	Item
1	8-bit	3270 System Adapter
2	16-bit	
3	16-bit	512KB/2MB Memory Expansion
4	16-bit	
5	16-bit	
6	16-bit	Display/Mouse/Tablet
7	8-bit	Serial/Parallel Adapter
8	16-bit	DASD Controller Adapter

Figure 70. 5373-X29, -X39 Expansion Slot Usage

IBM CABLING SYSTEM

The following is a summary of the major cabling types of the IBM Cabling System. Drive distances and lobe distances are with respect to the IBM Token-Ring Local Area Network.

- Type 1: Two shielded twisted pair for data, balanced (maximum recommended lobe 100m, up to 260 attaching devices; 750m maximum drive distance from 8218 repeater)
- Type 2: Two shielded pair as in Type 1, plus four unshielded twisted pair for voice
- Type 3: Media specification for telephone twisted pair, two unshielded twisted pair for data (maximum recommended lobe 45m, up to 72 attaching devices)
- Type 5: Optical fiber, for use between 8228's only (2km maximum drive distance from 8219 repeater)
- Type 6: Data patch cable, drive distance approximately 3/4 of Type 1 (i.e., count as 4/3x actual length); available from IBM in pre-assembled lengths of 2.4m, 9.1m, 22.9m, 45.7m
- Type 8: Undercarpet cable, drive distance approximately 1/2 of Type 1 (i.e., count as 2x actual length)
- Type 9: Media specification for plenum data cable, drive distance approximately 3/4 of Type 1 (i.e., count as 4/3x actual length)

Type	Description	Size	Part Number
1	Data Cable	22 AWG	4716748
	Plenum Data Cable	22 AWG	4716749
	Outdoor Data Cable	22 AWG	4716734
2	Data & Telephone	22 AWG	4716739
	Data & Telephone Plenum	22 AWG	4716738
3	Telephone Twisted Pair	22/24 AWG	---
5	Optical Fiber	100/140 micron	4716744
6	Patch Cable	26 AWG	4716743
8	Undercarpet	26 AWG	---
9	Plenum Data Cable	26 AWG	6339583

Figure 71. Cabling System Characteristics

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TECHNICAL COORDINATOR PROGRAM

(Executive Brochure, G520-4226)

Customers who have a Volume Purchase Agreement or other volume-based contract in place select one or more Personal Computer Technical Coordinators. These individuals, who are customer employees, are nominated by the customer and registered by the IBM Branch Marketing Office at IBM's discretion. A Technical Coordinator is responsible for end-user support in the areas of program usage and education, as opposed to defect-related service, which is handled by a Service Coordinator (see below). A given individual may be registered as both a Technical Coordinator and a Service Coordinator.

Note that a customer is qualified to nominate Technical Coordinators by virtue of having a volume-based contract currently in effect. A valid volume contract number must be entered by the Branch Office during the registration procedure.

The number of Technical Coordinators is generally based on the size of the volume-based contract. Note that under the Customer Fulfillment Option, purchases of IBM PC system units from authorized dealers count toward attainment of the volume-based contract, and toward eligibility for an increased number of Technical Coordinators.

System Units	Technical Coordinators
20- 49	1
50-149	2
150-249	3
250-499	5
500-999	7
1000 and up	By Request

Figure 72. Technical Coordinator Levels

The Technical Coordinator is supported by IBM's North-Central Marketing Division (NCMD) and South-West Marketing Division (SWMD) through the Personal Computer Assistance Center (PCAC) and local NCMD/SWMD branch activities. During the contract period of the Volume Purchase Agreement, the PCAC:

- Administers an education program for the Coordinator; and
- Provides assistance as required for all supported PC-related products marketed by NCMD and SWMD. This support includes:
 - ASKINFO electronic question-answering facility and data base; and
 - "800" telephone support.

ASKINFO features:

- A data base of questions submitted by customer Technical Coordinators and

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IBM Systems Engineers since the introduction of the IBM Personal Computer, together with answers provided by personnel at the PCAC and other support centers.

- A search facility which allows Technical Coordinators to retrieve data base items by keyword.
- An electronic mail facility to help Technical Coordinators author new questions and route them to the appropriate support center for answering. IBM's target is to answer questions within 24 hours.

ASKINFO support is available for the 12-month duration of a volume-based contract. There is no charge for use and telephone access is toll-free.

Supported communications speeds are 1200bps and 2400bps. Existing ASKINFO users who elect to change to 2400bps support from 1200bps must request a new ASKINFO program diskette.

In addition, through the Major Function Support offering, ASKINFO support is available for a 3-month period, at IBM's discretion, following the first installation of certain products at a customer's establishment. The current registration period extends through December 31, 1987. The PC-related products supported are:

- Personal Services/PC
- DisplayWrite 4
- Series/1-PC Connect
- IBM PC Local Area Network Program
- IBM PC 3270 Emulation Program, V.3
- IBM 3270-PC High Level Language Application Programming Interface (HLLAPI)
- 3270-PC Upgrade: Expanded Memory Adapter (XMA)
- IBM Token-Ring Network PC Adapter

"800" telephone support is a second level of support available to Technical Coordinators. Technical Coordinators call the 800 number, leave an abstract of their question, and receive a callback within 24 hours from an IBM product expert for a discussion of the question.

"800" telephone support is available for the first six months of a 12-month volume-based contract.

NCMD/SWMD branch offices support their customers through a number of activities, including Technical Coordinator Seminars, communications system design reviews, application design reviews, etc.

See your IBM marketing representative for more details.

TECHNICAL COORDINATOR EDUCATION

TECHNICAL COORDINATOR TRAINING COURSE

The IBM Personal Computer Technical Coordinator Training Course modules (Course number G4002) presents the hardware, architecture, and Disk Operating System for

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the IBM Personal Computer in two videos and fourteen computer-based instruction modules. Each module is independent, and students may skip subjects already mastered.

Students may enroll in this 2-1/2 to 3-day course by calling their local IBM Guided Learning Center. The tuition for this course is \$60 per half day, however, newly registered Technical Coordinators will be eligible to take this course on a nonbillable basis.

Subjects covered include:

- Using the ASKINFO data base
- Hardware overview, setup, and diagnostics
- System architecture, interrupts, and BIOS
- DOS fundamentals and advanced topics
- Debug workshop

See your IBM representative for more information.

SELF-SERVICER MAINTENANCE CLASS

This fee class, held in Atlanta, Georgia, is designed for a company or organization that wishes to perform its own Personal Computer maintenance. Typical accounts might have a minimum of 400 IBM Personal Computers presently installed and off warranty.

This 2-1/2 day class teaches:

- Hardware function and operation
- Problem determination procedures
- Servicer diagnostics and service procedures
- Service parts ordering terms and conditions.

To obtain enrollment packets and current prices, call your local National Service Division branch office. For more information, call IBM NSD Service Education, (404) 847-6543.

OTHER

IBM provides a number of classes of interest to the Technical Coordinator. In this Reference, see

- "Support Publications - Policy" on page 131,
- "Support Publications - Managing End User Computing" on page 131,
- "IBM Information Systems Management Institute" on page 163,
- "Technical Seminars" on page 166,
- "Science Research Associates - Leased Courses" on page 164.

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PC UNIVERSITY

The PC University is a marketing program of non-fee seminars, 4 days in duration, held in Boca Raton, Florida. The seminars will be held approximately monthly.

WHO IS THE AUDIENCE? The intended audience includes key customer decision-makers who require detailed technical information on IBM workstation products to assist them in making decisions on workstation directions within their companies. The attendee will be a high-level technical executive charged with making or advising upon PC installation decisions.

WHO MAY ATTEND? This program is a major marketing support offering of the South West and North Central Marketing Divisions only. It is available to SWMD and NCMD customer accounts who have a Volume Purchase Agreement or Special Bid in place.

WHAT IS THE CONTENT OF THE SEMINARS? The intent of the PC University is to give the attendee an opportunity to have hands-on experience with IBM workstation products that are announced, but not yet available. Each seminar will include access to the product development managers for information on product direction and positioning. Product developers will be available to help answer questions of a more technical nature.

The agenda is not intended to be fixed. As new products are announced, PC University modules covering older product offerings will be replaced by the newly announced products. An early seminar will have very different modules from one held six months later.

The PC University offers technical information at an intermediate level, with more technical content than an overview. Product internals will not generally be covered.

WHAT DOES IT COST? There is no charge for attending PC University. The customer will pay for his own travel and lodging expenses.

HOW DO I ENROLL? The hands-on environment of PC University requires limited seating. Attendance is by invitation only, via a nomination process through the local IBM Area office. See your IBM Marketing Representative for details.

SOFTWARE DEFECT SUPPORT

Personal Computer software is generally sold "as is."

Software indicated by the phrase "Central Service" above is supported by IBM for defect correction. Customers may mail-in or call-in defect documentation for resolution by IBM or the developing organization, depending on the product.

This support is typically for a limited period, as described in the program announcement.

- "Central service to..." indicates that service will be provided up to a cer-

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tain date.

- "Central service for..." indicates that service will be provided for a certain duration after delivery to the customer.
- "Central service ... notice" indicates that IBM will not withdraw service until having given a certain period of notice.

Products have varying registration requirements for obtaining central service. Some require that a Quantity Discount Agreement be in effect, others require mailing a registration card. See the announcement material for each product for details.

Certain products have extended support, as described below.

SOFTWARE EXTENDED SUPPORT

TERMS AND CONDITIONS

(Executive Brochure, GH30-9017)

Licensed users of selected IBM Personal Computer program products may subscribe to the IBM Extended Support Option via a 12-month subscription. One subscription provides defect and non-defect support for multiple IBM licensed programs within a program series.

To subscribe to any of these services, call the IBM Extended Support Center in Atlanta at 1-800-IBM-2266.

Defect support is included in the base annual subscription charge. Under this support, the subscriber may mail in requests for correction of defects in supported programs during the subscription period. Purchase of this subscription extends the support of this type normally available for 90 days after purchase of a supported product.

For certain programs, IBM may include any of the following services in the base subscription, as noted in the tables below. If not included, a service may be available for a separate fee. Not all services will be available for all products.

- Support Journal: for certain products, these journals provide operational tips, coding tips, techniques, answers to common questions, and announce availability of updates and new products. Additional Support Journals may be ordered for an annual or per-copy fee.
- Telephone Assistance: for specific product questions, related to either defect or non-defect support. the customer has toll-free access to the Extended Support Telephone Center Telephone assistance, where available, may be available on a "single incident," "multiple incident," or annual fee (where an incident may involve more than one call concerning a particular problem).
- Program updates: the customer may request shipment of program updates for supported programs as available. Updates may be available via either an annual or per-update fee.

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- Application Services Subscription: the customer will receive updated non-program data files (e.g., payroll tax tables), together with any available Program Updates.

This support is available to licensed users of the supported programs who desire program-related service or in-depth technical support beyond what is provided with the program. This support is intended to complement existing customer assistance furnished by IBM representatives. Program updates may also be available to non-subscribers for a separate fee.

	Order No.	Price
Base Subscription (Annual) Incl.	6265343	\$ 495
Support Journal Subscription		
Program Service		
Telephone Assistance		
Program Updates		
Automatic Renewal Available		
thru 12/31/87		
Additional Charge Options:		
Additional Journal Subscription	6265215	30
Telephone Assistance		
Single Incident	6265344	150
Program Updates, per update		30

Figure 73. Extended Support - Business Management Series

The following programs are covered as part of the Business Management Series:

- General Ledger Edition
- General Ledger Training
- Accounts Payable Edition
- Accounts Payable Training
- Payroll Edition
- Payroll Training
- Order Entry/Invoicing Edition
- Order Entry/Invoicing Training
- Inventory Accounting Edition
- Inventory Accounting Training
- Accounts Receivable Edition
- Accounts Receivable Training
- Financial Extension Edition
- Accounting Extension Edition
- Local Area Network Access

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	Order No.	Price
Base Subscription (Annual) Incl.	6265396	\$ 495
Support Journal Subscription		
Program Service		
Telephone Assistance		
Program Updates		
Automatic Renewal Available thru 2/28/88		
Additional Charge Options:		
Additional Journal Subscription	6265398	30
Single Incident Service	6265397	125
Program Updates, per update		30

Figure 74. Extended Support - Personal Decision Series Version 2

The following programs are covered as part of the Personal Decision Series Version 2

- Data Edition
- Reports+ Edition
- Plans+ Edition
- Network+ Edition
- English Access Edition

	Order No.	Price
Base Subscription (Annual) Incl.	6265350	\$ 395
Support Journal Subscription		
Program Service		
Telephone Assistance		
Program Updates		
Automatic Renewal Not Available		
Additional Charge Options:		
Additional Journal Subscription	6265216	30
Telephone Assistance		
Single Incident	6265277	125
Program Updates, per update		30

Figure 75. Extended Support - Personal Decision Series

The following programs are covered as part of the Personal Decision Series:

- Data Edition
- Data Training Edition
- Reports+ Edition
- Graphs Edition
- Plans Edition
- Plans+ Edition
- Words Edition
- Attachment/36 Edition
- Attachment/370 Edition
- PC Storyboard

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	Order No.	Price
Base Subscription (Annual) Incl.	6265409	\$ 395
Support Journal Subscription		
Program Service		
Telephone Assistance		
Program Updates		
Automatic Renewal: Not Available		
Additional Charge Options:		
Additional Journal Subscription	6265410	30
Program Updates, per update	6265411	30
Program Covered:		
IBM Storyboard Plus, PN 6024401		
Service End Date: 4/30/89		

Figure 76. Extended Support - Storyboard Plus

	Order No.	Price
Single Incident Service	6265412	\$ 75
Support Journal Subscription		
Program Service		
Telephone Assistance		
Program Updates		
Additional Charge Options:		
Program Updates, per update	6265411	30
Program Covered:		
IBM Storyboard Plus, PN 6024401		
Service End Date: 4/30/89		

Figure 77. Extended Support - Storyboard Plus

	Order No.	Price
Base Subscription (Annual) Incl.	6265460	\$ 200
Program Service		
Automatic Renewal Not Available		
Additional Charge Options:		
Telephone Assistance		
5 Incidents	6265462	225
Single Incident	6265461	55
Program Updates, per update		30

Figure 78. Extended Support - Professional Workstation Series

The following programs are covered as part of the Professional Workstation Series:

- IBM PC Organizer

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- RS/1-PC
- IBM EZ-VU Development Facility
- IBM EZ-VU Runtime Facility
- IBM EZ-VU Editor
- IBM PC/Videotex
- IBM PC/Videotex Jr.
- IBM APLDI/PC
- IBM EZ-Run CSP/Application Execution
- IBM EZ-Prep CSP/Application Generation

	Order No.	Price
Base Subscription (Annual) Incl.	6265342	\$ 395
Support Journal Subscription		
Program Service		
Telephone Assistance		
Program Updates		
Automatic Renewal Available thru 12/31/87		
Payroll Tax Table Service Subscription		
5.25in media	6265280	125
3.5in media	6265340	125
Automatic Renewal Available thru 12/31/88 for tax tables provided thru 12/31/90		
Additional Charge Options:		
Additional Journal Subscription	6265345	30
Telephone Assistance		
Single Incident	6265347	125
Program Updates, per update		30

Figure 79. Extended Support - Accounting Assistant Series

The following programs are covered as part of the Accounting Assistant Series:

- General Accounting Edition
- Accounts Payable Edition
- Accounts Receivable/Billing Edition
- Payroll Edition
- Inventory Control/Purchasing Edition
- Job Costing Edition

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	Order No.	Price
Base Subscription (Annual) Incl.	6265346	\$ 695
Support Journal Subscription		
Program Service		
Telephone Assistance		
Program Updates		
Automatic Renewal Available thru 12/31/88		
Payroll Tax Table Service Subscription		
5.25in media	6265281	125
Automatic Renewal Available thru 12/31/89 for tax tables provided thru 12/31/91		
Additional Charge Options:		
Additional Journal Subscription	6265349	30
Telephone Assistance		
Single Incident	6265348	175
Program Updates, per update		30

Figure 80. Extended Support - Business Adviser Series

The following programs are covered as part of the Accounting Assistant Series:

- General Accounting Edition
- Accounts Payable Edition
- Accounts Receivable/Billing Edition
- Payroll Edition
- Inventory Control/Purchasing Edition
- Job Costing Edition

	Order No.	Price
Base Subscription (Annual) Incl.	6265362	\$1200
Support Journal Subscription		
Program Service		
Telephone Assistance		
Program Updates (1 each)		
Automatic Renewal Not Available		
Additional Charge Options:		
Additional Journal Subscription	6265363	30
Program Updates, per update	6265364	30
Single Incident Service, Incl.	6265365	245
One Support Journal		
Telephone Assistance		
Program Service		
One Program Update		
Additional Program Updates	6265364	30

Figure 81. Extended Support - PC 3270 Emulation Version 3

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CENTRAL SERVICE - IBM SUPPORT CENTER

IBM supports certain IBM Licensed Programs for defect correction through the National Service Division, IBM Support Center and Information Systems Group, Service Staff Central Service. Correction for programming defects in these products is provided to the customer's Service Coordinators.

These individuals, who are customer employees, are nominated by the customer and registered by the IBM Branch Marketing Office. A Service Coordinator is responsible for end-user support in the areas of program defect resolution and service distribution, as opposed to usage-related assistance, which is handled by a Technical Coordinator (see above). A given individual may be registered as both a Technical Coordinator and a Service Coordinator.

Note that a customer is qualified to nominate Service Coordinators by virtue of having purchased a supported IBM product; a volume-related purchase contract does not generally have to be in effect. If no volume-based contract is in effect, a Service Coordinator may be registered by the IBM Branch Marketing Office for "FE Entitlement Only" using the standard contract number, 37661.

Customers who were designated as Technical Coordinators and registered (as of December 17, 1985) for defect support will now be supported as Service Coordinators registered for defect support. Support will continue as defined under the terms and conditions of the designated IBM licensed programs.

TERMS AND CONDITIONS

The following is a paraphrase of the terms of support typical for these products. See the announcement material for each product for specific terms and conditions.

Central service, including the IBM Support Center of the National Service Division will be available until the termination date.

The IBM Support Center will provide the customer-designated registered Service Coordinator with telephone assistance in problem diagnosis and resolution. The customer-designated registered Service Coordinator may call the IBM Support Center at any time, and will receive a return call within one business day.

Certain programs require that a Quantity Discount Agreement (QDA) be signed in order for the customer to receive service. In such cases, support will be provided only to QDA-contracted customers via designated customer Service Coordinators. For customers ordering less than 20 licenses and desiring central service support, a QDA must be signed.

The customer Service Coordinator will act as the interface between the customer and the IBM Support Center.

Preventive service is provided on a cumulative basis through refreshes; no

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source code is provided. One copy of each refresh and its supporting documentation will be provided to the customer's Service Coordinator. The customer's Service Coordinator is responsible for making and distributing copies to workstations that have the program installed. One copy is allowed per licensed program. There may be a distribution charge for refreshes.

Additional copies of the refreshes and supporting documentation may be ordered by the Service Coordinator.

Corrective service will be provided only to customer Service Coordinators through program patches; these are applicable only to current refresh levels.

ELIGIBLE PROGRAMS

Program

3270-PC Control Program
3270-PC Graphics Control Program
3270-PC/Color Graphics Application (GGXA)
3270-PC/Color Graphics Charting (GGXC)
VM/PC
PC/VM Bond
PS/PC

Figure 82. NSD Support Eligible Programs

MAINTENANCE

IBM Service/Exchange Communication Center (800) 428-2569

MAINTENANCE OPTION DESCRIPTIONS

Machine maintenance charges include coverage for all components of the standard configuration for the model. Expansion unit charges include one 10MB fixed disk drive. Prices below are for 12-month term. Some geographic restrictions apply.

IBM service personnel may remove and reinstall non-IBM option cards in IBM PCs being serviced by IBM when the IBM service representative determines that the removal or reinstallation will facilitate IBM problem isolation or maintenance of the IBM portion of the PC. If it is determined that a non-IBM option card is the cause of the reported failure, IBM's normal billing guidelines will be followed.

If the customer wishes IBM to remove a failing non-IBM machine or feature and install a similar non-IBM, customer-supplied, replacement item, this service is available for an annual charge per system unit. This service is available only on IBM PC system units for which IBM On-Site Repair Type of Service is selected under an IBM maintenance agreement or provided under an IBM warranty. It is not available for non-IBM items for which IBM offers maintenance agreement service.

Under IBM's Expanded Support offering for non-IBM products, (a service available at extra cost) IBM will at the customer's direction purchase commercially available non-IBM products at the time of failure, for replacement of an identical or similar failing non-IBM machine or feature. This offering does not apply to warranty service for the non-IBM device, but is available for devices attached to any IBM PC system unit with an On-Site Repair maintenance agreement or On-Site Repair warranty-type.

For machines not covered by warranty or maintenance options, the customer may elect to have service done on a time-and-materials basis.

HOURLY MAINTENANCE

Carry-In Service options are:

- Customer Carry-In Repair hourly service
- Customer Carry-In Exchange hourly service.

Charges for IBM hourly service provided at designated IBM Service / Exchange Centers are:

- The current standard rate for all Service / Exchange Center products is \$115

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per hour.

- The current minimum is 7/10 of an hour and applies to each machine or machine element requiring either a repair or a repair estimate.
- Actual time in excess of the 7/10 of an hour minimum will be charged in tenths of an hour, rounded to the nearest tenth of an hour.
- There are additional charges, as applicable, for replacement parts, shipping and other applicable expenses.

IBM On-Site Service options are:

- IBM On-Site Repair hourly service
- IBM On-Site Exchange hourly service.

Charges for IBM hourly service provided at customer sites are:

- The current minimum is one hour for repair or one hour for exchange, plus travel expense.
- There are additional charges, as applicable, for replacement parts, shipping and other applicable expenses.

Machines and machine elements that have been exchanged by IBM, and replacement parts that are installed in an IBM hourly service incident, are warranted for three months.

MAINTENANCE PLANS

IBM ON-SITE REPAIR

IBM will repair and test the failing machine at the customer's site.

IBM ON-SITE EXCHANGE

IBM will deliver to the customer's site a functionally equivalent machine in good working order and replace the failing machine with this exchange machine. IBM will set up and test the exchange machine and remove the failing machine from the customer's premises.

CUSTOMER ON-SITE EXCHANGE

IBM will have a functionally equivalent machine in good working order delivered to the customer's site. The customer will disconnect the failing machine and return the failing machine to IBM, in accordance with IBM's instructions. IBM is responsible for both outbound and inbound shipping charges.

CUSTOMER CARRY-IN EXCHANGE

The customer will deliver the failing machine to any of more than 100 IBM Service/Exchange Centers or other IBM designated locations. IBM will exchange a functionally equivalent machine in good working order for the failing machine. The customer, in lieu of such delivery, may ship the failing machine prepaid only to one of the IBM Service/Exchange Centers designated to receive such shipments. IBM will ship the exchange machine prepaid to the customer's location in the United States or Puerto Rico.

CUSTOMER CARRY-IN REPAIR

The customer will deliver the failing machine to any of more than 100 IBM Service/Exchange Centers or other IBM designated locations. IBM will repair the machine and notify the customer as soon as it is ready for pick up. The customer, in lieu of such delivery, may ship the failing machine prepaid only to one of the IBM Service/Exchange Centers designated to receive such shipments. Following any necessary repairs, IBM will ship it prepaid to the customer's location in the United States or Puerto Rico.

MAINTENANCE OPTIONS - SYSTEM UNITS AND PERIPHERALS

TYPE/MODEL	DESCRIPTION	IBM	IBM	Cust.	Carry	Carry
		On-Site Repair #9798	On-Site Exch. #9830	On-Site Exch. #9824	In Exch. #9816	In Repair #9821
3117-010	Scanner	20.00	N/A	N/A	N/A	10.00
3118-010	Scanner	65.00	N/A	N/A	N/A	30.00
3118-020	Scanner	130.00	N/A	N/A	N/A	60.00
3295-001	Plasma Monitor	124.00	N/A	N/A	N/A	N/A
3363-A01	Optical Disk Dr	288.00	N/A	N/A	N/A	N/A
3363-A11	Optical Disk Dr	288.00	N/A	N/A	N/A	N/A
3363-B01	Optical Disk Dr	264.00	N/A	N/A	N/A	N/A
3852-001	Color Ink-Jet Prtr	N/A	137.00	124.00	98.00	87.00
3852-002	Color Jetprinter	N/A	109.00	87.00	78.00	78.00
4201-001	Proprietary	N/A	41.00	35.00	30.00	30.00
4201-002	Proprietary II	49.00	N/A	N/A	N/A	38.00
4202-001	Proprietary XL	N/A	105.00	90.00	85.00	55.00
4207-001	Proprietary X24	102.00	N/A	N/A	N/A	85.00
4208-001	Proprietary XL24	122.00	N/A	N/A	N/A	101.00
4216-020	Personal Pageprinter	324.00	N/A	N/A	N/A	252.00
4683-001	POS Terminal	N/A	162.00	137.00	131.00	131.00
4683-002	POS Terminal	N/A	72.00	56.00	52.00	52.00
4860-004	PCjr-64k, no disk	75.00	N/A	N/A	N/A	42.00
4860-067	PCjr-128k, 1 disk	135.00	N/A	N/A	N/A	75.00
4863-001	PCjr Color Display	N/A	32.50	24.00	22.00	22.00
4865-001	Ext. 3.5in Diskette	N/A	31.00	26.00	22.00	N/A

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TYPE/MODEL	DESCRIPTION	IBM	IBM	Cust.	Carry	Carry
		On-Site Repair #9798	On-Site Exch. #9830	On-Site Exch. #9824	In Exch. #9816	In Repair #9821
4865-002	Ext. 3.5in Diskette	N/A	31.00	26.00	22.00	N/A
4869-001	Ext. 5.25in Diskette	N/A	19.00	13.00	N/A	N/A
4950-A00	S/1 PC, 10MB, 1 disk	959.00	N/A	N/A	N/A	633.00
4950-B00	S/1 PC, 1 disk	653.00	N/A	N/A	N/A	435.00
4971-001	S/1 Printer	N/A	166.00	118.00	104.00	101.00
5083-002	Digital Tablet	N/A	96.00	60.00	48.00	N/A
5083-11A	Digital Tablet	N/A	55.00	35.00	32.00	N/A
5083-12A	Digital Tablet	N/A	60.00	40.00	35.00	N/A
5140-002	Convertible	160.00	N/A	N/A	N/A	110.00
5140-022	Convertible	160.00	N/A	N/A	N/A	110.00
5144-001	Convertible Mono CRT	N/A	18.00	12.00	10.00	N/A
5145-001	Convertible Color CRT	N/A	40.00	30.00	26.00	N/A
5150-001	System Unit	171.00	N/A	N/A	N/A	110.00
5150-013	System Unit	171.00	N/A	N/A	N/A	110.00
5150-014	System Unit	231.00	N/A	N/A	N/A	149.00
5150-074	System Unit	248.00	N/A	N/A	N/A	160.00
5150-104	System Unit-64K	171.00	N/A	N/A	N/A	110.00
5150-114	System Unit-1SS-64K	231.00	N/A	N/A	N/A	149.00
5150-X14	System Unit-1SS-64K	231.00	N/A	N/A	N/A	149.00
5150-164	System Unit-1DS-64K	248.00	N/A	N/A	N/A	160.00
5150-X64	System Unit-1DS-64K	248.00	N/A	N/A	N/A	160.00
5150-X66	System Unit-1DS-256K	248.00	N/A	N/A	N/A	160.00
5150-166	System Unit-1DS-256K	248.00	N/A	N/A	N/A	160.00
5150-174	System Unit-2DS-64K	248.00	N/A	N/A	N/A	160.00
5150-X74	System Unit-2DS-64K	248.00	N/A	N/A	N/A	160.00
5150-X76	System Unit-2DS-256K	248.00	N/A	N/A	N/A	160.00
5150-176	System Unit-2DS-256K	248.00	N/A	N/A	N/A	160.00
5150-813	System Unit	171.00	N/A	N/A	N/A	110.00
5150-823	System Unit	171.00	N/A	N/A	N/A	110.00
5151-001	Mono Display	N/A	29.00	19.00	16.00	16.00
5152-001/2	Printer	N/A	41.00	35.00	30.00	30.00
5153-001	Color Display	N/A	55.00	45.00	40.00	40.00
5154-001	Enhanced Color Disp	N/A	65.00	52.00	42.00	42.00
5155-068	Portab.PC-1DS-256KB	264.00	N/A	N/A	N/A	175.00
5155-076	Portab.PC-2DS-256KB	264.00	N/A	N/A	N/A	175.00
5160-068	System Unit XT-1 DS	312.00	N/A	N/A	N/A	216.00
5160-078	System Unit XT-2 DS	312.00	N/A	N/A	N/A	216.00
5160-086	System Unit XT-256KB	480.00	N/A	N/A	N/A	348.00
5160-087	System Unit XT-128KB	480.00	N/A	N/A	N/A	348.00
5160-088	XT-512KB, 20MB	480.00	N/A	N/A	N/A	348.00
5160-089	XT-512KB, 20MB	480.00	N/A	N/A	N/A	348.00
5160-267	XT-256KB,1 HH DS	312.00	N/A	N/A	N/A	216.00
5160-268	XT-256KB,1 HH DS	312.00	N/A	N/A	N/A	216.00
5160-277	XT-256KB,2 HH DS	312.00	N/A	N/A	N/A	216.00
5160-278	XT-256KB,2 HH DS	312.00	N/A	N/A	N/A	216.00
5160-470	4700 XT System Unit	312.00	N/A	N/A	N/A	216.00
5160-568	XT/370-1DS, 3277	482.00	N/A	N/A	N/A	325.00
5160-588	XT/370-10MB, 3277	650.00	N/A	N/A	N/A	457.00
5160-589	XT/370-10MB, 2-card	650.00	N/A	N/A	N/A	457.00
5161-001/2	Expansion Unit	293.00	N/A	N/A	N/A	212.00
5161-003	Expansion Unit 20MB	461.00	N/A	N/A	N/A	344.00
5162-286	XT 286-20MB	336.00	N/A	N/A	N/A	240.00

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TYPE/MODEL	DESCRIPTION	IBM On-Site Repair #9798	IBM On-Site Exch. #9830	Cust. On-Site Exch. #9824	Carry In Exch. #9816	Carry In Repair #9821
5167-001	TEMPEST Mono Displ	N/A	69.00	57.00	52.00	N/A
5169-002	Quietwriter 2 T	378.00	N/A	N/A	N/A	168.00
5170-068	PC/AT-256KB,1 HCD	364.00	N/A	N/A	N/A	234.00
5170-099	PC/AT-512KB, 20MB	507.00	N/A	N/A	N/A	338.00
5170-239	PC/AT-512KB, 30MB	546.00	N/A	N/A	N/A	375.00
5170-319	PC/AT-512KB, 30MB	546.00	N/A	N/A	N/A	375.00
5170-339	PC/AT-512KB, 30MB	546.00	N/A	N/A	N/A	375.00
5170-495	S/1 PCAT,20MB	788.00	N/A	N/A	N/A	535.00
5170-496	S/1 PCAT,30MB	970.00	N/A	N/A	N/A	752.00
5170-599	PC/AT/370	684.00	N/A	N/A	N/A	451.00
5170-739	PC/AT/370	716.00	N/A	N/A	N/A	484.00
5170-839	PC/AT POS 30MB	667.00	N/A	N/A	N/A	457.00
5170-849	PC/AT POS 30MB	667.00	N/A	N/A	N/A	457.00
5170-899	PC/AT POS 20MB	609.00	N/A	N/A	N/A	407.00
5170-919	PC/AT/370 30MB	716.00	N/A	N/A	N/A	484.00
5170-939	PC/AT/370 30MB	716.00	N/A	N/A	N/A	484.00
5171-168	PC/AT Tempest	495.00	N/A	N/A	N/A	395.00
5171-339	PC/AT Tempest 30MB	595.00	N/A	N/A	N/A	485.00
5175-001	Profes'l Graf Displ	N/A	60.00	50.00	41.00	41.00
5181-001	Compact Printer	N/A	18.00	14.00	11.00	11.00
5182-001	Color Printer	N/A	587.00	473.00	379.00	379.00
5201----	Quietwriter printer	215.00	N/A	N/A	N/A	110.00
5202-001	Quietwriter III	200.00	N/A	N/A	N/A	130.00
5216----	Wheelprinter	N/A	195.00	155.00	125.00	100.00
5223-001	Wheelprinter E	N/A	126.00	90.00	72.00	60.00
5271-002	3270PC-1DS,256K	362.00	N/A	N/A	N/A	235.00
5271-004	3270PC-2DS,320/384K	362.00	N/A	N/A	N/A	235.00
5271-006	3270PC-10MB,320/384K	560.00	N/A	N/A	N/A	389.00
5271-024	3270PC-2DS,384K	392.00	N/A	N/A	N/A	256.00
5271-026	3270PC-10MB,384K	588.00	N/A	N/A	N/A	412.00
5271-P30	3270PC-1 HH, 640K	362.00	N/A	N/A	N/A	235.00
5271-P31	3270PC-1 HH, XMA	362.00	N/A	N/A	N/A	235.00
5271-P50	3270PC-2 HH, 640K	362.00	N/A	N/A	N/A	235.00
5271-P51	3270PC-2 HH, XMA	362.00	N/A	N/A	N/A	235.00
5271-P70	3270PC-20MB, 640K	560.00	N/A	N/A	N/A	389.00
5271-P71	3270PC-20MB, XMA	560.00	N/A	N/A	N/A	389.00
5271-030	3270PC-1 HH, 640K	362.00	N/A	N/A	N/A	235.00
5271-031	3270PC-1 HH, XMA	362.00	N/A	N/A	N/A	235.00
5271-050	3270PC-2 HH, 640K	362.00	N/A	N/A	N/A	235.00
5271-051	3270PC-2 HH, XMA	362.00	N/A	N/A	N/A	235.00
5271-070	3270PC-20MB, 640K	560.00	N/A	N/A	N/A	389.00
5271-071	3270PC-20MB, XMA	560.00	N/A	N/A	N/A	389.00
5272-001	3270PC-Display	N/A	90.00	70.00	55.00	65.00
5273-020	3270PCAT-1HC	350.00	N/A	N/A	N/A	225.00
5273-041	3270PCAT-2HC	350.00	N/A	N/A	N/A	225.00
5273-042	3270PCAT-2HC,XGA	350.00	N/A	N/A	N/A	225.00
5273-061	3270PCAT-1HC,20MB	488.00	N/A	N/A	N/A	325.00
5273-062	3270PCAT 20MB,XGA	488.00	N/A	N/A	N/A	325.00
5273-P70	3270PCAT 30MB,640KB	546.00	N/A	N/A	N/A	375.00
5273-P71	3270PCAT 30MB,XMA	546.00	N/A	N/A	N/A	375.00
5273-070	3270PCAT 30MB,640KB	546.00	N/A	N/A	N/A	375.00
5273-071	3270PCAT 30MB,XMA	546.00	N/A	N/A	N/A	375.00

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TYPE/MODEL	DESCRIPTION	IBM	IBM	Cust.	Carry	Carry
		On-Site Repair #9798	On-Site Exch. #9830	On-Site Exch. #9824	In Exch. #9816	In Repair #9821
5277-001	Mouse	N/A	48.00	36.00	30.00	N/A
5278-001	Display Attach Unit	N/A	135.00	101.00	88.00	N/A
5278-002	Display Attach Unit	N/A	135.00	101.00	88.00	81.00
5279-001	14in Display (G)	N/A	26.00	20.00	17.00	16.00
5371-012	3270PC/G,GX-1DS-384K	362.00	N/A	N/A	N/A	235.00
5371-014	3270PC/G,GX-2DS-512K	362.00	N/A	N/A	N/A	235.00
5371-016	3270PC/G,GX-10M-576K	580.00	N/A	N/A	N/A	483.00
5373-012	3270-PC/AT G/GX	514.00	N/A	N/A	N/A	339.00
5373-014	3270-PC/AT G/GX	514.00	N/A	N/A	N/A	339.00
5373-016	3270-PC/AT G/GX	514.00	N/A	N/A	N/A	339.00
5373-160	3270-PC/AT G/GX	534.00	N/A	N/A	N/A	352.00
5373-A60	3270-PC/AT G/GX	534.00	N/A	N/A	N/A	352.00
5373-161	3270-PC/AT G/GX	534.00	N/A	N/A	N/A	352.00
5373-A61	3270-PC/AT G/GX	534.00	N/A	N/A	N/A	352.00
5373-162	3270-PC/AT G/GX	534.00	N/A	N/A	N/A	352.00
5373-A62	3270-PC/AT G/GX	534.00	N/A	N/A	N/A	352.00
5373-A29	3270-PC/AT G/GX	572.00	N/A	N/A	N/A	389.00
5373-A39	3270-PC/AT G/GX	572.00	N/A	N/A	N/A	389.00
5373-E29	3270-PC/AT G/GX	572.00	N/A	N/A	N/A	389.00
5373-E39	3270-PC/AT G/GX	572.00	N/A	N/A	N/A	389.00
5378-C01	Display Att(PC/GX-C)	288.00	N/A	N/A	N/A	186.00
5378-M01	Display Att(PC/GX-M)	222.00	N/A	N/A	N/A	144.00
5379-C01*	19in Display (GX-C)	84.00	N/A	N/A	N/A	N/A
5379-M01*	19in Display (GX-M)	66.00	N/A	N/A	N/A	N/A
5531-001	Indust PC	586.00	N/A	N/A	N/A	372.00
5531-011	Indus PC(1 diskette)	282.00	N/A	N/A	N/A	180.00
5531-021	Indust PC	586.00	N/A	N/A	N/A	372.00
5532----	Indust PC Display	N/A	266.00	213.00	170.00	170.00
5841-001	IBM Sync/Async Modem	N/A	68.00	37.00	31.00	31.00
5842-001	IBM Sync/Async Modem	N/A	66.00	36.00	30.00	30.00
6153-001	Adv Mono Graf Display	N/A	69.00	63.00	60.00	N/A
6154-001	Adv Color Graf Dislpay	N/A	170.00	164.00	160.00	N/A
6155-001	Ext Mono Graf Display	N/A	105.00	98.00	94.00	N/A
6157-001	Streaming Tape Drive	N/A	140.00	132.00	130.00	N/A
6180-001	A-Size Plotter, RS232	N/A	84.00	60.00	45.00	41.00
6180-002	A-Size Plotter,IEEE488	N/A	84.00	60.00	45.00	41.00
6186----	A-E Size Plotter	360.00	N/A	N/A	N/A	N/A
7371-001	Color Plotter	N/A	183.00	119.00	102.00	88.00
7372-001	Color Plotter	N/A	213.00	136.00	113.00	99.00
7531-041	Indust PC/AT	420.00	N/A	N/A	N/A	N/A
7532-041	Indust PC/AT	420.00	N/A	N/A	N/A	N/A
7534-001	Enh.Indust PC Display	N/A	88.00	70.00	56.00	56.00
7552-040	Indust PC/AT	804.00	N/A	N/A	N/A	N/A
7552-140	Indust PC/AT, 10MB	1176.00	N/A	N/A	N/A	N/A
8218-001	Token Copper Repeater	N/A	N/A	20.00	18.00	N/A
8219-001	Token Optic Repeater	N/A	N/A	55.00	50.00	N/A
8228-KT1	Token Starter Kit	N/A	N/A	50.00	45.00	N/A
8228-KT2	Token Starter Kit	N/A	N/A	50.00	45.00	N/A
8228-KT3	Token Starter Kit/A	N/A	N/A	50.00	45.00	N/A
8228-001	Multist'n Access Unit	N/A	N/A	50.00	45.00	N/A
8503----	Pers Sys/2 Mono Displ	N/A	9.00	8.00	N/A	N/A
8512----	Pers Sys/2 Color Disp	N/A	10.00	9.00	N/A	N/A

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TYPE/MODEL	DESCRIPTION	IBM	IBM	Cust.	Carry	Carry
		On-Site Repair #9798	On-Site Exch. #9830	On-Site Exch. #9824	In Exch. #9816	In Repair #9821
8513----	Pers Sys/2 Color Disp	N/A	11.00	10.00	N/A	N/A
8514----	Pers Sys/2 Color Disp	N/A	46.00	44.00	N/A	N/A
8530----	Pers System/2 Mdl 30	N/A	160.00	25.00	N/A	N/A
8550-021	Pers System/2 Mdl 50	180.00	N/A	N/A	N/A	N/A
8560-041	Pers System/2 Mdl 60	190.00	N/A	N/A	N/A	N/A
8560-071	Pers System/2 Mdl 60	210.00	N/A	N/A	N/A	N/A
8580-041	Pers System/2 Mdl 80	220.00	N/A	N/A	N/A	N/A
8580-071	Pers System/2 Mdl 80	260.00	N/A	N/A	N/A	N/A
8580-111	Pers System/2 Mdl 80	305.00	N/A	N/A	N/A	N/A

* Not a Service/Exchange Center machine.

MAINTENANCE OPTIONS - SELECTED NON-IBM PRODUCTS

1537-A01	Hayes Transet 128K Buffr	N/A	80.00	70.00	65.00	65.00
1537-B01	Hayes Transet 512K Buffr	N/A	90.00	80.00	75.00	75.00
1538-A01	HP 7470A Color Plotter	N/A	145.00	135.00	130.00	130.00
1538-B01	HP 7475A Color Plotter	N/A	165.00	155.00	150.00	150.00
1538-C01	HP 7550A Color Plotter	N/A	275.00	265.00	260.00	260.00
1543-A01	HP Thinkjet Printer	N/A	130.00	120.00	115.00	115.00
	Epson FX-185	N/A	120.00	110.00	105.00	105.00
1551-A01	Epson FX-100, 100+	N/A	120.00	110.00	105.00	105.00
1552-A01	Okidata ML93A	N/A	190.00	170.00	130.00	130.00
1552-B01	Okidata ML93I	N/A	190.00	170.00	130.00	130.00
1556-S01	Amdek 310-A Display	N/A	45.00	35.00	30.00	30.00
1560-A01	Tecmar Q60H	N/A	160.00	150.00	135.00	135.00
1561-A01	Tecmar Q60W20	N/A	510.00	490.00	470.00	470.00
1561-B01	Tecmar Q60W20AT	N/A	965.00	935.00	925.00	925.00
1575-A01	Hayes Smartmodem 300	N/A	80.00	70.00	65.00	65.00
1575-B01	Hayes Smartmodem 1200	N/A	110.00	100.00	95.00	95.00
1580-A01	Amdek 300A	N/A	50.00	40.00	35.00	35.00
1580-B01	Amdek 300	N/A	50.00	40.00	35.00	35.00
1581-A01	Giltronix Sharing Device	N/A	130.00	120.00	86.00	86.00
3030	AST Advantage 128	95.00	N/A	N/A	N/A	85.00
3031	AST Advantage 128S	95.00	N/A	N/A	N/A	85.00
3032	AST Advantage 512	105.00	N/A	N/A	N/A	95.00
3033	AST Advantage 512S	105.00	N/A	N/A	N/A	95.00
3034	AST Advantage 1125	115.00	N/A	N/A	N/A	105.00
3035	AST Advantage 1125S	115.00	N/A	N/A	N/A	105.00
3036	AST Advantage 1500	125.00	N/A	N/A	N/A	115.00
3037	AST Advantage 1500S	125.00	N/A	N/A	N/A	115.00
3038	AST Advantage 3000	160.00	N/A	N/A	N/A	150.00
3039	AST Advantage 3000S	160.00	N/A	N/A	N/A	150.00
3040	Emulex DCP 88VM 512K	120.00	N/A	N/A	N/A	110.00
3041	Forte Graph Card	280.00	N/A	N/A	N/A	270.00
3042	Forte PJ	215.00	N/A	N/A	N/A	205.00
3043	Hercules Color Card	45.00	N/A	N/A	N/A	35.00
3044	Hercules Graph Card	55.00	N/A	N/A	N/A	45.00
3045	DCA Irma 1.42	110.00	N/A	N/A	N/A	105.00

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TYPE/MODEL	DESCRIPTION	IBM	IBM	Cust.	Carry	Carry
		On-Site Repair #9798	On-Site Exch. #9830	On-Site Exch. #9824	In Exch. #9816	In Repair #9821
3046	AST 4 Port	40.00	N/A	N/A	N/A	35.00
3047	AST I/O Plus II 1S	40.00	N/A	N/A	N/A	35.00
3048	AST I/O Plus II 2S	40.00	N/A	N/A	N/A	35.00
3049	AST I/O Plus II 1S/1P	40.00	N/A	N/A	N/A	35.00
3050	AST I/O Plus II 2S/1P	40.00	N/A	N/A	N/A	35.00
3051	AST Preview	40.00	N/A	N/A	N/A	35.00
3052	AST Ramvantage 128K	70.00	N/A	N/A	N/A	65.00
3053	AST Ramvantage 512K	70.00	N/A	N/A	N/A	65.00
3054	AST Ramvantage 1MB	80.00	N/A	N/A	N/A	75.00
3056	AST Ramvantage 3MB	100.00	N/A	N/A	N/A	95.00
3057	AST Rampage 256K	40.00	N/A	N/A	N/A	35.00
3058	AST Rampage 512K	45.00	N/A	N/A	N/A	40.00
3059	AST Rampage 1MB	50.00	N/A	N/A	N/A	45.00
3060	AST Rampage 2MB	65.00	N/A	N/A	N/A	60.00
3061	AST Rampage 256K I/O	45.00	N/A	N/A	N/A	40.00
3062	AST Rampage 512K I/O	50.00	N/A	N/A	N/A	45.00
3063	AST Rampage 1MB I/O	60.00	N/A	N/A	N/A	55.00
3064	AST Rampage 2MB I/O	70.00	N/A	N/A	N/A	65.00
3065	AST Rampage AT 512K	80.00	N/A	N/A	N/A	75.00
3066	AST Rampage AT 1MB	90.00	N/A	N/A	N/A	85.00
3067	AST Rampage AT 2MB	100.00	N/A	N/A	N/A	95.00
3068	AST Rampage AT512K IO	85.00	N/A	N/A	N/A	80.00
3069	AST Rampage AT 1MB IO	95.00	N/A	N/A	N/A	90.00
3070	AST Rampage AT 2MB IO	105.00	N/A	N/A	N/A	100.00
3071	AST Rampage AT512K IOS	90.00	N/A	N/A	N/A	85.00
3072	AST Rampage AT1MB IOS	100.00	N/A	N/A	N/A	95.00
3073	AST Rampage AT2MB IOS	110.00	N/A	N/A	N/A	100.00
3100	AST I/O Mini 1S	40.00	N/A	N/A	N/A	35.00
3101	AST I/O Mini 1S, 1P	40.00	N/A	N/A	N/A	35.00
3102	AST I/O Mini 2S	40.00	N/A	N/A	N/A	35.00
3103	AST I/O Mini 2S, 1P	40.00	N/A	N/A	N/A	35.00
6714	Tallgrass Tape Backup	110.00	N/A	N/A	N/A	105.00
7600	Hayes Smartmodem 1200B	65.00	N/A	N/A	N/A	55.00
7602	Chi Sperry Emulation	80.00	N/A	N/A	N/A	70.00
7603	Chi Sperry Emulation	80.00	N/A	N/A	N/A	70.00
7612	Emulex DCP-88/VM-128K	120.00	N/A	N/A	N/A	110.00
7613	Emulex DCP-88/VM-256K	150.00	N/A	N/A	N/A	140.00
7619	AST FourPort/XN	40.00	N/A	N/A	N/A	35.00
7625	IRMA, 1597S01	110.00	N/A	N/A	N/A	100.00
7630	INS 8100 RLOOP	155.00	N/A	N/A	N/A	145.00
7640	AST 3780BSCRJE,1596S01	50.00	N/A	N/A	N/A	40.00
7700	Tecmar PCHOST	55.00	N/A	N/A	N/A	50.00
7701	Tecmar Q60AT	235.00	N/A	N/A	N/A	215.00
7800	AST COMBOPLUS,1596A01	50.00	N/A	N/A	N/A	40.00
7802	AST MEGAPLUS,1597A01	50.00	N/A	N/A	N/A	40.00
7804	AST MEGAPAK,1597A01	50.00	N/A	N/A	N/A	40.00
7806	AST SPK064,1597A01	50.00	N/A	N/A	N/A	40.00
7809	AST SPK192,1597A01	50.00	N/A	N/A	N/A	40.00
7812	AST SPK384,1597A01	55.00	N/A	N/A	N/A	45.00
7820	Tecmar Jr.Captain	50.00	N/A	N/A	N/A	40.00
7830	Tecmar Jr.Cadet	50.00	N/A	N/A	N/A	40.00
7850	Tecmar Maestro 128K	50.00	N/A	N/A	N/A	40.00

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TYPE/MODEL	DESCRIPTION	IBM On-Site Repair #9798	IBM On-Site Exch. #9830	Cust. On-Site Exch. #9824	Carry In Exch. #9816	Carry In Repair #9821
7851 Tecmar Maestro 384K		65.00	N/A	N/A	N/A	60.00
7852 Tecmar Maestro 640K		90.00	N/A	N/A	N/A	85.00
7853 Tecmar Maestro 1664K		155.00	N/A	N/A	N/A	145.00
7854 Tecmar Maestro 2560K		210.00	N/A	N/A	N/A	200.00

MAINTENANCE OPTIONS - FEATURES

System unit charges above have these features included where applicable.

0005 PCjr Diskette Dr	60.00	N/A	N/A	N/A	33.00
0205 20MB Fixed Disk AT	143.00	N/A	N/A	N/A	104.00
0210 30MB Fixed Disk AT	203.00	N/A	N/A	N/A	156.00
0300 Port PC Diskette	60.00	N/A	N/A	N/A	33.00
0400 3101 Cable 1.8m	12.00	N/A	N/A	N/A	12.00
0401 3101 Cable 15m	12.00	N/A	N/A	N/A	12.00
0468 30MB Fixed Disk AT	203.00	N/A	N/A	N/A	156.00
1501 Profes'l Graf Ctrl'r	164.00	N/A	N/A	N/A	109.00
1509 XT/370 Option, 2-card	170.00	N/A	N/A	N/A	109.00
2500 10MB Fixed Disk XT	168.00	N/A	N/A	N/A	132.00
2887 5520-S/3X Emulation	22.50	N/A	N/A	N/A	14.50
3200 S/370 Channel Emul.	248.00	N/A	N/A	N/A	217.00
3320 50-Key Keyboard	N/A	22.00	13.00	12.00	12.00
3322 Alphanum Keyboard	N/A	40.00	27.00	24.00	24.00
3326 20MB Fixed Disk	168.00	N/A	N/A	N/A	132.00
3339 Shopper Display	N/A	17.00	10.00	8.00	8.00
3340 Operator Display	N/A	21.00	12.00	10.00	10.00
3343 40 Char Display	N/A	19.00	14.00	13.00	13.00
3352 346mm Color Display	N/A	48.00	34.00	31.00	31.00
3354 300mm Display	N/A	116.00	98.00	93.00	93.00
3360 Cash Drawer, Fixed	N/A	19.00	13.00	11.00	11.00
3361 Cash Drawer, Adj.	N/A	19.00	14.00	12.00	12.00
3380 Printer	N/A	112.00	84.00	76.00	76.00
3891 XT/370 Option, 3277	170.00	N/A	N/A	N/A	109.00
4000 Feature Expan A	N/A	30.00	22.00	19.00	19.00
4001 Feature Expan B	N/A	9.00	6.00	5.00	5.00
4002 Feature Expan C	N/A	22.00	16.00	14.00	14.00
4003 Feature Expan D	N/A	31.00	26.00	24.00	24.00
4010 Mag Stripe Reader	N/A	7.00	5.00	4.00	4.00
4014 Scanner Adapter	N/A	7.00	4.00	3.00	3.00
4016 Mag Wand Reader	N/A	103.00	80.00	73.00	73.00
4771 Voice Commo Option	See FC	4839			
4839 Voice Commo Adapter	40.00	N/A	N/A	N/A	30.00
4805 Internal Async Modem	12.00	N/A	N/A	N/A	6.00
4829 Internal Async Modem	12.00	N/A	N/A	N/A	6.00
5063 Token-Ring Adapt II	65.00	N/A	N/A	N/A	55.00
5321 PC 3278 Attach Opt	36.00	N/A	N/A	N/A	24.00
5315/6 3278 PC Attach	36.00	N/A	N/A	N/A	24.00
5322 PC 3279 Attach Opt	36.00	N/A	N/A	N/A	24.00
5325/6 3279 PC Attach	36.00	N/A	N/A	N/A	24.00

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TYPE/MODEL	DESCRIPTION	IBM	IBM	Cust.	Carry	Carry
		On-Site Repair #9798	On-Site Exch. #9830	On-Site Exch. #9824	In Exch. #9816	In Repair #9821
6017/8	Indus Disk/Adapt	306.00	N/A	N/A	N/A	198.00
6019	Indus Hi-Cap D'ette	138.00	N/A	N/A	N/A	N/A
6045	Indus 2-Side D'ette	138.00	N/A	N/A	N/A	N/A
6050	ARTIC, 128KB	72.00	N/A	N/A	N/A	48.00
6115	AT/370 Option Kit	170.00	N/A	N/A	N/A	109.00
6160	ARTIC, 512KB	72.00	N/A	N/A	N/A	48.00
6165	ARTIC, 128KB	72.00	N/A	N/A	N/A	48.00
6240	ARTIC, 128KB 4-port	89.00	N/A	N/A	N/A	64.00
6241	ARTIC, 128KB 4-port	89.00	N/A	N/A	N/A	64.00
6166	ARTIC, 512KB	72.00	N/A	N/A	N/A	48.00
7001	AT/G Option Kit	26.00	N/A	N/A	N/A	14.00
7002	AT/GX Option Kit	26.00	N/A	N/A	N/A	14.00
7011	AT/G Option Kit	26.00	N/A	N/A	N/A	14.00
7012	AT/GX Option Kit	26.00	N/A	N/A	N/A	14.00
8002	Store Loop Adapter	121.00	N/A	N/A	N/A	82.00
8700	Optical Disk Dr	324.00	N/A	N/A	N/A	N/A

MACHINE/MACHINE ELEMENT EXCHANGE PRICES

These charges cover Customer Carry-In Exchange hourly service where performed at an IBM Service-Exchange Center.

	Exchange Price
4683-001	POS Terminal 631.00
4683-002	POS Terminal 442.00
4863-001	PCjr Color Display 265.00
4971-002	Series 1 Printer 428.00
5151-001	PC Mono Display 150.00
5152----	PC Graphics Printer 260.00
5153-001	PC Color Display 265.00
5154-001	Enh. Color Display 410.00
5175-001	Pro.Graph.Display 540.00
5181-001	PCjr Compact Prtr 120.00
5182-001	PC Color Printer 575.00
5150/5160	PC Std.Keyboard Only 150.00
5272-001	3270PC Display 542.00
5279-001	3270PC/G Display 480.00
5842-001	2400bps Modem 346.00
3320	POS Keyboard 227.00
3322	Shopper Display 377.00
3339	Operator Display 205.00
3340	POS Keyboard 219.00
3343	40 Char Display 285.00
3352	346mm Display 470.00
3354	300mm Display 269.00
3360	Cash Drawer, Fixed 173.00
3361	Cash Drawer, Adj. 189.00

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3380	POS Printer	295.00
4000	Feat Expansion A	195.00
4001	Feat Expansion B	181.00
4002	Feat Expansion C	229.00
4003	Feat Expansion D	357.00
4010	Mag Stripe Reader	182.00
4014	3687 Scanner Adapter	114.00
4016	Mag Wand Reader	312.00

WARRANTY OPTIONS - SYSTEMS UNITS AND PERIPHERALS

TYPE/MODEL	DESCRIPTION	IBM	IBM	Cust.	Cust.
		On-Site Repair #9797	On-Site Exch. #9799	On-Site Exch. #9826	Carry-In Exch. #9814
3117-010	Scanner (FC9805)	10.00	N/A	N/A	
3118-010	Scanner (FC9805)	35.00	N/A	N/A	
3118-020	Scanner (FC9805)	70.00	N/A	N/A	
3363-A01	Optical Disk Dr	12.00	N/A	N/A	
3363-A11	Optical Disk Dr	12.00	N/A	N/A	
3363-B01	Optical Disk Dr	12.00	N/A	N/A	
3852-001	Color Ink-Jet Prtr	N/A	112.00	99.00	
3852-002	Color Jetprinter	N/A	31.00	9.00	
4201-001	Proprietary	N/A	11.00	5.00	
4201-002	Proprietary II	11.00	N/A	N/A	
4202-001	Prop'r XL(FC9876,9773)	N/A	15.00	5.00	
4207-001	Proprietary X24	17.00	N/A	N/A	
4208-001	Proprietary XL24	21.00	N/A	N/A	
4216-020	Personal Pageprinter	72.00	N/A	N/A	
4683-001	POS Terminal	N/A	129.00	104.00	
4683-002	POS Terminal	N/A	59.00	43.00	
4860-004	PCjr-64k, no disk	39.00	N/A	N/A	
4860-067	PCjr-128k, 1 disk	71.00	N/A	N/A	
4863-001	PCjr Color Display	N/A	7.00	5.00	
4865-001	3.5in Dr(FC9876/9773)	N/A	9.00	4.00	
4865-002	3.5in Dr(FC9876/9773)	N/A	9.00	4.00	
4869-001	Ext. 5.25in Diskette	N/A	56.00	50.00	
4950-A00	S/1 PC, 10MB, 1 disk	422.00	N/A	N/A	
4950-B00	S/1 PC, 1 disk	280.00	N/A	N/A	
4971-001	S/1 Printer	N/A	81.00	18.00	
5083-11A	Digital Tablet	N/A	47.00	27.00	
5083-12A	Digital Tablet	N/A	52.00	32.00	
5140-002	Convertible (FC9805)	55.00	N/A	N/A	
5140-022	Convertible (FC9805)	55.00	N/A	N/A	
5144-001	Conv.Mono CRT(FC9876)	N/A	9.00	N/A	
5145-001	Conv.Color CRT(FC9876)	N/A	15.00	N/A	
5150-074	System Unit	218.00	N/A	N/A	
5150-104	System Unit-64K	145.00	N/A	N/A	
5150-114	System Unit-1SS-64K	196.00	N/A	N/A	
5150-X14	System Unit-1SS-64K	196.00	N/A	N/A	
5150-164	System Unit-1DS-64K	218.00	N/A	N/A	
5150-X64	System Unit-1DS-64K	218.00	N/A	N/A	

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TYPE/MODEL	DESCRIPTION	IBM	IBM	Cust.	Cust.
		On-Site Repair #9797	On-Site Exch. #9799	On-Site Exch. #9826	Carry-In Exch. #9814
5150-X66	System Unit-1DS-256K	218.00	N/A	N/A	
5150-166	System Unit-1DS-256K	218.00	N/A	N/A	
5150-174	System Unit-2DS-64K	218.00	N/A	N/A	
5150-X74	System Unit-2DS-64K	218.00	N/A	N/A	
5150-X76	System Unit-2DS-256K	218.00	N/A	N/A	
5150-176	System Unit-2DS-256K	218.00	N/A	N/A	
5151-001	Mono Display	N/A	25.00	15.00	
5152-001/2	Printer	N/A	34.00	28.00	
5153-001	Color Display	N/A	45.00	35.00	
5154-001	Enhanced Color Disp	N/A	25.00	20.00	
5155-068	Portab.PC-1DS-256KB	90.00	N/A	N/A	
5155-076	Portab.PC-2DS-256KB	90.00	N/A	N/A	
5160-068	System Unit XT-1 DS	258.00	N/A	N/A	
5160-078	System Unit XT-2 DS	258.00	N/A	N/A	
5160-086	System Unit XT-256KB	396.00	N/A	N/A	
5160-087	System Unit XT-128KB	396.00	N/A	N/A	
5160-088	XT-512KB, 20MB	396.00	N/A	N/A	
5160-089	XT-512KB, 20MB	396.00	N/A	N/A	
5160-267	XT-256KB,1 HH DS	258.00	N/A	N/A	
5160-268	XT-256KB,1 HH DS	258.00	N/A	N/A	
5160-277	XT-256KB,2 HH DS	258.00	N/A	N/A	
5160-278	XT-256KB,2 HH DS	258.00	N/A	N/A	
5160-470	4700 XT System Unit	258.00	N/A	N/A	
5160-568	XT/370-1DS, 3277	408.00	N/A	N/A	
5160-588	XT/370-10MB, 3277	546.00	N/A	N/A	
5160-589	XT/370-10MB, 2-card	546.00	N/A	N/A	
5161-001/2	Expansion Unit	240.00	N/A	N/A	
5161-003	Expansion Unit 20MB	375.00	N/A	N/A	
5162-286	Expansion Unit 20MB	96.00	N/A	N/A	
5167-001	TEMPEST Mono Displ	N/A	17.00	5.00	
5169-002	Quietwriter 2 T	210.00	N/A	N/A	
5170-068	PC/AT-256KB,1 HCD	174.00	N/A	N/A	
5170-099	PC/AT-512KB, 20MB	226.00	N/A	N/A	
5170-239	PC/AT-512KB, 30MB	218.00	N/A	N/A	
5170-319	AT-512K,30MB(FC9805)	218.00	N/A	N/A	
5170-339	AT-512K,30MB(FC9805)	218.00	N/A	N/A	
5170-495	S/1 PCAT, 20MB	326.00	N/A	N/A	
5170-496	S/1PCAT,30MB(FC9805)	281.00	N/A	N/A	
5170-599	PC/AT/370	382.00	N/A	N/A	
5170-739	PC/AT/370	368.00	N/A	N/A	
5170-839	PC/AT POS 20MB	210.00	N/A	N/A	
5170-849	PC/AT POS (FC9805)	210.00	N/A	N/A	
5170-899	PC/AT POS 30MB	202.00	N/A	N/A	
5170-919	PC/AT/370(FC9805)	368.00	N/A	N/A	
5170-939	PC/AT/370(FC9805)	368.00	N/A	N/A	
5171-168	PC/AT Tempest	100.00	N/A	N/A	
5171-339	PC/AT Tempest 30MB	110.00	N/A	N/A	
5175-001	Profes'l Graf Displ	N/A	19.00	9.00	
5181-001	Compact Printer	N/A	8.00	3.00	
5182-001	Color Printer	N/A	135.00	44.00	
5201----	Quietwriter printer	105.00	N/A	N/A	
5202-001	Quietwriter printer	171.00	N/A	N/A	

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TYPE/MODEL	DESCRIPTION	IBM	IBM	Cust.	Cust.
		On-Site Repair #9797	On-Site Exch. #9799	On-Site Exch. #9826	Carry-In Exch. #9814
5216----	Wheelprinter	N/A	165.00	125.00	
5223-001	Wheelprinter E	N/A	108.00	72.00	
5271-002	3270PC-1DS,256K	N/A	N/A	N/A	
5271-004	3270PC-2DS,320/384K	N/A	N/A	N/A	
5271-006	3270PC-10MB,320/384K	N/A	N/A	N/A	
5272-001	3270PC-Display	N/A	N/A	N/A	
5273-020	3270PCAT-1HC	168.00	N/A	N/A	
5273-041	3270PCAT-2HC	168.00	N/A	N/A	
5273-042	3270PCAT-2HC,XGA	168.00	N/A	N/A	
5273-061	3270PCAT-1HC,20MB	218.00	N/A	N/A	
5273-062	3270PCAT 20MB,XGA	218.00	N/A	N/A	
5273-P70	3270PCAT (FC9805)	218.00	N/A	N/A	
5273-P71	3270PCAT (FC9805)	218.00	N/A	N/A	
5273-070	3270PCAT (FC9805)	218.00	N/A	N/A	
5273-071	3270PCAT (FC9805)	218.00	N/A	N/A	
5373-012	3270PCAT/G/GX Sys	218.00	N/A	N/A	
5373-014	3270PCAT/G/GX Sys	218.00	N/A	N/A	
5373-016	3270PCAT/G/GX Sys	218.00	N/A	N/A	
5373-160	3270PCAT/G/GX Sys	226.00	N/A	N/A	
5373-A60	3270PCAT/G/GX Sys	226.00	N/A	N/A	
5373-161	3270PCAT/G/GX Sys	226.00	N/A	N/A	
5373-A61	3270PCAT/G/GX Sys	226.00	N/A	N/A	
5373-162	3270PCAT/G/GX Sys	226.00	N/A	N/A	
5373-A62	3270PCAT/G/GX Sys	226.00	N/A	N/A	
5373-A29	3270PCAT/G (FC9805)	230.00	N/A	N/A	
5373-A39	3270PCAT/GX(FC9805)	230.00	N/A	N/A	
5373-E29	3270PCAT/G (FC9805)	230.00	N/A	N/A	
5373-E39	3270PCAT/GX(FC9805)	230.00	N/A	N/A	
5531-001	Indust PC	515.00	N/A	N/A	
5531-011	Indus PC(1 diskette)	110.00	N/A	N/A	
5531-021	Indust PC	515.00	N/A	N/A	
5532----	Indust PC Display	N/A	234.00	174.00	
5841-001	IBM Sync/Async Modem	N/A	37.00	6.00	
5842-001	IBM Sync/Async Modem	N/A	36.00	6.00	
6157-001	Streaming Tape Drive	N/A	10.00	2.00	
6180-001	A-Size Plotter, RS232C	N/A	69.00	49.00	
6180-002	A-Size Plotter,IEEE488	N/A	69.00	49.00	
7371-001	A-Size Plotter	N/A	161.00	97.00	
7372-001	B-Size Plotter	N/A	187.00	111.00	88.00
7534-001	Enh.Indust PC Display	N/A	34.00	27.00	
8218-001	Token Copper Rpt(FC9773)	N/A	N/A	2.00	
8219-001	Token Optic Rptr(FC9773)	N/A	N/A	5.00	
8228-KT1	Token Starter Kit	N/A	N/A	5.00	
8228-KT2	Token Starter Kit	N/A	N/A	5.00	
8228-KT3	Token Starter Kit/A	N/A	N/A	5.00	
8228-001	Multist'n Access Unit	N/A	N/A	5.00	
8503----	Pers Sys/2 Mono Displ	N/A	5.00	4.00	
8512----	Pers Sys/2 Color Disp	N/A	5.00	4.00	
8513----	Pers Sys/2 Color Disp	N/A	5.00	4.00	
8514----	Pers Sys/2 Color Disp	N/A	9.00	7.00	
8530----	Pers System/2 Mdl 30	N/A	115.00	25.00	
8550-021	Pers System/2 Mdl 50	25.00	N/A	N/A	

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TYPE/MODEL	DESCRIPTION	IBM		IBM		Cust.	
		On-Site	On-Site	On-Site	On-Site	On-Site	Carry-In
		Repair	Exch.	Exch.	Exch.	Exch.	Exch.
		#9797	#9799	#9826	#9814		
8560-041	Pers System/2 Mdl 60	25.00	N/A	N/A			
8560-071	Pers System/2 Mdl 60	25.00	N/A	N/A			
8580-041	Pers System/2 Mdl 80	25.00	N/A	N/A			
8580-071	Pers System/2 Mdl 80	25.00	N/A	N/A			
8580-111	Pers System/2 Mdl 80	25.00	N/A	N/A			

WARRANTY OPTIONS - SELECTED NON-IBM PRODUCTS

7625	IRMA	90.00	N/A	N/A
7640	AST 3780 BSC RJE	50.00	N/A	N/A
7800	AST COMBOPLUS	50.00	N/A	N/A
7802	AST MEGAPLUS	50.00	N/A	N/A
7804	AST MEGAPAK	50.00	N/A	N/A
7806	AST SIXPAKPLUS SPK064	50.00	N/A	N/A
7809	AST SIXPAKPLUS SPK194	50.00	N/A	N/A

WARRANTY OPTIONS - FEATURES

System unit charges above have these features included where applicable.

0005	PCjr Diskette Dr	32.00	N/A	N/A
0205	20MB Fixed Disk AT	52.00	N/A	N/A
0468	30MB Fixed Disk AT	52.00	N/A	N/A
0468	30MB Fixed Disk AT	52.00	N/A	N/A
1501	Profes'l Graf Ctrl'r	67.00	N/A	N/A
1509	XT/370 Option, 2-card	150.00	N/A	N/A
2500	Fixed Disk Dr	135.00	N/A	N/A
2887	5520-S/3X Emulation	19.00	N/A	N/A
3320	50-Key Keyboard	N/A	19.00	10.00
3322	Alphanumeric Keyboard	N/A	34.00	21.00
3326	20MB Fixed Disk	135.00	N/A	N/A
3339	Shopper Display	N/A	15.00	8.00
3340	Operator Display	N/A	19.00	10.00
3343	40 Char Display	N/A	16.00	11.00
3352	346mm Color Display	N/A	40.00	26.00
3354	300mm Display	N/A	93.00	75.00
3360	Cash Drawer, Fixed	N/A	16.00	10.00
3361	Cash Drawer, Adj.	N/A	16.00	11.00
3380	Printer	N/A	93.00	65.00
3891	XT/370 Option, 3277	150.00	N/A	N/A
4000	Feature Expan A	N/A	25.00	17.00
4001	Feature Expan B	N/A	8.00	5.00
4002	Feature Expan C	N/A	19.00	13.00
4003	Feature Expan D	N/A	25.00	20.00
4010	Mag Stripe Reader	N/A	6.00	4.00
4014	Scanner Adapter	N/A	6.00	3.00

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TYPE/MODEL	DESCRIPTION	IBM	IBM	Cust.	Cust.
		On-Site	On-Site	On-Site	Carry-In
		Repair	Exch.	Exch.	Exch.
		#9797	#9799	#9826	#9814
4016	Mag Wand Reader	N/A	85.00	62.00	
4771	Voice Commo Option	See FC	4839		
4839	Voice Commo Adapter	11.00	N/A	N/A	
4805	Internal Async Modem	6.00	N/A	N/A	
4829	Internal Async Modem	6.00	N/A	N/A	
5063	Token-Ring Adapt II	10.00	N/A	N/A	
5321	PC 3278 Attach Opt	27.00	N/A	N/A	
5315/6	3278 PC Attach	27.00	N/A	N/A	
5322	PC 3279 Attach Opt	27.00	N/A	N/A	
5325/6	3279 PC Attach	27.00	N/A	N/A	
6017/8	Indus Disk/Adapt	120.00	N/A	N/A	
6115	AT/370 Option Kit	150.00	N/A	N/A	
6240	ARTIC 128KB 4-Port	25.00	N/A	N/A	
6241	ARTIC 128KB 4-Port	25.00	N/A	N/A	
7001	AT/G Option Kit	12.00	N/A	N/A	
7002	AT/GX Option Kit	12.00	N/A	N/A	
7011	AT/G Opt Kit(FC9805)	12.00	N/A	N/A	
7012	AT/GX Opt Kit(FC9805)	12.00	N/A	N/A	
8002	Store Loop Adapter	39.00	N/A	N/A	
8700	Optical Disk Dr	12.00	N/A	N/A	

FIXED-CHARGE MAINTENANCE ITEMS (ANNUAL MINIMUM MAINTENANCE CHARGE)

1520-A02	Hand Held Scanner	78.00
4055-001	InfoWindow Display	335.00
5173-001	PC Network Baseband Extender	116.00
5178-001	PC Network Translator Unit	29.00
6150-020	RT-PC System Unit, 40MB	750.00
6150-025	RT-PC System Unit, 70MB	925.00
6150-125	RT-PC System Unit, 70MB ("new processor")	925.00
6150-A25	RT-PC System, 5080 Attach	1075.00
6150-B25	RT-PC System Unit, 70MB ("new processor")	1075.00
6151-010	RT-PC System, 40MB	650.00
6151-015	RT-PC System, 70MB	825.00
6151-115	RT-PC System, 70MB ("new processor")	825.00
3272	RT-PC 114MB EESDI Fixed-Disk Drive	425.00
3426	RT-PC 70MB Fixed-Disk Drive	425.00
3428	PC/AT Fixed-Disk and Diskette Adapter	65.00
3797	RT-PC Token-Ring Network Adapter	40.00
3988	RT-PC 70MB EESDI Fixed-Disk Drive	425.00
4710	RT-PC Lighted PF Keyboard	96.00
4735	RT-PC 40MB Fixed-Disk Drive	250.00
4758	RT-PC Floating-Point Accelerator	45.00
4762	RT-PC Multiprotocol Commo Adapter	40.00
4766	RT-PC Advanced Color Graphics Display Adap	100.00
4768	RT-PC Extended Mono Graphics Display Adap	100.00
6810	RT-PC Baseband Adapter for Ethernet	43.00
6815	RT-PC Advanced Floating-Point Accelerator	65.00
6941	RT-PC 70MB ESDI Fixed-Disk Drive	425.00

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7658	RT-PC Megapel Display Adapter	180.00
7860	RT-PC 5080 Attachment Adapter	150.00
7893	RT-PC S/370 Host Interface Adapter	150.00
8710	RT-PC Dials	120.00

MONTHLY MAINTENANCE ITEMS - MMC (MONTHLY)

4250-002	ElectroCompositor Printer	205.00
4975-02R	Serial Printer	52.00
1601	Special Print Cartridge	N/C
1610	Special Print Cartridge	N/C
6100	Rear Document Insertion Device	1.00
3812-001	IBM Pageprinter	126.00
3115	Sharing Card	1.00
3820-001	IBM Page Printer	310.00
	Monthly Use Charge \$.0126 per impression	
3050	EIA Interface Attachment	10.00
3035	128KB Control Storage	10.00
3005	256KB Pattern Storage	10.00
3010	512KB Pattern Storage	20.00
3020	1024KB Pattern Storage	40.00
3025	2048KB Pattern Storage	80.00
3030	3072KB Pattern Storage	120.00
3065	4096KB Pattern Storage	160.00
5218-A03	Displaywriter Printer	35.00
5218-A04	Displaywriter Printer (60CPS)	40.00
7850	Tractor Feed for 5218	8.00
7870	Sheet Feed for 5218	20.00
7875	Sheet Feed for 5218 with Envelope Feed	25.00
6184-001	IBM Color Plotter	180.00
7374-001	IBM Color Plotter	106.00
7375-001	IBM Color Plotter	111.00
7375-002	IBM Color Plotter	101.00
9332-240	SCSI DASD	15.00
9332-250	SCSI DASD	15.00
9332-440	SCSI DASD	27.00
9332-450	SCSI DASD	27.00

WARRANTY PERIOD AND TYPE - SYSTEM UNITS AND PERIPHERALS

Warranty Period (Months)	Warranty Service Type
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CCR = Customer Carry-In Repair
CCE = Customer Carry-In Exchange
IOR = IBM On-Site Repair
IOE = IBM On-Site Exchange
Mail-in = Customer mails unit in
System = Same as system unit
Mfr - Warranty Service direct from Manufacturer

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		Warranty Period (Months)	Warranty Service Type
XY/749	IBM Instruments Plotter - A size	3	CCR
XY/750	IBM Instruments Plotter - B size	3	CCR
1520-A02	Hand Held Scanner	3	CCR
1537-A01	Hayes Tranaset 1000 Multifunction Buf	24	Mfr
1537-B01	Hayes Tranaset 1000 Multifunction Buf	24	Mfr
1556-S01	Amdek 310 Monochrome Monitor	24	Mfr
3117-010	Scanner	12	CCR
3118----	Scanner	12	CCR
3295-001	Plasma Monitor	12	IOR
3363----	Optical Disk Drive	12	CCR
3812-001	Pageprinter	3	IOR
3852-001	Color Ink-Jet Prtr	3	CCE
3852-002	Color Jetprinter	12	CCE
4055-001	InfoWindow Display	12	IOR
4201-001	Proprinter	12	CCE
4201-002	Proprinter II	12	CCR
4202-001	Proprinter	12	CCE
4207-001	Proprinter X24	12	CCR
4208-001	Proprinter XL24	12	CCR
4216-020	Personal Pageprinter	12	CCR
4250-002	ElectroCompositor Printer	3	IOR
4450----	TEMPEST PC System Unit	3	mail-in
4455----	TEMPEST PC/XT System Unit	3	mail-in
4459----	TEMPEST PC/AT System Unit	3	mail-in
4683----	POS Terminal	3	CCE
4860----	PCjr	12	CCR
4863-001	PCjr Color Display	12	CCE
4865----	External 3.5in Diskette Drive	12	CCE
4869-001	External 5.25in Diskette Drive	12	CCE
4950----	S/1 PC	3	CCR
4971-001	S/1 Printer	12	CCE
4975-02R	Serial Printer	3	IOR
5083-002	Graphics Tablet	3	IOE
5083-11A	Graphics Tablet	3	CCE
5083-12A	Graphics Tablet	3	CCE
5140----	PC Portable	12	CCR
5144-001	PC Portable Monochrome Display	12	CCE
5145-001	PC Portable Color Display	12	CCE
5150-X--	System Unit - No keyboard	3	CCR
5150----	System Unit	3	CCR
5151-001	Mono Display	3	CCE
5152----	Printer	3	CCE
5153-001	Color Display	3	CCE
5154-001	Enhanced Color Disp	12	CCE
5155----	Portable PC	12	CCR
5160----	System Unit XT	3	CCR
5160-5--	XT/370	3	CCR
5161----	Expansion Unit	3	CCR
5162----	PC/XT 286	12	CCR
5167-001	Monochrome Display (TEMPEST)	3	CCE
5169-002	Quietwriter 2 T (TEMPEST)	3	CCR
5170----	PC/AT (all models)	12	CCR

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	Warranty Period (Months)	Warranty Service Type
5171----	12	CCR
5175-001	12	CCE
5178-001	12	CCE
5181-001	12	CCE
5182-001	12	CCE
5201----	3	CCR
5202-001	3	CCR
5216----	3	CCE
5218----	3	IOR
5223-001	3	CCE
5271----	3	IOR
5272-001	3	IOE
5273----	12	CCR
5277-001	3	IOE
5278----	3	IOE
5279-001	3	IOE
5373----	12	CCR
5378----	3	IOR
5379----	3	IOR
5531----	3	CCR
5532----	3	CCE
5841-001	12	CCE
5842-001	12	CCE
6150----	12	IOR
6151----	12	IOR
6153-001	12	IOE
6154-001	12	IOE
6155-001	12	IOE
6157-001	12	CCE
6180----	3	CCE
6184-001	3	IOR
6186----	3	IOR
7371-001	3	CCR
7372-001	3	CCR
7374-001	3	CCR
7375----	3	CCR
7531-041	12	IOR
7532-041	12	IOR
7534-001	12	CCE
7552----	12	IOR
8218-001	12	CCE
8219-001	12	CCE
8228-001	12	CCE
8503----	12	CCE
8512----	12	CCE
8513----	12	CCE
8514----	12	CCE
8530----	12	CCR
8550----	12	CCR
8560----	12	CCR
8580----	12	CCR
9332----	12	IOR

Warranty	Warranty
Period	Service
(Months)	Type

WARRANTY PERIOD AND TYPE - FEATURES

The warranty period for certain optional features will be extended when these features are installed in a 5155 or 5170-based system (e.g., 5373), which is still under warranty. The warranty period for these features would normally be three months. However, the warranty period will be extended to coincide with the system unit warranty period. Optional features installed after the system unit is installed, with their normal warranty extending beyond that of the system unit, will receive their normal warranty. See the announcements of the 5155 and 5170 for details.

Warranty	Warranty
Period	Service
(Months)	Type

CCR = Customer Carry-In Repair
 CCE = Customer Carry-In Exchange
 IOR = IBM On-Site Repair
 IOE = IBM On-Site Exchange
 Mail-in = Customer mails unit in
 System = Same as system unit
 Mfr - Warranty Service direct from Manufacturer

0005	PCjr Diskette Dr	12	CCR
0006	Power Expansion Attach	12	CCR
0007	PCjr 64KB Mem+Disp Exp	12	CCR
0008	PCjr Internal Modem	12	CCR
0009	PCjr Parallel Prt Att	12	CCR
0010	PCjr Attachable Joy Stick	N/A	N/A
0012	PCjr Keyboard Cord	12	CCR
0020	PCjr Connector for TV	12	CCR
0021	PCjr Adapt Cbl Colr Disp	12	CCR
0022	PCjr Adapt Cable Cassette	12	CCR
0024	PCjr Speech Attachment	12	CCR
0026	PCjr Adapt Cable Serial	12	CCR
0027	PCjr Cluster Attachment	12	CCR
0031	128KB Memory Expan Attach	12	CCR
0101	Color Printer Paper Rack	12	CCR
0102	Compact Printer Connector	12	CCR
0202	256KB Memory Module Kit	12	CCR
0203	512KB Memory Expansion Opt.	12	CCR
0205	20MB Fixed Disk AT	12	CCR
0206	High Cap. Diskette Dr. (AT)	12	CCR
0207	Dual Sided Diskette Dr.(AT)	12	CCR
0209	128KB Memory Expansion Opt.	12	CCR
0210	30MB Fixed Disk AT	12	CCR
0211	Math Co-Processor (AT)	12	CCR
0213	PC Network Adapter	12	CCR
0215	Serial/Parallel Adapt.	12	CCR
0216	Display Stand	3	CCR
0217	Serial Adapter Cable	12	CCR
0218	Floor Standing Enclosure	3	CCR
0220	Prototype Adapter	12	CCR

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		Warranty Period (Months)	Warranty Service Type
0230	PC Network Base Expander	3	CCE
0231	Short Distance Kit	3	CCE
0232	Medium Distance Kit	3	CCE
0233	Long Distance Kit	3	CCE
0234	25-Foot Cabling Segment	3	CCE
0235	50-Foot Cabling Segment	3	CCE
0236	100-Foot Cabling Segment	3	CCE
0237	200-Foot Cabling Segment	3	CCE
0238	120V Transformer	12	CCE
0242	Serial Adapter Connector	12	CCR
0300	Slimline Diskette Drive	12	CCR
0349	Internal Modem/A, Personal System/2	12	CCR
0357	3.5in Diskette Dr, AT, XT286, Internal	12	CCR
0359	High Capacity Diskette Dr, XT286	12	CCR
0360	360KB Diskette Dr, XT286	12	CCR
1001	16KB Mem Module Kit	3	CCR
1002	Math Co-Processor	3	CCR
1003	64KB Mem Module Kit	3	CCR
1005	BIOS Update Kit	3	CCR
1011	32KB Memory Card	3	CCR
1012	64KB Memory Card	3	CCR
1013	64/256KB Memory	3	CCR
1028	High Speed Adapter/A	??	system
1029	3117 Adapter/A	??	system
1100	Keyboard, Std. PC and XT	3	CCR
1200	Enhanced Graf Adapter	12	CCR
1201	Enhanced Graf Mem Card	12	CCR
1203	Enhanced Graf Mem Module	12	CCR
1204	BSC Adapter	12	CCR
1205	SDLC Adapter	12	CCR
1206	PC Cluster Adapter	12	CCR
1207	PC Cluster Cable Kit	3	CCE
1209	256KB Mem Expan Option	12	CCR
1220	PC Network Adapter II	??	system
1221	PC Network Baseband Adapter	??	system
1222	PC Network Adapter II/A	??	system
1223	PC Network Baseband Adapter/A	??	system
1300	Game Control Adapter	3	CCR
1356	Four-Port Buffered RS232C Adap, RT-PC	12	IOR
1357	Four-Port Buffered RS422A Adap, RT-PC	12	IOR
1400	Prototype Card	3	CCE
1501	Profes'l Graf Ctrl'r	12	CCR
1502	Data Acquis/Control Adapter	12	CCR
1503	Gen'l Purpose Interf Bus	12	CCR
1504	Data Acquisition Distrib Panel	3	CCE
1509	XT/370 Option Kit, 2-card	3	CCR
1511	Cursor (Crosshair Mouse/Puck)	3	IOR
2000	3270 Connection, Coax Adap Pers Sys/2	12	system
2067	Communications Adapter Cable	3	CCE
2074	Asynch Adapter	3	CCR
2075	BSC Adapter	3	CCR
2090	SDLC Adapter	3	CCR
2500	Fixed Disk Dr	3	CCR

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	Warranty Period (Months)	Warranty Service Type
2501	Fixed Disk Adapter	3 CCR
2507	3278/79 Emulation Adapter	3 CCR
2879	Enhanced Display Station Emul. Adapter	3 CCR
2887	5520-S/3X Emulation	3 CCR
2891	IBM T-Connector	3 CCE
2892	Twinaxial Cable Assembly	3 CCE
2893	Terminator	3 CCE
2894	Twinaxial Cable Adapter (Termination)	3 CCE
3001	80287 Math Co-Processor Pers Sys/2	12 CCR
3002	80387 Math Co-Processor, 16MHz	12 CCR
3006	80286 Memory Expansion Option	12 CCR
3009	80386 System Board Mem Expan Kit	12 CCR
3012	80286 Memory Expansion Kit	12 CCR
3019	80386 Memory Expansion Option	12 CCR
3025	3285 Plasma Display Adapter	12 CCR
3033	Dual Async Adapter/A Pers Sys/2	12 CCR
3042	Multi-Protocol Adapter/A Pers Sys/2	12 CCR
3043	Hercules Color Card	24 Mfr
3046	44MB Fixed Disk Drive, Pers Sys/2	12 CCR
3047	AST I/O Plus II Card	24 Mfr
3048	AST I/O Plus II Card	24 Mfr
3049	AST I/O Plus II Card	24 Mfr
3050	AST I/O Plus II Card	24 Mfr
3051	AST Preview! Card	12 Mfr
3051	70MB Fixed Disk Drive, Pers Sys/2	12 CCR
3052	AST RAMvantage! Extended Mem Card	24 Mfr
3053	AST RAMvantage! Extended Mem Card	24 Mfr
3054	AST RAMvantage! Extended Mem Card	24 Mfr
3056	AST RAMvantage! Extended Mem Card	24 Mfr
3057	AST RAMpage! Expand Memory Card	24 Mfr
3057	1.44MB Diskette Drive Pers Sys/2	12 CCR
3058	AST RAMpage! Expand Memory Card	24 Mfr
3059	AST RAMpage! Expand Memory Card	24 Mfr
3060	AST RAMpage! Expand Memory Card	24 Mfr
3061	AST RAMpage! Expand Memory Card	24 Mfr
3062	AST RAMpage! Expand Memory Card	24 Mfr
3063	AST RAMpage! Expand Memory Card	24 Mfr
3064	AST RAMpage! Expand Memory Card	24 Mfr
3064	80386 Memory Expansion Kit	12 CCR
3100	AST I/O Mini Board	24 Mfr
3101	AST I/O Mini Board	24 Mfr
3102	AST I/O Mini Board	24 Mfr
3103	AST I/O Mini Board	24 Mfr
3156	RT-PC 4MB Memory Expansion	12 IOR
3177	IBM PC Keylock Feature	12 CCR
3200	S/370 Channel Emulator	12 CCR
3395	IBM .5 to 3MB Memory Expansion, AT	12 CCR
3397	512KB Memory Module Kit	12 CCR
3400	IBM .5 to 6MB Memory Expansion, AT	12 CCR
3402	1MB Memory Module Kit	12 CCR
3426	70MB Fixed Disk Driver, RT-PC	12 IOR
3428	PC/AT Fixed Disk-Diskette Adapter	12 IOR
3780	Diskette Adapter	3 CCR

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		Warranty Period (Months)	Warranty Service Type
3797	RT-PC Token-Ring Adapter	12	IOR
3800	SS Diskette Dr	3	CCR
3810	DS Diskette Dr	3	CCR
3891	XT/370 Option Kit, 3277	3	CCR
3905	2MB Memory Expansion Option	??	system
3910	2MB Memory Expansion Option	??	system
3920	2MB Memory Expansion Option	??	system
3930	4250 Print Adapter	12	system
3907	IEEE-488 Adapter and Cable	3	IOR
4026	Enhanced Convertible Internal Modem	12	CCR
4040	Convertible Speech Adapter	12	CCR
4050	Personal System/2 Display Adapter	12	system
4054	Display Adapter 8514/A	12	system
4081	Display Adapter 8514 Memory Expansion	12	system
4156	6157 Tape Adapter	--	system
4160	6157 Tape Adapter, Pers Sys/2	12	system
4471	5218 Printer Sharing Feature	3	CCE
4548	5364 Driver Card	3	CCE
4704	Modem Cable, RS232, 10-Pin	12	IOR
4710	Lighted PF Keyboard, RT-PC	12	IOR
4735	40MB Fixed Disk Drive, RT-PC	12	IOR
4739	2MB Memory Expansion, RT-PC	12	IOR
4756	PC/AT Coprocessor Card for RT-PC	12	IOR
4758	Floating Point Accelerator, RT-PC	12	IOR
4762	Multiprotocol Commo Adapter, RT-PC	12	IOR
4763	4-Port RS232 Adapter, RT-PC	12	IOR
4764	4-Port RS422 Adapter, RT-PC	12	IOR
4765	Advanced Mono Graphics Adapter, RT-PC	12	IOR
4766	Advanced Color Graphics Adapter, RT-PC	12	IOR
4768	Extended Color Graphics Adapter, RT-PC	12	IOR
4771	Voice Communications Option, See FC 4839		
4790	Token-Ring Network Adapter/A	??	system
4797	Streaming Tape Drive Adapter, RT-PC	12	IOR
4802	ASCII Term Cable, RS422, 6-Pin 20-m	12	IOR
4803	Serial Printer Cable, 10-pin	12	IOR
4805	IBM Async Internal Modem	12	CCR
4829	IBM Async Internal Modem	12	CCR
4839	Voice Communications Adapter	12	CCR
4900	Display/Printer Adapt	3	CCR
4910	Color/Graphics Adap (PC)	3	IOR
4910	All Points Addr Adap(3270-PC)	3	CCR
4920	High Speed Adapter, RS422	12	CCR
4925	3117-PC Adapter	12	CCR
5001	Pers System/2 Math Co-Processor	12	CCR
5002	Pers System/2 Speech Adapter	12	CCR
5003	Pers System/2 Data Migration Facil	3	CCR
5004	Color Display Stand	12	CCE
5030	RS232C Connection for 7271/2	3	CCR
5050	Advanced 3278/79 Emulation Adapter	12	CCR
5063	Token-Ring Adapter II	12	system
5200	Printer Adapter	3	CCR
5240	InfoWindow Enhanced Graphics Adapter	12	system
5315/6	3278 PC Attach	3	IOR

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		Warranty Period (Months)	Warranty Service Type
5317/8	3278 PC Adapter	3	IOR
5325/6	3279 PC Attach	3	IOR
5327/8	3279 PC Adapter	3	IOR
5321	PC 3278 Attach Opt	3	CCR
5322	PC 3279 Attach Opt	3	CCR
5612	Printer Cable	3	CCR
5614	Printer Stand	3	CCR
5730	Keyboard replacement, 3270PC Std.	3	CCR
5731	APL Keyboard, 3270PC	3	CCR
5790	Programmed Symbols Adapter	3	CCR
6000	Combination Adapter	3	CCR
6001	Combination Adapter Cable	3	CCR
6002	Keylock Option Kit	3	CCR
6010	Enhanced LCD Display, Convertible	12	CCR
6011	Music Feature	12	system
6017/8	Industrial XT Disk/Adapter	3	CCR
6019	Industrial AT Disk	12	IOR
6020	Industrial AT Combo. Adapter II	12	IOR
6023	Indust. AT Rack Mount Slides	3	IOR
6024	Indust. AT KB Mounting Kit	3	IOR
6025	Indust. AT Display Mounting Kit	3	IOR
6026	Shaded Screen Cover	3	CCE
6027	Optically Coated Glass Cover	3	CCE
6030	256KB Memory Card, Convertible	12	CCR
6038	Industrial AT Hi-Cap Diskette	12	IOR
6039	Industrial AT 2-Side Diskette	12	IOR
6040	Industrial AT 128KB Memory	12	IOR
6044	Indust. AT Display Mount Parts Kit	3	IOR
6045	Industrial AT Disk	12	IOR
6049	FCS Input Option	3	CCR
6050	ARTIC, 512K	12	system
6051	ARTIC RS232C/CCITT V.24 Board	12	system
6052	FCS Output Option	3	CCR
6053	ARTIC CCITT V.35	12	system
6054	FCS Security Option	3	CCR
6055	ARTIC 128KB Memory Board	12	system
6061	ARTIC 512KB Memory Board	12	system
6064	ARTIC RS422A Board	12	system
6065	4700 FCS Input Option (PC/AT)	3	CCR
6066	ARTIC 20mA Current Loop Board	12	system
6068	4700 FCS Output Option (PC/AT)	3	CCR
6069	4700 FCS Security Option (PC/AT)	3	CCR
6070	80287 Co-Processor for 7552	12	IOR
6072	Battery, 7552	12	IOR
6073	External Voltage Module, 7552	12	IOR
6074	Memory Adapter, 7552	12	IOR
6075	512KB Memory Expansion, 7552	12	IOR
6076	Card Shroud, 7552	12	IOR
6077	IBM PC Feature Adapter, 7552	12	IOR
6078	Remote Terminal Interface, 7552	12	IOR
6080	Disk/Diskette Adapter, 7552	12	IOR
6081	Diskette Drive, 7552	12	IOR
6082	10MB Fixed Disk Drive, 7552	12	IOR

		Warranty Period (Months)	Warranty Service Type
6094	Prototype Card, 7552	12	IOR
6095	Memory Adapter and Card Shroud, 7552	12	IOR
6096	Filters, 7552	12	IOR
6097	Keyboard Rack Mount Hardware, 7552	12	IOR
6098	Floor Mount Kit, 7552	12	IOR
6115	AT/370 Option Kit	12	CCR
6160	ARTIC, 512K	12	system
6165	ARTIC, 128K	12	system
6166	ARTIC, 128K	12	system
6240	ARTIC, 128K, 4-port	??	system
6241	ARTIC, 128K, 4-port	??	system
6242	ARTIC 512KB expansion	??	system
6245	ARTIC 4-Port Expansion	??	system
6279	S/36/38 Workstation Em Adapter/A	12	system
6341	RT-PC ESDI Magnetic Media Adapter	12	IOR
6351	Stylus	3	IOR
6501-8	CMIS Kit 1-8	60	CCE
6509	Copier Control Device	60	CCE
6510	CMIS System Kit	60	CCE
6512	CCD-to-Wall Cable, User's Manual	60	CCE
6513	PC-to-Wall Cable	60	CCE
6514	CCD-to-Modem Cable	60	CCE
6515	Signal Adapters for Kit 1	60	CCE
6516	Signal Adapters for Kits 2-5	60	CCE
6583	EGA Jumper Card	12	CCR
6714	Tallgrass Tape Backup	6	Mfr
6801	Copier II CCD	60	CCE
6802	Model 10 CCD	60	CCE
6803	Model 20 CCD	60	CCE
6805	Model 30 CCD	60	CCE
6806	Model 40 CCD	60	CCE
6808	Model 60 CCD	60	CCE
6810	RT-PC Baseband Adapter for Ethernet	12	IOR
6815	Floating Point Accelerator, RT-PC	12	IOR
6941	RT-PC 70MB ESDI Fixed-Disk Drive	12	IOR
7000	RT-PC SCSI Adapter	12	IOR
7001	PC/AT /G Upgrade Kit	12	CCR
7002	PC/AT /GX Upgrade Kit	12	CCR
7011	PC/AT /G Upgrade Kit	12	CCR
7012	PC/AT /GX Upgrade Kit	12	CCR
7561	5080 Peripheral Adapter, RT-PC	12	IOR
7564	5080 Peripheral Cable Kit	12	IOR
7586	5083 Tablet Cable Kit	12	IOR
7619	AST FourPort/XN Commo Board	24	Mfr
7641	ASCII Term Cable, 6-Pin 3-m RS422	12	IOR
7675	Stand with Tilt, Swivel, Height Adj.	3	IOE
7676	Stand with Tilt, Swivel Adj.	3	IOE
7850	Tractor Feed for 5218	3	IOR
7860	5080 Attachment Adapter, RT-PC	12	IOR
7870	Sheet Feed for 5218	3	IOR
7875	Sheet Feed for 5218 with Envelope Feed	3	IOR
7893	RT-PC S/370 Host Interface Adapter	12	IOR
8001	Multiprotocol Commo Adapt	12	CCR

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		Warranty Period (Months)	Warranty Service Type
8186	ASCII Terminal Cable, RS232 10-Pin	12	IOR
8214	Quietwriter III Pinwheel Form Feed	3	CCR
8222	1MB System Memory Expansion, RT-PC	12	IOR
8245	ASCII Terminal Cable, RS232 9-Pin	12	IOR
8362	Quietwriter III Sheetfeed Adapter Kit	3	CCR
8426	Mouse, RT-PC	12	IOR
8459	Font Download Cartridge	3	CCR
8541	Fixed Disk Attach Cable	12	IOR
8659	Font Download Cartridge	3	CCR
8700	Optical Disk Drive	12	CCR
8710	Dials, RT-PC	12	IOR
8720	80387 Math Co-Proc, 20MHz	12	CCR
8722	80386 2MB Sys Board Mem Expan Kit	12	CCR
8730	115MB Fixed Disk, Pers Sys/2	12	CCR
8750	Adapter for 5.25in External Drive	12	CCE
8760	Adapter for 5.25in External Drive	12	CCE
8770	Mouse, Personal System/2	12	CCR
8881	Remote Pgm Load, TR Adapter/A	??	system
8982	Personal Telephone Mgr Adapter	12	system
8993	Serial Printer Cable, 9-Pin	12	IOR
9100	Token-Ring Network PC Adapter	12	system
9538	Quietwriter III Dual Drawer Sheetfeed	3	CCR
9620	Quietwriter III Envelope Feed	3	CCR
1348330	3812 Developer Unit	3	IOR
1348331	3812 Fuser Unit	3	IOR
1348335	3812 Cassette - Primary	3	IOR
1348336	3812 Cassette - Secondary	3	IOR
1348347	3812 Photoconductor Unit	1	IOR
1348349	3812 Toner Cartridge	12	IOR
6113477	8100 PC Adapter - RLOOP Kit	3	mail-in
MES8566	Electronic 65/85 PC Att - Typewriter pt 3		IOR

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STATEMENTS OF DIRECTION

Announcement and availability of these products will be based on IBM's technical and business judgement.

IBM PERSONAL SYSTEM/2 ADVANCED INTERACTIVE EXECUTIVE (AIX)

Letter 287-122; April 2, 1987

IBM will provide an IBM Personal System/2 Advanced Interactive Executive (AIX) Operating System and AIX languages VS Pascal, VS FORTRAN, and C for the IBM Personal System/2 Model 80. The IBM Personal System/2 AIX Operating System will be a subset of the multiuser, multitasking, virtual memory AIX operating system currently available on the IBM RT PC. PC DOS 3.3 will be supported as a task under the IBM Personal System/2 AIX Operating System. The IBM Personal System/2 AIX languages will be source code compatible with RT PC VS Pascal, RT PC VS FORTRAN, and C languages. This offering complements the current AIX offering on the RT PC by extending the AIX family.

Information regarding the price, scheduled availability, and applicable terms and conditions will be provided fourth quarter 1987.

4680 ENHANCEMENT

Letter 187-096; April 2, 1987

IBM intends to utilize the architecture and technology of the new IBM Personal Computers, being announced today (i.e. 8530, 8550, 8560, 8580), in future 4860 Store System Controllers.

SRPI OVER LOGICAL UNIT 6.2

Letter 186-125; June 16, 1986

It is IBM's intent to provide to those programs using the SRPI (Server Requester Program Interface) the capability of also communicating over logical unit 6.2 in selected environments.

The communications capability offered through the SRPI provides a subset of IBM's advanced program-to-program communications (APPC) architecture. Those customers who require communications capabilities beyond those provided by the SRPI should consider the advanced functions of APPC in IBM licensed programs.

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SERIES/1 PC CONNECT UNDER EDX

Letter 185-024; March 6, 1985

(Fulfilled in Letter 285-364; October 1, 1985)

IBM is providing support for the Series/1 PC Connect under Realtime Programming System Version 7.1. IBM intends to provide the function announced today under Event Driven Executive using the Communication Facility, in a future enhancement.

OFFICE SYSTEMS CONNECTIVITY

Letter 284-402; October 25, 1984

IBM intends to extend Personal Services/PC DIA support to provide Personal Computer users with access to:

- DISOSS/370 library services (Fulfilled in Letter 286-166; April 16, 1986)
- DISOSS/370 library and distribution services when attached to the IBM PC Network and other IBM networks supporting the NETBIOS interface (Fulfilled in Letter 286-132; April 2, 1986)
- Library and distribution services on the System/36 and System/38.

DFT SUPPORT FOR 4361

Letter 184-103; September 10, 1984

(Fulfilled in Letter 185-058; June 18, 1985)

IBM intends to provide DFT (Distributed Function Terminal) mode capability for the WSA (Workstation Adapter) on the IBM 4361 Processor Model Groups 3, 4, and 5.

The DFT mode enhances the capability of the WSA as follows:

- up to four concurrent host sessions, eight colors, extended highlighting and programmed symbols on the IBM 3270 Personal Computer (PC),
- attachment of the 3270 Personal Computer/Graphics (PC/G) and 3270 Personal Computer/Extended Graphics (PC/GX) with their full set of graphics functions.

TOPVIEW FOR PC NETWORK

Letter 284-282; August 14, 1984

As of April 6, 1987

(Fulfilled in Letter 286-137; April 2, 1986)

It is IBM's intention to have TopView capabilities available for the IBM PC Network in the future.

PC NETWORK FUNCTIONS FOR 3270-PC

Letter 284-285; August 14, 1984

(Fulfilled in Letter 186-173; September 18, 1986)

IBM intends to provide the IBM PC Network program server functions for IBM 3270 Personal Computers which are attached to selected models of the same IBM 3270 display controller. The IBM Cabling System can be used to connect the IBM 3270 Personal Computers to the display controller in these environments. The IBM 3270 Personal Computers also continue to have access to System/370 based applications via existing interfaces as they do today.

NETBIOS SUPPORT FOR OTHER NETWORKS

Letter 284-293 and 284-292; August 14, 1984

IBM intends to provide support of the IBM PC Network Program and the network basic input/output system (NETBIOS) interface for IBM Personal Computers in the following environments:

- IBM Cabling System using the token-ring protocol (Fulfilled in Letters 185-123 and 285-398; October 15, 1985).
- IBM 3270 Personal Computers attached to selected models of the same IBM 3270 Display Controller

(Fulfilled in Letter 186-173; September 18, 1986).

- IBM Industrial local-area network using the token-bus protocol.

3270 DATA STREAM SUPPORT FOR TOKEN-RING NETWORK

Letter 284-294 and 284-292; August 14, 1984

(Fulfilled in Letter 185-123; October 15, 1985).

IBM intends to provide IBM 3270 interactive data stream compatibility for access to System/370-based applications for IBM Personal Computers, using the token-ring protocol on the IBM Cabling System.

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INTERCONNECTION OF TOKEN, PC, AND INDUSTRIAL NETWORKS

Letter 284-292; August 14, 1984

IBM intends to provide interconnection between a Token-Ring local area network using the IBM Cabling System and the IBM PC Network, (Fulfilled in Letters 185-123 and 285-400; October 15, 1985), as well as between a token-ring local area network using the IBM Cabling System and an IBM Industrial local area network.

GRAPHICAL KERNEL SYSTEM SUPPORT

Letter 284-245; June 25, 1984

(Fulfilled for the PC in Letter 284-346; October 9, 1984)

Graphical Kernel System (GKS), a Draft International Standard (ISO/DIS 7942) of the International Organization for Standardization (ISO), is a basic graphics system supporting the definition and representation of two-dimensional pictures on a wide variety of graphics devices. IBM recognizes the importance of this Draft International Standard and intends to provide GKS capability in selected graphic software, including the IBM Graphical Data Display Manager (GDDM).

ALPHANUMERIC PROGRAMMING INTERFACE FOR 3270-PC/G AND GX

Letter 184-079; June 25, 1984

(Fulfilled in Letter 285-285; August 6, 1985)

As stated in the 3270-PC announcement of October 1983, it is IBM's intent to provide an alphanumeric programming interface on the 3270-PC. It is the intent to offer a similar interface on the 3270-PC/G and 3270-PC/GX.

INTELLIGENT WORKSTATION SUPPORT FOR APPLICATION SYSTEM

Letter 284-192; May 15, 1984

Application System (AS) is a decision support and departmental computing tool with comprehensive function to support the work of business professionals, managers, administrators, secretaries, and application programmers. Increasingly, the data these users need is relational in nature (for example, that provided by IBM SQL/DS and DB2), the workstations they may use have local intelligence (for example, the IBM 3270-Personal Computer, the IBM Personal Computer, and the IBM Personal Computer XT); and the host operating system they access (for example, Multiple Virtual Storage (MVS)) requires the support of such tools as AS. The direction of future development of the AS product line is to provide the user

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with function, access to data, support for workstations, and the modes of delivery consistent with these needs.

Further information covering this direction statement will be made available fourth quarter 1984.

LOCAL AREA NETWORK ON CABLING SYSTEM

Letter 184-068; May 8, 1984

(Fulfilled in Letter 185-123; October 15, 1985)

IBM has announced the IBM Cabling System, a common cabling system that can be used as an alternative to coaxial, twinaxial, twisted pair, and other special purpose cabling.

IBM intends to implement a star-wired, token-ring local area network using the IBM Cabling System within the next two to three years.

This token-ring local area network is consistent with IBM's contributions to the local area network standards committees of the Institute of Electrical and Electronics Engineers (IEEE) and the European Computer Manufacturers Association (ECMA).

DISOSS SUPPORT FOR PC AND 3270-PC

Letter 284-138; April 3, 1984

(Fulfilled in Letter 284-419; October 25, 1984)

For planning purposes, IBM provides the following statements of direction regarding office systems.

In addition to the document content architecture (DCA) support announced today, it is IBM's intent to enhance these office functions on the IBM Personal Computer and the IBM 3270 Personal Computer by supporting, via document interchange architecture (DIA), connection to DISOSS/370.

3278 EMULATION SUPPORT FOR PC/XT/370

Letter 183-141 and 183-139; October 18, 1983

(Fulfilled in Letter 184-141; October 25, 1984)

IBM intends to make a Product Announcement to the IBM Personal Computer XT/370 to address the following: A card, similar to the PC/3277EM card, which will allow the IBM Personal Computer XT/370 to attach via coaxial cable to type A

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adapters on an IBM 3274 Control Unit that support the IBM 3278/79 Display Stations.

ADDITIONAL FUNCTION FOR THE 3270-PC

Letter 183-129; October 18, 1983

(Graphics direction fulfilled in Letter 184-021; February 21, 1984)

(API direction fulfilled in Letter 284-286; August 14, 1984)

Statement of direction for the 3270-PC: IBM intends to provide additional capabilities for the 3270 Personal Computer in the areas of graphics and programmable interface. Announcement of these capabilities will be based on IBM's technical and business judgment. The following brief descriptions provide the IBM Statement of Direction for the 3270 Personal Computer.

- Graphics -- provide eight-color IBM Personal Computer CGA (color/graphics adapter), graphics, and host graphics.
- Programmable interface -- a programmable interface to the 3270-PC Control Program will be defined to allow program developers to create customized applications for the 3270-PC, including applications to interrelate host and IBM Personal Computer data and programs.

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