

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

September 20, 1988

International Business Machines  
National Distribution Division  
Workstations Marketing, Department 7W7  
44 South Broadway  
White Plains, New York 10601

The prices stated are for your information  
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As of September 20, 1986

## PREFACE

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### --- KEY ---

A - Z	(Upper Case) Items are available on Quantity Discount Agreement
A - Z	(Lower Case) Items are available on Volume Purchase Amendment
#	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W/D	Withdrawn from marketing.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 August 16, 1988.

# TABLE OF CONTENTS

SPECIAL PROMOTIONAL OFFERINGS . . . . .	1
Personal System/2 Model 80 Publishing Trial Program . . . . .	1
IBM RT CAD/CAM Promotional Offering . . . . .	1
IBM Personal Computer Trade-In Promotion . . . . .	1
Personal System/2 Model 80 Trial Program . . . . .	2
Personal System/2 Classroom Network Trial Program . . . . .	2
VOLUME PROCUREMENT . . . . .	3
Hardware - Volume Procurement Amendment . . . . .	3
Hardware - Ordering . . . . .	9
Single Shipment Volume Offering (Token-Ring Network) . . . . .	10
Software - Volume Procurement Amendment . . . . .	10
Software - Ordering . . . . .	11
Redistribution of PC Software . . . . .	12
Maintenance - Volume Maintenance Amendment . . . . .	12
Maintenance - Corporate Service Amendment . . . . .	13
IBM SOLUTIONPAC OFFERINGS . . . . .	15
IBM SolutionPac - Local Area Network Implementation Services . . . . .	15
LAN Implementation Services I . . . . .	15
LAN Implementation Services II and IIA . . . . .	15
LAN Implementation Services III . . . . .	15
Charges . . . . .	15
IBM SolutionPac - Personal Publishing . . . . .	16
IBM SolutionPac - Personal Publishing Option/A . . . . .	16
IBM SolutionPac - Branch Banking Automation . . . . .	16
IBM SolutionPac - Store Installation Services . . . . .	17
IBM 4680 Installation Planning . . . . .	17
IBM 4680 Installation (Pilot Stores) . . . . .	17
IBM 4680 Application Installation and Customization . . . . .	17
Charges . . . . .	17
IBM SolutionPac - Construction Industry Series . . . . .	18
IBM SolutionPac - Business Adviser Financial Accounting . . . . .	18
IBM SolutionPac - Doctor's Office Management . . . . .	18
IBM SolutionPac - CADwrite Design and Drafting System . . . . .	18
IBM SolutionPac - Legal Profession Series . . . . .	18
IBM SolutionPac - Personal Typing . . . . .	18
IBM SolutionPac - Writing to Read Center . . . . .	19
COOPERATIVE SOFTWARE PROGRAM . . . . .	20

PROCESSORS - PERSONAL SYSTEM/2 (MICROCHANNEL MODELS) . . . . .	22
Personal System/2 Support Publications (MicroChannel Models) . . . . .	23
Processor Features - Personal System/2 (MicroChannel Models) . . . . .	23
Memory - Personal System/2 (MicroChannel Models) . . . . .	24
Direct-Access Storage Devices, Personal System/2 (MicroChannel Mod) . . . . .	24
Tape Backup Devices, Personal System/2 (Microchannel Models) . . . . .	25
Miscellaneous Features, Personal System/2 . . . . .	25
Displays and Attachments, Personal System/2 . . . . .	25
Image Device Attachment - Personal System/2 (MicroChannel Models) . . . . .	26
COMMUNICATIONS HARDWARE AND SOFTWARE - PERSONAL SYSTEM/2 (MICROCHANNEL MODELS) . . . . .	27
General . . . . .	27
Adapters, Personal System/2 (Microchannel Models) . . . . .	27
Asynchronous Communication, Personal System/2 (Microchannel Models) . . . . .	27
Twinaxial S/36, S/38 Attachment, Personal System/2 (MicroChannel Models) . . . . .	27
Coaxial Communications, Personal System/2 (MicroChannel Models) . . . . .	28
Local Area Networks, Personal System/2 (MicroChannel Models) . . . . .	28
IBM Token-Ring Network, Personal System/2 (MicroChannel Models) . . . . .	28
IBM PC Network, Personal System/2 (MicroChannel Models) . . . . .	28
OPERATING SYSTEM/2 SOFTWARE (OS/2) . . . . .	29
OS/2 Operating Systems and Programming Aids . . . . .	29
Operating System/2 and Compilers . . . . .	29
Operating System/2 Support Publications . . . . .	31
Graphics Software, Operating System/2 . . . . .	32
IBM 7552 Industrial Computer Software, Operating System/2 . . . . .	32
RPG II Application Platform/Toolkit, Operating System/2 . . . . .	32
Word Processing Programs, Operating System/2 . . . . .	32
IBM DisplayWrite 4/2 Series for Operating System/2 . . . . .	32
Other Programs, Operating System/2 . . . . .	32
IBM PS/2 ADVANCED INTERACTIVE EXECUTIVE (AIX) . . . . .	33

As of September 20, 1988

ORACLE Relational Data Base Management System for AIX PS/2	34
INGRES Relational Data Base Management System for AIX PS/2	35
IBM PC PROCESSORS AND FEATURES (INCLUDING NON-MICROCHANNEL PERSONAL SYSTEM/2)	36
PC Support Publications	36
PC/XT Support Publications	36
Processors and Options - Personal System/2 Model 25	36
Support Publications - Personal System/2 Model 25	37
Processors - Personal System/2 Model 30	37
Support Publications - Personal System/2 Model 30	38
Processors - Personal System/2 Model 30 286	38
Direct Access Storage Devices - Personal System/2 Model 30 286	38
Adapters - Personal System/2 Model 30 286	38
Miscellaneous Features - Personal System/2 Model 30 286	38
Support Publications - Personal System/2 Model 30 286	38
IBM Personal Typing System	38
Processors - PC/XT 286 Versions	39
PC/XT 286 Support Publications	39
Processors and Options - PC/AT Versions	39
PC/AT Support Publications	39
Processors - 3270-PC Versions	39
3270-PC Support Publications	40
Processors - 3270-PC/AT Versions	40
3270-PC/AT Support Publications	40
Processors - 3270-PC / G and GX Versions	40
Processors and options	40
IBM 3270-PC/G /GX Support Publications	41
PC/G Display Options	41
PC/GX Display Options	41
Processors - PC/XT/370 and PC/AT/370 Versions	41
PC/AT/370 Support Publications	41
Processors - 4680 PC Version	42
Processors - 4700 PC Version	43
Processors - TEMPEST PC Versions and Options	44
Processors - Industrial Versions	46
IBM Industrial Computer Support Publications	47
Processors - PC Convertible	48
PC Convertible Support Publications	49
IBM Portable PC Support Publications	49
Processors and Options - PCjr	49
PCjr Support Publications	49
Processor Features	49
Memory - PC and PC/XT System Units	50
Memory, PC/AT and PC/XT286 System Units	50
Direct-Access Storage Devices	51
Tape Backup Devices	52
A RealTime Interface Co-processor (ARTIC)	52
General Purpose Interface Bus Adapter	53
Data Acquisition/Control Adapter	53
Keyboards	53
Miscellaneous	54
Displays and Attachments, PC	54
Printer Attachments, PC	55

General	55
Image Device Attachment, PC	55
COMMUNICATIONS HARDWARE AND SOFTWARE	57
General	57
Network Management (General)	59
Enhanced Connectivity Facilities	60
Asynchronous	60
General	60
Series/1 PC Connectivity Option	61
Waterloo and WATCOM microNet & Languages (see GB20-2339)	61
Displaywriter/Personal Computer Attachment	62
Binary Synchronous and SDLC Communication	62
Twinaxial	62
General	62
Twinaxial 5520 Attachment	62
Twinaxial S/34, S/36, S/38 Attachment	62
Coaxial Communication (3270-PC Family)	63
Coaxial Communication (3278/79 Emulation Adapter)	64
Coaxial Communication (Attach to existing 3278/3279)	65
Local Area Networks	65
IBM Token-Ring Network	67
IBM Token-Ring Network Support Publications	68
IBM PC Network	68
IBM Transmission Control Protocol/Internet Protocol (TCP/IP)	69
IBM Series/1-PC Channel Attachment Feature	69
IBM Personal Computer Cluster System	69
IBM System/36 (5364) Console Attachment	69
Voice Communications	70
PC-DOS SOFTWARE	71
PC-DOS Operating Systems and Programming Aids	71
PC-DOS Operating System and Compilers	71
Operating Environments, Menu Systems	71
Programming Aids	72
General Purpose Programs	72
General	72
IBM Assistant Series	72
IBM Personal Decision Series	73
Productivity Products	73
Business Programs	73
General	73
BPI Systems	74
Business Adviser Series	74
IBM Business Management Series - Application Editions	74
IBM Business Management Series - Training Editions	75
4700 and Banking Software	75
Data Base Programs	76
Graphics Software	76
GEM Series by Digital Research	77
IBM Image Software	77
IBM DisplayGraphics	77
IBM InfoWindow Software	77
MICRO CADAM for PC/AT and PS/2	78



As of September 20, 1988

IBM PC Storyboard	78
IBM Expert System Environment (ESE)	78
Self Education Facility	78
IBM Discover/Education	78
Virtual Device Interface	79
Industrial Software	79
ARTIC Support Software	82
Integrated Programs	83
Word Processing Programs	83
General	83
Desktop Publishing	83
IBM PC DisplayWrite Series	83
MicroPro Series	84
IBM Performance Tools	84
SUPPORT PUBLICATIONS	85
Support Publications - Policy	85
Support Publications - Managing End User Computing	85
Executive Direction	85
Support Organization	85
Planning for User Needs	85
Justification	85
Workstation Management	86
Access to Data	86
Support Publications - PC Seminar Proceedings	86
Support Publications - Options and Adapters Technical Reference	86
Support Publications - Hardware Maintenance and Service	87
Support Publications - Hardware Maintenance Reference	88
Support Publications - Technical Reference Manuals	88
Support Publications - Other	88
OTHER SOFTWARE	89
CP/M-86	89
Unix Dialects	89
PC/Interactive Executive	89
IBM PC Xenix for the PC/AT	89
VM/PC	90
VM/PC Operating System	90
IBM PC/XT/370 License Option Amendment with Feature Numbers	90
AS/400 PC Support	91
4680 Operating System	91
EDUCATIONAL PROGRAMS	95
Spanish Writing to Read V.1.0 (Voy A Leer Escribiendo)	96
IBM PC Biology Series	97
Introduction to General Chemistry	99
IBM PC Combining Sentences Series V.1.00	99
IBM PC Earth Sciences Series	100
IBM PC Geometry Series V.1.00	100
IBM PC Math Concepts Series	101
IBM PC Math Practice Series	101
IBM PC Algebra Series Version 1.0	102
IBM Mathematics Exploration Toolkit Version 1.0	102

IBM PC Parts of Speech Series	102
Personal Computer Instructional System by Computer Systems Research	103
IBM PC Physics Discovery Series Version 1	103
Private Tutor Series	104
IBM PC Punctuation Series V.1.0	104
IBM PC Reading for Information	105
IBM PC Reading for Meaning Series	105
Scientific Reasoning Series	106
IBM PC Spelling Series	106
IBM PC Vocabulary Series	106
Primary Editor Plus	107
IBM Information Systems Management Institute	107
Science Research Associates - Leased Courses	108
Technical Seminars	110
MUSIC PROGRAMS	111
GAMES	112
PROCESSORS - RT PC SYSTEM	113
RT PC Software, General	116
RT PC Support Publications	116
IBM RT PC ADVANCED INTERACTIVE EXECUTIVE (AIX)	117
IBM RT PC SOFTWARE, OTHER	119
MUMPS-RT	123
PROCESSORS - IBM 6152 ACADEMIC SYSTEM	124
IBM 6152 Support Publications	124
PERIPHERAL DEVICES, CROSS-SYSTEM	125
Printers and Attachments	125
IBM 3812 Pageprinter	125
IBM 3812 Support Publications	126
IBM 3820 Page Printer	126
IBM 3852 Color Ink-Jet Printer	127
IBM 4201 Proprinter II and 4202 Proprinter XL	127
IBM 4207 Proprinter X24 and 4208 Proprinter XL24	128
IBM 4216 Personal Pageprinter	128
IBM 4250/II ElectroCompositor	129
IBM 5201 Quietwriter Printer	129
IBM 5202 Quietwriter III Printer	129
IBM 5204 Quickwriter	130
IBM 5216 Wheelprinter	131
IBM 5218 Displaywriter Printer for PC	131
IBM 5223 Wheelprinter E Model 1	131
Plotters	131
Direct-Access Storage Devices, External	132
Tape Backup Devices	132
Image Devices	132
Communications Devices, Cross-System	133
IBM Token-Ring Network	133
Token-Ring Network Support Publications	133

As of September 20, 1988

IBM PC Network	133
EXPANSION SLOT USAGE	135
PC (5150)	135
PC/XT (5160)	135
PC/XT/370 (5160-589)	135
PC/XT 286 (5162-286)	136
PC/AT (5170)	136
Series/1 PC/AT (5170-495)	136
PC/AT/370 (5170-599, -739)	136
3270-PC (5271) With 5272 or 5151 Display	136
3270-PC (5271) With 3295 Display	137
3270-PC/AT (5273) With 5272 or 5151 Display	138
3270-PC/G/GX (5371)	139
3270-PC/AT/G/GX (5373)	139
Personal System/2 Model 25 (8525)	140
Personal System/2 Model 30 (8530)	140
Personal System/2 Model 30 286 (8530)	140
Personal System/2 Model 50 (8550)	140
Personal System/2 Model 60 (8560)	141
Personal System/2 Model 70 (8570)	141
Personal System/2 Model 80 (8580)	141
IBM CABLING SYSTEM	142
TECHNICAL SUPPORT	143
Technical Coordinator Program	143
Technical Coordinator Education	144
Technical Coordinator Training Course	144
Self-Servicer Maintenance Class	144
Other	144
PC University	144
Software Defect Support	145
Software Extended Support	145
Terms and Conditions	145
Central Service - IBM Support Center	148
Terms and Conditions	148
Eligible programs	148
MAINTENANCE	150
Maintenance Option Descriptions	150
Hourly Maintenance	150
Maintenance Plans	151
IBM On-Site Repair	151
IBM On-Site Exchange	151

Customer On-Site Exchange	151
Customer Carry-In Exchange	151
Customer Carry-In Repair	151
Service Alternatives	151
Maintenance Options - System Units and Peripherals	151
Maintenance Options - Selected Non-IBM Products	156
Maintenance Options - Features	158
Machine/Machine Element Exchange Prices	159
Warranty Options - Systems Units and Peripherals	160
Warranty Options - Selected Non-IBM Products	164
Warranty Options - Features	164
Fixed-Charge Maintenance Items (Annual Minimum Maintenance Charge)	165
Monthly Maintenance Items - MMC (Monthly)	165
Warranty Period and Type - System Units and Peripherals	166
Warranty Period and Type - Features	169
STATEMENTS OF DIRECTION	176
ImagePlus Workstation Support	176
IBM NetView/PC for Personal System/2	176
IBM Finance Systems Statement of Direction	176
ECF Requesters on IBM Operating System/2 Extended Edition	177
IBM Operating System/2 Enhancements	177
IBM Personal System/2 Advanced Interactive Executive (AIX)	177
OS/2 Version of Internal Tape Backup Program	177
4680 Enhancement	178
SRPI over Logical Unit 6.2	178
Series/1 PC Connect under EDX	178
Office Systems Connectivity	178
DFT support for 4361	178
TopView for PC Network	178
PC Network functions for 3270-PC	178
NETBIOS support for other networks	179
3270 data stream support for token-ring network	179
Interconnection of token, PC, and Industrial networks	179
Graphical Kernel System support	179
Alphanumeric programming interface for 3270-PC/G and GX	179
Intelligent workstation support for Application System	179
Local Area Network on Cabling System	179
DISOSS support for PC and 3270-PC	180
3278 Emulation Support for PC/XT/370	180
Additional function for the 3270-PC	180
INDEX	181

# LIST OF ILLUSTRATIONS

Figure 1. VPA Hardware Category A	3
Figure 2. VPA Hardware Category B	4
Figure 3. VPA Discount Schedule, Category A	4
Figure 4. VPA Hardware Categories C-E	4
Figure 5. VPA Hardware Category E (CFO Only)	5
Figure 6. VPA Hardware Categories F-I	5
Figure 7. VPA Discount Schedule, Categories C-H	5
Figure 8. Dependent Category Relationships	5
Figure 9. CFO Eligible Machines	6
Figure 10. CFO Eligible Machines	6
Figure 11. CFO Eligible Machines	6
Figure 12. CFO Eligible Machines	7
Figure 13. Applicable Dealers	7
Figure 14. Single Shipment Volume Offering Pricing	10
Figure 15. 35% Discount Categories	11
Figure 16. QDA Ordering Vehicles	12
Figure 17. QDA Ordering Vehicles (Old)	12
Figure 18. Redistribution Charges	12
Figure 19. VMA Qualifying Machines	13
Figure 20. VMA Discount Levels	13
Figure 21. VMA Eligible Machines	13
Figure 22. 5150-104 Expansion Slot Usage	135
Figure 23. 5150-166, -176 Expansion Slot Usage	135
Figure 24. 5160-068, -078 Expansion Slot Usage	135
Figure 25. 5160-086, -087 Expansion Slot Usage	135
Figure 26. 5160-589 Expansion Slot Usage	136
Figure 27. 5162-286 Expansion Slot Usage	136
Figure 28. 5170-068 Expansion Slot Usage	136
Figure 29. 5170-099, -239 Expansion Slot Usage	136
Figure 30. 5170-495 Expansion Slot Usage	136
Figure 31. 5170-599, -739 Expansion Slot Usage	136
Figure 32. 5271-002 Expansion Slot Usage	137
Figure 33. 5271-004 Expansion Slot Usage	137
Figure 34. 5271-006 Expansion Slot Usage	137
Figure 35. 5271-024 Expansion Slot Usage	137
Figure 36. 5271-026 Expansion Slot Usage	137
Figure 37. 5271-030, -P30, -050, -P50 Expansion Slot Usage	137
Figure 38. 5271-031, -P31, -051, -P51 Expansion Slot Usage	137

Figure 39. 5271-070, -P70 Expansion Slot Usage	138
Figure 40. 5271-071, -P71 Expansion Slot Usage	138
Figure 41. 5273-020 Expansion Slot Usage	138
Figure 42. 5273-041 Expansion Slot Usage	138
Figure 43. 5273-042 Expansion Slot Usage	138
Figure 44. 5273-061 Expansion Slot Usage	138
Figure 45. 5273-062 Expansion Slot Usage	138
Figure 46. 5273-070, -P70 Expansion Slot Usage	139
Figure 47. 5273-071, -P71 Expansion Slot Usage	139
Figure 48. 5371-012 Expansion Slot Usage	139
Figure 49. 5371-014 Expansion Slot Usage	139
Figure 50. 5371-016 Expansion Slot Usage	139
Figure 51. 5373-X60 Expansion Slot Usage	139
Figure 52. 5373-X61 Expansion Slot Usage	140
Figure 53. 5373-X62 Expansion Slot Usage	140
Figure 54. 5373-X29, -X39 Expansion Slot Usage	140
Figure 55. 8525 Expansion Slot Usage	140
Figure 56. 8530 Expansion Slot Usage	140
Figure 57. 8530 286 Expansion Slot Usage	140
Figure 58. 8550 Expansion Slot Usage	141
Figure 59. 8560 Expansion Slot Usage	141
Figure 60. 8570 Expansion Slot Usage	141
Figure 61. 8580 Expansion Slot Usage	141
Figure 62. Cabling System Characteristics	142
Figure 63. Technical Coordinator Levels	143
Figure 64. Extended Support - Business Management Series	146
Figure 65. Extended Support - Personal Decision Series Version 2	146
Figure 66. Extended Support - Personal Decision Series	146
Figure 67. Extended Support - Storyboard Plus	146
Figure 68. Extended Support - Storyboard Plus	147
Figure 69. Extended Support - Professional Workstation Series	147
Figure 70. Extended Support - Accounting Assistant Series	147
Figure 71. Extended Support - Business Adviser Series	147
Figure 72. Extended Support - PC 3270 Emulation Version 3	148
Figure 73. NSD Support Eligible Programs	149

As of September 20, 1988

## SPECIAL PROMOTIONAL OFFERINGS

### PERSONAL SYSTEM/2 MODEL 80 PUBLISHING TRIAL PROGRAM

The IBM Personal System/2 (PS/2 (R)) Model 80 Trial Program is designed to encourage customers to purchase IBM 8580s by gaining on-site familiarity with both the PS/2 and publishing application software. The trial period for the program is two months. At the conclusion of the trial period, the customer may purchase the trial products, or return them to IBM. There will be no charge to the customer if the products are returned to IBM. This offering is limited to one trial program per selected customer location. Customers may be selected to participate in this program based on their potential to purchase significant quantities of IBM PS/2 or PS/2 Publishing Systems. This program is available effective June 21, 1988 and will be withdrawn effective December 31, 1988.

See Announcement 388-097 for complete details.

### IBM RT CAD/CAM PROMOTIONAL OFFERING

IBM announces, for a limited time, the availability of an IBM RT CAD/CAM Offering for customers who install a systems solution that combines an IBM RT and one or more of CADAM, CATIA, CAEDS, or CIEDS/CBDS. Customers participating in this promotional offering will receive a 25 percent discount on the single unit price of the eligible hardware and a 50 percent discount on the prices of basic education classes for each base application program installed.

This offering applies to systems installed between July 1, 1988, and December 31, 1988.

See Announcement 388-113 for complete details.

### IBM PERSONAL COMPUTER TRADE-IN PROMOTION

Beginning July, 1988, IBM will advertise a special trade-in promotion for customers who purchase an IBM Personal System/2

from a participating IBM Authorized Personal Computer Dealer, IBM Authorized Industry Remarketer, and a Campus Technology Center. This offering, available from July 1, 1988 through August 31, 1988, is designed to accelerate replacement of IBM personal computers and provide customers with an incentive to purchase IBM Personal System/2s now.

A trade-in display will only be accepted if it is accompanied by an eligible IBM Personal Computer system unit with an appropriate adapter card.

The following are maximum trade-in values offered by IBM to participating dealers. Dealer values may vary. See Announcement 388-105 for complete details of accepted configurations.

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#### Eligible IBM Personal Computers/Displays

IBM PCjr, PCjr Color Display	\$ 100
IBM PC (5150) 1 diskette model	175
2 diskette model	225
IBM Portable PC (5155)	250
IBM PC XT (5160-068)	275
(5160-078)	300
(5160-087)	350
(5160-267/268)	300
(5160-277/278)	325
(5160-088/089)	425
(5162-286)	650
IBM PC AT (5170-068)	550
(5170-099)	725
(5170-239)	875
(5170-319/339)	1175
IBM Displays (with eligible system unit and adapter)	
5151-001 (monochrome)	40
5153-001 (color)	160

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As of September 20, 1960

PERSONAL SYSTEM/2 MODEL 80 TRIAL PROGRAM

The Personal System/2 Model 80 Trial Program allows selected customers to evaluate certain IBM 8580 products. It permits productive use of the products for a period of two months and allows customers to retain the trial products at the end of the trial period. One 8580 System Unit is allowed per trial period, including specified I/O and Software. This offering is limited to one trial period per selected customer location and applies only to the first installation of any IBM 8580 model within that customer location. Reference ivory letter #388-028 for more information.

PERSONAL SYSTEM/2 CLASSROOM NETWORK TRIAL PROGRAM

The Personal System/2 Classroom Network Trial Program allows selected customers to evaluate a network of IBM Personal System/2 products and IBM courseware and tools software at their location. It permits productive use of the products for a period of up to six months and allows the customer to purchase the equipment or return it to IBM at the end of the trial period. This offering is limited to one trial period network per selected customer location and applies only to the first installation of a classroom network within the customer location. Reference ivory letter #388-032 for more information.

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 AMENDMENT

1. The terms below are from Exhibit WKS<sub>N</sub>-4, form Z125-3995-4, dated August 4, 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 Amendment. See your IBM Marketing Representative for details.
2. 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
5140	3179(m1)	3151(m1)	3193
5160(a)	3180(m1)	3161	3194
5162	3191	3162	
5170	3192	3163	
5171	3196	3164	
5271	3197		
5273	3205(m1)		
5373	3278		
8525	3279		
8530	3290(m1)		
8550	8775		
8560			
8570			
8580			

Figure 1. VPA Hardware Category A

\*\* All machines in Discount Groups 1, 2, 3 and 4 will be aggregated to determine the Minimum Quantity of Eligible Machines for Category A.

As of September 20, 1988

-----Category B (d) -----  
Discount Group:

-----1-----	2	
3117	5272	3979(m1)
3118	5277	
3295	5278	
3363	5279	
4055	5378	
4865	5379	
4869(m1)	6157	
5144	8218	
5145	8219	
5151	8228(m1)	
5153(a)	8503	
5154	8507	
5167	8512	
5173(m1)	8513	
5178514		

Figure 2. VPA Hardware Category B

3. Discount Schedule

		-----Category A-----			
		Discount Group			
		1	2	3	4
Minimum Quantity of Eligible Machines by Category					
Duration (months)					
12	18	24			
6	9	12	0%	6%	0%
20	30	40	12	9	6
50	75	100	12	12	9
150	225	300	20	15	15
250	375	500	27	18	21
500	750	1000	27	21	21
750	1125	1500	28	24	24
1000	1500	2000	30	27	27
1500	2250	3000	30	30	27
2250	3375	4500	30	34	30
3000	4500	6000	30	38	30

Category B: See Note d Below.

Figure 3. VPA Discount Schedule, Category A

Greater discounts are available for a commitment of 500 or

more selected machines from Category A. Contact your IBM Marketing Representative for additional information.

(m1) Maximum Discounts: The IBM 4869 is not eligible for discounts greater than 27%, the IBM 5173 is not eligible for discounts greater than 15%, the IBM 8228 model 1 is not eligible for discounts greater than 20%, the IBM 3151 is not eligible for discounts greater than 27%, the IBM 3179, 3180, and 3290 are not eligible for discounts greater than 30%, and the IBM 3205 and 3979 are not eligible for discounts greater than 34%. The 8228-KT2 Token-Ring Network Starter Kit and IBM 8228-KT3 Token-Ring Network Starter Kit/A are not eligible for a discount.

(d) Category B is a Dependent Category; Category A is its Controlling Category. All machines in Category B - Discount Groups 1 and 2 will receive the same Discount Percent as machines in Category A - Discount Groups 1 and 2, respectively.

Features ordered for field installation on Eligible Machines in Category A - Discount Group 1 are eligible for a discount provided they are acquired during the Contract Period of a Volume Commitment for Category A. The Discount Percent for such features shall be equal to the machine Discount Percent applicable for Category A - Discount Group 1. Price protection provisions for such features shall be the same as for machines.

Category C	Category D	Category E**	
		Discount Group:	
		1	2
3174	3299(d)	3852	5084
3274		4201	5087
3276		4202	6182
3708(m2)		4207	6184
3710(m2,a)		4208	6186
5208(m2)		4216	
5209(m2)		5169	
5294(m2)		5201	
		5202	
		5216(a)	
		5223	
		6180	
		7372	

Figure 4. VPA Hardware Categories C-E

As of September 20, 1986

Category  
E \*\*,\*\*\*  
(Customer Fulfillment Option Only Machines)  
6715  
6746  
6747  
6750  
6770  
6780  
6901  
6902\*\*\*\*  
6903\*\*\*\*

Figure 5. VPA Hardware Category E (CFO Only)

Category F	Category G	Category H	Category I
5085	5081(d) 5083(d) 5088(d)	5531 7531(m2) 7532(m2) 7552	5532(d) 7534(d)

Figure 6. VPA Hardware Categories F-I

\*\* All machines in Category E, Discount Groups 1 and 2, will be aggregated to determine the Minimum Quantity of Eligible Machines in Category E.

\*\*\* These machines may only be purchased from an IBM Authorized Dealer.

\*\*\*\* These products are only available by purchasing a Personal System/2 - Personal Typing Offering.

Greater discounts are available for a specific commitment of 30 or more selected machines in Category E - Discount Group 2. Contact your IBM Marketing Representative for additional information.

(a) Orders for the IBM 3710 Network Controller must be received by IBM before September 30, 1987, and acceptance of such orders is subject to availability. Orders for the IBM 5160 System Unit/Keyboard and IBM 5153 Color Display must be received by IBM before June 30, 1987, and acceptance of such orders is subject to availability.

#### 4. Discount Schedule

Minimum Quantity of Eligible Machines by Category			Categories-----			
			C	E	F	H
Duration (months)			Discount Group			
12	18	24	1	2		
2	3	4	*	*	*	6%
4	6	8	*	0%	6%	5%
6	9	12	9%	0	6	5
8	12	16	9	0	12	10
15	22	30	15	0	12	15
20	30	40	15	12	16	15
25	37	50	20	12	16	20
35	52	70	25	12	16	20
50	75	100	25	16	16	20
60	90	120	30	16	16	20
90	135	180	36	16	16	20
120	180	240	40	16	16	20
150	225	300	40	20	16	20
250	375	500	40	24	16	20
500	750	1000	40	27	16	20
1000	1500	2000	40	30	16	20

Figure 7. VPA Discount Schedule, Categories C-H

\* Not applicable to this category

(d) Dependent Categories:

Dependent Category	Controlling Category
D	C
G	F
I	H

Figure 8. Dependent Category Relationships

(m2) Maximum Discounts: The IBM 3710 is not eligible for discounts greater than 15%, the IBM 5209 and 5294 are not eligible for discounts greater than 20%, the IBM 7531 Model 41 and 7532 Model 41 are not eligible for discounts greater than 24%, and the IBM 3708 is not eligible for discounts greater than 36%.

Features ordered for field installation on Eligible Machines in Categories H and I and the IBM 6184 and 6186 in Category E are eligible for a discount provided they are acquired during the Contract Period of a Volume Commitment for Category H or Category E, as applicable. The Discount Percent for such features shall be equal to the machine Discount Percent applicable for the Category of the machine on which the feature will be installed. Price protection



As of September 20, 1988

provisions for such features shall be the same as for machines.

#### 5. 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: The following machines are designated as eligible for the provisions of the Section entitled "Customer Fulfillment Option" in the Volume Procurement Amendment when purchased from an applicable IBM Authorized Dealer for such machines or IBM Authorized Distributor for such machines, as indicated below by an "X" under the Categories of Designated Machines.

Category	Type	Models
A	3151	
	5140	002, 022
	5160	068, 078, 086, 087, 088, 089, 267, 268, 277, 278
	5162	286
	5170	068, 099, 239, 319, 339
	5171	168, 339
	8525	ALL
	8530	ALL
	8550	ALL
	8560	ALL
	8570	ALL
	8580	ALL

Figure 9. CFO Eligible Machines

Category	Type	Models
B(3)	3117	010
	3118	010, 020
	3633	ALL
B	4869	ALL
	5144	001
	5145	001
	5151	001
	5153	001
	5154	001
	5167	001
	8503	ALL
	8507	ALL
	8512	ALL
	8513	ALL
	8514	ALL
	5173	ALL
	5178	ALL
B(1)	8228	001, KT2, KT3
	6157	001
B(2)	6157	001

Figure 10. CFO Eligible Machines

Category	Type	Models
E	3852	002
	4201	ALL
	4202	001
	4207	ALL
	4208	ALL
	4216	020
	5169	002
	5201	001, 002
	5202	ALL
	5216	001, 002
	5223	001
	6715	ALL
	6746	ALL
	6747	ALL
E(1)	6750	ALL
	6770	ALL
	6780	ALL
	6901	ALL
	6902	ALL
	6903	ALL

Figure 11. CFO Eligible Machines

As of September 20, 1980

Category	Type	Models
H	5531	ALL
	7531	ALL
	7532	ALL
	7552	ALL
I	5532	ALL
	7534	ALL

Figure 12. CFO Eligible Machines

Applicable IBM Authorized Dealers or IBM Authorized Distributors by Category		A	A(1)	B	B(1)	B(2)	B(3)	E	E(1)	H	I
Notes	Notes:			3	3	3	3				3
1	IBM Authorized Dealer for IBM Personal Computer Products	x		x		x	x	x			
1	IBM Authorized Value Added Dealer for IBM Products	x		x		x	x	x			
1	IBM Authorized Dealer for IBM Selected Products	x		x				x			
2	Authorized IBM Industrial Computer Distributor									x	x
	Industrial Application Remarketer									x	x
1,4	Certified IBM Local Area Network Dealer				x						
	IBM Authorized Dealer for IBM Typewriter Products								x		
	IBM Value Added Remarketers who have the VAR I/O Amendment in effect						x				
	Authorized IBM Remarketers of IBM ASCII Displays or their Remarketers of IBM ASCII Displays			x							

Figure 13. Applicable Dealers

(1) Purchases from such a Dealer's associated reseller who has been approved by IBM also qualify. In the Certification, the Customer will indicate the applicable Dealer for the associated reseller.

(2) Purchases from such a Distributor's qualified systems integrator who has purchased the machines from such Distributor also qualify. In the Certification, the Customer will indicate the applicable Distributor for the qualified

As of September 20, 1988

systems integrator.

(3) Designated machines in Category B, B(1), B(2), and I are to be included in the Certification but are otherwise not subject to the provisions of the Section entitled "Customer Fulfillment Option" in the Volume Procurement Amendment.

(4) A Certified IBM Local Area Network Dealer is an IBM Authorized Dealer that has been certified by the Advanced Dealer Selection Process to sell, install, and support IBM Local Area Network Products.

6. PURCHASE OF INSTALLED MACHINES: For the IBM 3278, 3279, and 8775 in Category A which are purchased under the provisions of the Section entitled "Purchase of Installed Machines" in the Volume Procurement Amendment, the discounted purchase price will not be less than 30% of the purchase price used to determine the net purchase option price under the Agreement for Lease or Rental of IBM Machines.
7. END USER CERTIFICATION: The Section entitled "End User Certification" in the Volume Procurement Amendment does not apply to the IBM 3278, 3279, and 8775 machines in Category A which were installed under the Agreement for Lease or Rental of IBM Machines before January 1, 1985 and are purchased under the provisions of the Section entitled "Purchase of Installed Machines" in the Volume Procurement Amendment.
8. ADJUSTMENT CHARGE FACTORS AND WARRANTY INFORMATION. (For warranty information, see the appendix on Warranty Periods and Options).

---

Machine Type	Adjustment Charge Factor (\$)
3117	15
3118	20
3151	10
3161	10
3162	10
3163	10
3164	15
3174	120
3179	20
3180	20
3191	15
3192	18
3193	30
3194	30
3196	15
3197	18
3205	30
3274	140
3276	80
3278	25

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Machine Type	Adjustment Charge Factor (\$)
3279	25
3290	75
3295	40
3299	10
3363	30
3708	40
3710	250
3852	10
3979	5
4055	50
4201	6
4202	8
4207	8
4208	11
4216	22
4865	4
4869	5
5081	25
5083	6
5084	70
5085	180

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As of September 20, 1988

Machine Type	Adjustment Charge Factor (\$)
5087	100
5088	75
5140	20
5144	2
5145	4
5151	3
5153	7
5154	9
5160	30
5162	45
5167	8
5169	40
5170	55
5171	75
5173	8
5178	6
5201	15
5202	8
5208	30
5209	60
5216	20

Machine Type	Adjustment Charge Factor (\$)
5223	15
5271	45
5272	10
5273	55
5277	4
5278	35
5279	20
5294	35
5373	55
5378	85
5379	35
5531	45
5532	9
6157	18
6180	20
6184	55
6186	100
7372	20
7531	95
7532	95

Machine Type	Adjustment Charge Factor (\$)
7534	12
7552	115
8218	15
8219	15
8228	7
8503	5
8507	?
8512	10
8513	10
8514	20
8525	20
8530	25
8550	40
8560	65
8580	90
8775	40

#### 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 Address-

As of September 20, 1988

able 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.

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 (TOKEN-RING NETWORK)

A single-shipment volume offering is available for the IBM Token-Ring Network PC 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 re-marketing.

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

Figure 14. Single Shipment Volume Offering Pricing

#### SOFTWARE - VOLUME PROCUREMENT AMENDMENT

The terms below are from Exhibit PCLP-1, form Z125-4015-01, dated June 16, 1987.

If you have a different agreement in effect, its terms will govern your purchases. Under certain circumstances, you may

cancel an existing QEA without penalty in order to accept the terms of the new Agreement. See your IBM Marketing Representative for details.

1. ELIGIBLE PROGRAMS: Eligible Programs are specified in IBM's then generally available Eligible Program List(s) and may be Programs or Upgrades, Documentation, or Additional Licenses of such Programs, as identified in such List. Some Eligible Programs are Non-IBM Programs and are so indicated in the Eligible Program List. Additions to the Eligible Program List are also eligible hereunder if specified by IBM prior to their inclusion in such List.

Category	Eligible Programs
A	Personal Computer/System Programs
B(d)	Personal Computer/System Upgrades and Documentation
C	CAD/CAM Programs
D	CAD/CAM Programs
E(d)	CAD/CAM Programs
F	Industrial Computer Programs
G	RT Personal Computer Programs

#### 2. Discount Schedule:

Minimum Quantity of Eligible Programs by Category			Categories				
Duration (months)			A	C	D	F	G
12	18	24	---	---	---	---	---
4	6	8	*	*	5%	*	10%
6	9	12	*	15%	5	*	10
10	15	20	*	25	10	*	15
20	30	40	12%	25	15	*	21
25	38	50	12	30	15	12%	21
30	45	60	12	30	20	12	26
50	75	100	16	35		12	35
100	150	200	16			16	37
150	225	300	20			16	38
250	375	500	24			20	
500	750	1000	27			24	
1000	1500	2000	30			27	
1500	2250	3000	35++			30	

\* Not applicable to this Category

++ The 35% Discount Percent applies only to certain Eligible Programs as indicated in the Eligible Program List. Software in the following categories receives a 35% discount.

5871-BBB  
5871-CON  
5872-BBB  
5872-CON  
5873-AAA  
5873-BBB  
5874-BBB  
5876-BBB

Figure 15. 35% Discount Categories

(d) Dependent Categories

Dependent Category	Controlling Category
B	A
E	D

3. **ADDITIONAL LICENSES:** For Eligible Licensed Programs identified in an Eligible Program List 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, providing the order is accepted by IBM, the Customer is authorized to make a single additional copy of the machine-readable program materials of an AL Program (Additional License Copy). Additional License Copies are licensed under the IBM Program License Agreement included in the VPA, 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 VPA. Orders for Additional Licenses will be accepted only for quantities of 20 or more per Program in Category A, or 4 or more per Program in Category G.

No copies may be transferred to third parties. Labeling,

auditability, and control requirements also exist. See the full text of the Agreement for details.

THE FOLLOWING SECTION APPLIES ONLY TO THE PROGRAMS HAVING IBM SUPPORT CENTER SERVICE AVAILABLE.

4. **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 143.

THE FOLLOWING SECTION APPLIES ONLY TO ELIGIBLE PROGRAMS INDICATED AS HAVING A TESTING PERIOD AVAILABLE.

5. **TESTING PERIOD:** For each Eligible Licensed Program having a Testing Period available, the Customer may order up to three copies of each such program for a testing period (evaluation copies). The testing period will commence ten days after shipment of the program from IBM and end two months thereafter or at the end of the Contract Period of a Volume Commitment for the Category containing such Program, whichever 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 such program. The evaluation copies may not be transferred to any other party during the testing period. Unless notice of discontinuance is given, the Customer will be deemed, at the end of the testing period, to have retained the Eligible Program under the terms and conditions of the VPA and of the PLA included therein. Any such Program which is retained by the Customer will count toward the Total Quantity of Products by Category.

A testing period is available for all Programs in Category A except for Additional Licenses and Non-IBM Programs.

A testing period is available for all Programs in Category G except for Additional Licenses and Non-IBM Programs.

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.

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.

As of September 20, 1988

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 16. 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 17. QDA Ordering Vehicles (Old)

The above information applies to existing Quantity Discount Agreements. 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 distributor)
- The Amendment to the IBM Program License Agreement (Customer Redistribution) (Z125-3527, for redistribution within the distributor's organization)

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.

Volume Procurement

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 18. 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.

#### 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.

As of September 20, 1988

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 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	8525
4950	5170*	8530
5140	5171T	8550
5150	5271	8560
5155	5273	8570
5160	5371	8580
	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 19. 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 20. 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
	8507 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 21. VMA Eligible Machines

#### 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 man-



As of September 20, 1980

agement 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, three, or five years.

For more information, see your IBM Marketing Representative.

## 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 installation of the IBM Cabling System to be installed by the customer.

#### 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

As of September 20, 1988

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

| The IBM SolutionPac Personal Publishing Option upgrades an existing 8525 or 8530 and includes:

- | ▪ IBM Personal Pageprinter (4216-020)
- | ▪ IBM Personal Pageprinter Adapter (#7001)
- | ▪ IBM Personal Pageprinter Adapter Program (#8968, 07F4349)
- | ▪ IBM and Vendor environment/application software

| The IBM and Vendor software referred to above includes:

- | ▪ support for the full PostScript language
- | ▪ Microsoft Windows/286 V.2.1 (#9818)
- | ▪ Aldus Pagemaker V.3.0 (#9816)

| The IBM SolutionPac Personal Publishing Option upgrades an existing 5162 or 5170 (Models 99, 239, 319 and 339) and includes:

- | ▪ IBM Personal Pageprinter (4216-020)
- | ▪ IBM Personal Pageprinter Adapter (#7001)
- | ▪ IBM Personal Pageprinter Adapter Program (#8969, 07F4350)
- | ▪ IBM and Vendor environment/application software

| The IBM and Vendor software referred to above includes:

- | ▪ support for the full PostScript language
- | ▪ Microsoft Windows/286 V.2.1 (#9817)
- | ▪ Aldus Pagemaker V.3.0 (#9816)

IBM SolutionPac, Personal Publishing System, with 8530 and Monochrome Display	8653
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IBM SolutionPac Offerings

IBM SolutionPac, Personal Publishing System, with 8530 and Color Display	9088
IBM SolutionPac, Personal Publishing Option, to upgrade 8525 or 8530	6088
IBM SolutionPac, Personal Publishing Option, to upgrade 5162 or 5170 Models 99, 239, 319 or 339)	6088
Installation fee, SolutionPac Personal Publishing System	290
Installation fee, SolutionPac Personal Publishing Option	335

#### IBM SOLUTIONPAC - PERSONAL PUBLISHING OPTION/A

The IBM SolutionPac Personal Publishing Option/A 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 Option/A upgrades an existing 8550, 8560, 8570 or 8580 and includes:

- | ▪ IBM Personal Pageprinter (4216-020)
- | ▪ IBM Personal Pageprinter Adapter/A (#7002)
- | ▪ IBM Personal System/2 Mouse (#8770)
- | ▪ IBM Personal Pageprinter Adapter Program (#0854)
- | ▪ IBM and Vendor environment/application software

| The IBM and Vendor software referred to above includes:

- | ▪ support for the full PostScript language
- | ▪ Microsoft Windows/286 V.2.1 (#9818)
- | ▪ Aldus Pagemaker V.3.0 (#9816)

IBM SolutionPac, Personal Publishing Option/A, to upgrade 8550, 8560, 8570 or 8580.	6187
Installation fee, SolutionPac Personal Publishing Option/A	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

As of September 20, 1980

- 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

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 SolutionPac Offerings

### 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 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

As of September 20, 1988

#### 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. 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.

#### IBM SOLUTIONPAC - PERSONAL TYPING

The IBM SolutionPac Personal Typing, a secretarial application package, integrates the functions of a word processor and a typewriter for attachment with the IBM Personal System/2 Model 30. The SolutionPac includes complete application and system software on one diskette, an impact or non-impact correcting printer and attachment cable, special key caps for the keyboard, and documentation and installation on the customer's Model 30. Also included is customer education and 90 days of software support via an 800 number. The function includes key-to-print and correction modes which eliminate the need to maintain a typewriter in addition to a word processor/personal computer.

6902101 IBM SolutionPac Personal Typing with  
IBM Correcting WheelWriter (incl.  
software, documentation, printer,  
cable, installation, customer supplies  
PS/2 Model 30)

1575

As of September 20, 1981

6903101 IBM SolutionPac Personal Typing with  
IBM Correcting QuietWriter (incl.  
software, documentation, printer,  
cable, installation, customer supplies  
PS/2 Model 30) 1975

IBM SOLUTIONPAC - WRITING TO READ CENTER

The IBM SolutionPac Writing to Read Center is an IBM computer-based instructional center for schools. It is based on the well-known and proven Writing to Read program developed for IBM

by Dr. John Henry Martin. It is designed to develop reading and writing skills of kindergarten and first-grade students. The SolutionPac includes the necessary hardware, software, instructional materials, and support services to implement a complete center. The support services in this offering include education, installation assistance, and IBM application software support through a toll-free 800 number.

The purchase price of this SolutionPac is \$23,514 (used for reference purposes only) which includes equipment and software designed to accommodate five classes per day with 24 students per class. Reference ivory letter #288-329 for more information.

COOPERATIVE SOFTWARE PROGRAM

IBM has been authorized by certain Vendors to present sales materials and take orders for their computer programs (Non-IBM Programs).

Sales materials, including marketing brochures, literature, and price lists relating to such Programs have been supplied to IBM by the Vendor who is responsible for their contents. IBM makes no warranty as to the claims or statements contained in such Vendor marketing materials, and such claims and statements are the responsibility of the Vendor.

Warranties, if any, are limited to those made by the Vendor. WITH RESPECT TO NON-IBM PROGRAMS, IBM MAKES NO WARRANTIES, EXPRESS OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE.

The Vendor is responsible for licensing, terms and conditions, prices, distribution, invoicing the Customer, and accounts receivable. Either the Vendor or the Customer is responsible for installation, customer education, support, and maintenance depending on the agreement between them.

5758-IIA	DxTER Clinical Simulator System, Abdominal Stab Wounds	1695
5758-IIB	DxTER Clinical Simulator System, Chest Trauma	1695
5758-IIC	DxTER Clinical Simulator System, Patient with Diarrhea and Vomiting	1695
5758-IID	DxTER Clinical Simulator System, Motor Vehicle Trauma	1695
5758-IIE	DxTER Clinical Simulator System, Diagnostic Decisions in Shock	1695
5758-IIF	DxTER Clinical Simulator System, Shotgun Wound to the Abdomen	1695
5758-IIG	DxTER Clinical Simulator System, Initial Assessment of Respiratory Difficulties	1695
5758-IIH	DxTER Clinical Simulator System, Discontinuing Mechanical Ventilation	1695

5758-IIK	DxTER Clinical Simulator System, Pathophysiology of Shock / Pathophysiology of Cardiac Tamponade	1695
5758-IIL	DxTER Clinical Simulator System, Antishock Trousers / Central Venous Pressure	1695
5758-IIM	DxTER Clinical Simulator System, Chest Tubes / Chest Auscultation	1695
5758-IIN	DxTER Clinical Simulator System, I V Solutions / I V Therapy	1695
5758-KYA	Project Vision (Grade 1, 2 teaching numeration and computation, 'Mathematics Essential Skills Numeration and Computation')	1995
5758-WLA	The Versatile Organization (five InfoWindow videodisk modules for productivity improvement in sales, management, and administration) - Base Module	30000
5758-WLB	The Versatile Organization - Selling	15000
5758-WLC	The Versatile Organization - Managing	15000
5758-WLD	The Versatile Organization - Administering	15000
5758-WLE	Management Skill Development (ten InfoWindow videodisk modules providing management development) - Series	40000
5758-WLF	Management Skill Development - Perception	4000
5758-WLG	Management Skill Development - Organizing and Planning	4000
5758-WLH	Management Skill Development - Decision Making	4000
5758-WLI	Management Skill Development - Decisiveness	4000
5758-WLJ	Management Skill Development - Interpersonal Relations	4000
5758-WLK	Management Skill Development - Leadership	4000

As of September 20, 1988

5758-WLL	Management Skill Development - Control and Follow-up	4000	5758-SEB	REAPmate (Reliability Effectiveness Analysis Program) (5.25in)	3850
5758-WLM	Management Skill Development - Flexibility	4000	5758-ADA	PC Workbench	8000
5758-WLN	Management Skill Development - Oral Communication	4000	5758-MSA	HSPICE (RT PC)	8000
5758-WLO	Management Skill Development - Written Communication	4000	5758-GRD	HIL0-3 Universal Logic Simulation System (RT PC)	23000
5758-ESA	ESC Integrated Learning System (Base 1-8)	32000	5758-EIA	Touchstone (3.5in)	9900
5758-ES1	ESC Integrated Learning System (Expanded 9-12)	4000	5758-EIB	Touchstone (5.25in)	9900
5758-ES2	ESC Integrated Learning System (Expanded 13-16)	2400	5758-EIA	Requirements Verification Tool Set (RVTS) (3.5in)	2250
5758-ES3	ESC Integrated Learning System (Expanded 17-20)	6600	5758-EIB	Requirements Verification Tool Set (RVTS) (5.25in)	2250
5758-ES4	ESC Integrated Learning System (Expanded 21-24)	7600	9080	PC ARC/INFO Starter Kit	2500
5758-ES5	ESC Integrated Learning System (Expanded 25-28)	5600	9080	PC GRIDCONVERSION	1000
5758-ES6	ESC Integrated Learning System (Expanded 29-32)	6600	9080	PC OVERLAY	2000
5758-LMA	LaserMaker	2850	9080	PC ARCPLOT	1000
9080	CRISP Base System (Single System)	25000	9080	PC ARCDIT	1000
9080	CRISP Base System (2 through 10 Systems)	7500	9080	PC NETWORK	2000
9080	CRISP Base System (11 through 20 Systems)	5000	9080	PC INFO	1200
9080	CRISP Base System (More than 20 Systems)	2500	9080	SKILLPAC (5.25in)	5000
9080	CRISP Base System (Location License)	75000	9080	SKILLPAC (3.5in)	5000
9080	CRISP Base System (Bank License)	15000	Calendar; Notes and Messages; Mail and'		
9080	CRISP Product Profitability	15000	Calendar; Notes and Messages; Mail and'		
9080	CRISP Risk Analysis	20000	Calendar; Notes and Messages; Mail and'		
5758-SEA	REAPmate (Reliability Effectiveness Analysis Program) (3.5in)	3850	9080	Using PROFS: Overview Documents	6000
			9080	Using DisplayWrite/370	4000
			9080	Using DisplayWrite/370-PROFS Version	4000
			9080	Project Management Concepts and Principles	2750
			9080	Managing Projects with AS	2750
			9080	Using AS for Inquiry and Reporting	2750



As of September 20, 1988

MODEL/FC VPA	DESCRIPTION	PRICE
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PROCESSORS - PERSONAL SYSTEM/2 (MICROCHANNEL MODELS)

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
8550-031 a	Personal System/2 Model 50 Z (1MB) w/ 10MHz 80286 CPU, Enhanced Keyboard, Keylock, Clock/Calendar, 3.5in 1.44MB Dskt, 30MB Fixed Disk, integrated display, DASD, serial/parallel, pointing device adapter, zero wait state	3995
8550-061 a	Personal System/2 Model 50 Z (1MB) w/ 10MHz 80286 CPU, Enhanced Keyboard, Keylock, Clock/Calendar, 3.5in 1.44MB Dskt, 60MB Fixed Disk, integrated display, DASD, serial/parallel, pointing device adapter, zero wait state	4595
The Personal System/2 8550 Model R21 is primarily intended for use in bank teller applications.		
8550-R21 a	Personal System/2 Model 50 (1MB) w/ 10MHz 80286 CPU, 50-key function KB, Keylock, Clock/Calendar, 3.5in 1.44MB Dskt, 20MB Fixed Disk, 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	5795
8570-E61 a	Personal System/2 Model 70 386 (1MB) w/ 16MHz 80386 CPU, Enhanced Keyboard, Keylock, Clock/Calendar, 3.5in 1.44MB Diskette, 60MB Fixed Disk, and integrated display, DASD, serial/parallel, pointing device adapter	5995
8570-121 a	Personal System/2 Model 70 386 (2MB) w/ 20MHz 80386 CPU, Enhanced Keyboard, Keylock, Clock/Calendar, 3.5in 1.44MB Diskette, 120MB Fixed Disk, and integrated display, DASD, serial/parallel, pointing device adapter	7995
8570-A21 a	Personal System/2 Model 70 386 (2MB) w/ 25MHz 80386 CPU, Enhanced Keyboard, Keylock, Clock/Calendar, 3.5in 1.44MB Diskette, 120MB Fixed Disk, integrated display, DASD, serial/parallel, 64K memory cache (3Q88)	11295

For a special promotional offering on the following models, see "Personal System/2 Classroom Network Trial Program" on page 2.

As of September 20, 1988

MODEL/FC VPA	DESCRIPTION	PRICE			
8580-041 a	Personal System/2 Model 80 386 (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	6595	7	S68X-2311	Hardware Maintenance Service Supplement, Personal System/2 Model 70-E61, -121 75
8580-071 a	Personal System/2 Model 80 386 (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	7995		S68X-2255	Hardware Maintenance Service Supplement, Personal System/2 Model 80-041, -071 75
8580-111 a	Personal System/2 Model 80 386 (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	8995		S68X-2286	Hardware Maintenance Service Supplement, Personal System/2 Model 80-111, -311 75
8580-311 a	Personal System/2 Model 80 386 (2MB) w/ 20MHz 80386 CPU, Enhanced Keyboard, Keylock, Clock/Calendar, 3.5in 1.44MB Diskette, 314MB Fixed Disk, and integrated display, DASD, serial/parallel, pointing device adapter	11995		S68X-2221	Hardware Maintenance Reference, Personal System/2 125
				S68X-2313	Hardware Maintenance Reference Supplement, Personal System/2 Model 70-E61, -121 40
				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-2346	Hardware Maintenance Reference and Service Supplements, Personal System/2 Model 70-A21 (3Q88) 75
				S68X-2344	Hardware and BIOS Interface Technical Reference Supplements, Personal System/2 Model 70-A21 (3Q88) 50
				S68X-2330	Hardware Interface Technical Reference, Personal System/2 (Model 50, 60, 70 and 80 systems) 125
				S68X-2341	BIOS Interface Technical Reference, Personal System/2 125
				S229-9606	Technical Reference (Binder), Personal System/2 ??
<u>PERSONAL SYSTEM/2 SUPPORT PUBLICATIONS (MICROCHANNEL MODELS)</u>					
S68X-2247	Quick Reference, Personal System/2 Model 50	45			
S68X-2213	Quick Reference, Personal System/2 Model 60	45			
S68X-2308	Quick Reference and Diskette, Personal System/2 Model 70-E61, -121	45			
S68X-2345	Quick Reference and Diskette, Personal System/2 Model 70-A21 (3Q88)	45			
S68X-2259	Quick Reference, Personal System/2 Model 80-041, -071	45			
S68X-2284	Quick Reference, Personal System/2 Model 80-111, -311	45			
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			
				3001 a	IBM Personal System/2 80287 Math Co-Processor 595
				6320	IBM Personal System/2 80387 Math Co-Processor - 25MHz (for 8570 model A21) (3Q88) 2395
				3002 a	IBM Personal System/2 80387 Math Co-Processor (for 8580 model 041, 071) 895
				8720 a	IBM Personal System/2 80387 Math Co-Processor (for 8580 model 111) 1295
<u>PROCESSOR FEATURES - PERSONAL SYSTEM/2 (MICROCHANNEL MODELS)</u>					

Processors - Personal System/2 (MicroChannel Models)

As of September 20, 1988

MODEL/FC VPA	DESCRIPTION	PRICE
<u>MEMORY - PERSONAL SYSTEM/2 (MICROCHANNEL MODELS)</u>		
3006 a	IBM Personal System/2 80286 Memory Expansion Option (.5MB standard, maximum 2MB)	630
3012 a	IBM Personal System/2 80286 Memory Expansion Kit (.5MB, for use on FC 3006)	215
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)	728
5211 a	IBM Personal System/2 2-8MB 80386 Memory Expansion Option (2MB standard, max. 8MB, for 8570-E61 and 121 only)	1695
3019 a	IBM Personal System/2 80386 Memory Expansion Option (2MB standard, max. 6MB)	1695
3064 a	IBM Personal System/2 80386 Memory Expansion Kit (2MB, for use on FC 3019)	1395
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)	1395
5212	IBM Personal System/2 1MB Memory Module Kit - 85ns (for 8570-E61 and 121 only)	695
5213	IBM Personal System/2 2MB Memory Module Kit - 85ns (for 8570-E61 and 121 only)	1395
5214	IBM Personal System/2 2MB Memory Module Kit - 80ns (for 8570-A21 only) (3Q88)	1495
7259	IBM 0-8MB Expanded Memory Adapter/A (XMA) for Personal System/2	600
3397	IBM 0.5MB Memory Module Kit (for use with Expanded Memory Adapter/A)	215
7833	IBM 2MB Memory Module Kit (for use with Expanded Memory Adapter/A and 80286 Expanded Memory (Adapter/A)	995
S01F-0227	Hardware Maintenance Library Update 0-8MB Expanded Memory Adapter/A (XMA)	??
S01F-0228	Technical Reference Manual Update 0-8MB Expanded Memory Adapter/A (XMA)	??

SA23-1043	Technical Reference Manual, 2MB Expanded Memory Adapter/A (XMA)	??
SA23-1032	Hardware Maintenance Service Update, 2MB Expanded Memory Adapter/A (XMA)	??
S68X-2338	2-8MB Memory Expansion Option Hardware Maintenance Supplements	25
S68X-2339	2-8MB Memory Expansion Option Technical Reference	12

DIRECT-ACCESS STORAGE DEVICES, PERSONAL SYSTEM/2 (MICROCHANNEL MOD)

3057 a	IBM Personal System/2 1.44MB Diskette Drive	256
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 (MicroChannel models)	70
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)	1460
S68X-2233	Technical Reference Manual, 44MB Fixed Disk Drive, Personal System/2	6
6666	IBM Personal System/2 60MB Fixed Disk Drive (for 8550-021, 8550-031) (9/88)	1695
3051 a	IBM Personal System/2 70MB Fixed Disk Drive (ESDI technology, for 8560-071, 8580-071, 8580-111)	2505
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)	3660
S68X-2314	Technical Reference, 60MB and 120MB Fixed Disk, Personal System/2	9
S68X-2236	Technical Reference Options/Adapters Manual, 115MB and 314MB Fixed Disk, Personal System/2	6

Processors - Personal System/2 (MicroChannel Models)

As of September 20, 1988

MODEL/FC VPA	DESCRIPTION	PRICE
6023 a	IBM Personal System/2 314MB Fixed Disk Drive (ESDI technology, for 8580-071, 8580-111, 8580-311)	6805
S68X-2236	Technical Reference Options/Adapters Manual, 314MB Fixed Disk, Personal System/2	6
8700 b	Internal Optical Disk Drive (200MB, removable media, write once) Not for use over LAN (installs in Personal System/2 Model 60 and 80)	2700
3363-A11 b	External Optical Disk Drive (200MB, removable media, write once) Not for use over LAN (attaches to Personal System/2 except Model 30)	2950

#### TAPE BACKUP DEVICES, PERSONAL SYSTEM/2 (MICROCHANNEL MODELS)

4160	6157 Tape Attachment Adapter for Personal System/2, req. SY-TOS Tape Utilities V.2	366
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#### MISCELLANEOUS FEATURES, PERSONAL SYSTEM/2

8770 a	IBM Personal System/2 Mouse (two-button mechanical, attaches to integrated pointing-device port, also for 8530)	99
S68X-2229	Technical Reference Manual, Mouse, Personal System/2	6
5280 A	IBM Personal System/2 Internal Tape Backup Convenience Kit (DOS Version, includes PS/2 Internal Tape Program, PS/2 Internal Tape Backup Unit and a formatted mini-tape cartridge) (10/14/88)	895
5279 a	IBM Personal System/2 Internal Tape Backup Unit (installed internally on PS/2 Models 50, 60, 70 and 80) (10/14/88)	765
5279 A	IBM Personal System/2 Internal Tape Backup Program (3.5in) (DOS Version) (10/14/88)	100
G571-0162	IBM Personal System/2 Internal Tape Backup Program Users Guide (DOS Version) (10/14/88)	??
G571-0163	IBM Personal System/2 Internal Tape Backup Unit Installation and Testing Guide (10/14/88)	??

G571-0164	IBM Personal System/2 Internal Tape Backup Unit Supplements for the Hardware Maintenance Library (10/14/88)	??
G571-0165	IBM Personal System/2 Internal Tape Backup Unit Technical Reference (10/14/88)	??
6450602	IBM Personal System/2 Screen Reader (enables visually-impaired user to hear the display as the sighted computer user sees it)	600

#### DISPLAYS AND ATTACHMENTS, PERSONAL SYSTEM/2

The following displays are supported on the IBM Personal Computer by means of the IBM Display Adapter, FC 4050. The IBM Display Adapter provides enhanced function for the 8530.

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 Megapixel, built-in tilt/swivel)	275
8507-001 b	Personal System/2 Monochrome Display (19in Diagonal) (16 grey shades, 80 character x 25 line, 1024H x 768V resolution, .73 Megapixel, built-in tilt/swivel) (11/30/88)	865
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 Megapixel)	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 Megapixel, built-in tilt/swivel)	750
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 Megapixel, built-in tilt/swivel)	1550

As of September 20, 1988

MODEL/FC VPA	DESCRIPTION	PRICE
S68X-2206	Technical Reference Manual, 8503, 8512, 8513 Displays for Personal System/2	6
SA23-2472	Technical Reference Manual, 8507 Display for Personal System/2	4
SA23-2473	Hardware Maintenance Reference Supplement, Personal System/2 8507 Display	2
SA23-2474	Hardware Maintenance Service Supplement, Personal System/2 8507 Display	2
SA23-2471	Installation and Testing Instructions, Personal System/2 8507 Display	?
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 (Microchannel Models) (Supports 8514 with 1024x768x16 color, performance improvements, 146 char x 51 lines, also grey scale)	1350
4081 a	IBM 8514 Memory Expansion Kit for Personal System/2 (Microchannel Models) (attaches to FC 4054) provides 256 colors from palette of 256K colors plus 64 grey levels on mono displays	282
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

7743	IBM Display Station Emulation Adapter/A	657
7742	IBM Display Station Emulation Attachment Cable	70
7742	IBM Display Station Emulation Attachment Cable	70
G571-0146	Display Station Emulation Adapter/A Quick Reference	??
G571-0147	Display Station Emulation Adapter/A Hardware Maintenance and Service	??
G571-0148	Display Station Emulation Adapter/A Technical Reference	??
0744 A	IBM 5520 Personal System/2 Attachment Convenience Kit Version 1.0 (Includes 5520 Attachment Pgm (#0041), Disp Station Emul Att Cable (#7742) and Disp Station Emul Adptr/A (7743)) (3.5in)	995
0741 A	IBM 5520 Personal System/2 Attachment Program Version 1.0 (Program Package)	268
1147 A	IBM 5520 Personal System/2 Attachment Program Version 1.0 (Additional Licenses) (3.5in)	199
1148 A	IBM 5520 Personal System/2 Attachment Program Version 1.0 (Documentation Only)	69
<u>IMAGE DEVICE ATTACHMENT - PERSONAL SYSTEM/2 (MICROCHANNEL MODELS)</u>		
1029 a	3117 Adapter/A for Personal System/2 (MicroChannel Models) (Connects 3117, Pers Sys/2, Req. cable FC 3005)	293
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 (MicroChannel Models) (Connects 3118, or 3117 with Expansion Unit to Pers Sys/2 at 1mbps RS422, req. serial communications cable FC 0217)	309
5442 a	IBM 3119 Adapter/A for Personal System/2 (MicroChannel Models) (Connects 3119 to PS/2)	950
SC18-2155	Technical Reference, High Speed Adapter/A	13.25
SK2T-0953	Hardware Maintenance and Service, High Speed Adapter/A	23.75

As of September 20, 1986

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

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, all models except 8580-111 and 311)	340
3043 a	IBM Personal System/2 Multi-Protocol Adapter/A (supports async, BSC, HDLC, SDLC to 19.2KBPS, all models including 8580-111 and 311)	340
S68X-2316	Technical Reference Manual, Multi-Protocol Adapter/A, Personal System/2	12
8000	Ungermann-Bass NICps/2 Adapter 1542 (supports Ethernet) (for use with 6152, 8550, 8560 and 8580 systems)	550

ADAPTERS, PERSONAL SYSTEM/2 (MICROCHANNEL MODELS)

7122 a	IBM 4250 Print Adapter/A (refer to ivory 188-053 for more details)	2775
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ASYNCHRONOUS COMMUNICATION, PERSONAL SYSTEM/2 (MICROCHANNEL MODELS)

See also the Multi-Protocol Communication Adapter/A

0349 a	IBM Personal System/2 300/1200 Internal Modem/A (asynchronous)	413
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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)	225
S68X-2217	Technical Reference Manual, Dual Async Adapter/A, Personal System/2	6

TWINAXIAL S/36, S/38 ATTACHMENT, PERSONAL SYSTEM/2 (MICROCHANNEL MODELS)

6279 a	IBM System 36/38 Workstation Emulation Adapter/A and Quick Reference (incl. Diagnostics)	649
6293 a	IBM System 36/38 Workstation Emulation Attachment Cable	68
SY31-9053	IBM System 36/38 Workstation Emulation Adapter Hardware Maintenance and Service	??
SA21-9862	IBM System 36/38 Workstation Emulation Adapter Technical Reference	??
SA21-9925	IBM System 36/38 Workstation Emulation Adapter/A Quick Reference and Diagnostics	??
6286 A	IBM System 36/38 Workstation Emulation Program V.1.0 (4 sessions, graphics support) (3.5in) Warranted, Central Service to 12/31/90	160
6287 A	IBM System 36/38 Workstation Emulation Program Convenience Kit, (incl. FC 6286, 6279, 6293, SA21-9925) Warranted, Central Service to 12/31/90	845
SC21-8068	System 36/38 Workstation Emulation Program Technical Reference	??

Communications Hardware and Software - Personal System/2 (MicroChannel Models)

As of September 20, 1988

MODEL/FC VPA	DESCRIPTION	PRICE
<u>COAXIAL COMMUNICATIONS, PERSONAL SYSTEM/2 (MICROCHANNEL MODELS)</u>		
2000 a	IBM 3270 Connection for Personal System/2 (coax adapter) (attachment to 8580-041/-071)	624
G126-0190	3270 Connection Quick Reference and Diagnostics	??
GA23-0339	3270 Connection Technical Reference	??

LOCAL AREA NETWORKS, PERSONAL SYSTEM/2 (MICROCHANNEL MODELS)

IBM TOKEN-RING NETWORK, PERSONAL SYSTEM/2 (MICROCHANNEL MODELS)

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)	4710
4790 a	IBM Token-Ring Network Adapter/A for Personal System/2 (function equivalent to Adapter II)	833
5774 a	IBM Token-Ring Network Trace and Performance PC Adapter/A, Requires Token-Ring Trace and Performance Program	1280
8881 a	Remote Program Load for Token-Ring Network Adapter/A (EPROM)	94

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 (W/D 12/20/88)	270

IBM PC NETWORK, PERSONAL SYSTEM/2 (MICROCHANNEL MODELS)

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)	597
5647	IBM PC Network Adapter II/A-Frequency 2 (supports broadband channels 2' and 0, 1 per PC, 9-ft. coax, req. LAN Support Program)	570
5648	IBM PC Network Adapter II/A-Frequency 3 (supports broadband channels 3' and P, 1 per PC, 9-ft. coax, req. LAN Support Program)	570
S68X-2263	IBM PC Network Adapter II/A Technical Reference	21.25
SC30-3492	IBM PC Network Adapter II/A-Frequency 2 Technical Reference	8.95
SC30-3493	IBM PC Network Adapter II/A-Frequency 3 Technical Reference	8.95
1223 a	IBM PC Network Baseband Adapter/A (req. LAN Support Program)	295
S68X-2264	IBM PC Network Baseband Adapter/A Technical Reference	21.25

As of September 20, 1988

MODEL/FC VPA	DESCRIPTION	PRICE
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OPERATING SYSTEM/2 SOFTWARE (OS/2)

OS/2 OPERATING SYSTEMS AND PROGRAMMING AIDS

OPERATING SYSTEM/2 AND COMPILERS

Operating System/2 is supported on the IBM PC/AT and PC XT/286 with graphics displays, as well as Personal System/2 models having 80286 or 80386 CPUs.

0923 A	IBM Operating System/2 V.1.0 Standard Edition (3.5in) (OS/2) Warranted, Central Services for 12 months from availability ** (Program Package)	325
0925 A	IBM Operating System/2 V.1.0 Standard Edition (5.25in) (OS/2) Warranted, Central Services for 12 months from availability ** (Program Package)	325
0639 A	IBM Operating System/2 V.1.0 Standard Edition (OS/2) (Additional Licenses)	290
0641 B	IBM Operating System/2 V.1.0 Standard Edition (OS/2) (Documentation Only)	35
0927 A	IBM Operating System/2 V.1.0 Standard Edition Programmer's Toolkit (OS/2), Warranted, Central Service for 12 months (5.25in+3.5in) from availability **	750
0928 A	IBM Operating System/2 V.1.0 Standard Edition (OS/2) Technical Reference, Warranted, Central Service for 12 months from availability **	200
0809 A	IBM Operating System/2 V.1.1 Standard Edition (OS/2) (3.5in) Warranted, Central Services for 12 months from availability ** (Program Package) (10/88)	325

0810 A	IBM Operating System/2 V.1.1 Standard Edition (OS/2) (5.25in) Warranted, Central Services for 12 months from availability ** (Program Package) (10/88)	325
0640 A	IBM Operating System/2 V.1.1 Standard Edition (OS/2) (Additional Licenses) (10/88)	290
0642 B	IBM Operating System/2 V.1.1 Standard Edition (OS/2) (Documentation Only) (10/88)	35
0811 A	IBM Operating System/2 V.1.1 Standard Edition Programmer's Toolkit (OS/2), Warranted, Central Service for 12 months from availability ** (10/88)	750
0812 A	IBM Operating System/2 V.1.1 Standard Edition Technical Reference (OS/2), Warranted, Central Service for 12 months from availability ** (10/88)	200
7934 A	IBM Operating System/2 V.1.0 Extended Edition (3.5in) (OS/2) Warranted, Central Services for 12 months from availability ** (Program Package)	795
7933 A	IBM Operating System/2 V.1.0 Extended Edition (5.25in) (OS/2) Warranted, Central Services for 12 months from availability ** (Program Package)	795
7935 A	IBM Operating System/2 V.1.0 Extended Edition (OS/2) (Additional Licenses)	595
7939 B	IBM Operating System/2 V.1.0 Extended Edition (OS/2) (Documentation Only)	90
7937 B	IBM Operating System/2 V.1.0 Standard Edition to Extended Edition 1.0 (3.5in) (OS/2) (Upgrade)	645
7936 B	IBM Operating System/2 V.1.0 Standard Edition to Extended Edition 1.0 (5.25in) (OS/2) (Upgrade)	645

Operating System/2 Software (OS/2)



As of September 20, 1988

MODEL/FC VPA	DESCRIPTION	PRICE			
7938 B	IBM Operating System/2 V.1.0 Standard Edition to Extended Edition 1.0 (OS/2) (Additional License Upgrade)	465	0661 B	IBM Operating System/2 V.1.0 or 1.1 Standard Edition to Extended Edition 1.1 (3.5in) (OS/2) (Upgrade) (11/88)	645
7941 B	IBM 3270 Workstation Control Program V.1.0 or V.1.1 to IBM Operating System/2 Extended Edition 1.0 (3.5in) (Upgrade)	595	0662 B	IBM Operating System/2 V.1.0 or 1.1 Standard Edition to Extended Edition 1.1 (5.25in) (OS/2) (Upgrade) (11/88)	645
7940 B	IBM 3270 Workstation Control Program V.1.0 or V.1.1 to IBM Operating System/2 Extended Edition 1.0 (5.25in) (OS/2) (Upgrade)	595	0644 B	IBM Operating System/2 V.1.0 or 1.1 Standard Edition to Extended Edition 1.1 (OS/2) (Additional License Upgrade) (11/88)	460
7942 A	IBM 3270 Workstation Control Program V.1.0 or V.1.1 to IBM Operating System/2 Extended Edition 1.0 (OS/2) (Additional License Upgrade)	395	7125 B	IBM Disk Operating System (DOS) 3.X to IBM Operating System/2 Extended Edition 1.0 (OS/2) (3.5in) (Program Package Upgrade)	740
7954 B	IBM 3270 Emulation Program V.3.0 to IBM Operating System/2 Extended Edition 1.0 (3.5in) (OS/2) (Upgrade)	595	7124 B	IBM Disk Operating System (DOS) 3.X to IBM Operating System/2 Extended Edition 1.0 (OS/2) (5.25in) (Program Package Upgrade)	740
7953 B	IBM 3270 Emulation Program V.3.0 to IBM Operating System/2 Extended Edition 1.0 (5.25in) (OS/2) (Upgrade)	595	7126 B	IBM Disk Operating System (DOS) 3.X to IBM Operating System/2 Extended Edition 1.0 (OS/2) (Additional License Upgrade)	540
7955 A	IBM 3270 Emulation Program V.3.0 to IBM Operating System/2 Extended Edition 1.0 (OS/2) (Additional License Upgrade)	395	1431 B	IBM Disk Operating System (DOS) 3.X to IBM Operating System/2 Standard Edition 1.0 (OS/2) (3.5in) (Program Package Upgrade)	270
7957 B	IBM 3270 Emulation Program, Entry Level, V.1.1 or V.1.2 to IBM Operating System/2 Extended Edition 1.0 (3.5in) (OS/2) (Upgrade)	695	1430 B	IBM Disk Operating System (DOS) 3.X to IBM Operating System/2 Standard Edition 1.0 (OS/2) (5.25in) (Program Package Upgrade)	270
7956 B	IBM 3270 Emulation Program, Entry Level, V.1.1 or V.1.2 to IBM Operating System/2 Extended Edition 1.0 (5.25in) (OS/2) (Upgrade)	695	1432 B	IBM Disk Operating System (DOS) 3.X to IBM Operating System/2 Standard Edition 1.0 (OS/2) (Additional License Upgrade)	235
7958 A	IBM 3270 Emulation Program, Entry Level, V.1.1 or V.1.2 to IBM Operating System/2 Extended Edition 1.0 (OS/2) (Additional License Upgrade)	495	90X7931 B	IBM 3270 Workstation Control Program V.1.0 or V.1.1 to IBM Operating System/2 Extended Edition 1.1 (3.5in) (OS/2) (Upgrade) (11/88)	595
7900 A	IBM Operating System/2 V.1.1 Extended Edition (3.5in) (OS/2) Warranted, Central Services for 12 months from availability ** (Program Package) (11/88)	795	90X7930 B	IBM 3270 Workstation Control Program V.1.0 or V.1.1 to IBM Operating System/2 Extended Edition 1.1 (5.25in) (OS/2) (Upgrade)	595
7899 A	IBM Operating System/2 V.1.1 Extended Edition (5.25in) (OS/2) Warranted, Central Services for 12 months from availability ** (Program Package)	795	90X7932 A	IBM 3270 Workstation Control Program V.1.0 or V.1.1 to IBM Operating System/2 Extended Edition 1.1 (OS/2) (Additional License Upgrade) (11/88)	395
0634 A	IBM Operating System/2 V.1.1 Extended Edition (OS/2) (Additional License) (11/88)	595	90X7964 B	IBM 3270 Emulation Program V.3.0 to IBM Operating System/2 Extended Edition 1.1 (3.5in) (OS/2) (Upgrade) (11/88)	595
0660 B	IBM Operating System/2 V.1.1 Extended Edition (OS/2) (Documentation Only) (11/88)	90			

As of September 20, 1988

MODEL/FC VPA	DESCRIPTION	PRICE			
90X7963 B	IBM 3270 Emulation Program V.3.0 to IBM Operating System/2 Extended Edition 1.1 (5.25in) (OS/2) (Upgrade) (11/88)	595	S90X-7905	IBM Operating System/2 Extended Edition Data Base Manager Programming Guide and Reference	25
90X7965 A	IBM 3270 Emulation Program V.3.0 to IBM Operating System/2 Extended Edition 1.1 (OS/2) (Additional License Upgrade) (11/88)	395	S90X-7944	IBM Operating System/2 Extended Edition V.1.0 Data Base Manager Programming Guide and Reference	25
90X7967 B	IBM 3270 Emulation Program, Entry Level, V.1.0 or V.1.1 to IBM Operating System/2 Extended Edition 1.1 (3.5in) (Upgrade) (OS/2) (11/88)	695	0828 A	BASIC 3.3 Reference Manual (For OS/2)	45
90X7966 B	IBM 3270 Emulation Program, Entry Level, V.1.0 or V.1.1 to IBM Operating System/2 Extended Edition 1.1 (5.25in) (Upgrade) (OS/2) (11/88)	695	0820 A	IBM Macro Assembler/2 (Program Package) (5.25in+3.5in)	240
90X7968 A	IBM 3270 Emulation Program, Entry Level, V.1.0 or V.1.1 to IBM Operating System/2 Extended Edition 1.1 (OS/2) (Additional License Upgrade) (11/88)	495	0879 A	IBM Macro Assembler/2 (Additional Licenses)	205
			0880 B	IBM Macro Assembler/2 (Documentation Only)	55
			0822 A	IBM BASIC Compiler/2 (Program Package) (5.25in+3.5in)	635
			0881 A	IBM BASIC Compiler/2 (Additional Licenses)	540
			0882 B	IBM BASIC Compiler/2 (Documentation Only)	55
			0818 A	IBM C/2 Compiler (Program Package) (5.25in+3.5in)	560
			0877 A	IBM C/2 Compiler (Additional Licenses)	475
			0878 B	IBM C/2 Compiler (Documentation Only)	75
			6280284 A	IBM C/2 Compiler (Program Package) (3.5in) (10/88)	560
			6280299	IBM C/2 Compiler (Supplemental Media) (5.25in) (10/88)	N/C
			6280300 A	IBM C/2 Compiler (Additional Licenses) (10/88)	475
			6280266 B	IBM C/2 Compiler (Documentation Only) (10/88)	60
			6280286 B	IBM C/2 Compiler (Program Package Upgrade) (3.5in) (10/88) (W/D 7/31/89)	280
			6280298 B	IBM C/2 Compiler (Program Package Upgrade) (5.25in) (10/88) (W/D 7/31/89)	280
			6280298 B	IBM C/2 Compiler (Additional License Upgrade) (10/88) (W/D 7/31/89)	235
			0816 A	IBM COBOL/2 Compiler (Program Package) (5.25in+3.5in)	965
			0873 A	IBM COBOL/2 Compiler (Additional Licenses)	810
			0874 B	IBM COBOL/2 Compiler (Documentation Only)	90
			0824 A	IBM FORTRAN/2 Compiler (Program Package) (5.25in+3.5in)	635
			0875 A	IBM FORTRAN/2 Compiler (Additional Licenses)	540
			0876 B	IBM FORTRAN/2 Compiler (Documentation Only)	55
			0826 A	IBM PASCAL/2 Compiler (Program Package) (5.25in+3.5in)	635
<u>OPERATING SYSTEM/2 SUPPORT PUBLICATIONS</u>					
S90X-7948	IBM Operating System/2 Extended Edition System Administrator's Guide for Communications	??			
S90X-7946	IBM Operating System/2 Extended Edition Problem Determination Guide for the Service Coordinator	??			
S90X-7951	IBM Operating System/2 Extended Edition Programming Services and Problem Determination for Communications	??			
S90X-7909	IBM Operating System/2 Extended Edition ECF Server-Requester (SRPI) Programming Reference	25			
S90X-7949	IBM Operating System/2 Extended Edition V.1.0 ECF Server-Requester (SRPI) Programming Reference	25			
S90X-7950	IBM Operating System/2 Extended Edition V.1.0 APPC Programming Reference	45			
S90X-7910	IBM Operating System/2 Extended Edition APPC Programming Reference	45			
S90X-7911	IBM Operating System/2 Extended Edition ACDI Programming Reference	25			
S90X-7947	IBM Operating System/2 Extended Edition V.1.0 ACDI Programming Reference	25			

As of September 20, 1988

MODEL/FC VPA	DESCRIPTION	PRICE
0883 A	IBM PASCAL/2 Compiler (Additional Licenses)	540
0884 B	IBM PASCAL/2 Compiler (Documentation Only)	85

GRAPHICS SOFTWARE, OPERATING SYSTEM/2

0930 A	IBM Operating System/2 Graphics Development ToolKit	1400
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IBM 7552 INDUSTRIAL COMPUTER SOFTWARE, OPERATING SYSTEM/2

5601-136 F	IBM Operating System/2 Support and Language Extensions/2 for the IBM 7552 Industrial Computer (FC 9001, 5072, 4576) (3.5in+5.25in)	400
SC28-8056	Language Extensions/2 User's Guide	??

RPG II APPLICATION PLATFORM/TOOLKIT, OPERATING SYSTEM/2

1406 A	PS/2 RPG II Application Toolkit (3.5in) (Primarily intended for migration of S/3X RPG II programs into PS/2 RPG II Application Platform environment) (Program Package) Warranted, Central Service until 9/30/89	3000
1408	PS/2 RPG II Application Toolkit (Documentation Only)	75
1407 A	PS/2 RPG II Application Toolkit (3.5in) (Provides the capability to execute RPG II programs in a multiuser environment on the PS/2 running under OS/2) (Program Package) Warranted, Central Service until 9/30/89	1500
1409	PS/2 RPG II Application Toolkit (Documentation Only)	75

WORD PROCESSING PROGRAMS, OPERATING SYSTEM/2

IBM DISPLAYWRITE 4/2 SERIES FOR OPERATING SYSTEM/2

1121 A	DisplayWrite 4/2 (3.5in) Warranted, Central Service for 90 days	495
1122 A	DisplayWrite 4/2 (5.25in) (Program Package) Warranted, Central Service to 3/31/90	495
1121 A	DisplayWrite 4/2 (3.5in) (Program Package) Warranted, Central Service to 3/31/90	495
0663 A	DisplayWrite 4/2 (Additional Licenses)	425
0665 B	DisplayWrite 4/2 (Documentation Only)	70
1124 B	DisplayWrite 4 to DisplayWrite 4/2 (3.5in) (Program Package Upgrade) (through ??)	125
1123 B	DisplayWrite 4 to DisplayWrite 4/2 (5.25in) (Program Package Upgrade) (through ??)	125
0664 B	DisplayWrite 4 to DisplayWrite/2 (Additional Licenses of Upgrade) (through ??)	100

OTHER PROGRAMS, OPERATING SYSTEM/2

5669-329	Various Applications/2 (MERVA/2) (allows creation of S.W.I.F.T. messages, including authorization and verification) (Central Service for 6 months)	25000
5669-330	S.W.I.F.T. Network Link/2 (DSNL/2) (allows send/receive of S.W.I.F.T. messages, including logging) (Central Service for 6 months)	17500

As of September 20, 1988

MODEL/FC VPA	DESCRIPTION	PRICE
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IBM PS/2 ADVANCED INTERACTIVE EXECUTIVE (AIX)

	The AIX Operating System for the Personal System/2 runs only on the IBM Personal System/2 Model 80.	
5713-AEQ	IBM AIX PS/2 Operating System (Program Package) (3.5in) (9/88) Warranted, Central Service 6 mo. notice or to 12/31/90	595
5713-AEQ	IBM AIX PS/2 Operating System (Additional Licenses) (3.5in) (9/88)	508
5713-AFH	IBM AIX PS/2 Operating System Extensions (Program Package) (3.5in) (9/88) Warranted, Central Service 6 mo. notice or to 12/31/90	250
5713-AFH	IBM AIX PS/2 Operating System Extensions (Additional Licenses) (3.5in) (9/88) Warranted, Central Service 6 mo. notice or to 12/31/90	127
5713-AEY	IBM AIX PS/2 DOS Merge (Program Package) (3.5in) (9/88) Warranted, Central Service 6 mo. notice or to 12/31/90	250
5713-AEY	IBM AIX PS/2 DOS Merge (Additional Licenses) (3.5in) (9/88) Warranted, Central Service 6 mo. notice or to 12/31/90	197
5713-AFE	IBM AIX PS/2 Usability Services (Program Package) (3.5in) (9/88) Warranted, Central Service 6 mo. notice or to 12/31/90	250
5713-AFE	IBM AIX PS/2 Usability Services (Additional Licenses) (3.5in) (9/88) Warranted, Central Service 6 mo. notice or to 12/31/90	213
5713-AFD	IBM AIX PS/2 Text Formatting Services (Program Package) (3.5in) (9/88) Warranted, Central Service 6 mo. notice or to 12/31/90	200

5713-AFD	IBM AIX PS/2 Text Formatting Services (Additional Licenses) (3.5in) (9/88) Warranted, Central Service 6 mo. notice or to 12/31/90	120
5713-AEX	IBM AIX PS/2 X-Windows (Program Package) (3.5in) (9/88) Warranted, Central Service 6 mo. notice or to 12/31/90	195
5713-AEX	IBM AIX PS/2 X-Windows (Additional Licenses) (3.5in) (9/88) Warranted, Central Service 6 mo. notice or to 12/31/90	130
5713-AER	IBM AIX PS/2 Workstation Host Interface Program (Program Package) (3.5in) (9/88) Warranted, Central Service 6 mo. notice or to 12/31/90	400
5713-AER	IBM AIX PS/2 Workstation Host Interface Program (Additional Licenses) (3.5in) (9/88) Warranted, Central Service 6 mo. notice or to 12/31/90	334
5713-AEW	IBM AIX PS/2 Transmission Control Protocol/Internet Protocol (TCP/IP) (Program Package) (3.5in) (9/88) Warranted, Central Service 6 mo. notice or to 12/31/90	300
5713-AEW	IBM AIX PS/2 Transmission Control Protocol/Internet Protocol (TCP/IP) (Additional Licenses) (3.5in) (9/88) Warranted, Central Service 6 mo. notice or to 12/31/90	266
5713-AET	IBM AIX PS/2 INmail/INed/INnet/FTP (Program Package) (3.5in) (9/88) Warranted, Central Service 6 mo. notice or to 12/31/90	250
5713-AET	IBM AIX PS/2 INmail/INed/INnet/FTP (Additional Licenses) (3.5in) (9/88) Warranted, Central Service 6 mo. notice or to 12/31/90	211

IBM PS/2 Advanced Interactive Executive (AIX)

As of September 20, 1988

MODEL/FC VPA	DESCRIPTION	PRICE	
5713-AFA	IBM AIX PS/2 VS FORTRAN (Program Package) (3.5in) (9/88) Warranted, Central Service 6 mo. notice or to 12/31/90	275	
5713-AFA	IBM AIX PS/2 VS FORTRAN (Additional Licenses) (3.5in) (9/88) Warranted, Central Service 6 mo. notice or to 12/31/90	198	
5713-AEZ	IBM AIX PS/2 VS Pascal (Program Package) (3.5in) (9/88) Warranted, Central Service 6 mo. notice or to 12/31/90	275	
5713-AEZ	IBM AIX PS/2 VS Pascal (Additional Licenses) (3.5in) (9/88) Warranted, Central Service 6 mo. notice or to 12/31/90	169	
5713-AFC	IBM AIX PS/2 C Language (Program Package) (3.5in) (9/88) Warranted, Central Service 6 mo. notice or to 12/31/90	275	
5713-AFC	IBM AIX PS/2 C Language (Additional Licenses) (3.5in) (9/88) Warranted, Central Service 6 mo. notice or to 12/31/90	202	
5713-AEP	IBM AIX PS/2 Application Development Toolkit (Program Package) (3.5in) (9/88) Warranted, Central Service 6 mo. notice or to 12/31/90	175	
5713-AEP	IBM AIX PS/2 Application Development Toolkit (Additional Licenses) (3.5in) (9/88) Warranted, Central Service 6 mo. notice or to 12/31/90	109	
11F8252 A	IBM AIX Access for DOS Users (3/31/89) (Program Package) Warranted, Central Service 6 mo. notice or to 8/31/90	150	
11F8240 A	IBM AIX Access for DOS Users (3/31/89) (Additional Licenses) Warranted, Central Service 6 mo. notice or to 8/31/90	108	
11F8253 A	IBM X-Windows for IBM DOS (3/31/89) (Program Package) Warranted, Central Service 6 mo. notice or to 8/31/90	195	
11F8241 A	IBM X-Windows for IBM DOS (3/31/89) (Additional Licenses) Warranted, Central Service 6 mo. notice or to 8/31/90	156	
5713-AFJ	IBM AIX PS/2 Distributed Services (3/89) (Program Package) Warranted, Central Service 6 mo. notice or to 12/31/90	400	
5713-AFJ	IBM AIX PS/2 Distributed Services (3/89) (Additional Licenses) Warranted, Central Service 6 mo. notice or to 12/31/90	364	
5713-AFG	IBM AIX PS/2 Network File System (3/89) (Program Package) Warranted, Central Service 6 mo. notice or to 12/31/90	400	
5713-AFG	IBM AIX PS/2 Network File System (3/89) (Additional Licenses) Warranted, Central Service 6 mo. notice or to 12/31/90	363	
5713-AFF	IBM AIX PS/2 DOS Server (3/89) (Program Package) Warranted, Central Service 6 mo. notice or to 12/31/90	225	
5713-AFF	IBM AIX PS/2 DOS Server (3/89) (Additional Licenses) Warranted, Central Service 6 mo. notice or to 12/31/90	152	
5713-AFK G	IBM AIX PS/2 Transparent Computing Facility (3/89) (Program Package) Warranted, Central Service 6 mo. notice or to 12/31/90	400	
5713-AFK G	IBM AIX PS/2 Transparent Computing Facility (3/89) (Additional Licenses) Warranted, Central Service 6 mo. notice or to 12/31/90	345	
5601-202 G	IBM AIX PS/2 X.25 (3/89) (Program Package) Warranted, Central Service 6 mo. notice or to 12/31/90	600	
5601-202 G	IBM AIX PS/2 X.25 (3/89) (Additional Licenses) Warranted, Central Service 6 mo. notice or to 12/31/90	559	
<u>ORACLE RELATIONAL DATA BASE MANAGEMENT SYSTEM FOR AIX PS/2</u>			
The ORACLE offerings are available in multi-user versions The offerings below are priced for single-user versions.			
5713-AFQ	ORACLE Data Base Management System (9/30/88)	1500	
5713-AFX	SQL*Plus (9/30/88)	300	
5713-AGB	SQL*Forms (9/30/88)	375	
5713-AGC	SQL*Menu (9/30/88)	225	
5713-AGA	SQL*Net (9/30/88)	300	
5713-AFR	SQL*Net TCP/IP Protocol Device Driver (9/30/88)	225	
5713-AFZ	Pro*C Programming Interface (9/30/88)	225	

As of September 20, 1986

MODEL/FC VPA	DESCRIPTION	PRICE
5713-ACG	Pro*FORTRAN Programming Interface (9/30/88)	225

INGRES RELATIONAL DATA BASE MANAGEMENT SYSTEM FOR AIX PS/2

The INGRES offerings are available in  
multi-user versions The offerings  
below are priced for single-user  
versions.

5709-003	INGRES Data Base Management System (9/30/88)	2000
5709-004	INGRES/APPLICATIONS (9/30/88)	600
5709-008	Embedded SQL Preprocessor for FORTRAN (9/30/88)	200
5709-009	Embedded SQL Preprocessor for Pascal (10/28/88)	200
5709-005	INGRES/NET (10/28/88)	N/C
5709-006	INGRES/STAR (12/30/88)	600
5709-007	INGRES/PCLINK (9/30/88)	200

As of September 20, 1988

MODEL/FC VPA	DESCRIPTION	PRICE			
<u>IBM PC PROCESSORS AND FEATURES (INCLUDING NON-MICROCHANNEL PERSONAL SYSTEM/2)</u>					
<u>PC SUPPORT PUBLICATIONS</u>					
2510 a	Guide to Operations Manual - IBM PC (order via PCTB)	50	8525-004 a	Personal System/2 Model 25 (512KB) w/ 8MHZ 8086 CPU, Space-saving Keyboard, one 3.5in 720KB Diskette Drive, integ. color 12in display, integ. DASD, serial/parallel, earphone, pointing device adapters	1695
<u>PC/XT SUPPORT PUBLICATIONS</u>					
3085 a	PC/XT Guide to Operations (models 089, 268, 278) (order via PCTB)	80	8525-G04 a	Personal System/2 Model 25 (512KB) w/ 8MHZ 8086 CPU, Enhanced Keyboard, one 3.5in 720KB Diskette Drive, integ. color 12in display, integ. DASD, serial/parallel, earphone, pointing device adapters	1740
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		The IBM Personal System/2 Model 25 Collegiate includes the IBM Collegiate Kit (PS/2 Mouse, DOS 3.3, Microsoft Windows incl. Write, Paint, Cardfile, Desktop Access., 4 blank diskettes, and system diskettes)	
<u>PROCESSORS AND OPTIONS - PERSONAL SYSTEM/2 MODEL 25</u>					
	The Personal System/2 Model 25 supports many PC and PC/XT adapters.		8525-C02 a	Personal System/2 Model 25 (640KB) w/ 8MHZ 8086 CPU, Space-saving Keyboard, two 3.5in 720KB Diskette Drives, integ. monochrome 12in display, integ. DASD, serial/parallel, earphone, pointing device adapters	1883
8525-001 a	Personal System/2 Model 25 (512KB) w/ 8MHZ 8086 CPU, Space-saving Keyboard, one 3.5in 720KB Diskette Drive, integ. monochrome 12in display, integ. DASD, serial/parallel, earphone, pointing device adapters	1350	8525-K02 a	Personal System/2 Model 25 (640KB) w/ 8MHZ 8086 CPU, Enhanced Keyboard, two 3.5in 720KB Diskette Drives, integ. monochrome 12in display, integ. DASD, serial/parallel, earphone, pointing device adapters	1928
8525-G01 a	Personal System/2 Model 25 (512KB) w/ 8MHZ 8086 CPU, Enhanced Keyboard, one 3.5in 720KB Diskette Drive, integ. monochrome 12in display, integ. DASD, serial/parallel, earphone, pointing device adapters	1395	8525-C05 a	Personal System/2 Model 25 (640KB) w/ 8MHZ 8086 CPU, Space-saving Keyboard, two 3.5in 720KB Diskette Drives, integ. color 12in display, and integ. DASD, serial/parallel, earphone, pointing device adapters	2228
IBM PC Processors and Features (Including Non-MicroChannel Personal System/2)					
3					

As of September 20, 1988

MODEL/FC VPA	DESCRIPTION	PRICE			
8525-K05 a	Personal System/2 Model 25 (640KB) w/ 8MHz 8086 CPU, Enhanced Keyboard, two 3.5in 720KB Diskette Drives, integ. color 12in display, integ. DASD, serial/parallel, earphone, pointing device adapters	2273		S01F-0246	Hardware Maintenance Service Supplement, Personal System/2 Model 25 Fixed Disk Drive 7.40
				S01F-0245	Technical Reference Update Number 1, Personal System/2 Model 25 Fixed Disk Drive 3.40
				S01F-0247	Technical Reference, Personal System/2 Model 25 Fixed Disk Drive with Adapter 2.85
	The IBM Personal System/2 Model 25 LS is preconfigured with the IBM Token-Ring Network PC Adapter for use in a LAN.			SA23-1200	Hardware Maintenance Reference Supplement, Personal System/2 Model 25 9
				S01F-0200	Hardware Maintenance Binder 17
8525-L01 a	Personal System/2 Model 25 LS (640KB) w/ 8MHz 8086 CPU, Enhanced Keyboard, one 3.5in 720KB Diskette Drives, integ. monochrome 12in display, integ. DASD, serial/parallel, earphone, Token Ring Network adapter	2139			
8525-L04 a	Personal System/2 Model 25 LS (640KB) w/ 8MHz 8086 CPU, Enh Kbd, one 3.5in 720KB Diskette Drives, integ. color 12in display, integ. DASD, serial/parallel, earphone, Token Ring Network adapter	2484			
4106 a	3.5in (720KB) Diskette Drive for PS/2 M25	170			
4107	20MB Fixed Disk Drive for PS/2 M25 (integrated disk drive/adapter) (4Q88)	795			
4110	20MB Fixed Disk Drive for PS/2 M25 (disk drive and adapter-requires 1 slot)	795			
4105 a	IBM Personal System/2 Model 25 System Board 128KB Memory Expansion Kit	49			
4103 a	Carrying case, Personal System/2 Model 25	69			
<u>SUPPORT PUBLICATIONS - PERSONAL SYSTEM/2 MODEL 25</u>					
S75X-1051	Guide to Operations - Personal System/2 Model 25	24			
SA23-1201	Hardware Maintenance and Service Supplement, Personal System/2 Model 25	33			
SA23-1202	Technical Reference Manual, Personal System/2 Model 25	28.75			
S01F-0248	8525/8530 Service Summary, Personal System/2	2.05			
S01F-0244	Hardware Maintenance Reference Supplement, Personal System/2 Model 25 Fixed Disk Drive	3.50			
				<u>PROCESSORS - PERSONAL SYSTEM/2 MODEL 30</u>	
					The Personal System/2 Model 30 supports many PC and PC/XT adapters.
					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 1775
				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 2395
					The Personal System/2 8530 Models R02 and R21 are primarily intended for use in bank teller applications.
				8530-R02 a	Personal System/2 Model 30 (640KB) w/ 8MHz 8086 CPU, 50-key function Keyboard, Keylock, Clock/Calendar, two 3.5in 720KB Diskette Drives, and integrated display, DASD, serial/parallel, pointing device adapter 1775
				8530-R21 a	Personal System/2 Model 30 (640KB) w/ 8MHz 8086 CPU, 50-key function Keyboard, Keylock, Clock/Calendar, 3.5in 720KB diskette, 20MB Fixed Disk, and integrated display, DASD, serial/parallel, pointing device adapter 2395



As of September 20, 1988

MODEL/FC VPA	DESCRIPTION	PRICE			
<u>SUPPORT PUBLICATIONS - PERSONAL SYSTEM/2 MODEL 30</u>				8635	Personal System/2 Multifunction Adapter (provides Model 30 286 with additional serial port, additional parallel port, up to 12Mb extended memory) (12/2/88)
S68X-2239	Personal System/2 Model 30 Setup Instructions	3			
S68X-2230	Personal System/2 Model 30 Guide to Operations	45			445
S68X-2201	Personal System/2 Model 30 Technical Reference Manual	75			
S68X-2205	Technical Reference Manual Supplement, 8530 Fixed Disk Drive	6		<u>MISCELLANEOUS FEATURES - PERSONAL SYSTEM/2 MODEL 30 286</u>	
S68X-2202	Personal System/2 Model 30 Hardware Maintenance Service	30		5004	Personal System/2 External 5.25-inch 360KB Diskette Adapter Cable Kit
S68X-2203	Personal System/2 Model 30 Hardware Maintenance Service Reference Supplement	10			18
<u>PROCESSORS - PERSONAL SYSTEM/2 MODEL 30 286</u>				<u>SUPPORT PUBLICATIONS - PERSONAL SYSTEM/2 MODEL 30 286</u>	
	The Personal System/2 Model 30 286 supports many PC/AT and PC/XT 286 adapters.			S01F-0251	Personal System/2 Model 30 286 Guide to Operations
	Personal System/2 system units require a Personal System/2 analog display.			S01F-0237	Personal System/2 Model 30 286 Technical Reference Manual
8530-E01 a	Personal System/2 Model 30 286 (512KB) w/ 10MHz 80286 CPU, Enh. Kbd., Keylock, Clock/Calendar, one 3.5in 1.44Mb Diskette Drive, integrated display, DASD, serial/parallel, pointing device adapter, VGA) (Avail. through IBM Authorized Dealers)	1995		S01F-0234	Personal System/2 Model 30 286 Hardware Maintenance Reference Supplement
8530-E21 a	Personal System/2 Model 30 286 (512KB) w/ 10MHz 80286 CPU, Enh. Kbd., Keylock, Clock/Calendar, one 3.5in 1.44Mb Diskette Drive, 20Mb FD, integ. display, DASD, serial/parallel, pointing device adapter, VGA)	2595		S01F-0235	Personal System/2 Model 30 286 Hardware Maintenance Service Supplement
<u>DIRECT ACCESS STORAGE DEVICES - PERSONAL SYSTEM/2 MODEL 30 286</u>				S01F-0236	Personal System/2 Model 30 286 Service Summary (Reference Card)
4115	Personal System/2 20Mb Fixed Disk Drive (for 8530-E01) (Available only through IBM Authorized Dealers)	765			37
<u>ADAPTERS - PERSONAL SYSTEM/2 MODEL 30 286</u>					25.50
					5.80
					23.50
					1.50
				<u>IBM PERSONAL TYPING SYSTEM</u>	
				The IBM Personal Typing System is an application specific workstation integrating the functions of a word processor and typewriter. It includes a system unit, system and application software, keyboard, color or monochrome display, and an impact or nonimpact printer. It can also be used as a personal computer capable of running PC applications under DOS 3.3. With the addition of an optional expansion unit, it will accomodate up to three full size personal computer adapter cards for additional applications, such as communications in a host environment.	
				All offerings feature key-to-print typing and correction modes which eliminate the need to maintain a typewriter in addition to a word processor/personal computer.	
				The IBM Personal Typing System will be sold by certified Authorized IBM Typewriter Dealers. The prices below are suggested retail prices. Dealer prices may vary.	
				See also the Personal Typing SolutionPac.	

As of September 20, 1988

MODEL/FC VPA	DESCRIPTION	PRICE
6900-001	IBM Personal Typing System - 001 (incl. system unit, Keyboard, Software, 8503 Monochrome Display, Correcting Wheelwriter Printer)	2895
6900-002	IBM Personal Typing System - 002 (incl. system unit, Keyboard, Software, 8503 Monochrome Display, Correcting Quietwriter Printer)	3295
6900-003	IBM Personal Typing System - 003 (incl. system unit, Keyboard, Software, 8513 Color Display, Correcting Wheelwriter Printer)	3330
6900-004	IBM Personal Typing System - 004 (incl. system unit, Keyboard, Software, 8513 Color Display, Correcting Quietwriter Printer)	3730
6900-005	IBM Personal Typing System - 005 (incl. system unit, Keyboard, Software, 8503 Monochrome Display)	1895
6900-006	IBM Personal Typing System - 006 (incl. system unit, Keyboard, Software, 8513 Color Display)	2330

#### PROCESSORS - PC/XT 286 VERSIONS

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	2495
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	315
0360 a	360KB 5.25in Diskette Drive, PC/XT 286	260

#### PC/XT 286 SUPPORT PUBLICATIONS

3216	IBM PC/XT 286 Guide to Operations (order via PCTB)	65
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3210	Technical Reference Manual - PC/XT 286 (order via PCTB)	50
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#### PROCESSORS AND OPTIONS - PC/AT VERSIONS

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	4815
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	4815

#### 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 63.

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 640KB of  
memory

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

As of September 20, 1988

MODEL/FC VPA	DESCRIPTION	PRICE
5730 a	3270-PC Keyboard (replacement if ordered separate)	295
3910 a	IBM 2MB Expanded Memory Adapter (XMA) for 5271, 5273, supported by 3270 Workstation Program as XMA, EMS, and VDISK, incl. printer adapter	129 <sup>50</sup>
8V0196	RPQ to attach 5271 to 4701	N/C
	The 5271 also supports the 5151 PC Monochrome Display as an alternative to the 5272 Color Display.	
<u>3270-PC SUPPORT PUBLICATIONS</u>		
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 63.

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.

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 / G AND GX VERSIONS

For associated software, see "Coaxial Communication (3270-PC Family)" on page 63.

#### 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.

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 b	IBM Optical Mouse	340
5083-002 g	Graphics Tablet	650
1511 a	Cursor (Crosshair Mouse or 'Puck')	175
6351 a	Stylus	100

As of September 20, 1988

MODEL/FC VPA	DESCRIPTION	PRICE		
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	3112 b	Specify attachment to 5373 (Guide to Operations, Maintenance Information, same as FC above) N/C
	The following kits upgrade a PC/AT model 068 or 099 to a 3270-PC/AT/PC/G or /GX.		7675 a	Stand with Tilt, Swivel, Height adjust 200
	Order FC 3112 or 3113 for documentation. FC 2507 may be added for 3278/79 emulation. FC 5730 or 5731 keyboards may be added.		7676 a	Stand with Tilt, Swivel adjust N/C
7001 a	3270-PC/AT/G Option Kit (Upgrade 6MHz 5170 to /G, incl. display / mouse / tablet adapter, mouse / tablet cable, keyboard cable)	770	<u>PC/GX DISPLAY OPTIONS</u>	
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	5335	5378 Microcode Upgrade Kit for use with 3270-PC/AT (5373) N/C
<u>IBM 3270-PC/G /GX SUPPORT PUBLICATIONS</u>			<u>PROCESSORS - PC/XT/370 AND PC/AT/370 VERSIONS</u>	
GA33-3157	Introducing the IBM-3270/PC/G and /GX Ranges of Workstations	N/C	For associated software, see "VM/PC" on page 90.	
GA33-3158	3270-PC/G and /GX Ranges of Workstations: Planning Guide	N/C	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.	
3112 b	3270-PC/AT/G Guide to Operations and Maintenance Information Manual (order on 5278-002)	N/C	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 7635
3113 b	3270-PC/AT/GX Guide to Operations and Maintenance Information Manual (order on 5378-701)	N/C	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 7635
7003 a	3270-PC/G Guide to Operations and Maintenance Information Manual (order on 5371-ZZZ)	N/C	6115 a	IBM PC/AT S/370 Option Kit to upgrade existing PC/AT, order 3278/79 adapter separately 3240
7004 a	3270-PC/GX Guide to Operations and Maintenance Information Manual (order on 5371-ZZZ)	N/C	<u>PC/AT/370 SUPPORT PUBLICATIONS</u>	
<u>PC/G DISPLAY OPTIONS</u>			2527 a	Technical Reference Manual - IBM PC/AT/370 28
5278-001 b	Display Attachment Unit	2530	2529 a	Hardware Maintenance & Service (Manual and Advanced Diagnostic Diskette) for the IBM PC/AT/370 60
7003 a	Specify attachment to 5371 (Guide to Operations, Maintenance Information, same as FC above)	N/C	2980 a	Hardware Maintenance & Service for the 3278/79 Emulation Adapter in the IBM PC/AT/370 22
IBM PC Processors and Features (Including Non-MicroChannel Personal System/2)			41	

As of September 20, 1988

MODEL/FC VPA	DESCRIPTION	PRICE			
<u>PROCESSORS - 4680 PC VERSION</u>					
For associated software, see "4680 Operating System" on page 91.					
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	5940		3340	Operator Display, 2 Rows of 20 Characters 275
6500	Store Controller Kit (allows PS/2 Models 60, 70 and 80 to become a store controller for the IBM Store System)	1125		3342	Display Extension Cable (for use when FC3339 or FC3340 are separated from 4683 base) 47
6601	Store Loop Cable	42		3343	40-Character Alphanumeric Display 360
6701	Second Store Loop Adapter/A	875		3344	Alphanumeric Display Cable, Integrated 11
4683-001	Point-of-Sale Terminal (attach to Store Loop driven by 5170 Store Controller)	2905		3345	Alphanumeric Display Cable, Distributed 42
4683-002	Point-of-Sale Terminal (attach to 4683-001)	1265		4192	Dual-Track Magnetic Stripe Reader 250
4683-A01	Point-of-Sale Terminal	3455		6266	Y-Connector 100
4683-A02	Point-of-Sale Terminal	1440		1040247	Purple Ribbon Cartridge 13.50
4687-001 b	Point-of-Sale Scanner (attach to all models of IBM 4683 Point of Sale Terminal) (10/28/88)	2015		83X7605	Raised Keypunch Kit 13
25F8671	10 Piece Hardened Glass Replacement Kit for Point-of-Sale Scanner (10/28/88)	52.50		3320	50-key Modifiable Keyboard 264
25F8672	Side Extension Kit for Point-of-Sale Scanner (10/28/88)	37.50		3322	84-key Alphanumeric Keyboard, Modifiable, w/Mgr Keylock (req. FC3325 or FC3326) 490
25F8673	Custom Lift Handle for Point-of-Sale Scanner (10/28/88)	37.50		3325	Keyboard Cable, Integrated 14
				3326	Keyboard Cable, Distributed 38
				3330	Keypunch Kit, Retail Format 5
8314	IBM 4683 Model 2 Attachment Adapter Kit	795		3357	Line Cord, 9-foot 10
8314	IBM 4683 Model 2 Attachment Adapter Kit	795		3358	Line Cord, 6-foot 10
	Specify one of the following lock inserts for each printer (FC 3380), cash drawer (FC 3360, 3361), or keyboard (FC 3320).			3360	Cash Drawer, Fixed Till 205
9201	Lock insert, randomly selected, with 2 keys	N/C		3361	Cash Drawer, Adjustable Till 209
9202	(FC's 9292-9221, PN's 4783902-4783921)			3364	Cash Drawer Cable, Integrated 10
9223	Lock insert, specific, with 2 keys	N/C		3365	Cash Drawer Cable, Distributed 27
	Lock insert, non-operating	N/C		3380	Printer 724
3323	Matrix Keyboard	560		3384	Printer Cable, Integrated 31
3339	Shopper Display, 8-Position Numeric	205		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
				4040	Store Loop Cable for 4683, 4 meters 41
				3466	Non-IBM Special Attachment Cable 40
				4026	Non-IBM Scale Cable 76
				4028	Non-IBM Coin Dispenser Cable 55

As of September 20, 1988

MODEL/FC VPA	DESCRIPTION	PRICE			
4500	Hand-Held Bar Code Reader	950		4712-001 f	Transaction Printer (cut form receipt and journal printer) -refer to ivory letter #187-204 for cable ordering information 1100
7426	228mm Display Pedestal-Integrated	70		4712-002 f	Transaction Printer (journal-only printer) -refer to ivory letter #187-204 for cable ordering information 1000
7429	228mm Display Pedestal-Distributed	24		4722-001 f	Document Printer (passbook and cut form printer) -refer to ivory letter #187-204 for cable ordering information 2000
8002	Second Store Loop Adapter	875		4722-002 f	Document Printer (cut-form-only printer) -refer to ivory letter #187-205 for cable ordering information 1500
8003	Store Loop Cable	42		4717-001 f	Magnetic Stripe Reader (Reads ISO Tracks 1 and 2 on ID cards) 349
8277	Integrated Display Cable	60		4717-002 f	Magnetic Stripe Reader/Encoder (Reads ISO Tracks 2 and 3 on ID cards and encodes magnetic striped passbooks) 699
8278	Distributed Display Cable	78		4717-003 f	Magnetic Stripe Reader/Encoder (Reads and encodes ISO Tracks 1 and 2 on ID cards) 699
1520-A02	Hand-Held Scanner (req. FC 3326 for attachment to 4683)	1735		8641 f	Extender Cable (Adds 34 inches cabling to 44 inches that comes with the 4717/4718) 20
9512	4683 Power Cable, 4.3m (14ft) Locking (specify code)	N/C		4718-001 f	Personal Identification Number Keypad 349
9510	4683 Power Cable, 4.3m (14ft) Non-Locking (specify code)	N/C		8634 f	Y Cable for 4717/4718 (Allows coexistence of 4717/4718) 35
9513	4683 Power Cable, 1.8m (6ft) Locking (specify code)	N/C		3000	Serial Interface Card 140
9511	4683 Power Cable, 1.8m (6ft) Non-Locking (specify code)	N/C		3001	Parallel Interface Card 70
1584-S01	Toledo Scales, Scale Model 8213-006 (special bid only)	619		3002	Loop Interface Card 350
1584-S02	Toledo Scales, Scale Model 8213-007 (special bid only)	599		5612	Parallel Attachment Cable 47
6724	Remote Display for Toledo Scales 8213-007 with 7-ft. cable (special bid only)	100		6031	Serial Attachment Cable 47
6725	Remote Display for Toledo Scales 8213-007 with 25-ft. cable (special bid only)	112		6598	Acoustic Cover 10
<u>PROCESSORS - 4700 PC VERSION</u>				8927	4700 Financial I/O Hardware Guide 31
	Requires 4700 PC Application Services, FC 4406.			GC31-3762	4700 Financial I/O Planning Guide 5.05
	Supports a number of 4700 printers, keyboards, and magnetics devices.			GC31-3770	4700 Financial I/O Programming Guide 7.60
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		SC31-3763	4700 Financial I/O Operating Guide 12
4707-001 f	Monochrome Display (high resolution direct drive display for IBM Personal System/2 Models 30, 50, 60 and 80) -refer to ivory letter #187-203 for cable ordering information	275		SC31-3771	4712 Service Guide ??
				SC31-3772	4722 Service Guide ??
				GC31-2071	4700 Programming Library ??
				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) 681

As of September 20, 1988

MODEL/FC VPA	DESCRIPTION	PRICE
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6065 a	FCS Input Option, PC/AT (attach 4700 keyboards, mag. stripe readers, remote IPL requires 3278/79 emulation adapter)	681
6052 a	FCS Output Option, non-PC/AT (attach 4700 printers, re-direct PC output to 4700)	655
6068 a	FCS Output Option, PC/AT (attach 4700 printers, re-direct PC output to 4700)	655
6054 a	FCS Security Option, non-PC/AT (Set master and session keys, encryption interface program)	576
6069 a	FCS Security Option, PC/AT (Set master and session keys, encryption interface program)	576

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

Also supports the following 5160 and 5170 options:

- 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)

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
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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
100A496	Additional 5MB Disk Cartridge	Commercial price	243

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
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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
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As of September 20, 1988

MODEL/FC VPA	DESCRIPTION	PRICE
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
100A496	Additional 5MB Disk Cartridge Commercial price	243
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
	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 (Tempest only)	1825
	Async Communications Adapter (Tempest only)	195
	SDLC Communications Adapter (Tempest only)	314
	2nd Parallel Printer Adapter (Tempest only)	253
	The following TEMPEST systems are composed of a system unit with a TEMPESTed 5272 Color Display. They are NOT AVAILABLE to non-GSA customers.	
4459----	TEMPEST PC/AT System Unit/Display 'TPC4-1A' (512KB) w/TEMPESTed keyboard, EGA, 4451 Mono Display, 360KB Diskette Drive Commercial price	9591
4459----	TEMPEST PC/AT System Unit/Display 'TPC4-1B' (512KB) w/TEMPESTed keyboard, EGA, 4451 Mono Display, 1.2MB Diskette Drive Commercial price	9633
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
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
4459----	TEMPEST PC/AT System Unit/Display 'TPC4-3A' (512KB) w/TEMPESTed keyboard, EGA, 4461 Enhanced Color Display, 360KB Diskette Drive Commercial price	11466
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
	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 TEMPESTed products are available to governmental and commercial customers. The system units DO NOT include a display.	



As of September 20, 1988

MODEL/FC VPA	DESCRIPTION	PRICE			
<u>PROCESSORS - INDUSTRIAL VERSIONS</u>					
7531-111 h	IBM PC/AT System Unit (8MHz, 512KB) Hardened, w/Hardened Keyboard, one High-Capacity Diskette drive, 20MB fixed disk drive and adapter	6425			
7532-111 h	IBM PC/AT System Unit (8MHz, 512KB) Hardened, 19in rack mountable, w/Hardened Keyboard, one High-Capacity Diskette drive, 20MB fixed disk drive and adapter	6425			
6019 h	20MB Fixed Disk Drive (Customer Setup, for model 041)	1695			
6045 h	20MB Fixed Disk Drive (Plant Installed, for model 041)	1475			
6250 h	20MB Fixed Disk Drive (Additional, for model 111)	1095			
6038 h	High Capacity Diskette Drive	275			
6039 h	Dual-Sided Diskette Drive	225			
6163 h	3.5in 720KB Diskette Drive	170			
6001 h	Combination Adapter Cable	75			
6020 h	Combination Adapter II, Async adapter, parallel printer adapter, timer, thermal sensor	450			
6023 h	Rack Mounting Slides (7532 only)	47			
6024 h	Keyboard Mounting Kit (7532 only)	180			
6025 h	Display Mounting Kit (7532 only)	350			
6040 h	128KB Memory Board (Attaches to Combination Adapter II)	415			
6044 h	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				
■	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)				
■	1502 - Data Acquisition and Control Adapter (and distrib- ution panel)				
■	1503 - General Purpose Interface Bus Adapter				
■	4910 - Color/Graphics Monitor Adapter				
7552-040 h	IBM PC/AT System Unit (10MHz, 512KB) Hardened, for use without keyboard or display via Remote Terminal Interface	6770			
7552-540 h	IBM PC/AT System Unit (10MHz, 512KB) Hardened, 20MB fixed disk for use without keyboard or display via Remote Terminal Interface	9970			
6070 h	80287 Math Co-Processor for 7552	530			
6071 h	1.44Mb Diskette Drive for 7552	395			
6072 h	Battery for 7552 (Power to system for 10 sec. of operation during power failure, mutually exclusive with FC6073)	180			
6073 h	External Voltage Module for 7552 (Mutually exclusive with FC6072)	330			
6074 h	Memory Adapter for 7552 (512KB included, accepts up to 3MB via FC6075)	1100			
6075 h	512KB Memory Expansion for 7552	250			
6076 h	Card Shroud for 7552 (Spare)	110			
6077 h	IBM PC Feature Adapter for 7552 (One required for each PC feature card to be installed, mates PC feature to card shroud)	195			
6081 h	Diskette Drive for 7552 (720KB, 3.5in)	375			
6082 h	10MB Fixed Disk Drive for 7552 (Maximum 2, 1 Standard in 7552-140)	1330			
6083 h	20MB Fixed Disk Drive for 7552 (Maximum 2, 1 Standard in 7552-540)	1380			
6094 h	Prototype Card for 7552	245			
6095 h	Memory Adapter and Card Shroud for 7552 (Combines FC6074, FC6076)	1210			
6096 h	Filters for 7552	35			
6097 h	Keyboard Rack Mount Hardware for 7552	680			
6098 h	Floor Mount Kit for 7552	600			
6180 h	Disk/Diskette Module II for 7552	1740			
6186 h	IBM 7552 Maintenance Manual Supplement	65			
6187 h	IBM 7552 Advanced Diagnostics for #1220 and #1221	165			
6192 h	Floor Mount Kit without Keyboard for 7552	505			
6193 h	Keyboard Rack Mount Kit without Keyboard for 7552	430			
6078 h	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 h	SPECIFY CODE, FC6078 installed in a 5531	N/C			

As of September 20, 1988

MODEL/FC VPA	DESCRIPTION	PRICE
6222 h	SPECIFY CODE, FC6078 installed in a 7531 or 7532	N/C
6223 h	SPECIFY CODE, FC6078 installed in a 7552	N/C

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

- 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
  - 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 h	IBM PC/XT System Unit (256KB) Hardened, w/Hardened Keyboard, one Dual-Sided Diskette drive, and Serial / Parallel / Clock Card	2975
6000 h	Combination Adapter	445
6001 h	Combination Adapter Cable	75
6002 h	Keylock Option Kit	10
6017 h	10MB Fixed Disk Drive, Adapter, and Cable (Factory Installed)	1355
6018 h	10MB Fixed Disk Drive, Adapter, and Cable (Customer Setup)	1520

Also supports the following PC options:

- 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----	i	Industrial Color Display	850
7534-001	i	Enhanced Industrial Color Display (Ruggedized version of 5154, 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
7544-001	i	Industrial Graphics Display - 110 V (Ruggedized version of VGA display, req. FC6257 or 6260) (Provides 640x480 resolution)	1560
7544-002	i	Industrial Graphics Display - 220 V (Ruggedized version of VGA display, req. FC6257 or 6260) (Provides 640x480 resolution)	1560
6257	i	VGA Display Adapter for 7531/7532	595
6260	i	VGA Display Adapter for 7552	595
6025	i	Rack Mounting Accessory for 7544	350

#### IBM INDUSTRIAL COMPUTER SUPPORT PUBLICATIONS

6251	7531 Operator's Guide	50
6252	7532 Operator's Guide	50
6046	Guide to Operations - Industrial PC/AT (7531-041)	50
6036	Guide to Operations - Industrial PC/AT (7532-041) Rack mount)	50
6032	Technical Reference Manual - Industrial PC/AT (7531-041)	65
6035	Technical Reference Options and Adapters - Industrial PC/AT (7531-041)	295
6256	Technical Reference Manual - Industrial PC/AT (Model 111)	65
6047	Installation and Setup - Industrial PC/AT (7531-041)	30
6037	Installation and Setup - Industrial PC/AT (7532-041, Rack mount)	30
6253	Installation and Setup - Industrial PC/AT (7531-111)	30
6254	Installation and Setup - Industrial PC/AT (7532-111)	30

As of September 20, 1988

MODEL/FC VPA	DESCRIPTION	PRICE
6255	Maintenance Information Manual for the IBM Industrial PC/AT (Model 111)	295
6033	Hardware Maintenance & Service (Manual and Advanced Diagnostic Diskette) for the IBM Industrial PC/AT (7531-041)	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 - Industrial PC/XT	295
6029	Installation and Setup - Industrial PC/XT	30
6004	Hardware Maintenance & Service (Manual and Advanced Diagnostic Diskette) for the IBM Industrial PC	155
SC28-8055	7544 Installation and Operations	25
SC28-8100	7531/32 Supplement for Display Attachment (#6258)	19
SC28-8212	7552 Supplement for Display Attachment (#6261)	25

#### PROCESSORS - PC CONVERTIBLE

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

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.	1395
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.	1375
5140-003 a	IBM PC Convertible (256KB) w/Integrated 78-Key Keyboard, Backlit LCD Screen, two 3.5in Diskette Drives, 80C88 Processor, AC Adapter, Battery Pack, Diagnostics, Guide to Ops.	1695

2682799	Backlit LCD Option Kit (new display, power supply to convert model 2 or 22 to backlit LCD)	350
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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 from January 26, 1987 onward)	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	??

As of September 20, 1988

MODEL/FC VPA	DESCRIPTION	PRICE			
4060 a	Battery Charger (trickle charger, not for concurrent operation)	25		0008	PCjr Internal Modem 103
4065 a	Automobile Power Adapter	25			
4090 a	Carrying Case, Standard (soft-sided, accommodates system unit, attached printer, accessories, supplies)	84		0009	PCjr Parallel Printer Attachment 103
4095 a	Carrying Case, Compact (soft-sided, system unit in main compartment, printer and accessories in expandable pocket)	44		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
				0023	PCjr Carrying Case 26
				0024	PCjr Speech Attachment 73
				0026	PCjr Adapter Cable for Serial Devices 10
				0031	128KB Memory Expansion Attachment 225
<u>PC CONVERTIBLE SUPPORT PUBLICATIONS</u>					
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			
SN20-9845	Hardware Maintenance and Service Update for Backlit LCD	??			
<u>IBM PORTABLE PC SUPPORT PUBLICATIONS</u>					
<u>PROCESSORS AND OPTIONS - PCJR</u>					
4860-004	PCjr System Unit/Keyboard, 64KB, 2 Cartridge Slots, Transformer	379			
4860-067	PCjr System Unit/Keyboard, 128KB, 2 Cartridge Slots, Transformer, 360KB Diskette Drive	460			
4863-001	IBM PCjr Color Display (13in Diagonal) (16 color, 320H x 200V resolution)	359			
0005	360KB PCjr Diskette Drive	178			
0006	Power Expansion Attachment	103			
0007	64KB Memory and Display Expansion	146			
<u>PCJR SUPPORT PUBLICATIONS</u>					
				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
<u>PROCESSOR FEATURES</u>					
				1002 a	Math Co-Processor Option (8087 - 8088 chips), PC, PC/XT 131
				5001 a	Math Co-Processor Option (8087 chip), Personal System/2 Model 30 324
				0211 a	Math Co-Processor (80287 chip), PC/AT 393
				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

As of September 20, 1988

MODEL/FC VPA	DESCRIPTION	PRICE
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
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	157
1400 a	Prototype Card, PC, PC/XT	16
0220 a	Prototype Adapter, PC/AT	36
1300 a	Game Control Adapter	47

#### MEMORY - PC AND PC/XT SYSTEM UNITS

3905 a	IBM 2MB Expanded Memory Adapter (XMA) for 5160, 5170, and 8530, not for XT/286, supported by IBM 3270 Workstation Program as XMA, EMS, and VDISK, incl. printer adapter	1355
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	31
1003 a	64KB Memory Module Kit, PC, PC/XT	20
1013 a	64/256KB Memory Expansion Option, PC, PC/XT	93
1209 a	IBM 256KB Memory Expansion Option (short card), PC, PC/XT	104

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)	36
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 (PC/XT286 not supported)		
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	78
3338 a	128/640KB Memory Expansion Option, PC/AT (128KB at 512KB location, 512KB at 1MB location, XT/286 not supported)	366
3343 a	512KB/2MB Memory Expansion Option, PC/AT (only above 1MB, XT/286 is supported)	497
3339 a	512KB Memory Module Kit, PC/AT (for use with FC3338 and FC3343)	172

As of September 20, 1988

MODEL/FC VPA	DESCRIPTION	PRICE
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3397 a	512KB Memory Module Kit (2-256KB modules, for use with FC 3395 or FC 8635 or FC 3619) PC/AT	215
8635 a	IBM Enhanced Memory Expansion Adapter, multifunction, includes Serial/Parallel Adapter function, up to 12.2MB memory (with Guide to Operations), (supports split addressing) (Above Disc EMS emulation software)	495
3619 a	Multifunction Memory Expansion Adapter, includes Serial/Parallel Adapter function, up to 12.2MB memory (with Guide to Operations), (supports split addressing)	445
7833 a	2MB Memory Module Kit (2-1024KB modules, for use with FC 8635 and 3619), PC/AT	995
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
G570-2237	Guide to Operations, Enhanced Memory Expansion Adapter, PC/AT	??
G570-2240	Technical Reference Manual, Enhanced Memory Expansion Adapter, PC/AT	??
G570-2239	Hardware Maintenance and Service, Enhanced Memory Expansion Adapter, PC/AT	??
7853	Tecmar Maestro-1664K (on 1596-D01) with 1664K Memory, Serial Port, Parallel Port, Security Option, Software	2876
7854	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

# DIRECT-ACCESS STORAGE DEVICES

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	115
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	465
8750 a	Personal System/2 5.25in External Diskette Drive Adapter/A for attaching 4869-1 to Personal System/2 Model 30	70
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) Not for use over LAN (attaches to PC, PC/XT, PC/AT, 8530)	2950

As of September 20, 1988

MODEL/FC VPA	DESCRIPTION	PRICE			
0206 a	High Capacity (1.2MB) Diskette Drive, PC/AT	288	6242 a	512KB Memory Expansion for ARTIC Multiport, replaces base 128KB with 512KB	298
0207 a	Dual-sided Diskette Drive (360KB), PC/AT	260	6243 a	Four Port RS-422 Addition for ARTIC Multiport, adds 4 RS-422 Ports to the ARTIC Multiport	230
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	178	6245 a	Four-Port Expansion for ARTIC Multiport, provides 4 additional RS-232/V.24 ports	188
0210 a	30MB Fixed Disk Drive, PC/AT	1795	6246 a	EIA RS-232 Multiport Interface Cable for ARTIC Multiport or ARTIC Multiport/2, 1 78-pin connector to 8 25-pin connectors)	220
0468 a	Upgrade PC/AT BIOS, add 30MB drive	1880			
<u>TAPE BACKUP DEVICES</u>					
4156 a	6157 Tape Attachment Adapter, PC	366	6263 a	IBM RealTime Interface Co-Processor (ARTIC) Multiport/2 adapter, Intel 80186 microprocessor with 512KB memory, microcode on 5.25-in or 3.5-in diskettes (for 8550, 8560 and 8580 system units)	1025
6334 A	SY-TOS/IBM 6157 Tape Utilities V.3.0 (backup/restore, library utilities driving 6157) (Program Package) (DOS and OS/2) (11/14/89)	150	6267 a	Four Port RS-232 Interface Board for ARCTIC Multiport/2 adapter, provides 4 RS-232/V.24 ports (attaches to Co-Processor card, 78-pin connector included)	246
0842 A	SY-TOS/IBM 6157 Tape Utilities V.2.0 (backup/restore, library utilities driving 6157 from 8530, 8550, 8560, 8580)	100	6265 a	Eight Port RS-232 Interface Board for ARCTIC Multiport/2 adapter, provides 8 RS-232/V.24 ports (attaches to Co-Processor card, 78-pin connector included)	324
0955 A	SY-TOS/IBM 6157 Tape Utilities V.1.0 (backup/restore, library utilities driving 6157 from PC, XT, AT, 3270-PC)	70	6266 a	RS-232/RS-422 Interface Board for ARCTIC Multiport/2 adapter, provides 4 RS-232/V.24 and 4 RS-422 ports (attaches to Co-Processor card, 78-pin connector included)	351
6714	Tallgrass TG-1020i Tape Backup (special bid only)	895	6058 a	IBM Realtime Interface Co-Processor (ARTIC) Multiport, Technical Reference	413
6727	Irwin Model 145 Tape Backup for PC/AT	795	6059 a	IBM Realtime Interface Co-Processor (ARTIC) Multiport, Hardware Maintenance and Service	104
<u>A REALTIME INTERFACE CO-PROCESSOR (ARTIC)</u>					
	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	1110	6248 a	IBM Realtime Interface Co-Processor (ARTIC) Multiport/2, Hardware Maintenance and Service	172
6241 a	A RealTime Interface Co-Processor (ARTIC) Multiport adapter, 4 ports, 128KB, Control Program on 3.5in diskette	1110		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.	

As of September 20, 1988

MODEL/FC VPA	DESCRIPTION	PRICE
6050 a	A RealTime Interface Co-Processor (ARTIC) driver card for multiple industrial programmable controllers, 128KB, Control Program on 5.25in diskette	1050
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)	1045
6160 a	A RealTime Interface Co-Processor (ARTIC) driver card for multiple industrial programmable controllers, 512KB, Control Program on 5.25in diskette	1295
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)	1295
6051 a	EIA RS-232C/CCITT V.24 Interface Board for ARTIC	115
6064 a	EIA RS-422A Interface Board for ARTIC	178
6053 a	CCITT V.35 Interface Board for ARTIC	220
6066 a	20mA Current Loop Interface Board for ARTIC	167
6055 a	128KB Memory Expansion for ARTIC (for FC6050 and 6165 only)	100
6161 a	512KB Memory Expansion for ARTIC (for FC6160 and 6166 only)	298
6056 a	RS-232C Direct Attach Interface Cable, 2m, for ARTIC	100
6057 a	RS-232C Modem Attach Interface Cable, 2m, for ARTIC	120
6061 a	CCITT V.35 Interface Cable, 2m, for ARTIC	209
6058 a	Technical Reference Manual, ARTIC	185
6059 a	Hardware Maintenance and Service Manual, ARTIC	104

#### GENERAL PURPOSE INTERFACE BUS ADAPTER

6401	IBM X.25 Interface Co-Processor/2 (supports full-duplex, synchronous or asynchronous X.21, X.21 bis V.24 or X.21 bis V.35 interface) (only for PS/2 Models 50, 60, 70 or 80) (12/30/88)	1195
6321	X.21 Cable Option for IBM X.25 Interface Co-Processor/2 (12/30/88)	100
6322	X.24 Cable Option for IBM X.25 Interface Co-Processor/2 (12/30/88)	100

6323	X.35 Cable Option for IBM X.25 Interface Co-Processor/2 (12/30/88)	185
S16F-1879	IBM X.25 Interface Co-Processor/2 Technical Reference (12/30/88)	137
S16F-1874	IBM X.25 Interface Co-Processor/2 Hardware Maintenance and Service (12/30/88)	37
6247	IBM Realtime Interface Co-Processor Multiport/2 (provides increased capacity of 1Mb) (only for PS/2 Models 50, 60, 70 or 80) (10/28/88)	1395
SC28-8214	IBM Realtime Interface Co-Processor/2 Technical Reference (10/28/88)	??
SC28-8006	IBM Realtime Interface Co-Processor/2 Hardware Maintenance and Service (10/28/88)	??
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.)	309
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)	1020
1504 a	IBM PC Data Acquisition/Control Distribution Panel	199
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
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



As of September 20, 1988

MODEL/FC VPA	DESCRIPTION	PRICE			
1351717	Keycap Removal Tool (6, for Enhanced Keyboard)	11		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
<u>MISCELLANEOUS</u>					
6011 a	IBM PC Music Feature (336 voices available, 8 played simultaneously)	513		4055-001 b	IBM InfoWindow Display (13in Diagonal, dual frequency RGB/NTSC, 64 color, 640H x 200/350V resolution, .22 Megapixel, overlay live video, speakers, synthetic speech, touch sensitive, videodisk attach) 4195
SA23-1035	Technical Reference Supplement, PC Music Feature	??		GX27-3671	IBM InfoWindow Guide to Operations N/C
SA23-1029	Hardware Maintenance and Service Supplement, PC Music Feature	??		SK2T-0297	InfoWindow Guide to Operations ??
9103	Microsoft Mouse BUS 1.0 (with Paintbrush and Mouse Menus)	150		SX27-3665	IBM InfoWindow Hardware Maintenance and Service ??
5083-11A g	Graphics Tablet (CursorPad, 6.14in x 6.14in)	385		SK2T-0296	IBM InfoWindow Hardware Maintenance and Service ??
5083-12A g	Graphics Tablet (11.5in x 11.5in)	535		LK2T-0295	IBM InfoWindow Programmer's Guide ??
1511	Cursor (Crosshair Mouse or 'Puck')	150		8575140	InfoWindow Tilt/Swivel Display Base 70
6351	Stylus	100		6952300	InfoWindow Power Cord, 9-foot (standard cord is 6-foot) 10
4010	Cable to attach RT PC to 5083 Tablets (2.50m)	60		5040 e	IEEE-488 Cable for InfoWindow 106
4020	Cable to attach PC or PC/XT (5150, 5160) to 5083 Tablets (1.83m)	40		5240 a	InfoWindow Enhanced Graphics Adapter (IEGA) for use with 8530 and InfoWindow 757
4025	Cable to attach PC/AT or PC/XT 286 (5170, 5162) to 5083 Tablets (1.83m)	40		6583 a	Enhanced Graphics Adapter Jumper Card (connects EGA to GPIB card for control by InfoWindow) 41
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 68			SX27-3756	EGA Jumper Card Hardware Maintenance and Service Manual ??
8654210	Bracket Kit (narrower card brackets for PC/XT)	3.95		4239	InfoWindow Display Attachment Kit for use with 8550 and 8560 and InfoWindow 1100
3177	IBM PC Keylock Feature for PC, PX/XT	52		5040	IBM GPIB Cable 102
0218 a	Floor-Standing Enclosure, PC/AT	172		2422	InfoWindow Hardware Upgrade Kit (ROM module upgrades ROM level of InfoWindow Display for InfoWindow Control Program Versions 1.2 and 1.3) 15
1585-S01	Topaz Powermaker Micro Uninterrupted Power System Model 84126-57	1185		5151-001 b	IBM Monochrome Display (11.5in Diagonal) (2 color, 80 character x 25 line, 720H x 350V resolution, .25 Megapixel, 9x14 character cell) 275
<u>DISPLAYS AND ATTACHMENTS, PC</u>					
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) 623			4900 a	IBM Monochrome Display and Printer Adapter (Supports 5151) 262
				3051	Preview! Monochrome Graphics Card (special bid only) 399
				4910 a	IBM Color/Graphics Monitor Adapter (Supports 5153 with 640x200x2 color through 160x200x8 color graphics) 255

As of September 20, 1988

MODEL/FC VPA	DESCRIPTION	PRICE
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 Megapixel, 8x14 character cell)	350
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	277
1201 a	Memory Expansion Card (64KB) for Enhanced Graphics Adapter Supports 640x350x16 color on 5154 and 512-character loadable set	208
1203 a	IBM Graphics Memory Module (128KB) for Enhanced Graphics Adapter Memory Card Adds smooth scroll, pan, graphics pages, 1024-character loadable set	271
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) (W/D 10/21/88)	3695
3001 b	Optional 5-meter cable for 3295 (W/D 10/21/88)	95
3025 a	3295 (Plasma Display) Adapter (incl. Guide to Operations) (W/D 10/21/88)	1565
GA23-0237	IBM PC Information Panel (3295) Guide to Operations (incl. Enhanced Control Programming Interface Support diskette) (W/D 10/21/88)	N/C
SA23-0207	IBM PC Information Panel (3295) Programming Guide and Reference (W/D 10/21/88)	51.50
SY27-2575	IBM PC Information Panel (3295) Hardware Maintenance and Service (W/D 10/21/88)	50
7801	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)	72

# PRINTER ATTACHMENTS, PC

## GENERAL

5200 a	Printer Adapter (for 5152, 4201, etc.)	18
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
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)	251
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

As of September 20, 1986

MODEL/FC VPA	DESCRIPTION	PRICE			
4920 a	High-Speed Adapter (connects 3118, or		SC18-2117	High Speed Adapter Technical Reference	19
	3117 with Expansion Unit to PC family		SY18-2167	High Speed Adapter Hardware	
	at 1mbps RS422, req. serial			Maintenance and Service	26.25
	communications cable FC 2067)	369	SK2T-0955	Supplement of High Speed Adapter,	
GA18-2476	Guide to Operations - High Speed			Guide to Operations and Hardware	
	Adapter	25.50		Maintenance and Service	15.75

As of September 20, 1988

MODEL/FC VPA	DESCRIPTION	PRICE
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COMMUNICATIONS HARDWARE AND SOFTWARE

GENERAL

2067 a	Communications Adapter Cable (ASC/BSC/SDLC) (not for use with PC/AT Serial/Parallel Adapter)	68
0217 a	Serial Adapter Cable (10-foot long cable), PC/AT	68
0242 a	Serial Adapter Connector (10in long cable), PC/AT	36
5841-001	IBM 75-1200bps Synchronous-Asynchronous Modem (Separate VPA)	609
5842-001	IBM 75-2400bps Synchronous-Asynchronous Modem (Separate VPA)	W/D
5853-001	IBM 0-2400bps Synchronous-Asynchronous Modem (Separate VPA)	690
GA27-3738	Guide to Operations, 5842 Modem	25
	The IBM 3270 Workstation Program supports 3270 emulation via 3X74 coax (V.1.0) or Token-Ring LAN (V.1.1), with memory expansion via XMA, including EMS emulation.	
	The IBM 3270 Workstation Program supports the 8503, 8512, 8513, 8514, 5272, 5151, and 5154 displays. It is not supported on the XT/286.	
0837 A	IBM 3270 Workstation Program V.1.1, Warranted, Central Service to 12/23/88 ** (Support for 9370/Token Ring Access and PS/2 Mouse) (5.25in+3.5in)	495

0652 A	IBM 3270 Workstation Program V.1.1 (Additional License)	395
0823 B	IBM 3270 Workstation Program V.1.1 (Documentation Only)	55
0833 B	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.1.1 (Upgrade) (W/D 9/30/88)	300
0832 B	PC 3270 Emulation Program, Entry V.1.0, V.1.1 or V.1.2. to IBM 3270 Workstation Program V.1.1 (Upgrade) (W/D 9/30/88)	325
0834 B	IBM 3270 Workstation Program V.1.0 to IBM 3270 Workstation Program V.1.1 (Upgrade) (W/D 9/30/88)	125
0658 B	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.1.1 (Additional License Upgrade) (W/D 9/30/88)	225
0657 B	PC 3270 Emulation Program, Entry V.1.0, V.1.1 or V.1.2. to IBM 3270 Workstation Program V.1.1 (Additional License Upgrade) (W/D 9/30/88)	245
0656 B	IBM 3270 Workstation Program V.1.0 to IBM 3270 Workstation Program V.1.1 (Additional License Upgrade) (W/D 9/30/88)	90
0651 A	ADDITIONAL LICENSE, IBM 3270 Workstation Program V.1.0, Warranted, Central Service to 9/87 ** (W/D 3/15/89)	395
SA23-0343	IBM 3270 Workstation Program, Programming Guide	112

As of September 20, 1988

MODEL/FC VPA	DESCRIPTION	PRICE				
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	495		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	225
0601 A	ADDITIONAL LICENSE, PC 3270 Emulation Program Version 3.0	395		1023 A	Distributed Data Management/PC (DDM/PC) ADDITIONAL LICENSES	150
0619 B	ADDITIONAL LICENSE of UPGRADE, PC 3270 Emulation Program Version 1.0 to PC 3270 Emulation Program Version 3.0	??		4451 A	IBM Mainframe Communication Assistant V.1.05 (part of Assistant Series, async or coax, adds support of PC Convertible) (5.25in)	199
0620 B	ADDITIONAL LICENSE of UPGRADE, PC 3270 Emulation Program Version 2.0 to PC 3270 Emulation Program Version 3.0	??		0603 A	ADDITIONAL LICENSE, IBM Mainframe Communication Assistant V.1.05 (on 5.25in diskette)	??
9970	UPGRADE, 3270 Emulation Entry Program, Entry Level to PC 3270 Emulation Program Version 3.0	240		4452 A	IBM Mainframe Communication Assistant V.1.05 (part of Assistant Series, async or coax, adds support of PC Convertible) (3.5in)	199
0621 B	ADDITIONAL LICENSE of UPGRADE, PC 3270 Emulation Program, Entry V.1 to PC 3270 Emulation Program Version V.3.0	??		4449	Upgrade Mainframe Communication Assistant to V.1.05	85
SC23-0960	IBM PC 3270 Emulation Program V.3 Application Program Interface (API) and Host Reference	25		9760	Micro-Translator V.3.4	1995
NOTE: PC 3270 Emulation Program V.2 is not supported for coaxial attachment to a 3174.						
9953	Upgrade 3270 Emulation Entry Program, Entry Level to PC 3270 Emulation Program Version 2.0	240		5664-309	PROFS Personal Computer Support (async or coax, process notes, read but not update documents, local notelogs/maillog) DSLO also available, Central Service	
SC23-0892	Application Programming Interface Manual and Host Reference for PC 3270 Emulation V.2	25		4766	One-time option 1-100 users	6000
5345	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 (3.5in+5.25in)	20		4767	One-time option 101-500 users (req. FC 4766)	3000
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	190		4768	One-time option 501-1000 users (req. FC 4766, 4767)	3000
0849 A	Programming Guide, Advanced Program-to-Program Communication for the IBM PC (3.5in+5.25in)	170		4769	Monthly option 1-100 users	300
0851 A	ADDITIONAL LICENSE, Advanced Program-to-Program Communication V.1.11 for the IBM PC	145		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 **	299
				SC30-3286	DISOSS Version 3 Release 2 Support for Personal Services/PC	3.60

As of September 20, 1988

MODEL/FC VPA	DESCRIPTION	PRICE
SC30-3332	Personal Services/PC 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
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
5732-019	IBM System/88 Personal Computer Terminal Support Release 4 (supports IBM PS/2 Model 25 with enhanced keyboard as a terminal connected to the IBM System/88)	120
5732-019	IBM System/88 Personal Computer Terminal Support Release 5 (provides compatibility to other System/88 Release 5 licensed programs) (4Q88)	120

6242 A	IBM Personal System/2 Graphics Workstation Program, PRPQ 7J0115 (provides PS/2 users with most of function available to users of 3270-PC AT/G and AT/GX)	650
	Enhanced Operator Console Version 3 (provides control of an ISDN network and addresses a variety of network management needs) (Program Package) (FCs 9080, 4562, 5051) (5.25in+3.5in)	3000
	Enhanced Operator Console Version 3 (from Version 2) (Program Package Upgrade) (FCs 9080, 4563, 5051) (5.25in+3.5in)	1500
	Alert Monitor Program Version 1 (notifies NetView of the status of an ISDN backbone network) (Program Package) (FCs 9080, 4563, 5056) (5.25in+3.5in)	1800
	IBM Transmission Network Manager (provides a central point of monitoring/controlling ISDN nodes) (Price varies by number of nodes-price below is for up to 4 nodes) (6/89)	34000

IBM 3737 Model 002 Operator Console Program (provides console support for the IBM 3737 Model 002 Remote Channel to Channel Unit) (Program Package) (FCs 9001, 5097, 4421) 500  
 IBM 3737 Model 002 Operator Console Program (Program Package Upgrade) (FCs 9536, 5098) N/C

25F5988 A	IBM PC Node Executive (extends change management capability provided by Netview to PCs directly attached to MVS/XA or MVS/ESA) Warranted, Central Service to 12/31/91 (Program Package) (3/89)	145
25F5900 A	IBM PC Node Executive (Additional Licenses) (3/89)	120
25F5900 B	IBM PC Node Executive (Documentation) (3/89)	30
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)	40

#### NETWORK MANAGEMENT (GENERAL)

5669-024	NetView/PC V.1.2, support for OS/2 req. ARTIC card, Warranted, Central Service 6 mo. notice or to 12/91 (5/89)	3000
5669-024	NetView/PC V.1.2 (Japanese Feature), support for OS/2 req. ARTIC card, Warranted, Central Service 6 mo. notice or to 12/91 (12/89-Japanese Feature)	3000
5669-024	UPGRADE NetView/PC V.1.1 to V.1.2 NetView/PC V.1.1, 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 (FC4024, 5.25in)	800
SC30-3482	NetView/PC Installation Guide	??
4025	UPGRADE NetView/PC V.1.0 to V.1.1 (W/D 9/30/88)	200
52205	NetView/PC ROLM Alert Monitor, NetView/PC application to monitor ROLM CBX, some non-ROLM PBXs (Order from ROLM) Central Service to 12/91	6500

As of September 20, 1988

MODEL/FC VPA	DESCRIPTION	PRICE
52205	NetView/PC ROLM Alert Monitor V1.1, NetView/PC application to monitor ROLM CBX, some non-ROLM PBXs, supports Netview/PC V1.1 (Order from ROLM) Central Service to 12/91	6500
52205	NetView/PC ROLM Alert Monitor V1.2, NetView/PC application to monitor ROLM CBX, some non-ROLM PBXs, supports IBM 9751 (Order from ROLM) 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) Central Service to 12/91	6500
52200	NetView/PC ROLM Call Detail Collector V1.1, NetView/PC application to do call accounting on ROLM CBX, some non-ROLM PBX's (Order from ROLM) Central Service to 12/91	6500
50590A	CBX Attendant Directory, provides directory assistance function in support of the IBM 9755 Attendant Console (Order from ROLM) Central Service to 12/91 or 6 months written notice	350
	See also the Token-Ring Network Manager V.1.1, which can operate with NetView/PC to provide remote management of Token-Ring Networks	
8174	Inter-System Control Facility/PC, NetView/PC application working with NetView R.2 to do IML, IPL of remote VM, MVS host Warranted, Central Service to 12/89)	1500
6171 A	IBM PC Distributed Systems Node Executive (downstream file change management and currency, req. S/36 and S/370 running DSX) Warranted, Central service to 12/90 or 6 mo. notice (3.5in+5.25in)	350
3223 A	ADDITIONAL LICENSE, IBM PC Distributed Systems Node Executive (downstream file change management and currency, req. S/36 and S/370 running DSX)	324
6169 B	DOCUMENTATION ONLY, IBM PC Distributed Systems Node Executive (downstream file change management and currency, req. S/36 and S/370 running DSX)	16

#### 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, req. VM/SP R.4, Warranted, Central Service 6 mo. notice (monthly charge, also available for graduated one-time charge)	850
5665-396	IBM TSO/E Servers/Requesters for SRPI, 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.2.1.1, get data from IC/1(VM), QMF, TIF, AS, format for DIF, Filing Assistant, PDS, Symphony, 123, dBase, Multiplan, or print, uses SRPI, Mainframe Commo Asst or ECF	495

#### 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).

As of September 20, 1988

MODEL/FC VPA	DESCRIPTION	PRICE			
4829 a	IBM 75-2400bps Internal Async Modem (short card)	596	0605 A	ADDITIONAL LICENSE, IBM 3101 Emulation (W/D 3/15/89)	149
SA27-3739	Guide to Operations, 2400bps Internal Modem	35	2113	3101 Emulation Extensions (file transfer, highlighting, hotkey)	
SA27-3740	Technical Reference, 2400bps Internal Modem	30		Central service to 3/86	15
SA27-3741	Hardware Maintenance and Service, 2400bps Internal Modem	60			
			<u>SERIES/1 PC CONNECTIVITY OPTION</u>		
2074 a	ASYNCH Adapter (included with fixed-disk models of the PC/XT)	73	5710-RTJ	IBM Series/1 PC Connectivity Option	
7619	AST-FourPort/XN Communications Board (4 RS-232 ports to 9600 baud, cable included, for Xenix in PC/AT) (special bid only)	495		Common Sign and Menu System	
0604 A	ADDITIONAL LICENSE, Asynchronous Communications Support V.2 (W/D 3/15/89)	??	9001	Asset Assignment	
3286 A	PC/Host V.2.0 (FTTERM) (3270 emulation, file transfer support, includes 3101, VT100, VT220 emulations, includes XMODEM, YMODEM and ASCII file transfer) (Program Package) (3.5in+5.25in)	145	2109	License Fee (no media)	440
3288 A	PC/Host V.2.0 (FTTERM) (Additional License)	108	3025	DSKT 2 256 b/s - Object Code	
3287 B	PC/Host V.2.0 (FTTERM) (Program Package Upgrade) (W/D 4/38/89)	35	3027	DSKT 2 256 b/s - Source Code	
	ROLMbridge 5250 PC Communication Feature (PCCF), supports 5250 emulation via ROLM CBX and ROLMphone or Juniper II (3.5in+5.25in)	??		Printer Emulation for the IBM Personal Computer	
5798-DQG	Series/1 Department Office Control System (EDX, FC9045), Central service to 12/86	1980	9001	Asset Assignment	
5799-TNG	Series/1 Intelligent Workstation PRPQ V.2 Warranted, Central service 6 mo. notice	175	2110	License Fee (no media)	350
5799-TGC	Series/1 Intelligent Workstation PRPQ V.1 Warranted, Central service to 6/85	150	3026	DSKT 2 256 b/s - Object Code	
5732-019	System/88 IBM PC Terminal Support Release 3.1 (Order FC 9080, 4000) (3.5in+5.25in)	100	3028	DSKT 2 256 b/s - Source Code	
9186	WESTLAW Communications Session Manager by Direct Aid, Inc. *	350		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
			<u>WATERLOO AND WATCOM MICRONET &amp; LANGUAGES (SEE GB20-2339)</u>		
			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



As of September 20, 1988

MODEL/FC VPA	DESCRIPTION	PRICE
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

#### TWINAXIAL

See also the ROLMbridge 5250 PC  
Communication Feature.

#### GENERAL

#### 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

2887 a	Display Station Emulation Adapter (5520,S/3X)	518
2891 a	IBM T-Connector	78
2892 a	Twinaxial Cable Assembly	37
2893 a	IBM Terminator	37.75
2894 a	Twinaxial Cable Adapter (Termination)	24.79
2883 a	PC/DSEA Hardware Maintenance Manual V.2	9
2889 a	PC/DSEA Hardware Maintenance Manual	9

#### TWINAXIAL 5520 ATTACHMENT

#### BINARY SYNCHRONOUS AND SDLC COMMUNICATION

8001 a	Multiprotocol Communications Adapter (Asc, BSC, SDLC)	498
1204 a	BSC Adapter (PC, XT, and PC/AT)	251
4210 A	IBM PC DisplayComm (BSC) Communications V.1.1 (IBM 2770/3780 and IBM 2780 Emulation)	450
0606 A	ADDITIONAL LICENSE, IBM PC DisplayComm (BSC) Communications V.1.1	385
4187 A	IBM PC DisplayComm (BSC) Communications (IBM 2770/3780 and IBM 2780 Emulation)	409
1205 a	SDLC Adapter (PC, XT, and PC/AT)	251
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	??

0870 A	IBM 5520/Personal Computer Attachment Program Version 4 Convenience Kit, includes items 2887, 2891, 2892	875
0869 A	IBM 5520/PC Attach Program (V.4)	269
0872 A	ADDITIONAL LICENSE, IBM 5520/PC Attach Program (V.4)	215
	Upgrade V.1 to V.3	220
	Upgrade V.2 to V.3	100
0871	Upgrade V.3 to V.4	100

#### 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,	845
2911 a	Enhanced Display Station Emulation Adapter Kit V.2.12	623
2911 a	Enhanced Display Station Emulation Adapter Kit (utilizes short or long slot)	595
2871 a	Enhanced Display Station Emulation Adapter	595

As of September 20, 1988

MODEL/FC VPA	DESCRIPTION	PRICE
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)	??
3255 A	Remote 5250 Emulation Program V.2.0 ** (Program Package) (3.5in+5.25in)	285
0716 A	Remote 5250 Emulation Program V.2.0 ** (Additional License)	228
3256 B	Remote 5250 Emulation Program V.2.0 ** (Program Package Upgrade) (3.5in+5.25in) (W/D 1/31/89)	150
3266 B	Remote 5250 Emulation Program V.2.0 ** (Additional License Upgrade) (W/D 1/31/89)	120
3270 B	Remote 5250 Emulation Program V.2.0 ** (Documentation) (documentation only-no diskette)	57
9705	Enhanced Keyboard Appendix (required to run Enhanced 5250 Emulation Program with PCs having the Enhanced Keyboard)	N/C
2877 a	Integrated Attachment Cable	94

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

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	DSL0 One-Time Charge	615
6248	Workstation Feature (LAN-attached PCs as S/36 terminals) Asset Assignment	N/C
4401	Workstation Feature Monthly Charge Option	100
4400	Workstation Feature One-Time Charge Option	1500
9565	Workstation Feature DSL0 One-Time Charge	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	
4792	One-Time Charge Option	280
9837	DSL0 One-Time Charge	210

6181	Workstation Feature (LAN-attached PCs as S/36 terminals) Asset Assignment	N/C
4121	Workstation Feature One-Time Charge Option	600
6517	Workstation Feature DSL0 One-Time Charge	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	DSL0 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

#### COAXIAL COMMUNICATION (3270-PC FAMILY)

For hardware, see "Processors - 3270-PC Versions" on page 39, "Processors - 3270-PC/AT Versions" on page 40, and "Processors - 3270-PC / G and GX Versions" on page 40.

The IBM 3270-PC Control Program can be upgraded to the IBM 3270 Workstation Program		
6168460	Virtual Device Interface Update Kit for V.1 and V.2	N/C
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 (Program Package) (3.5in+5.25in) **	215
0653 A	3270-PC High-Level Language Application Program Interface V.3.1 (Additional License) **	170
0836 B	3270-PC High-Level Language Application Program Interface V.3.1 (Program Package Upgrade from V.3.0) (3.5in+5.25in)	65

As of September 20, 1988

MODEL/FC VPA	DESCRIPTION	PRICE	
0659 B	3270-PC High-Level Language Application Program Interface V.3.1 (Additional Licenses Upgrade from V.3.0)	50	
5797 A	3270-PC High-Level Language Application Program Interface V.3.0 for 5271 and 5273, Central service to 12/87 ** (W/D 9/30/88)	195	
0602 A	ADDITIONAL LICENSE, 3270-PC High-Level Language Application Program Interface V.3.0 for 5271 and 5273 (W/D 6/28/89)	??	
5802	Upgrade High-Level Language Application Program Offering to Version 3.0	95	
GG24-1687	3270-PC, A Guide to API Programming	N/C	
5983 A	IBM Professional Work Manager V3.0 Customizer (installation environment for host and PC applns, packaged APIs for logon and host applns, req. EZ-VU II, HLLAPI) (3.5in+5.25in) (Program Package) Central Service to 9/30/90	350	
5984 A	IBM Professional Work Manager V3.0 Customizer (Additional License)	325	
5986 B	IBM Professional Work Manager V3.0 Customizer (3.5in+5.25in) (Upgrade)	50	
5980 A	IBM Professional Work Manager V3.0 Runtime (provides the runtime and executable features of Professional Work Manager V.3.0) (3.5in+5.25in) (Program Package) Central Service to 9/30/90	300	
5981 A	IBM Professional Work Manager V3.0 Runtime (Additional License)	250	
5987 B	IBM Professional Work Manager V3.0 Runtime (3.5in+5.25in) (Upgrade)	20	
5985 B	IBM Professional Work Manager V3.0 Runtime (Documentation)	92	
3282 A	IBM Professional Work Manager V2.0 (execution environment for host and PC applns, packaged APIs for logon and host applns, req. EZ-VU II, HLLAPI) (Program Package) Central Service to 12/18/89 (W/D 11/18/88)	650	
3295 B	IBM Professional Work Manager V2.0 (Additional Licenses) (W/D 08/16/89)	575	
5991	IBM Professional Work Manager V2.0 (Documentation Only)	13.25	
5992	Upgrade Professional Work Manager to Version 2.0 (Program Package Upgrade) (W/D 09/23/88)	263	
5940 A	Workstations Aided Software Engineering (requires Professional Work Manager V2.0) (Program Package) (3.5in+5.25in) Warranted, Central Service to 5/20/90 **	350	
5941 A	Workstations Aided Software Engineering (Additional Licenses)	315	
5942 B	Workstations Aided Software Engineering (Documentation)	9	
	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	750	
5665-311	3270-PC File Transfer Program MVS/TSO, Warranted, Central service 6 mo. notice	750	
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	
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	
<u>COAXIAL COMMUNICATION (3278/79 EMULATION ADAPTER)</u>			
	See also the 4700 Finance Communication System.		
	See also the Answer/DB, Lotus/Answer, and dBase/Answer products under Coaxial Communication (3270-PC) above.		

As of September 20, 1988

MODEL/FC VPA	DESCRIPTION	PRICE
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See also the PC 3270 Emulation Program under Communications Hardware and Software (General) above.

5050 a	Advanced IBM PC 3278/79 Emulation Adapter (short card, replaces and is equivalent to old FC2507)	624
0803 A	IBM PC 3270 Emulation Program, Entry V.1.2 (not supported on EGA in some modes) Warranted, Central Service to 12/28/88 **	325
0633 A	ADDITIONAL LICENSE, IBM PC 3270 Emulation Program, Entry V.1.2	270
0637 B	ADDITIONAL LICENSE of UPGRADE, PC 3270 Emulation Program Entry Level V.1.0 to V.1.2	110
0638 B	ADDITIONAL LICENSE of UPGRADE, PC 3270 Emulation Program Entry Level V.1.1 to V.1.2	55
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

SH24-5087	PC/VM Programmer's Guide	3.35
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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 12/31/89 **	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 12/31/89 **	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 to 12/31/89, 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

#### 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
5799-WXJ	8100 DPPX/SP 3278/9 Attach File Transfer, Warranted, Central service 12 mo. notice	N/C

#### LOCAL AREA NETWORKS

See also "IBM SolutionPac Offerings" on page 15 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.	

As of September 20, 1988

MODEL/FC VPA	DESCRIPTION	PRICE	
84X0083 A	IBM Operating System/2 Local Area Network Server, V.1.0 (provides resource sharing for devices connected to a local area network) (Program Package) (3.5in) Warranted, Central Service 12 mo. notice ** (11/88)	995	3248 A IBM PC Local Area Network Program, V.1.3 (Additional License) (3.5in) 175
84X0084 A	IBM Operating System/2 Local Area Network Server, V.1.0 (provides resource sharing for devices connected to a local area network) (Program Package) (5.25in) Warranted, Central Service 12 mo. notice ** (11/88)	995	3249 A IBM PC Local Area Network Program, V.1.3 (Additional License) (5.25in) 175
84X0088 A	IBM Operating System/2 Local Area Network Server, V.1.0 (Additional License) (3.5in) (11/88)	895	3250 B IBM PC Local Area Network Program, V.1.3 (Documentation Only) 30
84X0089 A	IBM Operating System/2 Local Area Network Server, V.1.0 (Additional License) (5.25in)(11/88)	895	3251 B IBM PC Local Area Network Program, V.1.3 (Application Programmer's Guide) 45
84X0090	IBM Operating System/2 Local Area Network Server, V.1.0 (Documentation Only) (11/88)	65	3252 B IBM PC Local Area Network Program, V.1.3 (Program Package Upgrade from V.1.2) (3.5in) (W/D 4/28/89) 90
3246 A	IBM PC Local Area Network Program, V.1.3 (provides resource sharing for interconnected workstations on a local area network) (Program Package) (3.5in) Warranted, Central Service 12 mo. notice **	225	7062 B IBM PC Local Area Network Program, V.1.3 (Program Package Upgrade from V.1.2) (3.5in) (W/D 4/28/89) 90
7873 A	IBM Local Area Network Support Program, provides NETBIOS and IEEE 802.2 interfaces for new adapters, (3.5in+5.25in) Warranted, Central Service to 9/88 **	50	7082 B IBM PC Local Area Network Program, V.1.3 (Additional License Upgrade from V.1.2) (W/D 4/28/89) 90
0631 A	ADDITIONAL LICENSE, IBM Local Area Network Support Program **	28	7123 B IBM PC Local Area Network Program, V.1.3 Software Compatibility Reference (Documentation) 45
0632 B	DOCUMENTATION ONLY (Final Version) IBM Local Area Network Support Program	19	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
1081 A	IBM PC Local Area Network Program V.1.2, enhanced performance, disk cache, up to 254 sessions depending on adapter (W/D 10/19/88)	175	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
0645 A	ADDITIONAL LICENSE, IBM PC LAN Program V.1.2 (W/D 7/19/89)	135	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) Warranted, Central Service to 6/30/89 (Program Package) 1200
0646 B	DOCUMENTATION ONLY, IBM PC LAN Program V.1.2 (W/D 10/19/88)	30	8335 A IBM Local Area Network Asynchronous Connection Server Pgm (Additional License) 1155
3247 A	IBM PC Local Area Network Program, V.1.3 (provides resource sharing for interconnected workstations on a local area network) (Program Package) (5.25in) Warranted, Central Service 12 mo. notice **	225	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
			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) (W/D 12/20/88) 195

As of September 20, 1988

MODEL/FC VPA	DESCRIPTION	PRICE
16F0535 A	IBM Remote NETBIOS Access Facility V.2.1 (provides remote access to IBM PCs or PS/2s to the IBM Token Ring LAN and IBM PC Network via models of the ROLM CBX, IBM 9750 and PBXs) (Program Package)	245
16F0536 A	IBM Remote NETBIOS Access Facility V.2.1 (Additional Licenses)	200
16F0537 B	IBM Remote NETBIOS Access Facility V.2.1 (Documentation Only)	20
16F0538 B	IBM Remote NETBIOS Access Facility V.2.1 (Program Package Upgrade)	50
8910 A	IBM LAN Manager V.1.0 for Token-Ring or broadband PC Net, manages multi-ring networks (5.25in+3.5in) Warranted, Central Service to 6/89 **	1995
8913	IBM LAN Manager Upgrade, upgrade IBM Token-Ring Network Manger to LAN Manager V.1.0 (through 9/88)	500
25F8217 A	IBM LAN Manager Entry V.1.0, runs under OS/2 EE V.1.1 (Program Package) Warranted, Central Service to 12/30/90 ** (5.25in+3.5in) (3/89)	995
25F7696 A	IBM LAN Manager Entry V.1.0 (Additional Licenses) (3/89)	960
25F8217	IBM LAN Manager Entry V.1.0, upgrade from IBM PC LAN Management Program V.1.0 (part number 83X8873) (Program Package Upgrade) (3/89) (W/D 12/31/89)	995
25F8215 A	IBM LAN Manager V.2.0, runs under OS/2 EE V.1.1 (Program Package) Warranted, Central Service to 12/30/90 ** (5.25in+3.5in) (3/89)	2995
25F7695 A	IBM LAN Manager V.2.0 (Additional Licenses) (3/89)	2945
25F8215	IBM LAN Manager V.2.0, upgrade from IBM PC LAN Manager V.1.0 (Program Package Upgrade) (3/89) (W/D 12/31/89)	1250
96X5860 A	IBM PC Network Bridge Program, allows connection of multiple segments of PC Network and/or IBM Token Ring Network into a single logical LAN (Program Package) Warranted, Central Service to 12/30/90 ** (3.5in) (3/89)	4995
96X5862 A	IBM PC Network Bridge Program (Additional Licenses) (3/89)	4970
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 **	995
5763 A	IBM Token Ring Network Trace and Performance Program, provides visibility to traffic handling and performs user data throughput measurement (5.25in+3.5in)	295
9689 A	Novell Advanced NetWare/86 * V.2.0A	1595
5458	Novell Advanced NetWare * V.2.12 (3.5in) (for PS/2, incl. Dedicated, Non-Dedicated, API and remote bridge software)	2195
5459 A	Novell Advanced NetWare * V.2.12 (5.25in) (for PS/2, incl. Dedicated, Non-Dedicated, API and remote bridge software)	2595
4773 A	IBM PC Classroom LAN Administration System (CLASS), V.1.1 (Installation aid for IBM education software under Netware/86 program) (3.5in+5.25in)	995
<u>IBM TOKEN-RING NETWORK</u>		
See "Single Shipment Volume Offering (Token-Ring Network)" on page 10 for the terms of the Single Shipment Volume Discount Offering for the Token-Ring Network PC Adapter.		
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)	4350
SK2T-0303	IBM Token-Ring Network Starter Kit Guide, 2nd Edition	55
3391 a	IBM Token-Ring Network PC Adapter	728
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	939

As of September 20, 1988

MODEL/FC VPA	DESCRIPTION	PRICE
5773 a	IBM Token-Ring Network Trace and Performance PC Adapter II, Requires Token-Ring Trace and Performance Program	1385
3390 a	IBM Token-Ring Network PC Adapter Cable	36
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 shipment)	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	
7860 A	IBM Token-Ring Network Bridge Program V.1.1, adds centralized multi-ring LAN management, (3.5in+5.25in) Central Service 90 days notice or 6/89 **	1495
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.1.0, Creates bridges between rings, Central Service 90 days notice or 12/87 ** (W/D 12/20/88)	1495
6041 A	IBM Token-Ring Network Bridge Installation Kit, Incl. program, 2 Adapter-IIs (W/D 12/20/88)	3285
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 (3.5in+5.25in) ** (W/D 12/20/88)	1495
	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)	628
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	
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	
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 (W/D 12/20/88)	250
<u>IBM PC NETWORK</u>		
1220 a	PC Network Adapter II (broadband, 1 per PC, incl. 9-ft. coax, req. LAN Support Program or PC Network Protocol Driver)	597
S68X-2223	IBM PC Network Adapter II Technical Reference	21.25
0061 A	IBM PC Network Protocol Driver, supports new PC Net adapters and Personal System/2, and up to 61 sessions in a server,	100
0666 A	ADDITIONAL LICENSE, IBM PC Network Protocol Driver	81
0607 A	ADDITIONAL LICENSE, IBM PC Network Analysis Program (W/D 3/15/89)	??
S68X-2265	IBM PC Network Adapter Technical Reference	17.25
1221 a	IBM PC Network Baseband Adapter (baseband, req. LAN Support Program)	295

As of September 20, 1988

MODEL/FC VPA	DESCRIPTION	PRICE
S68X-2267	IBM PC Network Baseband Adapter Technical Reference	21.25

#### IBM TRANSMISSION CONTROL PROTOCOL/INTERNET PROTOCOL (TCP/IP)

IBM TCP/IP implements UDP, FTP, TELNET, and SMTP protocols on the IBM Token-Ring and on Ethernet

3271 A	IBM Transmission Control Protocol for the Personal System/2 (allows participation in an Internet network using the TCP/IP protocol set) Warranted, Central Service to 12/31/89 (Program Package) (3.5in)	195
3269 A	IBM Transmission Control Protocol for the Personal System/2 (allows participation in an Internet network using the TCP/IP protocol set) Warranted, Central Service to 12/31/89 (Program Package) (5.25in)	195
3270 A	IBM Transmission Control Protocol for the Personal System/2 (Additional License) (3.5in)	145
3272 A	IBM Transmission Control Protocol for the Personal System/2 (Additional License) (5.25in)	145
5798-FAL	IBM TCP/IP for the PC Feature, req. IBM TCP/IP for VM, Warranted, Central Service 6 mo. notice (also available for monthly charge)	
4028	One-Time Charge Option, TCP/IP/PC, 1-20 users (add FC 5039 for 5.25in, FC 5043 for 3.5in diskettes)	2400
4030	One-Time Charge Option, TCP/IP/PC, 21-50 users (req. FC4028) (add FC 5040 for 5.25in, FC 5044 for 3.5in diskettes)	3200
4032	One-Time Charge Option, TCP/IP/PC, 51-100 users (req. FC4028, 4030) (add FC 5041 for 5.25in, FC 5045 for 3.5in diskettes)	5000
4034	One-Time Charge Option, TCP/IP/PC, 101-250 users (req. FC4028, 4030, 4032) (add FC 5042 for 5.25in, FC 5046 for 3.5in diskettes)	13500
7039	Machine-Readable Source Code, TCP/IP/PC, 5.25in	350
7043	Machine-Readable Source Code, TCP/IP/PC, 3.5in	350

#### 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

#### IBM PERSONAL COMPUTER CLUSTER SYSTEM

0027	IBM PCjr Cluster Attachment	83
1206 a	IBM Personal Computer Cluster Adapter	356
1207 a	IBM Personal Computer Cluster Cable Kit	115

#### 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)	239
2205 a	Hardware Maintenance and Service Manual for the 5364 Driver Card	80



As of September 20, 1988

MODEL/FC VPA	DESCRIPTION	PRICE
3606 a	Stick-on Keytop Labels--PC Style (extra)	4.70
3641 a	Stick-on Keytop Labels--5250 Style (extra)	4.70

# VOICE COMMUNICATIONS

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

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
4771 a	Voice Communications Option (includes Voice Communications Adapter and Operating Subsystem, cables, guide, diagnostics)	1040

4839 a	Voice Communications Adapter (does not include and not FCC Approved without Voice Communications Operating Subsystem program)	995
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	361
S68X-2207	Technical Reference Manual Supplement, 8530 Speech Adapter	13

As of September 20, 1988

MODEL/FC VPA	DESCRIPTION	PRICE
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PC-DOS SOFTWARE

PC-DOS OPERATING SYSTEMS AND PROGRAMMING AIDS

PC-DOS OPERATING SYSTEM AND COMPILERS

1419 A	IBM PC Disk Operating System (DOS) 4.0 (Includes support for large fixed disks and expanded memory) (3.5in) Warranted, Central Service to 8/31/89	150
1435 A	IBM PC Disk Operating System (DOS) 4.0 (Includes support for large fixed disks and expanded memory) (5.25in) Warranted, Central Service to 8/31/89	150
1423 A	IBM PC Disk Operating System (DOS) 4.0 (Additional Licenses)	110
1424 B	IBM PC Disk Operating System (DOS) 4.0 (Documentation Only)	40
1425 B	Upgrade any release of PC DOS to DOS 4.0 (Program Package Upgrade) (3.5in)	95
1426 B	Upgrade any release of PC DOS to DOS 4.0 (Program Package Upgrade) (5.25in)	95
1427 B	Upgrade any release of PC DOS to DOS 4.0 (Additional Licenses Upgrades)	55
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 B	DOCUMENTATION ONLY, IBM PC Disk Operating System (DOS) 3.3	35
4120 A	IBM PC Disk Operating System (DOS) 2.1 (Includes support for PC/XT and PCjr)	85
1418 A	IBM DOS 4.00 and Windows Kit for Personal System/2 (3.5in) Warranted, Central Service to 8/3/89	314
1420 A	IBM DOS 4.00 Technical Reference Application Programming (5.25in+3.5in)	105

1421 A	IBM DOS 4.00 Command Reference	30
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See "Redistribution of PC Software" on page 12 for information  
on redistributing programs prepared using the BASIC Compiler.

4101	IBM PCjr BASIC Interpreter	78
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See "Redistribution of PC Software" on page 12 for information  
on redistributing applications prepared using the IBM COBOL  
Compiler.

9646	COBOL/2 Workbench by Micro Focus *	3290
9588	Turbo Pascal by Borland International (5.25in) *	114.25
9799	Turbo Pascal by Borland International (3.5in, for PC Convertible, Personal System/2) *	99.95

OPERATING ENVIRONMENTS, MENU SYSTEMS

0813 A	IBM PC Fixed Disk Organizer (3.5in+5.25in)	60
9768	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) (3.5in+5.25in) 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

PC-DOS Software

As of September 20, 1988

MODEL/FC VPA	DESCRIPTION	PRICE
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9383 A	Interactive System Productivity Facility Version 2 (ISPF/EZ-VU II Runtime Facility) (3.5in+5.25in) 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)	??
9385 A	IBM PC Organizer (req.EZ-VU Runtime), Warranted, Central service for 90 days or to 4/87	165
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
9817 A	Microsoft Windows/286 V.2.1 for Personal System/2 (5.25in) *	99
9818 A	Microsoft Windows/286 V.2.1 for Personal System/2 (3.5in) *	99
0885 A	PS/2 Collegiate Kit (incl. PS/2 Mouse, DOS 3.3, full Microsoft Windows: Write, Paint, Cardfile, and Desktop access., 4 blank diskettes, system diskettes) Discounted only when ordered separately under PCLP agreement	314
0885 A	PS/2 Collegiate Kit (incl. PS/2 Mouse, DOS 3.3, Microsoft Windows: Write, Paint, Cardfile, and Desktop access., 4 blank diskettes, system diskettes) Discounted only when ordered separately under PCLE agreement	314

#### PROGRAMMING AIDS

5448 A	Above Disc 2.0 by Teleware West * (allow software written for LIM EMS 4.0 standard to use disk or extended memory in lieu of EMS memory adapter, supports Multifunction Adapter) (5.25in+3.5in)	99.95
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16F0489	Cross-System Product/Application Execution (EZ-RUN), Warranted, Central service to 12/30/90 or 6 mo. notice (Copy included with a CSP/AD license) (Program Package)	
0489 A	Cross-System Product/Application Execution (EZ-RUN), Warranted, Central service to 12/30/90 or 6 mo. notice (Additional License)	150
0490 B	Cross-System Product/Application Execution (EZ-RUN), Warranted, Central service to 12/30/90 or 6 mo. notice (Additional License Upgrade)	35
4143 A	IBM PC Professional Debug Facility (incl. NMI card)	165

See "Redistribution of PC Software" on page 12 for information on redistributing applications which contain the IBM PC Sort program.

#### GENERAL PURPOSE PROGRAMS

#### GENERAL

5669-191 C	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	2900
4172 A	Electric Poet	75
9389 A	IBM PC Engineering Simulation Program (Differential equation solver), Central service to 4/87	439
5397 A	Excel by Microsoft * (3.5in+5.25in) (286/386 processor required)	495
4051 A	Personal Editor	115
4048 A	Professional Editor	139
9410	Microsoft Project V.4.0 (3.5in+5.25in) *	495
9790	Metro * (5.25in)	85

#### IBM ASSISTANT SERIES

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

As of September 20, 1986

MODEL/FC VPA	DESCRIPTION	PRICE
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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

For a special promotional offering on the following product, see "Personal System/2 Classroom Network Trial Program" on page 2.

4867 A	IBM Classroom Network Assistant (requires IBM Classroom LAN Operating System V.1.10) (3.5in+5.25in)	600
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The Assistant Series products listed below are packaged with only 5.25in diskette copies of the programs.

4306 A	IBM Document Retrieval Assistant	149
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#### 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 B	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 B	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 B	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 B	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 B	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

The following programs are available on 5.25in diskette.

9367 A	Data Edition (prereq. for others, enh. 9/85 to allow installation of DisplayWrite) (5.25in) Warranted, Central service for 90 days or to 9/86	275
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#### BUSINESS PROGRAMS

#### GENERAL

IBM Cable Data Management System (for IBM Cabling System, order thru IBM Direct) Central service to 1/86	450
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As of September 20, 1988

MODEL/FC VPA	DESCRIPTION	PRICE	
4157 A	IBM Doctor's Office Manager for the IBM Personal Computer	2749	
9543	Excelerator V.1.8 (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	
4065 A	IBM PC Insurance Agency System	2500	
<u>BPI SYSTEMS</u>			
4026 A	General Accounting	425	
4027 A	Accounts Receivable	425	
4028 A	Payroll	425	
4029 A	Job Cost	550	
4030 A	Inventory Control	425	
<u>BUSINESS ADVISER SERIES</u>			
	Business Adviser received maintenance update 1.3.0 on July 7, 1987 adding warehouse location data and other enhancements.		
	Business Adviser received maintenance update 1.4.0 on July 31, 1987 including LAN Program 1.2 and DOS 3.3 support, removal of copy protection, and other enhancements.		
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	
6068 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	
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	
<u>IBM BUSINESS MANAGEMENT SERIES - APPLICATION EDITIONS</u>			
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	

PC-DOS Software

As of September 20, 1988

MODEL/FC VPA	DESCRIPTION	PRICE
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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

4700 AND BANKING SOFTWARE

See also "IBM SolutionPac Offerings" on page 15 for the Branch Banking Automation offering which incorporates some of the following products.

The following programs operate with Application Foundation.

PC-DOS Software

9851 A	BRANCHBANKER BLUE (5.25in diskette) *	500
9846 A	BANCstar Access Account Opening (5.25in diskette) *	750
9847 A	BANCstar Access Mortgage Loan (5.25in diskette) *	1995
9848 A	BANCstar Access Consumer and Commercial Loan (5.25in diskette)	1995
9849 A	BANCstar Access Mortgage, Consumer, and Commercial Loan (5.25in diskette) *	2995
9850 A	BANCstar Access Generator (Customization, installation aid) (5.25in diskette) *	4500
9828 A	BRANCHBANKER BLUE (3.5in diskette) *	500
9837 A	BANCstar Access Account Opening (3.5in diskette) *	750
9838 A	BANCstar Access Mortgage Loan (3.5in diskette) *	1995
9839 A	BANCstar Access Consumer and Commercial Loan (3.5in diskette)	1995
9840 A	BANCstar Access Mortgage, Consumer, and Commercial Loan (3.5in diskette) *	2995
9841 A	BANCstar Access Generator (Customization, installation aid) (5.25in diskette) *	4500
0790 A	Safe Deposit 4700 by Interactive Planning *	800
0791 A	Currency Control 4700 by Interactive Planning *	1500
0792 A	Loan Loss Control 4700 by Interactive Planning *	1500
75X3261 A	IBM Financial Branch System Services Version 2 (Program Package)	450
75X3262 A	IBM Financial Branch System Services Version 2 (Documentation)	150
75X3263 A	IBM Financial Branch System Services Version 2 (Additional Licenses)	300
3264	IBM Financial Branch System Services Version 2.1 (Program Package) (9/23/88) (5.25in+3.5in)	472
3265	IBM Financial Branch System Services Version 2.1 (Documentation) (9/23/88)	157
3266	IBM Financial Branch System Services Version 2.1 (Additional Licenses) (9/23/88)	315
3267	IBM Financial Branch System Services Version 2.1 (Program Package Upgrade) (9/23/88) (5.25in+3.5in)	N/A

As of September 20, 1988

MODEL/FC VPA	DESCRIPTION	PRICE
3268	IBM Financial Branch System Services Version 2.1 (Additional Licenses Upgrades) (9/23/88)	N/A
75X3258 A	IBM Financial Branch System Integrator (Program Package) (9/88)	275
75X3259 A	IBM Financial Branch System Integrator (Documentation) (9/88)	75
75X3260 A	IBM Financial Branch System Integrator (Additional Licenses) (9/88)	200
75X3221 A	4700 Personal Computer Application Services (Documentation Only)	70
4406 A	4700 PC Application Services (supports FCS Input/Output/Security Options), Warranted, Central service 6 mo. notice or to 9/89	300
75X3222 A	4700 Personal Computer Application Services (Additional License)	200
3232 A	IBM Consumer Transaction Definition Version 1.1 (Program Package) (12/88)	6400
3251 A	IBM Consumer Transaction Definition Version 1.1 (Program Package Upgrade) (12/88) (W/D 9/30/89)	100
3241 A	IBM Consumer Transaction Definition Version 1.1 (Documentation) (12/88)	160
3242 A	IBM Consumer Transaction Definition Version 1.1 (Additional Licenses) (12/88)	6380
3252 A	IBM Consumer Transaction Definition Version 1.1 (Additional Licenses Upgrade) (12/88) (W/D 9/30/89)	90
3233 A	IBM Consumer Transaction Runtime Version 1.1 (Program Package) (12/88)	855
3253 A	IBM Consumer Transaction Runtime Version 1.1 (Program Package Upgrade) (12/88) (W/D 9/30/89)	60
3243 A	IBM Consumer Transaction Runtime Version 1.1 (Documentation) (12/88)	160
3244 A	IBM Consumer Transaction Runtime Version 1.1 (Additional Licenses) (12/88)	700
3254 A	IBM Consumer Transaction Runtime Version 1.1 (Additional Licenses Upgrade) (12/88) (W/D 9/30/89)	45
5060	Cross Sell Manager Version 2 - Author * (5.25in)	11000
5062	Cross Sell Manager Version 2 - Author Application Foundation * Feature (5.25in)	1900
5060	Cross Sell Manager Version 2 - Workstation * (5.25in)	550
5061	Cross Sell Manager Version 2 - Author * (3.5in)	11000

5063	Cross Sell Manager Version 2 - Author Application Foundation * Feature (3.5in)	1900
5061	Cross Sell Manager Version 2 - Workstation * (3.5in)	550

#### DATA BASE PROGRAMS

See also the integrated families of programs under "General Purpose Programs," such as "IBM Assistant Series" on page 72, and "IBM Personal Decision Series" on page 73.

9445	dBASE III Plus 1.1 by Ashton-Tate * (3.5in+5.25in)	695
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#### GRAPHICS SOFTWARE

See also the integrated families of programs under "General Purpose Programs," such as "IBM Assistant Series" on page 72, and "IBM Personal Decision Series" on page 73. 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
5601-100	DrawMaster Workstation Support (3270-PC AT/GX cooperative processing front end to Publishing Systems DrawMaster, does not require GCP, requires 5151), Central service 6 mo. notice (5.25in)	450
5601-100	DrawMaster Workstation Support (PS/2 cooperative processing front end to Publishing Systems DrawMaster, does not require GCP) Central service 6 mo. notice (3.5in)	450

As of September 20, 1988

MODEL/FC VPA	DESCRIPTION	PRICE
2908 A	ADDITIONAL LICENSE, GDDM-PCLK V.1.0 (W/D 3/15/89)	38
6242913 A	GDDM-PCLK V.1.1, adds alternate graphics session to PC 3270 workstation emulators via hotkey, req. host GDDM-PCLKF for CMS or TSO, Warranted, Central Service to 5/31/89	75
6242914 A	GDDM-PCLK V.1.1 (Additional License)	60
6242915 B	GDDM-PCLK V.1.1 (Documentation Only)	20
6242916 B	GDDM-PCLK V.1.1 (Program Package Upgrade)	50
6242917 B	GDDM-PCLK V.1.1 (Additional License Upgrade)	40
5601-081 F	Shop Assist R.1.1 (works with GDQF 4.1 for showing text and graphic on split screen, eg assembly instructions, plus barcode reader support, pan, zoom) (3.5in or 5.25in) Warranted, Central Service to 12/88	770
5601-081 F	Shop Assist R.1 (works with GDQF 4.1 for showing text and graphics on split screen, eg assembly instructions, plus barcode reader support, pan, zoom) (3.5in or 5.25in) Warranted, Central Service to 6/88	770
7034 A	IBM PC SlideWrite	225
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
9783	Freelance Plus * (3.5in)	495
9797	Freelance Plus * (5.25in)	495
75X3283 A	IBM Geo-Information Workstation Supervisor Version 1 (Program Package) Warranted, Central Service to 5/31/90 ** (10/28/88)	995
75X3285 A	IBM Geo-Information Workstation Supervisor Version 1 (Additional Licenses) (10/28/88)	892

#### GEM SERIES BY DIGITAL RESEARCH

#### IBM IMAGE SOFTWARE

PC-DOS Software

0805 A	IBM Image Support Facility 2 V.1.1, subroutines for driving scanners, processing images	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 ImageEdit (capture image from scanner, scale, rotate, copy, trim, erase, annotate, freehand drawing) Not supported on 8513 or 8514, Warranted, Central Service for 90 days or to 6/89	395
3255 A	IBM ImageEdit V.2.0 (capture and edits images scanned with 3117, 3118 and 3119 and OEM scanners) (Program Package) (5.25in+3.5in)	495
5996 A	IBM ImageEdit V.2.0 (Additional Licenses)	462
5997 B	IBM ImageEdit V.2.0 (Program Package Upgrade)	205
8168 A	TextReader V.1.0 (converts typewritten or printed pages for use with word processing software) (Program Package) (3.5in)	595
8161 A	TextReader V.1.0 (converts typewritten or printed pages for use with word processing software) (Program Package) (5.25in)	595
8162 B	TextReader V.1.0 (Additional Licenses)	555

#### IBM DISPLAYGRAPHICS

3228 A	IBM DisplayGraphics (Program Package) (3.5in) Warranted, Central service to 10/31/91	650
3229 A	IBM DisplayGraphics (Program Package) (5.25in) Warranted, Central service to 10/31/91	650
3277 A	IBM DisplayGraphics (Additional Licenses)	550
6156 B	IBM DisplayGraphics (Documentation Only)	100

#### IBM INFOWINDOW SOFTWARE

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



As of September 20, 1986

MODEL/FC VPA	DESCRIPTION	PRICE			
8392 A	IBM InfoWindow Control Program V.1.3 (Program Package) (includes support for Models 8550, 8560 and 8570 and Pioneer LD-V6200A optional videodisc player) (3.5in+5.25in)	180	4786 E	MICRO CADAM Cornerstone (Convenience Kit) (Order FC 9001, 5075) Central Service for 90 days (3.5in)	2995
8393 A	IBM InfoWindow Control Program V.1.3 (Additional License) (3.5in+5.5in)	152	4786 E	MICRO CADAM Cornerstone (Convenience Kit) (Order FC 9001, 5074) Central Service for 90 days (5.25in)	2995
4922	IBM InfoWindow Control Program V.1.3 (Upgrade) (3.5in+5.5in)	50	4785 E	MICRO CADAM Release 1.2 (Convenience Kit) (Order FC 9001, 5073) Central Service for 90 days (3.5in)	6495
2416	Upgrade InfoWindow Control Program V.1.0 to V.1.2	50	4785 E	MICRO CADAM Release 1.2 (Convenience Kit) (Order FC 9001, 5071) Central Service for 90 days (5.25in)	6495
4504 A	InfoWindow Presentation Editor, Define multimedia presentation, use with Presentation Interpreter, Req. InfoWindow Control Pgm, Central Service for 90 days or 6/89 * (3.5in+5.25in)	4975	4784 E	MICRO CADAM Release 1.2 (Program Package) (Order FC 9001, 5072) Central Service for 90 days (3.5in)	5400
4505 A	InfoWindow Presentation Interpreter, Display multimedia presentation defined with Presentation Editor, Req. InfoWindow Control Pgm, Central Service for 90 days or 6/89 * (3.5in+5.25in)	135	4784 E	MICRO CADAM Release 1.2 (Program Package) (Order FC 9001, 5070) Central Service for 90 days (5.25in)	5400
6086 A	Video/PAssage Authoring System V.1.1 Adds support for 2 videodisk players via IEEE-488, (3.5in+5.25in) Warranted, Central Service for 90 days or to 3/89	7200	<u>IBM PC STORYBOARD</u>		
6087 A	Video/PAssage Presentation System V.1.1 Adds support for 2 videodisk players via IEEE-488, (3.5in+5.25in) Warranted, Central Service for 90 days or to 3/89	265	4401 A	IBM PC Storyboard Plus (see also PC PicturePak), Warranted, Central service for 90 days or to 6/89	350
6094 A	InfoWindow PILOT - Authoring (develop courseware for InfoWindow) Central Service to 1Q89	2050	<u>IBM EXPERT SYSTEM ENVIRONMENT (ESE)</u>		
6095 A	InfoWindow PILOT - Presentation Central Service to 1Q89	200	8497346 A	IBM Expert System Consultation Environment (ESCE/PC) (Program Package) Warranted, Central service for 90 days or to 12/31/91 ** (3/89)	595
4502 A	Learning System/1 Authoring System (LS/1) Courseware authoring for use with InfoWindow (5.25in)	5000	8497346 A	IBM Expert System Consultation Environment (ESCE/PC) (Additional Licenses) (3/89)	515
4503 A	Learning System/1 Presentation System (LS/1) For use with InfoWindow (5.25in)	125	8497346 A	IBM Expert System Consultation Environment (ESCE/PC) (Documentation) (3/89)	7
<u>MICRO CADAM FOR PC/AT AND PS/2</u>			<u>SELF EDUCATION FACILITY</u>		
			5601-187	Self Education Facility on the IBM Personal Computer (Program Package) (FC 9074, 4642) (3.5in+5.25in)	2500
			<u>IBM DISCOVER/EDUCATION</u>		

As of September 20, 1988

MODEL/FC VPA	DESCRIPTION	PRICE	
75X3291	Discover/DOS - DOS Introduction and Operations (5.25in)	49.95	
75X3292	Discover/DOS - DOS Introduction and Operations (3.5in)	49.95	
75X3293	Discover/DOS - DOS Implementation (5.25in)	69.95	
75X3294	Discover/DOS - DOS Implementation (3.5in)	69.95	
DE010	Discover/Education - DOS Introduction and Implementation (available in IBM Learning Centers) (3 days-tuition per half-day)	75	
8222	Discover/Education - 3990-3880 Introduction and Operations (5.25in+3.5in) Warranted, 90 days or 9/1/89	495	
<u>VIRTUAL DEVICE INTERFACE</u>			
0929 A	IBM PC Graphics Development Toolkit V.1.2	530	
S68X-2280	Display Adapter 8514/A 1.20 VDI Drivers for Graphics Development Toolkit V.1.2	30	
See "Redistribution of PC Software" on page 12 for information on redistributing programs prepared using the Graphics Development Toolkit V.1.10.			
0456	IBM 5279 Color Display VDI 1.10 Driver (for Graphics Development Toolkit 1.10, Standalone)	N/C	
<u>INDUSTRIAL SOFTWARE</u>			
5777-DBJ A	Capacity Management with the IBM PC (CAPOSS-E update, scheduling, resequencing, synchronization: req. DOS 3.1, PC 3270 Emul V.2 59x9951, EZ-VU) The following vendor-logo program offerings are for use with IBM Industrial Computers.	2700	
5793-AGN F	!Barsoft by ASAP Systems (Barcode Label Design and Printing) *		
9080 F	Asset Registration	N/C	
6500 F	Barsoft Software	995	
6501 F	Barsoft Manual	75	
5793-AEY F	CAMM (Computer-Aided Manufacturing Management) *		
9001 F	Asset Registration		N/C
6504 F	CAMM System Kit (required, prereq. for all other features)		200
6505 F	CAMM DSE Analytical Module, Standard Graphics		500
6506 F	CAMM DSE Analytical Module, Enhanced Graphics		950
6507 F	CAMMGraph Build/Display, Enhanced Graphics		4100
6508 F	CAMMGraph Display, Enhanced Graphics		1900
6509 F	Offline Controller/Setup, Allen-Bradley		500
6510 F	Offline Controller/Setup, Analogic		500
6511 F	Offline Controller/Setup, General Electric		500
6525 F	Offline Controller/Setup, Modicon		500
6526 F	Offline Controller/Setup, Texas Instruments		500
6512 F	Offline Controller/Setup, Turnbull Control Systems		500
6627 F	Floor Manager (reqd for each operator station)		1250
6629 F	Device Driver, Allen-Bradley		500
6631 F	Device Driver, Analogic		500
6632 F	Device Driver, General Electric		500
6633 F	Device Driver, Modicon		500
6635 F	Device Driver, Texas Instruments		500
6636 F	Device Driver, Turnbull Control Systems		500
6517 F	Extra CAMM Manuals, Allen-Bradley		45
6518 F	Extra CAMM Manuals, Analogic		45
6519 F	Extra CAMM Manuals, General Electric		45
6529 F	Extra CAMM Manuals, Modicon		45
6530 F	Extra CAMM Manuals, Texas Instruments		45
6520 F	Extra CAMM Manuals, Turnbull Control Systems		45
5793-AHB F	Allen-Bradley Communication Protocol Program for CAMM using ARTIC *		
9080 F	Asset Registration		
6639 F	One-Time Charge		500
6640 F	User's Guide (Additional)		65
5793-AGZ F	General Electric Communication Protocol Program for CAMM using ARTIC *		
9080 F	Asset Registration		
6647 F	One-Time Charge		500
6648 F	User's Guide (Additional)		65
5793-AHA F	Gould Modicon Communication Protocol Program for CAMM using ARTIC *		
9080 F	Asset Registration		
6610 F	One-Time Charge		500

As of September 20, 1988

MODEL/FC VPA	DESCRIPTION	PRICE	
6615 F	User's Guide (Additional)	65	
5793-AGY F	Texas Instruments Communication Protocol Program for CAMM using ARTIC *		
9080 F	Asset Registration		
6641 F	One-Time Charge	500	
6642 F	User's Guide (Additional)	65	
5793-AGT F	Cribware by Applied Control Software (Tool Crib Inventory) *		
9080 F	Asset Registration	N/C	
6567 F	Cribware Software	2500	
6551 F	Cribware Manual	53	
5793-AGP F	Easylabel by Tharo Systems (Barcode Label Design and Printing) *		
9080 F	Asset Registration	N/C	
6568 F	Easylabel Software	2500	
6550 F	Easylabel Manual	125	
5793-AGF F	Energy 2.0 by Systems Associates for Butler, Elan, Futronix, Honeywell, and OPTO-22 subsystems *		
9080 F	Asset Registration	N/C	
6585 F	Energy 2.0 Software	6000	
6586 F	Extra Energy 2.0 Manuals	55	
5793-AGQ F	The Fix by Intellution (Process Control, Monitoring, Digital and Analog I/O) *		
9080 F	Asset Registration	N/C	
6536 F	The Fix Software with EPROM for IBM Color/Graphics Adapter	4500	
6537 F	The Fix Software with EPROM for IBM Enhanced Graphics Adapter	4500	
6595 F	BASIC Language Data Base Access for The Fix	395	
6546 F	BASIC Language Data Base Access User's Guide, Additional	28	
6596 F	C Language Data Base Access for The Fix	395	
6547 F	C Language Data Base Access User's Guide, Additional	28	
6597 F	Online Spreadsheet Interface for The Fix	250	
6593 F	Online Report Package for The Fix	150	
6598 F	Historical Trending for The Fix	650	
6549 F	Historical Trending User's Guide, Additional	28	
5793-AGX F	Engineering/Development portion of The Fix *		
9080 F	Asset Registration	N/C	
6522 F	Engineering/Development Software with EPROM for IBM Color/Graphics Adapter	2100	
6523 F	Engineering/Development Software with EPROM for IBM Enhanced Graphics Adapter	2100	
5793-AGW F	Runtime portion of The Fix *		
9080 F	Asset Registration	N/C	
6502 F	The Fix, Runtime, with EPROM for IBM Color/Graphics Adapter	2675	
6503 F	The Fix, Runtime, with EPROM for IBM Enhanced Graphics Adapter	2675	
6587 F	IBM Digital/Analog Adapter Device Driver	795	
6588 F	Arcosystems Device Driver	795	
6589 F	Allen-Bradley Device Driver	1095	
6590 F	Data Translation Device Driver	795	
6591 F	Gould Modicon Device Driver	1095	
6592 F	Opto 22 Device Driver	795	
6594 F	OEM Device Driver Tool Kit, The Fix	1250	
6538 F	User's Guides, Set, The Fix	125	
6539 F	User's Guide, IBM DACA, The Fix	28	
6540 F	User's Guide, Arcosystems, The Fix	28	
6541 F	User's Guide, Allen-Bradley, The Fix	28	
6542 F	User's Guide, Data Translation, The Fix	28	
6543 F	User's Guide, Gould Modicon, The Fix	28	
6544 F	User's Guide, Opto 22, The Fix	28	
5793-ACW F	Fleet Maint (Vehicle Maintenance Scheduler) *		
9001 F	Asset Registration	N/C	
6570 F	Fleet Maint Software	3950	
6571 F	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 F	Loopworks by Equinox Data (Process Monitoring and Control, Digital/Analog I/O) *		
9080 F	Asset Registration	N/C	
6569 F	Loopworks Software	2995	
6535 F	Loopworks Manual	105	
5793-AFD F	MEDIA-FLEX (Maintenance Work and Parts Inventory Management) *		
9001 F	Asset Registration	N/C	
6532 F	Maintenance Management Software	5995	
6558 F	Maintenance Management Manual, extra	113	

As of September 20, 1988

MODEL/FC VPA	DESCRIPTION	PRICE			
5793-AGB F	MEDIA-FLEX (Preventive Maintenance Management) *		6609 F	Draftec User's Guide (Additional)	55
9001 F	Asset Registration	N/C	6576 F	User's Guide (Additional)	55
6521 F	Preventive Maintenance Software	3995	6603 F	Cable to Connect Industrial PC to Allen-Bradley Data Highway	85
6556 F	Inventory Module Upgrade (Makes 5793-AGB equivalent to 5793-AFD)	3000	6579 F	Cable to Connect Industrial PC to Allen-Bradley Terminal	75
6557 F	Preventive Maintenance Manual, extra	113			
5793-AFF F	Micro Maint (Maintenance Scheduler) by Diagonal Data *		5793-AHH F	Taylor Industrial Software (Controller Programmer) *	
9001 F	Asset Registration	N/C	9001 F	Asset Registration	N/C
6561 F	Micro Maint Software	4950	6622 F	Allen-Bradley PLC-2 Offline Programming	1250
6562 F	Micro Maint Manual, extra	53	6623 F	User's Guide (Additional)	55
6600 F	CAMM Interface Module	550	6603 F	Cable to Connect Industrial PC to Allen-Bradley Data Highway	85
5793-AFC F	Minute Man (Part Profile Generator) *		6579 F	Cable to Connect Industrial PC to Allen-Bradley Terminal	75
9001 F	Asset Registration	N/C			
6564 F	Minute Man Software	4990	5793-AGC F	Taylor Industrial Software (Controller Programmer) *	
6566 F	Minute Man Manual, extra	53	9001 F	Asset Registration	N/C
5793-AFA F	Quality Alert (Statistical Quality Control) *		6573 F	Allen-Bradley PLC-3 Software	2500
9001 F	Asset Registration	N/C	6577 F	User's Guide (Additional)	55
6559 F	Quality Alert Software	795	6625 F	Draftec	950
6560 F	Quality Alert Manual, extra	38	6609 F	Draftec User's Guide (Additional)	55
5601-053 F	Remote Terminal Interface Utility Programs for the IBM Industrial Computers (Support Remote Terminal Interface Adapter for industrial PCs into 7552)		6603 F	Cable to Connect Industrial PC to Allen-Bradley Data Highway	85
9001 F	Asset Registration	N/C	6579 F	Cable to Connect Industrial PC to Allen-Bradley Terminal	75
4594 F	One Time Charge	240	6583 F	Allen-Bradley PLC-3 Ladder Logic Documentation Package	2500
5099 F	Diskettes and manual	N/C	6602 F	Allen-Bradley PLC-3 Wiring Diagram Generator	500
5793-AEZ F	SQCpack (Statistical Quality Control) *		5793-AHC F	Taylor Industrial Software (Controller Programmer) *	
9001 F	Asset Registration	N/C	9001 F	Asset Registration	N/C
6553 F	SQCpack Software	595	6605 F	Allen-Bradley 1774-PLC Ladder Logic Documentation Package	1250
6555 F	SQCpack Manual, extra	38	6606 F	Allen-Bradley 1774-PLC Ladder Logic User's Guide (Additional)	55
6554 F	SQCpack Instruction Videotapes (VHS, 12 tapes)	5600	6603 F	Cable to Connect Industrial PC to Allen-Bradley Data Highway	85
5793-ACX F	Taylor Industrial Software (Controller Programmer) *		6579 F	Cable to Connect Industrial PC to Allen-Bradley Terminal	75
9001 F	Asset Registration	N/C			
6572 F	Allen-Bradley PLC-2 Ladder Logic Documentation Package	2500	5793-AHD F	Taylor Industrial Software (Controller Programmer) *	
6601 F	Allen-Bradley PLC-2 Up/Downline Loading	350	9001 F	Asset Registration	N/C
6602 F	Allen-Bradley PLC-2 Wiring Diagram Generator	500	6618 F	Modicon Micro-84 Documentation Package	1250
6625 F	Draftec	950	6604 F	Cable to Connect Industrial PC to Modicon P190	75
			6619 F	User's Guide (Additional)	55

As of September 20, 1988

MODEL/FC VPA	DESCRIPTION	PRICE			
5793-AHE F	Taylor Industrial Software (Controller Programmer) *		5601-060 F	IBM Realtime Interface Co-Processor C Language Support	
9001 F	Asset Registration	N/C	9001 F	Asset Registration	N/C
6607 F	Modicon Micro-84 Ladder Logic Documentation Package	1250	4000 F	One-Time Charge	430
6613 F	Modicon Wiring Diagram Generator	500	5201 F	5.25in Diskette	N/C
6625 F	Draftec	950	5020 F	3.5in Diskette	N/C
6609 F	Draftec User's Guide	55			
6604 F	Cable to Connect Industrial PC to Modicon P190	75	5686-001 F	IBM Realtime Interface Co-processor DOS Support (supports ARCTIC/2)	80
6608 F	User's Guide (Additional)	55	5662-281 F	IBM Realtime Interface Co-processor OS/2 Support (supports ARCTIC/2)	160
			5688-044 F	IBM Realtime Interface Co-processor Extended Services (FCs 9001, 5092, 4039) (5.25in) Warranted, Central Service to 12/31/89 (12/30/88)	160
5793-AHF F	Taylor Industrial Software (Controller Programmer) *		5688-044 F	IBM Realtime Interface Co-processor Extended Services (FCs 9001, 5492, 4039) (3.5in) Warranted, Central Service to 12/31/89 (12/30/88)	160
9001 F	Asset Registration	N/C	S16F-1961	IBM Realtime Interface Co-processor Extended Services Users Guide (with diskettes) (12/30/88)	162
6611 F	Modicon 584/884/984 Ladder Logic Documentation Package	2500	5669-176 F	IBM Realtime Interface Co-Processor Developers Kit V2 (high-level language interface for BASIC, PASCAL, C, examples, debugger, format dump)	1850
6613 F	Modicon Wiring Diagram Generator	500	5038 F	IBM Device Data Management Support (for IBM Industrial Computer, IBM Personal Computer and IBM Personal System/2) (5.25in) (2/24/89)	595
6614 F	Modicon 584/984 Up/Downline Loading	350	5028 F	IBM Device Data Management Support (for IBM Industrial Computer, IBM Personal Computer and IBM Personal System/2) (3.5in) (2/24/89)	595
6625 F	Draftec	950	SC28-8023	IBM Device Data Management Support (Publications Diskette) (5.25in) (2/24/89)	??
6609 F	Draftec User's Guide (Additional)	55	SC28-8024	IBM Device Data Management Support (Publications Diskette) (3.5in) (2/24/89)	??
6604 F	Cable to Connect Industrial PC to Modicon P190	75			
6612 F	User's Guide (Additional)	55	5039 F	IBM Communications Protocol Programs for Allen-Bradley, General Electric, Gould and Texas Instruments Devices(provides attachment support for programmable controllers) (5.25in) (2/24/89)	495
5793-AHG F	Taylor Industrial Software (Controller Programmer) *		5029 F	IBM Communications Protocol Programs for Allen-Bradley, General Electric, Gould and Texas Instruments Devices(provides attachment support for programmable controllers) (3.5in) (2/24/89)	495
9001 F	Asset Registration	N/C			
6616 F	Texas Instruments Ladder Logic Documentation Package	2500			
6617 F	User's Guide (Additional)	55			
5601-052 F	Language Extensions for the IBM 7552 (BASIC, C, ASM, Pascal subroutines for orderly shutdown on power loss, set alarms, read/write CMOS)				
9001 F	Asset Registration	N/C			
4591 F	One-Time Charge	395			
5184 F	Publication and diskettes	N/C			
<u>ARTIC SUPPORT SOFTWARE</u>					
5669-179 F	Communication Subsystem V.1.1 for ARTIC, incl. Users Guide				
9001 F	Asset Registration	N/C			
5137 F	Distribution on 5.25in Diskette	N/C			
5146 F	Distribution on 3.5in Diskette	N/C			
4638 F	One-Time Charge	475			
SC28-8009	Users Guide, ARTIC Communications Subsystem	85			

PC-DOS Software

As of September 20, 1988

MODEL/FC VPA	DESCRIPTION	PRICE
<u>INTEGRATED PROGRAMS</u>		
See also the integrated families of programs under "General Purpose Programs," such as "IBM Assistant Series" on page 72, and "IBM Personal Decision Series" on page 73.		
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
9448	Symphony 2.0 by Lotus Development * (5.25in)	695
9800	Symphony 2.0 by Lotus Development * (3.5in)	695
9047	1-2-3 Version 2.01 by Lotus Development (5.25in)	495
9769 A	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 72, and "IBM Personal Decision Series" on page 73.

#### GENERAL

6476161 A	MARKUP, V.1, WYSIWYG data-entry of DCF documents, Warranted, Central Service to 10/16/90 (3.5in+5.25in)	375
9104	Microsoft Word V.4.0 (3.5in+5.25in) *	450
5740-XR1	STAIRS/PC (Storage and Information Retrieval System/PC, cooperative processing with STAIRS/VS MVS CICS, provides guided front end) Warranted, Central service 12 mo. notice	
4622	Tier 1 (1-100 users) STAIRS/PC Monthly Charge Option	142
4628	Tier 1 (1-100 users) STAIRS/PC One Time Charge Option	3000
4633	Tier 2 (101 users or more) STAIRS/PC Monthly Charge Option (Req. Tier 1 as prerequisite)	48

4634	Tier 2 (101 users or more) STAIRS/PC One Time Charge Option (Req. Tier 1 as prerequisite)	1000
4071 A	Word Perfect	65
9266	WordPerfect 5.0 by Wordperfect Corp. International (5.25in) *	495
9785	WordPerfect 5.0 by Wordperfect Corp. (3.5in, for Personal System/2) *	495

#### DESKTOP PUBLISHING

9791 A	PageMaker V.3.0 (page layout and electronic pasteup, 5.25in) *	795
9794 A	PageMaker V.3.0 for Personal System/2 (page layout and electronic pasteup, 3.5in) *	795
9956 A	IBM Interleaf Publisher (3.5in) (Program Package) Warranted, Central Service three months or 12/31/90 **	2495
5912 A	IBM Interleaf Publisher (5.25in) (Program Package) Warranted, Central Service three months or 12/31/90 **	2495
9967 A	IBM Interleaf Publisher Data Export (3.5in+5.25in) (Program Package) Warranted, Central Service three months or 12/31/90 **	500

#### IBM PC DISPLAYWRITE SERIES

9904 A	IBM PC DisplayWrite 4, (5.25in) Warranted, Central Service for 90 days or to 3/88	495
9913 A	IBM PC DisplayWrite 4, (3.5in) Warranted, Central Service for 90 days or to 3/88	495
0611 A	ADDITIONAL LICENSE, IBM PC DisplayWrite 4	425
0668 B	DOCUMENTATION ONLY, IBM PC DisplayWrite 4	70
9914	Upgrade DisplayWrite 3 V.1.1 (3.5in) to DisplayWrite 4	W/D
9918	Upgrade DisplayWrite 3 V.1.0 (5.25in) to DisplayWrite 4	W/D
9919	Upgrade DisplayWrite 3 V.1.0 (3.5in) to DisplayWrite 4	W/D
6070 A	DisplayWrite Index Support (index, table of contents for DW3 and DW4)	125
4190 A	IBM PC DisplayWrite Legal Support	179

As of September 20, 1988

MODEL/FC VPA	DESCRIPTION	PRICE		
4197 A	IBM PC DisplayWrite Medical Support	179	5398 A WordStar 2000 Plus (5.25in) *	495
S126-4050	DisplayWrite 2 template for use on 3270-PC	.30	5399 A WordStar 2000 Plus (3.5in) *	495
5799-BKE	Host-DisplayWriter Document Interchange (HDDI)			
	Initial License Charge	1165		
2105	Monthly Charge	265		
<u>MICROPRO SERIES</u>			<u>IBM PERFORMANCE TOOLS</u>	
			5799-PEY IBM Personal Computer PLAN/36 Performance Tool (supports S/36, S/38 and the Token Ring Network) (5.25in)	150

As of September 20, 1988

MODEL/FC VPA	DESCRIPTION	PRICE
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#### 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.

GB0F-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
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
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Support Publications



As of September 20, 1988

MODEL/FC VPA	DESCRIPTION	PRICE			
G320-9285	Assessment Guide	N/C	G320-9314	IBM PC Seminar Proceedings V.2.6--TopView	N/C
G320-9286	Implementation Guide	N/C	G320-9315	IBM PC Seminar Proceedings V.2.7--Professional Debug Facility	N/C
G320-9287	User's Guide	N/C	G320-9319	IBM PC Seminar Proceedings V.2.8--PC Network SMB Protocol	N/C
<u>WORKSTATION MANAGEMENT</u>			G320-9316	IBM PC Seminar Proceedings V.2.9--IBM PC Xenix	N/C
G320-0716	Presentation Guide	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
G320-0721	Assessment Guide	N/C	G320-9318	IBM PC Seminar Proceedings V.2.11--Enhanced Graphics Adapter	N/C
<u>ACCESS TO DATA</u>			G320-9320	IBM PC Seminar Proceedings V.3.1--PC Information Panel (3295)	N/C
G320-9366	Presentation Guide	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
G320-9367	Assessment Guide	N/C	G320-9322	IBM PC Seminar Proceedings V.3.3--IBM PC C Compiler	N/C
<u>SUPPORT PUBLICATIONS - PC SEMINAR PROCEEDINGS</u>			G320-9323	IBM PC Seminar Proceedings V.3.4--IBM Asynchronous Communication Server Protocol	N/C
	Publications listed below as no charge (N/C) are typically free when ordered in reasonable quantities from your IBM Marketing Representative.		G320-9324	IBM PC Seminar Proceedings V.3.5--IBM PC Voice Communications Option	N/C
G320-9307	IBM PC Seminar Proceedings V.1.2--DOS 2.0 and 1.1 Comparison, 8087, Compatibility Guidelines, Macro Assembler	N/C	G320-9325	IBM PC Seminar Proceedings V.4.1--IBM PC Xenix V.2	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	G320-9326	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
G320-9309	IBM PC Seminar Proceedings V.2.1--Software support center, International compatibility requirements, PC Cluster Program	N/C	G320-9327	IBM PC Seminar Proceedings V.4.3--IBM PC Convertible	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	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
G320-9311	IBM PC Seminar Proceedings V.2.3--PC Cluster, PCjr Cartridges, Sort 1.00, FORTRAN 1.00, Pascal 2.00	N/C	<u>SUPPORT PUBLICATIONS - OPTIONS AND ADAPTERS TECHNICAL REFERENCE</u>		
G320-9312	IBM PC Seminar Proceedings V.2.4--PC/AT Architecture and Compatibility, DOS 3.0	N/C	The following manual covers these options and adapters:		
G320-9313	IBM PC Seminar Proceedings V.2.5--IBM PC Network Overview, Hardware, NETBIOS, and Program	N/C	Expansion Unit		
			Monochrome Display		
			Color Display		
			Monochrome Display/Printer Adapter		
			Color Graphics Monitor Adapter		

As of September 20, 1988

MODEL/FC VPA	DESCRIPTION	PRICE			
	Color Printer		3075 a	Update Options and Adapters (PC/AT 512KB/2MB Memory Expansion) (order via PCTB)	5.95
	Compact Printer		SS34-0008	Options and Adapters (256KB Memory Expansion and Type 3 Diskette Drive) (order via PCTB)	9.95
	Parallel Printer Adapter		3215	Update Options And Adapters (PC/XT 286 Fixed Disk and Diskette Drive Adapter) (order via PCTB)	6
	5.25in Diskette Drive		3208	Update Options And Adapters (20MB Fixed Disk Drive for PC/XT models 286, 268, 278, 089) (order via PCTB)	7
	5.25in Diskette Drive Adapter		SS34-0011	Options and Adapters (Voice Communications Adapter) (order via PCTB)	5.95
	Asynchronous Communications Adapter		S229-9606	Options and Adapters Binder (order via PCTB)	7.45
	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	<u>SUPPORT PUBLICATIONS - HARDWARE MAINTENANCE AND SERVICE</u>		
SS34-0009	Options and Adapters (Engineering/Scientific, including Data Acq. Controllor, Prof. Graphics Controllor, GPIB Card) (order via PCTB)	34	3087 a	Hardware Maintenance & Service (Manual and Advanced Diagnostic Diskette) PC, PC/XT, PC/AT, Portable (order via PCTB)	195
SS34-0010	Options and Adapters (PC/AT adapters, including Serial/Parallel, Fixed Disk, Diskettes, 128KB Memory, 512KB Memory) (order via PCTB)	13.25	3063 a	Update Hardware Maintenance & Service (3.5in Internal Diskette) (order via PCTB)	5.95
3090 a	Update Options and Adapters (3.5in Internal Diskette Drive) (order via PCTB)	5.95	3109 a	Update Hardware Maintenance & Service (640KB motherboard PC/XT models 089, 268, 278) (order via PCTB)	9.95
3091 a	Update Options and Adapters (20MB Fixed Disk Drive)	5.95	3100 a	Update Hardware Maintenance & Service (8MHz motherboard PC/AT model 339) (order via PCTB)	9.95
3092 a	Update Options and Adapters (20MB Fixed Disk Adapter, XT models 089, 268, 278) (order via PCTB)	5.95	3370 a	Hardware Maintenance and Service Supplement - 3270-PC/AT	65.75
SS34-0012	Options and Adapters (30MB Fixed Disk Drive) (order via PCTB)	5.95	3008 a	Hardware Maintenance and Service Supplement - 5171T PC/AT	4
9945	Options and Adapters (4865-001 and -002, 3.5in external diskette drive) (order via PCTB)	5.95	0111	Update Hardware Maintenance & Service (4865 -001 and -002, 3.5in external diskette drive) (order via PCTB)	10
9946	Update Options and Adapters (4865 -001 and -002, 3.5in external diskette drive adapter) (order via PCTB)	5.95	59X9964	Update Hardware Maintenance & Service (Convertible Speech Adapter)	??
3093 a	Options and Adapters (Half-Height 5.25in Diskette Drive, PC and PC/XT) (order via PCTB)	5.95	8018 a	Hardware Maintenance and Service - Multiprotocol Communications Adapter	15.50
3544 a	Options and Adapters (PC/AT 128/640KB Memory Expansion) (order via PCTB)	5.95	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

Support Publications

As of September 20, 1988

MODEL/FC VPA	DESCRIPTION	PRICE
<u>SUPPORT PUBLICATIONS - HARDWARE MAINTENANCE REFERENCE</u>		
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 a	IBM PC DOS 3.3 Technical Reference Manual	85
6690 a	DOS 1.1 Reference Manual (spiral bound)	20
6280107	System Extension Installation and Planning Guide	N/C
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

As of September 20, 1988

MODEL/FC VPA	DESCRIPTION	PRICE		
<u>OTHER SOFTWARE</u>				
<u>CP/M-86</u>				
4035 A	CP/M-86 Operating System by Digital Research, Inc.	259	9939 A	IBM PC Xenix Software Development System V.2 (incl. publications listed below) Warranted, Central Service 6 mo. notice or to 10/87 (W/D 9/23/88) 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
<u>UNIX DIALECTS</u>				
<u>PC/INTERACTIVE EXECUTIVE</u>				
9358 A	PC/Interactive Executive (UNIX-like) V.1.1 by Interactive Systems, Warranted (W/D 9/23/88)	989	9941 A	IBM PC Xenix Text Formatting System V.2 (incl. publication listed below) Warranted, Central Service 6 mo. notice or to 10/87 (W/D 9/23/88) 199
6135 A	PC Interface for IBM IX/370	??	SV21-8080	IBM PC Xenix Text Formatting System V.2 Guide 23.75
<u>IBM PC XENIX FOR THE PC/AT</u>				
9932 A	IBM PC Xenix V.2 (incl. publications listed below) Warranted, Central Service 6 mo. notice or to 10/87 (W/D 9/23/88)	599	These programs are eligible for volume license discounting under the IBM Series/1 Licensed Program Exhibit.	
SV21-8074	Xenix V.2 Documentation, Volume 1	34	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
SV21-8075	Xenix V.2 Documentation, Volume 2	38.50	9737	Asset registration 715
SV21-8076	Xenix V.2 Documentation, Volume 3	81.50	2154	Media distribution and process charge V.1.1 40
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 (W/D 9/23/88)	475		EDX on the 4950 is supported for application execution only.
SV21-8081	Using INed	19		Application development under EDX on the 4950 is not supported.
SV21-8086	Using INmail/INnet/ftp/Connect	24.50		
SN20-9782	Operating Systems Extensions User's Guide	17.75		

For associated hardware, see -- Heading id 's1hw' unknown --.  
For associated Series/1 applications, see your IBM Marketing Representative.

Other Software

As of September 20, 1988

MODEL/FC VPA	DESCRIPTION	PRICE
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
	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 41.

#### 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
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

Other Software

As of September 20, 1988

MODEL/FC VPA	DESCRIPTION	PRICE		
5740-M52	S/370 Automatically Programmed Tool (APT) Intermediate Contouring		3009	Monthly Charge Option 18
3011	Monthly Charge Option	50	3014	One-Time Charge Option 604
3012	One-Time Charge Option	1000	5748-MS1	VM/IPF (FLIST and BROWSE functions)
5740-M53	S/370 Automatically Programmed Tool (APT) Advanced Contouring		3004	Monthly Charge Option 4
3013	Monthly Charge Option	75	3010	One-Time Charge Option 196
3014	One-Time Charge Option	1500	5668-960	ISPF
5668-962	Assembler H		3007	Monthly Charge Option 10
3002	Monthly Charge Option	9	3015	One-Time Charge Option 660
3011	One-Time Charge Option	432	5664-172	ISPF/PDF (no disconn. virt. mach.)
5664-185	High-Accuracy Arithmetic (ACRITH) Subroutine Library Release 2		3000	Monthly Charge Option 17
3002	One-Time Charge Option	150	3001	One-Time Charge Option 1085
5668-996	IBM BASIC Processor and Library		5740-XM3	MPSX/370 incl.MIP/370
3003	Monthly Charge Option	21	3015	Monthly Charge Option 62
3012	One-Time Charge Option	1008	3016	One-Time Charge Option 1250
5668-795	CICS/CMS Release 1		5796-PNQ	Pascal/VS
5740-CB1	OS/VS COBOL Compiler and Library		3025	Monthly Charge Option 11
3006	Monthly Charge Option	19	3028	One-Time Charge Option 554
3008	One-Time Charge Option	912	5734-PL3	PL/I Optimizing Compiler and Lib.
5740-LM1	OS/VS COBOL Library		3000	Monthly Charge Option 21
3007	Monthly Charge Option	6	3005	One-Time Charge Option 1008
3009	One-Time Charge Option	288	5734-LM5	PL/I Transient Library
5734-CB4	COBOL Interactive Debug		3001	Monthly Charge Option 4
3003	Monthly Charge Option	21	3006	One-Time Charge Option 192
3004	One-Time Charge Option	1008	5734-LM4	PL/I Resident Library
5748-XXB	DMS/CMS		3002	Monthly Charge Option 4
3005	Monthly Charge Option	4	3007	One-Time Charge Option 192
3009	One-Time Charge Option	144	5798-BDW	CMS Sort for VM/CMS & Extensions
5748-XX9	Document Composition Facility		3037	One-Time Charge Option 132
3003	Monthly Charge Option	18	5664-189	STAIRS/CMS
3008	One-Time Charge Option	864	3003	Monthly Charge Option 30
5798-PXJ	Dynamic Simulation Language/VS		3004	One-Time Charge Option 660
3045	Monthly Charge Option	45	5798-DYF	The Information Facility (TIF) V.2
3044	One-Time Charge Option	1000	3047	Monthly Charge Option 50
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	LIAS			
3008	Monthly Charge Option	60		
3013	One-Time Charge Option	1890		
5668-012	LIIPS			

#### AS/400 PC SUPPORT

Reference ivory #288-297 for more information.  
5728-PC1 Provides PC support for the AS/400 System.

N/A

#### 4680 OPERATING SYSTEM

See also "IBM SolutionPac Offerings" on page 15 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.

As of September 20, 1988

MODEL/FC VPA	DESCRIPTION	PRICE				
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		5601-192	4680 Operating System V.2 Multiple Controller Feature (Basic License-Upgrade from V.1) (9/30/88) One-Time Charge	80
5601-192	4680 Operating System V.2 (supports multi-tasking, multi-user environments, optional multiple controller and 3270 emulation) ** (Basic License) (9/30/88) Warranted, Central Service 6 mo. notice			5601-192	4680 Operating System V.2 Multiple Controller Feature (Additional License-Upgrade from V.1) (9/30/88) One-Time Charge	80
9001	Asset Registration	N/C		5601-192	4680 Operating System V.2 3270 Emulation Feature (Basic License) (9/30/88) Warranted, Central Service 6 mo. notice	
4679	One-Time Charge	2100		4681	One-Time Charge	1090
5181	Media Selection (3.5in diskettes)	N/C		5185	Media Selection (3.5in diskettes)	N/C
5182	(Remote Installation) Media Selection (3.5in diskettes)	N/C		5858	Media Selection (5.25in diskettes)	N/C
5898	Media Selection (5.25in diskettes)	N/C				
5838	(Remote Installation) Media Selection (5.25in diskettes)	N/C		5601-192	4680 Operating System V.2 3270 Emulation Feature (Additional License) (9/30/88) Warranted, Central Service 6 mo. notice	
5601-192	4680 Operating System V.2 (Additional License) (9/30/88)			4689	One-Time Charge	1050
9002	Asset Registration (No media provided)	N/C		7002	Program Directory	N/C
4686	One-Time Charge (with documentation)	2050				
7001	Documentation	N/C		5601-192	4680 Operating System V.2 3270 Emulation Feature (Basic License-Upgrade from V.1) (9/30/88) One-Time Charge	100
4687	One-Time Charge (no documentation)	2000				
5601-192	4680 Operating System V.2 (Basic License-Upgrade from V.1) (9/30/88)			5601-192	4680 Operating System V.2 3270 Emulation Feature (Additional License-Upgrade from V.1) (9/30/88) One-Time Charge	100
4683	One-Time Charge (with documentation)	600				
5601-192	4680 Operating System V.2 (Additional License-Upgrade from V.1) (9/30/88)			4705	One-Time Charge	100
4702	One-Time Charge (with documentation)	550		7002	Program Directory	N/C
4703	One-Time Charge (no documentation)	500				
5601-192	4680 Operating System V.2 Multiple Controller Feature (Basic License) (9/30/88) Warranted, Central Service 6 mo. notice			5601-192	4680 Operating System V.2 Message Guide Diskette (12/30/88) One-Time Charge	600
4680	One-Time Charge	820		4682	One-Time Charge	
5183	Media Selection (3.5in diskettes)	N/C		6005	Media Selection (3.5in diskettes)	N/C
5184	(Remote Installation) Media Selection (3.5in diskettes)	N/C		6004	Media Selection (5.25in diskettes)	N/C
5888	Media Selection (5.25in diskettes)	N/C		5669-033	4680 Operating System V.1.3 for 5170 Point-of-Sale (supports new features announced 12/15/87) ** Warranted, Central Service 6 mo. notice	
5848	(Remote Installation) Media Selection (5.25in diskettes)	N/C				
5601-192	4680 Operating System V.2 Multiple Controller Feature (Additional License) (9/30/88)			5669-033	4680 Operating System V.1.2 for 5170 Point-of-Sale (supports 2nd loop adapter, PC Network) ** Warranted, Central Service 6 mo. notice	
4691	One-Time Charge	800		9001	Asset Registration	N/C

Other Software

As of September 20, 1988

MODEL/FC VPA	DESCRIPTION	PRICE			
4606	One-Time Charge	1500	9001	Asset Registration	N/C
5898	Media Selection (5.25in diskettes)	N/C	4091	One-Time Charge	350
4642	Multiple-Controller Feature, One-Time Charge	800	5195	Media Selection (3.5in diskettes) (9/30/88)	N/C
5888	Multiple-Controller Feature, Media Selection (5.25in diskettes)	N/C	5858	Media Selection (5.25in diskettes)	N/C
4093	3270 Emulation feature for the 4680 Operating System ** Warranted, Central Service 6 mo. notice	1050	4092	Optional Source Code, One-Time Charge	4000
5669-034	IBM 4680 BASIC (based on CB86, LINK-86, and LIB-86, specify FC 9001, 4607, and 5898) ** Warranted, Central Service 6 mo. notice	2500	7868	Optional Source Code, Media Selection (3.5in diskettes) (9/30/88)	N/C
5669-034	IBM 4680 BASIC V.1.2 (supports 12/15/87 announcements, specify FC 9001, 4607, and 5898) ** Warranted, Central Service 6 mo. notice		7858	Optional Source Code, Media Selection (5.25in diskettes)	N/C
4607	One-Time Charge	2500	7041	General Sales Application Terminal Offline Feature Program Reference (first copy)	N/C
5065	Media Selection (3.5in diskettes) (9/30/88)	N/C	8005	General Sales Application Terminal Offline Feature Program Reference (additional copies)	5.60
5898	Media Selection (5.25in diskettes)	N/C		Price Management Application Feature Warranted, Central Service 6 mo. notice (10/28/88)	
5601-101	IBM 4680 Support for COBOL (Supports applications written in IBM COBOL/2) ** Warranted, Central Service 6 mo. notice		4026	One-Time Charge	1050
4544	One-Time Charge	345	5194	Media Selection (3.5in diskettes)	N/C
5065	Media Selection (3.5in diskettes) (9/30/88)	N/C	5888	Media Selection (5.25in diskettes)	N/C
5898	Media Selection (5.25in diskettes)	N/C	5669-032	IBM 4680 Supermarket Application ** Warranted, Central Service 6 mo. notice	N/C
5669-031	IBM 4680 General Sales Application (written in 4680 BASIC) ** Warranted, Central Service 6 mo. notice		9001	Asset Registration	N/C
9001	Asset Registration	N/C	4605	One-Time Charge	2500
4604	One-Time Charge	1200	5228	Media Selection (3.5in diskettes) (9/30/88)	N/C
5193	Media Selection (3.5in diskettes) (9/30/88)	N/C	5898	Media Selection (5.25in diskettes)	N/C
5898	Media Selection (5.25in diskettes)	N/C	4643	Optional Source Code, One-Time Charge	12000
4641	Optional Source Code, One-Time Charge	12000	7868	Optional Source Code, Media Selection (3.5in diskettes) (9/30/88)	N/C
7848	Optional Source Code, Media Selection (3.5in diskettes) (9/30/88)	N/C	7898	Optional Source Code, Media Selection (5.25in diskettes)	N/C
7898	Optional Source Code, Media Selection (5.25in diskettes)	N/C	5669-032	IBM 4680 Supermarket Application Offline Feature ** Warranted, Central Service 6 mo. notice	
7040	General Sales Application Program Reference (first copy)	N/C	9001	Asset Registration	N/C
8002	General Sales Application Program Reference (additional copies)	??	4095	One-Time Charge	740
	General Sales Application Terminal Offline Feature Warranted, Central Service 6 mo. notice **		5236	Media Selection (3.5in diskettes) (9/30/88)	N/C
			5888	Media Selection (5.25in diskettes)	
			4094	Optional Source Code, One-Time Charge	4000
			7858	Optional Source Code, Media Selection (3.5in diskettes) (9/30/88)	N/C
			7888	Optional Source Code, Media Selection (5.25in diskettes)	N/C
			7041	Supermarket Application Offline Feature Program Reference (first copy)	N/C

Other Software



As of September 20, 1988

MODEL/FC VPA	DESCRIPTION	PRICE			
8006	Supermarket Application Offline Feature Program Reference (additional copies)	??		3001	Optional Source Code, Media Selection (3.5in diskettes) (9/30/88) N/C
4096	IBM 4680 Supermarket Application EFT Feature ** (11/23/88) Warranted, Central Service 6 mo. notice			3000	Optional Source Code, Media Selection (5.25in diskettes) N/C
4096	One-Time Charge	750		7040	Chain Drug Application Program Reference (first copy) ??
7042	Optional Source Code, One-Time Charge	4000		8003	Chain Drug Application Program Reference (additional copies) ??
8007	Supermarket Application EFT Feature Program Reference (first copy)	N/C		5601-152	IBM 4680 Store Management Application (Checkout and Service Desk) (6/89) ** Warranted, Central Service 6 mo. notice 1300
5669-212	IBM 4680 Chain Drug Sales Application (written in 4680 BASIC) ** Warranted, Central Service 6 mo. notice	??		4640	Price Management Feature 550
9001	Asset Registration	N/C		4641	Inventory Control Feature 450
4660	One-Time Charge	1000		5601-204	IBM 4680 Store System Regression Tester (10/28/88) ** Warranted, Central Service 6 mo. notice
5197	Media Selection (3.5in diskettes) (9/30/88)	N/C		9001	Asset Registration N/C
5898	Media Selection (5.25in diskettes)	N/C		4430	One-Time Charge 25000
4661	Optional Source Code, One-Time Charge	4000		5195	Media Selection (3.5in diskettes) N/C
				5194	Media Selection (5.25in diskettes) N/C

As of September 20, 1988

MODEL/FC VPA	DESCRIPTION	PRICE
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EDUCATIONAL PROGRAMS

4112	IBM PC Adventures in Math	39	4304	A I Can Be Anything	50
4024	Arithmetic Games Set 1	60	4095	IBM PC Juggles' Butterfly	39
4025	Arithmetic Games Set 2	60	4066	Karel the Robot	150
4053	A BASIC Primer	65	4080	Learning to Use DOS 2.00 (book)	15
4129	A BASIC Primer Version 2	65	4165	A Listen to Learn (talking word-processor) (5.25in)	195
2290	Hands-On BASIC for the IBM PCjr (book)	17.50	4506	A Listen to Learn (talking word-processor) (3.5in)	195
4116	BASIC Made Easy for the IBM PCjr (book)	13	4538	A Listen to Learn (talking word-processor), LAN Package (5.25in)	1170
4137	A IBM PC Bouncy Bee Learns Letters (5.25in)	70	4842	A Listen to Learn (talking word-processor), LAN Package (3.5in)	1170
4511	A IBM PC Bouncy Bee Learns Letters (3.5in)	70	4076	A LOGO by Logo Computer Systems, Inc. (5.25in)	175
4536	A IBM PC Bouncy Bee Learns Letters, LAN Package (5.25in)	420	4731	A LOGO by Logo Computer Systems, Inc. (3.5in)	175
4832	A IBM PC Bouncy Bee Learns Letters, LAN Package (3.5in)	420	4136	A LOGO Learner (5.25in)	110
4139	A IBM PC Bouncy Bee Learns Words (5.25in)	70	4515	A LOGO Learner (3.5in)	110
4510	A IBM PC Bouncy Bee Learns Words (3.5in)	70	4104	A Missing Letters (5.25in)	50
4537	A IBM PC Bouncy Bee Learns Words, LAN Package (5.25in)	420	4507	A Missing Letters (3.5in)	50
4833	A IBM PC Bouncy Bee Learns Words, LAN Package (3.5in)	420	4530	A Missing Letters, LAN Package (5.25in)	300
4094	IBM PC Bumble Games	45	4843	A Missing Letters, LAN Package (3.5in)	300
4096	IBM PC Bumble Plot	45	4072	IBM PC Monster Math	35
4293	A Comma Cat	49	4340	A InfoCourse: Principle of the Alphabet Literacy System (PALS) V.1.0, Warranted, Central Service for 90 days or to 3/89 (runs on InfoWindow)	3750
0916	A InfoCourse: Database for the Personal Computer, principles of databases with examples from dBASE III (runs on InfoWindow)	1200	4294	A Primary Editor (children's word processor) (5.25in)	60
4067	A Dictionary Dog	49	4767	A Primary Editor (children's word processor) (3.5in)	60
9831	Distance Learning - Spanish	9000	4539	A Primary Editor (children's word processor), LAN Package (5.25in)	360
4023	FACT TRACK	90	9340	A IBM Programmed Inquiry Learning or Teaching (PILOT), Central service to 8/86	219
4098	Gertrude's Puzzles	49			
4097	Gertrude's Secrets	49	4099	Rocky's Boots	50

Educational Programs

As of September 20, 1988

MODEL/FC VPA	DESCRIPTION	PRICE
0915 A	InfoCourse: Spreadsheets for Professionals (runs on InfoWindow)	2000
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
4794 A	IBM PC Touch Typing for Beginners, LAN Package (3.5in)	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
9685 A	Typing INSTRUCTOR II*	49.95
9821 A	Network Typing INSTRUCTOR II* (for use with PC Network, PC-CLASS) (5.25in)	549.95
4013 A	Typing Tutor (diskette version)	29
4447 A	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, Program Kit (inc. Teacher's Manual, pgm, Work Journals, cassettes) (3.5in)	895
4450 A	Writing to Read V.3, Accessory Kit (inc. games, cassettes)	211
4467 A	Writing to Read V.3, Class Set (inc.30 Work Journals)	330
1186 L	Writing to Read V.3, Teacher's Manual	37
4468 A	Get Set for Writing to Read (Kit, contains Alphabet and Sound Pgms, Manual, Workbooks, Audio Cassettes, etc., req. PCjr and Speech Attachment)	295
0049 A	Writing to Read Diskette Package (contains installation guide and 120 formatted story diskettes, 3 sets of backup diskettes (12 diskettes) and 6 sets of Primary Editor program diskettes (12 diskettes))	995

4768 A	Get Set for Writing to Read (Kit, contains Alphabet and Sound Pgms, Manual, Workbooks, Audio Cassettes, etc. for PS/2) (3.5in+5.25in)	295
4469	Get Set for Writing to Read Alphabet Book Set	6

SPANISH WRITING TO READ V.1.0 (VOY A LEER ESCRIBIENDO)

4875 A	Spanish Writing to Read - South American (Program Package) (3.5in) (11/4/88)	995
4876 A	Spanish Writing to Read - Mexican (Program Package) (3.5in) (11/4/88)	995
4877 A	Spanish Writing to Read - Puerto Rican (Program Package) (3.5in) (11/4/88)	995
4890 A	Mi Editor Primario - (Word Processor) (3.5in) (11/4/88)	75
4891 A	Mi Editor Primario - (LAN Package) (3.5in) (11/4/88)	450
4894 A	Spanish Writing to Read - South American (Program Package) (5.25in) (11/4/88)	995
4895 A	Spanish Writing to Read - Mexican (Program Package) (5.25in) (11/4/88)	995
4896 A	Spanish Writing to Read - Puerto Rican (Program Package) (5.25in) (11/4/88)	995
4897 A	Mi Editor Primario - (Word Processor) (5.25in) (11/4/88)	75
4898	Mi Editor Primario - (LAN Package) (5.25in) (11/4/88)	450
4878 B	Teachers Manual (11/4/88)	45
4879 B	Accessory Kit -- Make Words, Bingo, Library (11/4/88)	310
4880 B	Cartilla 1 -- Work Journal 1, 10 pack (11/4/88)	16
4881 B	Cartilla 2 -- Work Journal 2, 10 pack (11/4/88)	16
4882 B	Cartilla 3 -- Work Journal 3, 10 pack (11/4/88)	16
4883 B	Cartilla 4 -- Work Journal 4, 10 pack (11/4/88)	16
4884 B	Cartilla 5 -- Work Journal 5, 10 pack (11/4/88)	16
4885 B	Cartilla 6 -- Work Journal 6, 10 pack (11/4/88)	16
4886 B	Cartilla 7 -- Work Journal 7, 10 pack (11/4/88)	16
4887 B	Cartilla 8 -- Work Journal 8, 10 pack (11/4/88)	16

As of September 20, 1988

MODEL/FC VPA	DESCRIPTION	PRICE	
4888 B	Cartilla 9 -- Work Journal 9, 10 pack (11/4/88)	16	
4889 B	Cartilla 10 -- Work Journal 10, 10 pack (11/4/88)	16	
<u>IBM PC BIOLOGY SERIES</u>			
	'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	
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	

As of September 20, 1988

MODEL/FC VPA	DESCRIPTION	PRICE	
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	
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	
4591 A	The Environment II: Cycles and Interactions LAN Package (5.25in)	390	
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As of September 20, 1988

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As of September 20, 1988

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As of September 20, 1988

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As of September 20, 1988

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As of September 20, 1988

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As of September 20, 1988

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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
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
4789 A	Level I (First - Second Grade) LAN Package (3.5in)	660
4790 A	Level II (Third - Fourth Grade) LAN Package (3.5in)	660
4791 A	Level III (Fifth - Sixth Grade) LAN Package (3.5in)	660

#### IBM PC VOCABULARY SERIES

As of September 20, 1988

MODEL/FC VPA	DESCRIPTION	PRICE			
	'School Packages' consist of one manual and 12 copies of the program diskette.			6024899 Primary Editor Plus (School Package) (3.5in)	565
				6024771 A Primary Editor Plus (LAN Package) (3.5in)	750
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 (3.5in)	495			
4705 A	Level III (Fifth - Sixth Grade) School Package (3.5in)	495			
4706 A	Level IV (Seventh - Eighth Grade) School Package (3.5in)	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			
4572 A	Level IV (Seventh - Eighth Grade) LAN Package (5.25in)	660			
4786 A	Level II (Third - Fourth Grade) LAN Package (3.5in)	660			
4787 A	Level III (Fifth - Sixth Grade) LAN Package (3.5in)	660			
4788 A	Level IV (Seventh - Eighth Grade) LAN Package (3.5in)	660			
<u>PRIMARY EDITOR PLUS</u>					
6024770 A	Primary Editor Plus (Single Package) (3.5in)	125			
Educational Programs					107
<u>IBM INFORMATION SYSTEMS MANAGEMENT INSTITUTE</u>					
GR20-4824	End User and Personal Computing Curriculum				N/C
GR20-4857	IBM Personal Computer Curriculum (combines SRI and ISMI courses)				N/C
P1006	Introduction to IBM Operating System/2 Standard Edition Version 1.0 (1 day) overview of OS/2 Standard Edition				N/C
P1008	IBM Operating System/2 (OS/2) Programming Functions and Procedures (2 days) teaches programming functions available with OS/2 (08/88)				420
P1007	Installation Topics for IBM Operating System/2 Standard Edition Version 1.0 (1 day) information on how to install and configure Operating System/2 Standard Edition				200
P1009	OS/2 Database Manager Workshop teaches purpose and content of a relational data base, specifically the Database manager of OS/2 Extended Edition				465
P1010	OS/2 Database Design and Coding information necessary to produce application programs that manipulate OS/2 data bases				525
G3686	Implementing the OS/2 Communications Manager in the Enterprise (2 1/2 days) information on planning and implementing the Operating System/2 Communications Manager				840
WS195	DisplayWrite 4: Basic Functions Workshop (1 day) introduces user to fundamental word processing functions of DisplayWrite 4				325
WS196	DisplayWrite 4: Advanced Functions Workshop (1 day) introduces user to advanced word processing functions of DisplayWrite 4				250
G3653	Telecommunications Environment (3 days) covering telephony, common carriers, PBX's, voice/data integration				540

As of September 20, 1988

MODEL/FC VPA	DESCRIPTION	PRICE			
G3667	Token-Ring Network Implementation Topics (4 days) covering design, implementation and maintenance of a Token-Ring Network	120	W9949	Information Center Consulting (2-1/2 day)	675
G4000	Locally Connected Personal Computers (2-1/2 day) for S/36-38, Token-Ring, PC Net, Rolm CBX connect	850	Y6201	InfoWindow Product Overview (1 day)	N/C
G4004	PC 3270 Emulation Advanced Products (2 days, Covers PC 3270 Emulation Program V.2, V.3)	540	E3646	Video/Passage Authoring Class (3 day)	660
G4005	Asynchronous Communications for the PC (2 days)	470	E3647	InfoWindow Application Workshop (7 day)	2800
B3819	Implementing Graphics in a GDDM Host-Local Environment (2-1/2 day) for 3179/G, 3270-PC, GGXA, etc.	700	E3668	InfoWindow Presentation System Authoring Workshop (3 day)	720
G3611	Token-Ring Network Implementation and Management (3-1/2 days)	770	E3653	Learning System/1 (LS/1) Authoring Workshop (4-1/2 day)	1080
G3667	Token-Ring Network Implementation Topics (2-1/2 days) (Physical planning, customizing, and problem determination, lecture-only version of G3611, prereq. 32297 or 33001)	600	Q1004	AIX Fundamentals Workshop (4 days)	760
G3669	ECF Facilities and Planning (1 day) (overview of ECF architecture, installation and planning the communication environment, prereq. G4001)	600	Q1005	AIX PS/2 Installation and Implementation (3 1/2 days) (9/88)	840
G4007	Local Area Network (LAN) Workstation Software Implementation (3 days) (Planning, tuning, and managing PC LAN Program and PC 3270 Emulation Program, prereq. 32297 or 33001)	720	<u>SCIENCE RESEARCH ASSOCIATES - LEASED COURSES</u>		
G4006	LAN Workstation Performance Workshop (2 days) (Tuning PC LAN Program and PC 3270 Emulation Program, prereq. is G4007 or G3636)	480	Many SRA courses are available through the IBM Guided Learning Centers at IBM Branch Offices at a charge per half day attended.		
Q1003	AIX Communications on the RT PC (4 1/2 days)	1375	32273	Personal Computing Concepts - Videotape	175
B3821	IBM System/36 Office Using IBM PC's (3 day, DW3, PS/36, DW/36)	660	32275	Programming the IBM Personal Computer	125
Y6068	Introduction to the IBM 4680 Store System (1/2 day)	N/C	Z2275	Programming the IBM Personal Computer (via GLC attendance at current half-day rate)	
E3622	Planning and Installing the IBM 4680 Sales Application (8 days)	2080	32276	Business Programming in BASIC	125
E3623	Programming the IBM 4680 General Sales Application (10 days)	3300	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
			32281	Using IBM DisplayWrite 2	20Q

Educational Programs

As of September 20, 1988

MODEL/FC VPA	DESCRIPTION	PRICE			
32284	Using IBM DisplayWrite 3	250	32403	UNIX Operating System: Files and	
	Upgrade 'Using IBM DisplayWrite 2'			Directories (12 month lease)	1100
	course to 'Using IBM DisplayWrite 3'	50	Z2403	UNIX Operating System: Files and	
	course			Directories (via GLC attendance at	
				current half-day rate)	
32266	Document Exchange: DisplayWrite 3 and	90	32404	UNIX Operating System: Text Formatting	415
	System/36			(60 day lease)	
Z2266	Document Exchange: DisplayWrite 3 and		32404	UNIX Operating System: Text Formatting	750
	System/36 (via GLC attendance at			(12 month lease)	
	current half-day rate)		Z2404	UNIX Operating System: Text Formatting	
				(via GLC attendance at current	
				half-day rate)	
P1002	Discover/DOS Introduction and		32405	UNIX Operating System: System	605
	Operations for IBM PC and IBM PS/2			Administration (60 day lease)	
	(via GLC attendance at current		32405	UNIX Operating System: System	1100
	half-day rate)			Administration (12 month lease)	
P1003	Discover/DOS Implementation for IBM PC		Z2405	UNIX Operating System: System	
	and IBM PS/2 (via GLC attendance at			Administration (via GLC attendance at	
	current half-day rate)			current half-day rate)	
32271	Using the IBM Personal Computer and	90	32406	UNIX Operating System: Shell	605
	DOS			Programming (60 day lease)	
32299	The IBM Personal Computer DOS	125	32406	UNIX Operating System: Shell	1100
	(publication SR21-0572)			Programming (12 month lease)	
			Z2406	UNIX Operating System: Shell	
				Programming (via GLC attendance at	
				current half-day rate)	
32278	Using the Lotus 1-2-3 Program	90	32407	UNIX Operating System: Program	605
32292	Developing Computer-Based Training	250		Development Tools (60 day lease)	
	with PC PILOT		32407	UNIX Operating System: Program	1100
32274	Using the WordStar Program	90		Development Tools (12 month lease)	
			Z2407	UNIX Operating System: Program	
				Development Tools (via GLC attendance	
				at current half-day rate)	
32295	The IBM Personal Computer Network	175			
Z2295	The IBM Personal Computer Network (via				
	GLC attendance at current half-day				
	rate)				
34550	Installation of Personal Services/PC	150	32153	308X Hardware Operator Training	950
	with DISOSS			(12-mo. lease)	
			Z2153	308X Hardware Operator Training (via	
				GLC attendance at current half-day	
				rate)	
32401	UNIX Operating System: Introduction	605			
	(60 day lease)				
32401	UNIX Operating System: Introduction	1100	32151	3090 Hardware Operator Training	950
	(12 month lease)			(12-mo. lease)	
Z2401	UNIX Operating System: Introduction		Z2151	3090 Hardware Operator Training (via	
	(via GLC attendance at current			GLC attendance at current half-day	
	half-day rate)			rate)	
32402	UNIX Operating System: Editing and	605			
	Printing (60 day lease)				
32402	UNIX Operating System: Editing and	1100	32192	MVS/SP Operator Training (60-day	495
	Printing (12 month lease)			lease)	
Z2402	UNIX Operating System: Editing and		32192	MVS/SP Operator Training (12-month	1250
	Printing (via GLC attendance at			lease)	
	current half-day rate)		32181	Controlling JES2 (30-day lease)	280
32403	UNIX Operating System: Files and	605		(Publication number SR20-8093)	
	Directories (60 day lease)		32181	Controlling JES2 (60-day lease)	455



As of September 20, 1988

MODEL/FC VPA	DESCRIPTION	PRICE
32181	Controlling JES2 (12-month lease)	825
32293	VM/SP Operator Training (60-day lease)	580
32293	VM/SP Operator Training (12-month lease)	1050
32013	VSE/SP Operator Training (60-day lease)	415
32013	VSE/SP Operator Training (12-month lease)	750
32011	VSE/POWER for Operators (60-day lease)	415
32011	VSE/POWER for Operators (12-month lease)	750

#### TECHNICAL SEMINARS

In addition to education described elsewhere, the following seminars are available for presentation by IBM marketing per-

sonnel 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

As of September 20, 1988

MODEL/FC VPA	DESCRIPTION	PRICE
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MUSIC PROGRAMS

9798 A COMPOSE (uses IBM PC Music Feature, 3.5in+5.25in) *	109.95
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9784 A PLAYREC (uses IBM PC Music Feature, 3.5in+5.25in) *	77.95
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As of September 20, 1988

MODEL/FC VPA	DESCRIPTION	PRICE
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GAMES

9021	Midway Campaign by Avalon Hill Game Co.	W/D
6276600 #	Music 101 (trivia questions on music)	W/D

6276553 #	Scattergrams (solve jumbled quotations)	W/D
6276563 #	Side-Swipe	W/D
6276620 #	The World's Greatest Baseball Game	29.95

As of September 20, 1988

MODEL/FC VPA	DESCRIPTION	PRICE
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# PROCESSORS - RT PC SYSTEM

For associated software, see "IBM RT PC Advanced Interactive Executive (AIX)" on page 117.

The IBM RT Personal Computer is discounted on a separate Volume Procurement Agreement.

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

6150-020	RT PC System Unit, incl. RISC Processor, RT Keyboard, 1.2MB Diskette, 40MB Fixed Disk and Adapter, 1MB Memory, 2 Async Ports (W/D 10/21/88)	12470
6150-025	RT PC System Unit, incl. RISC Processor, RT Keyboard, 1.2MB Diskette, 70MB Fixed Disk and Adapter, 2MB Memory, 2 Async Ports	14720
6150-A25	RT PC System Unit, incl. RISC Processor, 1.2MB Diskette, 70MB Fixed Disk and Adapter, 2MB Memory, 2 Async Ports, 5080 Attachment (W/D 10/21/88)	16360
6150-T25	RT PC System Unit (TEMPEST), 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 and 6155 Model T01 Extended Monochrome Display (09/88)	30910
6150-125	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	16870

6150-135	RT PC System Unit, incl. enhanced Advanced Processor Card and enhanced advanced floating-point processor, RT Keyboard, 1.2MB Diskette, 114MB Fixed Disk, EESDI Adapter, 16MB Fast Memory	30595
6150-B25	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	18510
6150-B35	RT PC System Unit, incl. enhanced Advanced Processor Card and enhanced advanced floating-point processor, 5080 Attachment, 1.2MB Diskette, 114MB Fixed Disk, EESDI Adapter, 16MB Fast Memory	32165
The following RT PC system units are desktop devices, with limited expandability.		
6151-010	RT PC System Unit, incl. RISC Processor, RT Keyboard, 1.2MB Diskette, 40MB Fixed Disk and Adapter, 1MB Memory (no additional disk drives allowed) (W/D 10/21/88)	7900
6151-015	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	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)	10600

Processors - RT PC System

As of September 20, 1988

MODEL/FC VPA	DESCRIPTION	PRICE				
6151-130	RT PC System Unit, incl. enhanced Advanced Processor Card and enhanced advanced floating-point processor, RT Keyboard, 1.2MB Diskette, 114MB Fixed Disk, EESDI Adapter, 16MB Fast Memory (no additional disk drives allowed)	23220		9332-440	RT PC SCSI Direct Access Storage Device, 400MB, Rack Mount, Also available via monthly rental charge of \$1400	14000
61X6833	Upgrade RT PC models 010, 015, 020, 025, A25 to new processor	2495		9332-450	RT PC SCSI Direct Access Storage Device, 400MB, Standalone, Also available via monthly rental charge of \$1400	14000
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)			9822	Cable from RT PC to first 9332 on a signal cable path (specify code on 9332, inc. terminator), 8m	N/C
▪ 0206	- PC/AT High Capacity Diskette Drive			9827	Cable from RT PC to other 9332s on a signal cable path (specify code on 9332), 1m	N/C
▪ 0207	- PC/AT Dual-Sided Diskette Drive			SA21-9533	IBM 9332 (SCSI) Setting Up Manual	??
▪ 0211	- PC/AT Math Co-Processor (used with FC 4756)			SA21-9534	IBM 9332 (SCSI) Analyzing Problems Manual	??
▪ 0215	- PC/AT Serial/Parallel Adapter			SA21-9535	IBM 9332 (SCSI) Reference Code Guide	??
▪ 0217	- PC/AT Communications Cable			SY31-0685	IBM 9332 (SCSI) Service Guide	??
▪ 0242	- PC/AT Serial Adapter Connector			SA21-9532	IBM 9332 (SCSI) Planning Guide	??
▪ 1200, 1201, 1203	- Enhanced Graphics Adapter and Memory			7000	RT PC Small Computer System Interface Adapter for 9332 DASD, Supports attachment of up to 7 9332s	1130
▪ 2507, 5050	- 3278/79 Emulation Adapter			3468	RT PC Small Computer System Interface Adapter Cable, 8m (additional, prefer specify code 9822 above)	95
▪ 4900	- Monochrome Display/Printer Adapter			3470	RT PC Small Computer System Interface Device-to-Device Cable, 1m (additional, prefer specify code 9827 above)	75
▪ 5612	- PC Printer Cable			6156-001	IBM 6156 Portable Disk Drive Model 001, RT PC	4595
4735	40MB Fixed-Disk Drive (maximum 3 drives)	1465		6156-003	IBM 6156 Portable Disk Drive Model 003, RT PC (9/30/88)	5095
3428	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)	681		3678	IBM 114MB Portable Disk Drive Module, RT PC	3895
6941	RT PC 70MB ESDI Fixed-Disk Drive (req. FC6341)	2505		3506	IBM Portable Disk Drive Adapter, RT PC 114Mb Selectable Disk Drive Option, RT PC (orderable only with 6151/50 Models 115/125/B25)	1100
6341	RT PC ESDI Magnetic Media Adapter (supports 2-FC6941 and 2 diskette drives)	681		4100	310Mb Selectable Disk Drive Option, RT PC (orderable only with 6151/50 Models 115/125/B25)	4100
3988	RT PC 70MB Extended ESDI Fixed-Disk Drive (for model 125, B25 only)	2505		4300	310Mb Selectable Disk Drive Option, RT PC (orderable only with 6151/50 Models 115/125/B25)	3000
3272	RT PC 114MB Extended ESDI Fixed-Disk Drive (for model 125, B25)	3660		5300	310Mb Selectable Disk Drive Option, RT PC (orderable only with 6151/50 Models 130/135/B35)	3000
9332-240	RT PC SCSI Direct Access Storage Device, 200MB, Rack Mount, Also available via monthly rental charge of \$850	8500		6300	310Mb Selectable Disk Drive Option, RT PC (orderable only with 6156 Models 001/003)	3000
9332-250	RT PC SCSI Direct Access Storage Device, 200MB, Standalone, Also available via monthly rental charge of \$850	8500		3310	310Mb Replacement or Additional Drive, RT PC (orderable only with 6151/50 Models 115/130/125/B25/135/B35)	6495

Processors - RT PC System

As of September 20, 1988

MODEL/FC VPA	DESCRIPTION	PRICE				
3272	114Mb Replacement or Additional Drive, RT PC (orderable only with 6151/50 Models 115/130/125/B25/135/B35)	3660		1356	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)	445
6070	70Mb Portable Disk Drive Module, RT PC (orderable only with 6156 Models 001/003)	2795		1357	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)	524
6310	310Mb Portable Disk Drive Module, RT PC (orderable only with 6156 Models 001/003)	6895		3165	8-Port Asynchronous RS-232C Adapter (allows attachment of 8 asynchronous devices, 16-byte buffer, speeds to 19.2 kbps, distance to 4000 feet without modem, max. 4 adapters-6151, 6 adapters-6150)	890
6192-001	IBM 6192-001 Expansion Unit, RT PC	1375		3169	8-Port Asynchronous MIL-STD 188 Adapter (allows attachment of 8 asynchronous devices, 16-byte buffer, speeds to 19.2 kbps, distance to 4000 feet without modem, max. 4 adapters-6151, 6 adapters-6150)	1045
3540	IBM Expansion Unit Adapter, RT PC	235		3157	8-Port Cable Assembly - RS-232C (includes eight 10-pin MODU connectors)	518
2400	Personal Pageprinter Adapter RT PC Edition (requires an I/O slot) (10/28/88)	2040		3171	8-Port Asynchronous RS-422A Adapter (allows attachment of 8 asynchronous devices, 16-byte buffer, speeds to 19.2 kbps, distance to 4000 feet without modem, max. 4 adapters-6151, 6 adapters-6150)	1045
4797	6157 Streaming Tape Drive Adapter, RT PC (requires an I/O slot)	450		3158	8-Port Cable Assembly - RS-422A (includes eight 6-pin MODU connectors)	518
	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.			3797	Token-Ring Network Adapter for RT PC (requires customer-written drivers)	1145
8222	1MB System Memory Expansion (max. 1 additional on old models)	1510		3390	Token-Ring Attachment Cable for RT PC	35
4739	2MB System Memory Expansion (max. 1 additional on old models)	2665		6810	IBM RT PC Baseband Adapter for use with Ethernet	890
3156	4MB System Memory Expansion (max. 2 on old models)	3665		4762	RT PC Multi-Protocol Communications Adapter (Asc, BSC, SDLC to 64kbps, 2 concurrent ports)	890
7004	4MB Fast Memory Expansion (max. 2 on models 115, 125, B25)	3980		4812	RS-232C Modem Cable for Multi-Protocol Communications Adapter, 3m	100
7008	8MB Fast Memory Expansion (max. 1 on models 115, 125, B25)	5240		4814	Autocall Unit Cable, 3m	88
7010	4MB Incremental Fast Memory (includes 8MB card) (max. 1 on models 115, 125, B25)	3980		4816	X.21 Modem Cable for Multi-Protocol Communications Adapter, 3m	93
7011	8MB Incremental Fast Memory (can only be ordered with FC 7008) (max. 1 on models 115, 125, B25)	N/C		4756	PC/AT Coprocessor Card (req. I/O slot, FC 0203 memory recommended for performance, also supports FC 0211 (80287 chip)	1040
8426	Mouse, 2-button	204				
6815	Advanced Floating-Point Accelerator (IEEE standard, uses dedicated slot)	2090				
4758	Floating-Point Accelerator (IEEE standard, uses dedicated slot)	890				

As of September 20, 1988

MODEL/FC VPA	DESCRIPTION	PRICE
7893	System/370 Host Interface Adapter (Attachment via 5080 Graphics Channel Controller at 2MB/sec)	1795
7561	5080 Peripheral Adapter (Not required if RT PC is attached to 5080, requires I/O slot, contains 3 ports)	445
4710	Lighted Program Function Keyboard (32-button, req. FC 7564, 7561)	575
8710	Dials Unit (8 dials, req. FC 7564, 7561)	995
7860	5080 Attachment Adapter (Model 020-025 only, standard in A25, req. an I/O slot)	1880
6153-001	Advanced Monochrome Graphics Display (12in Diagonal) (2 color, variable character cell, 720H x 512V resolution, .37 Megapixel)	610
4765	Advanced Monochrome Graphics Display Adapter (1024 x 512 bit map, displays 720 x 512 on 6153, req. an I/O slot)	812
6155-001	Extended Monochrome Graphics Display, RT PC (15in Diagonal) (2 color, variable character cell, 1024H x 768V resolution, .79 Megapixel)	975
4768	Extended Monochrome Graphics Display Adapter (1024 x 1024 bit map, displays 1024 x 768 on 6155, req. an I/O slot)	1515
6154-001	Advanced Color Graphics Display (14in Diagonal) (64 color, variable character cell, 720H x 512V resolution, .37 Megapixel)	1550
4766	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)	1410
7658	Megapixel 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	4715
7564	5080 Peripheral Cable Kit (1.2 meter)	55
7586	5083 Tablet Cable Kit (1.4 meter)	51
8245	ASCII Terminal Cable - RS-232C (9-pin, 3 meter)	57

8186	ASCII Terminal Cable - RS-232C (10-pin, 3 meter)	107
3913	ASCII Terminal Cable - RS-232C (10/25-pin, 3 meter) for attaching 316X terminals	73
7641	ASCII Terminal Cable - RS422A (6-pin, 3 meter)	44
4802	ASCII Terminal Cable - RS422A (6-pin, 20 meter)	81
8993	Serial Printer Cable (9-pin, 3 meter)	61
4803	Serial Printer Cable (10-pin, 3 meter)	67
4704	Modem Cable, RS-232C (10-pin, 3 meter)	67
8541	Fixed-Disk Attach Cable (attaches third Fixed Disk to second adapter)	54

#### RT PC SOFTWARE, GENERAL

5601-190	SAMNA PLUS IV for the IBM RT PC (Single-User) (FC 9001, 5131, 4663) (5.25in)	695
5601-190	SAMNA PLUS IV for the IBM RT PC (Multi-User) (FC 9001, 5136, 4664) (5.25in)	1995
06F2410 A	PostScript Interpreter RT PC Edition (10/28/88)	1050

#### 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 September 20, 1988

MODEL/FC VPA	DESCRIPTION	PRICE
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IBM RT PC ADVANCED INTERACTIVE EXECUTIVE (AIX)

For associated hardware, see "Processors - RT PC System" on page 113.

For a special promotional offering on the following product, see "IBM RT CAD/CAM Promotional Offering" on page 1.

5601-061 G	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 G	UPGRADE, RT PC AIX V.1.1 to V.2.1 (FC 9001, 5008)	395
5601-061 G	ADDITIONAL LICENSE, RT PC Advanced Interactive Executive V.2.1 (FC9510)	1455
5601-061 G	IBM RT PC Advanced Interactive Executive V.2.2 (FC 9001, 5033 4550) (Program Package) (5.25in) Warranted, Central Service 6 mo. notice or to 8/31/90	2295
5601-061 G	RT PC Advanced Interactive Executive V.2.2 (FC9518) (Additional Licenses) Warranted, Central Service 6 mo. notice or to 8/31/90	1455
G	RT PC AIX V.2.1 to V.2.2 (FC 9001, 5034, 4551) (Program Package Upgrade) (5.25in) (W/D 3/31/89)	395
G	RT PC AIX V.2.1 to V.2.2 (FC 6500) (Additional Licenses Upgrade) (W/D 3/31/89)	250
5601-061 G	IBM RT PC Advanced Interactive Executive V.2.2 (FC 6003 4552) (32 User Option) (5.25in) Warranted, Central Service 6 mo. notice or to 8/31/90	1700
5601-062 G	IBM RT PC Virtual Resource Manager V.2.1 (FC9001, 4513, 5009) function incl. in AIX 2.1, Warranted, Central Service to 2/1/89	895

4514 G	UPGRADE, RT PC VRM V.1.1 to V.2.1 (FC9001, 5010)	100
5601-062 G	ADDITIONAL LICENSE, RT PC Virtual Resource Manager V.2.1 (FC9511)	801
5601-062 G	IBM RT PC Virtual Resource Manager V.2.2 (FC9001, 4553, 5035) (Program Package) (5.25in) Warranted, Central Service 6 mo. or to 8/31/90	895
5601-062 G	RT PC Virtual Resource Manager V.2.2 (FC9518) (Additional License) Warranted, Central Service 6 mo. or to 8/31/90	801
G	RT PC VRM V.2.1 to V.2.2 (FC9001, 5036, 4554) (Program Package Upgrade) (5.25in) (W/D 3/31/89)	100
G	RT PC VRM V.2.1 to V.2.2 (FC6501) (Additional Licenses Upgrade) (W/D 3/31/89)	100
5669-057 G	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
5669-057 G	ADDITIONAL LICENSE, RT PC PC/AT Coprocessor Services V.1.1 (FC9516)	505
5601-189	AIX/RT Workstation Host Interface Program V.1.1 (9/88) (Program Package) Warranted, Central Service 6 mo. notice or to 1/31/90	995
5601-189	AIX/RT Workstation Host Interface Program V.1.1 (9/88) :(Additional Licenses) Warranted, Central Service 6 mo. notice or to 1/31/90	907
5601-189	AIX/RT Workstation Host Interface Program V.1.1 (9/88) :(Program Package Upgrade) (W/D 6/30/89) Warranted, Central Service 6 mo. notice or to 1/31/90	200

IBM RT PC Advanced Interactive Executive (AIX)



As of September 20, 1988

MODEL/FC VPA	DESCRIPTION	PRICE	
5601-189	AIX/RT Workstation Host Interface Program V.1.1 (9/88) :(Additional Licenses Upgrade) (W/D 6/30/89) Warranted, Central Service 6 mo. notice or to 1/31/90	163	
5601-191	AIX/RT Personal Computer AT Simulator :(Program Package) Warranted, Central Service 6 mo. notice or to 1/31/90	500	
5601-191	AIX/RT Personal Computer AT Simulator :(Additional Licenses) Warranted, Central Service 6 mo. notice or to 1/31/90	425	
5601-077 G	RT PC X-Windows V.1.1 (windowing system) (FC4524) Warranted, Central Service 6 mo. notice or to 1/1/89	195	
5601-077 G	ADDITIONAL LICENSE, RT PC X-Windows V.1.1 (FC9514)	102	
5601-125 G	AIX/RT X-Windows V.2.1 (windowing system) (09/88) (Program Package) Warranted, Central Service to 8/31/90	195	
5601-125 G	AIX/RT X-Windows V.2.1 (windowing system) (09/88) (Additional License) Warranted, Central Service to 8/31/90	98	
5601-125	AIX/RT X-Windows V.2.1 Upgrade from V.1.1 (09/88) (W/D 6/89) (Upgrade) Warranted, Central Service to 8/31/90	65	
5601-125	AIX/RT X-Windows V.2.1 Upgrade from V.1.1 (09/88) (W/D 6/89) (Additional License Upgrade) Warranted, Central Service to 8/31/90	35	
5601-160 G	AIX/RT Distributed Services R.1.2 (Program Package) Warranted, Central Service to 12/31/90	600	
5601-160 G	AIX/RT Distributed Services R.1.2 (Additional License) Warranted, Central Service to 12/31/90	557	
5601-160	AIX/RT Distributed Services R.1.2 Upgrade from V.1.1 (W/D 3/89) (Upgrade) Warranted, Central Service to 12/31/90	100	
5601-160	AIX/RT Distributed Services R.1.2 Upgrade from V.1.1 (W/D 3/89) (Additional License Upgrade) Warranted, Central Service to 12/31/90	60	
5601-165 G	AIX/RT Distributed Services V.1.3 (3/31/89) (Program Package) Warranted, Central Service to 8/31/90	600	
5601-165 G	AIX/RT Distributed Services V.1.3 (3/31/89) (Additional Licenses) Warranted, Central Service to 8/31/90	557	
5601-165	AIX/RT Distributed Services V.1.3 Upgrade from V.1.2 (Program Package Upgrade) (3/31/89) (W/D 3/29/90) Warranted, Central Service to 8/31/90	100	
5601-165	AIX/RT Distributed Services V.1.3 Upgrade from V.1.2 (Additional Licenses Upgrade) (3/31/89) (W/D 3/29/90) Warranted, Central Service to 8/31/90	83	
5601-157 G	AIX/RT DOS Server (3/31/89) (Program Package) Warranted, Central Service to 8/31/90	225	
5601-165 G	AIX/RT DOS Server (3/31/89) (Additional Licenses) Warranted, Central Service to 8/31/90	144	
5601-159 G	AIX/RT Network File System (09/88) (Program Package) Warranted, Central Service to 12/31/90	995	
5601-159 G	AIX/RT Network File System (09/88) (Additional License) Warranted, Central Service to 12/31/90	862	
5706-026 G	AIX/RT VS COBOL Compiler (Program Package) (FC's 9001, 5010, 4000) Warranted, Central Service 6 mo. notice or to 8/31/90 (5.25in) (9/30/88)	2000	
5706-026 G	AIX/RT VS COBOL Compiler (Additional License) (FC 9501) Warranted, Central Service 6 mo. notice or to 8/31/90 (5.25in) (9/30/88)	2000	
5706-025 G	AIX/RT VS COBOL Run Time Environment (Program Package) (FC's 9001, 5009, 4000) Warranted, Central Service 6 mo. notice or to 8/31/90 (5.25in) (9/30/88)	500	
5706-025 G	AIX/RT VS COBOL Run Time Environment (Additional License) (FC 9500) Warranted, Central Service 6 mo. notice or to 8/31/90 (5.25in) (9/30/88)	469	
6335 A	SY-TOS/IBM 6157 Tape Utilities V.3.0 (backup/restore, library utilities driving 6157) (Program Package) (AIX) (1Q89)	195	

As of September 20, 1988

MODEL/FC VPA	DESCRIPTION	PRICE
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IBM RT PC SOFTWARE, OTHER

5669-056 G	RT PC BASIC Interpreter (FC's 9001, 5029, 4527) Warranted, Central Service 6 mo. notice or to 2/1/88	1000
5669-056 G	ADDITIONAL LICENSE, RT PC BASIC (FC9515)	880
	RT PC Advanced C Compiler Support Offering (education, C Compiler Information PRPQ, hotline access)	1995
5776-EBY G	RM/COBOL Compiler and Runtime System for the RT PC (FC's 9001, 4005, 5001) *	1950
5776-EBX G	RM/COBOL Runtime System for the RT PC (FC's 9001, 4004, 5000) *	400
5669-054 G	RT PC Fortran 77 V.1.1 (FC's 9001, 5027, 4525) Warranted, Central Service 6 mo. notice or to 2/1/88	650
5669-054 G	ADDITIONAL LICENSE, RT PC Fortran 77 V.1.1 (FC9513)	584
5601-037 G	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	995
5601-037 G	UPGRADE, RT PC Fortran 77 to RT-PC VS Fortran (FC4510)	395
5601-037 G	ADDITIONAL LICENSE, RT PC VS Fortran V.1 (FC9515)	881
5669-242 G	Common Lisp Application Environment for the RT PC by Lucid, Inc. (FC's 9001, 4664, 5141) Compiler and Interpreter *	900
5669-243 G	Common Lisp Development Environment for the RT PC by Lucid, Inc. (FC's 9001, 4665, 5142) Compiler and Interpreter *	4000

5669-055 G	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
5669-055 G	ADDITIONAL LICENSE, RT PC Pascal V.1.1 (FC9514)	876
5601-038 G	RT PC VS Pascal V.1 (FC4501) High compatibility with Pascal/VS on S/370, Warranted, Central Service to 2/1/89	1000
5601-038 G	ADDITIONAL LICENSE, RT PC VS Pascal V.1 (FC9516)	843
5601-071 G	RT PC Distributed Services (Ethernet or SDLC transparent access to remote files, applications) (FC4520) Warranted, Central Service 6 mo. notice or to 2/1/89	600
5601-071 G	ADDITIONAL LICENSE, RT PC Distributed Services (FC9513)	557
5669-053 G	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
5669-053 G	ADDITIONAL LICENSE, RT PC INmail/INnet/File Transfer Program V.1.1 (FC9512)	528
5601-039 G	RT PC Workstation Host Interface Program (3270 Emulation, File Xfer, API, req. RT Host Interface Adapter) (FC4502, 9001, 5002) Warranted, Central Service to 2/1/89	995
5601-039 G	ADDITIONAL LICENSE, RT PC Workstation Host Interface Program (FC9517)	937
5669-052 G	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
5669-052 G	ADDITIONAL LICENSE, RT PC 3278/79 Emulation V.1.1.1 (FC9511)	460

IBM RT PC Software, Other

As of September 20, 1988

MODEL/FC VPA	DESCRIPTION	PRICE				
5601-044 G	Network 3270-Plus (SNA) for RT PC (FC4505) Coax or SDLC 3278, 3287, multiple sessions, file transfer	995		5669-064 G	RT PC Graphics Terminal Emulator (FC's 9001, 5037, 4535) Warranted, Central Service 6 mo. notice or to 2/1/88	600
5601-045 G	Network 3270-Plus (BSC) for RT PC (FC4506) Coax or BSC 3278, 3287, multiple sessions, file transfer	1195		5669-063 G	RT PC Plotting System (FC's 9001, 5036, 4534) Warranted, Central Service 6 mo. notice or to 2/1/88	600
5601-043 G	Network RJE-Plus (SNA) for RT PC (FC4504) 2780, 3780, 3770 emulation	995		5669-062 G	RT PC Graphical File System (FC's 9001, 5035, 4533) Warranted, Central Service 6 mo. notice or to 2/1/88	600
5601-042 G	Network RJE-Plus (BSC) for RT PC (FC4503) 2780, 3780, 3770 emulation	1195				
5601-064 G	RT PC Structured Query Language/RT Data Base V.2.1 (FC9001, 4517, 5013) Warranted, Central Service (W/D 10/19/88)	1000		5669-108 G	UNIRAS-RASPAK * (FC's 9001, 5060, 4558)	3550
4518	UPGRADE, RT PC SQL V.1.1 to V.2.1 (FC 9001, 5014)	200		5669-101 G	UNIRAS-RASPAK Solids * (FC's 9001, 5053, 4551)	4995
5601-064 G	ADDITIONAL LICENSE, RT PC Structured Query Language/RT V.2.1 (FC9512)	830		5669-102 G	UNIRAS-UNIMAP * (FC's 9001, 5054, 4552)	7650
5669-059 G	RT PC Data Management Services V.1.1.1 (FC's 9001, 5032, 4530) Warranted, Central Service 6 mo. notice or to 2/1/88	500		5669-109 G	UNIRAS-GEOPAK * (FC's 9001, 5061, 4559)	6995
5669-059 G	ADDITIONAL LICENSE, RT PC Data Management Services V.1.1 (FC9517)	439		5669-110 G	UNIRAS-GEOINT * (FC's 9001, 5062, 4560)	1595
5669-100 G	RT PC Applix IA (word processing, graphics, mail, calendar) (FC's 9001, 5052, 4550) *	1995		5669-111 G	UNIRAS-KRIGPAK * (FC's 9001, 5063, 4561)	3550
5669-187 G	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		5669-112 G	UNIRAS-GIMAGE * (FC's 9001, 5064, 4562)	2595
				5669-113 G	UNIRAS-SEISPAK * (FC's 9001, 5065, 4563)	7650
5601-120 G	RT PC IMSL MATH/LIBRARY * (FC's 9001, 5057, 4570)	3900		5669-114 G	UNIRAS-UNIGRAPH * (FC's 9001, 5066, 4564)	2995
5601-121 G	RT PC IMSL SFUN/LIBRARY V.2.0 (FC's 9001, 5058, 4572)	1850		5669-115 G	UNIRAS-BIZPAK * (FC's 9001, 5067, 4565)	2595
5601-119 G	RT PC IMSL STAT/LIBRARY (FC's 9001, 5058, 4571)	4300		5669-117 G	UNIRAS-UNIEDIT * (FC's 9001, 5069, 4567)	2595
5669-104 G	RT PC IMSL MATH/PROTRAN (FC's 9001, 5056, 4554)	2100				
5669-105 G	RT PC IMSL STAT/PROTRAN (FC's 9001, 5057, 4555)	1495		5669-086 G	RT PC Workstation Publishing Software by Interleaf (FC's 9001, 5038, 4536) *	900
5669-103 G	RT PC IMSL LP/PROTRAN (FC's 9001, 5055, 4553)	2700		5601-070 G	RT Publishing Software by Interleaf (accepts drawings from IBM CAD systems, text from DW3 and DCF, others) (FC's 9001, 4519, 5015) *	8200
				8971 A	IBM Interleaf Publishing Series RT PC Edition (Program Package) (5.25in) Warranted, Central service 3 months or no later than 12/31/90 ** (10/28/88)	6595
5669-050 G	RT PC Graphics Development Toolkit (FC's 9001, 5023, 4521) Warranted, Central Service 6 mo. notice or to 2/1/88	700		9990 B	IBM Interleaf Publishing Series RT PC Edition (Program Package Upgrade) (5.25in) (For upgrade from IBM Workstation Publishing Software - 5669-086) (10/28/88)	6000
5669-050 G	ADDITIONAL LICENSE, RT PC Graphics Development Toolkit (FC9510)	590		9991 B	IBM Interleaf Publishing Series RT PC Edition (Program Package Upgrade) (5.25in) (For upgrade from IBM RT Publishing Software - 5601-070) (10/28/88)	4625

IBM RT PC Software, Other

As of September 20, 1988

MODEL/FC VPA	DESCRIPTION	PRICE		
9976 A	IBM Interleaf Publishing Series RT PC Edition Data Export (Program Package) (5.25in) Warranted, Central service 3 months or no later than 12/31/90 ** (10/28/88)	500	5601-167	SQL*Net TCP/IP Protocol Device Driver 450
9982 A	IBM Interleaf Publishing Series RT PC Edition Spanish Dictionary (Program Package) (5.25in) Warranted, Central service 3 months or no later than 12/31/90 ** (10/28/88)	500	5601-168	SQL*Net SNA LU 6.2 Protocol Device Driver 450
9981 A	IBM Interleaf Publishing Series RT PC Edition German Dictionary (Program Package) (5.25in) Warranted, Central service 3 months or no later than 12/31/90 ** (10/28/88)	500	5601-137	Pro*COBOL Programming Interface (9/30/88) 450
9979 A	IBM Interleaf Publishing Series RT PC Edition French Dictionary (Program Package) (5.25in) Warranted, Central service 3 months or no later than 12/31/90 ** (10/28/88)	500	5601-171	Pro*C Programming Interface 450
5669-087 G	RT PC SAMNA+ (FC's 9001, 5039, 4537) *	1295	5601-129	Pro*FORTRAN Programming Interface 450
5669-088 G	RT PC SOLOMON III General Ledger (FC's 9001, 5040, 4538) *	995	5601-180	INGRES Data Base Management System 3000
5669-089 G	RT PC SOLOMON III Accounts Receivable (FC's 9001, 5041, 4539) *	995	5601-181	INGRES/APPLICATIONS 900
5669-090 G	RT PC SOLOMON III Accounts Payable (FC's 9001, 5042, 4540) *	995	5601-031	Embedded SQL Preprocessor for COBOL (9/30/88) 300
5669-091 G	RT PC SOLOMON III Payroll (FC's 9001, 5043, 4541) *	995	5601-185	Embedded SQL Preprocessor for FORTRAN 300
5669-092 G	RT PC SOLOMON III Purchasing (FC's 9001, 5044, 4542) *	995	5601-186	Embedded SQL Preprocessor for Pascal (10/28/88) 300
5669-093 G	RT PC SOLOMON III Order Entry/Invoicing (FC's 9001, 5045, 4543) *	995	5601-182	INGRES/NET (10/28/88) N/C
5669-094 G	RT PC SOLOMON III Job Costing (FC's 9001, 5046, 4544) *	1395	5601-183	INGRES/STAR (12/30/88) 900
5669-095 G	RT PC SOLOMON III Fixed Assets (FC's 9001, 5047, 4545) *	995	5709-007	INGRES/PCLINK 300
5669-096 G	RT PC SOLOMON III Sales Analysis (FC's 9001, 5048, 4546) *	595		
5669-097 G	RT PC SOLOMON III Inventory (FC's 9001, 5049, 4547) *	995		
5669-098 G	RT PC SOLOMON III Address and Mail List (FC's 9001, 5050, 4548) *	395		
5669-099 G	RT PC SOLOMON III Database Reporter (FC's 9001, 5051, 4549) *	995		
5601-166	ORACLE Data Base Management System	3000		
5601-169	SQL*Plus	600		
5601-130	SQL*Forms	750		
5601-132	SQL*Menu	450		
5601-128	SQL*Net	600		
				The IBM Architecture and Engineering Series is also available in packages as an hardware/software option. Refer to ivory #288-216 for more information.
			5713-ADB	IBM Architecture and Engineering Series - Graphics (12/88) 3000
			5709-111	IBM Architecture and Engineering Series - Rendering (12/88) 3000
			5709-012	IBM Architecture and Engineering Series - Structural (12/88) 5400
			5709-013	IBM Architecture and Engineering Series - Energy (12/88) 600
			5709-015	IBM Architecture and Engineering Series - HVAC (12/88) 2500
			5709-016	IBM Architecture and Engineering Series - Piping (12/88) 2400
			5709-017	IBM Architecture and Engineering Series - Power (12/88) 8000
			5709-018	IBM Architecture and Engineering Series - Lighting (12/88) 5400
				These programs are discounted under the separate CAD/CAM Licensed Programs Agreement. The VPA Categories listed below are for that agreement only.

For a special promotional offering on the following product, see "IBM RT CAD/CAM Promotional Offering" on page 1.

As of September 20, 1988

MODEL/FC VPA	DESCRIPTION	PRICE
5669-193 A	Professional CADAM 2.0 (FC9001, 5858, 4620) Warranted, Central Service 6 mo. notice	10000
5669-193 A	Professional CADAM 1.2 (FC9001, 5858, 4620) Warranted, Central Service to 10/1/88	10000
5669-193 A	Professional CADAM (FC's 9001, 5858, 4620) Warranted, Central Service 6 mo. notice or to 10/1/88	10000
5713-ABQ	Professional CADAM Interactive Solids Design Release 3.0 Warranted, Subscription Svc for 12 mos. (9/88)	5000
5713-ABQ	Professional CADAM Interactive Solids Design (FC's 9001, 4655, 4656, 4658, 4659, 4660, 4661, 5067) Warranted, Subscription Svc for 12 mos.	5000
5669-167 B	RT PC graPHIGS R.3.2 (FC's 9001, 5858, 4608) Warranted, Central Service 6 mo. notice	1000
5669-167 B	GDDM/graPHIGS Programming Interface Release 3.4, The Personal Graphics Programming Interface Release 3.4 (FC 9001, 4608, 5858) Warranted, Central Service 6 mo. notice	1000
5601-059 K	Computer-Integrated Electrical Design Series (CIEDS)/Circuit Board Design System (CDBS) Version 4 Release 3 for AIX/RT ** (FC 5858, 5900) Warranted, Central Service, 6 months notice or to 9/16/89	22000
5601-089 K	Computer-Integrated Electrical Design Series (CIEDS)/Circuit Board Design System (CDBS) Version 4 Release 2 for AIX/RT ** (FC 9001, 4509, 5858) Warranted, Central Service to 4/30/89 (W/D 12/31/88)	8000
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

For a special promotional offering on the following product, see "IBM RT CAD/CAM Promotional Offering" on page 1.

5706-064 D	CAEDS R.3 Base for the IBM RT PC (FC9001, 4200, 4236, 3000, 5041, 5040) Warranted, 1 year or Enhancement Subscription Service Option	3150
5706-065 E	CAEDS R.3 Object Modeler for the IBM RT PC (FC9001, 4201, 4237, 3001, 5041, 5040) Warranted, 1 year or Enhancement Subscription Service Option	7770
5706-066 E	CAEDS R.3 System Modeler for the IBM RT PC (FC9001, 4202, 4238, 3002, 5041, 5040) Warranted, 1 year or Enhancement Subscription Service Option	11130
5706-066 E	CAEDS R.3 Mechanism Design Feature for the IBM RT PC (FC9001, 4203, 4239, 3003, 5080) Warranted, 1 year or Enhancement Subscription Service Option	3150
5706-067 E	CAEDS R.3 Graphics Finite Element Modeler for the IBM RT PC (FC9001, 4204, 4240, 3004, 5041, 5040) Warranted, 1 year or Enhancement Subscription Service Option	11340
5706-067 E	CAEDS R.3 Laminate Composition Feature for the IBM RT PC (FC9001, 4205, 4241, 3005, 5082) Warranted, 1 year or Enhancement Subscription Service Option	3990
5706-068 E	CAEDS R.3 Integrated Finite Element Solver for the IBM RT PC (FC9001, 4206, 4242, 3006, 5041, 5040) Warranted, 1 year or Enhancement Subscription Service Option	7200
5706-068 E	CAEDS R.3 Optimization Feature IBM RT PC (FC9001, 4207, 4243, 3007, 5084) Warranted, 1 year or Enhancement Subscription Service Option	5040
5706-069 E	CAEDS R.3 Dimensioning for the IBM RT PC (FC9001, 4208, 4244, 3008, 5041, 5040) Warranted, 1 year or Enhancement Subscription Service Option	5040
5706-070 E	CAEDS R.3 Test Data Analysis for the IBM RT PC (FC9001, 4380, 4382, 3107, 5041, 5040) Warranted, 1 year or Enhancement Subscription Service Option	2015

As of September 20, 1988

MODEL/FC VPA	DESCRIPTION	PRICE
5706-070 E	CAEDS R.3 Structural Modification Feature for the IBM RT PC (FC9001, 4381, 4383, 3108, 5042) Warranted, 1 year or Enhancement Subscription Service Option	505
5669-206 D	CAEDS R.2 Base for the IBM RT PC (FC9001, 5858, 4644) Warranted, Central Service to 1/31/89 (W/D 10/13/88)	1655
5713-ABR E	CAEDS R.2 Dimensioning for the IBM RT PC (FC9001, 5858, 4572) Warranted, Central Service to 1/31/89 (W/D 10/13/88)	9800
5669-207 E	CAEDS R.2 Object Modeler for the IBM RT PC (FC9001, 5858, 4645) Warranted, Central Service to 1/31/89 (W/D 10/13/88)	6060
5669-208 E	CAEDS R.2 System Modeler for the IBM RT PC (FC9001, 5858, 4646) Warranted, Central Service to 1/31/89 (W/D 10/13/88)	8230
5713-ABT E	CAEDS R.2 Integrated Finite Element Solver for the IBM RT PC (FC9001, 5858, 4573) Warranted, Central Service to 1/31/89 (W/D 10/13/88)	7200
5669-209 E	CAEDS R.2 Graphics Finite Element Modeler for the IBM RT PC (FC9001, 5858, 4647) Warranted, Central Service to 1/31/89 (W/D 10/13/88)	8940
5669-206 D	CAEDS Base for the IBM RT PC (FC's 9001, 5858, 4644) Warranted, Central Service to 1/31/89 (W/D 9/15/88)	1655
5669-207 E	CAEDS Object Modeler (FC's 9001, 5858, 4645) Warranted, Central Service to 1/31/89 (W/D 9/15/88)	6060
5669-208 E	CAEDS System Modeler (FC's 9001, 5858, 4646) Warranted, Central Service to 1/31/89 (W/D 9/15/88)	8230
5669-209 E	CAEDS Graphics Finite Element Modeler (FC's 9001, 5858, 4647) Warranted, Central Service to 1/31/89 (W/D 9/15/88)	8940

For a special promotional offering on the following product, see "IBM RT CAD/CAM Promotional Offering" on page 1.

5612-101 M	CATIA Base, Version 3, for the IBM RT PC (10/88)	4620
5612-102 M	CATIA Library V.3 for the IBM RT PC (10/88)	1000
5612-104 M	CATIA Drafting V.3 for the IBM RT PC (10/88)	3150
5612-105 M	CATIA 3D Design V.3 for the IBM RT PC (10/88)	2310
5612-106 M	CATIA Advanced Surfaces V.3 for the IBM RT PC (10/88)	5000
5612-107 M	CATIA Solids Geometry V.3 for the IBM RT PC (10/88)	7350
5612-109 M	CATIA Numerical Control - Mill V.3 for the IBM RT PC (10/88)	6000

For a special promotional offering on the following product, see "IBM RT CAD/CAM Promotional Offering" on page 1.

5669-227 G	CATIA Design System for the IBM RT PC, Warranted, Central Service for 12 months, with extension	9600
5669-228 H	CATIA Server for the IBM RT PC, Warranted, Central Service for 12 months, with extension	1500
5669-229 G	CATIA Advanced Surfaces the IBM RT PC, Warranted, Central Service for 12 months, with extension	5000

#### MUMPS-RT

9772 A	Micronetics Standard Massachusetts General Hospital Utility Multi-programming System (MSM-RT MUMPS)	1995
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As of September 20, 1988

MODEL/FC VPA	DESCRIPTION	PRICE
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PROCESSORS - IBM 6152 ACADEMIC SYSTEM

For associated software, see "Processors - IBM 6152 Academic System".

The IBM 6152 Academic System is discounted on the Volume Procurement Agreement for Qualified Institutions/Hospitals :.(PCED-4).

6152-022	IBM 6152 Academic System Unit including RISC processor, display adapter, LAN adapter, keyboard, 3.5in 1.44MB diskette, keylock, 2MB RISC memory, 20MB fixed disk (3/88-limited 7/88-general)	6395
6152-024	IBM 6152 Academic System Unit including RISC processor, display adapter, LAN adapter, keyboard, 3.5in 1.44MB diskette, keylock, 4MB RISC memory, 20MB fixed disk (3/88-limited 7/88-general)	7055
6152-044	IBM 6152 Academic System Unit including RISC processor, display adapter, LAN adapter, keyboard, 3.5in 1.44MB diskette, keylock, 4MB RISC memory, 44MB fixed disk (3/88-limited 7/88-general)	7820
6152-048	IBM 6152 Academic System Unit including RISC processor, display adapter, LAN adapter, keyboard, 3.5in 1.44MB diskette, keylock, 8MB RISC memory, 44MB fixed disk (3/88-limited 7/88-general) (3/88-limited 7/88-general)	9140
6152-074	IBM 6152 Academic System Unit including RISC processor, display adapter, LAN adapter, keyboard, 3.5in 1.44MB diskette, keylock, 4MB RISC memory, 70MB fixed disk (3/88-limited 7/88-general)	8820

6152-078	IBM 6152 Academic System Unit including RISC processor, display adapter, LAN adapter, keyboard, 3.5in 1.44MB diskette, keylock, 8MB RISC memory, 70MB fixed disk (3/88-limited 7/88-general)	10140
8604-001	IBM 8604 Monochrome Display for use with IBM 6152 (1024 x 768 pel resolution)	555
3041	IBM 6152 44MB Fixed Disk	1395
3051	IBM 6152 70MB Fixed Disk	2395
8001	IBM 6152 4MB RISC Memory Upgrade Kit	1320
8002	IBM 6152 8MB RISC Memory Upgrade Kit	2640

IBM 6152 SUPPORT PUBLICATIONS

Each 6152 System will be shipped with the following publications:		
S68X-2209	IBM 6152 Customer Set Up Sheet	??
S68X-2326	IBM 6152 Quick Reference Kit (includes Quick Reference Manual and Reference Diskette)	65
The following are available as a separate order:		
S68X-2327	IBM 6152 Hardware Maintenance Supplement (includes CE diagnostic diskette)	59
S68X-2328	IBM 6152 Technical Reference	??
S68X-2329	IBM 6152 Hardware Maintenance Reference	21

As of September 20, 1988

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

PRINTERS AND ATTACHMENTS

5612 a	Parallel Printer Cable	45
6031 a	Serial Printer Cable	45
5614 a	Printer Stand	47
0102 a	Compact Printer Connector for PC and XT	40
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.

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.

Effective 2/2/88, the 3812 Pageprinter can no longer be configured with both the Tempest feature and the PC Sharing Card



As of September 20, 1988

MODEL/FC VPA	DESCRIPTION	PRICE
3812-001	Pageprinter (maximum speed 12 pages/minute, 240x240 dpi resolution)	8235
3812-002	Pageprinter (maximum speed 12 pages/minute, 240x240 dpi resolution, 1 MB memory for print operations and font storage, does image decompression)	8995
	Field Upgrade 3812-001 to 3812-002	895
3155	RT PC Attachment Option for 3812-002	95
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	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

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 65 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.

As of September 20, 1986

MODEL/FC VPA	DESCRIPTION	PRICE
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The IBM 3280 Page Printer attaches to a PC, XT, or AT via an SDLC attachment card.

3257 A Remote PrintManager, uses PC/AT or PS/2 Model 30 with S/370 Channel Emulator to allow PSF/MVS to drive a remote 3820 over SDLC, Warranted, Central Service to 9/91 (3.5in+5.25in) 3295

3820-001	IBM Page Printer (maximum speed 12 pages/minute, 240x240 dpi resolution)	28350
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3050	EIA Interface Attachment (requires cable) (Printer also available with S/370 Channel Attachment)	500
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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)	2560
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3200 a	System/370 Channel Emulator for PS/2 Model 30, to drive 3820 with channel attach feature or other S/370 channel devices, incl. 10ft cable and Tech Ref Library	2560
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3201 a	System/370 Channel Emulator for PS/2 Model 30, to drive 3820 with channel attach feature or other S/370 channel devices (adapter only)	1860
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3202 a	Cable for System/370 Channel Emulator for PS/2 Model 30	634
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3203 a	Technical Library for System/370 Channel Emulator for PS/2 Model 30	68
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#### IBM 3852 COLOR INK-JET PRINTER

6050 e	Starter Pac for 3852-001 (Misc.paper)	121.85
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
	Quantity 120+, Unit price	10.80

1669310	Continuous form pinfeed paper, 8-1/2 x 11in, microperf, 250 sheets	14.75
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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

As of September 20, 1988

MODEL/FC VPA	DESCRIPTION	PRICE
4201-002 e	IBM Proprinter II (40-240 CPS) w/4K print buffer, (Incl. ribbon, Guide to Operations, continuous forms guide, power cord)	549
6328829	Ribbon, Proprinter II	9.25
8X9804	Proprinter II Guide to Operations	30
6328829	Ribbon Cartridge for Proprinter I	9.25
4202-001 e	IBM Proprinter 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, Proprinter II)	35
1040150	Ribbon Cartridge for Proprinter XL	13.25
SC31-3711	Proprinter II/Proprinter XL Guide to Operations	16
SC31-3552	Proprinter Hardware Maintenance and Service Manual	70
SN31-8034	Proprinter II Hardware Maintenance and Service Supplement	??
SC31-2587	Proprinter Technical Reference Manual	28

#### IBM 4207 PROPRINTER X24 AND 4208 PROPRINTER XL24

4207-001 e	IBM Proprinter X24 (67-240cps, 24-pin, draft through letter quality, Incl. ribbon, Guide to Operations, continuous forms guide, power cord)	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	199
4001 a	Fontset Option, Proprinter X24	109
4002 a	Fontset Diskettes, Proprinter X24	32
94X6122	Fontset Module, Proprinter X24	77
1040475	4207 Proprinter X24 Ribbon Cartridge	11.50
4208-001 e	IBM Proprinter XL24 (67-240cps, 24-pin, 14.3in carriage, draft through letter quality, Incl. ribbon, Guide to Operations, continuous forms guide, power cord)	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	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 15 for the Personal Publishing Solutions, which incorporate some of the following products.

4216-020 e	Personal Pageprinter (maximum speed 6 pages/minute, 300x300 dpi resolution)	2199
4216-P25	Personal Pageprinter Subsystem for PS/2 Model 30 (includes Personal Pageprinter Adapter and Program V.1.3) (FCs 7001 and 8968)	4999
4216-P26	Personal Pageprinter Subsystem for PC XT-286 and PC-AT (includes Personal Pageprinter Adapter and Program V.1.3) (FCs 7001 and 8969)	4999
4216-P25	Personal Pageprinter Subsystem for PS/2 Model 50 and above (includes Personal Pageprinter Adapter and Program V.1.3) (FCs 7002 and 8968)	4999
6190603	Toner Cartridges, Personal Pageprinter (6/carton, price per cartridge)	29
6190604	Photoconductor Unit Kit, Personal Pageprinter	199
6190605	Cleaning Unit Kit, Personal Pageprinter	99
7001 a	Personal Pageprinter Adapter	2040
8968 A	IBM Personal Pageprinter Adapter Program V1.3 (3.5in) (Program Package)	850
8969 A	IBM Personal Pageprinter Adapter Program V1.3 (5.25in) (Program Package)	850
8970	IBM Personal Pageprinter Adapter Program V1.3 (Program Package Upgrade) (3.5in+5.25in) (W/D 3/31/89)	70

As of September 20, 1988

MODEL/FC VPA	DESCRIPTION	PRICE
I 7002 a	Personal Pageprinter Adapter/A	2040
S68X-2281	IBM Personal Pageprinter Adapter/A Hardware Maintenance Library Service Supplement	??
S68X-2282	IBM Personal Pageprinter Adapter/A Hardware Maintenance Library Reference Supplement	??

#### 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
0961 A	4250 Print Driver	850
0962 A	Font - ITC Avante Garde, Medium	210
0963 A	Font - Monotype Baskerville, Medium	210
0964 A	Font - Monotype Bodini, Medium	210
0965 A	Font - Candida, Medium	80
0966 A	Font - Monotype Century, Medium	210
0967 A	Font - Monotype Century Schoolbook, Medium	210
0968 A	Font - Excelsior, Medium	210
0969 A	Font - Futura, Medium	80
0970 A	Font - Monotype Garamond, Medium	210
0971 A	Font - Helvetica, Medium	525
0972 A	Font - Optima, Medium	210
0973 A	Font - Palatino, Medium	210
0974 A	Font - Monotype Rockwell, Medium	210
0975 A	Font - ITC Souvenir Version 2, Medium	210
0976 A	Font - Monotype Times New Roman, Medium	210
0977 A	Font - Univers, Medium	420
0978 A	Font - ITC Avante Garde, Bold	210
0979 A	Font - Monotype Baskerville, Bold	210
0980 A	Font - Monotype Bodini, Bold	210
0981 A	Font - Candida, Bold	120
0982 A	Font - Monotype Century, Bold	210
0983 A	Font - Monotype Century Schoolbook, Bold	210
0984 A	Font - Excelsior, Bold	105
0985 A	Font - Futura, Bold	160
0986 A	Font - Monotype Garamond, Bold	210
0987 A	Font - Helvetica, Bold	420

0988 A	Font - Optima, Bold	210
0989 A	Font - Palatino, Bold	210
0990 A	Font - Monotype Rockwell, Bold	210
0991 A	Font - ITC Souvenir Version 2, Bold	210
0992 A	Font - Monotype Times New Roman, Bold	210
0993 A	Font - Univers, Bold	420
0994 A	Font - Helvetica, Light	420
0995 A	Font - ITC Souvenir Version 2, Light	210
0996 A	Font - Univers, Light	420
0997 A	Font - Typewriter Group	240
0998 A	Font - Engineering and Math Group	480

#### IBM 5201 QUIETWRITER PRINTER

5201-002 e	Quietwriter Printer II (40-60cps, thermal transfer, APA graphics) Incl. Courier 10 Quiet Electronic Font, noncorrecting ribbon cartridge, printhead, wrap plug, accessory kit	999
I 7840 a	Sheetfeed	366
I 7820 a	Pinwheel Forms Feed	78
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 e	IBM Quiet Printhead	20
7930 e	IBM Quiet Cleaning Cartridge	5.55
7910 e	Line Cord	7.75
7920 e	Paper Table	7.50
I 7880 e	Sheetfeed Paper Tray	41

#### IBM 5202 QUIETWRITER III PRINTER

5202-001 e	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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## Peripheral Devices, Cross-System

130

As of September 20, 1988

MODEL/FC VPA	DESCRIPTION	PRICE
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9372 e	Font Download Feature, without download cartridge (3.5+5.25in)	50
S544-4208	Quickwriter Technical Reference Manual	20
S544-4169	Quickwriter Printer Guide to Operations	14.50
S544-4119	Quickwriter Printer Single Bin Sheetfeed Guide to Operations	2.20
S544-4140	Quickwriter Printer Dual Drawer Sheetfeed Guide to Operations	11
S544-4205	Quickwriter Printer Font Download Option Guide to Operations	1.75
S544-4116	Quickwriter Printer Hardware Maintenance and Service	26.25
S544-4120	Quickwriter Printer Single Bin Sheetfeed Hardware Maintenance and Service	5.35
S544-4141	Quickwriter Printer Dual Drawer Sheetfeed Hardware Maintenance and Service	60

#### IBM 5216 WHEELPRINTER

6030 a	Parallel attachment cable	47
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
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

#### IBM 5223 WHEELPRINTER E MODEL 1

5427 e	Acoustical Sound Hood	30
7840 e	Sheetfeed	350
7820 e	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
6180-001 e	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 e	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 e	Graphics Enhancement Cartridge, increases buffer from 60 to 1KB, char. sets from 5 to 19, 14 new commands, compatibility with HP 7475A	150
5050 e	RS-232C Cable between 6180 and PC	51
5060 e	6180 Programming Manual (=GA66-0501)	29
5070 e	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	??
6182-001 e	IBM Auto Feed Color Plotter, A and B-size, 8-pen desktop, RS-232C and IEEE-488 Attach, pen speed 31.5in/sec resolution 0.001in, supplies kit	4150
5020	RS-232C for 5085 Attachment Cable	51
5030	RT PC Cable Adapter for 6182	16
5040	IEEE-488 Cable for 6182	102

As of September 20, 1988

MODEL/FC VPA	DESCRIPTION	PRICE
5060	Overhead Transparency Kit for 6182	120
5070	Programming Manual, 6184	6
5470274	A-Size Polyester Film (50 sheets)	19
5470287	B-Size Polyester Film (50 sheets)	32
5470288	A-Size Vellum (150 sheets)	16.50
5470289	B-Size Vellum (150 sheets)	29
5470433	A-Size Media Loading Tray	80
5470434	A/4-Size Media Loading Tray	80
5470298	B-Size Media Handling Kit	160
5470477	A/3-Size Media Handling Kit	160
5470299	Fiber-Tip Transparency Carousel	55
5470303	Fiber-Tip Paper Carousel	55
5470304	Roller-Ball Carousel	55
5470306	Drafting Carousel	55
6184-001 e	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	4150
5030	RS232C Cable between 6184 and PC (also req. FC0242 for PC/AT)	51
5050	GP1B (IEEE-488) Support Microcode Cartridge for 6184 (plant install only, req. FC5040)	295
5070	Programming Manual, 6184	22.25
6186-001 e	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 e	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 e	IBM Color Plotter, B-size, 6-pen, pen speed 15in/sec (pen down), 20in/sec (pen up), resolution 0.001in	1900
9910 e	RS-232-C Attachment Specify	N/C
9920 e	IEEE-488 Attachment Specify	N/C

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	475
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) Not for use over LAN (attaches to 3363-A01, -A11, FC 8700)	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 b	Streaming Tape Drive	1795
6157-002 b	Streaming Tape Drive (attaches to PS/2 Models 50, 60, 70 and 80 and all models of the IBM RT floor and desktop systems)	2095

#### IMAGE DEVICES

4555 a	3117 Extension Unit (connects 3117, PC family, req. PC async adapter and cable or High Speed RS422 Adapter)	700
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As of September 20, 1988

MODEL/FC VPA	DESCRIPTION	PRICE
3117-010 b	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 b	Scanner (12 sec/page, 240x240 pel resolution, feed-through, paper size to 8.5x14, req. High-Speed Adapter or async interface)	2350
3118-020 b	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
GA18-2475	3118 Scanner Guide to Operations	28.50
SY18-2158	3118 Scanner Hardware Maintenance and Service	58
SC18-2104	3118 Scanner Technical Reference	33.75
3119-S10	Scanner (300x300 pel resolution, in 128 shades of grey, includes 3119 Adapter/A, cable, power cord and Guide to Operations)	2395

#### COMMUNICATIONS DEVICES, CROSS-SYSTEM

##### IBM TOKEN-RING NETWORK

8228-001 b	Multistation Access Unit (attaches up to 8 devices, also attaches to other 8228's)	660
1078	IBM Cabling System Component Housing	103
8218-001 b	Token-Ring Network Copper Repeater (Extends drive distance to 750 meters between 8228s)	1695
3001 b	Rack Mounting Assembly	300
3002 b	Surface Mounting Brackets	20
8219-001 b	Token-Ring Network Optical Fiber Repeater (Extends drive distance to 2km between 8228s)	2295
3001 b	Rack Mounting Assembly	300
3002 b	Surface Mounting Brackets	20
8642551	Precut Token-Ring Patch Cable, 8ft, with Cabling System Connectors	38

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)	61
	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)	40

Peripheral Devices, Cross-System



As of September 20, 1986

MODEL/FC VPA	DESCRIPTION	PRICE			
0232 a	Medium Distance Kit (requires 2 x FC 0237)	82	5173-001 b	IBM 5173 PC Network Baseband Extender (Joins up to 10 daisy-chains of up to 8 workstations, extends maximum radius to 400ft)	750
0233 a	Long Distance Kit (requires 4 x FC 0237)	93	S68X-2266	IBM PC Network Baseband Extender Technical Reference	8.50
	Cabling Segments (Attach PC to Distance Kit/Translator, and Distance Kit to Base Expander)		1226	IBM PC Network Baseband Extender Rack Mount Kit	50
0234 a	25-Foot Cabling Segment	30	1229	IBM PC Network Baseband Adapter Cable (serially connects PCs into daisy-chain or to Extender, 25ft, modular plugs both ends)	25
0235 a	50-Foot Cabling Segment	40	1228	IBM PC Network Baseband General Purpose Cable (connects PC to non-modular telephone receptacle, 25ft, modular plug one end)	35
0236 a	100-Foot Cabling Segment	61	1227	IBM Cabling System PC Network Baseband Cable (connects PC or Extender to Cabling System Jack, 25ft, modular plug plus Data Connector)	35
0237 a	200-Foot Cabling Segment	103	S68X-2269	IBM PC Network Baseband Planning Guide	17.50
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			

#### 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 22. 5150-104 Expansion Slot Usage

Slot	Type	Item
1	Long	
2	Long	
3	Long	
4	Long	
5	Long	Diskette Adapter

Figure 23. 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 24. 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 25. 5160-086, -087 Expansion Slot Usage

##### PC/XT/370 (5160-589)

As of September 20, 1988

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 26. 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 27. 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 28. 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 29. 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 30. 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 31. 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

As of September 20, 1988

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 32. 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 33. 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 34. 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 35. 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 36. 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 37. 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 38. 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 39. 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 40. 5271-071, -P71 Expansion Slot Usage

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

If one of the Extended Graphics or Programmed Symbols Adapters is installed, it must be placed in slot 2. If both the Extended Graphics and Programmed Symbols Adapters 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 41. 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 42. 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 43. 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 44. 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 45. 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 46. 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 47. 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 48. 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 49. 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 50. 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 51. 5373-X60 Expansion Slot Usage

As of September 20, 1988

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 52. 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 53. 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 54. 5373-X29, -X39 Expansion Slot Usage

#### PERSONAL SYSTEM/2 MODEL 25 (8525)

The Personal System/2 Model 25 has integrated display, serial, parallel, pointing device, DASD, and earphone adapters. Slot

layout conforms to the PC bus.

Slot Type	Item
1	Long
2	8-inch

Figure 55. 8525 Expansion Slot Usage

#### PERSONAL SYSTEM/2 MODEL 30 (8530)

The Personal System/2 Model 30 has integrated display, serial, parallel, pointing device, and DASD adapters. Slot layout conforms to the PC bus.

Slot Type	Item
1	Long
2	Long
3	Long

Figure 56. 8530 Expansion Slot Usage

#### PERSONAL SYSTEM/2 MODEL 30 286 (8530)

The Personal System/2 Model 30 286 has integrated display, serial, parallel, pointing device, and DASD adapters. Slot layout conforms to the PC/AT bus.

Slot Type	Item
1	16-bit
2	16-bit
3	16-bit

Figure 57. 8530 286 Expansion Slot Usage

#### PERSONAL SYSTEM/2 MODEL 50 (8550)

The Personal System/2 Model 50 has integrated display, serial, parallel, pointing device, and DASD adapters. Slot layout conforms to the IBM Micro-Channel Architecture (MCA).

As of September 20, 1988

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Slot Type	Item
1	MCA-16
2	MCA-16
3	MCA-16 (slot has video bus extension)

---

Figure 58. 8550 Expansion Slot Usage

---

PERSONAL SYSTEM/2 MODEL 60 (8560)

The Personal System/2 Model 60 has integrated display, serial, parallel, pointing device, and DASD adapters. Slot layout conforms to the IBM Micro-Channel Architecture (MCA).

---

Slot Type	Item
1	MCA-16
2	MCA-16
3	MCA-16
4	MCA-16
5	MCA-16
6	MCA-16 (slot has video bus extension)
7	MCA-16

---

Figure 59. 8560 Expansion Slot Usage

---

PERSONAL SYSTEM/2 MODEL 70 (8570)

The Personal System/2 Model 70 has integrated display, serial, parallel, pointing device, and DASD adapters. Slot layout

conforms to the IBM Micro-Channel Architecture (MCA).

---

Slot Type	Item
1	MCA-16 (slot has video bus extension)
2	MCA-32
3	MCA-32

---

Figure 60. 8570 Expansion Slot Usage

---

PERSONAL SYSTEM/2 MODEL 80 (8580)

The Personal System/2 Model 80 has integrated display, serial, parallel, pointing device, and DASD adapters. Slot layout conforms to the IBM Micro-Channel Architecture (MCA).

---

Slot Type	Item
1	MCA-32
2	MCA-32
3	MCA-16
4	MCA-32
5	MCA-16
6	MCA-16 (slot has video bus extension)
7	MCA-16

---

Figure 61. 8580 Expansion Slot Usage

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# 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 62. Cabling System Characteristics

## TECHNICAL SUPPORT

### 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 63. 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 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

As of September 20, 1988

- 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 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.

Technical Support

#### 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 85,
- "Support Publications - Managing End User Computing" on page 85,
- "IBM Information Systems Management Institute" on page 107,
- "Technical Seminars" on page 110,
- "Science Research Associates - Leased Courses" on page 108.

#### 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

As of September 20, 1988

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 certain 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.

Technical Support

#### 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.
- **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.

As of September 20, 1988

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

Figure 64. 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

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

Figure 65. Extended Support - Personal Decision Series Version 2

The following programs are covered as part of the Personal De-

Technical Support

cision Series Version 2

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

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

Figure 66. 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

	Order No.	Price
Base Subscription (Annual) Incl. Support Journal Subscription Program Service Telephone Assistance Program Updates Automatic Renewal: Not Available Additional Charge Options:	6265409	\$ 395
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 67. Extended Support - Storyboard Plus

As of September 20, 1988

	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 68. 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 69. Extended Support - Professional Workstation Series		

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

- IBM PC Organizer
- 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 70. 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

	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 71. Extended Support - Business Adviser Series

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

- General Accounting Edition
- Accounts Payable Edition

As of September 20, 1988

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

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

Figure 72. Extended Support - PC 3270 Emulation Version 3

#### 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 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

As of September 20, 1988

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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 73. NSD Support Eligible Programs

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## 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 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 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.

As of September 20, 1988

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.

As of October 1, 1987, IBM will no longer market the Customer Carry-in Exchange (CCE) type of service. Effective January 1, 1988, customers who have previously purchased CCE service will no longer be able to renew this type of service. Service/Exchange Centers will begin closing October 1, 1987.

MAINTENANCE OPTIONS - SYSTEM UNITS AND PERIPHERALS

TYPE/MODEL	DESCRIPTION	IBM	IBM	Cust.	Carry	Carry
		On-Site Repair	On-Site Exch.	On-Site Exch.	In Exch.	In Repair

Maintenance

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.

SERVICE ALTERNATIVES

For products marketed by both IBM and IBM Authorized Dealers(1), where a CCE or CCR type of service has been selected under warranty, the customer may select one of the following when placing a service call:

- Upgrade the service delivery to a more convenient, on-site (IOR or IOE) type of service for this request, at the applicable charge(2), or
- Deliver their product to an IBM Authorized Dealer, or
- Deliver their product to an IBM designated location.

For products marketed primarily by IBM and covered by an IBM Maintenance Agreement providing for CCE or CCR types of service, or products covered by an IBM warranty providing for the same types of service, the customer may select one of the following when placing a service call:

- Receive service via a nationwide courier service supplied by IBM at no additional charge, or
- Upgrade the service delivery to a more convenient, on-site (IOR or IOE) type of service for this request, at the applicable charge(2), or
- Deliver their product to an IBM designated location.

(1) Authorized IBM Personal Computer Dealers, Authorized IBM Typewriter Dealers, IBM Selected Products Dealers, and IBM Value Added Dealers.

(2) This flat rate charge of \$80 is a change to IBM's previous practice for this type of service and applies only when upgraded service is provided. Billable service provided outside hours of coverage, or not covered by an IBM agreement, will be invoiced at the applicable IBM Hourly Service rate and terms.

As of September 20, 1988

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
		#9798	#9830	#9824	#9816	#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	98.00	N/A	96.00
3852-002	Color Jetprinter	N/A	109.00	78.00	N/A	78.00
4201-001	Proprietary	N/A	41.00	30.00	N/A	30.00
4201-002	Proprietary II	49.00	N/A	N/A	N/A	38.00
4202-001	Proprietary XL	N/A	105.00	85.00	N/A	60.00
4207-001	Proprietary X24	102.00	N/A	N/A	N/A	85.00
4203-001	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	162.00	162.00	131.00	N/A	131.00
4683-002	POS Terminal	72.00	72.00	52.00	N/A	52.00
4707-001	Monochrome Display	N/A	20.00	N/A	N/A	N/A
4712-001	Transaction Printer	90.00	N/A	N/A	N/A	N/A
4712-002	Transaction Printer	90.00	N/A	N/A	N/A	N/A
4717-001	Magnetic Str Rdr	N/A	15.00	N/A	N/A	N/A
4717-002	Magnetic Str Rdr/Enc	N/A	N/A	35.00	N/A	N/A
4717-003	Magnetic Str Rdr/Enc	N/A	35.00	N/A	N/A	N/A
4718-001	Personal ID Keypad	N/A	10.00	N/A	N/A	N/A
4722-001	Document Printer	100.00	N/A	N/A	N/A	N/A
4722-002	Document Printer	100.00	N/A	N/A	N/A	N/A
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	22.00	N/A	22.00
4865-001	Ext. 3.5in Diskette	N/A	31.00	22.00	N/A	N/A
4865-002	Ext. 3.5in Diskette	N/A	31.00	22.00	N/A	N/A
4869-001	Ext. 5.25in Diskette	N/A	56.00	50.00	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	104.00	N/A	104.00
5083-002	Digital Tablet	N/A	96.00	48.00	N/A	N/A
5083-11A	Digital Tablet	N/A	55.00	32.00	N/A	N/A
5083-12A	Digital Tablet	N/A	60.00	35.00	N/A	N/A
5140-002	Convertible	160.00	N/A	N/A	N/A	110.00
5140-003	Convertible	176.00	N/A	N/A	N/A	N/A
5140-022	Convertible	160.00	N/A	N/A	N/A	110.00
5144-001	Convertible Mono CRT	N/A	18.00	10.00	N/A	N/A
5145-001	Convertible Color CRT	N/A	40.00	26.00	N/A	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

As of September 20, 1988

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
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	16.00	N/A	16.00
5152-001/2	Printer	N/A	41.00	30.00	N/A	30.00
5153-001	Color Display	N/A	55.00	40.00	N/A	40.00
5154-001	Enhanced Color Disp	N/A	65.00	42.00	N/A	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
5167-001	TEMPEST Mono Displ	N/A	69.00	52.00	N/A	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

As of September 20, 1988

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
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	41.00	N/A	41.00
5181-001	Compact Printer	N/A	18.00	11.00	N/A	11.00
5182-001	Color Printer	N/A	587.00	379.00	N/A	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
5204-001	Quickwriter	335.00	N/A	N/A	N/A	N/A
5216----	Wheelprinter	N/A	195.00	125.00	N/A	110.00
5223-001	Wheelprinter E	N/A	126.00	72.00	N/A	66.00
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	70.00	55.00	N/A	55.00
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
5277-001	Mouse	N/A	48.00	36.00	30.00	N/A
5278-001	Display Attach Unit	N/A	N/A	88.00	N/A	88.00
5278-002	Display Attach Unit	N/A	N/A	88.00	N/A	88.00
5279-001	14in Display (G)	N/A	N/A	17.00	N/A	17.00
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

As of September 20, 1988

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
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	N/A	170.00	N/A	N/A
5841-001	IBM Sync/Async Modem	N/A	68.00	31.00	N/A	31.00
5842-001	IBM Sync/Async Modem	N/A	66.00	30.00	N/A	30.00
5853-001	IBM Sync/Async Modem	N/A	72.00	48.00	N/A	N/A
6152-022	Sys Unit	285.00	N/A	N/A	N/A	N/A
6152-024	Sys Unit	285.00	N/A	N/A	N/A	N/A
6152-044	Sys Unit	325.00	N/A	N/A	N/A	N/A
6152-048	Sys Unit	325.00	N/A	N/A	N/A	N/A
6152-074	Sys Unit	365.00	N/A	N/A	N/A	N/A
6152-078	Sys Unit	365.00	N/A	N/A	N/A	N/A
6153-001	Adv Mono Graf Display	N/A	69.00	60.00	N/A	N/A
6154-001	Adv Color Graf Display	N/A	170.00	160.00	N/A	N/A
6155-001	Ext Mono Graf Display	N/A	105.00	94.00	N/A	N/A
6157-001	Streaming Tape Drive	N/A	140.00	130.00	N/A	N/A
6156-001	Portable Disk Drive	150.00	N/A	N/A	N/A	N/A
6156-003	Portable Disk Drive	350.00	N/A	N/A	N/A	N/A
6180-001	A-Size Plotter, RS232	N/A	84.00	45.00	N/A	45.00
6180-002	A-Size Plotter, IEEE488	N/A	84.00	45.00	N/A	45.00
6186----	A-E Size Plotter	360.00	N/A	N/A	N/A	N/A
6192-001	Expansion Unit	163.00	N/A	N/A	N/A	N/A
7371-001	Color Plotter	N/A	183.00	102.00	N/A	96.00
7372-001	Color Plotter	N/A	213.00	113.00	N/A	108.00
7531-041	Indust PC/AT	420.00	N/A	N/A	N/A	N/A
7531-111	Indust PC/AT	515.00	N/A	N/A	N/A	N/A
7532-041	Indust PC/AT	420.00	N/A	N/A	N/A	N/A
7532-111	Indust PC/AT	515.00	N/A	N/A	N/A	N/A
7534-001	Enh.Indust PC Display	N/A	88.00	56.00	N/A	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
7552-540	Indust PC/AT, 20MB	1176.00	N/A	N/A	N/A	N/A
8218-001	Token Copper Repeater	N/A	N/A	18.00	N/A	N/A
8219-001	Token Optic Repeater	N/A	N/A	50.00	N/A	N/A
8228-KT1	Token Starter Kit	N/A	N/A	45.00	N/A	N/A
8228-KT2	Token Starter Kit	N/A	N/A	45.00	N/A	N/A
8228-KT3	Token Starter Kit/A	N/A	N/A	45.00	N/A	N/A
8228-001	Multist'n Access Unit	N/A	N/A	45.00	N/A	N/A
8503----	Pers Sys/2 Mono Displ	N/A	9.00	8.00	N/A	N/A
8507----	Pers Sys/2 Mono Displ	N/A	10.00	N/A	N/A	N/A
8512----	Pers Sys/2 Color Disp	N/A	10.00	9.00	N/A	N/A

As of September 20, 1988

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
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
8525-C02	Pers System/2 Mdl 25	80.00	N/A	N/A	N/A	N/A
8525-C05	Pers System/2 Mdl 25	90.00	N/A	N/A	N/A	N/A
8525-G01	Pers System/2 Mdl 25	80.00	N/A	N/A	N/A	N/A
8525-G04	Pers System/2 Mdl 25	90.00	N/A	N/A	N/A	N/A
8525-K02	Pers System/2 Mdl 25	80.00	N/A	N/A	N/A	N/A
8525-K05	Pers System/2 Mdl 25	90.00	N/A	N/A	N/A	N/A
8525-001	Pers System/2 Mdl 25	80.00	N/A	N/A	N/A	N/A
8525-004	Pers System/2 Mdl 25	90.00	N/A	N/A	N/A	N/A
8525-L01	Pers System/2 Mdl 25	80.00	N/A	N/A	N/A	N/A
8525-L04	Pers System/2 Mdl 25	90.00	N/A	N/A	N/A	N/A
8530-002	Pers System/2 Mdl 30	115.00	N/A	N/A	N/A	N/A
8530-R02	Pers System/2 Mdl 30	115.00	N/A	N/A	N/A	N/A
8530-021	Pers System/2 Mdl 30	160.00	N/A	N/A	N/A	N/A
8530-R21	Pers System/2 Mdl 30	160.00	N/A	N/A	N/A	N/A
8530-E01	Pers System/2 Mdl 30	164.00	N/A	N/A	N/A	N/A
8530-E21	Pers System/2 Mdl 30	164.00	N/A	N/A	N/A	N/A
8550-021	Pers System/2 Mdl 50	180.00	N/A	N/A	N/A	N/A
8550-R21	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
8570-E61	Pers System/2 Mdl 70	276.00	N/A	N/A	N/A	N/A
8570-121	Pers System/2 Mdl 70	300.00	N/A	N/A	N/A	N/A
8570-A21	Pers System/2 Mdl 70	396.00	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
8580-311	Pers System/2 Mdl 80	350.00	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	65.00	N/A	65.00
1537-B01	Hayes Transet 512K Buffr	N/A	90.00	75.00	N/A	75.00
1538-A01	HP 7470A Color Plotter	N/A	145.00	130.00	N/A	130.00
1538-B01	HP 7475A Color Plotter	N/A	165.00	150.00	N/A	150.00
1538-C01	HP 7550A Color Plotter	N/A	275.00	260.00	N/A	260.00
1543-A01	HP Thinkjet Printer	N/A	130.00	115.00	N/A	115.00
	Epson FX-185	N/A	120.00	105.00	N/A	105.00
1551-A01	Epson FX-100, 100+	N/A	120.00	105.00	N/A	105.00
1552-A01	Okidata ML93A	N/A	190.00	130.00	N/A	130.00
1552-B01	Okidata ML93I	N/A	190.00	130.00	N/A	130.00
1556-S01	Amdek 310-A Display	N/A	45.00	30.00	N/A	30.00
1560-A01	Tecmar Q60H	N/A	160.00	135.00	N/A	135.00
1561-A01	Tecmar Q60W20	N/A	510.00	470.00	N/A	470.00
1561-B01	Tecmar Q60W20AT	N/A	965.00	925.00	N/A	925.00
1575-A01	Hayes Smartmodem 300	N/A	80.00	65.00	N/A	65.00

As of September 20, 1988

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
1575-B01	Hayes Smartmodem 1200	N/A	110.00	95.00	N/A	95.00
1580-A01	Amdek 300A	N/A	50.00	35.00	N/A	35.00
1580-B01	Amdek 300	N/A	50.00	35.00	N/A	35.00
1581-A01	Giltronix Sharing Device	N/A	130.00	86.00	N/A	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
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



As of September 20, 1988

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
6714	Tallgrass Tape Backup	110.00	N/A	N/A	N/A	105.00
6727	Irwin Tape Backup	100.00	N/A	N/A	N/A	95.00
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
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	22.00	22.00	13.00	12.00	12.00
3322	Alphanum Keyboard	40.00	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	17.00	17.00	10.00	8.00	8.00
3340	Operator Display	21.00	21.00	12.00	10.00	10.00
3343	40 Char Display	19.00	19.00	14.00	13.00	13.00

As of September 20, 1988

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
3352	346mm Color Display	48.00	48.00	34.00	31.00	31.00
3354	300mm Display	25.00	116.00	98.00	93.00	93.00
3360	Cash Drawer, Fixed	19.00	19.00	13.00	11.00	11.00
3361	Cash Drawer, Adj.	19.00	19.00	14.00	12.00	12.00
3380	Printer	112.00	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	30.00	30.00	22.00	19.00	19.00
4001	Feature Expan B	9.00	9.00	6.00	5.00	5.00
4002	Feature Expan C	22.00	22.00	16.00	14.00	14.00
4003	Feature Expan D	31.00	31.00	26.00	24.00	24.00
4010	Mag Stripe Reader	7.00	7.00	5.00	4.00	4.00
4014	Scanner Adapter	7.00	7.00	4.00	3.00	3.00
4016	Mag Wand Reader	103.00	103.00	80.00	73.00	73.00
4016	Mag Wand Reader	13.00	N/A	N/A	N/A	N/A
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
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
6263	ARTIC/2, 512KB	55.00	N/A	N/A	N/A	52.00
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

Maintenance

As of September 20, 1988

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
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	Prop'r X24	N/A	11.00	5.00	
4201-002	Prop'r X24	11.00	N/A	N/A	
4202-001	Prop'r XL(FC9876,9773)	N/A	15.00	5.00	
4207-001	Prop'r X24	17.00	N/A	N/A	
4208-001	Prop'r XL24	21.00	N/A	N/A	
4216-020	Personal Pageprinter	72.00	N/A	N/A	

Maintenance

As of September 20, 1988

TYPE/MODEL	DESCRIPTION	IBM	IBM	Cust.	Cust.
		On-Site Repair #9797	On-Site Exch. #9799	On-Site Exch. #9826	Carry-In Exch. #9814
4683-001	POS Terminal	129.00	129.00	104.00	
4683-002	POS Terminal	59.00	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	19.00	13.00	
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	
5140-003	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	
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	

As of September 20, 1988

TYPE/MODEL	DESCRIPTION	IBM On-Site Repair #9797	IBM On-Site Exch. #9799	Cust. On-Site Exch. #9826	Cust. Carry-In Exch. #9814
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	
5204-001	Quickwriter	65.00	N/A	N/A	
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	

As of September 20, 1988

TYPE/MODEL	DESCRIPTION	IBM On-Site Repair #9797	IBM On-Site Exch. #9799	Cust. On-Site Exch. #9826	Cust. Carry-In Exch. #9814
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	
5853-001	IBM Sync/Async Modem	N/A	24.00	N/A	
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	Multi-st'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	
8525-C02	Pers System/2 Mdl 25	25.00	N/A	N/A	
8525-C05	Pers System/2 Mdl 25	25.00	N/A	N/A	
8525-G01	Pers System/2 Mdl 25	25.00	N/A	N/A	
8525-G04	Pers System/2 Mdl 25	25.00	N/A	N/A	
8525-K02	Pers System/2 Mdl 25	25.00	N/A	N/A	
8525-K05	Pers System/2 Mdl 25	25.00	N/A	N/A	
8525-001	Pers System/2 Mdl 25	25.00	N/A	N/A	
8525-004	Pers System/2 Mdl 25	25.00	N/A	N/A	
8525-L01	Pers System/2 Mdl 25	25.00	N/A	N/A	
8525-L04	Pers System/2 Mdl 25	25.00	N/A	N/A	
8530-002	Pers System/2 Mdl 30	25.00	N/A	N/A	
8530-R02	Pers System/2 Mdl 30	25.00	N/A	N/A	
8530-021	Pers System/2 Mdl 30	25.00	N/A	N/A	
8530-R21	Pers System/2 Mdl 30	25.00	N/A	N/A	
8530-E01	Pers System/2 Mdl 30	25.00	N/A	N/A	
8530-E21	Pers System/2 Mdl 30	25.00	N/A	N/A	
8550-021	Pers System/2 Mdl 50	25.00	N/A	N/A	
8550-R21	Pers System/2 Mdl 50	25.00	N/A	N/A	
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	
8570-E61	Pers System/2 Mdl 70	25.00	N/A	N/A	
8570-121	Pers System/2 Mdl 70	25.00	N/A	N/A	
8570-A21	Pers System/2 Mdl 70	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	

Maintenance

As of September 20, 1988

TYPE/MODEL	DESCRIPTION		IBM	IBM	Cust.	Cust.
			On-Site Repair #9797	On-Site Exch. #9799	On-Site Exch. #9826	Carry-In Exch. #9814
8580-111	Pers System/2 Mdl 80	25.00		N/A	N/A	
8580-311	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	19.00	19.00	10.00
3322	Alphanumeric Keyboard	34.00	34.00	21.00
3326	20MB Fixed Disk	135.00	N/A	N/A
3339	Shopper Display	15.00	15.00	8.00
3340	Operator Display	19.00	19.00	10.00
3343	40 Char Display	16.00	16.00	11.00
3352	346mm Color Display	40.00	40.00	26.00
3354	300mm Display	21.00	93.00	75.00
3360	Cash Drawer, Fixed	16.00	16.00	10.00
3361	Cash Drawer, Adj.	16.00	16.00	11.00
3380	Printer	93.00	93.00	65.00
3891	XT/370 Option, 3277	150.00	N/A	N/A
4000	Feature Expan A	25.00	25.00	17.00
4001	Feature Expan B	8.00	8.00	5.00
4002	Feature Expan C	19.00	19.00	13.00
4003	Feature Expan D	25.00	25.00	20.00
4010	Mag Stripe Reader	6.00	6.00	4.00
4014	Scanner Adapter	6.00	6.00	3.00
4016	Mag Wand Reader	85.00	85.00	62.00
4016	Mag Wand Reader	10.00	N/A	N/A
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

As of September 20, 1988

TYPE/MODEL	DESCRIPTION	IBM On-Site Repair #9797	IBM On-Site Exch. #9799	Cust. On-Site Exch. #9826	Cust. Carry-In Exch. #9814
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-T25	RT PC System Unit, TEMPEST	1465.00
6150-125	RT PC System Unit, 70MB ("new processor")	925.00
6150-135	RT PC System Unit, 114MB (new processor)	1095.00
6150-A25	RT PC System, 5080 Attach	925.00
6150-B25	RT PC System Unit, 70MB ("new processor")	925.00
6150-B35	RT PC System Unit, 114MB (new processor)	1095.00
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
6151-130	RT PC System, 114MB (new processor)	895.00
3426	RT PC 70MB Fixed-Disk Drive	425.00

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
3812-002	IBM Pageprinter	126.00
3820-001	IBM Page Printer	310.00
	Monthly Use Charge \$.0126 per impression	



As of September 20, 1988

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
6182-001	IBM Auto Feed Color Plotter	23.00
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
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		
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 Transet 1000 Multifunction Buf	24	Mfr
1537-B01 Hayes Transet 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---- 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 Proprietary	12	CCE
4201-002 Proprietary II	12	CCR
4202-001 Proprietary	12	CCE

Maintenance

As of September 20, 1988

	Warranty Period (Months)	Warranty Service Type
4207-001	12	CCR
4208-001	12	CCR
4216-020	12	CCR
4239----	12	??
4250-002	3	IOR
4450----	3	mail-in
4455----	3	mail-in
4459----	3	mail-in
4683----	3	CCE
4860----	12	CCR
4863-001	12	CCE
4865----	12	CCE
4869-001	12	CCE
4950----	3	CCR
4971-001	12	CCE
4975-02R	3	IOR
5063-002	3	IOE
5083-11A	3	CCE
5083-12A	3	CCE
5140----	12	CCR
5144-001	12	CCE
5145-001	12	CCE
5150-X--	3	CCR
5150----	3	CCR
5151-001	3	CCE
5152----	3	CCE
5153-001	3	CCE
5154-001	12	CCE
5155----	12	CCR
5160----	3	CCR
5160-5--	3	CCR
5161----	3	CCR
5162----	12	CCR
5167-001	3	CCE
5169-002	3	CCR
5170----	12	CCR
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

As of September 20, 1988

	Warranty Period (Months)	Warranty Service Type
5373----- 3270-PC/AT /G/GX System Unit	12	CCR
5378----- Display Attachment Unit	3	IOR
5379----- 19in Display	3	IOR
5531----- Indust PC	3	CCR
5532----- Indust PC Display	3	CCE
5841-001 IBM Sync/Async Modem	12	CCE
5842-001 IBM Sync/Async Modem	12	CCE
5853-001 IBM Sync/Async Modem	12	CCE
6150----- IBM RT PC	12	IOR
6151----- IBM RT PC	12	IOR
6152----- IBM Academic System	12	IOR
6153-001 IBM Advanced Monochr Graphic Display	12	IOE
6154-001 IBM Advanced Color Graphics Display	12	IOE
6155-001 IBM Extended Monochr Graphic Display	12	IOE
6157-001 Streaming Tape Drive	12	CCE
6157-002 Streaming Tape Drive	12	CCE
6156-001 Portable Disk Drive	12	IOR
6156-003 Portable Disk Drive	12	IOR
6180----- A-Size Plotter, 8-Pen	3	CCE
6182-001 IBM Auto Feed Color Plotter, 8-Pen	12	IOR
6184-001 D-Size Plotter, 8-Pen	3	IOR
6186----- A/E Size Plotter, 8-Pen	3	IOR
6192-001 Expansion Unit	12	IOR
7371-001 IBM Color Plotter	3	CCR
7372-001 IBM Color Plotter	3	CCR
7374-001 IBM Color Plotter	3	CCR
7375----- IBM Color Plotter	3	CCR
7531----- Industrial PC/AT	12	IOR
7532----- Industrial PC/AT	12	IOR
7534-001 Enh. Indust PC Display	12	CCE
7552----- Industrial PC/AT	12	IOR
8218-001 Token-Ring Copper Repeater	12	CCE
8219-001 Token-Ring Optic Fiber Repeater	12	CCE
8228-001 Multistation Access Unit	12	CCE
8503----- Personal System/2 Mono Display	12	CCE
8507----- Personal System/2 Mono Display	12	CCE
8512----- Personal System/2 Color Display	12	CCE
8513----- Personal System/2 Color Display	12	CCE
8514----- Personal System/2 Color Display	12	CCE
8525----- Personal System/2 Model 25	12	CCR
8530----- Personal System/2 Model 30	12	CCR
8550----- Personal System/2 Model 50	12	CCR
8560----- Personal System/2 Model 60	12	CCR
8570----- Personal System/2 Model 70	12	CCR
8580----- Personal System/2 Model 80	12	CCR
9332----- SCSI DASD	12	IOR

As of September 20, 1988

Warranty Period (Months)	Warranty Service Type
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# 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 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

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
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
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

As of September 20, 1988

	Warranty Period (Months)	Warranty Service Type
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
5647	PC Network Adapter II/A-Frequency 2	12 system
5648	PC Network Adapter II/A-Frequency 3	12 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'i 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
2422	InfoWindow Upgrade Kit	12 ??
2500	Fixed Disk Dr	3 CCR

As of September 20, 1988

	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
3619	Multifunction Memory Exp Adapter	12 ??

As of September 20, 1988

	Warranty Period (Months)	Warranty Service Type
3428	PC/AT Fixed Disk-Diskette Adapter	12 IOR
3780	Diskette Adapter	3 CCR
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

As of September 20, 1988

		Warranty Period (Months)	Warranty Service Type
5200	Printer Adapter	3	CCR
5240	InfoWindow Enhanced Graphics Adapter	12	system
5315/6	3278 PC Attach	3	IOR
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
5773	Token-Ring Adapter Trace/Perf Adpt II	12	system
5774	Token-Ring Adapter Trace/Perf Adpt/A	12	system
5790	Programmed Symbols Adapter	3	CCR
6000	Combination Adapter	3	CCR
5001	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



As of September 20, 1988

	Warranty Period (Months)	Warranty Service Type
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
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
6163	3.5in Diskette Dr, Industrial PC/AT	12 IOR
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
6250	20MB Fixed Disk, Industrial PC/AT	12 IOR
6263	ARTIC/2, 512K	12 system
6265	ARTIC/2, 8-port RS-232 Interface	12 system
6266	ARTIC/2, RS-232/RS-422 Interface	12 system
6267	ARTIC/2, 4-port RS-232 Interface	12 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
6727	Irwin Model 145 Tape Backup	12 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
7002	Pageprinter Adapter/A	12 CCR

As of September 20, 1988

	Warranty Period (Months)	Warranty Service Type
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
7833	2MB Memory Module Kit	12 CCR
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
9186	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
8314	4683-002 Attachment Adapter	12 CCR
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
8635	IBM Enhanced Memory Expansion, AT	12 CCR
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	12 IOR

As of September 20, 1988

#### STATEMENTS OF DIRECTION

Announcement and availability of these products will be based on IBM's technical and business judgement.

#### IMAGEPLUS WORKSTATION SUPPORT

Letter 188-108; June 28, 1988

IBM intends to provide image workstation components to complement the IBM ImagePlus systems. These image workstation components will include a high-resolution, large-screen, monochrome landscape monitor, a high-resolution, large-screen, monochrome portrait monitor, and an adapter that attaches either of these monitors to any IBM Personal System/2 model that implements the MicroChannel architecture. In addition, IBM intends to provide an image workstation application licensed program for the IBM Personal System/2. The image workstation application program is a PC DOS-based program that will be designed to interact with host IBM ImagePlus systems.

Information regarding availability of these products will be provided in the first quarter of 1989.

#### IBM NETVIEW/PC FOR PERSONAL SYSTEM/2

Letter 287-285; June 16, 1987

NetView/PC V.1.1 intends to support the IBM Personal System/2 Models 50, 60, and 80.

(Fulfilled in Letter 287-458; October 20, 1987)

#### IBM FINANCE SYSTEMS STATEMENT OF DIRECTION

Letter 187-114; May 29, 1987

Today, the IBM 4702 Branch Processor provides network management, program library maintenance and distribution, security,

high reliability, and branch processor-based application support to meet finance system requirements. IBM plans to attach the 4702 Branch Processor to the IBM Local Area Network using Token-Ring protocol, providing a high degree of resource sharing in the branch. The 4702 Branch Processor will be enhanced in function and performance to facilitate its use with IBM Personal Computers in a LAN environment for communications, file, and printer support. Current functions of 4700 Personal Computer Application Services that are available only via 4700 cluster-attached IBM Personal Computers will be enhanced and provided on 4702 LAN-attached IBM Personal Computers.

IBM also intends to offer an all IBM Personal Computer LAN system for finance environments. Gateway and finance server support on IBM Personal Computers will be provided. This LAN-based system is intended for those environments where host-controlled distributed data processing, as provided by the 4700 System, is currently not a major consideration.

Finally, IBM intends to provide retail banking software products for the intelligent finance workstation consistent with the IBM systems application architecture thereby providing the capability to protect application investments. IBM will focus on offering system software to enhance Personal Computer application development and providing Personal Computer applications for the teller and administrative functions. The use of 4700-based applications continues to be an excellent solution where applications can be used from dependent terminals and IBM Personal Computers emulating dependent terminals or used as intelligent workstations. Resource Manager 4700 will continue to provide the application development facilities and system services for 4700-based applications.

In summary, IBM will continue to enhance its finance system offerings by extending the capabilities of the 4702, more completely integrating the IBM Personal Computer as an intelligent workstation and providing programming interfaces that allow Personal Computer-based applications to be used in a variety of system environments.

The results of this direction are that customers can continue to implement finance systems solutions with the 4700, Personal

As of September 20, 1988

Computer- and Personal System/2-based workstations and combinations of these two approaches based on their specific application environment.

#### ECF REQUESTERS ON IBM OPERATING SYSTEM/2 EXTENDED EDITION

Letter 287-095; April 2, 1987

IBM plans to provide, subject to normal technical and business considerations, host connectivity support for IBM Operating System/2 Extended Edition. These PC resource extensions and host data access functions will be contained in the Enhanced Connectivity Facilities (ECF) products, which contain ECF requesters.

Availability of this function will be announced at a later date.

#### IBM OPERATING SYSTEM/2 ENHANCEMENTS

Letters 287-099, 287-095; April 2, 1987

To assist customers in their planning, IBM plans to provide the following enhancements to IBM Operating System/2 Standard Edition:

- Enhanced support for fixed disks to support partitions greater than 32MB
- Application development facilities for the Dialog Manager Interface.

IBM plans to provide the following enhancements to IBM Operating System/2 Extended Edition:

- Enhanced support for fixed disks to support partitions greater than 32MB (also listed above under IBM Operating System/2 Standard Edition enhancement)
- Application development facilities for the Dialog Manager Interface (also listed above under IBM Operating System/2 Standard Edition enhancement)
- Communications Manager
  - SNA Local Area Network gateway support
  - Additional support for Enhanced Connectivity Facilities
  - IBM 5250 Workstation Feature
  - X.25
  - IBM 3270 programming interface with the same functions as the Entry Emulator High-Level Language Application Program Interface (EEHLLAPI) of the IBM PC 3270 Emulation Program, Entry Level 1.1 and 1.2
- Data Base Manager
  - Remote data services (Local Area Network support)
    - ▲ Data base support for an IBM PC or an IBM Personal

System/2 on an IBM Token-Ring or an IBM PC Network

△ Multiple workstation access to a common data base

△ Single workstation access to a data base located elsewhere on a Local Area Network

- IBM COBOL/2 and IBM Pascal Compiler/2 precompiler support for SQL statements imbedded in applications programs written in IBM COBOL/2 and IBM Pascal Compiler/2
- Import utility support for nondelimited ASCII files to assist in importing data from other applications.

Availability information for planned enhancements will be provided at a later date.

#### 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.

#### OS/2 VERSION OF INTERNAL TAPE BACKUP PROGRAM

Letter 288-477; September 13, 1988

It is IBM's intention to support the OS/2 operating system by providing an OS/2 version of the PS/2 Internal Tape Backup Program. This intended announcement will be based on IBM's technical and business judgement. Further details will be published in the second quarter of 1989.

It is IBM's current intention for the PS/2 Internal Tape Backup Program and PS/2 Internal Tape Backup Unit to operate with extended length mini-tape cartridges when they become generally available in the marketplace. An American National Standard Institute (ANSI) standard for extended length cartridges is expected to be established in the future.

The use of extended length mini-tape cartridges with the PS/2 Internal Tape Backup Program and the PS/2 Internal Tape Backup

As of September 20, 1988

Unit will allow users to store and retrieve up to 120Mb of data on one minicartridge. IBM's future decision whether to support extended length tape cartridges will be based on IBM's technical evaluation of the ANSI standard as it is established.

#### 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.

#### 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 (Fulfilled for the System/36 in Letter 287-282; June 16, 1987).

#### 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

(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.

As of September 20, 1988

#### 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.

#### 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 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)

As of September 20, 1988

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.

#### 3270 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 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.

INDEX

Cross References

Feature Code-Ordering Vehicle

0005 - 4860-ZZZ	0234 - 5150-ZZZ	0633 - 5872-AAA	0791 - 5871-BBB
0006 - 4860-ZZZ	0235 - 5150-ZZZ	0634 - 5872-AAA	0791 - 5875-MMM
0007 - 4860-ZZZ	0236 - 5150-ZZZ	0637 - 5874-AAA	0792 - 5871-BBB
0008 - 4860-ZZZ	0237 - 5150-ZZZ	0638 - 5874-AAA	0792 - 5875-MMM
0009 - 4860-ZZZ	0238 - 5271-001	0639 - 5872-AAA	0802 - 5871-AAA
0010 - 4860-ZZZ	0242 - 5150-ZZZ	0640 - 5872-AAA	0803 - 5871-AAA
0012 - 4860-ZZZ	0349 - 8550-ZZZ	0641 - 5876-AAA	0805 - 5871-AAA
0013 - 4860-ZZZ	0357 - 5150-ZZZ	0642 - 5876-AAA	0809 - 5871-AAA
0020 - 5140-ZZZ	0359 - 5150-ZZZ	0644 - 5874-AAA	0810 - 5871-AAA
0021 - 5140-ZZZ	0360 - 5150-ZZZ	0645 - 5872-AAA	0811 - 5871-AAA
0022 - 4860-ZZZ	0370 - 8217-ZZZ	0646 - 5876-AAA	0812 - 5871-AAA
0023 - 4860-ZZZ	0371 - 8217-ZZZ	0648 - 5872-AAA	0813 - 5871-AAA
0024 - 4860-ZZZ	0456 - 5373-ZZZ	0650 - 5876-AAA	0816 - 5871-AAA
0026 - 4860-ZZZ	0468 - 5150-ZZZ	0651 - 5872-AAA	0818 - 5871-AAA
0027 - 4860-ZZZ	0489 - 5872-AAA	0652 - 5872-AAA	0820 - 5871-AAA
0031 - 4860-ZZZ	0490 - 5874-AAA	0653 - 5872-AAA	0822 - 5871-AAA
0049 - 5871-AAA	0601 - 5872-AAA	0656 - 5874-AAA	0823 - 5876-AAA
0061 - 5871-AAA	0602 - 5872-AAA	0657 - 5874-AAA	0824 - 5871-AAA
0066 - 5150-ZZZ	0603 - 5872-AAA	0658 - 5874-AAA	0826 - 5871-AAA
0070 - 5150-ZZZ	0604 - 5872-AAA	0659 - 5874-AAA	0828 - 5871-AAA
0102 - 5150-ZZZ	0605 - 5872-AAA	0660 - 5876-AAA	0832 - 5873-AAA
0111 - 5150-ZZZ	0606 - 5872-AAA	0661 - 5873-AAA	0833 - 5873-AAA
0112 - 5150-ZZZ	0607 - 5872-AAA	0662 - 5873-AAA	0834 - 5873-AAA
0202 - 5150-ZZZ	0608 - 5872-AAA	0663 - 5872-BBB	0835 - 5871-AAA
0206 - 5150-ZZZ	0609 - 5872-AAA	0664 - 5874-BBB	0836 - 5873-AAA
0207 - 5150-ZZZ	0611 - 5872-BBB	0665 - 5876-BBB	0837 - 5871-AAA
0210 - 5150-ZZZ	0612 - 5872-BBB	0666 - 5872-AAA	0841 - 5871-AAA
0211 - 5150-ZZZ	0613 - 5872-BBB	0668 - 5876-BBB	0842 - 5871-AAA
0215 - 5150-ZZZ	0614 - 5872-BBB	0708 - 5870-LLA	0849 - 5871-AAA
0216 - 5150-ZZZ	0615 - 5872-BBB	0708 - 5871-AAA	0851 - 5872-AAA
0217 - 5150-ZZZ	0616 - 5872-BBB	0716 - 5872-AAA	0869 - 5871-AAA
0218 - 5150-ZZZ	0617 - 5872-BBB	0740 - 5871-AAA	0870 - 5871-AAA
0220 - 5150-ZZZ	0619 - 5874-AAA	0740 - 5875-MMA	0871 - 5875-UPG
0230 - 5150-ZZZ	0620 - 5874-AAA	0741 - 5871-AAA	0872 - 5872-AAA
0231 - 5150-ZZZ	0621 - 5874-AAA	0741 - 5875-MMA	0873 - 5872-AAA
0232 - 5150-ZZZ	0626 - 5876-BBB	0742 - 5870-LLA	0874 - 5876-AAA
0233 - 5150-ZZZ	0627 - 5876-BBB	0742 - 5871-AAA	0875 - 5872-AAA
	0628 - 5876-BBB	0743 - 5871-AAA	0876 - 5876-AAA
	0629 - 5876-BBB	0743 - 5875-MMA	0877 - 5872-AAA
	0630 - 5876-BBB	0744 - 5871-AAA	0878 - 5876-AAA
	0631 - 5872-AAA	0790 - 5871-BBB	0879 - 5872-AAA
	0632 - 5876-AAA	0790 - 5875-MMM	0880 - 5876-AAA



As of September 20, 1988

0881 - 5872-AAA	0955 - 5871-BBB	1186 - 5870-LLA	2004 - 5871-AAA
0882 - 5876-AAA	0956 - 5871-AAA	1200 - 5150-ZZZ	2005 - 5793-AAP
0883 - 5872-AAA	0957 - 5871-AAA	1201 - 5150-ZZZ	2067 - 5150-ZZZ
0884 - 5876-AAA	0961 - 5871-BBB	1203 - 5150-ZZZ	2074 - 5150-ZZZ
0885 - 5871-AAA	0962 - 5871-BBB	1204 - 5150-ZZZ	2098 - 5719-XJ5
0885 - 5871-BBB	0963 - 5871-BBB	1205 - 5150-ZZZ	2105 - 5799-BKE
0908 - 5871-AAA	0964 - 5871-BBB	1206 - 5150-ZZZ	2108 - 5710-RTJ
0908 - 5875-MMA	0965 - 5871-BBB	1207 - 5150-ZZZ	2109 - 5710-RTJ
0915 - 5871-AAA	0966 - 5871-BBB	1209 - 5150-ZZZ	2110 - 5710-RTJ
0915 - 5875-MMA	0967 - 5871-BBB	1220 - 8530-ZZZ	2113 - 5798-RRJ
0916 - 5871-AAA	0968 - 5871-BBB	1221 - 8530-ZZZ	2122 - 5719-PJ7
0923 - 5871-AAA	0969 - 5871-BBB	1222 - 8550-ZZZ	2123 - 5719-CN1
0925 - 5871-AAA	0970 - 5871-BBB	1223 - 8550-ZZZ	2154 - 5719-EM1
0927 - 5871-AAA	0971 - 5871-BBB	1226 - 8530-ZZZ	2175 - 5719-PJ7
0928 - 5871-AAA	0972 - 5871-BBB	1227 - 8530-ZZZ	2177 - 5719-XJ5
0929 - 5871-AAA	0973 - 5871-BBB	1228 - 8530-ZZZ	2205 - 5364-???
0930 - 5871-AAA	0974 - 5871-BBB	1229 - 8530-ZZZ	2229 - 5150-ZZZ
0931 - 5871-AAA	0975 - 5871-BBB	1300 - 5150-ZZZ	2290 - 4860-ZZZ
0931 - 5875-MMA	0976 - 5871-BBB	1356 - 6150-ZZZ	2292 - 4860-ZZZ
0934 - 5871-AAA	0977 - 5871-BBB	1357 - 6150-ZZZ	2293 - 4860-ZZZ
0934 - 5875-MMA	0978 - 5871-BBB	1400 - 5150-ZZZ	2294 - 4860-ZZZ
0935 - 5871-AAA	0979 - 5871-BBB	1406 - 5871-AAA	2336 - 5150-ZZZ
0935 - 5875-MMA	0980 - 5871-BBB	1407 - 5871-AAA	2337 - 5150-ZZZ
0936 - 5870-LLA	0981 - 5871-BBB	1408 - 5876-AAA	2383 - 5150-ZZZ
0936 - 5871-AAA	0982 - 5871-BBB	1409 - 5876-AAA	2400 - 6150-ZZZ
0937 - 5871-AAA	0983 - 5871-BBB	1418 - 5871-AAA	2416 - 5875-UPG
0937 - 5875-MMA	0984 - 5871-BBB	1419 - 5871-AAA	2422 - 8530-ZZZ
0938 - 5871-AAA	0985 - 5871-BBB	1420 - 5871-AAA	2447 - 5870-LLA
0938 - 5875-MMA	0986 - 5871-BBB	1421 - 5871-AAA	2447 - 5871-AAA
0939 - 5870-LLA	0987 - 5871-BBB	1423 - 5872-AAA	2448 - 5870-LLA
0939 - 5871-AAA	0988 - 5871-BBB	1424 - 5876-AAA	2448 - 5871-AAA
0940 - 5870-LLA	0989 - 5871-BBB	1425 - 5873-BBB	2449 - 5870-LLA
0940 - 5871-AAA	0990 - 5871-BBB	1426 - 5873-BBB	2449 - 5871-AAA
0941 - 5871-AAA	0991 - 5871-BBB	1427 - 5874-BBB	2505 - 5150-ZZZ
0941 - 5875-MMA	0992 - 5871-BBB	1430 - 5873-AAA	2509 - 5150-ZZZ
0942 - 5870-LLA	0993 - 5871-BBB	1431 - 5873-AAA	2510 - 5150-ZZZ
0942 - 5871-AAA	0994 - 5871-BBB	1432 - 5874-AAA	2511 - 5150-ZZZ
0943 - 5871-AAA	0995 - 5871-BBB	1435 - 5871-AAA	2527 - 5150-ZZZ
0943 - 5875-MMA	0996 - 5871-BBB	1502 - 5150-ZZZ	2529 - 5150-ZZZ
0944 - 5870-LLA	0997 - 5871-BBB	1503 - 5150-ZZZ	2871 - 5150-ZZZ
0944 - 5871-AAA	0998 - 5871-BBB	1504 - 5150-ZZZ	2874 - 5871-AAA
0945 - 5871-AAA	1001 - 5150-ZZZ	1508 - 5871-AAA	2874 - 5875-MMA
0945 - 5875-MMA	1002 - 5150-ZZZ	1508 - 5875-MMA	2877 - 5150-ZZZ
0946 - 5870-LLA	1003 - 5150-ZZZ	1511 - 5083-???	2883 - 5150-ZZZ
0946 - 5871-AAA	1013 - 5150-ZZZ	1511 - 5371-ZZZ	2887 - 5150-ZZZ
0947 - 5871-AAA	1023 - 5872-AAA	1519 - 5871-AAA	2889 - 5150-ZZZ
0947 - 5875-MMA	1028 - 8550-ZZZ	1519 - 5875-MMA	2891 - 5150-ZZZ
0948 - 5870-LLA	1029 - 8550-ZZZ	2000 - 5793-AAN	2892 - 5150-ZZZ
0948 - 5871-AAA	1078 - 5150-ZZZ	2000 - 8550-ZZZ	2893 - 5150-ZZZ
0949 - 5871-AAA	1081 - 5871-AAA	2001 - 5793-AAN	2894 - 5150-ZZZ
0949 - 5875-MMA	1121 - 5871-BBB	2002 - 5793-AAN	2908 - 5872-BBB
0950 - 5870-LLA	1122 - 5871-BBB	2003 - 5793-AAN	2910 - 5871-AAA
0950 - 5871-AAA	1123 - 5873-BBB	2003 - 5871-AAA	2910 - 5875-MMA
0951 - 5871-AAA	1124 - 5873-BBB	2003 - 5875-MMA	2911 - 5150-ZZZ
0951 - 5875-MMA	1147 - 5872-AAA	2004 - 5793-AAP	2911 - 8530-ZZZ
0955 - 5870-LLL	1148 - 5872-AAA	2004 - 5870-LLA	2912 - 5871-AAA

As of September 20, 1988

2912 - 5875-MMA	3012 - 5668-899	3052 - 1598-S11	3202 - 8530-ZZZ
2980 - 5150-ZZZ	3012 - 5668-996	3053 - 1598-S11	3203 - 8530-ZZZ
3000 - 5150-ZZZ	3012 - 5740-M52	3054 - 1598-S11	3208 - 5150-ZZZ
3000 - 5664-172	3012 - 8550-ZZZ	3056 - 1598-S11	3210 - 5150-ZZZ
3000 - 5669-212	3013 - 5668-011	3057 - 1598-S07	3211 - 5150-ZZZ
3000 - 5734-PL3	3013 - 5740-M53	3057 - 8550-ZZZ	3212 - 5150-ZZZ
3000 - 5748-F03	3014 - 5668-012	3058 - 1598-S07	3215 - 5150-ZZZ
3001 - 5271-ZZZ	3014 - 5740-M53	3059 - 1598-S07	3216 - 5150-ZZZ
3001 - 5664-172	3015 - 5668-960	3060 - 1598-S07	3223 - 5872-AAA
3001 - 5669-212	3015 - 5740-XM3	3061 - 1598-S07	3228 - 5871-BBB
3001 - 5734-LM5	3016 - 5740-XM3	3062 - 1598-S07	3229 - 5871-BBB
3001 - 5748-LM3	3019 - 8550-ZZZ	3063 - 1598-S07	3232 - 5871-BBB
3001 - 8218-001	3020 - 3820-001	3063 - 5150-ZZZ	3233 - 5871-BBB
3001 - 8219-001	3020 - 5668-899	3064 - 1598-S07	3241 - 5876-BBB
3001 - 8550-ZZZ	3021 - 5668-899	3064 - 5150-ZZZ	3242 - 5872-BBB
3002 - 5664-185	3025 - 3820-001	3064 - 8550-ZZZ	3243 - 5876-BBB
3002 - 5668-962	3025 - 5150-ZZZ	3065 - 3820-001	3244 - 5872-BBB
3002 - 5734-LM4	3025 - 5710-RTJ	3075 - 5150-ZZZ	3246 - 5871-AAA
3002 - 8218-001	3025 - 5796-PNQ	3085 - 5150-ZZZ	3247 - 5871-AAA
3002 - 8219-001	3026 - 5710-RTJ	3087 - 5150-ZZZ	3248 - 5872-AAA
3002 - 8550-ZZZ	3027 - 5710-RTJ	3088 - 5150-ZZZ	3249 - 5872-AAA
3003 - 5664-189	3028 - 5710-RTJ	3089 - 5150-ZZZ	3250 - 5876-AAA
3003 - 5668-996	3028 - 5796-PNQ	3090 - 5150-ZZZ	3251 - 5871-BBB
3003 - 5734-CB4	3030 - 1598-S05	3091 - 5150-ZZZ	3251 - 5876-AAA
3003 - 5748-XX9	3030 - 3812-001	3092 - 5150-ZZZ	3252 - 5872-BBB
3004 - 5664-189	3030 - 3820-001	3093 - 5150-ZZZ	3252 - 5873-AAA
3004 - 5734-CB4	3031 - 1598-S05	3098 - 5150-ZZZ	3253 - 5871-BBB
3004 - 5748-MS1	3032 - 1598-S05	3099 - 5150-ZZZ	3254 - 5872-BBB
3005 - 3117-010	3033 - 1598-S05	3100 - 1598-S12	3255 - 5871-AAA
3005 - 5085-???	3033 - 8550-ZZZ	3100 - 5150-ZZZ	3255 - 5871-BBB
3005 - 5734-PL3	3034 - 1598-S05	3101 - 1598-S12	3256 - 5873-AAA
3005 - 5748-XXB	3035 - 1598-S05	3102 - 1598-S12	3257 - 5871-AAA
3006 - 5668-903	3035 - 5799-BTB	3102 - 5150-ZZZ	3258 - 5150-ZZZ
3006 - 5734-LM5	3037 - 5798-BDW	3103 - 1598-S12	3264 - 5871-BBB
3006 - 5740-CB1	3038 - 1598-S05	3108 - 5150-ZZZ	3265 - 5876-BBB
3006 - 5748-F03	3039 - 1598-S05	3109 - 5150-ZZZ	3266 - 5872-BBB
3006 - 8550-ZZZ	3040 - 3812-001	3110 - 5150-ZZZ	3266 - 5874-AAA
3007 - 5150-ZZZ	3040 - 3820-001	3112 - 5278-001	3267 - 5873-BBB
3007 - 5668-960	3041 - 6152-ZZZ	3112 - 5373-ZZZ	3268 - 5874-BBB
3007 - 5734-LM4	3042 - 8550-ZZZ	3113 - 5373-ZZZ	3269 - 5871-AAA
3007 - 5740-LM1	3043 - 1598-S01	3115 - 3812-001	3270 - 5872-AAA
3007 - 5748-LM3	3043 - 8550-ZZZ	3125 - 3812-001	3270 - 5876-AAA
3008 - 5150-ZZZ	3044 - 5798-PXJ	3130 - 3812-001	3271 - 5871-AAA
3008 - 5668-011	3045 - 3820-001	3135 - 3812-001	3272 - 5871-AAA
3008 - 5740-CB1	3045 - 5798-PXJ	3140 - 3812-001	3272 - 6150-ZZZ
3008 - 5748-XX9	3046 - 8550-ZZZ	3155 - 3812-002	3277 - 5872-BBB
3009 - 5668-012	3047 - 1598-S10	3156 - 6150-ZZZ	3282 - 5871-BBB
3009 - 5740-LM1	3047 - 5798-DYF	3157 - 6150-ZZZ	3286 - 5871-BBB
3009 - 5748-XXB	3048 - 1598-S10	3158 - 6150-ZZZ	3287 - 5873-BBB
3009 - 8550-ZZZ	3049 - 1598-S10	3165 - 6150-ZZZ	3288 - 5872-BBB
3010 - 3820-001	3050 - 1598-S10	3169 - 6150-ZZZ	3295 - 5272-BBB
3010 - 5668-903	3050 - 3812-001	3171 - 6150-ZZZ	3320 - 4683-00?
3010 - 5748-MS1	3050 - 3820-001	3177 - 5150-ZZZ	3322 - 4683-00?
3011 - 5668-899	3051 - 1598-S09	3200 - 5150-ZZZ	3323 - 4683-00?
3011 - 5668-962	3051 - 6152-ZZZ	3200 - 8530-ZZZ	3325 - 4683-00?
3011 - 5740-M52	3051 - 8550-ZZZ	3201 - 8530-ZZZ	3325 - 5150-ZZZ

As of September 20, 1988

3326 - 4683-00?	4000 - 5150-ZZZ	4050 - 5083-???	4096 - 5669-032
3326 - 5150-ZZZ	4000 - 5601-060	4050 - 8530-ZZZ	4096 - 5875-XXX
3327 - 5150-ZZZ	4001 - 4683-00?	4051 - 5870-LLA	4097 - 5875-XXX
3330 - 4683-00?	4001 - 495?-???	4051 - 5871-AAA	4098 - 5875-XXX
3336 - 5150-ZZZ	4001 - 8530-ZZZ	4052 - 5870-LLA	4099 - 5875-XXX
3337 - 5150-ZZZ	4002 - 4683-00?	4052 - 5871-AAA	4101 - 4860-ZZZ
3338 - 5150-ZZZ	4002 - 8530-ZZZ	4053 - 5870-LLA	4103 - 8530-ZZZ
3339 - 4683-00?	4003 - 4683-00?	4053 - 5871-AAA	4104 - 5870-LLA
3339 - 5150-ZZZ	4005 - 5140-ZZZ	4054 - 8550-ZZZ	4104 - 5871-AAA
3340 - 4683-00?	4010 - 4683-00?	4055 - 5140-ZZZ	4105 - 8530-ZZZ
3342 - 4683-00?	4010 - 5083-???	4060 - 5140-ZZZ	4106 - 8530-ZZZ
3343 - 4683-00?	4010 - 5140-ZZZ	4063 - 5870-LLA	4107 - 8530-ZZZ
3343 - 5150-ZZZ	4012 - 4683-00?	4063 - 5871-AAA	4109 - 5875-XXX
3344 - 4683-00?	4013 - 5870-LLA	4065 - 5140-ZZZ	4110 - 8530-ZZZ
3345 - 4683-00?	4013 - 5871-AAA	4065 - 5871-AAA	4112 - 5875-XXX
3357 - 4683-00?	4014 - 4683-00?	4065 - 5875-MMA	4113 - 5870-LLA
3358 - 4683-00?	4015 - 5140-ZZZ	4066 - 5875-XXX	4113 - 5871-AAA
3360 - 4683-00?	4016 - 4683-00?	4067 - 5870-LLA	4115 - 8530-ZZZ
3361 - 4683-00?	4020 - 4683-00?	4067 - 5871-AAA	4116 - 4860-ZZZ
3364 - 4683-00?	4020 - 5083-???	4069 - 5870-LLA	4117 - 5870-LLA
3365 - 4683-00?	4020 - 5140-ZZZ	4069 - 5871-AAA	4117 - 5871-AAA
3370 - 5273-ZZZ	4022 - 4683-00?	4071 - 5870-LLA	4118 - 5870-LLA
3380 - 4683-00?	4023 - 5875-XXX	4071 - 5871-AAA	4118 - 5871-AAA
3384 - 4683-00?	4024 - 4683-00?	4072 - 5875-XXX	4120 - 5870-LLA
3385 - 4683-00?	4024 - 5875-XXX	4075 - 5140-ZZZ	4120 - 5871-AAA
3390 - 5150-ZZZ	4025 - 5083-???	4075 - 5870-LLA	4121 - 5727-WS6
3390 - 6150-ZZZ	4025 - 5140-ZZZ	4075 - 5871-AAA	4121 - 5870-LLA
3391 - 5150-ZZZ	4025 - 5669-024	4076 - 5140-ZZZ	4121 - 5871-AAA
3397 - 5150-ZZZ	4025 - 5875-XXX	4076 - 5871-AAA	4122 - 5727-LC6
3397 - 8550-ZZZ	4026 - 4683-00?	4076 - 5875-MMA	4122 - 5870-LLA
3404 - 5150-ZZZ	4026 - 5140-ZZZ	4078 - 5875-DDD	4122 - 5871-AAA
3406 - 5150-ZZZ	4026 - 5669-031	4079 - 5875-DDD	4123 - 5870-LLA
3408 - 5150-ZZZ	4026 - 5871-AAA	4080 - 5140-ZZZ	4123 - 5871-AAA
3428 - 6150-ZZZ	4026 - 5875-MMA	4080 - 5150-ZZZ	4124 - 5870-LLA
3466 - 4683-00?	4027 - 5871-AAA	4081 - 5870-LLA	4124 - 5871-AAA
3468 - 6150-ZZZ	4027 - 5875-MMA	4081 - 5871-AAA	4129 - 5870-LLA
3470 - 6150-ZZZ	4028 - 4683-00?	4081 - 8550-ZZZ	4129 - 5871-AAA
3506 - 6150-ZZZ	4028 - 5798-FAL	4082 - 5140-ZZZ	4136 - 5870-LLA
3520 - 5271-ZZZ	4028 - 5871-AAA	4083 - 5870-LLA	4136 - 5871-AAA
3530 - 5271-ZZZ	4028 - 5875-MMA	4083 - 5871-AAA	4137 - 5870-LLA
3540 - 6150-ZZZ	4029 - 5871-AAA	4084 - 5870-LLA	4137 - 5871-AAA
3544 - 5150-ZZZ	4029 - 5875-MMA	4084 - 5871-AAA	4139 - 5870-LLA
3606 - 5364-???	4030 - 4683-00?	4085 - 5140-ZZZ	4139 - 5871-AAA
3619 - 5150-ZZZ	4030 - 5798-FAL	4085 - 5870-LLA	4143 - 5871-AAA
3641 - 5364-???	4030 - 5871-AAA	4085 - 5871-AAA	4143 - 5875-MMA
3653 - 5871-AAA	4030 - 5875-MMA	4086 - 5870-LLA	4156 - 5150-ZZZ
3653 - 5875-MMM	4032 - 4683-00?	4086 - 5871-AAA	4157 - 5871-AAA
3678 - 6150-ZZZ	4032 - 5798-FAL	4088 - 5140-ZZZ	4157 - 5875-MMA
3797 - 6150-ZZZ	4034 - 4683-00?	4090 - 5140-ZZZ	4160 - 8550-ZZZ
3905 - 8530-ZZZ	4034 - 5798-FAL	4091 - 5669-031	4165 - 5871-AAA
3907 - 5371-ZZZ	4035 - 5871-AAA	4092 - 5669-031	4165 - 5875-MMA
3910 - 5271-ZZZ	4035 - 5875-MMA	4094 - 5669-032	4167 - 5875-DDD
3913 - 6150-ZZZ	4040 - 4683-00?	4094 - 5875-XXX	4172 - 5870-LLA
3988 - 6150-ZZZ	4040 - 5140-ZZZ	4095 - 5140-ZZZ	4172 - 5871-AAA
4000 - 4683-00?	4048 - 5871-AAA	4095 - 5669-032	4174 - 5150-ZZZ
4000 - 495?-???	4048 - 5875-MMA	4095 - 5875-XXX	4175 - 5871-AAA

As of September 20, 1988

4175 - 5875-MMA	4330 - 5871-AAA	4365 - 5871-AAA	4397 - 5871-AAA
4176 - 5150-ZZZ	4330 - 5875-MMA	4365 - 5875-MMA	4397 - 5875-MMA
4187 - 5871-AAA	4333 - 5870-LLA	4366 - 5871-AAA	4400 - 5727-WS1
4187 - 5875-MMA	4333 - 5871-AAA	4366 - 5875-MMA	4401 - 5727-WS1
4190 - 5871-AAA	4334 - 5870-LLA	4368 - 5871-AAA	4401 - 5871-BBB
4190 - 5875-MMA	4334 - 5871-AAA	4368 - 5875-MMA	4402 - 5870-LLA
4192 - 4683-00?	4336 - 5871-AAA	4369 - 5871-AAA	4402 - 5871-AAA
4197 - 5871-AAA	4336 - 5875-MMA	4369 - 5875-MMA	4403 - 5727-LC1
4197 - 5875-MMA	4337 - 5871-AAA	4370 - 5871-AAA	4403 - 5870-LLA
4201 - 5870-LLA	4337 - 5875-MMA	4370 - 5875-MMA	4403 - 5871-AAA
4201 - 5871-AAA	4338 - 5871-AAA	4371 - 5871-AAA	4404 - 5727-LC1
4202 - 5871-AAA	4338 - 5875-MMA	4371 - 5875-MMA	4404 - 5870-LLA
4202 - 5875-MMA	4339 - 5870-LLA	4372 - 5871-AAA	4404 - 5871-AAA
4210 - 5871-AAA	4339 - 5871-AAA	4372 - 5875-MMA	4405 - 5870-LLA
4210 - 5875-MMA	4340 - 5871-AAA	4374 - 5871-AAA	4405 - 5871-AAA
4239 - 8550-ZZZ	4340 - 5871-COM	4374 - 5875-MMA	4406 - 5871-AAA
4293 - 5870-LLA	4343 - 5870-LLA	4375 - 5871-AAA	4406 - 5875-MMA
4293 - 5871-AAA	4343 - 5871-AAA	4375 - 5875-MMA	4407 - 5870-LLA
4294 - 5870-LLA	4344 - 5870-LLA	4376 - 5871-AAA	4407 - 5871-AAA
4294 - 5871-AAA	4344 - 5871-AAA	4376 - 5875-MMA	4408 - 5870-LLA
4297 - 5870-LLA	4345 - 5870-LLA	4377 - 5871-AAA	4408 - 5871-AAA
4297 - 5871-AAA	4345 - 5871-AAA	4377 - 5875-MMA	4409 - 5870-LLA
4304 - 5870-LLA	4346 - 5870-LLA	4378 - 5871-AAA	4409 - 5871-AAA
4304 - 5871-AAA	4346 - 5871-AAA	4378 - 5875-MMA	4410 - 5798-DWG
4305 - 5870-LLA	4347 - 5870-LLA	4379 - 5871-AAA	4410 - 5870-LLA
4305 - 5871-AAA	4347 - 5871-AAA	4379 - 5875-MMA	4410 - 5871-AAA
4306 - 5871-AAA	4348 - 5870-LLA	4380 - 5871-AAA	4411 - 5798-DWG
4306 - 5875-MMA	4348 - 5871-AAA	4380 - 5875-MMA	4411 - 5870-LLA
4307 - 5870-LLA	4349 - 5870-LLA	4381 - 5871-AAA	4411 - 5871-AAA
4307 - 5871-AAA	4349 - 5871-AAA	4381 - 5875-MMA	4412 - 5870-LLA
4308 - 5870-LLA	4350 - 5870-LLA	4382 - 5871-AAA	4412 - 5871-AAA
4308 - 5871-AAA	4350 - 5871-AAA	4382 - 5875-MMA	4413 - 5870-LLA
4316 - 5870-LLA	4351 - 5870-LLA	4384 - 5871-AAA	4413 - 5871-AAA
4316 - 5871-AAA	4351 - 5871-AAA	4384 - 5875-MMA	4414 - 5870-LLA
4317 - 5870-LLA	4352 - 5870-LLA	4386 - 5871-AAA	4414 - 5871-AAA
4317 - 5871-AAA	4352 - 5871-AAA	4386 - 5875-MMA	4415 - 5870-LLA
4318 - 5870-LLA	4353 - 5870-LLA	4387 - 5871-AAA	4415 - 5871-AAA
4318 - 5871-AAA	4353 - 5871-AAA	4387 - 5875-MMA	4416 - 5870-LLA
4319 - 5870-LLA	4354 - 5870-LLA	4388 - 5871-AAA	4416 - 5871-AAA
4319 - 5871-AAA	4354 - 5871-AAA	4388 - 5875-MMA	4417 - 5871-AAA
4320 - 5870-LLA	4355 - 5871-AAA	4389 - 5871-AAA	4417 - 5875-MMA
4320 - 5871-AAA	4355 - 5875-MMA	4389 - 5875-MMA	4419 - 5871-AAA
4321 - 5870-LLA	4356 - 5871-AAA	4390 - 5871-AAA	4419 - 5875-MMA
4321 - 5871-AAA	4356 - 5875-MMA	4390 - 5875-MMA	4421 - 5871-AAA
4322 - 5870-LLA	4357 - 5871-AAA	4391 - 5871-AAA	4421 - 5875-MMA
4322 - 5871-AAA	4357 - 5875-MMA	4391 - 5875-MMA	4422 - 5871-AAA
4323 - 5870-LLA	4358 - 5871-AAA	4392 - 5871-AAA	4422 - 5875-MMA
4323 - 5871-AAA	4358 - 5875-MMA	4392 - 5875-MMA	4427 - 5871-AAA
4324 - 5870-LLA	4359 - 5871-AAA	4393 - 5871-AAA	4427 - 5875-MMA
4324 - 5871-AAA	4359 - 5875-MMA	4393 - 5875-MMA	4429 - 5871-AAA
4325 - 5870-LLA	4360 - 5871-AAA	4394 - 5871-AAA	4429 - 5875-MMA
4325 - 5871-AAA	4360 - 5875-MMA	4394 - 5875-MMA	4430 - 5601-204
4326 - 5870-LLA	4363 - 5871-AAA	4395 - 5871-AAA	4431 - 5870-LLA
4326 - 5871-AAA	4363 - 5875-MMA	4395 - 5875-MMA	4431 - 5871-AAA
4327 - 5870-LLA	4364 - 5871-AAA	4396 - 5871-AAA	4432 - 5870-LLA
4327 - 5871-AAA	4364 - 5875-MMA	4396 - 5875-MMA	4432 - 5871-AAA

As of September 20, 1988

4437 - 5871-AAA	4474 - 5870-LLA	4539 - 5871-AAA	4566 - 5871-COM
4437 - 5875-MMA	4474 - 5871-AAA	4539 - 5871-COM	4567 - 5871-AAA
4438 - 5871-AAA	4500 - 4683-00?	4540 - 5871-AAA	4567 - 5871-COM
4438 - 5875-MMA	4502 - 5871-BBB	4540 - 5871-COM	4568 - 5871-AAA
4439 - 5871-AAA	4503 - 5871-BBB	4541 - 5871-AAA	4568 - 5871-COM
4439 - 5875-MMA	4504 - 5871-BBB	4541 - 5871-COM	4569 - 5871-AAA
4440 - 5871-AAA	4504 - 5875-MMM	4542 - 5871-AAA	4569 - 5871-COM
4440 - 5875-MMA	4505 - 5871-BBB	4542 - 5871-COM	4570 - 5871-AAA
4441 - 5871-AAA	4505 - 5875-MMM	4543 - 5871-AAA	4570 - 5871-COM
4441 - 5875-MMA	4506 - 5871-AAA	4543 - 5871-COM	4571 - 5871-AAA
4442 - 5871-AAA	4507 - 5871-AAA	4544 - 5601-101	4571 - 5871-COM
4442 - 5875-MMA	4508 - 5871-AAA	4544 - 5871-AAA	4572 - 5871-AAA
4443 - 5871-AAA	4509 - 5871-AAA	4544 - 5871-COM	4572 - 5871-COM
4443 - 5875-MMA	4510 - 5871-AAA	4545 - 5871-AAA	4573 - 5871-AAA
4444 - 5871-AAA	4511 - 5871-AAA	4545 - 5871-COM	4573 - 5871-COM
4444 - 5875-MMA	4512 - 5601-061	4546 - 5871-AAA	4574 - 5871-AAA
4445 - 5871-AAA	4513 - 5871-AAA	4546 - 5871-COM	4574 - 5871-COM
4445 - 5875-MMA	4513 - 5871-COM	4547 - 5664-298	4575 - 5871-AAA
4446 - 5871-AAA	4514 - 5601-062	4547 - 5871-AAA	4575 - 5871-COM
4446 - 5875-MMA	4514 - 5871-AAA	4547 - 5871-COM	4576 - 5871-AAA
4447 - 5871-COM	4515 - 5871-AAA	4548 - 5364-???	4576 - 5871-COM
4447 - 5875-MMA	4516 - 5871-AAA	4549 - 5871-AAA	4577 - 5871-AAA
4449 - 5875-UPG	4517 - 5871-AAA	4549 - 5871-COM	4577 - 5871-COM
4450 - 5871-AAA	4518 - 5601-064	4550 - 5871-AAA	4578 - 5871-AAA
4450 - 5875-MMA	4518 - 5871-AAA	4550 - 5871-COM	4578 - 5871-COM
4451 - 5871-AAA	4519 - 5871-AAA	4551 - 5871-AAA	4579 - 5871-AAA
4451 - 5875-MMA	4520 - 5871-AAA	4551 - 5871-COM	4579 - 5871-COM
4452 - 5871-AAA	4521 - 5871-AAA	4552 - 5871-AAA	4580 - 5871-AAA
4452 - 5875-MMA	4522 - 5871-AAA	4552 - 5871-COM	4580 - 5871-COM
4453 - 5871-AAA	4523 - 5871-AAA	4553 - 5871-AAA	4581 - 5871-AAA
4453 - 5875-MMA	4526 - 5871-AAA	4553 - 5871-COM	4581 - 5871-COM
4454 - 5871-AAA	4526 - 5871-COM	4554 - 5871-AAA	4582 - 5714-PC1
4454 - 5875-MMA	4527 - 5871-AAA	4554 - 5871-COM	4582 - 5871-AAA
4457 - 5871-BBB	4527 - 5871-COM	4555 - 3117-010	4582 - 5871-COM
4457 - 5875-MMM	4528 - 5871-AAA	4556 - 5871-AAA	4583 - 5871-AAA
4458 - 5871-BBB	4528 - 5871-COM	4556 - 5871-COM	4583 - 5871-COM
4458 - 5875-MMM	4529 - 5871-AAA	4557 - 5871-AAA	4584 - 5871-AAA
4459 - 5871-BBB	4529 - 5871-COM	4557 - 5871-COM	4584 - 5871-COM
4459 - 5875-MMM	4530 - 5871-AAA	4558 - 5871-AAA	4585 - 5871-AAA
4460 - 5871-BBB	4530 - 5871-COM	4558 - 5871-COM	4585 - 5871-COM
4460 - 5875-MMM	4531 - 5871-AAA	4559 - 5871-AAA	4586 - 5871-AAA
4461 - 5871-BBB	4531 - 5871-COM	4559 - 5871-COM	4586 - 5871-COM
4461 - 5875-MMM	4532 - 5871-AAA	4560 - 5871-AAA	4587 - 5871-AAA
4464 - 5870-LLA	4532 - 5871-COM	4560 - 5871-COM	4587 - 5871-COM
4464 - 5871-AAA	4533 - 5871-AAA	4561 - 5871-AAA	4588 - 5871-AAA
4465 - 5870-LLA	4533 - 5871-COM	4561 - 5871-COM	4588 - 5871-COM
4465 - 5871-AAA	4534 - 5871-AAA	4562 - 5871-AAA	4589 - 5871-AAA
4466 - 5870-LLA	4534 - 5871-COM	4562 - 5871-COM	4589 - 5871-COM
4466 - 5871-AAA	4535 - 5871-AAA	4563 - 5871-AAA	4590 - 5871-AAA
4467 - 5871-AAA	4535 - 5871-COM	4563 - 5871-COM	4590 - 5871-COM
4467 - 5875-MMA	4536 - 5871-AAA	4564 - 5871-AAA	4591 - 5601-052
4468 - 5871-AAA	4536 - 5871-COM	4564 - 5871-COM	4591 - 5871-AAA
4468 - 5875-MMA	4537 - 5871-AAA	4565 - 5871-AAA	4591 - 5871-COM
4469 - 5150-MNL	4537 - 5871-COM	4565 - 5871-COM	4592 - 5871-AAA
4473 - 5870-LLA	4538 - 5871-AAA	4566 - 5664-298	4592 - 5871-COM
4473 - 5871-AAA	4538 - 5871-COM	4566 - 5871-AAA	4593 - 5871-AAA

As of September 20, 1988

4593 - 5871-COM	4619 - 5871-AAA	4662 - 5871-AAA	4704 - 5871-AAA
4594 - 5601-053	4620 - 5871-AAA	4663 - 5871-AAA	4704 - 6150-ZZZ
4594 - 5871-AAA	4621 - 5871-AAA	4664 - 5871-AAA	4705 - 5601-192
4594 - 5871-COM	4622 - 5740-XR1	4665 - 5871-AAA	4705 - 5871-AAA
4595 - 5871-AAA	4622 - 5871-AAA	4666 - 5871-AAA	4706 - 5871-AAA
4595 - 5871-COM	4623 - 5871-AAA	4667 - 5871-AAA	4707 - 5871-AAA
4596 - 5871-AAA	4624 - 5871-AAA	4668 - 5871-AAA	4708 - 5871-AAA
4596 - 5871-COM	4625 - 5871-AAA	4669 - 5871-AAA	4709 - 5871-AAA
4597 - 5871-AAA	4626 - 5871-AAA	4670 - 5871-AAA	4710 - 5871-AAA
4597 - 5871-COM	4627 - 5871-AAA	4671 - 5871-AAA	4710 - 6150-ZZZ
4598 - 5871-AAA	4628 - 5740-XR1	4672 - 5871-AAA	4711 - 5871-AAA
4598 - 5871-COM	4628 - 5871-AAA	4673 - 5871-AAA	4712 - 5871-AAA
4599 - 5871-AAA	4630 - 5871-AAA	4674 - 5871-AAA	4713 - 5871-AAA
4599 - 5871-COM	4631 - 5871-AAA	4675 - 5871-AAA	4714 - 5871-AAA
4600 - 5785-DFW	4632 - 5871-AAA	4676 - 5871-AAA	4715 - 5871-AAA
4600 - 5871-AAA	4633 - 5740-XR1	4677 - 5871-AAA	4716 - 5871-AAA
4600 - 5871-COM	4633 - 5871-AAA	4678 - 5871-AAA	4717 - 5871-AAA
4601 - 5669-161	4634 - 5740-XR1	4679 - 5601-192	4718 - 5871-AAA
4601 - 5785-DFW	4634 - 5871-AAA	4679 - 5871-AAA	4719 - 5871-AAA
4601 - 5871-AAA	4635 - 5871-AAA	4680 - 5601-192	4720 - 5871-AAA
4601 - 5871-COM	4636 - 5871-AAA	4680 - 5871-AAA	4721 - 5871-AAA
4602 - 5669-162	4637 - 5871-AAA	4681 - 5601-192	4722 - 5871-AAA
4602 - 5871-AAA	4638 - 5669-179	4681 - 5871-AAA	4723 - 5871-AAA
4602 - 5871-COM	4638 - 5871-AAA	4682 - 5601-192	4724 - 5871-AAA
4603 - 5669-163	4639 - 5871-AAA	4682 - 5871-AAA	4725 - 5871-AAA
4603 - 5871-AAA	4640 - 5601-152	4683 - 5601-192	4726 - 5871-AAA
4603 - 5871-COM	4640 - 5871-AAA	4683 - 5871-AAA	4727 - 5871-AAA
4604 - 5669-031	4641 - 5601-152	4684 - 5601-192	4728 - 5871-AAA
4604 - 5871-AAA	4641 - 5669-031	4684 - 5871-AAA	4729 - 5871-AAA
4604 - 5871-COM	4641 - 5871-AAA	4685 - 5601-192	4730 - 5871-AAA
4605 - 5669-032	4642 - 5669-033	4685 - 5871-AAA	4731 - 5871-AAA
4605 - 5871-AAA	4642 - 5871-AAA	4686 - 5601-192	4732 - 5871-AAA
4605 - 5871-COM	4643 - 5669-032	4686 - 5871-AAA	4733 - 5871-AAA
4606 - 5669-033	4643 - 5871-AAA	4687 - 5601-192	4734 - 5871-AAA
4606 - 5871-AAA	4644 - 5871-AAA	4687 - 5871-AAA	4735 - 6150-ZZZ
4606 - 5871-COM	4645 - 5871-AAA	4688 - 5871-AAA	4739 - 6150-ZZZ
4607 - 5669-034	4646 - 5871-AAA	4689 - 5601-192	4756 - 6150-ZZZ
4607 - 5871-AAA	4647 - 5871-AAA	4689 - 5871-AAA	4758 - 6150-ZZZ
4607 - 5871-COM	4648 - 5871-AAA	4690 - 5871-AAA	4762 - 6150-ZZZ
4608 - 5871-AAA	4649 - 5871-AAA	4691 - 5601-192	4764 - 5727-WS1
4608 - 5871-COM	4650 - 5664-319	4691 - 5871-AAA	4765 - 5727-WS1
4609 - 5871-AAA	4650 - 5871-AAA	4692 - 5871-AAA	4765 - 6150-ZZZ
4609 - 5871-COM	4651 - 5664-319	4693 - 5871-AAA	4766 - 5664-309
4610 - 5871-AAA	4651 - 5871-AAA	4694 - 5871-AAA	4766 - 6150-ZZZ
4610 - 5871-COM	4652 - 5871-AAA	4695 - 5871-AAA	4767 - 5664-309
4611 - 5871-AAA	4653 - 5871-AAA	4696 - 5871-AAA	4767 - 5871-AAA
4611 - 5871-COM	4654 - 5871-AAA	4697 - 5871-AAA	4768 - 5664-309
4612 - 5871-AAA	4655 - 5871-AAA	4698 - 5871-AAA	4768 - 5871-AAA
4612 - 5871-COM	4656 - 5871-AAA	4699 - 5871-AAA	4768 - 6150-ZZZ
4613 - 5871-AAA	4657 - 5871-AAA	4700 - 5871-AAA	4769 - 5664-309
4613 - 5871-COM	4658 - 5871-AAA	4701 - 5871-AAA	4770 - 5664-309
4614 - 5871-AAA	4659 - 5871-AAA	4702 - 4860-ZZZ	4771 - 5150-ZZZ
4615 - 5871-AAA	4660 - 5669-212	4702 - 5601-192	4771 - 5664-309
4616 - 5871-AAA	4660 - 5871-AAA	4703 - 5601-192	4773 - 5871-COM
4617 - 5871-AAA	4661 - 5669-212	4703 - 5871-AAA	4779 - 5871-AAA
4618 - 5871-AAA	4661 - 5871-AAA	4704 - 5601-192	4780 - 5871-AAA

As of September 20, 1988

4781 - 5871-AAA	4827 - 5871-AAA	4925 - 5150-ZZZ	5236 - 5669-032
4782 - 5871-AAA	4828 - 5871-AAA	4927 - 5150-ZZZ	5240 - 8530-ZZZ
4783 - 5871-AAA	4829 - 5150-ZZZ	4928 - 5150-ZZZ	5279 - 5871-AAA
4784 - 5713-ADJ	4830 - 5871-AAA	5001 - 8530-ZZZ	5279 - 8550-ZZZ
4784 - 5871-AAA	4831 - 5871-AAA	5002 - 8530-ZZZ	5280 - 5871-AAA
4785 - 5713-ADJ	4832 - 5871-AAA	5003 - 8530-ZZZ	5317 - 3278-???
4785 - 5871-AAA	4833 - 5871-AAA	5004 - 8530-ZZZ	5318 - 3278-???
4786 - 5713-ADH	4834 - 5871-AAA	5010 - 5150-ZZZ	5335 - 5371-ZZZ
4786 - 5871-AAA	4835 - 5871-AAA	5010 - 6180-00?	5345 - 5875-XXX
4787 - 5871-AAA	4836 - 5871-AAA	5020 - 5601-060	5397 - 5875-MMA
4788 - 5871-AAA	4837 - 5871-AAA	5020 - 6182-001	5398 - 5871-AAA
4789 - 5871-AAA	4838 - 5871-AAA	5030 - 6182-001	5399 - 5871-AAA
4790 - 5871-AAA	4839 - 5150-ZZZ	5030 - 6184-001	5427 - 5150-ZZZ
4790 - 8550-ZZZ	4839 - 5871-AAA	5030 - 6186-???	5442 - 8550-ZZZ
4791 - 5871-AAA	4840 - 5871-AAA	5040 - 5150-ZZZ	5448 - 5871-AAA
4792 - 5727-WS6	4841 - 5871-AAA	5040 - 6182-001	5458 - 5871-AAA
4792 - 5871-AAA	4842 - 5871-AAA	5040 - 6186-???	5459 - 5871-AAA
4793 - 5871-AAA	4843 - 5871-AAA	5040 - 8550-ZZZ	5465 - 5664-298
4794 - 5871-AAA	4844 - 5871-AAA	5050 - 5150-ZZZ	5466 - 5664-298
4795 - 5871-AAA	4845 - 5871-AAA	5050 - 6180-001	5467 - 5664-298
4796 - 5871-AAA	4846 - 5871-AAA	5050 - 6184-001	5558 - 5664-319
4797 - 5871-AAA	4847 - 5871-AAA	5060 - 6180-00?	5559 - 5664-319
4797 - 6150-ZZZ	4849 - 5871-AAA	5060 - 6182-001	5612 - 5150-ZZZ
4798 - 5871-AAA	4850 - 5871-AAA	5060 - 6186-???	5612 - 8530-ZZZ
4799 - 5871-AAA	4851 - 5871-AAA	5063 - 5150-ZZZ	5614 - 5150-ZZZ
4800 - 5871-AAA	4852 - 5871-AAA	5065 - 5601-101	5647 - 8550-ZZZ
4801 - 5871-AAA	4853 - 5871-AAA	5065 - 5669-034	5648 - 8550-ZZZ
4802 - 5871-AAA	4854 - 5871-AAA	5070 - 6180-00?	5730 - 5271-ZZZ
4802 - 6150-ZZZ	4856 - 5871-AAA	5070 - 6182-001	5730 - 5371-ZZZ
4803 - 5871-AAA	4867 - 5871-BBB	5070 - 6184-001	5731 - 5371-ZZZ
4803 - 6150-ZZZ	4875 - 5871-COM	5070 - 6186-???	5763 - 5871-AAA
4804 - 5871-AAA	4876 - 5871-COM	5099 - 5601-053	5773 - 8530-ZZZ
4806 - 5871-AAA	4877 - 5871-COM	5124 - 5669-161	5774 - 8550-ZZZ
4807 - 5871-AAA	4878 - 5876-AAA	5125 - 5669-162	5797 - 5871-AAA
4808 - 5871-AAA	4879 - 5876-AAA	5126 - 5669-163	5797 - 5875-MMA
4809 - 5871-AAA	4880 - 5876-AAA	5137 - 5669-179	5802 - 5875-UPG
4810 - 5871-AAA	4881 - 5876-AAA	5146 - 5669-179	5838 - 5601-192
4811 - 5871-AAA	4882 - 5876-AAA	5181 - 5601-192	5848 - 5601-192
4812 - 5871-AAA	4883 - 5876-AAA	5182 - 5601-192	5850 - 5796-TBP
4812 - 6150-ZZZ	4884 - 5876-AAA	5183 - 5601-192	5851 - 5796-TBP
4813 - 5871-AAA	4885 - 5876-AAA	5184 - 5601-052	5852 - 5796-TBP
4814 - 5871-AAA	4886 - 5876-AAA	5184 - 5601-192	5858 - 5601-192
4814 - 6150-ZZZ	4887 - 5876-AAA	5185 - 5601-192	5858 - 5669-031
4815 - 5871-AAA	4888 - 5871-COM	5193 - 5669-031	5858 - 5796-TBP
4816 - 5871-AAA	4889 - 5871-COM	5194 - 5601-204	5888 - 5601-192
4816 - 6150-ZZZ	4890 - 5871-AAA	5194 - 5669-031	5888 - 5669-031
4817 - 5871-AAA	4891 - 5871-AAA	5195 - 5601-204	5888 - 5669-032
4818 - 5871-AAA	4894 - 5871-COM	5195 - 5669-031	5888 - 5669-033
4819 - 5871-AAA	4895 - 5871-COM	5197 - 5669-212	5898 - 5601-101
4820 - 5871-AAA	4896 - 5871-COM	5200 - 5150-ZZZ	5898 - 5601-192
4821 - 5871-AAA	4897 - 5871-AAA	5201 - 5601-060	5898 - 5669-031
4822 - 5871-AAA	4898 - 5871-AAA	5211 - 8550-ZZZ	5898 - 5669-032
4823 - 5871-AAA	4900 - 5150-ZZZ	5212 - 8550-ZZZ	5898 - 5669-033
4824 - 5871-AAA	4910 - 5150-ZZZ	5213 - 8550-ZZZ	5898 - 5669-034
4825 - 5871-AAA	4920 - 5150-ZZZ	5214 - 8550-ZZZ	5898 - 5669-212
4826 - 5871-AAA	4922 - 5875-UPG	5228 - 5669-032	5912 - 5871-COM

As of September 20, 1988

5940 - 5871-BBB	6045 - 7531-041	6077 - 5871-BBB	6246 - 8530-ZZZ
5941 - 5871-BBB	6046 - 7531-041	6077 - 5875-MMM	6247 - 8550-ZZZ
5942 - 5876-BBB	6047 - 7531-041	6077 - 7552-???	6248 - 5727-WS1
5980 - 5871-BBB	6049 - 5150-ZZZ	6078 - 7552-???	6248 - 8550-ZZZ
5981 - 5872-BBB	6050 - 3852-001	6079 - 5871-BBB	6250 - 753?-111
5983 - 5871-BBB	6050 - 5150-ZZZ	6079 - 5875-MMM	6251 - 7531-111
5984 - 5872-BBB	6051 - 5150-ZZZ	6081 - 7552-???	6252 - 7532-111
5985 - 5876-BBB	6052 - 5150-ZZZ	6082 - 7552-???	6253 - 7531-111
5986 - 5873-BBB	6053 - 5150-ZZZ	6083 - 7552-???	6254 - 7532-111
5987 - 5873-BBB	6054 - 5150-ZZZ	6085 - 5871-BBB	6255 - 753?-111
5991 - 5876-BBB	6055 - 5150-ZZZ	6085 - 5875-MMM	6256 - 753?-111
5992 - 5873-BBB	6055 - 5871-AAA	6086 - 5871-BBB	6257 - 7544-???
5996 - 5871-BBB	6056 - 5150-ZZZ	6086 - 5875-MMM	6260 - 7544-???
5997 - 5873-BBB	6056 - 5871-AAA	6086 - 7552-041	6263 - 8550-ZZZ
6001 - 5531-011	6057 - 5150-ZZZ	6087 - 5871-BBB	6265 - 8550-ZZZ
6001 - 7531-041	6057 - 5871-AAA	6087 - 5875-MMM	6266 - 4683-00?
6002 - 5531-011	6058 - 5150-ZZZ	6089 - 7531-041	6266 - 8550-ZZZ
6003 - 5531-011	6058 - 5871-AAA	6094 - 5871-AAA	6267 - 8550-ZZZ
6004 - 5531-011	6058 - 8530-ZZZ	6094 - 5875-MMA	6279 - 8550-ZZZ
6004 - 5601-192	6059 - 5150-ZZZ	6094 - 7552-???	6286 - 5871-AAA
6005 - 5273-ZZZ	6059 - 5871-AAA	6095 - 5871-AAA	6287 - 5871-AAA
6005 - 5601-192	6059 - 8530-ZZZ	6095 - 5875-MMA	6293 - 8550-ZZZ
6006 - 5531-011	6060 - 5871-BBB	6095 - 7552-???	6320 - 8550-ZZZ
6010 - 5140-ZZZ	6060 - 5875-MMM	6096 - 7552-???	6321 - 8550-ZZZ
6011 - 8530-ZZZ	6061 - 5150-ZZZ	6097 - 7552-???	6322 - 8550-ZZZ
6017 - 5531-011	6061 - 5871-BBB	6098 - 7552-???	6323 - 8550-ZZZ
6018 - 5531-011	6061 - 5875-MMM	6113 - 5871-BBB	6334 - 5871-AAA
6019 - 7531-041	6062 - 5871-BBB	6115 - 5150-ZZZ	6335 - 5871-AAA
6020 - 7531-041	6062 - 5875-MMM	6128 - 5871-AAA	6341 - 6150-ZZZ
6023 - 7532-041	6063 - 5871-BBB	6128 - 5875-MMA	6351 - 5083-???
6023 - 8550-ZZZ	6063 - 5875-MMM	6132 - 5875-MMA	6351 - 5371-ZZZ
6024 - 7532-041	6064 - 5150-ZZZ	6135 - 5871-AAA	6401 - 8550-ZZZ
6025 - 7532-041	6065 - 5150-ZZZ	6148 - 5871-COM	6500 - 5793-AGN
6025 - 7544-???	6065 - 5871-BBB	6160 - 5150-ZZZ	6500 - 8550-ZZZ
6026 - 7534-001	6065 - 5875-MMM	6161 - 5150-ZZZ	6501 - 5793-AGN
6027 - 7534-001	6066 - 5150-ZZZ	6163 - 753?-111	6502 - 5793-AGW
6029 - 5531-011	6066 - 5871-BBB	6165 - 5150-ZZZ	6503 - 5793-AGW
6030 - 5140-ZZZ	6067 - 5871-AAA	6166 - 5150-ZZZ	6504 - 5793-AEY
6030 - 5150-ZZZ	6068 - 5150-ZZZ	6169 - 5876-AAA	6505 - 5793-AEY
6031 - 5150-ZZZ	6068 - 5871-AAA	6171 - 5871-AAA	6506 - 5793-AEY
6031 - 8530-ZZZ	6069 - 5150-ZZZ	6180 - 7552-???	6507 - 5793-AEY
6032 - 7531-041	6069 - 5871-AAA	6181 - 5727-WS6	6508 - 5793-AEY
6033 - 7531-041	6069 - 5975-MMA	6186 - 7552-???	6509 - 5793-AEY
6034 - 7534-001	6070 - 5870-LLA	6187 - 7552-???	6510 - 5793-AEY
6035 - 5531-011	6070 - 5871-AAA	6192 - 7552-???	6511 - 5793-AEY
6035 - 7531-041	6070 - 7552-???	6193 - 7552-???	6512 - 5793-AEY
6036 - 7532-041	6071 - 7552-???	6221 - 7552-???	6517 - 5727-WS6
6037 - 7532-041	6072 - 7552-???	6222 - 7552-???	6517 - 5793-AEY
6038 - 7531-041	6073 - 7552-???	6223 - 7552-???	6518 - 5793-AEY
6039 - 7531-041	6074 - 7552-???	6240 - 8530-ZZZ	6519 - 5793-AEY
6040 - 7531-041	6075 - 5871-BBB	6241 - 8530-ZZZ	6520 - 5793-AEY
6041 - 5871-AAA	6075 - 5875-MMM	6242 - 5871-AAA	6521 - 5793-AGB
6041 - 5875-MMA	6075 - 7552-???	6242 - 8530-ZZZ	6522 - 5793-AGX
6042 - 8530-ZZZ	6076 - 5871-BBB	6243 - 7531-ZZZ	6523 - 5793-AGX
6043 - 8530-ZZZ	6076 - 5875-MMM	6243 - 8530-ZZZ	6525 - 5793-AEY
6044 - 7532-041	6076 - 7552-???	6245 - 8530-ZZZ	6526 - 5793-AEY



As of September 20, 1988

6529 - 5793-AEY	6593 - 5793-AGQ	6666 - 8550-ZZZ	7501 - 1537-?01
6530 - 5793-AEY	6594 - 5793-AGW	6685 - 5204-001	7502 - 1537-?01
6532 - 5793-AFD	6595 - 5793-AGQ	6690 - 5150-ZZZ	7503 - 1537-?01
6535 - 5793-AGR	6596 - 5793-AGQ	6691 - 5150-ZZZ	7504 - 1537-?01
6536 - 5793-AGQ	6597 - 5793-AGQ	6698 - 5150-ZZZ	7505 - 1537-?01
6537 - 5793-AGQ	6598 - 5793-AGQ	6701 - 8550-ZZZ	7506 - 1537-?01
6538 - 5793-AGW	6600 - 5793-AFF	6714 - 1598-S03	7507 - 1537-?01
6539 - 5793-AGW	6601 - 5793-ACX	6724 - 1584-S02	7508 - 1537-?01
6540 - 5793-AGW	6601 - 8550-ZZZ	6725 - 1584-S02	7561 - 6150-ZZZ
6541 - 5793-AGW	6602 - 5793-ACX	6727 - 1598-S17	7564 - 6150-ZZZ
6542 - 5793-AGW	6602 - 5793-AGC	6810 - 6150-ZZZ	7586 - 6150-ZZZ
6543 - 5793-AGW	6603 - 5793-ACX	6815 - 6150-ZZZ	7619 - 1598-S13
6544 - 5793-AGW	6603 - 5793-AGC	6941 - 6150-ZZZ	7641 - 6150-ZZZ
6546 - 5793-AGQ	6603 - 5793-AHC	7000 - 5204-001	7658 - 6150-ZZZ
6547 - 5793-AGQ	6603 - 5793-AHH	7000 - 6150-ZZZ	7675 - 5371-ZZZ
6549 - 5793-AGQ	6604 - 5793-AHD	7001 - 5373-ZZZ	7676 - 5371-ZZZ
6550 - 5714-PC1	6604 - 5793-AHE	7001 - 5601-192	7743 - 8550-ZZZ
6550 - 5793-AGP	6604 - 5793-AHF	7001 - 8530-ZZZ	7771 - 5871-AAA
6551 - 5793-AGT	6605 - 5793-AHC	7002 - 5373-ZZZ	7771 - 5875-MMA
6553 - 5793-AEZ	6606 - 5793-AHC	7002 - 5601-192	7801 - 1596-F01
6554 - 5793-AEZ	6607 - 5793-AHE	7002 - 8550-ZZZ	7820 - 5150-ZZZ
6555 - 5793-AEZ	6608 - 5793-AHE	7003 - 5371-ZZZ	7820 - 5223-001
6556 - 5793-AGB	6609 - 5793-ACX	7004 - 5371-ZZZ	7833 - 5150-ZZZ
6557 - 5793-AGB	6609 - 5793-AGC	7004 - 6150-ZZZ	7833 - 8550-ZZZ
6558 - 5793-AFD	6609 - 5793-AHE	7008 - 6150-ZZZ	7840 - 5150-ZZZ
6559 - 5793-AFA	6609 - 5793-AHF	7010 - 6150-ZZZ	7840 - 5223-001
6560 - 5793-AFA	6610 - 5793-AHA	7011 - 6150-ZZZ	7848 - 5669-031
6561 - 5793-AFF	6611 - 5793-AHF	7022 - 5871-AAA	7853 - 1596-D01
6562 - 5793-AFF	6612 - 5793-AHF	7022 - 5875-MMA	7854 - 1596-D01
6564 - 5793-AFC	6613 - 5793-AHE	7034 - 5871-AAA	7858 - 5669-031
6566 - 5793-AFC	6613 - 5793-AHF	7034 - 5875-MMA	7858 - 5669-032
6567 - 5793-AGT	6614 - 5793-AHF	7036 - 5871-AAA	7860 - 5871-AAA
6568 - 5793-AGP	6615 - 5793-AHA	7036 - 5875-MMA	7860 - 6150-ZZZ
6569 - 5793-AGR	6616 - 5793-AHG	7039 - 5798-FAL	7868 - 5669-031
6570 - 5793-ACW	6617 - 5793-AHG	7040 - 5669-031	7868 - 5669-032
6571 - 5793-ACW	6618 - 5793-AHD	7040 - 5669-212	7873 - 5871-AAA
6572 - 5793-ACX	6619 - 5793-AHD	7040 - 5871-AAA	7880 - 5150-ZZZ
6573 - 5793-AGC	6622 - 5793-AHH	7040 - 5875-MMA	7888 - 5669-032
6575 - 5150-ZZZ	6623 - 5793-AHH	7041 - 5150-ZZZ	7893 - 6150-ZZZ
6576 - 5793-ACX	6625 - 5793-ACX	7041 - 5669-031	7898 - 5669-031
6577 - 5793-AGC	6625 - 5793-AGC	7042 - 5669-031	7898 - 5669-032
6579 - 5793-ACX	6625 - 5793-AHE	7043 - 5798-FAL	7899 - 5871-AAA
6579 - 5793-AGC	6625 - 5793-AHF	7043 - 5871-AAA	7900 - 5871-AAA
6579 - 5793-AHC	6627 - 5793-AHC	7043 - 5875-MMA	7910 - 5201-00?
6579 - 5793-AHH	6629 - 5793-AEY	7045 - 5871-AAA	7920 - 5201-00?
6583 - 5150-ZZZ	6631 - 5793-AEY	7045 - 5875-MMA	7930 - 5201-00?
6583 - 5793-AGC	6632 - 5793-AEY	7062 - 5873-AAA	7933 - 5871-AAA
6585 - 5150-ZZZ	6633 - 5793-AEY	7082 - 5874-AAA	7934 - 5871-AAA
6585 - 5793-AGF	6635 - 5793-AEY	7122 - 8550-ZZZ	7935 - 5872-AAA
6586 - 5793-AGF	6636 - 5793-AEY	7123 - 5876-AAA	7936 - 5873-AAA
6587 - 5793-AGW	6639 - 5793-AHB	7124 - 5873-AAA	7937 - 5873-AAA
6588 - 5793-AGW	6640 - 5793-AHB	7125 - 5873-AAA	7938 - 5873-AAA
6589 - 5793-AGW	6641 - 5793-AGY	7126 - 5874-AAA	7939 - 5876-AAA
6590 - 5793-AGW	6642 - 5793-AGY	7259 - 8550-ZZZ	7940 - 5201-00?
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6592 - 5793-AGW	6648 - 5793-AGZ	7429 - 4680-00?	7941 - 5873-AAA

As of September 20, 1988

7942 - 5873-AAA	8750 - 8530-ZZZ	9047 - 5871-AAA	9223 - 4683-00?
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8007 - 5669-031	9001 - 5601-060	9173 - 5875-XXX	9385 - 5871-BBB
8017 - 5150-ZZZ	9001 - 5601-192	9174 - 5875-XXX	9385 - 5875-MMM
8018 - 5150-ZZZ	9001 - 5601-204	9175 - 5875-XXX	9389 - 5871-BBB
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8162 - 5872-BBB	9001 - 5669-032	9193 - 5871-BBB	9410 - 5875-XXX
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8174 - 5875-XXX	9001 - 5669-161	9194 - 5871-BBB	9448 - 5871-AAA
8186 - 6150-ZZZ	9001 - 5669-162	9194 - 5875-MMM	9510 - 4680-00?
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As of September 20, 1988

9701 - 5875-MMA	9846 - 5871-BBB	0202 - 6450202	0634 - 90X7925
9702 - 5871-AAA	9847 - 5871-BBB	0206 - 6450206	0637 - 84X0008
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9764 - 5719-XJ5	9941 - 5875-MMA	0242 - 6450242	0660 - 90X7901
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9767 - 5871-AAA	9943 - 5875-MMA	0357 - 6450357	0662 - 90X7902
9767 - 5875-MMA	9945 - 5150-ZZZ	0359 - 6450359	0663 - 84X0030
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9772 - 5875-MMA	9958 - 5871-AAA	0468 - 1600468	0668 - 84X0035
9783 - 5875-XXX	9958 - 5875-MMA	0489 - 16F0489	0708 - 6280708
9784 - 5871-AAA	9967 - 5871-COM	0490 - 16F0490	0716 - 92X0716
9785 - 5875-XXX	9969 - 5871-AAA	0601 - 84X0002	0740 - 6280740
9790 - 5875-XXX	9969 - 5875-MMA	0602 - 84X0006	0741 - 6280741
9791 - 5871-AAA	9970 - 5875-UPG	0603 - 84X0019	0741 - 92X0741
9794 - 5871-AAA	9986 - 3812-001	0604 - 84X0021	0742 - 6280742
9797 - 5875-XXX	Feature Code-Part Number	0605 - 84X0022	0743 - 6280743
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9799 - 5875-XXX	0006 - 8600006	0607 - 84X0026	0790 - 6430790
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As of September 20, 1988

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As of September 20, 1988

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As of September 20, 1988

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As of September 20, 1988

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As of September 20, 1988

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As of September 20, 1988

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As of September 20, 1988

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As of September 20, 1988

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As of September 20, 1988

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As of September 20, 1988

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As of September 20, 1988

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As of September 20, 1988

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75X3252 - 3252	84X0004 - 0652	8655073 - 7880	92X1147 - 1147
75X3253 - 3253	84X0004 - 0823	8665781 - 2337	92X1148 - 1148
75X3254 - 3254	84X0005 - 0653	8665782 - 2336	96X4842 - 8314
75X3255 - 3255	84X0006 - 0602	8665789 - 5050	96X5604 - 0666
75X3257 - 3257	84X0008 - 0637	8665790 - 6585	96X5763 - 5763
75X3264 - 3264	84X0009 - 0638	8665791 - 6575	96X5773 - 5773
75X3265 - 3265	84X0010 - 0619	90X5909 - 9047	96X5774 - 5774
75X3266 - 3266	84X0011 - 0620	90X5912 - 9758	
75X3267 - 3267	84X0012 - 0621	90X5913 - 9759	
75X3268 - 3268	84X0018 - 0659	90X5922 - 9767	
75X3269 - 3269	84X0019 - 0603	90X5933 - 9772	
75X3270 - 3270	84X0020 - 0851	90X5945 - 9783	
75X3271 - 3271	84X0021 - 0604	90X5951 - 9784	
75X3272 - 3272	84X0022 - 0605	90X5966 - 9798	
75X3277 - 3277	84X0023 - 0606	90X5972 - 9445	
75X3282 - 3282	84X0026 - 0607	90X5976 - 9790	
75X3286 - 3286	84X0030 - 0663	90X5988 - 9769	
75X3287 - 3287	84X0032 - 0664	90X6000 - 9821	
75X3288 - 3288	84X0034 - 0611	90X6004 - 9797	
75X3295 - 3295	84X0035 - 0668	90X7899 - 7899	

A

Above Disc 72  
 Academic System, IBM 6152 124  
 Acceleration,  
 Investigating 103  
 Access for DOS Users, IBM  
 AIX 34  
 Access to Data  
 See Managing End User Com-  
 puting

As of September 20, 1988

- Accessory Kit -- Make Words, Bingo, Library 96
- Accessory Kit, Quietwriter 129
- Account Opening, BANCstar 75
- Accounting Extensions Edition 75
- Accounting, General 74
- Accounts Payable 74
- Accounts Payable Edition 74
- Accounts Payable Training Edition 75
- Accounts Payable, RT PC 121
- Accounts Receivable 74
- Accounts Receivable Edition 74
- Accounts Receivable Training Edition 75
- Accounts Receivable, RT PC 121
- ACDI Programming Reference, IBM Operating System/2 31
- Acoustic Cover 43
- ACRITH
  - See High-Accuracy Arithmetic (ACRITH) Subroutine Library, VM/PC
- Adapters, Pers Sys/2 (MicroChannel Models) 27
- Adapters, Personal System/2 Model 30 286 38
- Additional function for the 3270-PC 180
- Address and Mail List, RT PC 121
- Administering, The Versatile Organization 20
- Administration System, PCIS 103
- Administrator's Guide, Token-Ring 133
- Advanced Color Graphics Adapter, RT PC 116
- Advanced Diagnostics Programs 87
- Advanced Interactive Executive, Pers Sys/2 177
- Advanced Monochrome Graphics Adapter, RT PC 116
- Advanced Pgm-Pgm Communication 58
- Advanced Program-to-Program Communications, Seminar Proceedings 86
- Advantage! Multifunction Board 51
- Adventures in Math 95
- AIX Communications on the RT PC 108
- AIX Fundamentals Workshop 108
- AIX Installation and Implementation 108
- AIX PS/2 Application Development Toolkit, IBM 34
- AIX PS/2 C Language, IBM 34
- AIX PS/2 Distributed Services 34
- AIX PS/2 DOS Merge, IBM 33
- AIX PS/2 DOS Server 34
- AIX PS/2 INmail/INed/INnet/FTP, IBM 34
- AIX PS/2 Network File System 34
- AIX PS/2 Operating System Extensions, IBM 33
- AIX PS/2 Operating System, IBM 33
- AIX PS/2 Text Formatting Services, IBM 33
- AIX PS/2 Transmission Control Protocol/Internet Protocol(TCP/IP), IBM 33
- AIX PS/2 Transparent Computing Facility 34
- AIX PS/2 Usability Services, IBM 33
- AIX PS/2 VS FORTRAN, IBM 34
- AIX PS/2 VS Pascal, IBM 34
- AIX PS/2 Workstation Host Interface Program, IBM 33
- AIX PS/2 X-Windows, IBM 33
- AIX PS/2 X.25 34
- AIX/RT DOS Server 118
- AIX/RT Personal Computer AT Simulator 118
- AIX/RT Workstation Host Interface Program V.1.1 117
- AIX, Pers Sys/2 177
- AIX, PS/2 33
- AIX, RT PC 117
- Alert Monitor Program Version 1 59
- Alert Monitor, ROLM 60
- Allen Bradley Control Software 79
- Allen Bradley Device Driver 79
- Allen-Bradley CAMM Manuals 79
- Allen-Bradley Controller Software 79
- Allen-Bradley Driver, The Fix 80
- Allen-Bradley Programmer Software 81
- Alphanumeric Programming Interface for 3270-PC/G and GX 179
- Alternatives, Service 151
- Amdek Video 310A 55
- Analogic CAMM Manuals 79
- Analogic Control Software 79
- Analogic Device Driver 79
- Analysis Program, PC Network 68
- Answering Machine Program 70
- API for 3270 Emulation Pgm V.2 58
- API for 3270 Emulation Pgm V.3 58
- API, Voice Communications 70
- APL Interpreter 61
- APL2, VM/PC 90
- APPC Programming Reference, IBM Operating System/2 31
- APPC/PC 58
- Application Development Toolkit, IBM AIX PS/2 34
- Application Editions 74
- Application System, Intelligent Workstation Support for 179
- Applix IA, RT PC 120
- APT
  - See Automatically Programmed Tool (APT) Program, VM/PC
- Architecture, IBM PC 108
- Arcosystems Driver, The Fix 80
- ARCTIC Multiport Adapter 52
- ARCTIC Multiport Adapter/2 52
- Arithmetic Games Sets 95
- ARTIC 52
- ARTIC Communication Subsystem 82
- ARTIC Realtime Interface Co-Processor C Language Support 82
- ARTIC Realtime Interface Co-Processor Developer's Kit V2.0 82
- ARTIC Support Publications 53
- ARTIC Support Software 82
- ARTIC/2 DOS Support 82
- ARTIC/2 OS/2 Support 82
- ARTIC/2 RS-232 Ports 52
- ARTIC/2 RS-232/RS-422 Ports 52
- ARTIC/2 V.24 Ports 52
- ASKINFO 143, 144
- Assembler 31
- Assembler H, VM/PC 91
- Assembler Subroutines for 7552 82
- Assembler, Seminar Proceedings 86
- Assembler, Waterloo 61
- Assistant Series 72
- AST Advantage! Multifunction Board 51
- AST FourPort Communications Board 61
- AST I/O Mini Board 50
- AST I/O Plus II Card 49
- AST RAMPage! Expanded Memory Board 50
- AST RAMvantage! Extended Memory Board 51
- Async Adapter/A, Dual 27
- Async Adapter, Multifunction Memory Expansion Adapter 51
- Async Adapter, on PC/AT Enhanced Memory Board 51
- Async Commo Server Program 66
- Async Server, Seminar Proceedings 86
- Asynch Adapter, RT PC 115
- Asynchronous Adapter 61
- Asynchronous Communication 60-62
- Asynchronous Communications for the PC, Class 108
- Asynchronous Communications Support 61
- Asynchronous Communication, Pers Sys/2 (MicroChannel Models) 27
- Asynchronous Modem, IBM 57
- AS/400 PC Support 91
- Atomic Models, Investigating 103
- Attendant Directory, ROLM CBX 60
- Augmented Phone Services 70
- Authoring System, PCIS 103
- Automatically Programmed Tool (APT) Program, VM/PC 91
- Automobile Power Adapter, PC Convertible 49
- Avante Garde Font 129

## B

- Backlit LCD Option Kit 48
- BANCstar 4700 75
- Banking Automation, SolutionPac 16
- Banking Software 75
- Bar Code Reader, 4680 Hand-Held 43
- Bar Code Scanner, 4680 43
- Barcode Label Software 79, 80



As of September 20, 1988

- Barsoft 79
- Base Expander, PC Network 133
- Baseball Game, World's Greatest 112
- Baseband Adapter, RT PC 115
- Baseband Extender, PC Network 134
- Base, InfoWindow Display 54
- BASIC Compiler 2.0, Seminar Proceedings 86
- BASIC Compiler/2 31
- BASIC Compiler, Redistribution 12
- BASIC Compiler, 4680 93
- BASIC Interpreter 61
- BASIC Interpreter, PCjr 71
- BASIC Interpreter, RT PC 119
- BASIC Made Easy (book), PCjr 95
- Basic Number Concepts 104
- BASIC Primer 95
- BASIC Reference Manual 31, 88
- BASIC Reference Manual, PCjr 88
- BASIC Subroutines for 7552 82
- BASIC, Advanced File Processing in 108
- BASIC, Advanced Programming Techniques 108
- BASIC, Business Programming in 108
- BASIC, cartridge, Seminar Proceedings 86
- BASIC, Hands-On (book), PCjr 95
- BASIC, Learning to Program in 104
- BASIC, VM/PC 91
- Battery Charger, PC Convertible 49
- Battery, PC/XT 286 Clock 39
- Battery, 7552 46
- Binary Synchronous Communication 62
- Binder, Hardware Maintenance 23, 37
- Binder, Hardware Maintenance and Service 87
- Binder, Options and Adapters 87
- Binder, Technical Reference 23
- Biology Series 97
- BIZPAK, RT PC UNIRAS 120
- Bouncy Bee Learns Letters 95
- Bouncy Bee Learns Words 95
- BPI Systems 74
- Bracket Kit, PC/XT 54
- Branch Banking Automation, SolutionPac 16
- Bridge Program, Token-Ring 68
- Bridges and Management, Token-Ring 133
- BSC Adapter (PC, XT, and PC/AT) 62
- BSC Communication See Binary Synchronous Communication
- Buffer, 5204 130
- Bumble Games 95
- Bumble Plot 95
- Business Adviser Financial Accounting, SolutionPac 18
- Business Adviser Series 74
- Business Management Series 74
- Business Software 73-76
- C
- C Compiler Support Offering, RT PC 119
- C Compiler/2 31
- C Compiler, Seminar Proceedings 86
- C Compiler, Xenix 89
- C Language, IBM AIX PS/2 34
- C Subroutines for 7552 82
- Cable Adapter, Twinaxial Termination 62
- Cable Assembly, Twinax 62
- Cable Data Management System 74
- Cable Kit, Cluster 69
- Cable Kit, 5080 Peripheral, RT PC 116
- Cable Kit, 5083 Tablet, RT PC (1.4 meter) 116
- Cable, Adapter Cable for Serial Devices, PCjr 49
- Cable, Adapter for Cassette, PCjr 49
- Cable, Adapter for Color Display, PCjr 49
- Cable, ARTIC 52
- Cable, ASCII Terminal, RT PC 116
- Cable, Cabling System PC Network Baseband 134
- Cable, CCITT V.35, ARTIC 53
- Cable, Combination Adapter 47
- Cable, Communications Adapter 57
- Cable, Displaywriter/PC Attach 62
- Cable, EIA Interface, 3820 127
- Cable, Fixed Disk, RT PC 116
- Cable, IEEE-488 / 6182 Attachment 132
- Cable, IEEE488 for InfoWindow and PC 54
- Cable, IEEE488 for 6186 and PC 132
- Cable, Integrated Attachment, 5250 63
- Cable, Modem, RT PC 116
- Cable, Parallel Attachment, Wheelprinter 131
- Cable, Parallel Printer 125
- Cable, PC Convertible Printer 48
- Cable, PC Network Baseband Adapter 134
- Cable, PC Network Baseband General Purpose 134
- Cable, Power, 3812 126
- Cable, RS-232C for 5085 Attachment 131
- Cable, RS-232C for 6180 131
- Cable, RS-232C, ARTIC 53
- Cable, RS232 for 6184 and PC 132
- Cable, RS232 for 6186 and PC 132
- Cable, RS232 MPCA, RT PC 115
- Cable, RT PC MPCA Autocall 115
- Cable, RT PC Token-Ring Adapter 115
- Cable, RT PC / 6182 Attachment 131
- Cable, SCSI, RT PC 114
- Cable, Serial Adapter 57
- Cable, Serial Printer 125
- Cable, Serial Printer, RT PC 116
- Cable, System 36/38-Adapter/A 27
- Cable, S/1 to PC Channel Attachment 69
- Cable, TEMPEST for 3812 126
- Cable, TEMPEST Parallel Printer 45
- Cable, Token-Ring PC Adapter 68
- Cable, X.21 MPCA, RT 115
- Cable, 3117-PC 55
- Cable, 3812-PC 126
- Cable, 4680 Asynch 42
- Cable, 4680 Base Unit 42
- Cable, 4680 Cash Drawer 42
- Cable, 4680 Display 42
- Cable, 4680 Distributed Display 43
- Cable, 4680 Integrated Display 43
- Cable, 4680 Non-IBM Attach 42
- Cable, 4680 Non-IBM Coin Dispenser 43
- Cable, 4680 Non-IBM Scale 42
- Cable, 4680 OCR 42
- Cable, 4680 Printer 42
- Cable, 4680 Store Loop 42, 43
- Cable, 4683 Keyboard 42
- Cable, 4683 Power 43
- Cable, 5-meter cable for 3295 55
- Cable, 5083 to PC/AT, PC/XT 286 54
- Cable, 5083 to PC, PC/XT 54
- Cable, 5083 to RT PC 54
- Cable, 5204 Serial Attachment 130
- Cable, 9332 114
- Cabling Segments, PC Network 134
- Cabling System 142
- Cabling System, Local Area Network on 179
- CADAM See Industry Standard Plotting Commands
- CADAM Interactive Solids Design, RT PC Professional 122
- CADAM, MICRO 78
- CADAM, RT PC Professional 122
- CADwrite Design and Drafting System, SolutionPac 18
- CAEDS See Industry Standard Plotting Commands
- CAEDS, RT PC 122, 123
- Call Detail Collector, ROLM 60
- CAMM 79
- Candida, Bold 129
- Candida, Medium 129
- Capacity Management with PC 79
- Capitalization Skills 104
- CAPOSS-E Support 79
- Card Shroud and Memory Adapter, 7552 46
- Card Shroud, 7552 46
- Carrying Case, PC Convertible 49
- Carrying Case, PCjr 49
- Carrying Case, PS/2 M25 37

As of September 20, 1988

Cartilla 1 -- Work Journal 1, 10 pack 96	CICS/VS-3270-PC File Transfer Program 64	32153 109	COBOL Compiler, RT PC 119
Cartilla 10 -- Work Journal 10, 10 pack 97	CIEDS, PC/AT 72	32181 109	COBOL Compiler, VM/PC 91
Cartilla 2 -- Work Journal 2, 10 pack 96	CIEDS, RT PC 122	32192 109	COBOL Extensions, Micro Focus 72
Cartilla 3 -- Work Journal 3, 10 pack 96	Class Numbers	32266 109	COBOL Interactive Debug, VM/PC 91
Cartilla 4 -- Work Journal 4, 10 pack 96	B3819 108	32271 109	COBOL Interpreter 61
Cartilla 5 -- Work Journal 5, 10 pack 96	DE010 79	32273 108	COBOL Support, 4680 93
Cartilla 6 -- Work Journal 6, 10 pack 96	E3622 108	32274 109	COBOL/2 Compiler 31, 71
Cartilla 7 -- Work Journal 7, 10 pack 96	E3623 108	32275 108	COBOL/2 Workbench 71
Cartilla 8 -- Work Journal 8, 10 pack 96	E3646 108	32276 108	Collegiate Kit 72
Cartilla 9 -- Work Journal 9, 10 pack 97	E3647 108	32278 109	Color Graphics Adapter, Emulex 55
Cartilla 10 -- Work Journal 10, 10 pack 96	E3653 108	32279 108	Color Graphics Adapter, RT PC 116
Cartilla 11 -- Work Journal 11, 10 pack 96	E3668 108	32280 108	Color Plotter Support for GDDM 132
Cartilla 12 -- Work Journal 12, 10 pack 96	E3611 108	32281 109	Color Plotters 131
Cartilla 13 -- Work Journal 13, 10 pack 96	G3653 108	32284 109	Color Printer Support Publica- tions 125
Cartilla 14 -- Work Journal 14, 10 pack 96	G3667 108	32292 109	Colorview (Videotex) 61
Cartilla 15 -- Work Journal 15, 10 pack 96	G3669 108	32293 110	Color/Graphics Monitor Adapter 55
Cartilla 16 -- Work Journal 16, 10 pack 96	G3686 107	32295 109	Combination Adapter, Industrial PC 47
Cartilla 17 -- Work Journal 17, 10 pack 96	G4000 108	32298 108	Combining Sentences 99
Cartilla 18 -- Work Journal 18, 10 pack 96	G4002 144	32299 109	Comma Cat 95
Cartilla 19 -- Work Journal 19, 10 pack 96	G4004 108	32401 109	Communication Subsystem, ARTIC 82
Cartilla 20 -- Work Journal 20, 10 pack 96	G4005 108	32402 109	Communications Devices, Cross- System 133
Cartilla 21 -- Work Journal 21, 10 pack 96	G4006 108	32403 109	Communications Hardware and Software 57-70
Cartilla 22 -- Work Journal 22, 10 pack 96	G4007 108	32404 109	Communications Hardware and Software - Personal System/2 (MicroChannel Models) 27
Cartilla 23 -- Work Journal 23, 10 pack 96	G4008 108	32405 109	Communications Protocol Pro- grams 82
Cartilla 24 -- Work Journal 24, 10 pack 96	G4009 108	32406 109	Compact Printer Connector 125
Cartilla 25 -- Work Journal 25, 10 pack 96	G4010 108	32407 109	Compact Printer Support Publi- cations 125
Cartilla 26 -- Work Journal 26, 10 pack 96	G4011 108	34550 109	Compatibility Guidelines, Semi- nar Proceedings 86
Cartilla 27 -- Work Journal 27, 10 pack 96	G4012 108	34552 108	Compilers 71
Cartilla 28 -- Work Journal 28, 10 pack 96	G4013 108		Component Housing, Cabling Sys- tem 133
Cartilla 29 -- Work Journal 29, 10 pack 96	G4014 108		COMPOSE 111
Cartilla 30 -- Work Journal 30, 10 pack 96	G4015 108		Computers and Communications 104
Cartilla 31 -- Work Journal 31, 10 pack 96	G4016 108		Concept Developments: Heat and Temperature, and Graphs 106
Cartilla 32 -- Work Journal 32, 10 pack 96	G4017 108		Conservation of Energy, Inves- tigating 103
Cartilla 33 -- Work Journal 33, 10 pack 96	G4018 108		Console for 5364 69
Cartilla 34 -- Work Journal 34, 10 pack 96	G4019 108		Construction Industry Services, SolutionPac 18
Cartilla 35 -- Work Journal 35, 10 pack 96	G4020 108		
Cartilla 36 -- Work Journal 36, 10 pack 96	G4021 108		
Cartilla 37 -- Work Journal 37, 10 pack 96	G4022 108		
Cartilla 38 -- Work Journal 38, 10 pack 96	G4023 108		
Cartilla 39 -- Work Journal 39, 10 pack 96	G4024 108		
Cartilla 40 -- Work Journal 40, 10 pack 96	G4025 108		
Cartilla 41 -- Work Journal 41, 10 pack 96	G4026 108		
Cartilla 42 -- Work Journal 42, 10 pack 96	G4027 108		
Cartilla 43 -- Work Journal 43, 10 pack 96	G4028 108		
Cartilla 44 -- Work Journal 44, 10 pack 96	G4029 108		
Cartilla 45 -- Work Journal 45, 10 pack 96	G4030 108		
Cartilla 46 -- Work Journal 46, 10 pack 96	G4031 108		
Cartilla 47 -- Work Journal 47, 10 pack 96	G4032 108		
Cartilla 48 -- Work Journal 48, 10 pack 96	G4033 108		
Cartilla 49 -- Work Journal 49, 10 pack 96	G4034 108		
Cartilla 50 -- Work Journal 50, 10 pack 96	G4035 108		
Cartilla 51 -- Work Journal 51, 10 pack 96	G4036 108		
Cartilla 52 -- Work Journal 52, 10 pack 96	G4037 108		
Cartilla 53 -- Work Journal 53, 10 pack 96	G4038 108		
Cartilla 54 -- Work Journal 54, 10 pack 96	G4039 108		
Cartilla 55 -- Work Journal 55, 10 pack 96	G4040 108		
Cartilla 56 -- Work Journal 56, 10 pack 96	G4041 108		
Cartilla 57 -- Work Journal 57, 10 pack 96	G4042 108		
Cartilla 58 -- Work Journal 58, 10 pack 96	G4043 108		
Cartilla 59 -- Work Journal 59, 10 pack 96	G4044 108		
Cartilla 60 -- Work Journal 60, 10 pack 96	G4045 108		
Cartilla 61 -- Work Journal 61, 10 pack 96	G4046 108		
Cartilla 62 -- Work Journal 62, 10 pack 96	G4047 108		
Cartilla 63 -- Work Journal 63, 10 pack 96	G4048 108		
Cartilla 64 -- Work Journal 64, 10 pack 96	G4049 108		
Cartilla 65 -- Work Journal 65, 10 pack 96	G4050 108		
Cartilla 66 -- Work Journal 66, 10 pack 96	G4051 108		
Cartilla 67 -- Work Journal 67, 10 pack 96	G4052 108		
Cartilla 68 -- Work Journal 68, 10 pack 96	G4053 108		
Cartilla 69 -- Work Journal 69, 10 pack 96	G4054 108		
Cartilla 70 -- Work Journal 70, 10 pack 96	G4055 108		
Cartilla 71 -- Work Journal 71, 10 pack 96	G4056 108		
Cartilla 72 -- Work Journal 72, 10 pack 96	G4057 108		
Cartilla 73 -- Work Journal 73, 10 pack 96	G4058 108		
Cartilla 74 -- Work Journal 74, 10 pack 96	G4059 108		
Cartilla 75 -- Work Journal 75, 10 pack 96	G4060 108		
Cartilla 76 -- Work Journal 76, 10 pack 96	G4061 108		
Cartilla 77 -- Work Journal 77, 10 pack 96	G4062 108		
Cartilla 78 -- Work Journal 78, 10 pack 96	G4063 108		
Cartilla 79 -- Work Journal 79, 10 pack 96	G4064 108		
Cartilla 80 -- Work Journal 80, 10 pack 96	G4065 108		
Cartilla 81 -- Work Journal 81, 10 pack 96	G4066 108		
Cartilla 82 -- Work Journal 82, 10 pack 96	G4067 108		
Cartilla 83 -- Work Journal 83, 10 pack 96	G4068 108		
Cartilla 84 -- Work Journal 84, 10 pack 96	G4069 108		
Cartilla 85 -- Work Journal 85, 10 pack 96	G4070 108		
Cartilla 86 -- Work Journal 86, 10 pack 96	G4071 108		
Cartilla 87 -- Work Journal 87, 10 pack 96	G4072 108		
Cartilla 88 -- Work Journal 88, 10 pack 96	G4073 108		
Cartilla 89 -- Work Journal 89, 10 pack 96	G4074 108		
Cartilla 90 -- Work Journal 90, 10 pack 96	G4075 108		
Cartilla 91 -- Work Journal 91, 10 pack 96	G4076 108		
Cartilla 92 -- Work Journal 92, 10 pack 96	G4077 108		
Cartilla 93 -- Work Journal 93, 10 pack 96	G4078 108		
Cartilla 94 -- Work Journal 94, 10 pack 96	G4079 108		
Cartilla 95 -- Work Journal 95, 10 pack 96	G4080 108		
Cartilla 96 -- Work Journal 96, 10 pack 96	G4081 108		
Cartilla 97 -- Work Journal 97, 10 pack 96	G4082 108		
Cartilla 98 -- Work Journal 98, 10 pack 96	G4083 108		
Cartilla 99 -- Work Journal 99, 10 pack 96	G4084 108		
Cartilla 100 -- Work Journal 100, 10 pack 96	G4085 108		
Cartilla 101 -- Work Journal 101, 10 pack 96	G4086 108		
Cartilla 102 -- Work Journal 102, 10 pack 96	G4087 108		
Cartilla 103 -- Work Journal 103, 10 pack 96	G4088 108		
Cartilla 104 -- Work Journal 104, 10 pack 96	G4089 108		
Cartilla 105 -- Work Journal 105, 10 pack 96	G4090 108		
Cartilla 106 -- Work Journal 106, 10 pack 96	G4091 108		
Cartilla 107 -- Work Journal 107, 10 pack 96	G4092 108		
Cartilla 108 -- Work Journal 108, 10 pack 96	G4093 108		
Cartilla 109 -- Work Journal 109, 10 pack 96	G4094 108		
Cartilla 110 -- Work Journal 110, 10 pack 96	G4095 108		
Cartilla 111 -- Work Journal 111, 10 pack 96	G4096 108		
Cartilla 112 -- Work Journal 112, 10 pack 96	G4097 108		
Cartilla 113 -- Work Journal 113, 10 pack 96	G4098 108		
Cartilla 114 -- Work Journal 114, 10 pack 96	G4099 108		
Cartilla 115 -- Work Journal 115, 10 pack 96	G4100 108		
Cartilla 116 -- Work Journal 116, 10 pack 96	G4101 108		
Cartilla 117 -- Work Journal 117, 10 pack 96	G4102 108		
Cartilla 118 -- Work Journal 118, 10 pack 96	G4103 108		
Cartilla 119 -- Work Journal 119, 10 pack 96	G4104 108		
Cartilla 120 -- Work Journal 120, 10 pack 96	G4105 108		
Cartilla 121 -- Work Journal 121, 10 pack 96	G4106 108		
Cartilla 122 -- Work Journal 122, 10 pack 96	G4107 108		
Cartilla 123 -- Work Journal 123, 10 pack 96	G4108 108		
Cartilla 124 -- Work Journal 124, 10 pack 96	G4109 108		
Cartilla 125 -- Work Journal 125, 10 pack 96	G4110 108		
Cartilla 126 -- Work Journal 126, 10 pack 96	G4111 108		
Cartilla 127 -- Work Journal 127, 10 pack 96	G4112 108		
Cartilla 128 -- Work Journal 128, 10 pack 96	G4113 108		
Cartilla 129 -- Work Journal 129, 10 pack 96	G4114 108		
Cartilla 130 -- Work Journal 130, 10 pack 96	G4115 108		
Cartilla 131 -- Work Journal 131, 10 pack 96	G4116 108		
Cartilla 132 -- Work Journal 132, 10 pack 96	G4117 108		
Cartilla 133 -- Work Journal 133, 10 pack 96	G4118 108		
Cartilla 134 -- Work Journal 134, 10 pack 96	G4119 108		
Cartilla 135 -- Work Journal 135, 10 pack 96	G4120 108		
Cartilla 136 -- Work Journal 136, 10 pack 96	G4121 108		
Cartilla 137 -- Work Journal 137, 10 pack 96	G4122 108		
Cartilla 138 -- Work Journal 138, 10 pack 96	G4123 108		
Cartilla 139 -- Work Journal 139, 10 pack 96	G4124 108		
Cartilla 140 -- Work Journal 140, 10 pack 96	G4125 108		
Cartilla 141 -- Work Journal 141, 10 pack 96	G4126 108		
Cartilla 142 -- Work Journal 142, 10 pack 96	G4127 108		
Cartilla 143 -- Work Journal 143, 10 pack 96	G4128 108		
Cartilla 144 -- Work Journal 144, 10 pack 96	G4129 108		
Cartilla 145 -- Work Journal 145, 10 pack 96	G4130 108		
Cartilla 146 -- Work Journal 146, 10 pack 96	G4131 108		
Cartilla 147 -- Work Journal 147, 10 pack 96	G4132 108		
Cartilla 148 -- Work Journal 148, 10 pack 96	G4133 108		
Cartilla 149 -- Work Journal 149, 10 pack 96	G4134 108		
Cartilla 150 -- Work Journal 150, 10 pack 96	G4135 108		
Cartilla 151 -- Work Journal 151, 10 pack 96	G4136 108		
Cartilla 152 -- Work Journal 152, 10 pack 96	G4137 108		
Cartilla 153 -- Work Journal 153, 10 pack 96	G4138 108		
Cartilla 154 -- Work Journal 154, 10 pack 96	G4139 108		
Cartilla 155 -- Work Journal 155, 10 pack 96	G4140 108		
Cartilla 156 -- Work Journal 156, 10 pack 96	G4141 108		
Cartilla 157 -- Work Journal 157, 10 pack 96	G4142 108		
Cartilla 158 -- Work Journal 158, 10 pack 96	G4143 108		
Cartilla 159 -- Work Journal 159, 10 pack 96	G4144 108		
Cartilla 160 -- Work Journal 160, 10 pack 96	G4145 108		
Cartilla 161 -- Work Journal 161, 10 pack 96	G4146 108		
Cartilla 162 -- Work Journal 162, 10 pack 96	G4147 108		
Cartilla 163 -- Work Journal 163, 10 pack 96	G4148 108		
Cartilla 164 -- Work Journal 164, 10 pack 96	G4149 108		
Cartilla 165 -- Work Journal 165, 10 pack 96	G4150 108		
Cartilla 166 -- Work Journal 166, 10 pack 96	G4151 108		
Cartilla 167 -- Work Journal 167, 10 pack 96	G4152 108		
Cartilla 168 -- Work Journal 168, 10 pack 96	G4153 108		
Cartilla 169 -- Work Journal 169, 10 pack 96	G4154 108		
Cartilla 170 -- Work Journal 170, 10 pack 96	G4155 108		
Cartilla 171 -- Work Journal 171, 10 pack 96	G4156 108		
Cartilla 172 -- Work Journal 172, 10 pack 96	G4157 108		
Cartilla 173 -- Work Journal 173, 10 pack 96	G4158 108		
Cartilla 174 -- Work Journal 174, 10 pack 96	G4159 108		
Cartilla 175 -- Work Journal 175, 10 pack 96	G4160 108		
Cartilla 176 -- Work Journal 176, 10 pack 96	G4161 108		
Cartilla 177 -- Work Journal 177, 10 pack 96	G4162 108		
Cartilla 178 -- Work Journal 178, 10 pack 96	G4163 108		
Cartilla 179 -- Work Journal 179, 10 pack 96	G4164 108		
Cartilla 180 -- Work Journal 180, 10 pack 96	G4165 108		
Cartilla 181 -- Work Journal 181, 10 pack 96	G4166 108		
Cartilla 182 -- Work Journal 182, 10 pack 96	G4167 108		
Cartilla 183 -- Work Journal 183, 10 pack 96	G4168 108		
Cartilla 184 -- Work Journal 184, 10 pack 96	G4169 108		
Cartilla 185 -- Work Journal 185, 10 pack 96	G4170 108		
Cartilla 186 -- Work Journal 186, 10 pack 96	G4171 108		
Cartilla 187 -- Work Journal 187, 10 pack 96	G4172 108		
Cartilla 188 -- Work Journal 188, 10 pack 96	G4173 108		
Cartilla 189 -- Work Journal 189, 10 pack 96	G4174 108		
Cartilla 190 -- Work Journal 190, 10 pack 96	G4175 108		
Cartilla 191 -- Work Journal 191, 10 pack 96	G4176 108		
Cartilla 192 -- Work Journal 192, 10 pack 96	G4177 108		
Cartilla 193 -- Work Journal 193, 10 pack 96	G4178 108		
Cartilla 194 -- Work Journal 194, 10 pack 96	G4179 108		
Cartilla 195 -- Work Journal 195, 10 pack 96	G4180 108		
Cartilla 196 -- Work Journal 196, 10 pack 96	G4181 108		
Cartilla 197 -- Work Journal 197, 10 pack 96	G4182 108		
Cartilla 198 -- Work Journal 198, 10 pack 96	G4183 108		
Cartilla 199 -- Work Journal 199, 10 pack 96	G4184 108		
Cartilla 200 -- Work Journal 200, 10 pack 96	G4185 108		
Cartilla 201 -- Work Journal 201, 10 pack 96	G4186 108		
Cartilla 202 -- Work Journal 202, 10 pack 96	G4187 108		
Cartilla 203 -- Work Journal 203, 10 pack 96	G4188 108		
Cartilla 204 -- Work Journal 204, 10 pack 96	G4189 108		
Cartilla 205 -- Work Journal 205, 10 pack 96	G4190 108		
Cartilla 206 -- Work Journal 206, 10 pack 96	G4191 108		
Cartilla 207 -- Work Journal 207, 10 pack 96	G4192 108		
Cartilla 208 -- Work Journal 208, 10 pack 96	G4193 108		
Cartilla 209 -- Work Journal 209, 10 pack 96	G4194 108		
Cartilla 210 -- Work Journal 210, 10 pack 96	G4195 108		
Cartilla 211 -- Work Journal 211, 10 pack 96	G4196 108		
Cartilla 212 -- Work Journal 212, 10 pack 96	G4197 108		
Cartilla 213 -- Work Journal 213, 10 pack 96	G4198 108		
Cartilla 214 -- Work Journal 214, 10 pack 96	G4199 108		
Cartilla 215 -- Work Journal 215, 10 pack 96	G4200 108		
Cartilla 216 -- Work Journal 216, 10 pack 96	G4201 108		
Cartilla 217 -- Work Journal 217, 10 pack 96	G4202 108		
Cartilla 218 -- Work Journal 218, 10 pack 96	G		

As of September 20, 1988

Control and Follow-up, Management Skill Development 21	Support 53	Dictionary Dog 95	Publications 87
Control Program, 3270-PC	Data Acquisition/Control Adapter Support Publications 87	Digital Analog Adap Driver, The Fix 80	Diskette Drive, 3.5in, PC/AT Internal 52
See 3270-PC Communication	Data Acquisition/Control Adapter, Seminar Proceedings 86	Dimensioning, CAEDS 122, 123	Diskette Drive, 3.5in, PC/AT Internal Support Publications 88
Convertible PC 48	Data Base Manager Programming Guide, IBM Operating System/2 31	Direct Access Storage Devices, Personal System/2 Model 30 286 38	Diskette Drive, 5.25in External 132
Convertible PC Support Publications 49	Data Base Programs 76	Direct-Access Storage Devices 51	Diskette Drive, 5.25in 360KB, PC/XT 286 39
Convertible, Seminar Proceedings 86	Data Edition 73	Direct-Access Storage Devices, External 132	Diskette Drive, 7552 46
Cooperative Software Program 20	Data Export, IBM Interleaf Publisher 83	Direct-Access Storage Devices, Pers Sys/2 (MicroChannel Models) 24	Diskette, 3812 Operational 126
COPICS	Data Export, IBM Interleaf Publishing Series RT PC Edition 121	Direction, Statements of See Statements of Direction	Disk/Diskette Module II, 7552 46
See Executive Data Link for COPICS	Data Management Services, RT PC 120	Discount Schedule, Software 10	DISOSS support for PC and 3270-PC 180
Coprocessor Card, PC/AT for RT 116	Data Migration Facility, Personal System/2 59	Discount Schedule, VPA 4, 5	DISOSS Support for PS/PC 59
Coprocessor Services, RT PC 117	Data Translation Driver, The Fix 80	Discover/DOS 79, 109	Display Adapter, Convertible PC 48
Corporate Service Amendment 13	Database Design and Coding, OS/2 107	Discover/Education - DOS Introduction and Implementation 79	Display Adapter, 85XX Displays 54
Cover, Shaded Screen for 7534 47	Database for the PC 95	Discover/Education, IBM 79	Display Adapter, 85XX Displays for Pers Sys/2 26
CP/M-86 89	Database Manager Workshop, OS/2 107	Disk See Fixed Disk	Display Attachment Kit, InfoWindow 54
Cribware 80	Database Reporter, RT PC 121	Diskette Drive Adapter, 3.5in External, Support Publications 87	Display Management System/CMS, VM/PC 91
CRISP 21	dBASE III 76	Diskette Drive, Dual-sided (360KB) 52	Display Pedestal-Distributed, 4680 228mm 43
Cross Sell Manager Version 2 76	dBASE III, Course 95	Diskette Drive, Dual-Sided, Support Publications 87	Display Pedestal-Integrated, 4680 228mm 43
Cross-System Product/Application Generation, EZ-RUN 72	DCF	Diskette Drive, High Capacity PC/XT 286 39	Display Stand 55
Crwth Computer Based Training 21	See Document Composition Facility, VM/PC	Diskette Drive, High Capacity (1.2MB) 52	Display Stand, 3270-PC/G 41
CSP/EZ-PREP	DDM/PC 58	Diskette Drive, High Capacity (1.2MB) Support Publications 87	Display Stand, 8512 25
See ?	Debug Facility, Professional, Seminar Proceedings 86	Diskette Drive, Industrial PC 46	Display Station Emulation Adapter (5520,S/3X) 62
Currency Control 4700 75	Debuggers 72	Diskette Drive, PS/2 M25 37	Display Station Emulation Adapter/A, IBM 26
Current Loop Board for ARTIC 53	Debug, Professional 72	Diskette Drive, 1.44MB Pers Sys/2 24	DisplayComm (BSC) Communications 62
Curriculum, IBM PC 107	Decision Making, Management Skill Development 20	Diskette Drive, 360KB PCjr 49	DisplayGraphics Software 77
Cursor 54	Decisiveness, Management Skill Development 20	Diskette Drive, 3.5in External 51, 87	Displays and Attachments, PC 54
CursorPad 54	Defect Support, Software	Diskette Drive, 3.5in External Support Publications 88	Displays and Attachments, Personal System/2 25
Cursor, 3270-PC/G/GX 40	See Software Defect Support	Diskette Drive, 3.5in External Support Publications 87	DisplayWrite Assistant 73
Customer Setup Sheet, IBM 6152 124	Department Office Control System, Series/1 61	Diskette Drive, 3.5in Internal, Support Publications 87	DisplayWrite Printer Function Table, 5204 130
Cut Sheet Paper Tray, Wheelprinter 131	Desktop Publishing 83	Diskette Drive, 3.5in PC/XT 286 39	DisplayWrite Series 83
Cytology and Histology: Cells and Tissues 97	Developer, 3812 126	Diskette Drive, 3.5in PX/XT Internal Support	Displaywrite support for Quietwriter III 130
	Developer, 3820 127		DisplayWrite 2, Using 109
	Device Data Management Support 82		DisplayWrite 3 and S/36 Document Exchange 109
	DFT support for 4361 178		DisplayWrite 3, Using 109
	Diagnostics, S/36/38 Emul Adapter/A 27		DisplayWrite 4 143
	Dials, RT PC 116		
D			
DASD Adapter, PC/XT 286, Support Publications 87			
Data Acquisition/Control Adapter 53			
Data Acquisition/Control Adapter Programming			

As of September 20, 1988

- DisplayWrite 4/2 for OS/2 32
- DisplayWrite 4: Advanced Functions Workshop 107
- DisplayWrite 4: Basic Functions Workshop 107
- Displaywriter Printer 131
- Displaywriter/PC Attachment 62
- Display, Advanced Color Graphics 116
- Display, Advanced Monochrome Graphics 116
- Display, Convertible Enhanced LCD 48
- Display, Enhanced Industrial 47
- Display, Extended Monochrome Graphics 116
- Display, Industrial Color 47
- Display, PC Convertible Color 48
- Display, PC Convertible Monochrome 48
- Display, PCjr Color 49
- Display, Plasma 55
- Display, Toledo Scale 43
- Display, 4680 42
- Distance Kits, PC Network 133
- Distance Learning - Spanish 95
- Distributed Data Management/PC 58
- Distributed Services, AIX PS/2 34
- Distributed Services, AIX/RT 118
- Distributed Services, RT PC 119
- Distributed Systems Node Executive 60
- Distribution Panel, Data Acquisition/Control 53
- DMS/CMS
  - See Display Management System/CMS, VM/PC
- DOCS
  - See Department Office Control System, Series/1
- Doctor's Office Management, SolutionPac 18
- Doctor's Office Manager 74
- Document Composition Facility, VM/PC 91
- Document Content Architecture, Seminar Proceedings 86
- Document Retrieval Assistant 73
- DOS 71
  - DOS Implementation 109
  - DOS Introduction and Implementation, Discover/Education 79
  - DOS Introduction and Operations 109
  - DOS Merge, IBM AIX PS/2 33
  - DOS Operating Systems and Programming Aids 71-72
  - DOS Server, AIX PS/2 34
  - DOS Server, AIX/RT 118
  - DOS Support Publications 88
  - DOS 2.0 and 1.1, Seminar Proceedings 86
  - DOS 2.00, Learning to Use (book) 95
  - DOS 2.1, 2.0, and 1.1, Seminar Proceedings 86
  - DOS 2, Learning 104
  - DOS 3.0, Seminar Proceedings 86
  - DOS 3.2, Seminar Proceedings 86
  - DOS 4.00 and Windows Kit for Personal System/2 71
  - DOS, Class 109
  - DOS, Using the IBM Personal Computer 109
  - DrawMaster Workstation Support 76
  - DrawMaster Workstation Support for PS/2 77
  - Driver Card, 5364 69
  - DSNX/PC 60
  - Dual Async Adapter/A 27
  - Dust Shield, Quietwriter III 130
  - DxTER Clinical Simulator 20
  - Dynamic Simulation Language/VS, VM/PC 91
- E
  - Earth Sciences Series 100
  - Earthquakes 100
  - Easylabel 80
  - ECF Facilities and Planning 108
  - Editor, Personal 72
  - Editor, Professional 72
  - EDL
    - See Executive Data Link for CMAS
    - See Executive Data Link for COPICS
    - See Executive Data Link for
  - MAPICS
    - Educational Programs 95-110
    - Education, Technical Coordinator
      - See Technical Coordinator Education
  - EDX
    - See Series/1 Event Driven Executive
  - EDX, Series/1 PC Connect under 178
  - EIA Interface, 3820 127
  - Electric Fields, Investigating 103
  - Electric Poet 72
  - ElectroCompositor, 4250 129
  - Electronic Fonts, Quietwriter 129
  - Electronic Grammar 95
  - Electronic 65/85 Typewriter-PC Attachment 125
  - Elementary Math Library PRPQ, VM/PC 91
  - Embedded SQL Preprocessor for COBOL 121
  - Embedded SQL Preprocessor for FORTRAN 35, 121
  - Embedded SQL Preprocessor for Pascal 35, 121
  - EMS Memory 50
  - Emulex/Persyst Monochrome Graphics Board 55
  - Encryption, 4700 44
  - End User and Personal Computing Curriculum 107
  - Energy Management Software 80
  - Engineering and Math Group Fonts 129
  - Engineering Simulation Program 72
  - Engineering/Scientific Programs for the IBM PC (Catalog) 88
  - English Access Edition 73
  - Enhanced Color Display 55
  - Enhanced Connectivity Facilities 60
  - Enhanced Connectivity Facilities, OS/2 177
  - Enhanced Connectivity Facilities, Seminar Proceedings 86
  - Enhanced Display Station Emulation Adapter 62, 63
  - Enhanced Graphics Adapter 55
  - Enhanced Graphics Adapter Jumper Card 54
  - Enhanced Graphics Adapter Jumper Card Support Publications 54
  - Enhanced Graphics Adapter Support Publications 87
  - Enhanced Graphics Adapter, InfoWindow 54
  - Enhanced Graphics Adapter, Seminar Proceedings 86
  - Enhanced Keyboard Appendix 63
  - Enhanced Keyboard, Seminar Proceedings 86
  - Enhanced Memory Expansion Adapter, PC/AT 51
  - Enhanced Memory Expansion Adapter, PC/AT Support Publications 51
  - Enhanced Operator Console Version 3 59
  - Enhanced 5250 Emulation Installation Convenience Kit 62
  - Enhanced 5250 Emulation Program 63
  - Envelope Feed, Quietwriter III 130
  - Envelope Feed, 5204 130
  - Epson FX-185 Printer 125
  - ESDI Magnetic Media Adapter, RT PC 114
  - Ethernet Adapter, RT PC 115
  - Excel 72
  - Excelerator 74
  - Excelsior, Bold 129
  - Excelsior, Medium 129
  - Exchange Prices, Hourly Maintenance 159
  - Exchange, Customer Carry-In 151
  - Exchange, Customer On-Site 151
  - Exchange, IBM On-Site 151
  - Executive Data Link for CMAS 74
  - Executive Data Link for COPICS 74
  - Executive Data Link for MAPICS 74
  - Executive Direction
    - See Managing End User Computing
  - Expanded Memory Adapter 144
  - Expanded Memory Adapter/A, Pers Sys/2 24
  - Expanded Memory Adapter, PC, PC/XT, PC/AT 50
  - Expanded Memory Adapter, 3270-PC 40
  - Expanded Memory Board 50

As of September 20, 1988

Expansion Slot Usage 135  
 Expansion Unit, RT PC  
   6192-001 115  
 Extended Memory Board 51  
 Extended Monochrome Graphics  
   Adapter, RT PC 116  
 Extended Support, Software  
   See Software Extended Sup-  
   port  
 Extension Unit, 3117 133  
 External Diskette Drive  
   Adapter 51  
 External Diskette Drive  
   Adapter/A 24  
 External Diskette Drive,  
   3.5in 51  
 External Diskette Drive,  
   5.25in 132  
 External Voltage Module,  
   7552 46  
 EZ-PREP CSP  
   See ?  
 EZ-VU ISPF  
   See Interactive System Pro-  
   ductivity Facility

## F

FACT TRACK 95  
 FCS Output Option 44  
 Feature Codes 9  
   0005 49, 158, 164, 169  
   0006 49, 169  
   0007 49, 169  
   0008 49, 169  
   0009 49, 169  
   0010 49, 169  
   0012 49, 169  
   0013 49  
   0020 49, 169  
   0021 49, 169  
   0022 49, 169  
   0023 49  
   0024 49, 169  
   0026 49, 169  
   0027 69, 169  
   0031 49, 169  
   0049 96  
   0061 68  
   0066 39  
   0070 88  
   0101 169  
   0102 125, 169  
   0111 87  
   0112 88

0202 50, 169  
 0203 169  
 0205 158, 164, 169  
 0206 52, 169  
 0207 52, 169  
 0209 169  
 0210 52, 158, 164  
 0211 49, 169  
 0215 50, 169  
 0216 55, 169  
 0217 57, 169  
 0218 54, 169  
 0220 50, 169  
 0230 133  
 0231 133, 169  
 0232 134, 169  
 0233 134, 169  
 0234 134, 170  
 0235 134, 170  
 0236 134, 170  
 0237 134, 170  
 0238 133, 170  
 0242 57, 170  
 0300 158, 170  
 0349 27, 170  
 0357 52, 170  
 0359 39, 170  
 0360 39, 170  
 0370 10, 67  
 0371 10, 67  
 0400 158  
 0401 158  
 0456 79  
 0468 52, 158  
 0489 72  
 0490 72  
 0601 58  
 0602 64  
 0603 58  
 0604 61  
 0605 61  
 0606 62  
 0607 68  
 0608 62  
 0609 63  
 0611 83  
 0612 73  
 0613 73  
 0614 73  
 0615 73  
 0616 73  
 0617 72  
 0619 58  
 0620 58  
 0621 58  
 0626 73

0627 73  
 0628 73  
 0629 73  
 0630 73  
 0631 66  
 0632 66  
 0633 65  
 0634 30  
 0637 65  
 0638 65  
 0639 29  
 0640 29  
 0641 29  
 0642 29  
 0644 30  
 0645 66  
 0646 66  
 0648 71  
 0650 71  
 0651 57  
 0652 57  
 0653 63  
 0656 57  
 0657 57  
 0658 57  
 0659 64  
 0660 30  
 0661 30  
 0662 30  
 0663 32  
 0664 32  
 0665 32  
 0666 68  
 0668 83  
 0708 70  
 0716 63  
 0740 70  
 0741 26, 70  
 0742 70  
 0743 70  
 0744 26  
 0790 75  
 0791 75  
 0792 75  
 0802 72  
 0803 65  
 0805 77  
 0809 29  
 0810 29  
 0811 29  
 0812 29  
 0813 71  
 0816 31  
 0818 31  
 0820 31  
 0822 31

0823 57  
 0824 31  
 0826 31  
 0828 31  
 0832 57  
 0833 57  
 0834 57  
 0835 63  
 0836 63  
 0837 57  
 0841 58  
 0842 52  
 0849 58  
 0851 58  
 0869 62  
 0870 62  
 0871 62  
 0872 62  
 0873 31  
 0874 31  
 0875 31  
 0876 31  
 0877 31  
 0878 31  
 0879 31  
 0880 31  
 0881 31  
 0882 31  
 0883 32  
 0884 32  
 0885 72  
 0908 68  
 0915 96  
 0916 95  
 0923 29  
 0925 29  
 0927 29  
 0928 29  
 0929 79  
 0930 32  
 0931 68  
 0934 100  
 0935 100  
 0936 101  
 0937 100  
 0938 100  
 0939 101  
 0940 104  
 0941 104  
 0942 104  
 0943 104  
 0944 104  
 0945 104  
 0946 99  
 0947 99  
 0948 99

As of September 20, 1988

0949	100	1081	66	2001	62	2910	62
0950	99	1100	170	2002	62	2911	62
0951	100	1121	32	2003	62, 66	2912	63
0955	52	1122	32	2004	61, 70	2980	41
0956	88	1123	32	2005	61	3000	43, 91, 94, 128
0957	71	1124	32	2067	57, 170	3001	23, 43, 55, 91, 94,
0961	129	1147	26	2074	61, 170	133, 171	
0962	129	1148	26	2075	170	3002	23, 43, 91, 133, 171
0963	129	1186	96	2090	170	3003	91
0964	129	1200	55, 170	2098	90	3004	91
0965	129	1201	55, 170	2105	84	3005	40, 55, 91, 166
0966	129	1203	55, 170	2108	61	3006	24, 91, 171
0967	129	1204	62, 170	2109	61	3007	88, 91
0968	129	1205	62, 170	2110	61	3008	87, 91
0969	129	1206	69, 170	2113	61	3009	24, 91, 171
0970	129	1207	69, 170	2122	90	3010	91, 127, 166
0971	129	1209	50, 170	2123	69	3011	90, 91
0972	129	1220	68, 170	2154	89	3012	24, 90, 91, 171
0973	129	1221	68, 170	2175	90	3013	91
0974	129	1222	28, 170	2177	90	3014	91
0975	129	1223	28, 170	2205	69	3015	91
0976	129	1226	134	2229	88	3016	91
0977	129	1227	134	2290	95	3019	24, 171
0978	129	1228	134	2292	49	3020	90, 127, 166
0979	129	1229	134	2293	49	3021	90
0980	129	1300	50, 170	2294	49	3025	55, 61, 91, 127, 166,
0981	129	1356	115, 170	2336	65	171	
0982	129	1357	115, 170	2337	65	3026	61
0983	129	1400	50, 170	2383	125	3027	61
0984	129	1406	32	2400	115	3028	61, 91
0985	129	1407	32	2416	78	3030	51, 126, 127, 157, 166
0986	129	1408	32	2422	54, 170	3031	51, 157
0987	129	1409	32	2447	106	3032	51, 157
0988	129	1418	71	2448	106	3033	27, 51, 157, 171
0989	129	1419	71	2449	106	3034	51, 157
0990	129	1420	71	2500	158, 164, 170	3035	51, 91, 157, 166
0991	129	1421	71	2501	171	3036	157
0992	129	1423	71	2505	134	3037	91, 157
0993	129	1424	71	2507	65, 171	3038	51, 157
0994	129	1425	71	2509	87	3039	51, 157
0995	129	1426	71	2510	36	3040	126, 127, 157
0996	129	1427	71	2511	36	3041	124, 157
0997	129	1430	30	2527	41	3042	27, 157, 171
0998	129	1431	30	2529	41	3043	27, 55, 157, 171
1001	50, 170	1432	30	2871	62	3044	91, 157
1002	49, 170	1435	71	2874	62	3045	91, 127, 157
1003	50, 170	1501	158, 164, 170	2877	63	3046	24, 157, 171
1005	170	1502	53, 170	2879	171	3047	49, 91, 157, 171
1011	170	1503	53, 170	2883	62	3048	49, 157, 171
1012	170	1504	53, 170	2887	62, 158, 164, 171	3049	50, 157, 171
1013	50, 170	1508	77	2889	62	3050	50, 126, 127, 157,
1023	58	1509	158, 164, 170	2891	62, 171	166, 171	
1028	26, 170	1511	40, 54, 170	2892	62, 171	3051	24, 54, 124, 157, 171
1029	26	1519	77	2893	62, 171	3052	51, 157, 171
1029/.1028	170	1601	165	2894	62, 171	3053	51, 157, 171
1078	133	2000	28, 62, 170	2908	77	3054	51, 157, 171

As of September 20, 1988

3056 51, 157, 171	3210 39	3343 42, 50, 158, 160, 164	4003 42, 159, 160, 164
3057 24, 50, 157, 171	3211 87	3344 42	4005 48
3058 50, 157, 171	3212 88	3345 42	4010 42, 48, 54, 159, 160,
3059 50, 157, 171	3215 87	3352 159, 160, 164	164
3060 50, 157, 171	3216 39	3354 159, 160, 164	4012 42
3061 50, 157, 171	3223 60	3357 42	4013 96
3062 50, 157, 171	3228 77	3358 42	4014 42, 159, 160, 164
3063 50, 87, 157, 171	3229 77	3360 42, 159, 160, 164	4015 48
3064 24, 50, 88, 157, 171	3232 76	3361 42, 159, 160, 164	4016 42, 159, 160, 164
3065 127, 157, 166	3233 76	3364 42	4020 42, 48, 54
3066 157	3241 76	3365 42	4022 42
3067 157	3242 76	3370 87	4023 95
3068 157	3243 76	3380 42, 159, 160, 164	4024 42, 95
3069 157	3244 76	3384 42	4025 48, 54, 59, 95
3070 157	3246 66	3385 42	4026 42, 48, 74, 93, 172
3071 157	3247 66	3390 68, 115	4027 74
3072 157	3248 66	3391 67	4028 42, 69, 74
3073 157	3249 66	3395 171	4029 74
3075 87	3250 66	3397 24, 51, 171	4030 42, 69, 74
3085 36	3251 66, 76	3400 171	4032 42, 69
3087 87	3252 66, 76	3402 171	4034 42, 69
3088 88	3253 76	3404 51	4035 89
3089 36	3254 76	3406 51	4040 42, 48, 172
3090 87	3255 63, 77	3408 51	4048 72
3091 87	3256 63	3426 171	4050 54, 172
3092 87	3257 127	3428 114, 172	4051 72
3093 87	3258 51	3466 42	4052 104
3098 68	3264 75	3468 114	4053 95
3099 88	3265 75	3470 114	4054 26, 172
3100 50, 87, 157, 171	3266 63, 75	3506 114	4055 48
3101 50, 157, 171	3267 75	3520 40	4060 49
3102 39, 50, 157, 171	3268 76	3530 40	4063 104
3103 50, 157, 171	3269 69	3540 115	4065 49, 74
3108 88	3270 63, 69	3544 87	4066 95
3109 87	3271 69	3606 70	4067 95
3110 88	3272 69, 114, 115	3619 51, 171	4069 104
3112 41	3277 77	3641 70	4071 83
3113 41	3282 64	3653 58	4072 95
3115 126	3286 61	3678 114	4075 49, 96
3125 126	3287 61	3780 172	4076 49, 95
3130 126	3288 61	3797 115, 172	4078 104
3135 126	3295 64	3800 172	4079 96
3140 126	3310 114	3810 172	4080 49, 95
3155 126	3320 42, 158, 160, 164	3891 159, 164, 172	4081 26, 104, 172
3156 115, 171	3322 42, 158, 160, 164	3905 50, 172	4082 49
3157 115	3323 42	3907 40, 172	4083 104
3158 115	3325 42, 51	3910 40, 172	4084 104
3165 115	3326 42, 51, 158, 164	3913 116	4085 49, 104
3169 115	3327 51	3920 172	4086 104
3171 115	3330 42	3930 172	4088 49
3177 54, 171	3336 50	3988 114	4090 49
3200 127, 158, 171	3337 50	4000 42, 69, 82, 128, 159,	4091 93
3201 127	3338 50	160, 164	4092 93
3202 127	3339 42, 50, 158, 160, 164	4001 42, 69, 128, 159, 160,	4093 93
3203 127	3340 42, 158, 160, 164	164	4094 93, 95
3208 87	3342 42	4002 42, 128, 159, 160, 164	4095 49, 93, 95

As of September 20, 1988

4096 94, 95  
 4097 95  
 4098 95  
 4099 95  
 4100 114  
 4101 71  
 4103 37  
 4104 95  
 4105 37  
 4106 37  
 4107 37  
 4109 96  
 4110 37  
 4112 95  
 4113 104  
 4115 38  
 4116 95  
 4117 100  
 4118 103  
 4120 71  
 4121 63, 100  
 4122 68, 100  
 4123 100  
 4124 100  
 4129 95  
 4136 95  
 4137 95  
 4139 95  
 4143 72  
 4156 52, 172  
 4157 74  
 4160 25, 172  
 4165 95  
 4167 96  
 4172 72  
 4174 90  
 4175 90  
 4176 90  
 4187 62  
 4190 83  
 4192 42  
 4197 84  
 4201 53  
 4202 53  
 4210 62  
 4239 54  
 4293 95  
 4294 95  
 4297 104  
 4300 114  
 4304 95  
 4305 104  
 4306 73  
 4307 104  
 4308 104  
 4316 97

4317 97  
 4318 97  
 4319 97  
 4320 97  
 4321 97  
 4322 100  
 4323 100  
 4324 100  
 4325 104  
 4326 104  
 4327 104  
 4330 105  
 4333 103  
 4334 103  
 4336 105  
 4337 105  
 4338 105  
 4339 96  
 4340 95  
 4343 97  
 4344 97  
 4345 97  
 4346 97  
 4347 106  
 4348 106  
 4349 106  
 4350 107  
 4351 107  
 4352 107  
 4353 102  
 4354 102  
 4355 101  
 4356 101  
 4357 101  
 4358 105  
 4359 105  
 4360 105  
 4363 96  
 4364 105  
 4365 107  
 4366 105  
 4368 101  
 4369 101  
 4370 101  
 4371 102  
 4372 102  
 4374 105  
 4375 105  
 4376 107  
 4377 107  
 4378 103  
 4379 103  
 4380 106  
 4381 106  
 4382 106  
 4384 105

4386 105  
 4387 105  
 4388 98  
 4389 98  
 4390 98  
 4391 97  
 4392 98  
 4393 98  
 4394 97  
 4395 98  
 4396 98  
 4397 97  
 4400 63  
 4401 63, 78  
 4402 103  
 4403 68, 103  
 4404 68, 103  
 4405 103  
 4406 76  
 4407 97  
 4408 97  
 4409 97  
 4410 64, 97  
 4411 64, 97  
 4412 97  
 4413 97  
 4414 97  
 4415 97  
 4416 97  
 4417 101  
 4419 101  
 4421 102  
 4422 102  
 4427 101  
 4429 101  
 4430 94  
 4431 102  
 4432 102  
 4437 97  
 4438 98  
 4439 97  
 4440 98  
 4441 98  
 4442 98  
 4443 98  
 4444 98  
 4445 98  
 4446 98  
 4447 96  
 4449 58  
 4450 96  
 4451 58  
 4452 58  
 4453 72  
 4454 72  
 4457 73

4458 73  
 4459 73  
 4460 73  
 4461 73  
 4464 103  
 4465 103  
 4466 103  
 4467 96  
 4468 96  
 4469 96  
 4471 172  
 4473 106  
 4474 106  
 4500 43  
 4502 78  
 4503 78  
 4504 78  
 4505 78  
 4506 95  
 4507 95  
 4508 104  
 4509 96  
 4510 95  
 4511 95  
 4512 117  
 4513 96  
 4514 100, 117  
 4515 95  
 4516 100  
 4517 100  
 4518 100, 120  
 4519 100  
 4520 100  
 4521 100  
 4522 100  
 4523 103  
 4526 104  
 4527 104  
 4528 104  
 4529 104  
 4530 95  
 4531 104  
 4532 100  
 4533 100  
 4534 100  
 4535 100  
 4536 95  
 4537 95  
 4538 95  
 4539 95  
 4540 104  
 4541 104  
 4542 104  
 4543 104  
 4544 93, 98  
 4545 98



As of September 20, 1988

4546 98  
 4547 65, 98  
 4548 69, 172  
 4549 99  
 4550 100  
 4551 100  
 4552 100  
 4553 104  
 4554 104  
 4555 132  
 4556 106  
 4557 103  
 4558 103  
 4559 106  
 4560 106  
 4561 106  
 4562 96  
 4563 99  
 4564 98  
 4565 99  
 4566 65, 98  
 4567 106  
 4568 106  
 4569 106  
 4570 107  
 4571 107  
 4572 107  
 4573 102  
 4574 102  
 4575 101  
 4576 101  
 4577 101  
 4578 105  
 4579 105  
 4580 105  
 4581 103  
 4582 63, 103  
 4583 103  
 4584 103  
 4585 98  
 4586 98  
 4587 98  
 4588 99  
 4589 98  
 4590 98  
 4591 82, 98  
 4592 98  
 4593 99  
 4594 81, 99  
 4595 101  
 4596 101  
 4597 102  
 4598 102  
 4599 103  
 4600 74, 103  
 4601 74, 103, 126

4602 100, 126  
 4603 100, 126  
 4604 93, 100  
 4605 93, 101  
 4606 93, 101  
 4607 93, 105  
 4608 105  
 4609 105  
 4610 99  
 4611 104  
 4612 103  
 4613 100  
 4614 97  
 4615 97  
 4616 97  
 4617 98  
 4618 98  
 4619 98  
 4620 98  
 4621 98  
 4622 83, 103  
 4623 103  
 4624 103  
 4625 103  
 4626 103  
 4627 103  
 4628 83, 103  
 4630 106  
 4631 106  
 4632 106  
 4633 83, 97  
 4634 83, 98  
 4635 97  
 4636 97  
 4637 97  
 4638 82, 97  
 4639 97  
 4640 94, 98  
 4641 93, 94, 98  
 4642 93, 98  
 4643 93, 98  
 4644 98  
 4645 97  
 4646 97  
 4647 97  
 4648 97  
 4649 97  
 4650 90, 98  
 4651 90, 98  
 4652 98  
 4653 98  
 4654 98  
 4655 97  
 4656 97  
 4657 97  
 4658 97

4659 98  
 4660 94, 98  
 4661 94, 98  
 4662 98  
 4663 102  
 4664 102  
 4665 102  
 4666 102  
 4667 102  
 4668 102  
 4669 102  
 4670 102  
 4671 105  
 4672 105  
 4673 105  
 4674 105  
 4675 105  
 4676 106  
 4677 106  
 4678 106  
 4679 92, 103  
 4680 92, 103  
 4681 92, 103  
 4682 92, 103  
 4683 92, 105  
 4684 92, 105  
 4685 92, 105  
 4686 92, 105  
 4687 92, 105  
 4688 105  
 4689 92, 99  
 4690 99  
 4691 92, 99  
 4692 100  
 4693 100  
 4694 100  
 4695 104  
 4696 104  
 4697 104  
 4698 96  
 4699 106  
 4700 96  
 4701 107  
 4702 88, 92  
 4703 92, 107  
 4704 92, 107, 116, 172  
 4705 92, 107  
 4706 107  
 4707 100  
 4708 106  
 4709 106  
 4710 106, 116, 165, 172  
 4711 101  
 4712 101  
 4713 101  
 4714 101

4715 101  
 4716 101  
 4717 104  
 4718 105  
 4719 104  
 4720 106  
 4721 101  
 4722 101  
 4723 101  
 4724 101  
 4725 101  
 4726 106  
 4727 101  
 4728 100  
 4729 106  
 4730 106  
 4731 95  
 4732 97  
 4733 97  
 4734 107  
 4735 114, 172  
 4739 115, 172  
 4756 115, 172  
 4758 115, 172  
 4762 115, 172  
 4763 172  
 4764 63, 172  
 4765 63, 116, 172  
 4766 58, 116, 172  
 4767 58, 95  
 4768 58, 96, 116, 172  
 4769 58  
 4770 58  
 4771 58, 70, 159, 164, 172  
 4773 67  
 4779 106  
 4780 106  
 4781 106  
 4782 106  
 4783 105  
 4784 78, 105  
 4785 78, 105  
 4786 78, 107  
 4787 107  
 4788 107  
 4789 106  
 4790 28, 106, 172  
 4791 106  
 4792 63, 103  
 4793 103  
 4794 96  
 4795 101  
 4796 101  
 4797 101, 115, 172  
 4798 101  
 4799 101

As of September 20, 1988

4800 102  
 4801 102  
 4802 102, 116, 172  
 4803 102, 116, 172  
 4804 100  
 4805 159, 164, 172  
 4806 100  
 4807 101  
 4808 101  
 4809 105  
 4810 105  
 4811 99  
 4812 99, 115  
 4813 99  
 4814 99, 115  
 4815 99  
 4816 99, 115  
 4817 99  
 4818 99  
 4819 99  
 4820 105  
 4821 99  
 4822 99  
 4823 99  
 4824 99  
 4825 99  
 4826 99  
 4827 99  
 4828 99  
 4829 61, 159, 165, 172  
 4830 99  
 4831 99  
 4832 95  
 4833 95  
 4834 100  
 4835 100  
 4836 100  
 4837 100  
 4838 100  
 4839 70, 100, 159, 164, 172  
 4840 100  
 4841 100  
 4842 95  
 4843 95  
 4844 103  
 4845 103  
 4846 103  
 4847 103  
 4849 103  
 4850 103  
 4851 103  
 4852 104  
 4853 100  
 4854 99  
 4856 104  
 4867 73

4875 96  
 4876 96  
 4877 96  
 4878 96  
 4879 96  
 4880 96  
 4881 96  
 4882 96  
 4883 96  
 4884 96  
 4885 96  
 4886 96  
 4887 96  
 4888 97  
 4889 97  
 4890 96  
 4891 96  
 4894 96  
 4895 96  
 4896 96  
 4897 96  
 4898 96  
 4900 54, 172  
 4910 54, 172  
 4920 56, 172  
 4922 78  
 4925 55, 172  
 4927 128  
 4928 128  
 5001 49, 172  
 5002 70, 172  
 5003 59, 172  
 5004 25, 38, 172  
 5010 88, 131  
 5020 82, 131  
 5028 82  
 5029 82  
 5030 131, 132, 172  
 5038 82  
 5039 82  
 5040 54, 131, 132  
 5050 65, 131, 132, 172  
 5060 76, 131, 132  
 5061 76  
 5062 76  
 5063 67, 76, 159, 165, 172  
 5065 93  
 5070 131, 132  
 5099 81  
 5124 126  
 5125 126  
 5126 126  
 5137 82  
 5146 82  
 5181 92  
 5182 92

5183 92  
 5184 82, 92  
 5185 92  
 5193 93  
 5194 93, 94  
 5195 93, 94  
 5197 94  
 5200 55, 173  
 5201 82  
 5211 24  
 5212 24  
 5213 24  
 5214 24  
 5228 93  
 5236 93  
 5240 54, 173  
 5279 25  
 5280 25  
 5300 114  
 5315 159, 165, 173  
 5316 159, 165, 173  
 5317 65, 173  
 5318 65, 173  
 5321 159, 165, 173  
 5322 159, 165, 173  
 5325 159, 165, 173  
 5326 159, 165, 173  
 5327 173  
 5328 173  
 5335 41  
 5345 58  
 5397 72  
 5398 84  
 5399 84  
 5420 125  
 5421 125  
 5427 131  
 5433 125  
 5435 125  
 5436 125  
 5441 125  
 5442 26, 125  
 5447 125  
 5448 72, 125  
 5449 125  
 5458 67  
 5459 67  
 5465 65  
 5466 65  
 5467 65  
 5558 90  
 5559 90  
 5612 43, 125, 173  
 5614 125, 173  
 5647 28, 170  
 5648 28, 170

5730 40, 173  
 5731 40, 173  
 5763 67  
 5773 68, 173  
 5774 28, 173  
 5790 173  
 5797 64  
 5802 64  
 5838 92  
 5848 92  
 5850 76  
 5851 76  
 5852 76  
 5858 76, 92, 93  
 5888 92, 93  
 5898 92, 93, 94  
 5912 83  
 5940 64  
 5941 64  
 5942 64  
 5980 64  
 5981 64  
 5983 64  
 5984 64  
 5985 64  
 5986 64  
 5987 64  
 5991 64  
 5992 64  
 5996 77  
 5997 77  
 6000 47  
 6001 46, 47, 173  
 6002 47, 173  
 6003 48  
 6004 48, 92  
 6005 40, 92  
 6006 48  
 6010 48, 173  
 6011 54  
 6017 47, 159, 165, 173  
 6018 47, 159, 165, 173  
 6019 46, 159, 173  
 6020 46, 173  
 6023 25, 46, 173  
 6024 46, 173  
 6025 46, 47, 173  
 6026 47, 173  
 6027 47, 173  
 6029 48  
 6030 48, 131, 173  
 6031 43, 125  
 6032 47  
 6033 48  
 6034 47  
 6035 47, 48

As of September 20, 1988

6036 47  
 6037 47  
 6038 46, 173  
 6039 46, 173  
 6040 46, 173  
 6041 68  
 6042 68  
 6043 68  
 6044 46, 173  
 6045 46, 159, 173  
 6046 47  
 6047 47  
 6049 43, 173  
 6050 53, 127, 159, 173  
 6051 53, 173  
 6052 44, 173  
 6053 53, 173  
 6054 44, 173  
 6055 53, 74, 173  
 6056 53, 74  
 6057 53, 74  
 6058 52, 53, 74  
 6059 52, 53, 74  
 6060 73  
 6061 53, 73, 173  
 6062 73  
 6063 73  
 6064 53, 173  
 6065 44, 73, 173  
 6066 53, 60, 173  
 6067 74  
 6068 44, 74, 173  
 6069 44, 74, 173  
 6070 46, 83, 115, 173  
 6071 46  
 6072 46, 173  
 6073 46, 173  
 6074 46, 173  
 6075 46, 73, 173  
 6076 46, 73, 174  
 6077 46, 73, 174  
 6078 46, 174  
 6079 73  
 6080 174  
 6081 46, 174  
 6082 46, 174  
 6083 46  
 6085 73  
 6086 48, 78  
 6087 78  
 6089 48  
 6094 46, 78, 174  
 6095 46, 78, 174  
 6096 46, 174  
 6097 46, 174  
 6098 46, 174

6100 165  
 6113 77  
 6115 41, 159, 165, 174  
 6128 65  
 6132 65  
 6135 89  
 6148 58  
 6156 77  
 6160 53, 159, 174  
 6161 53  
 6163 46, 174  
 6165 53, 159, 174  
 6166 53, 159, 174  
 6169 60  
 6171 60  
 6180 46  
 6181 63  
 6186 46  
 6187 46  
 6192 46  
 6193 46  
 6221 46  
 6222 47  
 6223 47  
 6240 52, 159, 165, 174  
 6241 52, 159, 165, 174  
 6242 52, 59, 174  
 6243 52  
 6245 52, 174  
 6246 52  
 6247 53  
 6248 52, 63  
 6250 46, 174  
 6251 47  
 6252 47  
 6253 47  
 6254 47  
 6255 48  
 6256 47  
 6257 47  
 6260 47  
 6263 52, 159, 174  
 6265 52, 174  
 6266 42, 52, 174  
 6267 52, 174  
 6279 27, 174  
 6286 27  
 6287 27  
 6293 27  
 6300 114  
 6310 115  
 6320 23  
 6321 53  
 6322 53  
 6323 53  
 6334 52

6335 118  
 6341 114, 174  
 6351 40, 54, 174  
 6401 53  
 6500 42, 79  
 6501 79, 174  
 6502 80, 174  
 6503 80, 174  
 6504 79, 174  
 6505 79, 174  
 6506 79, 174  
 6507 79, 174  
 6508 79, 174  
 6509 79, 174  
 6510 79, 174  
 6511 79  
 6512 79, 174  
 6513 174  
 6514 174  
 6515 174  
 6516 174  
 6517 63, 79  
 6518 79  
 6519 79  
 6520 79  
 6521 81  
 6522 80  
 6523 80  
 6525 79  
 6526 79  
 6529 79  
 6530 79  
 6532 80  
 6535 80  
 6536 80  
 6537 80  
 6538 80  
 6539 80  
 6540 80  
 6541 80  
 6542 80  
 6543 80  
 6544 80  
 6546 80  
 6547 80  
 6549 80  
 6550 63, 80  
 6551 80  
 6553 81  
 6554 81  
 6555 81  
 6556 81  
 6557 81  
 6558 80  
 6559 81  
 6560 81

6561 81  
 6562 81  
 6564 81  
 6566 81  
 6567 80  
 6568 80  
 6569 80  
 6570 80  
 6571 80  
 6572 81  
 6573 81  
 6575 65  
 6576 81  
 6577 81  
 6579 81  
 6583 54, 81, 174  
 6585 65, 80  
 6586 80  
 6587 80  
 6588 80  
 6589 80  
 6590 80  
 6591 80  
 6592 80  
 6593 80  
 6594 80  
 6595 80  
 6596 80  
 6597 80  
 6598 43, 80  
 6600 81  
 6601 42, 81  
 6602 81  
 6603 81  
 6604 81, 82  
 6605 81  
 6606 81  
 6607 82  
 6608 82  
 6609 81, 82  
 6610 79  
 6611 82  
 6612 82  
 6613 82  
 6614 82  
 6615 80  
 6616 82  
 6617 82  
 6618 81  
 6619 81  
 6622 81  
 6623 81  
 6625 81, 82  
 6627 79  
 6629 79  
 6631 79

As of September 20, 1988

6632	79	7259	24	7893	116, 175	8634	43
6633	79	7426	43	7898	93	8635	38, 51, 175
6635	79	7429	43	7899	30	8641	43
6636	79	7501	55	7900	30	8659	130, 175
6639	79	7502	55	7910	129	8670	130
6640	79	7503	55	7920	129	8700	25, 159, 165, 175
6641	80	7504	55	7930	129	8710	116, 175
6642	80	7505	55	7933	29	8720	23, 175
6647	79	7506	55	7934	29	8722	24, 175
6648	79	7507	55	7935	29	8730	24, 175
6666	24	7508	55	7936	29	8750	51, 175
6685	130	7561	116, 175	7937	29	8760	24, 175
6690	88	7564	116, 175	7938	30	8770	25, 175
6691	88	7586	116, 175	7939	29	8873	67
6698	88	7600	158	7940	30, 129	8880	68
6701	42	7603	158	7941	30	8881	28, 175
6714	52, 158, 174	7612	158	7942	30	8910	67
6724	43	7613	158	7953	30	8913	67
6725	43	7619	61, 158, 175	7954	30	8927	43
5727	52, 158, 174	7625	158, 164	7955	30	8968	128
6801	174	7630	158	7956	30	8969	128
6802	174	7640	158, 164	7957	30	8970	128
6803	174	7641	116, 175	7958	30	8971	120
6805	174	7658	116	8000	27	8982	175
6806	174	7675	41, 175	8001	62, 124, 175	8989	70
6808	174	7676	41, 175	8002	43, 93, 124, 159, 165	8993	116, 175
6810	115, 174	7700	158	8003	43, 94	9001	61, 65, 74, 79, 80,
6815	115, 174	7701	158	8005	93	81, 82, 90, 92, 93, 94, 126	
6941	114, 174	7742	26	8006	94	9002	92
7000	114, 130, 174	7743	26	8007	94	9018	130
7001	41, 92, 128, 159, 165, 174	7771	66	8017	88	9021	112
7002	41, 92, 129, 159, 165, 174	7800	158, 164	8018	87	9029	74
7003	41	7801	55	8024	87	9031	74
7004	41, 115	7802	158, 164	8077	130	9047	83
7008	115	7804	158, 164	8161	77	9080	21, 79, 80
7010	115	7806	158, 164	8162	77	9100	175
7011	115, 159, 165, 175	7809	158, 164	8168	77	9103	54
7012	159, 165, 175	7812	158	8174	60	9104	83
7022	65	7820	129, 131, 158	8186	116, 175	9129	74
7034	77	7830	158	8214	130, 175	9131	74
7036	66	7833	24, 51, 175	8222	79, 115, 175	9173	103
7039	69	7840	129, 131	8245	116, 175	9174	103
7040	90, 93, 94	7848	93	8277	43	9175	103
7041	90, 93	7850	158, 166, 175	8278	43	9178	62
7042	94	7851	158	8314	42, 175	9186	61
7043	65, 69	7852	158	8335	66	9193	74
7045	65	7853	51, 158	8362	130, 175	9194	74
7062	66	7854	51, 158	8391	66	9195	74
7082	66	7858	93	8392	78	9196	74
7122	27	7860	68, 116, 175	8393	78	9197	74
7123	66	7868	93	8426	115, 175	9198	75
7124	30	7870	166, 175	8459	130	9200	75
7125	30	7873	66	8541	116, 175	9201	42, 75
7126	30	7875	166, 175	8570	130	9202	42, 75
		7880	129	8629	130	9203	75
		7888	93	8632	130	9204	75

As of September 20, 1988

9205	75	9767	99	9976	121	Flexibility, Management Skill
9206	75	9768	71	9979	121	Development 21
9207	75	9769	83	9981	121	Floating-Point Accelerator, Ad-
9208	75	9772	123	9982	121	vance, RT PC 115
9223	42	9783	77	9986	126	Floating-Point Accelerator, RT
9228	58	9784	111	9990	120	PC 115
9266	83	9785	83	9991	120	Floor Manager, CAMM 79
9340	95	9790	72	Feature Expansion, 4680	42	Floor Mount Kit without Key-
9358	89	9791	83	File Support Utility PRPQ		board, 7552 46
9360	64	9794	83	S/34 63		Floor Mount Kit, 7552 46
9367	73	9797	77	File Support Utility PRPQ		Floor-Standing Enclosure,
9371	130	9798	111	S/36 63		PC/AT 54
9372	131	9799	71	File Support Utility PRPQ		Font Download Feature,
9383	72, 130	9800	83	S/38 63		Quietwriter III 130
9384	71, 130	9805	83	Filing Assistant 73		Font Download Feature,
9385	72	9806	83	Filters, 7552 46		5204 131
9389	72	9807	83	Finance Communication System,		Font Management System,
9391	130	9816	16	4700 PC 43		3812 126
9396	66	9817	16, 72	Finance Systems Statement of		Fonts 129
9410	72	9818	16, 72	Direction 176		Fontset Option, Proprietary
9445	76	9821	96	Financial Accounting, Business		X24 128
9448	83	9822	114	Adviser SolutionPac 18		Fonts, Quietwriter
9510	43	9827	114	Financial Extensions		Electronic 129
9511	43	9828	75	Edition 75		Fonts, Quietwriter III 130
9512	43	9831	95	Fixed Assets, RT PC 121		FORTRAN Compiler 31
9513	43	9837	63, 75	Fixed Disk Adapter, 20MB, Sup-		FORTRAN Compiler, VM/PC 91
9520	68	9838	75	port Publications 87		FORTRAN Interactive Debug,
9538	130, 175	9839	75	Fixed Disk Drive, 114MB RT		VM/PC 91
9543	74	9840	75	PC 114		FORTRAN Interpreter 61
9565	63	9841	75	Fixed Disk Drive, 20MB, Support		FORTRAN 1.00, Seminar Pro-
9582	63	9846	75	Publications 87		ceedings 86
9588	71	9847	75	Fixed Disk Drive, 30MB 52		FORTRAN 77, RT PC 119
9600	40	9848	75	Publications 87		FORTRAN, IBM AIX PS/2 VS 34
9620	130, 175	9849	75	Fixed Disk Drive, 40MB RT		FORTRAN, Professional, Seminar
9623	126	9850	75	PC 114		Proceedings 86
9624	126	9851	75	Fixed Disk Drive, 70MB RT		FORTRAN, VS, RT PC 119
9630	74	9887	68	PC 114		Four Port RS-422 Addition,
9646	71	9904	83	Fixed Disk Organizer 71		ARTIC 52
9681	63	9910	132	Fixed Disk/Diskette Adapter		Freelance Plus 77
9685	96	9913	83	Support Publications 87		French Dictionary, IBM Inter-
9689	67	9914	83	Fixed Disk, 115MB Pers		leaf Publishing Series RT PC
9694	83	9918	83	Sys/2 24		Edition 121
9700	74	9919	83	Fixed Disk, 20MB, Industrial		FTP 119
9701	74	9920	132	PC 46		ftp Manual 89
9702	74	9932	89	Fixed Disk, 20MB, Support Pub-		Fuser Oil, 3820 127
9703	74	9939	89	lications 87		Fuser, 3812 126
9704	74	9941	89	Fixed Disk, 314MB Pers		Futura, Bold 129
9705	63, 74	9943	89	Sys/2 25		Futura, Medium 129
9706	74	9945	87	Fixed Disk, 44MB Pers Sys/2 24		
9720	69	9946	87	Fixed Disk, 60MB Pers Sys/2 24		
9737	89	9953	58	Fixed Disk, 70MB Pers Sys/2 24		
9758	99	9956	83	Fixed-Disk and Diskette Drive		
9759	99	9958	73	Adapter, PC/AT 114		
9760	58	9967	83	Fix, The 80		
9764	90	9969	58	Fleet Maint 80		
9766	90	9970	58			

As of September 20, 1988

GDDM-PCLK 77  
 GDDM/Personal graphIGS, RT  
 PC 122  
 GDDM, Color Plotter Support  
 for 132  
 GDQF  
   See Industry Standard Plot-  
   ting Commands  
 GDQF Support, Shop Assist 77  
 GEM Series 77  
 General Accounting 74  
 General Business Facility 71  
 General Electric CAMM  
 Manuals 79  
 General Electric Control Soft-  
 ware 79  
 General Electric Controller  
 Software 79  
 General Electric Device  
 Driver 79  
 General Ledger Edition 74  
 General Ledger Training  
 Edition 75  
 General Ledger, RT PC 121  
 General Purpose Interface Bus  
 Adapter 53  
 General Purpose Interface Bus  
 Adapter Support  
 Publications 87  
 General Purpose Interface Bus  
 Adapter, Seminar  
 Proceedings 86  
 General Purpose Interface Bus  
 Programming Support 53  
 General Purpose Programs 72-73  
 General Sales Application,  
 4680 93  
 Genetics, Modern 97  
 Geo-Information Workstation  
 Supervisor Version 1, IBM 77  
 GEOINT, RT PC UNIRAS 120  
 Geometry and Algebra, Preparing  
 for 104  
 Geometry Series 100  
 GEOPAK, RT PC UNIRAS 120  
 German Dictionary, IBM Inter-  
 leaf Publishing Series RT PC  
 Edition 121  
 Gertrude's Puzzles 95  
 Gertrude's Secrets 95  
 Get Set for Writing to Read  
 Kit 96  
 GGXA  
   See 3270-PC Color Graphics  
   Applications  
 Giltronix Sharing Device 55

GIMAGE, RT PC UNIRAS 120  
 Glacial Landforms 100  
 Gould Modicon Controller Soft-  
 ware 79  
 Gould Modicon Driver, The  
 Fix 80  
 GPIB Cable 54  
 Graphical File System, RT  
 PC 120  
 Graphical File System, Seminar  
 Proceedings 86  
 Graphical Kernel System  
 Support 179  
 Graphical Kernel System, Semi-  
 nar Proceedings 86  
 Graphics Control Program,  
 3270-PC/AT/G/GX 64  
 Graphics Development  
 Toolkit 32, 79  
 Graphics Development Toolkit,  
 Redistribution 12  
 Graphics Development Toolkit,  
 RT PC 120  
 Graphics Enhancement Cartridge,  
 6180 131  
 Graphics Finite Element  
 Modeler, CAEDS 122  
 Graphics Interface Control Pro-  
 gram 40  
 Graphics Printer Support Publi-  
 cations 125  
 Graphics Software 76-79  
 Graphics Software, OS/2 32  
 Graphics Tablet 54  
 Graphics Tablet,  
 3270-PC/G/GX 40  
 Graphics Terminal Emulator, RT  
 PC 120  
 Graphics Workstation Program,  
 PRPQ 7J0115 59  
 Graphics, Implementing 108  
 graphIGS, RT PC 122  
 Graphing Assistant 73  
 Gravitational Force, Investi-  
 gating 103  
 Ground Water 100  
 Guide to IBM Personal Comput-  
 ers, A 88  
 Guide to Learning 88  
 Guide to Operations  
   Convertible PC 49  
   Enhanced Memory Expansion  
   Adapter, PC/AT 51  
   High Speed Adapter 56  
   Industrial PC 47  
   InfoWindow 54

Memory Expansion Adapter,  
 .5/3MB, .5/6MB, PC/AT 51  
 PC 36  
 PCjr 49  
 PC/AT 39  
 PC/XT 36  
 PC/XT 286 39  
 Pers Sys/2 Model 25 37  
 Pers Sys/2 Model 30 38  
 Pers Sys/2 Model 30 286 38  
 Personal Telephone Manager  
 Adapter 70  
 Proprietary 128  
 Proprietary II 128  
 Proprietary X24/XL24 128  
 Quietwriter III 130  
 RT PC 116  
 2400bps Internal Modem 61  
 3117 Adapter 55  
 3117 Scanner 133  
 3117 Scanner and Adapter 55  
 3118 Scanner 133  
 3270-PC/AT 40  
 3270-PC/AT/G 41  
 3270-PC/AT/GX 41  
 3270-PC/G 41  
 3270-PC/GX 41  
 3278/79 Emulation  
 Adapter 65  
 3295 55  
 3363 Optical Disk 132  
 3812 126  
 5204 Quickwriter 131  
 5842 Modem 57  
 GUIDE, THE 88  
 Guide, Token-Ring Starter  
 Kit 67

## H

Hard Disk  
   See Fixed Disk  
 Hardware Maintenance and Ser-  
 vice  
   ARTIC 53  
   ARTIC Multiport 52  
   ARTIC Multiport/2 52  
   Convertible PC 49  
   Enhanced Graphics Adapter  
   Jumper Card 54  
   Enhanced Memory Expansion  
   Adapter, PC/AT 51  
   High Speed Adapter 56  
   High Speed Adapter/A 26  
   Industrial PC 48

InfoWindow 54  
 Memory Adapter/A, 2MB  
 XMA 50  
 Memory Expansion Adapter,  
 .5/3MB, .5/6MB, PC/AT 51  
 Model 25 Disk Drive, Per-  
 sonal System/2 37  
 Multiprotocol Communications  
 Adapter 87  
 Music Feature 54  
 Pageprinter Adapter/A 129  
 PC 87  
 PC Network 134  
 PCjr 49  
 PC/AT 87  
 PC/AT/370 41  
 PC/XT 87  
 PC/XT 286 87  
 Pers Sys/2 23, 26  
 Pers Sys/2 Display  
 Adapter 54  
 Pers Sys/2 Model 25 37  
 Personal System/2 Model  
 30 38  
 Personal System/2 Model 30  
 286 38  
 Personal Telephone Manager  
 Adapter 70  
 Portable PC 87  
 Printer, Color 125  
 Printer, Compact 125  
 Printer, Graphics 125  
 Proprietary 128  
 Proprietary II 128  
 Proprietary X24/XL24 128  
 Quietwriter III 130  
 RT PC 116  
 Store Loop Adapter 87  
 S/36/38 Emul Adapter/A 27  
 Token-Ring Net PC  
 Adapter 68  
 Token-Ring Network PC  
 Adapter 68  
 X.25 Interface  
   Co-Processor/2 53  
 2400bps Internal Modem 61  
 3117 Adapter 55  
 3117 Adapter/A 26  
 3117 Scanner 133  
 3118 Scanner 133  
 3270-PC 40  
 3270-PC Mdl 30, 50, 70 40  
 3270-PC/AT 40, 87  
 3270-PC/AT/G 41  
 3270-PC/AT/GX 41  
 3270-PC/G 41

As of September 20, 1988

- 3270-PC/GX 41
- 3278/79 Emulation Adapter 65
- 3278/79 Emulation Adapter in the PC/AT/370 41
- 3295 55
- 3363 Optical Disk 132
- 3.5in External Diskette Drive 87
- 3.5in Internal Diskette 87
- 4700 PC 43
- 5171T 87
- 5204 Quickwriter 131
- 5364 Driver Card 70
- 8507 Display 26
- 8525/8530 Service Summary 37
- Hardware Maintenance and Service Manuals 87
- Hardware Maintenance Manual, DSEA 62
- Hardware Maintenance Reference Diskette Drive, 3.5in External 88
- Diskette Drive, 3.5in, PC/AT Internal 88
- Displ Adap 8514/A 26
- PC 88
- PC/AT 88
- PC/XT 88
- PC/XT 286 88
- Pers Sys/2 23
- Pers Sys/2 Display Adapter 54
- Pers Sys/2 Model 25 37
- Pers Sys/2 Model 25 Fixed Disk Drive 37
- Personal System/2 Model 30 38
- Portable PC 88
- Token-Ring Net Adap/A 28
- 300/1200 Modem/A 27
- 4869-1 132
- 8507 Display 26
- Hardware Maintenance Reference Manuals 87
- Hardware Maintenance Reference, IBM 6152 124
- Hardware Maintenance Supplement, IBM 6152 124
- Hardware Ordering 9-10
- Hardware Upgrade Kit, InfoWindow 54
- HDDI
  - See Host-DisplayWriter Document Interchange
- Helvetica, Bold 129
- Helvetica, Light 129
- Helvetica, Medium 129
- Hercules Color Card 55
- High Level Language Application Programming Interface 144
- High Speed Adapter Support Publications 56
- High Speed Adapter/A 26
- High-Accuracy Arithmetic (ACRITH) Subroutine Library, VM/PC 91
- High-Level Language Application Program Interface, 3270-PC 63, 64
- High-Speed Adapter 56
- HILO-3 Universal Logic Simulation System (RT PC) 21
- HLLAPI, 3270-PC 63, 64
- Home Solutions 73
- Hood, 5223 Acoustical 131
- Host Data Base View Facility 60
- Host-DisplayWriter Document Interchange 84
- HOSTCM Program, Waterloo 61
- HSPICE (RT PC) 21
- Human Life Processes I: Cellular Physiology 97
- Human Life Processes II: Systems Level 97
- Human Life Processes III: Development and Differentiation 97
- Hydrologic Cycle 100
- I
  - I Can Be Anything 95
  - IBM AIX Access for DOS Users 34
  - IBM Architecture and Engineering Series - Energy 121
  - IBM Architecture and Engineering Series - Graphics 121
  - IBM Architecture and Engineering Series - HVAC 121
  - IBM Architecture and Engineering Series - Lighting 121
  - IBM Architecture and Engineering Series - Piping 121
  - IBM Architecture and Engineering Series - Power 121
  - IBM Architecture and Engineering Series - Rendering 121
  - IBM Architecture and Engineering Series - Structural 121
  - IBM Consumer Transaction Definition Version 1.1 76
  - IBM Consumer Transaction Runtime Version 1.1 76
  - IBM Expert System Consultation Environment (ESCE/PC) 78
  - IBM Expert Systems Environment (ESE) 78
  - IBM Financial Branch System Integrator 76
  - IBM Financial Branch System Services Version 2.1 76
  - IBM Instruments Plotter 131
  - IBM Mathematics Exploration Toolkit Version 1.0 102
  - IBM PC Algebra Series Version 1.0 102
  - IBM PC Feature Adapter, 7552 46
  - IBM PC Network, Personal System/2 (MicroChannel Models) 28
  - IBM Performance Tools 84
  - IBM Transmission Network Manager 59
  - IBM 3812 Support Publications 126
  - IBM 6152 Support Publications 124
  - IEEE-488 Adapter 53
  - IEEE-488 Adapter, Seminar Proceedings 86
  - IEEE-488 Adapter, 3270-PC/G/GX 40
  - IEEE-488 Cartridge, 6184 132
  - IIAS
    - See Interactive Instructional System, VM/PC
  - IIPS
    - See Interactive Instructional System, VM/PC
  - Image Device Attachment - Personal System/2 (MicroChannel Models) 26
  - Image Device Attachment, PC 55
  - Image Devices 132
  - Image Document Utility 77
  - Image Software 77
  - Image Support Facility 77
  - ImagEdit 77
  - ImagEdit V.2.0 77
  - ImagePlus Workstation Support 176
  - IMSL Library, RT PC 120
  - Index Support, DisplayWrite 83
  - Industrial Controller 52
  - Industrial Graphics Display - 110 V, 7544 47
  - Industrial Graphics Display - 220 V, 7544 47
  - Industrial Monitoring and Automation System 80
  - Industrial PC Support Publications 47, 48
  - Industrial Software 79-82
  - Industrial, Token-Ring, and PC networks
    - Interconnection of 179
  - Industry Standard Plotting Commands 132
  - INed, Using, Manual 89
  - InfoCourse 95, 96
  - Information Center Consulting 108
  - Information Centre 85
  - Information Facility (TIF), VM/PC 91
  - Information Management 74
  - Information Systems Management Institute 107
  - InfoWindow Application Workshop 108
  - InfoWindow Control Program 77, 78
  - InfoWindow Display 54
  - InfoWindow PILOT 78
  - InfoWindow Presentation Editor 78
  - InfoWindow Presentation Interpreter 78
  - InfoWindow Presentation System Authoring Workshop 108
  - InfoWindow Product Overview 108
  - InfoWindow Software 77
  - InfoWindow Support Publications 54
  - INGRES Data Base Management System 35, 121
  - INGRES/APPLICATIONS 35, 121
  - INGRES/NET 35, 121
  - INGRES/PCLINK 35, 121
  - INGRES/STAR 35, 121
  - Ink Cartridges, Jetprinter 127
  - INMAIL 119
  - INmail Manual 89
  - INmail/INed/INnet/FTP, IBM AIX PS/2 34
  - INNET 119
  - INnet Manual 89

As of September 20, 1988

- Installatin and Setup, Industrial PC/AT 47
- Installation and Setup Guide, PC/AT 39
- Installation Guide, Token-Ring Network 133
- Installation Topics for IBM Operating System/2 Standard Edition 107
- Instructional System, Personal Computer 103
- Insurance Agency System 74
- Integrated Finite Element Solver, CAEDS 122
- Integrated Learning System (Base 1-8), ESC 21
- Integrated Learning System (Expanded 13-16), ESC 21
- Integrated Learning System (Expanded 17-20), ESC 21
- Integrated Learning System (Expanded 21-24), ESC 21
- Integrated Learning System (Expanded 25-28), ESC 21
- Integrated Learning System (Expanded 29-32), ESC 21
- Integrated Learning System (Expanded 9-12), ESC 21
- Integrated Programs 83
- Intelligent Workstation PRPQ, Series/1 61
- Intelligent Workstation Support for Application System 179
- Intent, Statements of  
See Statements of Direction
- Inter-System Control Facility/PC 60
- Interactive Instructional System, VM/PC 91
- Interactive Network and Message System 119
- Interactive Productivity Facility, VM/PC 91
- Interactive Solids Design, RT PC Professional CADAM 122
- Interactive System Productivity Facility 71
- Interactive System Productivity Facility, VM/PC 91
- Interconnect Pgm, LAN 66
- Interconnection of Token, PC, and Industrial Networks 179
- Interleaf Publisher, IBM 83
- Interleaf Publishing Series RT PC Edition Data Export, IBM 121
- Interleaf Publishing Series RT PC Edition French Dictionary, IBM 121
- Interleaf Publishing Series RT PC Edition German Dictionary, IBM 121
- Interleaf Publishing Series RT PC Edition Spanish Dictionary, IBM 121
- Interleaf Publishing Series RT PC Edition, IBM 120
- Interleaf Software, RT PC 120
- Internal Modem/A 27
- International Compatibility, Seminar Proceedings 86
- Internet Protocol 69
- Interpersonal Relations, Management Skill Development 20
- Interpreters 71
- Interrupt Sharing Protocol, Seminar Proceedings 86
- Introducing the 3270-PC/G and /GX 41
- Introduction and Planning Guide, 3812 126
- Introduction and Planning, Token-Ring Network 133
- Introduction and Preinstallation Planning, 3270-PC 40
- Introduction to IBM Operating System/2 Standard Edition 107
- Inventory Accounting Edition 75
- Inventory Accounting Training Edition 75
- Inventory Control 74
- Inventory, RT PC 121
- IPF  
See Interactive Productivity Facility, VM/PC
- IPL, Local Area Network 66
- Irwin Tape Backup 52
- ISAM Files, Seminar Proceedings 86
- ISMI  
See Information Systems Management Institute
- ISPF  
See Interactive System Productivity Facility, VM/PC
- ISPF EZ-VU  
See Interactive System Productivity Facility
- ITC Avante Garde, Bold 129
- ITC Souvenir Version 2, Bold 129
- ITC Souvenir Version 2, Light 129
- ITC Souvenir Version 2, Medium 129
- IWS  
See Intelligent Workstation PRPQ, Series/1
- IX/370, PC Interface for 89
- J
- JES2, Controlling 109
- Job Cost 74
- Job Costing, RT PC 121
- Joy Stick, PCjr 49
- Juggles' Butterfly 95
- Justification  
See Managing End User Computing
- K
- Karel the Robot 95
- Keyboard Cord, PCjr 49
- Keyboard Overlays, PCjr 49
- Keyboard Rack Mount Hardware, 7552 46
- Keyboard Rack Mount Kit without Keyboard, 7552 46
- Keyboards, 4700 44
- Keyboard, APL, 3270-PC G/GX 40
- Keyboard, Enhanced, Appendix 63
- Keyboard, Enhanced, Seminar Proceedings 86
- Keyboard, RT PC Program Function 116
- Keyboard, Standard, 3270-PC/G/GX 40
- Keyboard, 3270-PC 40
- Keyboard, 4680 Matrix 42
- Keyboard, 4683 42
- Keypress Kit, 4680 42
- Keycaps, Enhanced Keyboard 53
- Keylock, Industrial PC 47
- Keylock, PC 54
- Keytop labels, 5364 Console 70
- KRIGPAK, RT PC UNIRAS 120
- L
- Laminate Composition Feature, CAEDS 122
- LAN Attachment Adapter, S/36 68
- LAN Implementation Services, SolutionPac 15
- LAN Management Program 67
- LAN Manager 67
- LAN Manager Entry V.1.0 67
- LAN Manager V.2.0 67
- LAN Workstation Performance Workshop 108
- Landslides 100
- Language Extensions for 7552 82
- Language Skills 104
- Language Supplement, VM/PC 90
- LaserMaker 21
- Leadership, Management Skill Development 21
- Leaf: Structure and Physiology 97
- Learning System/1 Authoring System 78
- Learning System/1 Authoring Workshop 108
- Learning System/1 Presentation System 78
- Legal Profession Series, SolutionPac 18
- Legal Support, DisplayWrite 84
- Library Manager, Seminar Proceedings 86
- Light, Plants and Photosynthesis 97
- Line Cord, Quietwriter 129
- Line Cord, Quietwriter III 130
- Line Cord, 4680 42
- Lisp, RT PC 119
- Listen to Learn 95
- Loan Loss Control 4700 75
- Local Area Network  
See Interconnection of Token, PC, and Industrial Networks
- See Local Area Network on Cabling System
- See NETBIOS Support for Other Networks
- See Network, IBM PC
- See PC Network functions for 3270-PC
- See TopView for PC Network
- See 3270 Data Stream Support for Token-Ring Network
- Local Area Network Access Edition 75
- Local Area Network Concepts



As of September 20, 1988

- Seminar 110
- Local Area Network Implementation, SolutionPac 15
- Local Area Network IPL 66
- Local Area Network on Cabling System 179
- Local Area Network PrintManager 66
- Local Area Network Program 66, 143
- Local Area Network Program, Seminar Proceedings 86
- Local Area Network Program, V.1.3 66
- Local Area Network Support Program 66
- Local Area Network Support Program, OS/2 66
- Local Area Network Workstation Software Implementation 108
- Local Area Networks 65-69
- Local Area Networks, Introduction 88
- Local Area Networks, Personal System/2 (MicroChannel Models) 28
- Local Area Networks, Positioning 88
- Local Area Networks: A Review 88
- Local Area Network, Class 109
- Locally Connected Personal Computers 108
- Lock inserts, 4680 42
- LOGO 95
- LOGO Learner 95
- Logo Manual 88
- Loop Interface Card 43
- Loopworks 80
- Lotus
  - See Symphony
  - See 1-2-3
- LP/PROTRAN, RT PC IMSL 120
- LU 6.2 Program 58
  
- M
- Macro Assembler/2 31
- Macro Assembler, Seminar Proceedings 86
- Magnetic Stripe Reader/Encoder, 4717 43
- Magnetic Stripe Reader, 4680 42
- Magnetic Stripe Reader, 4700 44
- Magnetic Stripe Reader, 4717 43
- Magnetic Wand Reader, 4680 42
- Mainframe Communication Assistant 58
- Maintenance 150-175
- Maintenance Class
  - See Self-Servicer Maintenance Class
- Maintenance Items, Fixed Charge 165
- Maintenance Items, Monthly 165
- Maintenance Manual Supplement, 7552 46
- Maintenance Option
  - Descriptions 150-151
- Maintenance Options, Features 158
- Maintenance Options, Selected Non-IBM Products 156
- Maintenance Options, System Units and Peripherals 151
- Maintenance Scheduler Software 81
- Maintenance Work Management Software 80
- Maintenance, Corporate Service Amendment 13
- Maintenance, Volume Amendment 12
- Major Function Support 143
- Management Skill Development 20
- Managing End User Computing 85-86
- Managing, The Versatile Organization 20
- Manual for 6182, Programming 132
- Manufacturing Management Programs 79
- MAPICS
  - See Executive Data Link for MAPICS
- MARKUP 83
- Math Co-Processor for 7552 46
- Math Co-Processor (80287 chip) 49
- Math Co-Processor, 80287, Pers Sys/2 23
- Math Co-Processor, 80387 - 25 MHz, Pers Sys/2 23
- Math Co-Processor, 80387, Pers Sys/2 23
- Math Computation Skills 104
- Math Concepts Series 101
- Math Practice Series 102
- Mathematics Essential Skills Numeration and Computation 20
- MATH/PROTRAN, RT PC IMSL 120
- Measurement Process: Distance and Area 106
- Mechanism Design Feature, CAEDS 122
- MEDIA-FLEX 80, 81
- Medical Support, DisplayWrite 84
- Memory Adapter and Card Shroud, 7552 46
- Memory Adapter for 7552 46
- Memory Adapter, 256KB, 3270-PC 40
- Memory and Display Expansion, 64KB, PCjr 49
- Memory Card, 128KB, Convertible 48
- Memory Card, 256KB, Convertible 48
- Memory Expan Kit, Pers Sys/2, 1MB 24
- Memory Expan Kit, Pers Sys/2, 2MB 24
- Memory Expan Kit, Pers Sys/2, .5/2MB 24
- Memory Expan Opt, Pers Sys/2, 2MB/6MB 24
- Memory Expan Opt, Pers Sys/2, 2MB/8MB 24
- Memory Expan Opt, Pers Sys/2, .5/2MB 24
- Memory Expansion Adapter, Multifunction 51
- Memory Expansion Adapter, PC/AT Enhanced 51
- Memory Expansion Adapter, .5/3MB, .5/6MB, PC/AT Support Publications 51
- Memory Expansion Attachment, 128KB, PCjr 49
- Memory Expansion Card, 64KB, EGA 55
- Memory Expansion Kit, 8514 Display Adapter 26
- Memory Expansion Option, 128KB, PC/AT, Support Publications 87
- Memory Expansion Option, 128/640KB, PC/AT 50
- Memory Expansion Option, 128/640KB, Support Publications 87
- Memory Expansion Option, 16KB, PC 50
- Memory Expansion Option, 256KB 50
- Memory Expansion Option, 256KB, Support Publications 87
- Memory Expansion Option, 512KB/2MB, PC/AT 50
- Memory Expansion Option, 512KB/2MB, Support Publications 87
- Memory Expansion Option, 512KB, PC/AT, Support Publications 87
- Memory Expansion Option, 64/256KB, PC 50
- Memory Expansion, ARTIC 52
- Memory Expansion, 1MB RT PC 115
- Memory Expansion, 128KB, ARTIC 53
- Memory Expansion, 2MB RT PC 115
- Memory Expansion, 4MB RT PC 115
- Memory Expansion, 8MB RT PC 115
- Memory Information, Seminar Proceedings 86
- Memory Module Kit - 80ns, 2MB 24
- Memory Module Kit - 85ns, 1MB 24
- Memory Module Kit - 85ns, 2MB 24
- Memory Module Kit, Pers Sys/2 0.5MB 24
- Memory Module Kit, Pers Sys/2 2MB 24
- Memory Module Kit, 128KB 50
- Memory Module Kit, 2MB, PC/AT 51
- Memory Module Kit, 256KB 50
- Memory Module Kit, 256KB, PC/AT 50
- Memory Module Kit, 512KB, PC/AT 51
- Memory Module Kit, 64KB, PC 50
- Memory Module, Graphics (128KB), EGA 55
- Memory, Incremental Fast 4MB RT PC 115
- Memory, Incremental Fast 8MB RT PC 115
- Memory, PS/2 M25, 128KB 37
- Mendelian Genetics: The Science

As of September 20, 1988

of Inheritance 97  
Menu Systems 71  
MERVA/2 32  
MESs  
8566 125, 175  
8569 125  
8570 125  
Metro 72  
Mi Editor Primario - (LAN Pack-  
age) 96  
Mi Editor Primario - (Word  
Processor) 96  
MICRO CADAM 78  
Micro Maint 81  
Micro-Translator 58  
Microcode Upgrade Kit, 5378 41  
MicroPro Series 84  
Midway Campaign 112  
Mini Board, AST I/O 50  
Minute Man 81  
Miscellaneous Features, Per-  
sonal System/2 Model 30  
286 38  
Missing Letters 95  
Models of Light,  
Investigating 103  
Modem, Asynchronous, IBM 57  
Modem, Internal/A 27  
Modem, PC Convertible  
Internal 48  
Modem, PCjr Internal 49  
Modem, Synchronous, IBM 57  
Modicon CMM Manuals 79  
Modicon Control Software 79  
Modicon Device Driver 79  
Modicon Programmer  
Software 81, 82  
Modular Programming, Seminar  
Proceedings 86  
Moisture in the Atmosphere 100  
Monitor, Personal Computer 65  
Monochrome Display and Printer  
Adapter 54  
Monochrome Display for 6152,  
IBM 8604 124  
Monochrome Display, PC 54  
Monochrome Display, 4707 43  
Monochrome Graphics Adapter,  
Emulex 55  
Monochrome Graphics Adapter, RT  
PC 116  
Monotype Baskerville, Bold 129  
Monotype Baskerville,  
Medium 129  
Monotype Bodini, Bold 129  
Monotype Bodini, Medium 129

Monotype Century Schoolbook,  
Bold 129  
Monotype Century Schoolbook,  
Medium 129  
Monotype Century, Bold 129  
Monotype Century, Medium 129  
Monotype Garamond, Bold 129  
Monotype Garamond, Medium 129  
Monotype Rockwell, Bold 129  
Monotype Rockwell, Medium 129  
Monotype Times New Roman,  
Bold 129  
Monotype Times New Roman, Me-  
dium 129  
Monster Math 95  
Mouse BUS 1.0, Microsoft 54  
Mouse, Optical,  
3270-PC/G/GX 40  
Mouse, Pers Sys/2 25  
Mouse, RT PC 115  
MPSX/370, VM/PC 91  
MSM-RT 123  
Multi-Protocol Adapter/A 27  
Multi-Protocol Adap/A, Pers  
Sys/2 27  
Multi-Protocol Communications  
Adapter, RT PC 115  
Multifunction Memory Expansion  
Adapter 51  
Multiplication Tables 104  
Multiport Adapter/2, ARCTIC 52  
Multiport Adapter, ARCTIC 52  
Multiprotocol Communications  
Adapter 62  
Multiprotocol Communications  
Adapter Support  
Publications 87, 88  
Multistation Access Unit,  
Token-Ring 133  
MUMPS-RT 123  
Music Feature 54  
Music Programs 111  
Music 101 112  
MVS/SP Operator Training 109  
MVS/TSO-3270-PC File Transfer  
Program 64

## N

NETBIOS Application Development  
Guide 133  
NETBIOS Support for Other Net-  
works 179  
NetView/PC 59, 68  
NetView/PC for Personal

System/2 176  
NetView/PC, Installation  
Guide 59  
Netware, Novell 67  
Network File System, AIX  
PS/2 34  
Network File System,  
AIX/RT 118  
Network Management 59  
Network Manager, Token-Ring 68  
Network RJE-Plus, RT PC 120  
Network Typing INSTRUCTOR 96  
Network 3270-Plus, RT PC 120  
Network+ Edition 73  
Network, IBM PC 68  
Network, IBM PC, Seminar Pro-  
ceedings 86  
Network, Token-Ring 67  
Node Executive, IBM PC 59  
Novell NetWare 67  
N/A ii  
N/C ii

## O

Object Modeler, CAEDS 122, 123  
OEM Device Driver Tool Kit, The  
Fix 80  
Office Information Architecture  
Seminar 110  
Office Systems  
Connectivity 178  
Operating Environments 71  
Operating System Extensions,  
IBM AIX PS/2 33  
Operating System Extensions,  
Xenix 89  
Operating Systems Extensions,  
Xenix, Manual 89  
Operating System/2 29, 30  
Operating System/2 and Program-  
ming Aids 29-32  
Operating System/2  
Enhancements 177  
Operating System/2 Software,  
7552 Industrial Computer 32  
Operating System/2 Standard  
Edition, Installation  
Topics 107  
Operating System/2 Standard  
Edition, Introduction to 107  
Operating System/2 (OS/2) Pro-  
gramming Functions and Proce-  
dures 107  
Operating System, IBM AIX

PS/2 33  
Operator's Guide, Industrial  
PC/AT 47  
Optical Disk Drive 25, 51, 132  
Optima, Bold 129  
Optima, Medium 129  
Optimization Feature,  
CAEDS 122  
Options and Adapters Manual,  
Updates 87  
Options and Adapters Technical  
Reference 86  
Data Acquisition  
Controller 87  
Diskette Drive, Type 3 87  
Enhanced Graphics  
Adapter 87  
GPiB Adapter 87  
Industrial PC/AT 47  
PC/AT Adapters 87  
PC/XT 286 DASD Adapter 87  
Pers Sys/2 Mem Expan  
Options 24  
Professional Graphics Con-  
troller 87  
Voice Communications  
Adapter 87  
115MB Fixed Disk, Pers  
Sys/2 24  
128/640KB Memory  
Expansion 87  
20MB Fixed Disk 87  
20MB Fixed Disk Adapter 87  
20MB Fixed Disk, PC/XT 87  
256KB Memory Expansion 87  
30MB Fixed Disk 87  
314MB Fixed Disk, Pers  
Sys/2 25  
3.5in External Diskette  
Adapter 87  
3.5in External Diskette  
Drive 87  
3.5in Internal Diskette  
Drive 87  
512KB/2MB Memory  
Expansion 87  
60MB and 120 MB Fixed Disk,  
Pers Sys/2 24  
Opto 22 Driver, The Fix 80  
ORACLE Data Base Management  
System 34, 121  
Oral Communication, Management  
Skill Development 21  
Order Entry 74  
Order Entry and Invoicing Edi-  
tion 75

As of September 20, 1988

Order Entry and Invoicing	1299757	131	25F7696	67	6242915	77
Training Edition 75	1299790	129	25F8215	67	6242916	77
Order Entry, RT PC 121	1299933	130	25F8217	67	6242917	77
Ordering Vehicle 9	1318010	130	25F8671	42	6248435	41
Ordering, Hardware	1318020	130	25F8672	42	6265213	146
See Hardware Ordering	1318030	130	25F8673	42	6265215	146
Ordering, Software	1318106	130	2682799	48	6265216	146
See Software Ordering	1318154	130	50590A	60	6265263	148
Organizer, Fixed Disk 71	1318361	130	52200	60	6265277	146
Organizer, PC 72	1318401	130	52205	59, 60	6265280	147
Organizing and Planning, Man-	1318800	130	5452382	131	6265281	147
agement Skill Development 20	1318930	130	5457803	131	6265340	147
OS/2 29	1337761	131	5470274	132	6265342	147
See also Operating System/2	1337764	131	5470287	132	6265343	146
and Programming Aids	1340803	129	5470288	132	6265344	146
OS/2 Database Design and	1340806	129	5470289	132	6265345	147
Coding 107	1340810	129	5470298	132	6265346	147
OS/2 Database Manager	1340830	129	5470299	132	6265347	147
Workshop 107	1341078	131	5470303	132	6265348	147
OS/2 Version of Internal Tape	1341153	129	5470304	132	6265349	147
Backup Program 177	1342514	130, 131	5470306	132	6265350	146
Other Programs, OS/2 32	1348140	127	5470433	132	6265362	148
	1348330	126, 175	5470434	132	6265364	148
	1348331	126, 175	5470477	132	6265365	148
P	1348335	126, 175	59X9964	87	6265396	146
	1348336	126, 175	59X9965	88	6265397	146
PageMaker 83	1348339	126	59X9966	48	6265398	146
Pageprinter	1348347	126, 175	6024770	107	6265409	147
See 3812 Pageprinter	1348349	126, 175	6024771	107	6265410	147
Palatino, Bold 129	1351710	53	6024774	102	6265411	147
Palatino, Medium 129	1351717	54	6024775	102	6265412	147
PALS 95	1351728	53	6024776	102	6265460	147
Paper Cassette, 3820 127	1353101	131	6024777	102	6265461	147
Paper Table, Quietwriter 129	1353105	131	6024778	102	6265462	147
Paper Tray, Quietwriter	1353112	131	6024853	102	6276553	112
III 130	1353116	131	6024854	102	6276563	112
Paper, Jetprinter 127	1353121	131	6024855	102	6276600	112
Paper, 3820 127	1353125	131	6024856	102	6276601	104
Parallel Adapter 49	1353130	131	6024858	102	6276620	112
Parallel Attachment Cable 43	1353502	131	6024859	102	6279940	53
Parallel Interface Card 43	1353511	131	6024860	102	6280107	88
Parallel Printer Attachment,	1353909	131	6024861	102	6280266	31
PCjr 49	1356000	131	6024862	102	6280284	31
Part Numbers	16F0489	72	6024866	102	6280286	31
06F2410 116	16F0535	67	6024899	107	6280298	31
100A496 44, 45	16F0536	67	61X6833	114	6280299	31
1040150 128	16F0537	67	6113477	175	6280300	31
1040247 42	16F0538	67	6165877	133	6293724	131
1040414 128	1669113	127	6165880	68	6293884	127
1040475 128	1669115	127	6168460	63	6293886	127
11F8240 34	1669151	127	6190603	128	6293888	127
11F8241 34	1669310	127	6190604	128	6293933	127
11F8252 34	1678261	127	6190605	128	6293935	127
11F8253 34	25F5900	59	6192333	126	6295112	131
1299642 129	25F5988	59	6242913	77	63X4199	132
1299756 131	25F7695	67	6242914	77	6328829	128

As of September 20, 1988

6339100	10	90X7964	30	PC Network Broadband Planning	PC/XT/370 System Units and
6339134	133	90X7965	31	Guide 133	Options 41
6339135	133	90X7966	31	PC Network functions for	PC/XT/370, 3278 Emulation Sup-
6341704	53	90X7967	31	3270-PC 178	port for 180
6341707	53	90X7968	31	PC Network Protocol Driver 68	PC, Industrial, and Token-Ring
6361605	43	94X6122	128	PC Network Support	networks
6403664	62	96X5860	67	Publications 134	Interconnection of 179
6403728	62	96X5862	67	PC Network, Seminar	PDF/ISPF
6403729	62	Part Profile Generator		Proceedings 86	See Program Development
6403730	62	Software 81		PC Network, TopView for 178	Facility/ISPF, VM/PC
6403731	62	Parts of Speech Series 103		PC Organizer 72	PDS
6450602	25	PASCAL Compiler 32, 71		PC Support Publications 36,	See Personal Decision Series
6466690	28	Pascal Compiler, RT PC 119		87, 88	PECOMON 65
6476161	83	Pascal Compiler, VM/PC 91		PC Support/36 63	Perception, Management Skill
6487465	130	Pascal Interpreter 61		PC Support/38 63	Development 20
6487467	130	Pascal Subroutines for 7552 82		PC University 144	Performance Tools, IBM 84
69X7830	68	Pascal VS Compiler, RT PC 119		PC Workbench 21	Peripheral Devices, Cross Sys-
6902101	18	Pascal 2.00, Seminar Pro-		PC 3270 Emulation LAN Managment	tem 125
6903101	19	ceedings 86		Program 67	Pers Sys/2 Model 30 38
5952300	54	Pascal, IBM AIX PS/2 VS 34		PCjr 49	Personal Communication Manager,
7034548	127	Passive Transport: Diffusion		PCjr Cartridges, Seminar Pro-	Seminar Proceedings 86
7034550	127	and Osmosis 97		ceedings 86	Personal Computer AT Simulator,
72X8498	39	Patch Cable 133		PCjr Support Publications 49	AIX/RT 118
75X3221	76	Pathology: Diseases and De-		PCjr, Seminar Proceedings 86	Personal Computing Assistance
75X3222	76	fenses 97		PCTB ii	Center 143
75X3258	76	Pattern Storage, 3820 127		PC/AT	Personal Computing
75X3259	76	Payroll 74		See PC/AT System Units	Concepts 108
75X3260	76	Payroll Edition 74		PC/AT Support Publications 39,	Personal Decision Series 73
75X3261	75	Payroll Training Edition 75		87, 88	Productivity Products 73
75X3262	75	Payroll, RT PC 121		PC/AT System Units 39	Personal Editor 72
75X3263	75	PC and 3270-PC, DISOSS support		PC/AT/370	Personal graPHIGS, RT PC 122
75X3283	77	for 180		See PC/AT/370 System Units	Personal Identification Number
75X3285	77	PC ARC/INFO 21		and Options	Keypad, 4718 43
75X3291	79	PC Bond 65, 149		PC/AT/370 Installation	Personal Pageprinter 128
75X3292	79	PC Cluster Program, Seminar		Seminar 110	Personal Pageprinter
75X3293	79	Proceedings 86		PC/AT/370 Support	Adapter 128
75X3294	79	PC Convertible 48		Publications 41	Personal Pageprinter Adapter
8X9804	128	PC Convertible Support Publica-		PC/AT/370 System Units and	Program V1.3 129
83X7605	42	tions 49		Options 41	Personal Pageprinter Adapter RT
83X9112	28	PC DOS		PC/AT, Class 108	PC Edition 115
84X0083	66	See DOS Operating Systems		PC/AT, Seminar Proceedings 86	Personal Pageprinter
84X0084	66	and Programming Aids		PC/Host 61	Adapter/A 129
84X0088	66	PC Information Panel, Seminar		PC/Interactive Executive 89	Personal Pageprinter Subsystem
84X0089	66	Proceedings 86		PC/RT System Units 113	for PC XT-286 and PC-AT 128
84X0090	66	PC Network 133		PC/XT Support Publications 36,	Personal Pageprinter Subsystem
8497346	78	PC Network Adapter II/A 28		87, 88	for PS/2 Model 30 128
8575140	54	PC Network Adapter		PC/XT 286	Personal Pageprinter Subsystem
8642551	133	II/A-Frequency 2 28		See PC/XT 286 System Units	for PS/2 Model 50 and
8642552	133	PC Network Adapter		PC/XT 286 Support	above 128
8654210	54	II/A-Frequency 3 28		Publications 39, 87, 88	Personal Publishing Option/A
8655073	131	PC Network Baseband Adapter 69		PC/XT 286 System Units 39	Solutionpac 16
8655088	131	PC Network Baseband		PC/XT/370	Personal Publishing System
90X7930	30	Adapter/A 28		See PC/XT/370 System Units	Solutionpac 16
90X7931	30	PC Network Baseband Planning		and Options	Personal Services/PC 58, 143,
90X7932	30	Guide 134		PC/XT/370 Installation	149
90X7963	31	PC Network Bridge Program 67		Seminar 110	Personal Services/PC, Install-

As of September 20, 1988

- ing 109
- Personal System/2 Model 25 36
- Personal System/2 Model 30 37
- Personal System/2 Model 30 286 38
- Personal System/2 Model 70 386 (1MB) w/ 16MHz 80386 CPU 22
- Personal System/2 Model 70 386 (2MB) w/ 20MHz 80386 CPU 22
- Personal System/2 Model 70 386 (2MB) w/ 25MHz 80386 CPU 22
- Personal System/2 Processors-MicroChannel Models 22-27
- Personal Telephone Manager Adapter Support Publications 70
- Personal Telephone Manager Program 70
- Personal Telephone Manager/VCO 70
- Personal Typing System 38
- Personal Typing, SolutionPac 18
- PHIGS Interface, RT PC 122
- Photoconductor, Personal Pageprinter 128
- Photoconductor, 3812 126
- Physics Discovery Series 103
- Pi and Specials Fonts, 3812 126
- PILOT
  - See Programmed Inquiry Learning or Teaching (PILOT)
- PILOT, Developing CBT with 109
- PILOT, InfoWindow 78
- Pinwheel Forms Feed, 5223 131
- Pinwheel Form Feed, Quietwriter III 130
- Pinwheel Forms Feed, Quietwriter 129
- Pinwheel Forms Feed, 5204 130
- Planning Assistant 73
- Planning for User Needs
  - See Managing End User Computing
- Planning Guide, 3270-PC/G and /GX 41
- Plans+ Edition 73
- Plants: Growth and Specialization 97
- Plasma Display Adapter 55
- Plasma Display, Seminar Proceedings 86
- Plasma Monitor 55
- PLAYREC 111
- Plotters 131
- Plotting System 79
- Plotting System, RT PC 120
- Plotting System, Seminar Proceedings 86
- PL/I Compiler, VM/PC 91
- Point-of-Sale Scanner 42
- Point-of-Sale Terminal 42
- Policy, Publications on 85
  - See also Managing End User Computing
- Pollination and Fertilization: Seeds, Fruits, and Embryos 97
- Portable Disk Drive Adapter, RT PC 115
- Portable Disk Drive Module, RT PC 114MB 114
- Portable Disk Drive, RT PC 6156 114
- Portable PC Support Publications 36, 49, 87, 88
- PostScript 16
- PostScript Interpreter RT PC Edition 116
- Power Cord, InfoWindow 54
- Power Expansion, PCjr 49
- Power Supply, 5083 54
- Power System, Topaz 54
- POWER, VSE for Operators 110
- Presentation System, PCIS 103
- Preventive Maintenance Software 81
- Preview! Monochrome Graphics Card 54
- Price Management Application Feature, 4680 93
- Primary Editor 95
- Primary Editor Plus 107
- Principle of the Alphabet 95
- Print Adapter/A, 4250 27
- Print Buffer, Proprinter 128
- Printer Adapter 55
- Printer Adapter, Multifunction Memory Expansion Adapter 51
- Printer Adapter, on PC/AT Enhanced Memory Board 51
- Printer Adapter, on XMA 40
- Printer Attachments, PC 55
- Printer Sharing Device 55
- Printer Stand 125
- Printers and Attachments 125
- Printers, 4700 44
- Printer, PC Convertible 48
- Printer, 4680 42
- Printer, 4712 Transaction 43
- Printer, 4722 Document 43
- Printhead, Quietwriter 129
- Printhead, Quietwriter III 130
- PrintManager, Local Area Network 66
- Printwheels, Wheelprinter 131
- Private Tutor Courses, Writing 104
- Private Tutor Series 104
- Problem Determination Guide for the Service Coordinator, IBM OS/2 EE 31
- Problem Determination Guide, Token-Ring 133
- Process Control Software 80
- Processor Features 49
- Processor Features, Personal System/2 (MicroChannel Models) 23
- Processors and Features 36-56
- Professional CADAM Interactive Solids Design, RT PC 122
- Professional CADAM, RT PC 122
- Professional Debug Facility 72
- Professional Debug Facility, Seminar Proceedings 86
- Professional Editor 72
- Professional FORTRAN, Seminar Proceedings 86
- Professional Graphics Controller Support Publications 87
- Professional Work Manager V2.0 64
- Professional Work Manager, IBM 64
- PROFS PC Support 58
- PROFS/Personal Computer Connection 58
- Program Development Facility/ISPF, VM/PC 91
- Programmed Inquiry Learning or Teaching (PILOT) 95
- Programmer's Guide, VM Bond 65
- Programmer's Toolkit, TopView 72
- Programming Aids 72
- Programming Functions and Procedures, IBM Operating System/2 107
- Programming Guide, APPC/PC 58
- Programming Guide, Workstation Program 57
- Programming Guide, 3295 55
- Programming Manual, 6180 131
- Programming Manual, 6184 132
- Programming Manual, 6186 132
- Programming Reference, 3812 126
- Programming Services and Problem Determination for Comm, IBM OS/2 EE 31
- Programming the IBM PC 108
- Project Vision 20
- Project, Microsoft 72
- Proprinter II 128
- Proprinter Support Publications 128
- Proprinter XL 128
- Proprinter XL24 128
- Proprinter X24 128
- Protocol Driver, PC Network 68
- Prototype Adapter, PC/AT 50
- Prototype Card, PC 50
- Prototype Card, 7552 46
- Pro\*C Programming Interface 35, 121
- Pro\*COBOL Programming Interface 121
- Pro\*FORTRAN Programming Interface 35, 121
- PS/PC Support Publications 59
- PS/2 Advanced Interactive Executive 33
- Publications
  - GA18-2475 133
  - GA18-2476 56
  - GA18-2477 55
  - GA18-2478 133
  - GA23-0179 40
  - GA23-0237 55
  - GA23-0252 40
  - GA23-0253 40
  - GA23-0271 40
  - GA23-0339 28
  - GA23-1058 116
  - GA27-3677 133
  - GA27-3678 133
  - GA27-3714 133
  - GA27-3738 57
  - GA27-3748 133
  - GA33-3157 41
  - GA33-3158 41
  - GA66-0501 131
  - GB0F-1689 85
  - GC20-8203 88
  - GC20-8210 88
  - GC23-0784 116
  - GC31-2071 43
  - GC31-3762 43
  - GC31-3770 43
  - GC34-0588 88
  - GC34-4103 71

As of September 20, 1988

GC35-0104	132	G320-9323	86	SC18-2117	56	SV21-8022	116
GG24-1687	64	G320-9324	86	SC18-2153	26	SV21-8024	116
GG24-1691	133	G320-9325	86	SC18-2155	26	SV21-8025	116
GG24-3062	133	G320-9326	86	SC21-8068	27	SV21-8026	116
GH30-9017	145	G320-9327	86	SC23-0892	58	SV21-8074	89
GK2T-0954	55	G320-9366	86	SC23-0959	60	SV21-8075	89
GR20-4824	107	G320-9367	86	SC23-0960	58	SV21-8076	89
GR20-4857	107	G320-9429	88	SC24-5254	90	SV21-8077	89
GV21-5007	85	G321-0077	85	SC26-4120	90	SV21-8078	89
GX20-2430	85	G321-5182	88	SC28-1390	90	SV21-8079	89
GX27-3671	54	G360-2697	86	SC28-1391	90	SV21-8080	89
G126-0190	28	G520-4226	143	SC28-8006	53	SV21-8081	89
G320-0108	88	G520-4233	85	SC28-8009	82	SV21-8086	89
G320-0119	110	G520-5024	85	SC28-8023	82	SX27-3656	70
G320-0135	110	G520-5031	88	SC28-8024	82	SX27-3657	70
G320-0139	110	G520-5037	85	SC28-8055	48	SX27-3665	54
G320-0146	110	G544-3265	126	SC28-8056	32	SX27-3686	70
G320-0147	85	G570-2091	88	SC28-8100	48	SX27-3710	133
G320-0151	85	G570-2237	51	SC28-8212	48	SX27-3756	54
G320-0152	85	G570-2239	51	SC28-8214	53	SY18-2105	133
G320-0161	110	G570-2240	51	SC30-3286	58	SY18-2158	133
G320-0576	90	G571-0146	26	SC30-3332	59	SY18-2159	133
G320-0693	85	G571-0147	26	SC30-3482	59	SY18-2167	56
G320-0716	86	G571-0148	26	SC30-3492	28	SY27-2575	55
G320-0721	86	G571-0162	25	SC30-3493	28	SY31-0685	114
G320-0735	85	G571-0163	25	SC31-2587	128	SY31-9053	27
G320-0736	85	G571-0164	25	SC31-3552	128	SY32-7007	132
G320-0737	85	G571-0165	25	SC31-3711	128	SY32-7012	132
G320-0738	85	LK2T-0295	54	SC31-3763	43	S01F-0200	37
G320-0772	85	SA21-9532	114	SC31-3771	43	S01F-0227	24
G320-0893	65	SA21-9533	114	SC31-3772	43	S01F-0228	24
G320-9280	85	SA21-9534	114	SC31-3793	128	S01F-0234	38
G320-9284	85	SA21-9535	114	SH19-6265	85	S01F-0235	38
G320-9285	86	SA21-9862	27	SH24-5087	65	S01F-0236	38
G320-9286	86	SA21-9925	27	SK2T-0296	54	S01F-0237	38
G320-9287	86	SA23-0207	55	SK2T-0297	54	S01F-0244	37
G320-9295	85	SA23-0268	65	SK2T-0299	67	S01F-0245	37
G320-9301	85	SA23-0343	57	SK2T-0303	67	S01F-0246	37
G320-9302	85	SA23-1029	54	SK2T-0952	26	S01F-0247	37
G320-9303	85	SA23-1031	50	SK2T-0953	26	S01F-0248	37
G320-9307	86	SA23-1032	24	SK2T-0955	56	S01F-0251	38
G320-9308	86	SA23-1033	50	SK2T-0956	55	S126-4050	84
G320-9309	86	SA23-1035	54	SN20-9782	89	S16F-1874	53
G320-9310	86	SA23-1043	24	SN20-9845	49	S16F-1879	53
G320-9311	86	SA23-1200	37	SN31-8034	128	S16F-1961	82
G320-9312	86	SA23-1201	37	SR20-8093	109	S229-9600	125
G320-9313	86	SA23-1202	37	SR21-0534	109	S229-9601	134
G320-9314	86	SA23-2471	26	SR21-0572	109	S229-9605	23, 87
G320-9315	86	SA23-2472	26	SS34-0007	87	S229-9606	23, 87
G320-9316	86	SA23-2473	26	SS34-0008	87	S544-3120	127
G320-9317	86	SA23-2474	26	SS34-0009	87	S544-3266	126
G320-9318	86	SA27-3739	61	SS34-0010	87	S544-3267	126
G320-9319	86	SA27-3740	61	SS34-0011	87	S544-3268	126
G320-9320	86	SA27-3741	61	SS34-0012	87	S544-3269	126
G320-9321	86	SA34-2002	128	SV21-8020	116	S544-4082	130
G320-9322	86	SC18-2104	133	SV21-8021	116	S544-4083	130

As of September 20, 1988

S544-4084	130	S68X-2269	134
S544-4116	131	S68X-2270	133
S544-4119	131	S68X-2272	132
S544-4120	131	S68X-2273	132
S544-4122	130	S68X-2274	27
S544-4140	130, 131	S68X-2275	27
S544-4141	130, 131	S68X-2279	26
S544-4144	130	S68X-2280	79
S544-4169	131	S68X-2281	129
S544-4205	131	S68X-2282	129
S544-4208	131	S68X-2284	23
S68X-2201	38	S68X-2286	23
S68X-2202	38	S68X-2287	23
S68X-2203	38	S68X-2308	23
S68X-2205	38	S68X-2311	23
S68X-2206	26	S68X-2313	23
S68X-2207	70	S68X-2314	24
S68X-2209	23, 124	S68X-2316	27
S68X-2213	23	S68X-2326	124
S68X-2214	26	S68X-2327	124
S68X-2216	54	S68X-2328	124
S68X-2217	27	S68X-2329	124
S68X-2218	26	S68X-2330	23
S68X-2219	24	S68X-2338	24
S68X-2221	23	S68X-2339	24
S68X-2222	23	S68X-2341	23
S68X-2223	68	S68X-2344	23
S68X-2225	24	S68X-2345	23
S68X-2226	24	S68X-2346	23
S68X-2227	24	S75X-1051	37
S68X-2228	133	S90X-7905	31
S68X-2229	25	S90X-7909	31
S68X-2230	38	S90X-7910	31
S68X-2233	24	S90X-7911	31
S68X-2234	24	S90X-7944	31
S68X-2235	24	S90X-7946	31
S68X-2236	24, 25	S90X-7947	31
S68X-2238	54	S90X-7948	31
S68X-2239	38	S90X-7949	31
S68X-2240	134	S90X-7950	31
S68X-2246	23	S90X-7951	31
S68X-2247	23	ZE22-7025	85
S68X-2248	26	ZE22-7026	85
S68X-2249	26	ZV20-8537	85
S68X-2250	26	Publishing, Desktop	83
S68X-2251	26	Punctuation Series	104
S68X-2254	23	Punctuation Skills	104
S68X-2255	23	Purchasing, RT PC	121
S68X-2257	24		
S68X-2259	23		
S68X-2263	28	Q	
S68X-2264	28		
S68X-2265	68	Quality Alert	81
S68X-2266	134	Quality Control Software	81
S68X-2267	69	Quantity Discount	
S68X-2268	133	Agreement	148

Quick Reference Kit IBM		Remote 5250 Emulation Program	
6152	124	V.2.0	63
Quick Reference, Pers Sys/2	23	Repair, Customer Carry-In	151
Quick Reference, 3270 Con-		Repair, IBM On-Site	151
nection	28	Repeater, Token-Ring	
Quickwriter, 5204	130	Copper	133
Quietwriter II Printer	129	Repeater, Token-Ring Optic Fi-	
Quietwriter III	129	ber	133
Quietwriter Printer	129	Reporting Assistant	73
Quietwriter 7 Typewriter		Reports+ Edition	73
Printer Options	125	Requirements Verification Tool	
		Set (RVTS)	21
		Response Time Monitor	65
R		REXX/PC	
		See VM Bond	
Rack Mounting Accessory for		Ribbons, Wheelprinter	131
7544	47	Ribbon, Proprietary	128
Rack Mount, 8218	133	Ribbon, Proprietary II	128
Rack Mount, 8219	133	Ribbon, Proprietary XL	128
RAMvantage! Extended Memory		Ribbon, Proprietary XL24	128
Board	51	Ribbon, Proprietary X24	128
RASPAK Solids, RT PC		Ribbon, QUIET III	130
UNIRAS	120	Ribbon, Quietwriter	129
RASPAK, RT PC UNIRAS	120	RJE Emulation, RT PC	120
Ratio Reasoning: Crystals and		RM/COBOL, RT PC	119
Speed	106	Rocky's Boots	96
Reading Comprehension		ROLM Alert Monitor	60
Skills	104	ROLM Call Detail Collector	60
Reading for Information		ROLMbridge 5250 PC	61
Series	105	RPG II Application	
Reading for Meaning Series	105	Platform/Toolkit, OS/2	32
RealTime Interface		RPQ to attach 5271 to 4701	40
Co-Processor	52	RPQs	
Realtime Interface Co-Processor		P81005	91
Extended Services	82	P81010	90
Realtime Interface Co-Processor		P81011	90
Multiport/2	53	P81014	90
REAPmate (Reliability Effec-		8Q0561	67, 68
tiveness Analysis Program)	21	8V0196	40
Redistribution, Software	12	83X7839	67, 68
Regulation and Homeostasis:		RPS	
Systems in Balance	97	See Series/1 Realtime Pro-	
Relocation Kit, 3812	126	gramming System	
Remote NETBIOS Access		RS-232 Ports, ARTIC	52
Facility	67	RS-232 Ports, ARTIC/2	52
Remote NETBIOS Access Facility		RS-232C Adapter, RT PC	115
V.2.0	67	RS-232C Board for ARTIC	53
Remote PrintManager	127	RS-232/RS-422 Ports,	
Remote Program Load, Token Ring		ARTIC/2	52
Net Adap/A	28	RS-422 Adapter	56
Remote Terminal Interface Util-		RS-422A Adapter, RT PC	115
ities	81	RS-422A Board for ARTIC	53
Remote Terminal Interface,		RS/1, RT PC	120
7552	46	RT PC Advanced Interactive	
Remote 5250 Emulation		Executive	117
Program	62	RT PC Attachment Option,	

As of September 20, 1988

3812-002 126  
RT PC Software, General 116  
RT PC Support Publications 116  
RT PC System Unit  
(TEMPEST) 113  
RT PC System Units 113  
RT Publishing Software 121

## S

Safe Deposit 4700 75  
Sales Analysis, RT PC 121  
Sales Application, 4680, In-  
stalling 108  
SAMNA+, RT PC 121  
Scale, Toledo 43  
Scanner Attachments, PC 55  
Scattergrams 112  
SCC/X, Xenix 89  
Science Research  
Associates 108  
Scientific Models: Batteries  
and Bulbs, and Families 106  
Scientific Reasoning  
Series 106  
SCRIPT/VS  
See Document Composition Fa-  
cility, VM/PC  
SCSI, RT PC 114  
SDLC Adapter (PC, XT,  
PC/AT) 62  
SDLC Communication  
See Synchronous Data Link  
Communication  
Security Base, 4680 42  
Security Option, 4700 44  
Security, Publications on 85  
SEISPAK, RT PC UNIRAS 120  
Selection Guide, Local Area  
Networks 65  
Self Education Facility 78  
Self-Servicer Maintenance  
Class 144  
Selling, The Versatile Organ-  
ization 20  
Seminar Proceedings 86  
Sentences, Combining 99  
Serial Adapter 49  
Serial Adapter Connector 57  
Serial Adapter, Multifunction  
Memory Expansion Adapter 51  
Serial Adapter, on PC/AT En-  
hanced Memory Board 51  
Serial Attachment Cable 43  
Serial Interface Card 43

Serial Interface,  
Proprietary 128  
Serial/Parallel Adapter 50  
Serial/Parallel Adapter Support  
Publications 87  
Serial/Parallel Adapter, PC  
Convertible 48  
Series/1 Event Driven  
Executive 90  
Series/1 Input Output  
Executive 89  
Series/1 PC Connect under  
EDX 178  
Series/1 PC Connectivity Op-  
tion 61  
Series/1 Realtime Programming  
System 90  
Series/1-PC Channel  
Attachment 69  
Series/1-PC Connect 69, 143  
Server Requester Programming  
Interface 60  
Server-Requester Programming  
Reference (SRPI), IBM OS/2 31  
Service Coordinator 148  
Setup Instructions  
Pers Sys/2 23  
Setup Instructions, 3812 126  
SFUN Library, RT PC IMSL 120  
Sharing Card, 3812 126  
Sharing Feature Instructions,  
3812 126  
Sheetfeed Adapter Kit,  
Quietwriter III 130  
Sheetfeed Paper Tray,  
Quietwriter 129  
Sheetfeed, Dual Drawer,  
Quietwriter III 130  
Sheetfeed, Proprietary XL24 128  
Sheetfeed, Proprietary X24 128  
Sheetfeed, Quietwriter 129  
Sheetfeed, 5204 130  
Sheetfeed, 5223 131  
Shop Assist 77  
Side-Swipe 112  
Single Shipment Volume  
Offering 10  
Site Planning and Preparation,  
RT PC 116  
SKILLPAC 21  
SlideWrite 77  
Slot Usage 135  
Small Computer System Inter-  
face, RT PC 114  
SNA LU 6.2 Program 58  
SNA 3790 Batch Communication

Program 62  
Software Compatibility, Seminar  
Proceedings 86  
Software Defect Support 145  
Software Development System,  
Xenix 89  
Software Engineering, Work-  
stations Aided 64  
Software Extended  
Support 145-148  
Software Guidelines for PC Us-  
ers 85  
Software Ordering 11-12, 14  
Software Redistribution 12  
Software Support Center, Semi-  
nar Proceedings 86  
Software, OS/2 29-32  
Software, Other Operating Sys-  
tems 89-94  
Software, PC DOS 71-84  
SOLOMON III, RT PC 121  
SolutionPac, Branch Banking Au-  
tomation 16  
SolutionPac, LAN Implementation  
Services 15  
SolutionPac, Personal Publish-  
ing Option/A 16  
SolutionPac, Personal Publish-  
ing System 16  
SolutionPac, Store Installation  
Services 17  
Solving Math Word Problems 104  
Sonoran Sans Serif Fonts,  
3812 126  
Sonoran Serif Fonts, 3812 126  
Sort Program 72  
Sort 1.00, Seminar  
Proceedings 86  
SORT, Redistribution 12  
Sort, VM/PC 91  
Spanish Dictionary, IBM Inter-  
leaf Publishing Series RT PC  
Edition 121  
Spanish Writing to Read -  
Mexican 96  
Spanish Writing to Read -  
Puerto Rican 96  
Spanish Writing to Read - South  
American 96  
Spanish Writing to Read V.1.0  
(Voy A Leer Escribiendo) 96  
Spanish, Distance Learning 95  
Special Ordering Vehicle 9  
Special Promotional  
Offerings 1  
Speech Adapter Support Publica-

tions 88  
Speech Adapter, Convertible 48  
Speech Adapter, Personal  
System/2 Model 30 70  
Speech Attachment, PCjr 49  
Spelling Series 106  
Spelling Skills 104  
Spreadsheets for  
Professionals 96  
SQCPack 81  
SQL\*Forms 34, 121  
SQL\*Menu 34, 121  
SQL\*Net 34, 121  
SQL\*Net SNA LU 6.2 Protocol De-  
vice Driver 121  
SQL\*Net TCP/IP Protocol Device  
Driver 34, 121  
SQL\*Plus 34, 121  
SQL/RT PC 120  
SRA  
See Science Research Associ-  
ates  
SRPI 60  
SRPI over Logical Unit 6.2 178  
SRPI, IBM Operating System/2  
ECF 31  
SRPI, Programmer's Guide 60  
STAIRS/CMS, VM/PC 91  
STAIRS/PC 83  
Stand, 3812 126  
Starter Kit/A, Token-Ring 28  
Starter Kit, Token-Ring 67  
Starter Pac for 3852-001 127  
STAT Library, RT PC IMSL 120  
Statements of  
Direction 176-180  
STAT/PROTRAN, RT PC IMSL 120  
Storage and Information Re-  
trieval System/PC 83  
Store Controller Kit 42  
Store Controller, 4680 PC 42  
Store Installation Services,  
SolutionPac 17  
Store Loop Adapter Support Pub-  
lications 87  
Store Loop Adapter/A,  
Second 42  
Store Loop Cable 42  
Store Management Application,  
4680 94  
Storyboard 78  
Storyboard Plus 147  
Streaming Tape Drive Adapter,  
RT PC 115  
Streaming Tape Drive, 6157 132  
Stripe Reader, Dual-Track Mag-



As of September 20, 1988

- netic 42
- Structural Modification Feature, CAEDS 123
- Structured Query Language/RT PC 120
- Stylus 54
- Stylus, 3270-PC/G/GX 41
- Supermarket Application EFT Feature 94
- Supermarket Application Offline Feature 94
- Supplies Kit, 6180 131
- Supplies, 6186 132
- Supply Starter Pac, Wheelprinter 131
- Support Center, IBM 148
- Support Center, Software, Seminar Proceedings 86
- Support Organization
  - See Managing End User Computing
- Support Publications 85-88
- Support Publications - Other 88
- Support Publications - PC Seminar Proceedings 86
- Support Publications, Operating System/2 31
- Support Publications, Personal System/2 (MicroChannel Models) 23
- Support, Technical
  - See Technical Support
- Surface Mount, 8218 133
- Surface Mount, 8219 133
- Surface Water 100
- SY-TOS Tape Utilities 52, 118
- Symphony 83
- Synchronous Data Link Communication 62
- Synchronous Modem, IBM 57
- System Administrator's Guide for Communications, IBM OS/2 EE 31
- System Extension Installation and Planning Guide 88
- System Modeler, CAEDS 122, 123
- System 36/38 Workstation Emulation Program 27
- Systems Extensions, Seminar Proceedings 86
- System/34, /36, /38 Attachment
  - See Twinaxial S/34, S/36, S/38 Attachment
- System/36 LAN Attachment Adapter 68
- System/36 LAN Communications 68
- System/36 (5364) Console Attachment 69
- System/370 Channel Emulator, PC/AT 127
- System/370 Channel Emulator, PS/2 Model 30 127
- System/370 Host Interface, RT PC 116
- System/88 Personal Computer Terminal Support, IBM 59
- System/88 Terminal Support 61
- S/36 Document Exchange with DW3, Class 109
- T
- T-Connector, Twinax 62
- Tallgrass TG-1020i Tape Backup 52
- Tape Backup Devices 52, 132
- Tape Backup Devices, Personal System/2 (Microchannel Models) 25
- Tape Backup, IBM 25, 52
- Tape Backup, Pers Sys/2 25
- Taxonomy: Classification and Organization 97
- Taylor Industrial Software 81, 82
- TCP/IP 69
- TCP/IP, IBM AIX PS/2 Transmission Control Protocol/Internet Protocol 33
- TCP/IP, Transmission Control Protocol for the PS/2 69
- Teacher's Quiz Designer 96
- Teachers Manual 96
- Technical Coordinator Education 144
- Technical Coordinator Program 143
- Technical Coordinator Support Package, VM Bond 65
- Technical Coordinator Training Course 144
- Technical Coordinator's Guidelines 85
- Technical Coordinator, Administrative Tools for 85
- Technical Reference
  - ARTIC 53
  - ARTIC Multiport 52
  - Color Jetprinter 127
- Convertible PC 49
- Convertible Speech Adapter 88
- Displ Adap 8514/A, Pers Sys/2 26
- DOS 88
- Dual Async Adap/A, Pers Sys/2 27
- Enhanced Memory Expansion Adapter, PC/AT 51
- ESDI Adapter/A, Pers Sys/2 24
- Fixed Disk Adap, Pers Sys/2 M50 24
- High Speed Adapter 56
- High Speed Adapter/A 26
- Industrial PC 47
- Internal Modem/A, Pers Sys/2 27
- Memory Adapter/A, 2-8MB XMA 24
- Memory Adapter/A, 2MB XMA 24, 50
- Memory Expansion Adapter, .5/3MB, .5/6MB, PC/AT 51
- Memory Expansion, 80286, Pers Sys/2 24
- Model 25 Disk Drive with Adapter, Personal System/2 37
- Mouse, Pers Sys/2 25
- Multiprotocol Communications Adapter 88
- Music Feature 54
- Operating System/2 29
- Options and Adapters 86
- PC Network 134
- PC Network Adapter 68
- PC Network Adapter II 68
- PC Network Adapter II/A 28
- PC Network Baseband Adapter 69
- PC Network Baseband Adapter/A 28
- PC Network Baseband Extender 134
- PCjr 49
- PC/AT 88
- PC/AT/370 41
- PC/XT 36
- PC/XT 286 39
- Pers Sys/2 23
- Pers Sys/2 Model 25 37
- Pers Sys/2 Model 30 38
- Pers Sys/2 Model 30 286 38
- Personal Telephone Manager Adapter 70
- Portable PC 36
- Proprinter 128
- PS/PC 59
- Quietwriter III 130
- Realtime Interface Co-Processor/2 53
- RT PC 116
- S/36/38 Emul Adapter/A 27
- S/36/38 Workstation Emulation Pgm 27
- Tape Backup Unit 25
- Token-Ring Architecture 133
- Token-Ring Network PC Adapter/A 28
- Token-Ring PC Adapter 68
- Translator Unit and Cabling Options 133
- X.25 Interface Co-Processor/2 53
- 2-8MB Memory Expansion Option Hardware Maintenance Supplements 24
- 2-8MB Memory Expansion Option Technical Reference 24
- 20MB Fixed Disk, Pers Sys/2 M50 24
- 2400bps Internal Modem 61
- 3117 Adapter/A 26
- 3117 Scanner 133
- 3118 Scanner 133
- 3270 Connection 28
- 3278/79 Emulation Adapter 65
- 3363 Optical Disk 132
- 44MB Fixed Disk, Pers Sys/2 24
- 4869-1 132
- 5171T 88
- 5204 Quickwriter 131
- 640K PC/XTs, PC/ATs 88
- 70MB Fixed Disk, Pers Sys/2 24
- 720KB/1.44MB Dette Dr, Pers Sys/2 24
- 8503 Display 26
- 8507 Display 26
- 8512 Display 26
- 8513 Display 26
- 8514 Display 26
- 8530 Fixed Disk Drive 38
- 8530 Speech Adapter 70
- Technical Reference Manuals 88
- Technical Reference, IBM 6152 124

As of September 20, 1988

Technical Seminars 110	lications 68, 133	Turnbull Control Systems Con-	3363-B01 132, 152, 160
Technical Support 143-149	Token-Ring Network Trace and	trol Software 79	3812---- 166
Telecommunications	Performance, PC Adapter II 68	Turnbull Control Systems Device	3812-001 126, 165
Environment 108	Token-Ring Network Trace and	Driver 79	3812-002 126, 165
Telephone Manager/VCO 70	Performance, PC Adapter/A 28	Turtle Power 96	3820-001 127, 165
TEMPEST Filter, 3812 126	Token-Ring Network, Personal	Turtle Power Activity Book 96	3852-001 152, 160, 166
TEMPEST PC System Units and	System/2 (MicroChannel	Turtle Power Thinker's Book 96	3852-002 152, 160, 166
Options 44	Models) 28	Tutorial, 8514/A Adapter 26	4055-001 54, 165, 166
TEMPEST PC/AT Support Publica-	Token-Ring-PC Net	TV Connector, PCjr 49	4201-001 152, 160, 166
tions 87, 88	Interconnect 66	Twinaxial Communication 62	4201-002 128, 152, 166
Template, DisplayWrite 2,	Token-Ring, PC Adapter 67	4202-001 128, 152, 160, 166	
3270-PC 84	Token-Ring, PC Adapter II 68	Sys/2 (MicroChannel	4207-001 128, 152, 160, 167
Template, Enhanced Keyboard 53	Token, PC, and Industrial net-	Models) 27	4208-001 128, 152, 160, 167
Terminator, Twinax 62	works	Twinaxial S/34, S/36, S/38 At-	4216-P25 128
Test Data Analysis, CAEDS 123	Interconnection of 179	tachment 62	4216-P26 128
Texas Instruments CAMM	Toledo Scales, Scale 43	Twinaxial 5520 Attachment 62	4216-020 128, 152, 160, 167
Manuals 79	Toner, Personal	Twisted Pair Media Guide,	4250-002 129, 165
Texas Instruments Control Soft-	Pageprinter 128	Token-Ring 133	4450---- 44, 167
ware 79	Toner, 3812 126	Type and Model Numbers 9	4451---- 44
Texas Instruments Controller	Toner, 3820 127	Typewriter Group Fonts 129	4455---- 44, 45, 167
Software 80	Tool Crib Inventory 80	Typewriter Printer Options 125	4459---- 45, 167
Texas Instruments Device	Toolkit, Operating System/2 29	Type/Model	4683---- 167
Driver 79	Topaz Powermaker UPS 54	XY/749 166	4683-A01 42
Texas Instruments Programmer	TopView 72	XY/750 131, 166	4683-A02 42
Software 82	TopView for PC Network 178	1520-A02 43, 165, 166	4683-001 42, 152, 159, 161
Text Formatting Services, IBM	TopView, Seminar	1537-A01 55, 156, 166	4683-002 42, 152, 160, 161
AIX PS/2 33	Proceedings 86	1537-B01 55, 156, 166	4687-001 42
Text Formatting System,	Touch Typing for Beginners 96	1538-A01 156	4707-001 43, 152
Xenix 89	Touchstone 21	1538-B01 156	4712-001 43, 152
TextReader V.1.0 77	TPC1 44	1538-C01 156	4712-002 43, 152
The Environment I: Habitats and	TPC2 44	1543-A01 156	4717-001 43, 152
Ecosystems 97	Trace and Performance Program,	1551-A01 156	4717-002 43, 152
The Environment II: Cycles and	Token Ring Network 67	1551-B01 125	4717-003 43, 152
Interactions 97	Training Editions 75	1552-A01 156	4718-001 43, 152
Theory Formulation: Reflections	Transformer, PC Network 133	1552-B01 156	4722-001 43, 152
and Patterns 106	Translator Unit, PC	1556-S01 55, 156, 166	4722-002 43, 152
Thermal Energy,	Network 133	1560-A01 156	4860---- 167
Investigating 103, 104	Transmission Control	1561-A01 156	4860-004 49, 152, 161
TIF	Protocol 69	1561-B01 156	4860-007 152
See Information Facility	Transmission Control Protocol	1575-A01 156	4860-067 49, 161
(TIF), VM/PC	for the PS/2 69	1575-B01 157	4863-001 49, 152, 160, 161,
Token Ring Adapter Handler,	Transmission Control Protocol	1580-A01 157	167
8530 68	for the PS/2 (TCP/IP) 69	1580-B01 157	4865-001 51, 152, 161
Token Ring Network Trace and	Transparency Kit for 6182,	1581-A01 55, 157	4865-002 51, 152, 161
Performance Program 67	Overhead 132	1584-S01 43	4869-001 132, 152, 161, 167
Token-Ring Adapter, RT PC 115	Transparency Material,	1584-S02 43	4950---- 167
Token-Ring Network 67, 88, 133	Jetprinter 127	1585-S01 54	4950-A00 152, 161
Token-Ring Network	Transparent Computing Facility,	3117-010 133, 152, 160, 166	4950-B00 152, 161
Adapter/A 28	AIX PS/2 34	3118---- 166	4971-001 152, 161, 167
Token-Ring Network Implementa-	TROFF, Xenix 89	3118-010 133, 152, 160	4971-002 160
tion and Management 108	TSO Host Server for PC/370	3118-020 133, 152, 160	4975-02R 165, 167
Token-Ring Network Implementa-	(TSOSERV) 90	3119-S10 133	5083-002 40, 152, 167
tion Topics 108	TSOSERV 90	3295-001 55, 152, 166	5083-11A 54, 152, 161, 167
Token-Ring Network PC	Turbo Pascal 71	3363---- 166	5083-12A 54, 152, 161, 167
Adapter 144	Turnbull Control Systems CAMM	3363-A01 51, 152, 160	5140---- 167
Token-Ring Network Support Pub-	Manual 79	3363-A11 25, 152, 160	5140-002 48, 152, 161

As of September 20, 1988

5140-003	48, 152, 161	5167-001	153, 162, 167	5273-041	154, 162	5601-077	118
5140-022	48, 152	5169-002	153, 162, 167	5273-042	154, 162	5601-081	77
5144-001	48, 152, 161, 167	5170----	167	5273-061	154, 162	5601-089	122
5145-001	48, 152, 161, 167	5170-068	153, 162	5273-062	154, 162	5601-100	76
5150----	160, 167	5170-099	153, 162	5273-070	154, 162	5601-101	93
5150-X--	167	5170-239	153, 162	5273-071	154, 162	5601-119	120
5150-X14	153, 161	5170-319	39, 153, 162	5277-001	40, 154, 167	5601-120	120
5150-X64	153, 161	5170-339	39, 153, 162	5278----	167	5601-121	120
5150-X66	153, 161	5170-495	153, 162	5278-001	41, 154	5601-125	118
5150-X74	153, 161	5170-496	153, 162	5278-002	154	5601-128	121
5150-X76	153, 161	5170-599	153, 162	5279-001	79, 154, 160, 167	5601-129	121
5150-001	152	5170-739	153, 162	5371-012	154	5601-130	121
5150-013	152	5170-839	153, 162	5371-014	154	5601-132	121
5150-014	152	5170-849	42, 153	5371-016	154	5601-136	32
5150-074	152, 161	5170-899	153, 162	5373----	168	5601-137	121
5150-104	152, 161	5170-919	41, 153, 162	5373-A29	155, 162	5601-152	94
5150-114	152, 161	5170-939	41, 153, 162	5373-A39	155, 163	5601-157	118
5150-164	153, 161	5171----	167	5373-A60	154, 162	5601-159	118
5150-166	153, 161	5171-168	153, 162	5373-A61	154, 162	5601-160	118
5150-174	153, 161	5171-339	154, 162	5373-A62	155, 162	5601-165	118
5150-176	153, 161	5173-001	134, 165	5373-E29	155, 163	5601-166	121
5150-813	153	5175-001	154, 160, 162, 167	5373-E39	155, 163	5601-167	121
5150-823	153	5178-001	133, 165, 167	5373-012	154, 162	5601-168	121
5151-001	54, 153, 160, 161, 167	5181-001	154, 160, 162, 167	5373-014	154, 162	5601-169	121
5152----	160, 167	5182-001	154, 160, 162, 167	5373-016	154, 162	5601-171	121
5152-001	153, 161	5201----	154, 162, 167	5373-160	154, 162	5601-180	121
5152-002	153, 161	5201-002	129	5373-161	154, 162	5601-181	121
5153-001	153, 160, 161, 167	5202-001	129, 154, 162, 167	5373-162	154, 162	5601-182	121
5154-001	55, 153, 160, 161, 167	5204-001	130, 154, 162	5378----	168	5601-183	121
5155----	167	5216----	154, 162, 167	5378-C01	155	5601-185	121
5155-068	153, 161	5218----	167	5378-M01	155	5601-186	121
5155-076	153, 161	5218-A03	166	5379----	168	5601-187	78
5160----	160, 167	5218-A04	166	5379-C01	155	5601-189	117, 118
5160-068	153, 161	5223-001	154, 162, 167	5379-M01	155	5601-190	116
5160-078	153, 161	5271----	167	5531----	168	5601-191	118
5160-086	153, 161	5271-P30	154	5531-001	155, 163	5601-192	92
5160-087	153, 161	5271-P31	154	5531-011	47, 155, 163	5601-202	34
5160-088	153, 161	5271-P50	154	5531-021	155, 163	5601-204	94
5160-089	153	5271-P51	154	5532----	47, 155, 163, 168	5612-101	123
5160-267	153, 161	5271-P70	154	5601-031	121	5612-102	123
5160-268	153, 161	5271-P71	154	5601-037	119	5612-104	123
5160-277	153, 161	5271-002	154, 162	5601-038	119	5612-105	123
5160-278	153, 161	5271-004	154, 162	5601-039	119	5612-106	123
5160-470	43, 153, 161	5271-006	154, 162	5601-042	120	5612-107	123
5160-5--	167	5271-024	154	5601-043	120	5612-109	123
5160-568	153, 161	5271-026	154	5601-044	120	5662-281	82
5160-588	153, 161	5271-030	154	5601-045	120	5664-172	91
5160-589	153, 161	5271-031	154	5601-052	82	5664-185	91
5161----	167	5271-050	154	5601-053	81	5664-189	91
5161-001	153, 161	5271-051	154	5601-059	122	5664-281	64
5161-002	153, 161	5271-070	154	5601-060	82	5664-298	65
5161-003	153, 162	5271-071	154	5601-061	117	5664-309	58
5162----	167	5272-001	154, 160, 162, 167	5601-062	117	5664-319	90
5162-286	39, 153, 162	5273-P70	154, 162	5601-064	120	5664-327	60
		5273-P71	154, 162	5601-070	120	5665-311	64
		5273-020	154, 162	5601-071	119	5665-396	60

As of September 20, 1988

5668-011	91	5669-163	126	5713-AET	33	5758-ES3	21
5668-012	91	5669-167	122	5713-AEW	33	5758-ES4	21
5668-795	91	5669-176	82	5713-AEX	33	5758-ES5	21
5668-860	132	5669-179	82	5713-AEY	33	5758-ES6	21
5668-899	90	5669-187	120	5713-AEZ	34	5758-GRD	21
5668-903	91	5669-191	72	5713-AFA	34	5758-11A	20
5668-960	91	5669-192	122	5713-AFC	34	5758-11B	20
5668-962	91	5669-193	122	5713-AFD	33	5758-11C	20
5668-996	91	5669-206	123	5713-AFE	33	5758-11D	20
5669-024	59	5669-207	123	5713-AFF	34	5758-11E	20
5669-031	93	5669-208	123	5713-AFG	34	5758-11F	20
5669-032	93	5669-209	123	5713-AFH	33	5758-11G	20
5669-033	92	5669-212	94	5713-AFJ	34	5758-11H	20
5669-034	93	5669-227	123	5713-AFK	34	5758-11K	20
5669-050	120	5669-228	123	5713-AFQ	34	5758-11L	20
5669-052	119	5669-229	123	5713-AFR	34	5758-11M	20
5669-053	119	5669-242	119	5713-AFX	34	5758-11N	20
5669-054	119	5669-243	119	5713-AFZ	34	5758-KYA	20
5669-055	119	5669-329	32	5713-AGA	34	5758-LMA	21
5669-056	119	5669-330	32	5713-AGB	34	5758-MSA	21
5669-057	117	5686-001	82	5713-AGC	34	5758-SEA	21
5669-059	120	5688-044	82	5714-PC1	63	5758-SEB	21
5669-062	120	5706-025	118	5719-CN1	69	5758-WLA	20
5669-063	120	5706-026	118	5719-EM1	89	5758-WLB	20
5669-064	120	5706-064	122	5719-PJ7	90	5758-WLC	20
5669-086	120	5706-065	122	5719-XJ5	90	5758-WLD	20
5669-087	121	5706-066	122	5726-SS1	74	5758-WLE	20
5669-088	121	5706-067	122	5727-LC1	68	5758-WLF	20
5669-089	121	5706-068	122	5727-LC6	68	5758-WLG	20
5669-090	121	5706-069	122	5727-SS1	74	5758-WLH	20
5669-091	121	5706-070	122, 123	5727-WS1	63	5758-WLI	20
5669-092	121	5709-003	35	5727-WS6	63	5758-WLJ	20
5669-093	121	5709-004	35	5728-PC1	91	5758-WLK	20
5669-094	121	5709-005	35	5732-019	59, 61	5758-WLL	21
5669-095	121	5709-006	35	5734-CB4	91	5758-WLM	21
5669-096	121	5709-007	35, 121	5734-LM4	91	5758-WLN	21
5669-097	121	5709-008	35	5734-LM5	91	5758-WLO	21
5669-098	121	5709-009	35	5734-PL3	91	5776-DAF	90
5669-099	121	5709-012	121	5740-CB1	91	5776-EBX	119
5669-100	120	5709-013	121	5740-LM1	91	5776-EBY	119
5669-101	120	5709-015	121	5740-M52	91	5777-DBJ	79
5669-102	120	5709-016	121	5740-M53	91	5785-DFW	74
5669-103	120	5709-017	121	5740-XM3	91	5785-EDW	77
5669-104	120	5709-018	121	5740-XR1	83	5793-AAN	61
5669-105	120	5709-111	121	5748-AP1	90	5793-AAP	61
5669-108	120	5710-RTJ	61	5748-FO3	91	5793-ACW	80
5669-109	120	5713-ABF	122	5748-LM3	91	5793-ACX	81
5669-110	120	5713-ABG	122	5748-MS1	91	5793-AEY	79
5669-111	120	5713-ABQ	122	5748-XXB	91	5793-AEZ	81
5669-112	120	5713-ABR	123	5748-XX9	91	5793-AFA	81
5669-113	120	5713-ABT	123	5758-ADA	21	5793-AFC	81
5669-114	120	5713-ACG	35	5758-E1A	21	5793-AFD	80
5669-115	120	5713-ADB	121	5758-E1B	21	5793-AFF	81
5669-117	120	5713-AEP	34	5758-ESA	21	5793-AGB	81
5669-161	126	5713-AEQ	33	5758-ES1	21	5793-AGC	81
5669-162	126	5713-AER	33	5758-ES2	21	5793-AGF	80

As of September 20, 1988

5793-AGN 79	5872-BBB 12	7375-001 166	8560-071 22, 156, 163
5793-AGP 80	5873-AAA 12	7375-002 166	8570---- 168
5793-AGQ 80	5873-BBB 12	7531---- 168	8570-A21 22, 156, 163
5793-AGR 80	5874-AAA 12	7531-041 155	8570-E61 22, 156, 163
5793-AGT 80	5874-BBB 12	7531-111 46, 155	8570-121 22, 156, 163
5793-AGW 80	5875-MMA 12	7532---- 168	8580---- 168
5793-AGX 80	5875-MMM 12	7532-041 155	8580-041 23, 156, 163
5793-AGY 80	5876-AAA 12	7532-111 46, 155	8580-071 23, 156, 163
5793-AGZ 79	5876-BBB 12	7534-001 47, 155, 163, 168	8580-111 23, 156, 164
5793-AHA 79	6150---- 168	7544-001 47	8580-311 23, 156, 164
5793-AHB 79	6150-A25 113, 165	7544-002 47	8604-001 124
5793-AHC 81	6150-B25 113, 165	7552---- 168	9332---- 168
5793-AHD 81	6150-B35 113, 165	7552-040 46, 155	9332-240 114, 166
5793-AHE 82	6150-T25 113, 165	7552-140 155	9332-250 114, 166
5793-AHF 82	6150-020 113, 165	7552-540 46, 155	9332-440 114, 166
5793-AHG 82	6150-025 113, 165	8218-001 133, 155, 163, 168	9332-450 114, 166
5793-AHH 81	6150-125 113, 165	8219-001 133, 155, 163, 168	Typing INSTRUCTOR 96
5796-BDZ 132	6150-135 113, 165	8228-KT1 155, 163	Typing System, Personal 38
5796-PNQ 91	6151---- 168	8228-KT2 67, 155, 163	Typing Tutor 96
5796-TBP 76	6151-010 113, 165	8228-KT3 28, 155, 163	Typing, Personal,
5796-TBQ 76	6151-015 113, 165	8228-001 133, 155, 163, 168	SolutionPac 18
5798-BDW 91	6151-115 113, 165	8503---- 155, 163, 168	Typographic Fonts, 3812 126
5798-DQG 61	6151-130 114	8503-001 25	
5798-DQH 64	6152---- 168	8507---- 155, 168	
5798-DTL 90	6152-022 124, 155	8507-001 25	U
5798-DTW 59	6152-024 124, 155	8512---- 155, 163, 168	
5798-DWG 64	6152-044 124, 155	8512-001 25	Ungermann-Bass NICps/2 Adapter
5798-DYF 91	6152-048 124, 155	8513---- 156, 163, 168	1542 27
5798-DZD 59	6152-074 124, 155	8513-001 25	UNIEDIT, RT PC UNIRAS 120
5798-DZJ 80	6152-078 124, 155	8514---- 156, 163, 168	UNIGRAPH, RT PC UNIRAS 120
5798-FAL 69	6153-001 116, 155, 168	8514-001 25	UNIMAP, RT PC UNIRAS 120
5798-PXJ 91	6154-001 116, 155, 168	8525---- 168	UNIRAS System, RT PC 120
5798-RRP 74	6155-001 116, 155, 168	8525-C02 36, 156, 163	Univers, Bold 129
5798-RRZ 74	6156-001 114, 155, 168	8525-C05 36, 156, 163	Univers, Light 129
5799-BKE 84	6156-003 114, 155, 168	8525-G01 36, 156, 163	Univers, Medium 129
5799-BKP 63	6157-001 132, 155, 163, 168	8525-G04 36, 156, 163	UNIX
5799-BNY 63	6157-002 132, 168	8525-K02 36, 156, 163	See PC/Interactive Executive
5799-BNZ 63	6180---- 168	8525-K05 37, 156, 163	See Xenix
5799-BRQ 62	6180-001 131, 155, 163	8525-L01 37, 156, 163	Unix Operating System: Editing
5799-BTB 91	6180-002 131, 155, 163	8525-L04 37, 156, 163	and Printing 109
5799-CEC 90	6182-001 131, 166, 168	8525-001 36, 156, 163	Unix Operating System: Files
5799-CED 90	6184-001 132, 166, 168	8525-004 36, 156, 163	and Directories 109
5799-CEE 90	6186---- 155, 168	8530---- 168	Unix Operating System: Intro-
5799-PEY 84	6186-001 132	8530-E01 38, 156, 163	duction 109
5799-TGC 61	6186-002 132	8530-E21 38, 156, 163	Unix Operating System: Program
5799-TNG 61	6192-001 115, 155, 168	8530-R02 37, 156, 163	Development Tools 109
5799-WXJ 65	6900-001 39	8530-R21 37, 156, 163	Unix Operating System: Shell
5841-001 57, 155, 163, 168	6900-002 39	8530-002 37, 156, 163	Programming 109
5842-001 57, 155, 160, 163, 168	6900-003 39	8530-021 37, 156, 163	Unix Operating System: System
5853-001 57, 155, 163, 168	6900-004 39	8550---- 168	Administration 109
5870-LLA 12	6900-005 39	8550-R21 22, 156, 163	Unix Operating System: Text
5870-LLL 12	6900-006 39	8550-021 22, 156, 163	Formatting 109
5871-AAA 12	7371-001 155, 168	8550-031 22	Upgrade Kits
5871-BBB 12	7372-001 132, 155, 163, 168	8550-061 22	Attachment/370+ to IBM PC
5872-AAA 12	7374-001 166, 168	8560---- 168	Requesters 60
	7375---- 168	8560-041 22, 156, 163	DisplayWrite 3 to

DisplayWrite 4 83  
 DisplayWrite 4 to  
 DisplayWrite 4/2 32  
 DOS (any release) to DOS  
 4.0 71  
 FORTRAN, RT PC, 77 to  
 VS 119  
 High-Level Language API,  
 3270-PC 64  
 HLLAPI to V.3 64  
 InfoWindow Control Pgm V.1.0  
 to V.1.2 78  
 Mainframe Communication As-  
 sistant to V.1.05 58  
 NetView/PC V.1.0 to  
 V.1.1 59  
 NetView/PC V.1.1 to  
 V.1.2 59  
 Operating System/2 29, 30,  
 31  
 PC LAN Pgm V.1.2 to  
 V.1.3 66  
 PC 3270 Emulation Entry  
 V.1.0 to V.1.2 65  
 PC/AT BIOS Kit and 30MB  
 drive 52  
 PC/AT to 3270-PC/G/GX 41  
 Professional Work Manager  
 V2.0 64  
 RT PC AIX V.1.1 to  
 V.2.1 117  
 RT PC AIX V.2.1 to  
 V.2.2 117  
 RT PC old models to new  
 processor 114  
 RT PC SQL V.1.1 to  
 V.2.1 120  
 RT PC VRM V.1.1 to  
 V.2.1 117  
 RT PC VRM V.2.1 to  
 V.2.2 117  
 Token-Ring Net Mgr to LAN  
 Mgr 67  
 Token-Ring Network Bridge  
 Pgm 1.0 to 1.1 68  
 Using DisplayWrite 2 course,  
 upgrade to DisplayWrite  
 3 109  
 Virtual Device Interface  
 Drivers, 3270-PC CP 63  
 3270 Emulation Entry to  
 Workstation Pgm 57  
 3270 Emulation Entry to 3270  
 Emulation V.2 58  
 3270 Emulation Entry to 3270  
 Emulation V.3 58

3270 Emulation Entry V.1 to  
 3270 Emulation V.3 58  
 3270 Emulation Pgm to Work-  
 station Pgm 57  
 3270 Emulation V.1 to  
 V.3 58  
 3270 Emulation V.2 to  
 V.3 58  
 3270 Workstation Pgm V.1.0  
 to V.1.1 57  
 3270-PC Control Pgm to Work-  
 station Pgm 57  
 3270-PC Control Program VDI  
 Drivers 63  
 3812-1 to 3812-2 126  
 5520/PC Attach to V.3 62  
 5520/PC Attach to V.4 62  
 UPS, Topaz Powermaker 54  
 Usability Services, IBM AIX  
 PS/2 33  
 User Setup Guide, RT PC 116  
 User's Guide, ARTIC Communi-  
 cations Subsystem 82  
 User's Guide, VM/PC 90

## V

VDI  
 See Virtual Device Interface  
 VDI Driver, 5279 79  
 VDI, Redistribution 12  
 Vehicle Maintenance Scheduler  
 Software 80  
 Versatile Organization, The 20  
 VGA Display Adapter for  
 7531/7532 47  
 VGA Display Adapter for  
 7552 47  
 Videotex 61  
 Videotex/370 59  
 Video/PASage Authoring  
 Class 108  
 Video/PASage Authoring  
 System 78  
 Video/PASage Presentation Sys-  
 tem 78  
 Virtual Device Interface  
 See Plotting System  
 See ?  
 Virtual Machine/Personal Com-  
 puter 90  
 License Option Amendment  
 (Applications) 90  
 VM/PC Operating System 90  
 Virtual Resource Manager, RT

PC 117  
 VM Bond 65, 149  
 VM/PC 149  
 See also Virtual  
 Machine/Personal Computer  
 VM/PC Toolkit PRPQs 90  
 VM/SP Operator Training 110  
 VM/SP-3270-PC File Transfer  
 Program 64  
 Vocabulary Building Skills 104  
 Vocabulary Series 107  
 Voice Communications 70  
 Voice Communications  
 Adapter 70  
 Voice Communications Adapter  
 Support Publications 87  
 Voice Communications Operating  
 Subsystem 70  
 Voice Communications Option 70  
 Voice Communications Option,  
 Seminar Proceedings 86  
 Voice Output, Convertible 48  
 Voice-Activated Keyboard Util-  
 ity 70  
 Voice/Phone Assistant 70  
 Volcanos 100  
 Volume Maintenance  
 Amendment 12-13  
 Volume Procurement 3-14  
 Volume Procurement  
 Amendment 3-9, 10  
 Volume Purchase Agreement 143,  
 144  
 VS APL, VM/PC 91  
 VS COBOL Compiler, AIX/RT 118  
 VS COBOL Run Time Environment,  
 AIX/RT 118  
 VSE/POWER for Operators 110  
 VSE/SP Operator Training 110  
 V.24 Ports, Artic 52  
 V.24 Ports, ARTIC/2 52

## W

Warranty Options, Features 164  
 Warranty Options, Selected  
 Non-IBM Products 164  
 Warranty Options, Systems Units  
 and Peripherals 160  
 Warranty Period and Type, Fea-  
 tures 169  
 Warranty Period and Type, Sys-  
 tem Units and Peripherals 166  
 WATCOM microNet 61  
 Waterloo Languages 61

Waterloo PC Network 61  
 Waterloo Systems Language 61  
 Wave Interference, Investigat-  
 ing 103, 104  
 WESTLAW Communications Session  
 Manager 61  
 Wheelprinter E, 5223 131  
 Wheelprinter, 5216 131  
 Wheelwriter 3/5 Typewriter  
 Printer Options 125  
 Windows, Microsoft 16, 72  
 Word Knowledge Skills 104  
 Word Processing Programs 83-84  
 Word Processing Programs,  
 OS/2 32  
 Word Proof 83  
 WordPerfect 83  
 WordStar 2000 Plus 84  
 WordStar, Using 109  
 Word, Microsoft 83  
 Work Station Host Interface  
 Pgm, RT PC 119  
 Workstation Differentiation  
 Reference Summary 88  
 Workstation Emulation  
 Adapter/A, System 36/38 27  
 Workstation Host Interface Pro-  
 gram V.1.1, AIX/RT 117  
 Workstation Host Interface Pro-  
 gram, IBM AIX PS/2 33  
 Workstation Management  
 See Managing End User Com-  
 puting  
 Workstation Positioning Refer-  
 ence Summary 88  
 Workstation Program, 3270 57  
 Workstation Publishing, RT  
 PC 120  
 Workstation Resource Center 85  
 Workstations Aided Software En-  
 gineering 64  
 Wrap Plugs, Displaywriter/PC  
 Attach 62  
 Writing Assistant 73  
 Writing to Read 96  
 Writing to Read Center,  
 SolutionPac 19  
 Writing to Read Diskette Pack-  
 age 96  
 Written Communication, Manage-  
 ment Skill Development 21  
 W/D ii

X

As of September 20, 1988

- X-Windows for IBM DOS 34
- X-Windows, AIX/RT 118
- X-Windows, IBM AIX PS/2 33
- X-Windows, RT PC 118
- Xenix 89
- Xenix V.2, Seminar Proceedings 86
- Xenix, Seminar Proceedings 86
- XMA 24, 40, 50
- X.25 Interface Co-Processor/2 53
- X.25, AIX PS/2 34
  
- 1
- 1-2-3 83
- 1-2-3, Using Lotus 109
- 10MB Fixed Disk Drive, 7552 46
- 1.44 Mb Diskette Drive for 7552 46
  
- 2
- 20MB Fixed Disk Drive, PS/2 M25 37
- 20MB Fixed Disk Drive, 7552 46
- 2400bps Internal Modem Support Publications 61
- 2770 Emulation See DisplayComm (BSC) Communications
- 2780 Emulation See DisplayComm (BSC) Communications
- 2780 Emulation, RT PC 120
- 286 PC/XT See PC/XT 286 System Units
  
- 3
- 308X Operator Training 109
- 3090 Operator Training 109
- 3101 Emulation 61
- 3117 Adapter/A 26
- 3117 PC Adapter 55
- 3117 Support Publications 55, 133
- 3118 Support Publications 133
- 3119 Adapter/A, IBM 26
- 3270 Connection, Pers Sys/2 28
- 3270 Data Stream Support for Token-Ring Network 179
- 3270 Emulation Advanced Pro- ducts, Class 108
- 3270 Emulation Memory Manage- ment 58
- 3270 Emulation Program V.3 58
- 3270 Emulation Program, V.3 144
- 3270 Emulation V.2, Seminar Proceedings 86
- 3270 Emulation, Entry 65
- 3270 Emulation, RT PC 120
- 3270 Installation and Planring Seminar 110
- 3270 Presentation Space API, Seminar Proceedings 86
- 3270 Workstation Program 57
- 3270-PC Additional function for the 180 and PC, DISOSS support for 180
- Color Graphics Applications 149
- Color Graphics Charting 149
- Control Program 63, 149
- File Transfer Programs 64
- G and GX System Units 40
- G and GX, Alphanumeric pro- gramming interface for 179
- Graphics Control Program 149
- PC Network functions for 178
- Support Publications 40
- System Units 39, 40
- 3270-PC/AT /G and /GX System Units 40
- 3270-PC/G Display Options 41
- 3270-PC/GX Display Options 41
- 3270-PC Color Graphics Applica- tions 77
- 3270-PC Color Graphics Charting 77
- 3270-PC Communication 63
- 3270-PC Support Publications 40
- 3270-PC/AT Support Publications 40, 87
- 3270-PC/AT/G Support Publica- tions 41
- 3270-PC/AT/GX Support Publica- tions 41
- 3270-PC/G Support Publications 41
- 3270-PC/GX Support Publications 41
- 3278 Emulation Support for PC/XT/370 180
- 3278-PC Attachment 65
- 3278/3279 Attachment Communi- cation 65
- 3278/79 Emulation Adapter 64
- 3278/79 Emulation Adapter Sup- port Publications 65
- 3279/79 Emulation, RT PC 119
- 3295 Display Adapter 55
- 3295 Support Publications 55
- 3295, Seminar Proceedings 86
- 3687 Scanner Adapter, 4680 42
- 3737 Model 002 Operator Console Program, IBM 59
- 3780 Emulation See DisplayComm (BSC) Commu- nications
- 3790 Emulation See SNA 3790 Batch Communi- cation Program
- 3812 Pageprinter 125
- 3812 Support Publications 126
- 3990-3880 Introduction and Op- erations, Discover/Education 79
  
- 4
- 4MB RISC Upgrade Kit, IBM 6152 124
- 4250 Print Adapter/A 27
- 4250 Print Driver 129
- 4361, DFT Support for 178
- 44MB Fixed Disk, IBM 6152 124
- 4680 BASIC 93
- 4680 COBOL 93
- 4680 Enhancement 178
- 4680 Introduction 108
- 4680 Operating System 91
- 4680 PC System Unit 42
- 4680, Second Loop Adapter 43
- 4683-002 Attachment Adapter Kit 42
- 4700 Finance Communication Sys- tem Options 43
- 4700 PC Application Services 76
- 4700 PC Support Publications 43
- 4700 PC System Unit 43
- 4700 Personal Computer Applica- tion Services 76
- 4700 Software 75
- 4700 Statement of Direction 176
- 4701, RPQ to attach 5271 40
- 4707 Monochrome Display 43
- 4712 Transaction Printer 43
- 4717 Magnetic Stripe Reader/Encoder 43
- 4718 Personal Identification Number Keypad 43
- 4722 Document Printer 43
  
- 5
- 5080 Attachment, RT PC 116
- 5080 Peripheral Adapter, RT PC 116
- 5085 Attach for 5273 40
- 512KB Memory Expansion, 7552 46
- 5250 Emulation See Enhanced 5250 Emulation Installation Convenience Kit
- 5250 Emulation, Remote See Remote 5250 Emulation Program
- 5250 Emulation, ROLMbridge 61
- 5364 Driver Card Support Publi- cations 70
- 5364 (System/36) Console At- tachment 69
- 5520 Attachment See Twinaxial 5520 Attach- ment
- 5520 PS/2 Attachment Program 26
- 5520/PC Attach Program 62
- 5520/PC Attachment Seminar 110
- 5520/PC Convenience Kit 62
- 5842 Support Publications 57
  
- 6
- 6152 Academic System, IBM 124
- 6156 Portable Disk Drive, RT PC 114
- 6157 Tape Attachment 25, 52
- 6157 Utilities, PC 52
- 6192-001 Expansion Unit, RT PC 115
  
- 7

As of September 20, 1988

70MB Fixed Disk, IBM 6152 124	8-Port Cable Assembly -	8087 49	!Barsoft 79
7531/7532 VGA Display Adapter	RS-232C, RT PC 115	8087, Seminar Proceedings 86	
for 47	8-Port Cable Assembly -	8100 DPPX/SP PC RJE File Trans-	\$
7544 Industrial Graphics Dis-	RS-422A, RT PC 115	fer 62	
play - 110 V 47	8-Port MIL-STD 188 Adapter, RT	8100 DPPX/SP 3278/9 Attach File	\$ ii
7544 Industrial Graphics Dis-	PC 115	Transfer 65	
play - 220 V 47	8-Port RS-232C Adapter, RT	8100-3270-PC File Transfer Ex-	
7544 Rack Mounting	PC 115	press 64	*
Accessory 47	8-Port RS-422A Adapter, RT	8514/A VDI Drivers 79	
7552 Industrial Computer Soft-	PC 115	8525 Personal System/2 36	* ii
ware, Operating System/2 32	8MB RISC Upgrade Kit, IBM	8530 Personal System/2 37, 38	** ii
7552 VGA Display Adapter 47	6152 124	8604 Monochrome Display for	
7552, Language Extensions	80287 49	6152 124	
for 82	80287 for 7552 46		#
	80287, Pers Sys/2 23		
	80387 - 25 MHz, Pers Sys/2 23	!	# ii
8	80387, Pers Sys/2 23		