AS/400e 6xx models

Model and processor	Announce date	General availability date	Withdrawn from marketing
600 2129	19 August 1997	29 August 1997	31 May 1999
600 2134	19 August 1997	29 August 1997	31 May 2000
600 2135	19 August 1997	29 August 1997	31 May 2000
600 2136	19 August 1997	29 August 1997	31 May 2000
620 2175	28 October 1997	29 August 1997	31 May 2000
620 2179	19 August 1997	29 August 1997	31 May 2000
620 2180	19 August 1997	29 August 1997	31 May 2000
620 2181	19 August 1997	29 August 1997	31 May 2000
620 2182	19 August 1997	29 August 1997	31 May 2000
640 2237	19 August 1997	29 August 1997	31 May 2000
640 2238	19 August 1997	29 August 1997	31 May 2000
640 2239	19 August 1997	29 August 1997	31 May 2000
650 2240	19 August 1997	29 August 1997	31 May 2000
650 2243	19 August 1997	29 August 1997	31 May 2000
650 2188	01 September 1998	29 August 1997	31 May 2000
650 2189	01 September 1998	29 August 1997	31 May 2000

10.1 AS/400e 600 model overview

Model	600			
Processor feature	**#2129**	**#2134**	**#2135**	**#2136**
Relative system performance (CPW; see note 1)	22.7	32.5	45.4	73.1
Number of n-way multiprocessors	1	1	1	1
Main storage (MB)	64-384	64-384	64-384	128-512
Disk storage base (GB)				
Maximum internal (GB)	4.19			
V4R1	85.8			
V4R2 and later	175.4			
System I/O card slots				
SPD	0			
PCI	8			
Communication lines (see note 2)	1-18			
LAN/ATM adapters	0-3			
Maximum workstation controllers				
Twinaxial	5			
ASCII	0			
Maximum workstations				
Twinaxial	188			
ASCII	0			
¼-inch/8mm cartridge tape (internal)	0-1			
½-inch tape				
Reel 9348	0-1			
Reel 2440, 9347	0			
Cartridge 34xx, 35xx	0-1			
8mm cartridge (external)	0-1			
Optical libraries	0-1			
Diskettes (5 ¼-inch or 8-inch)	0			
Fax adapters	0			
Cryptographic processor	1			
System I/O buses	1			

Note 1	Commercial Processing Workload (CPW) is used to measure the performance of all iSeries and AS/400e processors announced from September 1996 onward. The CPW value is measured on maximum configurations. The type and number of disk devices, the number of workstation controllers, the amount of memory, the system model, other factors, and the application being run determine the performance that is achievable.
Note 2	17 lines if Client Access or Operations Console is chosen.

10.2 AS/400e 620 model overview

Model	620					
Processor feature	**#2175**	**#2179**	**#2180**		**#2181**	**#2182**
Relative system performance (CPW; see note 1)	50.0	85.6	113.8		210.0	464.3
Number of n-way multiprocessors	1	1	1		1	2
Main storage (MB)[6]	64-1856	256-2048	256-2048		256-2048	256-4096
Numbers are for all processor features	**Base system**	**SUE #9364 PCI (#9329) (#9330)**	**SUE #9364 SPD (#9331)**	**#5065 Strg/PCI Expansion Tower**	**Expansion tower**	**System maximum**
		note 4	note 4			
Disk storage base (GB)	4.19	-	-		-	4.19
V4R1	128.8 (5)	128.8	128.8		274.8	704.3
Maximum internal (GB)	-	-	note 2		note 2	652.8
Maximum external (GB)						704.3
Total maximum (GB)						
V4R2/V4R3	263.2 (5)	263.2	263.2		561.5	944.8
Maximum internal (GB)	-	-	note 2		note 2	893.3
Maximum external (GB)						944.8
Total maximum (GB)						
V4R4	263.2 (5)	263.2	263.2	386.5	561.5	944.8
Maximum internal (GB)	-	-	note 2		note 2	893.3
Maximum external (GB)						944.8
Total maximum (GB)						
V5R1	263.2 (5)	263.2	263.2	773.0	561.5	944.8
Maximum internal (GB)	-	-	note 2		note 2	893.3
Maximum external (GB)						944.8
Total maximum (GB)						
External SPD bus	0	4	4		0	4
Maximum card slots - SPD	0	0	6	0	13	58
Maximum card slots - PCI	8	14	0	12	0	22
Communication lines[3]	1-18	0-40	0-36	0-42	0-78	96
LAN/ATM adapters	0-3	0-5	0-6	0-6	0-13	16
Maximum workstation controllers						
Twinaxial	5	9	18	12	39	60
ASCII	0	0	6	0	13	58
Maximum workstations						
Twinaxial	188	360	720	240	1560	2388
ASCII	0	0	108	0	234	1044
¼-inch/8mm cartridge tape (internal)	0-1	0-3	0-3	0-2	0-4	17
½-inch tape						
Reel 9348	0-1	0-2	0-4	0-3	0-4	4
Reel 2440	0	0	0-4	0	0-4	4
Reel 9347	0	0	0-2	0	0-2	2
Cartridge 34xx, 35xx	0-1	0-2	0-4	0-3	0-4	6
8mm cartridge (external)	0-1	0-2	0-4	3	0-4	4
Optical libraries	0-1	0-2	0-12	3	0-14	14
Diskettes (5 ¼-inch or 8-inch)	0	0	0-2	0	0-2	2
Fax adapters	0	0	0-6	0	0-13	32
Cryptographic processor	0	0	0-1	3	0-1	3

Note 1	Commercial Processing Workload (CPW) is used to measure the performance of all iSeries and AS/400e processors announced from September 1996 onward. The CPW value is measured on maximum configurations. The type and number of disk devices, the number of workstation controllers, the amount of memory, the system model, other factors, and the application being run determine the performance that is achievable.
Note 2	External DASD can be attached via an SPD card in the expansion unit.
Note 3	Seventeen lines in the Base System if Client Access or Operations Console is chosen.
Note 4	The #9364 must be configured with #9329/#9330 (PCI) or #9331 (SPD). Therefore, these columns are mutually exclusive.
Note 5	Maximum is 85.8 GB (V4R1) or 175.4 GB (V4R2, V4R3, and V4R4) on #2175, #2179, and #2180 processors.
Note 6	For orders placed between 28 October 1997 and 09 February 1998, the 620 #2175 processor is shipped with base main storage of 256 MB due to a special promotion offered in most countries. These systems that shipped with a base 256 MB main storage have a maximum of 2048 MB. If Specify Code 0004 is present, it means that it is shipped with 64 MB.

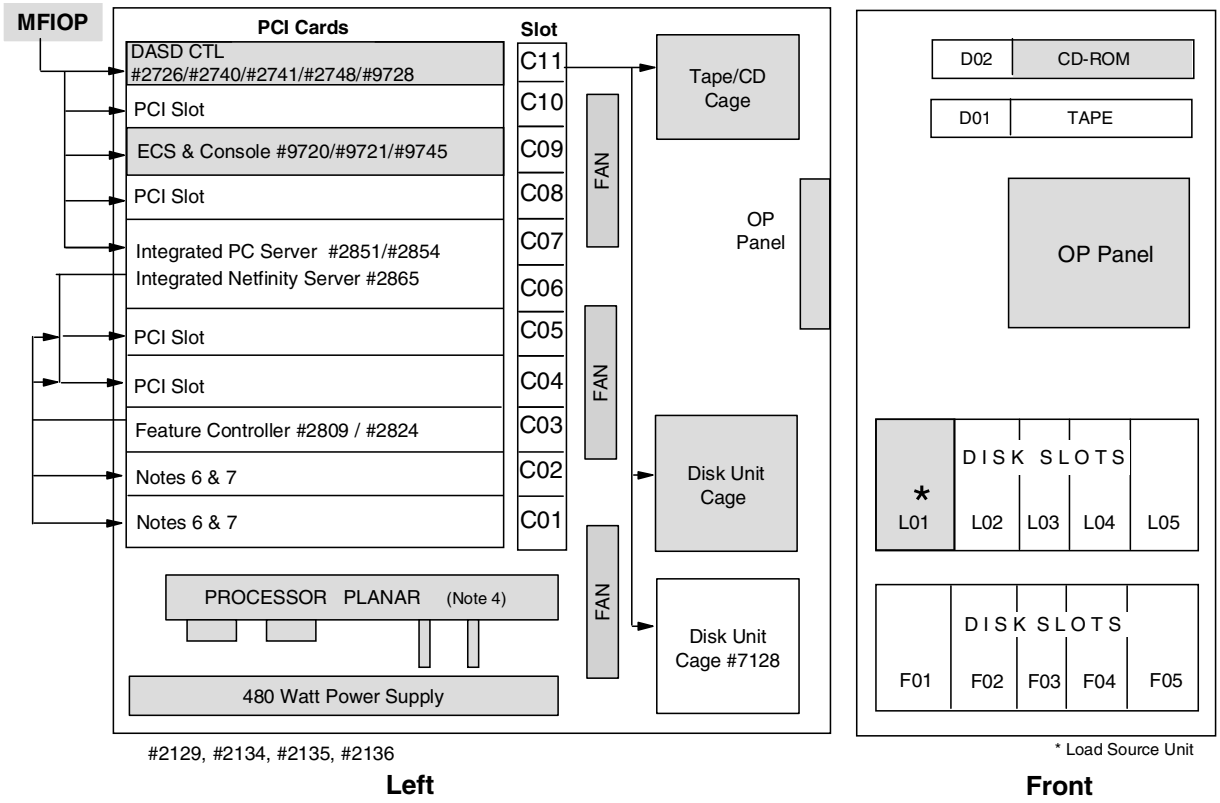
10.3 AS/400e 640 and 650 models overview

Model	**640**			**650**			
Processor feature	**#2237**	**#2238**	**#2239**	**#2240**	**#2243**	**#2188**	**#2189**
Relative system performance (CPW; see note 1)	319.0	583.3	998.6	1794.0	2340.0	3660.0	4550.0
Number of n-way multiprocessors	1	2	4	8	12	8	12
Main storage (MB)							
V4R2	512-12288	512-12288	512-12288	1024-20480	1024-20480	-	-
V4R3	512-16384	512-16384	512-16384	1024-32758	1024-32758	1024-40960	1024-40960
Disk storage base (GB)	4.19			4.19			
V4R1							
Maximum internal (GB)	927.7			996.4			
Maximum external (GB)	893.3			962.0			
Maximum combined (GB)	927.7			996.4			
V4R2							
Maximum internal (GB)	1340.0			1546.1			
Maximum external (GB)	1305.6			1511.8			
Maximum combined (GB)	1340.0			1546.1			
V4R3/V4R4							
Maximum internal (GB)	1340.0			2095.9			
Maximum external (GB)	1305.6			2061.3			
Maximum combined (GB)	1340.0			2095.9			
Disk unit IOPs	1-37			1-37			
Minimum feature card slots	3			3			
Maximum feature card slots-SPD	235			237			
Maximum feature card slots-PCI	216			216			
Communications lines (V4R1/V4R2)	1-200			1-250			
Communications lines (V4R3/V4R4)	1-200			1-300			
LAN/ATM adapters[2]	0-32			0-48			
V4R1/V4R2/V4R3	0-32			0-72			

Maximum workstation controllers		
Twinaxial / ASCII	175	175
Maximum workstations		
Twinaxial	7000	7000
ASCII	3150	3150
¼-inch/8mm cartridge tape (internal)	0-17	0-17
½-inch tape		
Reel 2440, 9348	0-4	0-4
34xx, 35xx	0-8	0-8
9347	0-2	0-2
8mm cartridge tape (external)	0-4	0-4
Optical libraries	0-22	0-22
Diskettes (5 ¼-inch or 8-inch)	0-2	0-2
Fax adapters	0-32	0-32
Cryptographic processor	0-3	0-3
System I/O buses	1-19	1-19
System expansion		
#5065/#5072/#5073/#5082/#5083	0-18	0-18
Bus expansion (#5044)	0-9	0-9
Storage expansion		
#5055/#5057	0-1	0-1
#5052/#5058	0-18	0-18

Note 1	Commercial Processing Workload (CPW) is used to measure the performance of all iSeries and AS/400e processors announced from September 1996 onward. The CPW value is measured on maximum configurations. The type and number of disk devices, the number of workstation controllers, the amount of memory, the system model, other factors, and the application being run determine the performance that is achievable.
Note 2	Can include up to 16 Integrated Netfinity Servers.

10.4 9406 Model 600 system unit

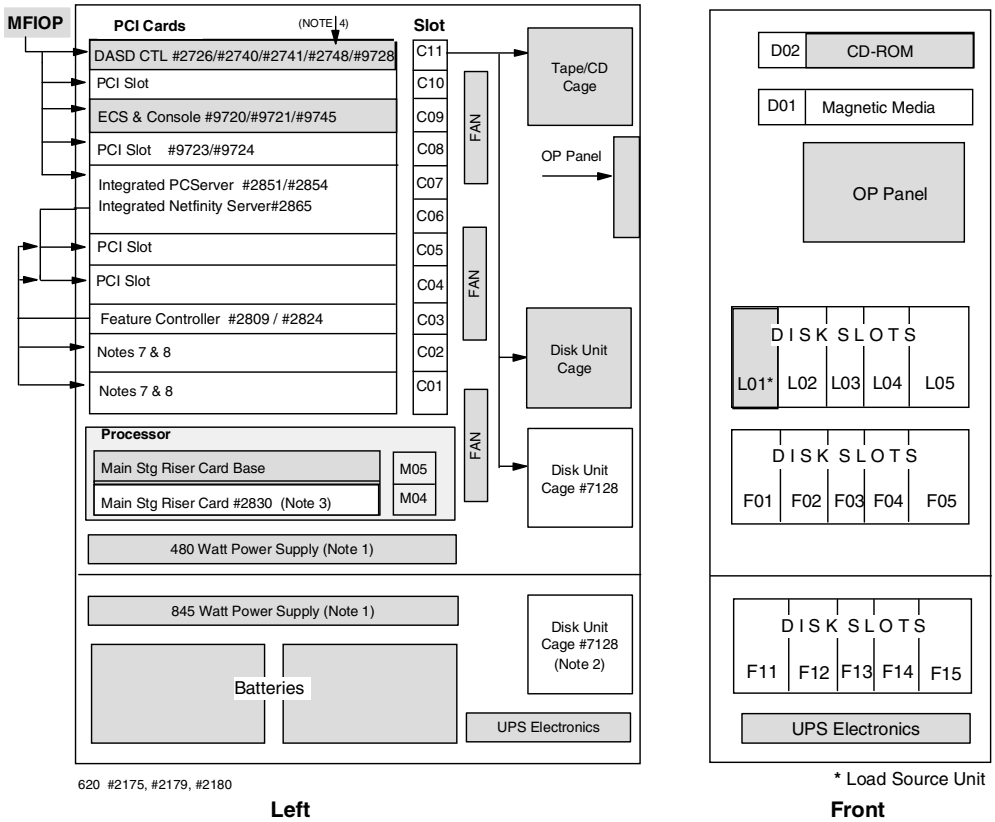


Notes:

1. The #9728 Base Disk Unit Controller does not support RAID-5 or integrated hardware disk compression and only supports five disks. If there is an intention to install more than five disks or implement RAID-5 later, then the #9728 should be changed for a #2726/#2740/#2741/#2748.
2. If an Integrated PC Server is in slots C06 and C07, it controls its LAN IOAs in slots C04 and C05. If there is no IPCS or Integrated Netfinity Server, C04 and C05 are controlled by C03.
3. If an Integrated PC Server, or an Integrated Netfinity Server is in slots C06 and C07, #2722/#2746 PCI Twinaxial Workstation IOA is not allowed in slot C08 and LAN IOAs are not allowed in slots C08 or C10.
4. SIMM modules plug directly to the planar board.
5. If #2854 PCI Integrated PC Server or #2865 PCI Integrated Netfinity Server is installed in slots C06 and C07:
   - Slot C04 supports #2723, #2724 or #2838/#9738.
   - Slot C05 supports #2723 or #2724.
6. For the #2809 in C03:
   - Slot C01 supports #2738/#9738 PCI 100/10 Mbps Ethernet IOA or #281x ATM.
   - Slot C02 supports the #2718 or #2729 PCI Magnetic Media Controller.
   - Slots C04/C05 support the #2721, #2722, #2723, #2724, #2745, or #2746.

7. For the #2824 in C03:
   - Slot C01 supports the #2838/#9738 or #281x.
   - Slot C02 supports the #2718, #2729, #2750, #2751, #2761, or #4800.
   - Slots C04/C05 support the #2721, #2722, #2723, #2724, #2745, #2746, #2750, #2751, #2761, or #4800.
8. If a #2838 or #281x is installed on the #2824/#2809 in C03, only features #2721 or #2745 may be installed in slots C04 or C05.
9. There is a maximum of one #2838 or #281x per #2824/#2809 IOP.
10. There is a maximum of one #2750, #2751, or #2761 per #2824 IOP.
11. There is a maximum of one #4800 per #2824 IOP.

10.5 9406 Model 620 system unit (#2175, #2179, #2180 processors)



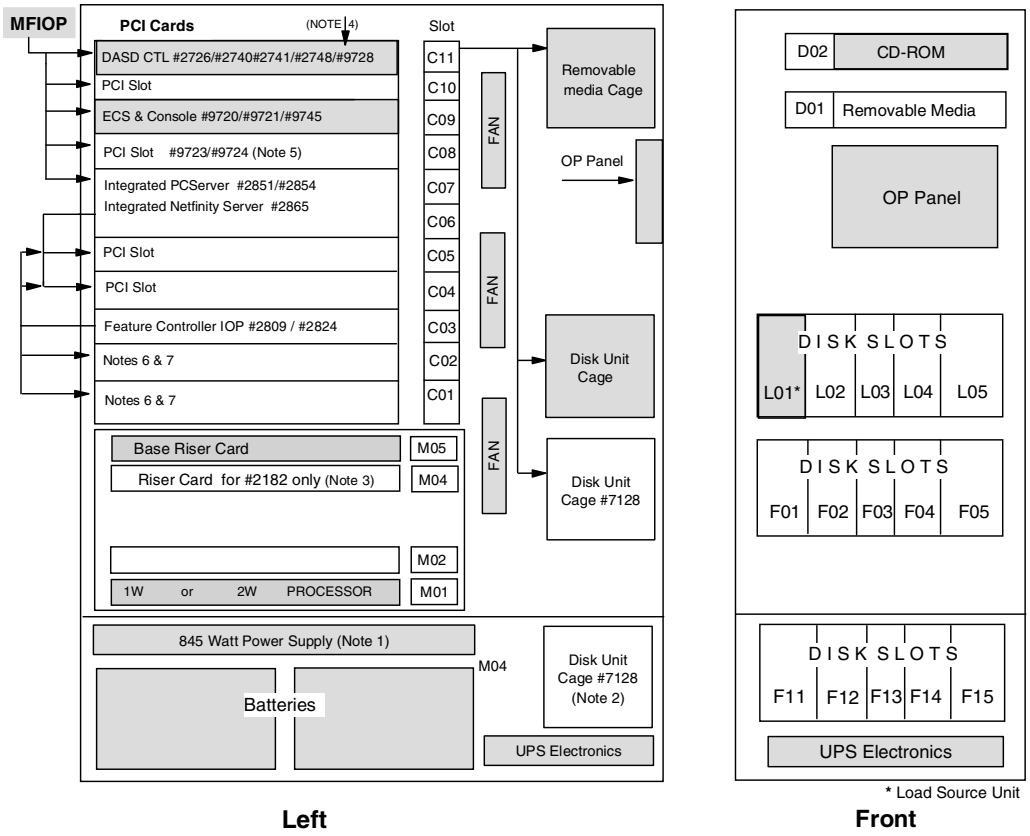
Notes:

1. Processors #2175, #2179, and #2180 have 480-watt power supply. The #2181 and #2182 have an 845-watt power supply.
2. This cage only available with #2181 and #2182 processors.
3. Main Storage Expansion Riser Card only available on #2182.
4. The #9728 Base Disk Unit Controller does not support RAID-5 or integrated hardware disk compression and only supports five disks. If there is intention to install more than five

disks in the base system unit or implement RAID-5 later, the #9728 should be changed for a #2726/#2740/#2741/#2748.

5. If an Integrated PC Server, or an Integrated Netfinity Server is in slots C06 and C07, #2722/#2746 PCI Twinaxial Workstation IOAA and LAN IOAs are not allowed in slot C08.
6. If the #2854 PCI Integrated PC Server or #2865 PCI Integrated Netfinity Server is installed in slots C06 and C07:
   - Slot C04 supports the #2723, #2724 or #2838/#9738.
   - Slot C05 supports the #2723 or #2724.
7. For the #2809 in C03:
   - Slot C01 supports the #2738/#9738 PCI 100/10 Mbps Ethernet IOA or #281x ATM.
   - Slot C02 supports the #2718 or #2729 PCI Magnetic Media Controller.
   - Slots C04/C05 support the #2721, #2722, #2723, #2724, #2745 or #2746.
8. For the #2824 in C03:
   - Slot C01 supports the #2838/#9738 or #281x.
   - Slot C02 supports the #2718, #2729, #2750, #2751, #2761, or #4800.
   - Slots C04/C05 support the #2721, #2722, #2723, #2724, #2745, #2746, #2750, #2751, #2761, or #4800.
9. If a #2838 or #281x is installed on the #2824/#2809 in C03, only features #2721 or #2745 may be installed in C04/C05.
10. There is a maximum of one #2838 or #281x per #2824 IOP.
11. There is a maximum of one #2750, #2751, or #2761 per #2824 IOP.
12. There is a maximum of one #4800 per #2824 IOP.

10.6 9406 Model 620 system unit (#2181 and #2182 processors)

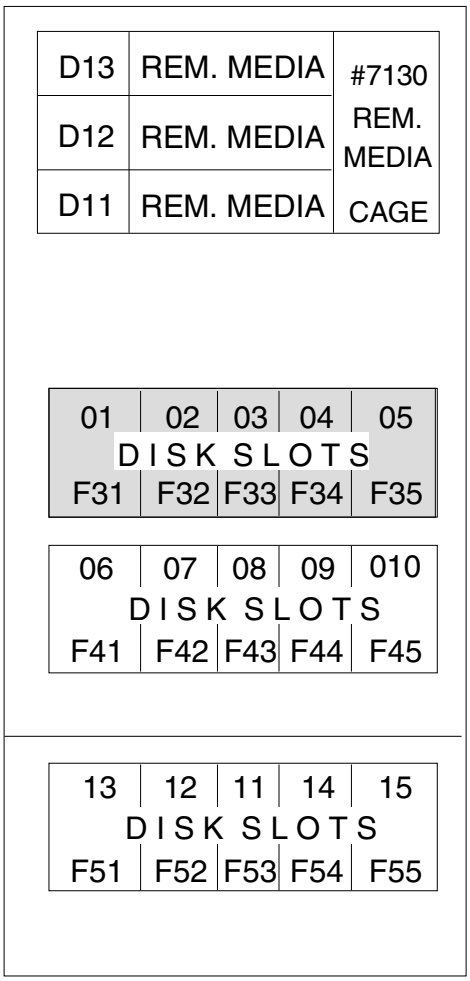


Notes:

1. Processors #2175, #2179, and #2180 have a 480-watt power supply. The #2181 and #2182 have an 845-watt power supply.
2. This cage only available with #2181 and #2182 processors.
3. Main Storage Expansion Riser Card only available on #2182.
4. The #9728 Base Disk Unit Controller does not support RAID-5 or integrated hardware disk compression and only supports five disks. If there is intention to install more than five disks in the base system unit or implement RAID-5 later, the #9728 should be changed for a #2726/#2740/#2741/#2748.
5. If an Integrated PC Server, or an Integrated Netfinity Server is in slots C06 and C07, #2722/#2746 PCI Twinaxial Workstation IOA is not allowed in slot C08 and LAN IOAs are not allowed in slot C08.
6. If #2854 PCI Integrated PC Server or #2865 PCI Integrated Netfinity Server is installed in slots C06 and C07:
   - Slot C04 supports #2723, #2724 or #2838/#9738.
   - Slot C05 supports #2723 or #2724.
7. For the #2809 in C03:
   - Slot C01 supports the #2738/#9738 PCI 100/10 Mbps Ethernet IOA or #281x ATM.
   - Slot C02 supports the #2718 or #2729 PCI Magnetic Media Controller.
   - Slots C04/C05 support the #2721, #2722, #2723, #2724, #2745, or #2746.

8. For the #2824 in C03:
   - Slot C01 supports the #2838/#9738 or #281x.
   - Slot C02 supports the #2718, #2729, #2750, #2751, #2761, or #4800.
   - Slots C04/C05 support the #2721, #2722, #2723, #2724, #2745, #2746, #2750, #2751, #2761, or #4800.
9. If a #2838 or #281x is installed on the #2824/#2809 in C03, then only features #2721 or #2745 may be installed in C04 or C05.
10. There is a maximum of one #2838 or #281x per #2824 IOP.
11. There is a maximum of one #2750, #2751, or #2761 per #2824 IOP.
12. There is a maximum of one #4800 per #2824 IOP.

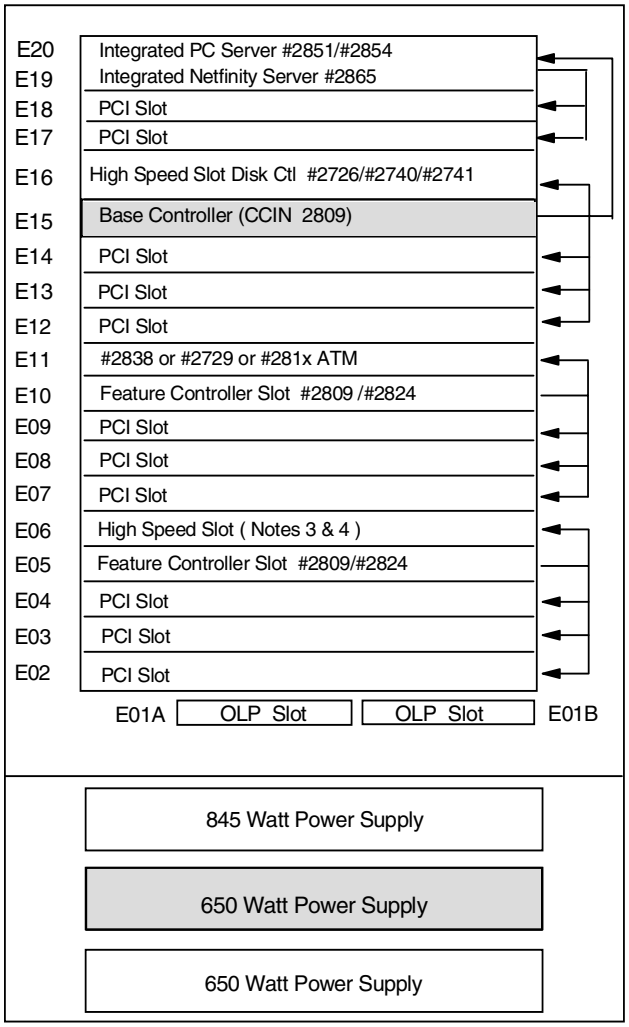
Front of #9364 or #5064



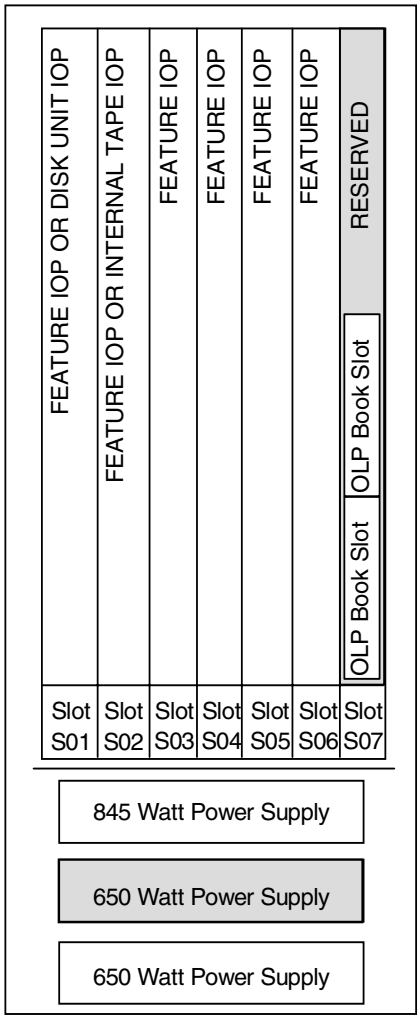
Note: The #9364/#5064 can either have a #9329/#9330 PCI or a #9331 SPD planar board.

10.7 #9329 PCI Card Cage and #9331 SPD Card Cage

#9364 or #5064 with 9329 PCI Planar

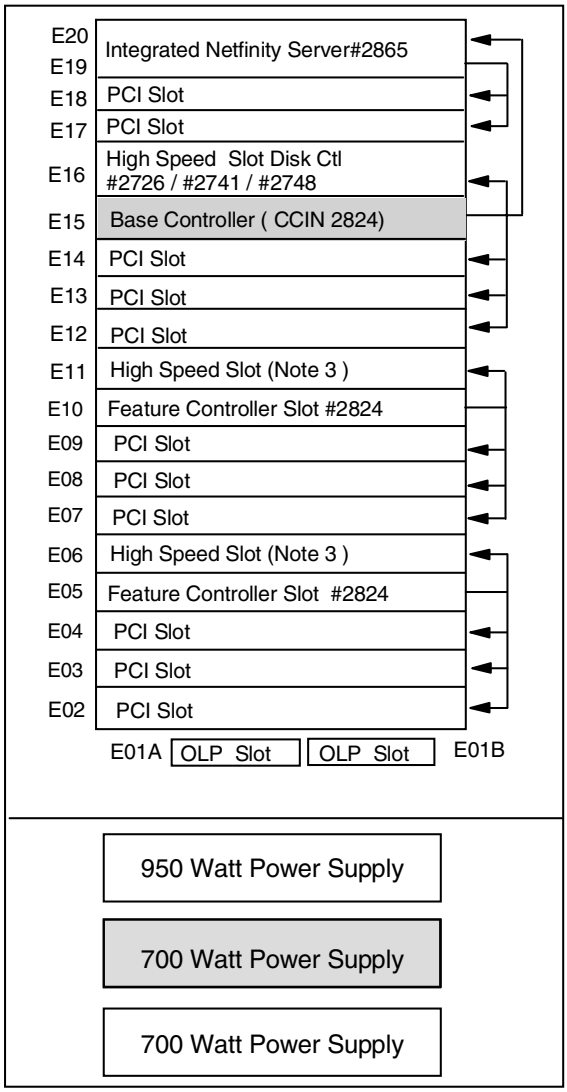


#9364 or #5064 with 9331 SPD Planar



10.8 #9330 PCI Integrated Expansion Unit Card Cage

#9364 with #9330 PCI Card Cage



Notes:

1. Optical link processors are used for connecting expansion towers and racks.
2. Base PCI LAN/WAN/Workstation IOP (CCIN 2809) in #9329 slot E15 supports:
   - In E16 (high-speed slot):
     - #2726, #2740, or #2741
   - In E12, E13, E14 (low-speed slots):
     - #2721, #2722, #2723, #2724, #2745, or #2746
     - Three cards in any combination with a maximum of one LAN card
     - When a #2851/#2854 PCI Integrated PC Server or #2865 PCI Integrated Netfinity Server is installed in the system expansion unit slots E19/E20, no LANs are allowed in slots E12, E13, and E14.

3. The #2809 PCI LAN/WAN/Workstation IOP in #9329 slots E05 or E10 supports:
   - In E06 or E11(high-speed slots):
     - #2718, #2729, #2838, or #281x
   - In E02, E03, E04 or E07, E08, or E09 (low-speed slots):
     - #2721, #2722, #2723, #2724, #2745, and #2746
     - Three cards in any combination with a maximum of two LAN cards
     - When a #2838 PCI 100/10 Mbps Ethernet IOA or any ATM feature is installed in E11, only #2721/#2745 PCI Two-Line WAN IOAs are allowed in slots E08 and E09. E07 cannot be used.
     - When a #2838 PCI 100/10 Mbps Ethernet IOA or any ATM feature is installed in E06, only #2721/#2745 PCI Two-Line WAN IOAs are allowed in slots E03 and E04. E02 cannot be used.
     - When a #2718/#2729 PCI Magnetic Media Controller is installed in E11, only one LAN is allowed in the slots E08 or E09.
     - When a #2718/#2729 PCI Magnetic Media Controlleris installed in E06, only one LAN is allowed in the slots E03 or E04.
4. 100/10 Mbps Ethernet #2838/#9738 is normally located in slot E06 or E11. However, if driven by the #2865 PCI Integrated Netfinity Server, one #2838/#9738 is located in slot E17.
5. Base PCI LAN/WAN/Workstation IOP (CCIN 2824) in #9330 slot E15 supports:
   - In E16 (high-speed slot):
     - #2726, #2741, or #2748
   - In E12, E13, E14 (low-speed slots):
     - #2721, #2722, #2723, #2724, #2745, #2746, #2750, #2751, or #2761
     - Maximum of two #2723 or #2724 LAN adapters
     - A maximum of one remote access card (#2750, #2751, or #2761)
     - Any combination of WAN and Twinax adapters
     - When a #2851/#2854 PCI Integrated PC Server or #2865 PCI Integrated Netfinity Server is installed in the system expansion unit slots E19/E20, no LAN features are allowed in slots E12, E13, and E14. Two LAN adapters are allowed on the IPCS or Integrated Netfinity Server, one of which may be high speed.
6. The #2824 PCI Feature Controller in #9329 slots E05 or E10 supports:
   - In E06 or E11 (high-speed slots):
     - #2718, #2729, #2838, #2750, #2751, #2761, #281x, or #4800
   - In E02, E03, E04 or E07, E08, E09 (low-speed slots):
     - #2721, #2722, #2723, #2724, #2745, #2746, #2750, #2751, or #2761
     - Three cards in any combination
     - When a #2838 PCI 100/10 Mbps Ethernet IOA or any ATM feature is installed in E11, only #2721/#2745 PCI Two-Line WAN IOAs are allowed in slots E08 and E09. E07 cannot be used.
     - When a #2838 PCI 100/10 Mbps Ethernet IOA or any ATM feature is installed in E06, only #2721/#2745 PCI Two-Line WAN IOAs are allowed in slots E03 and E04. E02 cannot be used.
     - When a #2729 PCI Magnetic Media Controller is installed in E11, only one LAN is allowed in slots E08 and E09.

- When a #2729 PCI Magnetic Media Controller is installed in E06, only one LAN is allowed in slots E03 and E04.
- A maximum of one remote access card (#2750, #2751, or #2761) per #2824.
- A maximum of two low-speed LANs (#2723 or #2724) per #2824.

7. The #2824 PCI Feature Controller in the #9330 slots E05 or E10 supports:
   – In E06 or E11 (high-speed slots):
     - #2718, #2729, #2745, #2746, #2750, #2751, #2761, #281x, #2838, or #4800
   – In E02, E03, E04 or E07, E08, and E09 (low-speed slots):
     - #2721, #2722, #2723, #2724, #2745, #2746, #2750, #2751, and #2761
     - Three cards in any combination
     - Maximum of one high-speed #2838 LAN or one #281x ATM per #2824
     - If high-speed LAN or ATM feature present, #2723/#2724 not allowed on this #2824
     - A maximum of one #2750, #2751, or #2761 remote access card per #2824
     - A maximum of two #2723 or #2724 low-speed LANs per #2824
8. The #2809 is not supported in the #9330.

10.9 AS/400e Model 600 and 620 features

Note: The darker shaded cells in the tables indicate the base features.

PROCESSORS	
#2129	**22.7 RSP CPW Processor. Base Memory 64 MB** Model 600 only.
#2134	**32.5 RSP CPW Processor. Base Memory 64 MB** Model 600 only.
#2135	**45.4 RSP CPW Processor. Base Memory 64 MB** Model 600 only.
#2136	**73.1 RSP CPW Processor. Base Memory 128 MB** Model 600 only.
#2175	**50.0 RSP CPW Processor. Base Memory 64 MB** For orders placed between 24 October 1997 and 09 February 1998, this shipped with a base memory of 256 MB due to a promotion offered in most countries (if specify code 0004 is not present 256 MB). Model 620 only.
#2179	**85.6 RSP CPW Processor. Base Memory 256 MB** Model 620 only.
#2180	**113.8 RSP CPW Processor. Base Memory 256 MB** Model 620 only.
#2181	**210.0 RSP CPW Processor. Base Memory 256 MB** Model 620 only.
#2182	**464.3 RSP CPW 2-way Processor. Base Memory 256 MB** Model 620 only.

POWER AND PACKAGING	
#2686	**#2686 Optical Link Processor (266 Mbps)** The #2686 is used for attaching #5044 System Unit Expansion Rack. Each #2686 supports a maximum of one #5044. Prerequisite: #9364 System Unit Expansion with either #9329 PCI Card Expansion Unit or #9331 Expansion Unit for SPD Cards Maximum: Two Card slots used: None Model 620 only.
#2688	**#2688 Optical Link Processor (1063 Mbps)** The #2688 is used for attaching #5072, #5073, #5082, and #5083 Storage Expansion Towers on the Model 620. Each #2688 supports a maximum of two #50xx towers. Prerequisite: #9364 System Unit Expansion with either #9329 PCI Card Expansion Unit or #9331 Expansion Unit for SPD Cards Maximum: Two Card slots used: None Model 620 only.
#5043	**Primary to Secondary Rack Conversion** The #5043 provides for the conversion of a 9406 F Model system unit rack to a 9309 #9171 type rack. The new rack retains the #5043 feature. Only available when upgrading from 9406 F Model. Also available on feature conversion from #5040. Model 620 only.
#5044	**#5044 System Unit Expansion Rack** The #5044 is a 12 SPD I/O card slot cage in a rack enclosure. Each unit provides two buses with six I/O card slots per bus. The #5044 is supported for upgrades only. It is a conversion of a #5040 or #5042 rack. Requires #2686 and an open slot on the Optical Bus Adapter. Model 620 only.
#5052	**#5052 Storage Expansion Unit** The #5052 provides space for up to 16 disk units. It attaches to the top of the #5072 1063 Mbps System Unit Expansion Tower and the #5082 Storage Expansion Tower. Only one #5052 per tower is supported and #5143 Power Supply may be required. Model 620 only.
#5058	**#5058 Storage Expansion Unit (Ultra SCSI)** The #5058 provides space for up to 16 disk units. It attaches to the top of the #5073 1063 Mbps System Unit Expansion Tower and the #5083 Storage Expansion Tower. Only one #5058 per tower is supported. Model 620 only.
#5065	**#5065 Storage/PCI Expansion Tower** The #5065 provides an additional bus. It includes a 1063 Mbps optical bus card. The #5065 has redundant, hot swappable power supplies. It supports three LAN, WAN, and Workstation controllers, 12 PCI IOA cards, two removable media and up to 45 disk units. Three specific disk slots may be used for #4331 1.6 GB Read Cache Device features. The #5065 is the only storage expansion unit to support Ultra2 SCSI. Maximum: Four on the Model 620. Prerequisite: #2688 Optical Link Processor Minimum OS/400 level: V4R4 The #5065 is a Customer Install Feature (CIF). Model 620 only.
#5066	**#5066 1.8 M I/O Tower** The #5066 provides two additional buses. The #5066 is actually two #5065 Storage/PCI Expansion Towers installed in a #5065/#5066 PCI Expansion Tower. The #5066 reports to the system as two #5065s. The #5066 includes two 1063 Mbps optical bus cards, various cables (including optical cables) and the 1.8 M I/O Tower. The #5066 includes 24 PCI IOA slots, space for 90 disk units, space for 4 removable media devices, battery backup, redundant/hot swap power supplies and two base PCI LAN/WAN/Workstation IOPs (CCIN 2824). The #5066 is capable of controlling Ultra2 SCSI disk units. Two line cords must be specified. Maximum: Two on the Model 620. Prerequisite: #2688 Optical Link Processor Minimum OS/400 level: V4R4

#5072	**#5072 1063 Mbps System Unit Expansion Tower** The #5072 provides additional buses. It includes a 1063 Mbps optical bus card, 13 SPD I/O card slots; space for up to four internal tape units or CD-ROMs (maximum of three), and battery and power supplies. It can support one #5052 Storage Expansion Unit. Due to power restrictions, some combinations of high-powered cards may mean that an additional #5072 is required. Prerequisite: #2688 Optical Link Processor. The #5072 is only supported on upgrades only. Maximum: A total of four expansion towers of all types. Model 620 only.
#5073	**#5073 1063 Mbps System Unit Expansion Tower** The #5073 provides additional buses. It includes a 1063 Mbps optical bus card, 13 SPD I/O card slots, space for up to four internal tape units or CD-ROMs (a maximum of three), and battery and power supplies. It can support one #5058 Storage Expansion Unit. Due to power restrictions, some combinations of high-powered cards may mean that an additional #5073 is required. Prerequisite: #2688 Optical Link Processor. Maximum: A total of four expansion towers of all types. Model 620 only.
#5082	**#5082 Storage Expansion Tower** The #5082 provides a DASD tower for adding up to 16 disk units. A total of 32 disk units are supported with the addition of #5052. The #5082 includes a 1063 Mbps optical bus card, two SPD I/O card slots for the #6502, #6512, #6530 disk IOPs (supported but not orderable; or #6532 or #6533 for new orders), and battery and power supplies. The #5082 is supported for upgrades only. Prerequisite: #2688 Optical Link Processor. Maximum: A total of four expansion towers of all types. Model 620 only.
#5083	**#5083 Storage Expansion Tower (Ultra SCSI)** The #5083 provides a DASD tower for adding up to 16 disk units. A total of 32 disk units are supported with the addition of #5058. It includes a 1063 Mbps optical bus card, two SPD I/O card slots for the #6502, #6512, and #6530 disk IOPs, battery and power supplies. The #5083 is supported for upgrades only. Prerequisite: #2688 Optical Link Processor Maximum: A total of four expansion towers of all types. Model 620 only.
#5101	**#5101 30 Disk Unit Expansion** The #5101 provides two 15 unit disk enclosures, a 700-watt power supply, backplanes, and internal cables. Maximum: One per #5065 Storage/PCI Expansion Tower.
#5143	**#5143 Power Supply** The #5143 is a 400-watt power supply that is usually a prerequisite for a #5052 installed on a #5072 or #5082. Maximum: One per #5072 or #5082. Model 620 only.
#5153	**Redundant Power Supply** The #5153 contains two power supplies, a 970 watt and a 700 watt. The #5153 provides redundancy for the power supplies in the system unit and system unit expansion. The #5153 physically resides in the #9364. Model 620 Processors #2181 and #2182 only. Maximum: One
#7128	**#7128 DASD Expansion Unit** The #7128 allows the addition of five disk units to either the system unit or the #9364 System Unit Expansion. Maximum: One in Base System with Model 600 Processors #2129, #2134, #2135, and #2136 or Model 620 Processors #2175, #2179, or #2180. Two in Base System with Model 620 Processors #2181 or #2182. Two in #9364 System Unit Expansion.
#7130	**#7130 Expansion Unit Tape Cage** The #7130 allows the addition of three tape units to the #9364 System Unit Expansion. Tape Units #1349, #1350, #1355, #1360, #6481, #6482, #6485, or #6490 are supported in the first two tape positions. Only #1355 and #6485 tape units are supported in the third position. A tape controller is required to support these tape devices. Prerequisites: #9329 PCI Card Expansion Unit, #9330 PCI Integrated Expansion Unit or #9331 Expansion Unit for SPD Cards Maximum: One Model 620 only.

#9329	**#9329 PCI Card Expansion Unit** The #9329 contains 11 PCI card slots and three high-speed PCI card slots. These are driven by three PCI controllers and one Integrated PC Server (not included). It also has space for one or two #2686 or #2688 Optical Link Processor cards to support up to four external towers. A Base PCI LAN/WAN/Workstation IOP is included with the #9329. Prerequisite: #9364 System Unit Expansion Maximum: One Model 620 only.
#9330	**#9330 PCI Integrated Expansion Unit** The #9330 contains 11 low-speed PCI card slots and three high-speed PCI card slots. These are driven by one base Controller (CCIN 2824) and two Feature Controllers. One IPCS or Integrated Netfinity Server is optional. It also has space for one or two #2686 or #2688 Optical Link Processor cards to support up to four external towers. Maximum: One Minimum OS/400 level: V4R4 Model 620 only.
#9331	**#9331 Expansion Unit for SPD Cards** The #9331 allows the addition of up to six SPD cards and one or two #2686 or #2688 Optical Link Processor cards to support up to four external towers. The #9331 includes an SPD Controller Card. Prerequisite: #9364 System Unit Expansion Maximum: One Model 620 only.
#9364	**#9364 System Unit Expansion** The #9364 allows the addition of either an #9330 PCI Integrated Expansion Unit or #9329 PCI Card Expansion Unit. It also supports one #7130 Expansion Unit Tape Cage for up to three tapes. It supports five disks and allows one or two #7128 DASD Expansion Units. The #9364 is processor dependent. Maximum: One Model 620 only.
	MAIN STORAGE
Base	There are no features to specify the base memory of 64 MB on the Model 600 Processors #2129, #2134, and #2135; 128 MB on the Model 600 Processor #2136 or 256 MB on all of the Model 620 Processors. For main storage, which must be added in pairs (or quads), feature codes must be ordered in pairs. The same rules apply to quads.
#2830	**Main Storage Expansion** The #2830 contains 16 sockets for placement of 32 MB or 128 MB main storage DIMMs. Model 620 Processor #2182 only. Maximum: One
#3001	**32 MB Main Storage DIMM** Plugs directly into the CPU or #2830. Must be added in pairs. Maximum: 14 DIMMs on Processors #2175, #2179, #2180 and #2181; 30 DIMMS on Processor #2182. Prerequisite: One #2830 Main Storage Expansion for 16 DIMMs or more on Processor #2182. Model 620 only.
#3002	**128 MB Main Storage DIMM** Plugs directly into the CPU or #2830. Must be added in pairs. Maximum: 14 DIMMs on Processors #2175, #2179, #2180, and #2181; 30 DIMMs on Processor #2182. Prerequisite: One #2830 Main Storage Expansion for 16 DIMMs or more on Processor #2182. Model 620 only.
#3110	**64 MB Main Storage** Plugs directly into the CPU. Must be added in pairs on Model 600 Processor #2136. Maximum: Five on Processors #2129, #2134 and #2135; six on Processor #2136. Supported on all Model 600 Processors.
#3182	**32 MB Main Storage DIMM** Plugs directly into the CPU. Must be added in pairs on Model 600 Processor #2136. Supported on all Model 600 Processors. Maximum: Five on Processors #2129, #2134 and #2135; six on Processor #2136.
#8172	**32 MB Base Main Storage Replace SIMM** The #8172 provides 32 MB of memory. Model 600 only. Supported for model upgrades only. Not orderable.
#8210	**64 MB Optional Main Storage SIMM** The #8210 provides 64 MB of additional memory. Model 600 only. Supported for model upgrades only. Not orderable.

WORKSTATION CONTROLLERS	
Base MFIOP	**Base Multifunction IOP (PCI)** The base system includes this MFIOP, which has three PCI card slots, one high-speed PCI card slot used for the base system disk controller and which also drives one Integrated PC Server. The high-speed PCI card slot supports #2726, #2740, #2741, #2748, or #9728 Base Disk Unit Controller. One PCI card slot supports the base #9720 or #9721 Base PCI Two-Line WAN IOA. The remaining two PCI card slots support #2721, #2722, #2723, or #2724 PCI IOAs. Only one of these can be a #9720 or #9721 LAN IOA. Also, if a #2851 or #2854 PCI Integrated PC Server is installed in slots C06 and C07, #2722 Twinaxial Workstation IOA is not allowed in slot C08 and LAN IOAs are not allowed in slots C08 or C10.
Base IOP	**#9329/#9330 Base Controller for PCI Integrated Expansion Unit** Comes as standard (no feature required) with #9329 and #9330 PCI Integrated Expansion Unit. In the #9329, it is identified as CCIN 2809. In the #9330, it is identified as CCIN 2824. It is used for attaching LAN, WAN, and workstation IOAs to the system and supports one slot reserved for a PCI disk controller and three low-speed slots. It also supports one PCI Integrated PC Server/Integrated Netfinity Server. The Base controller is located in slot E15. For CCIN 2809, in the high-speed slot E16, only the #2726 or #2741 PCI RAID Disk Unit Controller is supported. In slots E12, E13, and E14, it supports any three (with a maximum of one LAN) of #2721, #2722, #2723/#9723, #2724/#9724, #2745, or #2746. When a #2865 PCI Integrated Netfinity Server is installed in E19/E20, no LAN cards are allowed in E12, E13, and E14. For CCIN 2824, in the high-speed slot E16, only the #2726, #2741 or #2748 PCI RAID Disk Unit Controller is supported. In slots E12, E13 and E14, it supports any three (with a maximum of two LAN cards) of #2721, #2722, #2723/#9723, #2724/#9724, #2745, #2746, #2750, #2751 or #2761. There is a maximum of one #2750, #2751 or #2761. There can be any combination of WAN and Twinax. When a #2865 PCI Integrated Netfinity Server is installed in E19/E20, no LAN cards are allowed in E12, E13, and E14. Maximum: One. Model 620 only.
Base IOP	**Base Controller for Storage/#5065 Storage/PCI Expansion Tower** Comes as standard (no feature required) with #5065 Storage/PCI Expansion Tower. It is installed in slot C03 and is identified as CCIN 2824. It is used for attaching LAN, WAN, and workstation IOAs through two high-speed slots and two low-speed slots. The #2718, #2729, or #2748 are supported in C04 only. The #2723/#9723, #2724/#9724, #2645, #2746, #2750, #2751, #2761, or #4800 are supported in C04 or C05. The #281X or #2838/#9738 are supported on C05 only. The #2723/#9723, #2724/#9724, #2745, #2746 #2750, #2751, or #2761 are supported in C01 or C02. Restrictions apply. Maximum: One
#2629	**#2629 LAN/WAN/Workstation IOP (SPD)** The #2629 supports up to three #2699, #6149, #6180, or #6181 LAN/WAN/ Workstation IOAs. The #6149 and #6181 cannot occupy all three positions of the #2629. SPD slots required: One Maximum: One per SPD slot Model 620 only
#2722	**#2722 Twinaxial Workstation IOA (PCI)** The #2722 is an eight-port attachment that supports 40 twinaxial devices. PCI slots required: One Maximum: Four in a Model 600; 13 in a Model 620 The #2722 is a Customer Install Feature (CIF) on a Model 600 for an MES that only includes CIF features.
#2746	**#2746 PCI Twinaxial Workstation IOA (PCI)** The #2746 is an eight-port attachment that supports 40 active twinaxial devices. PCI slots required: One (low-speed in the system unit or #9329, high or low-speed in #9330 or #5065 Storage/PCI Expansion Tower) Minimum OS/400 level: V4R4 The #2746 is a Customer Install Feature (CIF) on a Model 600 for an MES that only includes CIF features.

#2809	**#2809 PCI LAN/WAN/Workstation IOP** The #2809 can be used for attaching additional LAN, WAN, and Workstation IOAs to the system. There is a maximum of one in the system unit and two in the #9329 PCI Card Expansion Unit. In system unit slot C03, it supports PCI feature IOAs in slots C01, C02, C04, and C05 (if an Integrated Netfinity Server is installed, the server controls slots C04 and C05). In slot C01, the #2809 supports #2838/#9738 or #281x. In the C02 high-speed slot, it supports a #2718 or #2729. In C04 and C05, it supports one or two #2721 or #2722 or #2723 or #2724 or #2745 or #2746. If the #2838/#9738 is in C01, only the #2721 or #2745 may be installed in C04 and C05. In #9329 PCI Card Expansion Unit slots E05 or E10, it supports low-speed slots E02, E03, E04 or E07, E08, E09, and high-speed slots E06 or E11. In E06 or E11, the #2718, #2729, #2738/#9738, or #281x are supported. In the low-speed slots, it supports #2721, #2722, #2723/#9723, #2724/#9724, #2745, or #2746. The #2809 is a Customer Install Feature (CIF) on a Model 600 for an MES that includes CIF features only.
#2824	**#2824 PCI Feature Controller** The #2824 can be used for attaching additional LAN, WAN, and Workstation IOAs to the system. There is a maximum of one in the system unit and two in the #9329/#9330 PCI Integrated Expansion Unit and two in the #5065 Storage/PCI Expansion Tower. In system unit slot C03, it supports PCI feature IOAs in slots C01, C02, C04, and C05 (if an Integrated Netfinity Server is installed, the server controls slots C04 and C05). In slot C01, the #2824 supports #2838/#9738 or #281x. In the C02 high-speed slot, it supports #2718, #2729, #2750, #2751, #2761, or #4800. In C04 and C05, it supports #2721, #2722, #2723/#9723, #2724/#9724, #2745, #2746, #2750, #2751 or #2761. If the #2838/#9738 is in C01, then only the #2721 or #2745 may be installed in C04 and C05. In #9329 PCI Card Expansion Unit slots E05 or E10, it supports high-speed slots E06 or E11 and low-speed slots E02, E03, and E04, or E07, E08, and E09. In E06 and E11, it supports #2718, #2729, #2838/#9738, #2750, #2751, #2761, #281x, or #4800. In the low-speed slots, it supports #2721, #2722, #2723/#9723, #2724/#9724, #2746, #2745, #2750, #2751, or #2761. In #9330 PCI Integrated Expansion Unit slots E05 or E10, it supports high-speed slots E06 or E11 and low-speed slots E02, E03, and E04, or E07, E08, and E09. In E06 and E11, it supports #2718, #2729, #2838/#9738, #2745, #2746, #2750, #2751, #2761, #281x, or #4800. In the low-speed slots, it supports #2721, #2722, #2723/#9723, #2724/#9724, #2746, #2745, #2750, #2751, or #2761. In #5065 Storage/PCI Expansion Tower slots C08 or C13, it supports two high-speed and two low-speed slots. The #2718, #2729 or #2748 are supported in C09 and C14 only. The #2838/#9738 and #281x are supported in C05, C10, and C15 only. The #2838/#9738, #2724/#9724, #2745, #2746, #2750, #2751, #2761 or #4800 are supported in C09, C10, C14, or C15. The #2723/#9723, #2724/#9724, #2745, #2746, #2750, #2751 or #2761 are supported in C06, C07, C11, or C12. Additional restrictions apply. Minimum OS/400 level: V4R4 The #2824 is a Customer Install Feature (CIF) on a Model 600 for an MES that only includes CIF features.
#6050	**#6050 Enhanced Twinaxial Workstation Controller (SPD)** The #6050 is an eight-port attachment that supports up to 40 twinaxial devices. The #6050 is supported for upgrades only. SPD slots required: One Maximum: 59, but the total number of workstation controllers/adapters must not exceed this number.
#6140	**#6140 Twinaxial Workstation Controller (SPD)** The #6140 is an eight-port attachment that supports up to 40 twinaxial devices. The #6140 is supported for upgrades only. SPD slots required: One Maximum: 59, but total number of workstation controllers/adapters must not exceed this number. Model 620 only.
#6141	**#6141 ASCII Workstation Controller (SPD)** The #6141 supports up to six ASCII devices. SPD slots required: One Maximum: 59, but total number of workstation controllers/adapters must not exceed this number. Model 620 only.
#6142	**#6142 ASCII 12-Port Workstation Attachment (SPD)** The #6142 plugs into the #6141 ASCII Workstation Controller providing an additional 12 ports. Eighteen ASCII devices can now be supported. One #6142 can be attached per #6141. SPD slots required: None Model 620 only.

#6180	**#6180 Twinaxial Workstation IOA (SPD)** The #6180 is an eight-port attachment that supports up to 40 twinaxial devices. Prerequisite: #2629 LAN/WAN/Workstation IOP IOA slots required: One in #2629 Maximum: 59, but total number of workstation controllers/adapters must not exceed this number. Model 620 only.
#2720 #9720	**#2720 Base PCI WAN/Twinaxial IOA (PCI)** The #2720 is a combined twinaxial/communications adapter. It can be included as base in the 600 and 620 Models. The #2720 provides four ports supporting a maximum of 28 Twinaxial devices. It also provides a single communications line to support ECS. The #9720 is mutually exclusive with #9721/#9745. PCI slots required: One Maximum: One #9720 or one #2720 per system. The #2720 is not supported by the configurator and must be ordered manually.
COMMUNICATIONS	
Comm. Restrictions	Refer to “Comm. Restrictions” on page 34.
#2605	**#2605 ISDN Basic Rate Interface Adapter (SPD)** The #2605 connects to #2623 to support one communications line connecting to an ISDN network. The ISDN Basic Rate Interface supported by #2605 contains two high-speed ISDN user channels. One or two #2605s may be attached to one #2623 with no other IOAs allowed on the #2623. SPD slots required: None Prerequisite: #2623 Six-Line Communications Controller Model 620 only.
#2609	**#2609 EIA 232/V.24 Two-Line Adapter (SPD)** The #2609 connects to #2623 to support two communications lines using Async, BSC, SDLC, or X.25 protocols. Two cables must be specified: #9023 EIA 232/V.24 20-ft. (6m) enhanced cable #9835 EIA 232/V.24 50-ft. (15m) enhanced cable #9022 EIA 232/V.24 20-ft. (6m) cable #9836 EIA 232/V.24 50-ft. (15m) cable The #2609 is supported for upgrades only. SPD slots required: None Prerequisite: #2623 Six-Line Communications Controller Model 620 only.
#2610	**#2610 EIA 232/V.24 Two-Line Adapter (SPD)** The #2610 connects to #2623 to support two communications lines using X.21 or X.25 networks. Two cables must be specified: #9021 X.21 20-ft. (6m) cable #9839 X.21 50-ft. (15m) cable The #2610 is supported for upgrades only. SPD slots required: None Prerequisite: #2623 Six-Line Communications Controller Model 620 only.
#2612	**#2612 EIA 232/V.24 One-Line Adapter (SPD)** The #2612 connects to #2623 to support one communication line using Async, BSC, SDLC, or X.25 protocols. One cable must be specified: #9023 EIA 232/V.24 20-ft. (6m) enhanced cable #9835 EIA 232/V.24 50-ft. (15m) enhanced cable #9022 EIA 232/V.24 20-ft. (6m) cable #9836 EIA 232/V.24 50-ft. (15m) cable The #2612 is supported for upgrades only. SPD slots required: None Prerequisite: #2623 Six-Line Communications Controller Model 620 only.

#2613	**#2613 V.35 One-Line Adapter (SPD)** The #2613 connects to #2623 to support one V.35 communications line using either BSC, SDLC, or X.25 protocols. Each #2623 supports one V.35 line at speeds up to 640 Kbps, or two V.35 lines at speeds up to 512 Kbps, or three V.35 lines at speeds up to 384 Kbps. No other adapters allowed on #2623 when running T1/E1/J1. One cable must be specified: #9020 V.35 20-ft. (6m) cable #9838 V.35 50-ft. (15m) cable The #2613 is supported for upgrades only. SPD slots required: None Prerequisite: #2623 Six-Line Communications Controller Model 620 only.
#2614	**#2614 X.21 One-Line Interface Adapter (SPD)** The #2614 connects to #2623 to support one communications line using X.21 or X.25 networks. One cable must be specified: #9021 X.21 20-ft. (6m) cable #9839 X.21 50-ft. (15m) cable The #2614 is supported for upgrades only. SPD slots required: None Prerequisite: #2623 Six-Line Communications Controller Model 620 only.
#2620	**#2620 Full Cryptographic Processor (SPD)** The #2620 provides full cryptographic support for encrypting and decrypting data. Distribution of the #2620 is restricted by U.S. Government Export Regulations. In countries outside the U.S.A. and Canada, it can only by marketed to financial institutions and subsidiaries of U.S. companies. If a #2620 cannot be sold, sell the #2628 in its place. SPD slots required: One Maximum: One Model 620 only.
#2623	**#2623 Six-Line Communications Controller (SPD)** The #2623 provides for attachment of a wide range of iSeries and AS/400e communications adapters. These adapters are supported by the #2623, #2605, #2609, #2610, #2612, #2613, #2614, #2654, #2655, #2656, #2657, #2658, #2659, #6153, and #6173. The #2623 supports two #2605 ISDN Basic Rate Interface Adapters or up to three EIA 232/V.24, X.21, and V.35 adapters. The #2623 is orderable on Model 620 for customers purchasing the #2605 ISDN adapter. SPD slots required: One Model 620 only.
#2628	**#2628 Limited Cryptographic Processor (SPD)** The #2628 provides the same function as the #2620 except that it does not include data encryption/decryption using commercial Data Masking Facility for data scrambling. Can be marketed to any non-U.S. company. SPD slots required: One Maximum: One Model 620 only.
#2629	**#2629 LAN/WAN/Workstation IOP (SPD)** The #2629 supports up to three #2699, #6149, #6180, or #6181 LAN/WAN/ Workstation IOAs. The #6149 and #6181 cannot occupy all three positions of the #2629. SPD slots required: One Maximum: One per SPD slot Model 620 only.
#2654	**#2654 EIA 232/V.24 Two-Line IOA 20-ft. Enhanced Cable** The #2654 connects to the #2623 to support two communications lines supporting Async, BSC, SDLC, or X.25 protocols using two EIA 232/V.24 20-ft. (6.2 m) enhanced cables. The #2654 is supported for upgrades only. SPD slots required: None Prerequisite: #2623 Six-Line Communications Controller Model 620 only.
#2655	**EIA 232/V.24 Two-Line Adapter 20-ft. Cable** The #2655 connects to the #2623 to support two communications lines supporting Async, BSC, SDLC, or X.25 protocols using two EIA 232/V.24 20-ft. (6.2 m) cables. The #2655 is supported for upgrades only. SPD slots required: None Prerequisite: #2623 Six-Line Communications Controller Model 620 only.

#2656	**X.21 Two-Line Adapter 20-ft. Cable** The #2656 connects to the #2623 to support two communications lines to attach to a X.21 or X.25 network using 20-ft. (6.2 meter) cables. The #2656 is supported for upgrades only. SPD slots required: None Prerequisite: #2623 Six-Line Communications Controller Model 620 only.
#2657	**EIA 232/V.24 Two-Line Adapter 50-ft. Enhanced Cable** The #2657 connects to the #2623 to support two communications lines supporting Async, BSC, SDLC, or X.25 protocols using two EIA 232/V.24 50-ft. (15 meter) enhanced cables. The #2657 is supported for upgrades only. SPD slots required: None Prerequisite: #2623 Six-Line Communications Controller Model 620 only.
#2658	**EIA 232/V.24 Two-Line Adapter 50-ft. Cable** The #2658 connects to the #2623 to support two communications lines to supporting Async, BSC, SDLC, or X.25 protocols using two EIA 232/V.24 50-ft. (15 meter) cables. The #2658 is supported for upgrades only. SPD slots required: None Prerequisite: #2623 Six-Line Communications Controller Model 620 only.
#2659	**X.21 Two-Line Adapter 50-ft. Cable** The #2659 connects to the #2623 to support two communications lines to attach to a X.21 or X.25 network using 50-ft. (15 meter) cables. The #2659 is supported for upgrades only. SPD slots required: None Prerequisite: #2623 Six-Line Communications Controller Model 620 only.
#2664	**#2664 Integrated Fax Adapter (SPD)** The #2664 provides two ports capable of transmission and receipt of facsimile data to or from a Group 3 capable Fax machine, another iSeries or AS/400e with the #2664, or PCs with appropriately programmed Fax adapters. SPD slots required: One Maximum: 32 Restriction: Not supported with V5R1 and later Model 620 only.
#2666	**#2666 High-Speed Communications Adapter (SPD)** The #2666 provides one communications line capable of T1/E1 (1.544/2.048 Mbps) speeds. One of these cables must be specified: #9879 20-ft. (6m) V.35 CCITT cable #9880 80-ft. (24m) V.35 CCITT cable #9882 20-ft. (6m) RS449/V.36 CCITT cable #9883 80-ft. (24m) RS449/V.36 CCITT cable* #9884 150-ft. (45m) RS449/V.36 CCITT cable* #9885 20-ft. (6m) X.21 CCITT cable * These cables are allowed only when the customer's modem supports Looped Clocking Mode. The #2666 is supported but not orderable on Model 620. SPD slots required: One Maximum: Eight Model 620 only.

#2699	**#2699 Two-Line WAN IOA (SPD)** The #2699 supports up to two multiple protocol communications ports when one or two of these cables are attached: #0328 Operations Console 20-ft. (6m) cable* #0329 V.24/EIA232 80-ft. (24m) cable #0330 V.24/EIA232 20-ft. (6m) cable #0331 V.24/EIA232 50-ft. (15m) cable #0332 V.24/EIA232 20-ft. (6m) enhanced cable #0333 V.24/EIA232 50-ft. (15m) enhanced cable #0334 V.24/EIA232 80-ft. (24m) enhanced cable #0335 V.36/EIA449 20-ft. (6m) cable #0336 V.36/EIA449 50-ft. (15m) cable #0337 V.36/EIA449 150-ft. (45m) cable #0338 V.35 20-ft. (6m) cable #0339 V.35 50-ft. (15m) cable #0340 V.35 80-ft. (24m) cable #0341 X.21 20-ft. (6m) cable #0342 X.21 50-ft. (15m) cable * Used to support the Operations Console function for secondary partitions when logical partitioning (LPAR) is implemented (V4R4 and higher). A maximum of one #0328 cable is allowed per #2699. IOA slots required: One on #2629
#2721	**#2721 PCI Two-Line WAN IOA** The #2721 supports up to two multiple protocol communications ports when one or two of these cables are attached: #0348 V.24/EIA232 20-ft. (6m) PCI cable #0349 V.24/EIA232 50-ft. (15m) PCI cable #0350 V.24/EIA232 20-ft. (6m) enhanced PCI cable #0351 V.24/EIA232 50-ft. (15m) enhanced PCI cable #0352 V.24/EIA232 80-ft. (24m) enhanced PCI cable #0353 V.35 20-ft. (6m) PCI cable #0354 V.35 50-ft. (15m) PCI cable #0355 V.35 80-ft. (24m) PCI cable #0356 V.36 20-ft. (6m) PCI cable #0357 V.36 50-ft. (15m) PCI cable #0358 V.36 150-ft. (45m) PCI cable #0359 X.21 20-ft. (6m) PCI cable #0360 X.21 50-ft. (15m) PCI cable #0365 V.24/EIA232 80-ft. (24m) PCI cable #0367 Operations Console PCI Cable 20-ft. (6m)* ***** Used to support the Operations Console function on CPU Models supporting logical partitioning (LPAR) (V4R4 and higher). A maximum of one #0367 Operations Console PCI Cable is allowed per #2721. There are some restrictions on communications using the #2721. PCI slots required: One The #2721 is a Customer Install Feature (CIF) on a Model 600 for an MES that only includes CIF features.
#2745	**#2745 PCI Two-Line WAN IOA** The #2745 supports up to two multiple protocol communications ports when one or two of these cables are attached: #0348 V.24/EIA232 20-ft. (6m) PCI cable #0349 V.24/EIA232 50-ft. (15m) PCI cable #0350 V.24/EIA232 20-ft. (6m) enhanced PCI cable #0351 V.24/EIA232 50-ft. (15m) enhanced PCI cable #0352 V.24/EIA232 80-ft. (24m) enhanced PCI cable #0353 V.35 20-ft. (6m) PCI cable #0354 V.35 50-ft. (15m) PCI cable #0355 V.35 80-ft. (24m) PCI cable #0356 V.36 20-ft. (6m) PCI cable #0357 V.36 50-ft. (15m) PCI cable #0358 V.36 150-ft. (45m) PCI cable #0359 X.21 20-ft. (6m) PCI cable #0360 X.21 50-ft. (15m) PCI cable #0365 V.24/EIA232 80-ft. (24m) PCI cable #0367 Operations Console PCI Cable 20-ft. (6m)* *****Used to support the Operations Console function on CPU Models supporting logical partitioning (LPAR) (V4R4 and higher). A maximum of one #0367 Operations Console PCI Cable is allowed per #2745. PCI slots required: One (low-speed) Minimum OS/400 level: V4R3 The #2745 is a Customer Install Feature (CIF) on a Model 600 for an MES that only includes CIF features.

#2750	**#2750 PCI ISDN BRI U Adapter** (available in the United States and Canada only) The #2750 is a four-port (8 channel) ISDN BRI (basic rate) full sized PCI card. Each port consists of 2B+D configuration. The #2750 is the "U"-bus (2 wire) version of the ISDN BRI PCI card. The #2750 feature supports these protocols: PPP (communicates with remote analog modems (V.90) as well as with remote ISDN devices) IDLC Fax Four 30-ft. (9.3 m) RJ-45 to RJ-45 network cables are shipped with each #2750 feature. For configuration purposes, each #2750 counts as eight lines (two lines per port) towards the system communication maximums. Supports full duplex. Requirements: The #2750 requires country certification or homologation. Full sized PCI card slot. Maximum: One per IOP Prerequisite: #2824 PCI Feature Controller Minimum OS/400 level: V4R4 with PTF MF22528 (or supersede) or Cumulative PTF Package C9313440 The #2750 is a Customer Install Feature (CIF) on a Model 600 for an MES that only includes CIF features.
#2751	**#2751 PCI ISDN BRI S/T IOA** The #2751 is a four-port (eight channel) ISDN BRI (basic rate) full-sized PCI card. Each port consists of 2B+D configuration. The #2751 is the "S/T"-bus (four wire) version of the ISDN BRI PCI card. This requires a network terminating device in the circuit. In the United States and Canada, this must be provided by the customer. In other countries, it is most likely provided by the telephone company. The #2751 feature supports these protocols: PPP (communicates with remote analog modems (V.90) as well as with remote ISDN devices) IDLC Fax Four 30-ft. (9.3 m) RJ-45 to RJ-45 network cables are shipped with each #2751 feature. For configuration purposes, each #2751 counts as eight lines (two lines per port) towards the system communication maximums. Supports full duplex. Requirements: The #2751 requires country certification or homologation. Full sized PCI card slot. Maximum: One per IOP Prerequisite: #2824 PCI Feature Controller Minimum OS/400 level: V4R4 with PTF MF22528 (or supersede) or Cumulative PTF Package C9313440 The #2751 is a Customer Install Feature (CIF) on a Model 600 for an MES that only includes CIF features.
#2761	**#2761 Integrated Analog Modem** The #2761 allows the modem function to be integrated into the IOA and supports multiple analog modem ports (eight phone lines). The #2761 runs these protocols without the need for an external modem: SLIP/PPP uses V.90, so maximum line speed is 56 Kbps. SDLC uses V.34, so maximum line speed is 33.6 Kbps. Fax uses V.17 to achieve a 14.4 Kbps maximum line speed. An asynchronous line description is required for Fax and can only be used for Fax. ECS line not supported. Eight 30-ft. (8 m) phone cables are shipped with each #2761. To the iSeries or AS/400e server, the #2761 appears like a single IOA with eight individual resources available. For configuration purposes, each #2761 counts as eight communications lines. Minimum OS/400 level: V4R4 and PTF MF22528, or Cumulative (CUM) PTF package C9313440 or later. Requirements: The #2761 requires country certification or homologation. Full sized PCI card slot. Maximum: One per IOP Prerequisite: #2824 PCI Feature Controller Minimum OS/400 level: V4R4 with PTF MF22528 (or supersede) or Cumulative PTF Package C9313440 The #2761 is a Customer Install Feature (CIF) on a Model 600 for an MES that only includes CIF features.
#2809	**#2809 PCI LAN/WAN/Workstation IOP** The #2809 an be used for attaching LAN, WAN, and Workstation IOAs to the system. Maximum: One in the system unit, two in the #9329 PCI Card Expansion Unit. The #2809 is a Customer Install Feature (CIF) on a Model 600 for an MES that only includes CIF features.
#2824	**#2824 PCI Feature Controller** The #2824 can be used for attaching LAN, WAN, and Workstation IOAs to the system. There are some restrictions on communications using #2824. The #2824 is a Customer Install Feature (CIF) on a Model 600 for an MES that only includes CIF features.
#4800	**#4800 PCI Cryptographic Processor** The #4800 is a hardware cryptography solution based on the #4758 card. It is a half length PCI card. Since the feature is temperature sensitive, it is shipped separately in specially designed, insulated packaging. Maximum: One per IOP. Prerequisite: #2824 PCI Feature Controller Minimum OS/400 level: OS/400 V4R4 The #4800 is a Customer Install Feature (CIF) on a Model 600 for an MES that only includes CIF features.

#4802	**#4802 PCI Cryptographic Processor** The #4802 is a hardware cryptography solution based on the IBM 4758 (LEEDS-1) card. The #4802 is a half-length PC form-factor PCI card that offers rich cryptography function, secure storage of cryptographic keys, and 12 MB/s performance (at the card level) for bulk data encryption. The #4802 provides greater security by use of 168-bit key (versus 56-bit key on #4800). The #4802 is available worldwide. The level of cryptographic function is determined by the Cryptographic Access Provider licensed program that is downloaded to the adapter. Due to temperature requirements (card temperature must not drop below 5 F (-15 C)), the #4802 is shipped separately from the system in a special package. Minimum OS/400 level: OS/400 V4R5 Prerequisite: An available high-speed slot under a#2824 PCI Feature Controller in a #5065/#5066 PCI Expansion Tower Maximum: Three per system.
#6153	**V.35 One-Line Adapter 20-ft. Cable** The #6153 connects to the #2623 to support one communications line supporting V.35 protocol using a 20-ft. (6.2 m) cable. The #6153 is supported for upgrades only. SPD slots required: None Prerequisite: #2623 Six-Line Communications Controller Model 620 only.
#6173	**V.35 One-Line Adapter 50-ft. Cable** The #6173 connects to the #2623 to support one communications line supporting V.35 protocol using a 50-ft. (15 meter) cable. The #6173 is supported for upgrades only. SPD slots required: None Prerequisite: #2623 Six-Line Communications Controller Model 620 only.
#2720 #9720	**#2720 Base PCI WAN/Twinaxial IOA** The #2720 is a combined twinax/communication adapter can be provided on the base system and supports a single communications line intended for ECS. One cable must be specified: #0348 V.24/EIA232 20-ft. (6m) PCI cable #0349 V.24/EIA232 50-ft. (15m) PCI cable #0350 V.24/EIA232 20-ft. (6m) enhanced PCI cable #0351 V.24/EIA232 50-ft. (15m) enhanced PCI cable #0352 V.24/EIA232 80-ft. (24m) enhanced PCI cable The #2720/#9720 adapter also supports twinax workstations (see the Workstation Controller section). PCI card slots required: One Maximum: One #9720 or one #2720 per system. The #2720 is not supported by the configurator and must be ordered manually. The #9720 is mutually exclusive with #9721, #9745, and #2720.
#9721	**#9721 Base PCI Two-Line WAN IOA** The #9721 supports ECS and Client Access Console. Select one of these cables for ECS: #0348 V.24/EIA232 20-ft. (6m) PCI cable #0349 V.24/EIA232 50-ft. (15m) PCI cable #0350 V.24/EIA232 20-ft. (6m) enhanced PCI cable #0351 V.24/EIA232 50-ft. (15m) enhanced PCI cable #0352 V.24/EIA232 80-ft. (24m) enhanced PCI cable #0353 V.35 20-ft. (6m) PCI cable #0354 V.35 50-ft. (15m) PCI cable #0355 V.35 80-ft. (24m) PCI cable #0356 V.36 20-ft. (6m) PCI cable #0357 V.36 50-ft. (15m) PCI cable #0358 V.36 150-ft. (45m) PCI cable #0359 X.21 20-ft. (6m) PCI cable #0360 X.21 50-ft. (15m) PCI cable #0362 20-ft. (6m) Client Access Console Cable * #0365 V24/EIA232 80-ft. (24m) PCI cable #0367 Operations Console PCI Cable 20-ft. (6m)** * Must be ordered for Client Access Console. ** Used to support the Operations Console function on V4R3 To support the Remote Control Panel function, the #0381 Remote Control Panel Cable can be ordered as an option. The #0381 cable does not attach to a communication port. PCI card slots required: One Maximum: One Mutually exclusive with #9720

#9745	**#9745 Base PCI Two-Line WAN IOA** The #9745 adapter supports ECS and Client Access Console or Operations Console. Select one of these cables for ECS: #0348 V.24/EIA232 20-ft. (6m) PCI cable #0349 V.24/EIA232 50-ft. (15m) PCI cable #0350 V.24/EIA232 20-ft. (6m) enhanced PCI cable #0351 V.24/EIA232 50-ft. (15m) enhanced PCI cable #0352 V.24/EIA232 80-ft. (24m) enhanced PCI cable #0353 V.35 20-ft. (6m) PCI cable #0354 V.35 50-ft. (15m) PCI cable #0355 V.35 80-ft. (24m) PCI cable #0356 V.36 20-ft. (6m) PCI cable #0357 V.36 50-ft. (15m) PCI cable #0358 V.36 150-ft. (45m) PCI cable #0359 X.21 20-ft. (6m) PCI cable #0360 X.21 50-ft. (15m) PCI cable #0362 20-ft. (6m) Client Access Console Cable * #0365 V24/EIA232 80-ft. (24m) PCI cable #0367 Operations Console PCI Cable 20-ft. (6m) ** *Must be ordered for Client Access Console **Used to support the Operations Console function on V4R3 To support the Remote Control Panel function, the#0381 Remote Control Panel Cable can be ordered as an option. The #0381 cable does not attach to a communications port. PCI card slots required: One Maximum: One Mutually exclusive with #9720 and #9721. Minimum OS/400 level: V4R3
	LANS/ATM
#2617	**#2617 Ethernet/IEEE 802.3 Adapter/HP (SPD)** The #2617 provides a single attachment to one Carrier Sense Multiple Access/Collision Detect Local Area Network. Consists of an adapter card and internal code, which supplies Ethernet Version 2 and IEEE 802.3 Media Access Control (MAC) plus IEEE 802.2 Logical Link Control (LLC) functions. An AUI Ethernet cable must be ordered separately. Supports 10 Mbps half-duplex only. SPD slots required: One Model 620 only.
#2618	**#2618 Fiber Distributed Data Interface Adapter (SPD)** The #2618 provides one interface to connect an iSeries or AS/400e to an FDDI LAN, which complies with ANSI X3T9.5 and ISO 9314 standards. Consists of a card, a wrap connector, and Licensed Internal Code that supplies IEEE 802.2 Logical Link Control (LLC), ANSI X3T9.5/ISO 9314 Media Access Control (MAC) functions, and ANSI X3T9.5 Station Management (SMT) functions. A multi-node (62.5/125 micron) FDDI optical fiber jumper cable to connect the adapter to the FDDI ring must be ordered separately. SPD slots required: One Model 620 only.
#2619	**#2619 LAN/WAN/Workstation IOA (SPD)** The #2619 provides a single attachment to a 16 Mbps or a 4 Mbps Token Ring Network. It consists of an adapter card, internal code that supplies IEEE 802.5 Media Access Control (MAC) and IEEE 802.2 Logical Link Control (LLC) functions, and an external 8-ft. (2.4m) cable. SPD slots required: One Model 620 only.
#2626	**#2626 16/4 Mbps Token Ring Adapter (SPD)** The #2626 provides a single attachment to a 16 Mbps or a 4 Mbps Token Ring Network. It consists of an adapter card, internal code that supplies IEEE 802.5 Media Access Control (MAC) and IEEE 802.2 Logical Link Control (LLC) functions, and an external 8-ft. (2.4m) cable. SPD slots required: One Model 620 only.
#2629	**#2629 LAN/WAN/Workstation IOP (SPD)** The #2629 supports up to three #2699, #6149, #6180, or #6181 LAN/WAN/ Workstation IOAs. The #6149 and #6181 cannot occupy all three positions of the #2629. SPD slots required: One Maximum: One per SPD slot Model 620 only.

#2663	**#2663 I/O Attachment Processor (SPD)** The #2663 I/O processor is a prerequisite when attaching the #2668 Wireless LAN Adapter. The #2663 and #2668 are integrated in a single hardware package to operate as a unit. SPD slots required: One (with #2668) Model 620 only.
#2665	**Shielded Twisted-Pair Distributed Data Interface Adapter (SPD)** The #2665 provides one interface to connect to an FDDI LAN, which is constructed of IBM Cabling System Type 1, 2, 6, or 9 shielded twisted-pair wiring. It consists of a card, a wrap connector, and Licensed Internal Code which supplies IEEE 802.2 Logical Link Control (LLC), ANSI X3T9.5/ISO 9314 Media Access Control (MAC) functions, and ANSI X3T9.5 Station Management (SMT) functions. IBM FDDI copper jumper cables to connect the adapter to the FDDI ring must be ordered separately. SPD slots required: One Model 620 only.
#2668	**#2668 Wireless LAN Adapter (SPD)** The #2668 provides wireless connectivity to workstations or other systems connected to a wireless LAN network. One of these antenna cables must be specified: #9814 20-ft. (6m) antenna cable #9815 50-ft. (15m) antenna cable One of these antenna must be specified: #9889 YAGI Directional Antenna #9890 Omni Directional Antenna (360 degree) #9891 Hemispherical Antenna (180 degree) #9892 Directional Antenna (90 degree) SPD slots required: One (with #2663) Prerequisite: #2663 I/O Attachment Processor Model 620 only.
#2723 #9723	**#2723 PCI Ethernet IOA** The #2723 provides a single attachment to one Carrier Sense Multiple Access/Collision Detect Local Area Network. Consists of an adapter card and internal code that supplies Ethernet Version 2 and IEEE 802.3 Media Access Control (MAC) plus IEEE 802.2 Logical Link Control (LLC) functions. This Ethernet/IEEE 802.3 IOA is capable of operating in half or full duplex mode. Has a RJ45 connector and a 15 pin D-shell connector for attachment of customer supplied cabling. AUI Ethernet or RJ45 twisted pair cable must be ordered separately. Cabling must meet or exceed Industry Standard EIA/TIA T568B. PCI slots required: One. The #9723 is a base LAN feature. The #2723 is a Customer Install Feature (CIF) on a Model 600 for an MES that only includes CIF features.
#2724 #9724	**#2724 PCI 16/4 Mbps Token Ring IOA** The #2724/#9724 provides a single attachment to a 16 Mbps or a 4 Mbps Token Ring Network. It consists of an adapter card, internal code that supplies IEEE 802.5 Media Access Control (MAC) and IEEE 802.2 Logical Link Control (LLC) functions, and an external 8-ft. (2.4m) cable. Alternatively a twisted pair cable for attachment to the RJ45 connector on the IOA can be ordered separately. The #2724 IOA is capable of operating in half or full duplex mode. PCI slots required: One. The #9724 is a base LAN feature. The #2724 is a Customer Install Feature (CIF) on a Model 600 for an MES that only includes CIF features.
#2809	**#2809 PCI LAN/WAN/Workstation IOP** The #2809 can be used for attaching LAN, WAN, and Workstation IOAs to the system. Maximum: One in the base system unit, two in the #9329 PCI Card Expansion Unit. The #2809 is a Customer Install Feature (CIF) on a Model 600 for an MES that only includes CIF features.
#2810	**#2810 LAN/WAN IOP (SPD)** The #2810 IOP is required to attach one #2838 PCI 100/10 Mbps Ethernet IOA or #2811/#2812/#2815/#2816/#2818/#2819 PCI ATM IOA. Prerequisite for these preceding features, although they can alternatively be located directly in an appropriate PCI slot. SPD slots required: One Model 620 only.
#2811	**#2811 PCI 25 Mbps UTP ATM IOA (PCI or SPD)** The #2811 provides attachment into an Asynchronous Transfer Mode (ATM) network using Unshielded Twisted Pair (UTP) cabling. The #2811 is typically used where 25 Mbps speed is required over distances of less than 100 meters. SPD slots required: One (with #2810) or PCI slots required: One Prerequisite: #2809 PCI LAN/WAN/Workstation IOP (when located in PCI slot); #2810 LAN/WAN IOP (when located in SPD slot) Minimum OS/400 level: V4R2 The #2811 is a Customer Install Feature (CIF) on a Model 600 for an MES that only includes CIF features.

#2812	**#2812 PCI 45 Mbps Coax T3/DS3 ATM IOA (PCI or SPD)** The #2812 provides attachment into an Asynchronous Transfer Mode (ATM) network using coax cabling and the T3/DS-3 interface. The #2812 is typically used where 45 Mbps speed is required over distances of less than 1000 meters. SPD slots required: One (with #2810) or PCI slots required: One Prerequisite: #2809 PCI LAN/WAN/Workstation IOP (when located in PCI slot); #2810 LAN/WAN IOP (when located in SPD slot) Minimum OS/400 level: V4R2 The #2812 is a Customer Install Feature (CIF) on a Model 600 for an MES that only includes CIF features.
#2815	**#2815 PCI 155 Mbps UTP OC3 ATM IOA (PCI or SPD)** The #2815 provides attachment into an Asynchronous Transfer Mode (ATM) network using the Unshielded Twisted Pair (UTP-5) interface. This interface is intended for connection to both local area switches and direct connection to service provider equipment. The #2815 is typically used where 155 Mbps speed is required over distances of less than 100 meters. SPD slots required: One (with #2810) or PCI slots required: One Prerequisite: #2809 PCI LAN/WAN/Workstation IOP (when located in PCI slot); #2810 LAN/WAN IOP (when located in SPD slot Minimum OS/400 level: V4R2) The #2514 is a Customer Install Feature (CIF) on a Model 600 for an MES that only includes CIF features.
#2816	**#2816 PCI 155 Mbps MMF ATM IOA (PCI or SPD)** The #2816 provides attachment into an Asynchronous Transfer Mode (ATM) network using the Multi-Mode Fiber (MMF) 62.5 micron interface. This interface is intended for connection to both local area switches and direct connection to service provider equipment. The #2816 is typically used where 155 Mbps speed is required over distances of less than 2 kilometers. SPD slots required: One (with #2810) or PCI slots required: One Prerequisite: #2809 PCI LAN/WAN/Workstation IOP (when located in PCI slot); #2810 LAN/WAN IOP (when located in SPD slot). Minimum OS/400 level: V4R2 The #2816 is a Customer Install Feature (CIF) on a Model 600 for an MES that only includes CIF features.
#2818	**#2818 PCI 155 Mbps SMF OC3 ATM IOA (PCI or SPD)** The #2818 provides attachment into an Asynchronous Transfer Mode (ATM) network using the Single Mode Fiber (SMF) 9 micron interface. This interface is intended primarily for direct connection to service provider equipment, but can be used for local area switches. The #2818 is typically used where 155 Mbps speed is required over distances of from 16 to 40 kilometers. SPD slots required: One (with #2810) or PCI slots required: One Prerequisite: #2809 PCI LAN/WAN/Workstation IOP (when located in PCI slot); #2810 LAN/WAN IOP (when located in SPD slot). Minimum OS/400 level: V4R2 The #2818 is a Customer Install Feature (CIF) on a Model 600 for an MES that only includes CIF features.
#2819	**#2819 PCI 34 Mbps Coax E3 ATM IOA (PCI or SPD)** The #2819 provides attachment into an Asynchronous Transfer Mode (ATM) network using coax cabling and the E3 interface. The #2819 is typically used where 34 Mbps speed is required over distances of less than 1000 meters. SPD slots required: One (with #2810) or PCI slots required: One Prerequisite: #2809 PCI LAN/WAN/Workstation IOP (when located in PCI slot); #2810 LAN/WAN IOP (when located in SPD slot). Minimum OS/400 level: V4R2 The #2819 is a Customer Install Feature (CIF) on a Model 600 for an MES that only includes CIF features.
#2824	**#2824 PCI Feature Controller** The #2824 can be used for attaching LAN, WAN, and Workstation IOAs to the system. For full details, refer to the “WORKSTATION CONTROLLERS” on page 321. Maximum: One in the system unit, two in the #9329/#9330 PCI Integrated Expansion Unit, two in #5065 Storage/PCI Expansion Tower. The #2824 is a Customer Install Feature (CIF) on a Model 600 and #5065 Storage/PCI Expansion Tower for an MES that only includes CIF features.
#2838 #9738	**#2838 PCI 100/10 Mbps Ethernet IOA (PCI or SPD)** The #2838/#9738 provides attachment to standard 100 Mbps high-speed Ethernet LANs and allows attachment to existing 10 Mbps Ethernet LANs. The Ethernet/IEEE 802.3 IOA is capable of operating in half or full duplex mode. The adapter comes standard with an RJ45 connector for attachment to UTP-5 media. Cabling for 10 Mbps must be CAT-3 or CAT-5, cabling for 100 Mbps must be CAT-5 that meets or exceeds Industry Standard EIA/TIA T568A or T568B. SPD slots required: One (with #2810); three (with #6617/#6618) or PCI slots required: One Prerequisite: #2809/#2824 or #2854/#2865 (when located in PCI slot); #2810 LAN/WAN IOP or #6617/#6618 (when located in SPD slot). The #2838 is a Customer Install Feature (CIF) on a Model 600 for an MES that only includes CIF features.

#2851	**#2851 Integrated PC Server** The #2851 contains a 166 MHz Pentium Processor, four main storage slots, and two LAN IOA slots for high performance serving to LAN attached PCs. Comes with 32 MB of main storage and supports up to three of these main storage features: #2860 16 MB Integrated PC Server Memory #2861 32 MB Integrated PC Server Memory Either one or two of these LAN IOAs are supported: #2723 PCI Ethernet IOA #2724 PCI 16/4 Mbps Token Ring IOA PCI slots required: Two in reserved positions in the base system unit or in the #9329 PCI Card Expansion Unit. The #2851 is a Customer Install Feature (CIF) on a Model 600 for an MES that only includes CIF features.
#2854	**#2854 PCI Integrated PC Server** The #2854 contains a 200 MHz Pentium Processor, four main storage slots, and two LAN IOA slots for high performance serving to LAN attached PCs. Between one and four of these main storage features must also be ordered: #2861 32 MB Integrated PC Server Memory #2862 128 MB Integrated PC Server Memory Either one or two of these LAN IOAs are supported: #2723 PCI Ethernet IOA #2724 PCI 16/4 Mbps Token Ring IOA #2838 PCI 100/10 Mbps Ethernet IOA (co-requisite #0222 100/10 Mbps Ethernet on IPCS required if installed on #2854 PCI Integrated PC Server) Only one of the IOAs can be a #2838. The #2854 comes with a special cable that provides industry standard keyboard, mouse, serial, and parallel connection. If running Windows NT on the #2854, then: #0325 Integrated PC Server Extension Cable for Windows NT is required. #1700 Integrated PC Server Keyboard/Mouse for Windows NT, the default in the U.S.A. A display unit must be connected to the IPCS to support Windows NT. When running OS/2 on the #2854, then: #0325 and #1700 are not allowed. When running Novell Netware on the #2854, then: The #0325 and #1700 are not allowed. A maximum of 256 MB IOP memory is supported. For country-specific keyboard/mouse and display support, refer to the Web site at: http://www.ibm.com/eserver/iseries/windowsintegration/ PCI slots required: Two in reserved positions in the base system unit or in the #9329 PCI Card Expansion Unit. Minimum OS/400 level: V4R2 The #2854 is a Customer Install Feature (CIF) on a Model 600 for an MES that only includes CIF features.
#2865	**#2865 PCI Integrated Netfinity Server** The #2865 contains a 333 MHz Pentium Processor, four main storage slots, and two LAN IOA slots for high performance serving to LAN-attached PCs. The four main storage slots can each contain one of these features, giving a maximum of 1024 MB. At least one main storage feature is required: #2861 32 MB Integrated PC Server Memory #2862 128 MB Integrated PC Server Memory #2867 256 MB Integrated PC Server Memory Up to two of these LAN IOAs are supported. At least one LAN IOA is required. A maximum of one LAN IOA can be a #2838. #2723 PCI Ethernet IOA #2724 PCI 16/4 Mbps Token Ring IOA #2838 PCI 100/10 Mbps Ethernet IOA (Specify feature #0222 is required) If running Windows NT on the #2865, then: A minimum of 64 MB IOP memory is required. The #0325 Integrated PC Server Extension Cable for Windows NT is required. The #1700 Integrated PC Server Keyboard or Mouse for Windows NT is the default in the U.S.A. A display is required to support Windows NT on the IPCS. For country-specific keyboard or mouse and display support, go to the site at: http://www.ibm.com/eserver/iseries/windowsintegration/ When running OS/2 on the #2865, then: #0325 and #1700 are not allowed. A maximum of 512 MB IOP memory is supported. When running Novell Netware on the #2865, then: #0325 and #1700 are not allowed. A maximum of 256 MB IOP memory is supported. PCI slots required: Two in reserved positions in the base system unit or in the #9329 PCI Card Expansion Unit. Minimum OS/400 level: V4R2 with Cumulative PTF Package C8342420 or V4R3 with Cumulative PTF Package C9349430. The #2865 is a Customer Install Feature (CIF) on a Model 600 for an MES that only includes CIF features.

#6149	**#6149 16/4 Mbps Token Ring IOA (SPD)** The #6149 provides a single attachment to a 16 Mbps or a 4 Mbps Token Ring Network. It consists of an IOA card, internal code (supplies IEEE 802.5 Media Access Control (MAC) and IEEE 802.2 Logical Link Control (LLC)), and an external 8-ft. (2.4m) cable. Alternatively a twisted pair cable for attachment to the RJ45 connector on the IOA can be ordered separately. Can operate in half or full duplex mode. SPD slots required: None Prerequisite: #2629 LAN/WAN/Workstation IOP or #6616 Integrated PC Server #2629 or #6616 slots required: One Model 620 only.
#6181	**#6181 ASCII Workstation Controller (SPD)** The #6181 provides a single attachment to one Carrier Sense Multiple Access/Collision Detect Local Area Network. Consists of an adapter card and internal code which supplies Ethernet Version 2 and IEEE 802.3 Media Access Control (MAC) plus 802.2 Logical Link Control (LLC) functions. Has a RJ45 connector and a 15 pin D-shell connector for attachment of customer supplied cabling. Cabling must meet or exceed Industry Standard EIA/TIA T568B. This cable can be ordered if the customer is choosing IBM AUI cabling. #9025 Ethernet Cable (3 meter AUI) If the customer is not choosing IBM AUI cabling, AUI Ethernet or RJ45 twisted pair cable must be ordered separately. The #6181 is capable of operating in half or full duplex mode. SPD slots required: None Prerequisite: #2629 LAN/WAN/Workstation IOP or #6616 Integrated PC Server #2629 or #6616 slots required: One Model 620 only.
IPCS #6516 #6517 #6518 #6519 #6526 #6527 #6528 #6529	**Integrated PC Server (formerly known as FSIOP) (SPD)** Contains a 66 MHz 486 Processor, main storage, and ability to attach to one or two LANs for high performance serving to LAN attached PCs. This initial order configurations can be upgraded using the #6509 and #6520: 16 MB One-Port Integrated PC Server 32 MB One-Port Integrated PC Server 48 MB One-Port Integrated PC Server 64 MB One-Port Integrated PC Server 16 MB Two-Port Integrated PC Server 32 MB Two-Port Integrated PC Server 48 MB Two-Port Integrated PC Server 64 MB Two-Port Integrated PC Server These cables need to be specified depending on the LAN being attached to: #9024 Token ring cable (2.4m) #9025 Ethernet Cable (3m AUI) SPD slots required: Two contiguous slots Model 620 only.
#6509	**Additional 16 MB for Integrated PC Server** The #6509 is used to increase the memory on an installed Integrated PC Server up to the maximum of 64 MB.
#6520	**Upgrade One-Port Integrated PC Server to Two Port Integrated PC Server** The #6520 cannot be used with a Two-Port Integrated PC Server. The #9024 or #9025 cables can be ordered with #6520 depending upon the LAN to be attached to.
#6616	**#6616 Integrated PC Server (SPD)** The #6616 contains a 166MHz Pentium Processor, two main storage slots, and two LAN IOA slots for high performance serving to LAN attached PCs. The two main storage slots can each contain one of these features, giving a maximum of 256 MB. At least one main storage feature is required: #2861 32 MB Integrated PC Server Memory #2862 128 MB Integrated PC Server Memory Either one or two of these LAN IOAs are supported: #6149 16/4 Mbps Token Ring IOA #6181 ASCII Workstation Controller SPD slots required: Two contiguous slots Model 620 only.

#6617	**#6617 Integrated PC Server (SPD)** The #6617 contains a 200 MHz Pentium Processor, four main storage slots, and three LAN IOA slots for high performance serving to LAN-attached PCs. The four main storage slots can each contain one of these features, giving a maximum of 512 MB. At least one main storage feature is required: #2861 32 MB Integrated PC Server Memory #2862 128 MB Integrated PC Server Memory Up to three of these LAN IOAs are supported. At least one LAN IOA is required. A maximum of two of the LAN IOAs can be #2838. #2723 PCI Ethernet IOA #2724 PCI 16/4 Mbps Token Ring IOA #2838 PCI 100/10 Mbps Ethernet IOA The third LAN and the second #2838 can only be used if running Windows NT on the #6617. The #0222 100/10 Mbps Ethernet on IPCS is required for each #2838 attached to the #6617 Integrated PC Server. If running Windows NT on the #6617, then: The #0325 Integrated PC Server Extension Cable for Windows NT is required. The #1700 Integrated PC Server Keyboard or Mouse for Windows NT is the default in the U.S.A. A display unit is required to support Windows NT on the IPCS. For country-specific keyboard or mouse and display support, see the Web site at: http://www.ibm.com/eserver/iseries/windowsintegration/ When running OS/2 on the #6617, then: The #0325 and #1700 are not allowed. Only two of the LAN IOA slots can be used, and only one can contain a #2838. When running Novell Netware on the #6617, then: The #0325 and #1700 are not allowed. Only two of the LAN IOA slots can be used, and only one can contain a #2838. A maximum of 256 MB IOP memory is supported. SPD slots required: Three contiguous slots. Cannot be placed in #5044 System Unit Expansion Rack. Minimum OS/400 level: V4R2 with Cumulative PTF Package C8342420 or V4R3 with Cumulative PTF Package C9349430. Model 620 only.
#6618	**#6618 Integrated Netfinity Server (SPD)** The #6618 contains a 333 MHz Pentium Processor, four main storage slots, and three LAN IOA slots for high performance serving to LAN-attached PCs. The four main storage slots can each contain one of these features, giving a maximum of 1024 MB. At least one main storage feature is required: #2861 32 MB Integrated PC Server Memory #2862 128 MB Integrated PC Server Memory #2867 256 MB Integrated PC Server Memory Up to three of these LAN IOAs are supported. At least one LAN IOA is required. A maximum of two of the LAN IOAs can be #2838. #2723 PCI Ethernet IOA #2724 PCI 16/4 Mbps Token Ring IOA #2838 PCI 100/10 Mbps Ethernet IOA (Specify feature #0222 is required) The third LAN and the second #2838 can only be used if running Windows NT on the #6618. The #0222 100/10 Mbps Ethernet on IPCS is required for each #2838 attached to the #6618 Integrated Netfinity Server. If running Windows NT on the #6618, then: A minimum of 64 MB IOP memory is required. The #0325 Integrated PC Server Extension Cable for Windows NT is required. The #1700 Integrated PC Server Keyboard or Mouse for Windows NT is the default in the U.S.A. A display is required to support Windows NT on the IPCS. For country-specific keyboard or mouse and display support, refer to the site at: http://www.ibm.com/eserver/iseries/windowsintegration/ When running OS/2 on the #6618, then: #0325 and #1700 are not allowed. Only two of the LAN IOA slots can be used and only one can contain a #2838. A maximum of 512 MB IOP memory is supported. When running Novell Netware on the #6618, then: The #0325 and #1700 are not allowed. Only two of the LAN IOA slots can be used and only one can contain a #2838. A maximum of 256 MB IOP memory is supported. SPD slots required: Three contiguous slots. Cannot be placed in #5044 System Unit Expansion Rack.

DISK UNITS	
#1312	**One-byte 1.03 GB Disk Unit Conversion Kit** The #1312 provides the hardware for migrating one 1.03 GB one-byte SCSI disk unit. Supported only in the system unit or #9364 System Unit Expansionn. One #1312 migrates a #1203, #1602, #6601, #6602, #6701, #6802, #9601, or #9602 disk. Two #1312s migrate a #2802, #6612, #6812, #8612, or #9802 dual disks.
#1313	**One-byte 1.96 GB Disk Unit Conversion Kit** The #1313 provides the hardware for migrating one 1.96 GB one-byte SCSI disk unit. Supported only in the system unit or #9364 System Unit Expansion. One #1313 migrates a #1204, #1603 or #6603 disks. Two #1313s migrate #6613, #7613, or #8613 dual disks.
#1322	**Two-byte 1.03 GB Disk Unit Conversion Kit** The #1322 provides the hardware for migrating one 1.03 GB two-byte SCSI disk unit. Supported only in the system unit or #9364 System Unit Expansion. One #1322 migrates a #1211, #1213, #4211, #4652, #6652, or #9652 disk.
#1323	**Two-byte 1.96 GB Disk Unit Conversion Kit** The #1323 provides the hardware for migrating one 1.96 GB two-byte SCSI disk unit. Supported only in the system unit or #9364 System Unit Expansion. One #1323 migrates a #1212, #1214, #4212, #4650, #6650, or #8650 disk.
#1325	**Two-byte 1.03 GB Disk Unit Conversion Kit** The #1325 provides the hardware for migrating one 1.03 GB two-byte SCSI disk unit. Supported only in the system unit or #9364 System Unit Expansion. One #1325 migrates a #1205, #4205, #4605, #6605, #9605, or #9705 disk.
#1326	**Two-byte 1.96 GB Disk Unit Conversion Kit** The #1326 provides the hardware for migrating one 1.96 GB two-byte SCSI disk unit. Supported only in the system unit or #9364 System Unit Expansion. One #1326 migrates a #1206, #4206, #4606, #6606, #8606, #8706, or #9606 disk.
#1327	**Two-byte 4.19 GB Disk Unit Conversion Kit** The #1327 provides the hardware for migrating one 4.19 GB two-byte SCSI disk unit. If located in a 3xx/5xx Model, the #1327 is used. In a 2xx/4xx model, the #1337 is used. Supported only in the system unit or #9364 System Unit Expansion. One #1327 migrates a #1207, #4207, #4607, #6607, #7607, #8607, or #8707 disk.
#1333	**Two-byte 8.58 GB Disk Unit Conversion Kit (Ultra SCSI)** The #1333 provides the hardware for migrating one 8.58 GB two-byte SCSI disk unit. Supported only in the system unit or #9364 System Unit Expansion. One #1333 migrates a #6713, #7713, or #8713 disk.
#1334	**Two-byte 17.54 GB Disk Unit Conversion Kit (Ultra SCSI)** The #1334 provides the hardware for migrating one 17.54 GB two-byte SCSI disk unit. Supported only in the system unit or #9364 System Unit Expansion. One #1334 migrates a #6714 disk. Minimum OS/400 level: V4R2 Minimum OS/400 to support integrated hardware disk compression: V4R3 Minimum OS/400 to support integrated hardware disk compression on #6714/#8714 17.54 GB Disk Units: V4R4
#1336	**Two-byte 1.96 GB Disk Unit Conversion Kit (Ultra SCSI)** The #1336 provides the hardware for migrating one 1.96 GB two-byte SCSI disk unit. Supported only in the system unit or #9364 System Unit Expansion. One the #1336 migrates a #6906 disk.
#1337	**Two-byte 4.19 GB Disk Unit Conversion Kit (Ultra SCSI)** The #1337 provides the hardware for migrating one 4.19 GB two-byte SCSI disk unit. If located in a Model 3xx/5xx, the #1327 is used. In a 2xx/4xx model, the #1337 is used. Supported only in the system unit or #9364 System Unit Expansion. One migrates a #6607, #6907, or #7607 disk.
#1602	**One-byte 1.03 GB Disk Unit Conversion Kit** The #1602 provides the hardware for migrating one 1.03 GB one-byte SCSI disk unit. Supported only in the #5052 or #5058 Storage Expansion Unit positions 1 through 7. Dual disk units requires two of these kits. Can be placed in the system unit with purchase of the #1312 migration kit. Model 620 only.
#1603	**#1603 1.96 GB Single Disk Unit Conversion Kit** The #1603 provides the hardware for migrating one 1.96 GB one-byte SCSI disk unit. Supported only in the #5052 or #5058 Storage Expansion Unit positions 1 through 7. Dual disk units require two of these kits. Can be placed in the system unit with purchase of the #1313 migration unit. Model 620 only.

#4308	**4.19 GB Additional Two-byte Disk Unit (Ultra SCSI)** The #4308 provides a 3 ½-inch single disk unit with 4.19 GB capacity for additional disk storage. Supported in the #5065/#5066 PCI Expansion Tower only. Prerequisite: #5065/#5066 PCI Expansion Tower with #2748 PCI RAID Disk Unit Controller Minimum OS/400 level: V4R4 The #4308 is a Customer Install Feature (CIF).
#4314	**#4314 8.58 GB Disk Unit (Ultra SCSI)** The #4314 provides an additional 3 ½-inch two-byte single disk unit with 8.58 GB capacity (7200 RPM). Prerequisite: #5065/#5066 PCI Expansion Tower with #2748 PCI RAID Disk Unit Controller Minimum OS/400 level: V4R4 The #4314 is a Customer Install Feature (CIF). Supported in the #5065/#5066 PCI Expansion Tower only.
#4317	**#4317 8.58 GB Disk Unit 10k RPM (Ultra2 SCSI)** The #4317 provides an additional 3 ½-inch single disk unit with 8.58 GB capacity. Prerequisite: #5065/#5066 PCI Expansion Tower with #2748 PCI RAID Disk Unit Controller Minimum OS/400 level: V4R4 The #4317 is a Customer Install Feature (CIF). Supported in the #5065/#5066 PCI Expansion Tower only.
#4318	**#4318 17.54 GB Disk Unit 10k RPM (Ultra2 SCSI)** The #4318 provides an additional 3 ½-inch single disk unit with 17.54 GB capacity. Prerequisite: #5065/#5066 PCI Expansion Tower with #2748 PCI RAID Disk Unit Controller Minimum OS/400 level: V4R4 The #4318 is a Customer Install Feature (CIF). Supported in #5065/#5066 PCI Expansion Tower only.
#4324	**#4324 17.54 GB Disk Unit (Ultra SCSI)** The #4324 provides a 3 ½-inch single disk unit with 17.54 GB capacity for additional disk storage (7200 RPM). Prerequisite: #5065/#5066 PCI Expansion Tower with #2748 PCI RAID Disk Unit Controller Minimum OS/400 level: V4R4 The #4324 is a Customer Install Feature (CIF). Supported in the #5065/#5066 PCI Expansion Tower only.
#4331	**#4331 1.6 GB Read Cache Device** The #4331 provides 1.6 GB of capacity for large read cache function. It is mutually exclusive with DASD compression. The system arrives in performance mode with the compression function turned off on the #2748 PCI RAID Disk Unit Controller. Minimum OS/400 level: OS/400 V4R4 Prerequisite: #2748 PCI RAID Disk Unit Controller and one DASD 1.6-inch slot Maximum: One per #2748 IOP. The #4331 is a Customer Install Feature (CIF). Supported in the #5065/#5066 PCI Expansion Tower only.
#6605	**1.03 GB Additional Two-byte Disk Unit** The #6605 provides a 3 ½-inch single disk unit with 1.03 GB capacity for additional disk storage. The #6605 is supported for upgrades only. Supported only in #5052 or #5058 Storage Expansion Unit or #5082 or #5083 Storage Expansion Tower. Model 620 only.
#6606	**1.96 GB Additional Two-byte Disk Unit** The #6606 provides a 3 ½-inch single disk unit with 1.96 GB capacity for additional disk storage. The #6606 is supported for upgrades only. Supported only in #5052 or #5058 Storage Expansion Unit or #5082 or #5083 Storage Expansion Tower. Model 620 only.
#6607	**#6607 4.19 GB Additional Two-byte Disk Unit** The #6607 provides a 3 ½-inch single disk unit with 4.19 GB capacity for additional disk storage. The #6607 is supported for upgrades only. Supported only in #5052 or #5058 Storage Expansion Unit or #5082 or #5083 Storage Expansion Tower. RPQ 843977 and RPQ 843978 can be used for migration to 6xx system units and the #5072, #5073, #5081, and #9364 System Unit Expansion units and towers. Model 620 only.
#6650	**1.96 GB Additional Two-byte Disk Unit** The #6650 provides a 3 ½-inch single disk unit with 1.96 GB capacity for additional disk storage. The #6650 is supported for upgrades only. Supported only in the #5052 or #5058 Storage Expansion Unit or the #5082 or #5083 Storage Expansion Towers. Model 620 only.

#6652	**1.03 GB Additional Two-byte Disk Unit** The #6652 provides a 3 ½-inch single disk unit with 1.03 GB capacity for additional disk storage. The #6652 is supported for upgrades only. Supported only in the #5052 or #5058 Storage Expansion Unit or #5082 or #5083 Storage Expansion Towers. Model 620 only.
#6713	**#6713 8.58 GB Disk Unit (Two-byte) (Ultra SCSI)** The #6713 provides a 3 ½-inch single disk unit with 8.58 GB capacity for additional disk storage. Supported only in #5052 or #5058 Storage Expansion Unit or #5082 or #5083 Storage Expansion Towers. For best performance, use it attached to the #6532 or #6533 RAID Disk Unit Controller (Ultra SCSI) in a #5058 or #5083. RPQ 843977 and RPQ 843978 can be used for migration to 6xx system units and the #5072, #5073, #5081 and #9364 System Unit Expansion units and towers. Model 620 only.
#6714	**#6714 17.54 GB Disk Unit (Two-byte) (Ultra SCSI)** The #6714 provides a 3 ½-inch single disk unit with 17.54 GB capacity for additional disk storage. Supported only in the #5052 or #5058 Storage Expansion Units or #5082 or #5083 Storage Expansion Towers. For best performance, use attached to the #6532 or #6533 RAID Disk Unit Controller (Ultra SCSI) in a #5058 or #5083. RPQ 843977 and RPQ 843978 can be used for migration to 6xx system units and #5072, #5073 and #9364 System Unit Expansion units and towers. Minimum OS/400 level: V4R2 Minimum OS/400 to support integrated hardware disk compression: V4R4 Model 620 only.
#6717	**#6717 8.58 GB 10k RPM Disk Unit (Two-byte) (Ultra SCSI)** The #6717 provides a 3 ½-inch single disk unit with 8.58 GB capacity for additional disk storage. Supported in the #5052 or #5058 Storage Expansion Unit or #5082 or #5083 Storage Expansion Towers. For best performance when installed in Storage Expansion or Storage Expansion Tower, use the #6532 or #6533 RAID Disk Unit Controller (Ultra SCSI) in a #5058 or #5083. Not supported on #6502/#6512/#6530. Supported in the #5065/#5066 PCI Expansion Tower through RPQ 847102. Minimum OS/400 level: V4R3 Model 620 only.
#6718	**#6718 17.54 GB 10k RPM Disk Unit (Two-byte) (Ultra SCSI)** The #6718 provides a 3 ½-inch single disk unit with 17.54 GB capacity for additional disk storage. Supported in the #5052 or #5058 Storage Expansion Unit or #5082 or #5083 Storage Expansion Towers. For best performance when installed in Storage Expansion or Storage Expansion Tower, use the #6532 or #6533 RAID Disk Unit Controller (Ultra SCSI) in a #5058 or #5083. Not supported on the #6502/#6512/#6530. Supported in the #5065/#5066 PCI Expansion Tower through RPQ 847102. Minimum OS/400 level: V4R4 Model 620 only.
#6806	**1.96 GB Additional Two-byte Disk Unit (Ultra SCSI)** The #6806 provides a 3 ½-inch single disk unit with 1.96 GB capacity for additional disk storage. Supported only in a system unit or the #9364 System Unit Expansion. The #6806 is a Customer Install Feature (CIF) on a Model 600 for an MES that only includes CIF features.
#6807	**#6807 4.19 GB Additoinal Two byte Disk Unit (Ultra SCSI)** The #6807 provides a 3 ½-inch single disk unit with 4.19 GB capacity for additional disk storage. Supported only in a system unit or the #9364 System Unit Expansion. The #6807 is a Customer Install Feature (CIF) on a Model 600 for an MES that only includes CIF features.
#6813	**#6813 8.58 GB Additional Two-byte Disk Unit (Ultra SCSI)** The #6813 provides a 3 ½-inch single disk unit with 8.58 GB capacity for additional disk storage. Supported only in the system unit or the #9364 System Unit Expansion. The #6813 is a Customer Install Feature (CIF) on a Model 600 for an MES that only includes CIF features.
#6817	**#6817 8.58 GB 10k RPM Disk Unit (Two-byte) (Ultra SCSI)** The #6817 provides a 3 ½-inch single disk unit with 8.58 GB capacity for additional disk storage. Supported only in a system unit or the #9364 System Unit Expansion. Not supported on #9364 with #6502/#6512/#6530. Supported in the #5065/#5066 PCI Expansion Tower through RPQ 847102. Minimum OS/400 level: V4R3 The #6817 is a Customer Install Feature (CIF) on a Model 600 for an MES that only includes CIF features.

#6818	**#6818 17.54 GB 10k RPM Disk Unit (Two-byte) (Ultra SCSI)** The #6818 provides a 3 ½-inch single disk unit with 17.54 GB capacity for additional disk storage. Supported only in a system unit or the #9364 System Unit Expansion. Not supported on the #9364 with the #6502/#6512/#6530. Supported in the #5065/#5066 PCI Expansion Tower through RPQ 847102. Minimum OS/400 level: V4R4 The #6818 is a Customer Install Feature (CIF) on a Model 600 for an MES that only includes CIF features.
#6824	**#6824 17.54 GB Disk Unit (Two-Byte) (Ultra SCSI)** The #6824 provides a 3 ½-inch single disk unit with 17.54 GB capacity for additional disk storage. Supported only in a system unit or the #9364 System Unit Expansion. Minimum OS/400 level: V4R2 Minimum OS/400 to support integrated disk compression for the #6824/#8824: V4R4 The #6824 is a Customer Install Feature (CIF) on a Model 600 for an MES that only includes CIF features.
#6831	**#6831 1.6 GB Read Cache Device** The #6831 provides 1.6 GB of capacity for large read cache function. The #6831 is mutually exclusive with DASD compression. The system arrives in performance mode with compression function turned off on the #2748 PCI RAID Disk Unit Controller. Mirroring is not supported on the #6831. Prerequisite: #2748 PCI RAID Disk Unit Controller One DASD slot 1.6-inches. Maximum: One per #2748 IOP. Minimum OS/400 level: V4R4
#6906	**1.96 GB Additional Two-byte Disk Unit (Ultra SCSI)** The #6906 provides a 3 ½-inch single disk unit with 1.96 GB capacity for additional disk storage. Supported only in the #5052 or #5058 Storage Expansion Unit or the #5082 or #5083 Storage Expansion Towers. For best performance, use attached to the #6532 or #6533 RAID Disk Unit Controller (Ultra SCSI) in a #5058 or #5083. Model 620 only.
#6907	**#6907 4.19 GB Additional Two-byte Disk unit (Ultra SCSI)** The #6907 provides a 3 ½-inch single disk unit with 4.19 GB capacity for additional disk storage. Supported only in the #5052 or #5058 Storage Expansion Unit or #5082 or the #5083 Storage Expansion Towers. For best performance, use attached to the #6532 or #6533 RAID Disk Unit Controller (Ultra SCSI) in a #5058 or #5083. RPQ 843977 and RPQ 843978 can be used for migration to 6xx system units and #5072, #5073, #5081, and #9364 System Unit Expansions and towers. Model 620 only.
#8813	**8.58 GB Optional Base Two-byte Disk Unit (Ultra SCSI)** The #8813 provides a 3 ½-inch single disk unit with 8.58 GB capacity as the base disk unit in place of #9707.
#8817	**#8817 8.58 GB Optional Base Two-byte Disk Unit 10k RPM (Ultra SCSI)** The #8817 provides a 3 ½-inch single disk unit with 8.58 GB capacity as the base disk unit in place of #9707. Supported only in a system unit or the #9364 System Unit Expansion. Not supported on the #9364 with the #6502/#6512/#6530. Minimum OS/400 level: V4R3
#8818	**#8818 17.54 GB Optional Base Two-byte Disk Unit 10k RPM (Ultra SCSI)** The #8818 provides a 3 ½-inch single disk unit with 17.54 GB capacity as the base disk unit in place of #9707. Supported only in the system unit or #9364 System Unit Expansion. Not supported on the #9364 with the #6502/#6512/#6530. Minimum OS/400 level: V4R4
#8824	**17.54 GB Optional Base Two-Byte Disk Unit (Ultra SCSI)** The #8824 provides a 3 ½-inch single disk unit with 17.54 GB capacity as the base disk unit in place of #9707. Minimum OS/400 level: V4R2 Minimum OS/400 to support integrated hardware disk compression: V4R4
#9707	**#9707 4.19 GB Base Two-byte Disk Unit (Ultra SCSI)** The #9707 provides a 3 ½-inch single disk unit with 4.19 GB capacity as the base disk unit. Is included with new Model 600 or 620 orders and upgrades to these Models from CISC Models.
RPQ 843977	**RPQ 843977** is for customers who want to move 4/8/17 GB disk units from one AS/400 to another AS/400. The RPQ provides hardware for mounting one disk unit. The hardware in this RPQ allows for mounting #6607/#6907 (4.194 GB unit), #6713 (8.58 GB unit), and #6714 (17.54 GB unit) in the system unit of a Model 640/650/S30/S40/730/740 and in the #5052/#5055/#5057/#5058/#5070/#5071/#5072/#5073/#5080/#5081/#5082/#5083 disk expansion units and towers. These target enclosures use SPD technology. After the disk drives are installed, an RPO change must be processed to add a #6607/#6907 for each #6607/#6907 added, a #6713 for each #6713 added, and a #6714 for each #6714 added.

RPQ 843978	**RPQ 843978** is for customers who want to move 4/8/17 GB disk units from one AS/400 to another AS/400. The RPQ provides hardware for mounting one disk unit. The hardware in this RPQ allows for mounting device types #6607/#6907 (4.194 GB unit), #6713 (8.58 GB unit), and #6417 (17.54 GB unit) in the system unit of a Model 170/600/S10/620/ S20/720 and the #7101/#7102/#5064/#9364 expansion units and towers. After the disk drives are installed, an RPO change must be processed to add a #6807 for each #6607/#6907 added, add a #6813 for each device #6713 added, and add a #6824 for each #6417 added.
RPQ 847102	**RPQ 847102** ships the disk mounting hardware and instructions required to convert a #6717/#6817 to a #4317 and a #6718/#6818 to a #4318. Order one RPQ for each disk unit to be converted. Confirm that there is disk space available in an existing or on-order #5065/#5066 PCI Expansion Tower. This RPQ can also be used to move a disk to an iSeries 270, 820, 830, 840, or #5075, #5074/#9074, and #5079/#9079 PCI Expansion Towers.
	INTERNAL CD-ROM AND TAPE UNITS
#1349	**1.2 GB ¼-inch Cartridge Tape Unit Conversion Kit** The #1349 provides the hardware for migrating a #1251, #1379, #6368, #7343, #8343, #9343, #5348, #6348, #7348, #8348, or #9348 1.2 GB ¼-inch cartridge tape unit. Supported only in the system unit or #9364 System Unit Expansion.
#1350	**2.5 GB ¼-inch Cartridge Tape Unit Conversion Kit** The #1350 provides the hardware for migrating #1252, #1260, #1380, #6369, #6380, #6344, #7344, #8344, #5349, #6349, #7349, or #8349 2.5 GB ¼-inch cartridge tape unit. Supported only in the system unit or #9364 System Unit Expansion.
#1355	**13 GB ¼-inch Cartridge Tape Unit Conversion Kit** The #1355 provides the hardware for migrating #6385 13 GB ¼-inch cartridge tape unit. Supported only in the system unit or #9364 System Unit Expansion.
#1360	**7 GB 8mm Cartridge Tape Unit Conversion Kit** The #1360 provides the hardware for migrating #1261 or #6390 7 GB 8 mm cartridge tape unit. Supported only in the system unit or #9364 System Unit Expansion.
#1379	**1.2 GB ¼-inch Cartridge Tape Unit Conversion Kit** The #1379 provides the hardware for migrating 1.2 GB ¼-inch cartridge tape units. Supported only in #5072 or #5073 1063 Mbps System Unit Expansion Towers. Model 620 only.
#1380	**2.5 GB ¼-inch Cartridge Tape Unit Conversion Kit** The #1380 provides the hardware for migrating 2.5 GB ¼-inch cartridge tape units. Supported only in #5072 or #5073 1063 Mbps System Unit Expansion Towers. Model 620 only.
#4425	**#4425 CD-ROM** The #4425 is supported in the #5065 Storage/PCI Expansion Tower only. Prerequisite: #2748 PCI RAID Disk Unit Controller Minimum OS/400 level: V4R4 The #4425 is a Customer Install Feature (CIF).
#4482	**#4482 4 GB ¼-inch Cartridge Tape Unit** Supported #5065 Storage/PCI Expansion Tower only. The #4482 can be used for save/restore, alternate IPL, migration, and ¼-inch cartridge tape exchange using the appropriate media and density. This tape unit is not compatible with System/36 ¼-inch cartridge tape units. The #4482 is a Customer Install Feature (CIF).
#4483	**#4483 16 GB ¼-inch Cartridge Tape Unit** Supported in #5065 Storage/PCI Expansion Tower only. The #4483 can be used for save/restore, alternate IPL, migration, and ¼-inch cartridge tape exchange using the appropriate media and density. This tape unit is not compatible with System/36 ¼-inch cartridge tape units. The #4483 is a Customer Install Feature (CIF).
#4486	**#4486 25 GB ¼-inch Cartridge Tape Unitt** Supported in #5065 Storage/PCI Expansion Tower only. The #4486 can be used for save/restore, alternate IPL, migration and ¼-inch cartridge tape exchange using the appropriate media and density. This tape unit is not compatible with System/36 ¼-inch cartridge tape units. The #4486 is a Customer Install Feature (CIF).
#4487	**#4487 50 GB ¼-inch Cartridge Tape Unit** The #4487 can be used for save/restore, alternate IPL, migration and ¼-inch cartridge tape exchange using the appropriate media and density. The #4487 tape unit is not compatible with System/36 ¼-inch cartridge tape units. Supported only in the #5065 Storage/PCI Expansion Tower. Prerequisite: #2748/#2778 PCI RAID Disk Unit Controller. Minimum OS/400 level: V5R1 The #4487 is a Customer Install Feature (CIF).

#4684	**#4684 30 GB ¼-inch Cartridge Tape Unit** The #4684 is a 30 GB ¼-inch cartridge tape unit that can be mounted in a removable media device slot of a system unit or an expansion tower. The #4684 maybe used for save/restore, alternate IPL, program distribution, migration and ¼-inch cartridge tape exchange. See 16.8, “QIC format compatibility for iSeries and AS/400e systems” on page 531, for supported media types. Supported only in the #5065. The #4684 is a Customer Install Feature (CIF).
#5032	**Removable Media Device Cluster Box** The #5032 is a rack-mounted box that allows the attachment between one and four #6368 or #6369 1.2 GB or 2.5 GB ¼-inch cartridge tape units. The #5032 is supported for upgrades only. Attaches to #2621 Storage Device Controller. Model 620 only.
#6325	**#6325 Optional CD-ROM** The #6325 is an optional CD-ROM device that can be mounted in the #5072/#5073 1063 Mbps System Unit Expansion Towers. Prerequisite: #2624 Storage Device Controller. Limits the use of tape in the same tower to #6380 and #6390. Maximum: One CD-ROM per #5072/#5073 Minimum OS/400: 4R4. Model 620 only.
#6368	**1.2 GB ¼-inch Cartridge Tape Unit** The #6368 can be used for save/restore, alternate IPL, migration, and ¼-inch cartridge tape exchange using the appropriate media and density. This tape is installed in a #5032. The #6368 is supported for upgrades only. Model 620 only.
#6369	**#6369 2.5 GB ¼-inch Cartridge Tape Unit** The #6369 can be used for save/restore, alternate IPL, migration, and ¼-inch cartridge tape exchange using the appropriate media and density. This tape is installed in a #5032. The #6369 is supported for upgrades only. Model 620 only.
#6380	**#6380 2.5 GB ¼-inch Cartridge Tape Unit** The #6380 can be used for save/restore, alternate IPL, migration, and ¼-inch cartridge tape exchange using the appropriate media and density. Supported only in the #5072/#5073 1063 Mbps System Unit Expansion Towers. The #6380 is supported for upgrades only. Model 620 only.
#6381	**#6381 2.5 GB ¼-inch Cartridge Tape** The #6381 can be used for save/restore, alternate IPL, migration, and ¼-inch cartridge tape exchange using the appropriate media and density. This tape unit is not compatible with System/36 ¼-inch cartridge tape units. Model 620 and S20 expansion unit.
#6382	**#6382 4 GB ¼-inch Cartridge Tape Unit** The #6382 can be used for save/restore, alternate IPL, migration, and ¼-inch cartridge tape exchange using the appropriate media and density. This tape unit is not compatible with System/36 ¼-inch cartridge tape units. Model 620 and S20 expansion unit.
#6383	**#6383 16 GB ¼-Inch Cartridge Tape Unit** The #6383 can be used for save/restore, alternate IPL, migration, and ¼-inch cartridge tape exchange using the appropriate media and density. This tape unit is not compatible with System/36 ¼-inch cartridge tape units. Model 620 and S20 expansion unit.
#6385	**#6385 13 GB ¼-Inch Cartridge Tape Unit** The #6385 can be used for save/restore, alternate IPL, migration, and ¼-inch cartridge tape exchange using the appropriate media and density. This tape unit is not compatible with System/36 ¼-inch cartridge tape units. Model 620 and S20 expansion unit.
#6386	**#6386 25 GB ¼-inch Cartridge Tape Unit** The #6386 can be used for save/restore, alternate IPL, migration, and ¼-inch cartridge tape exchange using the appropriate media and density. This tape unit is not compatible with System/36 ¼-inch cartridge tape units. Model 620 and S20 expansion unit.
#6390	**#6390 7 GB 8 mm Cartridge Tape Unit** The #6390 can be used for save/restore, alternate IPL, migration, and 8 mm cartridge tape exchange using the appropriate media and density. Supported only in #5072/#5073 1063 Mbps System Unit Expansion Towers. Model 620 only.

#6425	**Optional CD-ROM Feature** The #6425 is an optional CD-ROM device (for models S20, 620, 720 only) that can be mounted system unit and #9364 System Unit Expansion, with #9329 PCI Card Expansion Unit only. It may be used for alternate IPL and LPP distribution. Feature CD-ROMS are introduced in support of LPARs. Not supported on #9331 Prerequisite: #2626 16/4 Mbps Token Ring Adapter, #2740 PCI RAID Disk Unit Controller or #2741 PCI RAID Disk Unit Controller with #9329 PCI Card Expansion Unit. Maximum: Only one CD-ROM is allowed in the System unit (base), and one in the #9329 PCI Card Expansion Unit only. Minimum OS/400 level: V4R4 Model 620 only.
#6480	**2.5 GB ¼-inch Cartridge Tape Unit** The #6480 can be used for save/restore, alternate IPL, migration and ¼-inch cartridge tape exchange using the appropriate media and density. The #6480 is supported for upgrades only. Supported only in the Model 620 and S20 system unit or the #5064/#9364 System Unit Expansion. Model 620 and S20 only
#6481	**2.5 GB ¼-inch Cartridge Tape Unit** The #6481 can be used for save/restore, alternate IPL, migration and ¼-inch cartridge tape exchange using the appropriate media and density. Supported only in the system unit or the #5064/#9364 System Unit Expansion. Model 600, 620, S10 and S20 system unit only.
#6482	**4 GB ¼-inch Cartridge Tape Unit** The #6482 can be used for save/restore, alternate IPL, migration, and ¼-inch cartridge tape exchange using the appropriate media and density. This tape unit is not compatible with System/36 ¼-inch cartridge tape units. Supported only in the system unit or the #5064/#9364 System Unit Expansion. Model 600, 620, S10 and S20 system unit only.
#6483	**16 GB ¼-inch Cartridge Tape Unit** The #6483 can be used for save/restore, alternate IPL, migration, and ¼-inch cartridge tape exchange using the appropriate media and density. This tape unit is not compatible with System/36 ¼-inch cartridge tape units. Supported only in the system unit or the #5064/#9364 System Unit Expansion. Model 600, 620, S10, and S20 system unit only.
#6484	**30 GB ¼-inch Cartridge Tape Unit** The #6484 is a 30 GB ¼-inch cartridge tape unit that can be mounted in a removable media device slot of a system unit or System unit expansion. The #6384 maybe used for save/restore, alternate IPL, program distribution, migration and ¼-inch cartridge tape exchange. See 16.8, “QIC format compatibility for iSeries and AS/400e systems” on page 531, for supported media types. Model 600, 620, S10 and S20 system unit only. The #6384 is a Customer Install Feature (CIF).
#6485	**13 GB ¼-inch Cartridge Tape Unit** The #6485 can be used for save/restore, alternate IPL, migration and ¼-inch cartridge tape exchange using the appropriate media and density. This tape unit is not compatible with System/36 ¼-inch cartridge tape units. Supported only in the system unit or the #5064/#9364 System Unit Expansion. Model 600, 620, S10, and S20 system unit only.
#6486	**25 GB ¼-inch Cartridge Tape Unit** The #6486 can be used for save/restore, alternate IPL, migration and ¼-inch cartridge tape exchange using the appropriate media and density. This tape unit is not compatible with System/36 ¼-inch cartridge tape units. Supported only in the system unit or the #5064/#9364 System Unit Expansion. Model 600, 620, S10, and S20 system unit only.
#6490	**7 GB 8 mm Cartridge Tape Unit** The #6490 can be used for save/restore, alternate IPL, migration and 8mm cartridge tape exchange using the appropriate media and density. Supported only in the system unit or the #5064/#9364 System Unit Expansion. Model 600, 620, S10, and S20 system unit only.
MAGNETIC MEDIA CONTROLLERS	
#2621	**#2621 Storage Device Controller (SPD)** The #2621 provides attachment for one or two of these devices with hardware data compression: 2440, 9348, 7208, 3995, 9427, and #5032. Dual drive 7208s count as two devices. If #2621 supports a 3995 or #5032, it must be dedicated to it. If the #2621 supports a 9427, we recommend that the 9427 be attached to both ports of the #2621. The #2621 is supported for upgrades only. Prerequisite: #9364 System Unit Expansion with #9331 Expansion Unit for SPD Cards or #5072/#5073 1063 Mbps System Unit Expansion Tower SPD slots required: One Model 620 only.

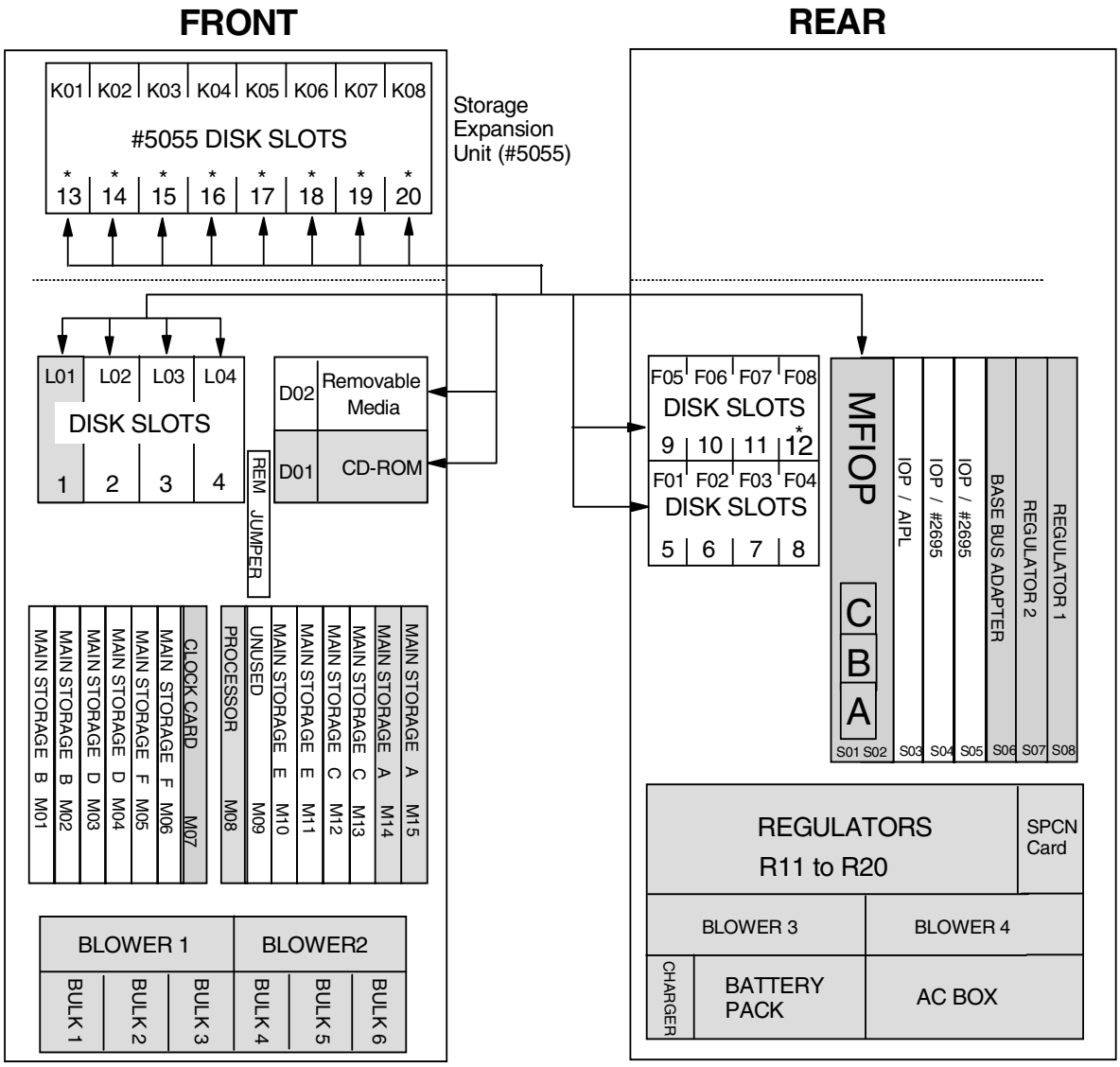
#2624	**#2624 Storage Device Controller (SPD)** The #2624 provides support for up to three internal tape drives. With the addition of the #6146, it is also support one external diskette drive. Can be used to support tape drives only in #5072/#5073 1063 Mbps System Unit Expansion Tower. The #2624 is used to support the #6325 Optional CD-ROM in #5072/#5073 1063 Mbps System Unit Expansion Tower. Not supported to drive #6425 CD-ROM in the Model 620 with #9331 in the #9364 System Unit Expansion. SPD slots required: One Prerequisite: #9364 System Unit Expansion with #9331 Expansion Unit for SPD Cards or #5072/#5073 1063 Mbps System Unit Expansion Tower Model 620 only.
#2644	**#2644 Magnetic Tape Attachment Card/HP (SPD)** The #2644 provides attachment for 3422, 3430, 3480, 3490 Exx, 3490 Bxx, 3490 Dxx, 3490E Exx, 3490E Bxx, 3490E Dxx, 3490E Cxx, 3494 Tape Library Dataserver X10 models. Also requires #9980 Serpentine Cable except for 3490E Cxx when ordered with Internal Cables. SPD slots required: One Prerequisite: #9364 System Unit Expansion with #9331 Expansion Unit for SPD Cards or #5072/#5073 1063 Mbps System Unit Expansion Tower Model 620 only.
#2718	**#2718 PCI Magnetic Media Controller** The #2718 provides SCSI attachment for one 7207-122 QIC-SLR Tape Bridge Box (4 GB External ¼-inch Cartridge Tape Drive) (4 GB ¼-inch cartridge external tape drive), 7208-345 60GB External 8mm Tape Drive, 7210-020 CD-ROM, or 7210-025 DVD-RAM. See 16.7.4, "#2718/#2768 PCI Magnetic Media Controller: Device cabling rules" on page 530, for information on connecting devices to the #2718. High-speed PCI slots required: One. Prerequisite: #2809 PCI LAN/WAN/Workstation IOP or #2824 LAN/WAN/Workstation IOP. Maximum: One in the system unit, two in the #9364 System Unit Expansion with #9329/#9330 and three in the #5065 Storage/PCI Expansion Tower. Minimum OS/400 to support the 7210-020 External CD-ROM and 7208-345: V4R5 Minimum OS/400 to support the 7210-025: V5R1 The #2718 is a Customer Install Feature (CIF) on a Model 600 for an MES that only includes CIF features.
#2726	**PCI RAID Disk Unit Controller–4 MB Cache (RAID/Mirrored/Unprotected) (Ultra SCSI)** The #2726 is an Ultra SCSI controller that provides RAID protection and a 4 MB write-cache for up to 15 disks installed in the system unit or #9364 System Unit Expansion. A minimum of four drives and a maximum of ten drives are supported in each array. A maximum of three arrays are allowed for each #2726. The #2726 also supports one CD-ROM drive (comes as standard) and one internal tape drive when placed in the system unit. When placed in the #9364 System Unit Expansion, it supports up to three internal tape drives. Supports #1349, #1350, #1355, #1360, #6481, #6482, #6384, #6485, or #6490 tape units. It is mutually exclusive with #2740, #2741, or #9728 in the same system unit or #9364. The #2726 is not capable of integrated hardware disk compression. High-speed PCI slots required: One Prerequisite: System unit or #9364 System Unit Expansion with #9329 PCI Card Expansion Unit Maximum: One per system unit or #9364 The #2725 is a Customer Install Feature (CIF) on a Model 600 for an MES that only includes CIF features.
#2729	**#2729 PCI Magnetic Media Controller)** The #2729 provides SCSI attachment for one 3490E Exx, 3490E Fxx, 3490E Cxx with #5040, 3494 D1x or L1x. 3570, 3575, 3590, 7208, 9348, or 9427 Tape Drive or 3995 C4x Optical Library Dataserver. High-speed PCI slots required: One. Prerequisite: #2809 PCI LAN/WAN/Workstation IOP or #2824 LAN/WAN/Workstation IOP. Maximum: One in the system unit, two in the #9364 System Unit Expansion with #9329/#9330, and three in the #5065 Storage/PCI Expansion Tower Minimum OS/400 to support the 3995: V4R2 The #2729 is a Customer Install Feature (CIF) on a Model 600 for an MES that only includes CIF features.
#2740	**#2740 PCI RAID Disk Unit Controller–4 MB Cache (RAID/Mirrored/Unprotected) (Ultra SCSI)** The #2740 is an Ultra SCSI controller that provides RAID protection and a 4 MB write-cache for up to 10 disks installed in the system unit. A minimum of four drives and a maximum of ten drives are supported in each array. A maximum of two arrays are allowed for each #2740. The #2740 also supports one CD-ROM drive (comes as standard) and one internal tape drive. Supports the #1349, #1350, #1355, #1360, #6481, #6482, #6384, #6485, or #6490 tape units. Mutually exclusive with the #9728, #2726, or #2741 in the same system unit. The #2740 is not supported in the #9364 System Unit Expansion. The #2740 is not capable of integrated hardware disk compression. High-speed PCI slots required: One Maximum: One Minimum OS/400 level: V4R2 The #2740 is a Customer Install Feature (CIF) on a Model 600 for an MES that only includes CIF features.

#2741	**#2741 PCI RAID Disk Unit Controller–4 MB Cache (RAID Mirrored/Unprotected) (Ultra SCSI)** The #2741 Ultra SCSI controller provides RAID protection and a 4 MB write-cache for up to 15 disks installed in the system unit or #9364 System Unit Expansion. A minimum of four drives and a maximum of ten drives are supported in each array. A maximum of three arrays are allowed for each #2741. The #2741 also supports one CD-ROM drive (comes as standard) and one internal tape drive when placed in the system unit. When placed in the #9364 System Unit Expansion, it supports up to three internal tape drives. Supports #1349, #1350, #1355, #1360, #6481, #6482, #6384, #6485, or #6490 tape units. Mutually exclusive with #2726, #2740, or #9728 in the same system unit or #9364. Minimum OS/400: V4R2 Disk compression is supported for 17.54 drives. Disk compression on #6824/#8824 (17.54 GB Disk Unit) is not currently supported. IBM intends to provide disk compression for #6824/#8824 in a future release of OS/400. High-speed PCI slots required: One Prerequisite: System unit or #9364 System Unit Expansion with #9329 PCI Card Expansion Unit Maximum: One per system unit or #9364 Minimum OS/400 to support integrated hardware disk compression: V4R3 Minimum OS/400 to support integrated hardware disk compression on the 17.54 GB disk unit: V4R4 Model 620 only.
#2748	**#2748 PCI RAID Disk Unit Controller–26 MB Cache (RAID Mirrored/Unprotected) (Ultra2 SCSI)** The #2748 is Ultra2 SCSI capable when installed in the #5065 Storage/PCI Expansion Tower is Ultra SCSI capable when installed in the Model 720 system unit or a #5064/#9364 System Unit Expansion. The #2748 has a 26 MB write-cache and provides RAID-5 protection and compression for internal disk units. It supports up to 15 disks. A minimum of four drives and a maximum of ten drives are supported in each array. A maximum of three arrays are allowed for each #2748. The #2748 supports both compression and non-compression modes. The mode is determined by a hardware jumper on the card. The #2748 also supports #6831/#4331 1.6 GB Read Cache Device. When placed in the system unit, it supports one internal tape and one CD-ROM. In the #5064/#9364 System Unit Expansion, it supports up to three internal tape and CD-ROM. In the #5065 Storage/PCI Expansion Tower, it supports up to two internal tapes and CD-ROM. Supports #1349, #1350, #1355, #1360, #4482, #4483, #4486, #4684, #6480, #6481, #6482, #6483, #6484, #6485, #6486, or #6490 tape units. It is mutually exclusive with #2726, #2740, #2741 or #9728 in the same system unit or #9330 PCI Integrated Expansion Unit. High-speed PCI slots required: One Prerequisite: System unit or #9364 System Unit Expansion with #9330 PCI Integrated Expansion Unit or #5065 Storage/PCI Expansion Tower Minimum OS/400: V4R4 Maximum: One per system unit or #9364; three per #5065
#2778	**#2778 PCI RAID Disk Unit Controller–104 MB Cache (RAID Mirrored/Unprotected) (Ultra2 SCSI)** The #2778 is an Ultra2 SCSI controller with a maximum compressed write cache size of 104 MB that provides RAID-5 protection and compression for internal disk units and supports internal tape units and CD-ROMs. The #2778 supports both disk compression and enhanced modes. The mode of operation is determined by a hardware jumper and disk compression mode should only be used when disk compression is desired. In addition to providing RAID-5 protection for disks, the #2778 is also designed to work as a high performance controller for disks protected by system mirroring or disks with no protection. A minimum of four disk units of the same capacity are needed for a valid RAID-5 configuration. A maximum of four arrays are allowed per controller, with a maximum of 10 disk units allowed per array. All disk units in an array must be of the same capacity. The #2778 also supports the #4331 1.6 GB Read Cache Device, which is used by Extended Adaptive Cache to provide increased performance. The #4331 1.6 GB Read Cache Device is supported only when the #2778 is in enhanced mode. The #2778 controller supports a maximum of 15 disk units. The #2778 controls up to two removable media devices (internal tape or CD-ROM). Prerequisite: An available High-speed SCSI slot in #5065/#5066 PCI Expansion Tower. Maximums: Three (in combination with #2748) per #5065. Six (in combination with #2748) per #5066 1.8 M I/O Tower. Minimum OS/400: V5R1
#6112	**Magnetic Storage Device Controller (SPD)** The #6112 provides attachment for up to two 9331-001 or 002 Diskette Units and up to two 9347 Tape Units. The #6112 is supported for upgrades only. SPD slots required: One Prerequisite: #9364 System Unit Expansion with #9331 Expansion Unit for SPD Cards or #5072/#5073 1063 Mbps System Unit Expansion Tower Maximum: Two for 9331, two for 9347. Limit of two #6112s in #9331. Model 620 only.
#6146	**#6146 Diskette Adapter (SPD)** The #6146 provides attachment for one 9331 011, 012 Diskette Unit, and the #6135 5 ¼-inch diskette. SPD slots required: None Prerequisite: #2624 Storage Device Controller Maximum: Two Model 620 only.

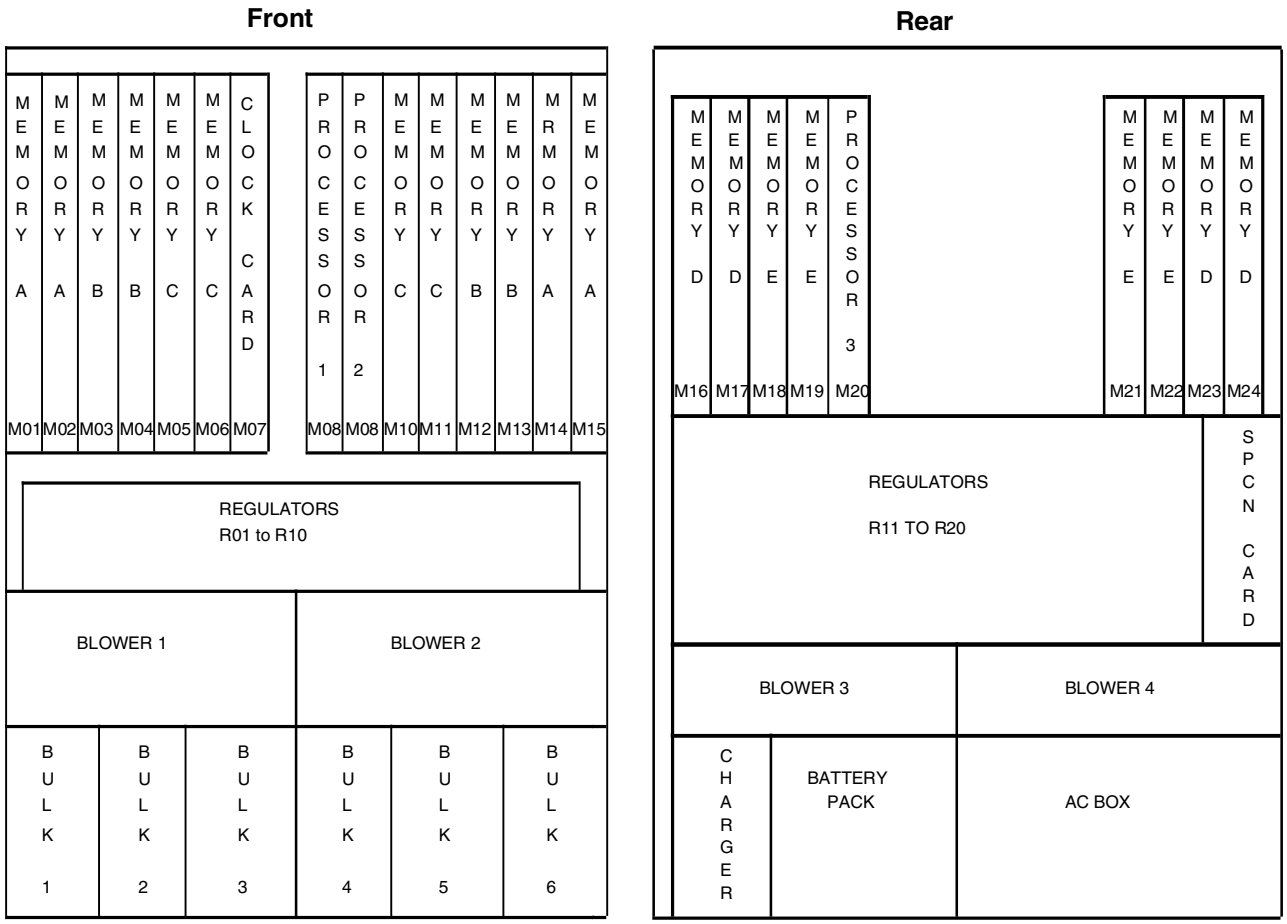
#6500	**Direct Access Storage Device Controller (SPD)** The #6500 provides attachment for one 9337 0xx or 1xx. The #6500 is supported for upgrades only. SPD slots required: One Prerequisite: #9364 System Unit Expansion with #9331 Expansion Unit for SPD Cards or #5072/#5073 1063 Mbps System Unit Expansion Tower Model 620 only.
#6501	**#6501 Tape/Disk Device Controller (SPD)** The #6501 provides attachment for the 2105 Versatile Storage Server. It provides attachment for up to two 9337 2xx, 4xx, or 5xx Models. Also supports up to two 3490E Cxx, 3490E Exx, 3490E Fxx, 3494 Lxx or Dxx, 3570, 3575, or 3590 Models. Also provides attachment for 2105 Versatile Storage Server. DASD and Tape Units cannot be mixed on the same #6501. The #6501 is supported. SPD slots required: One Prerequisite: #9364 System Unit Expansion with #9331 Expansion Unit for SPD Cards or #5072/#5073 1063 Mbps System Unit Expansion Tower Maximum: Four for tape. For disk, see the model overview tables at the beginning of this chapter. Model 620 only.
#6502	**#6502 High Performance Controller–2 MB Cache (RAID/Mirrored/Unprotected) (SPD)** The #6502 provides RAID protection and a 2 MB write-cache for up to 16 disks located in the #5052 or #5058 Storage Expansion Unit, the #5082 or #5083 Storage Expansion Tower, or the #9364 System Unit Expansion. A minimum of four drives and a maximum of ten drives are supported in each array. A maximum of two arrays are allowed for each #6502. The #6502 is supported for upgrades. The #6502 is not capable of integrated hardware disk compression. SPD slots required: One Prerequisite: #9364 System Unit Expansion with #9331 Expansion Unit for SPD Cards or #5072/#5073/#5082/#5083
#6512	**#6512 High Performance Controller–4 MB Cache (RAID/Mirrored/Unprotected) (SPD)** The #6512 provides RAID protection and a 4 MB write-cache for up to 16 disks located in the #5052 or #5058 Storage Expansion Unit, the #5082 or #5083 Storage Expansion Tower, or the #9364 System Unit Expansion. A minimum of four drives and a maximum of ten drives are supported in each array. A maximum of two arrays are allowed for each #6512. The #6512 is supported for upgrades. The #6512 is not capable of integrated hardware disk compression. SPD slots required: One Prerequisite: #9364 System Unit Expansion with #9331 Expansion Unit for SPD Cards or #5072/#5073/#5082/#5083
#6513	**#6513 Internal Tape Device Controller (SPD)** The #6513 provides support for up to three internal tape drives when located in the #9331 Expansion Unit for SPD cards or four internal tape drives when located in the #5072/#5073 1063 Mbps System Unit Expansion Tower. The #6513 is the default controller unless a #2624 is installed. Supports the #1379, #1380, #6380, #6381, #6382, #6383, #6385, #6386, and #6390 in the #5072/#5073 1063 Mbps System Unit Expansion Tower; and the #1349, #1350, #1355, #1360, #6481, #6482, #6483, #6484, #6485, and #6490 in a #9364 System Unit Expansion with the #9331. SPD slots required: One Prerequisite: #9364 System Unit Expansion with #9331 Expansion Unit for SPD Cards or #5072/#5073 1063 Mbps System Unit Expansion Tower Maximum: Five Model 620 only.
#6530	**#6530 Disk Unit Controller No Cache (Mirrored/Unprotected) (SPD)** The #6530 is a controller for up to 16 disks located in the #5052 or #5058 Storage Expansion Unit, #5082 or #5083 Storage Expansion Tower, or #9364 System Unit Expansion. The #6530 is supported for upgrades. The #6530 is not capable of integrated hardware disk compression. SPD slots required: One Prerequisite: #9364 System Unit Expansion with #9331 Expansion Unit for SPD Cards or #5072/#5073/#5082/#5083 Model 620 only.
#6532	**#6532 RAID Disk Unit Controller–4 MB Cache (RAID/Mirrored/Unprotected) (Ultra SCSI) (SPD)** The #6532 is an Ultra SCSI Controller for up to 16 disks installed in #5058 Storage Expansion Unit, #5083 Storage Expansion Tower, or #9364 System Unit Expansion. Also supports disks located in #5052 Storage Expansion Unit or #5082 Storage Expansion Tower, but not at Ultra SCSI speeds. Offers performance improvements over #6502, #6512, and #6530. A minimum of four drives and a maximum of ten drives are supported in a RAID-5 array. A maximum of four arrays are allowed for each #6532. The #6532 is not capable of integrated hardware disk compression. SPD slots required: One Prerequisite: #9364 System Unit Expansion with #9331 Expansion Unit for SPD Cards or #5072/#5073/#5082/#5083 Model 620 only.

#6533	**#6533 RAID Disk Unit Controller - 4 MB Cache (Raid/Mirrored/Unprotected) (Ultra SCSI) (SPD)** The #6533 is an Ultra SCSI Controller for up to 16 disks installed in #5058 Storage Expansion Unit, #5083 Storage Expansion Tower, or #9364 System Unit Expansion. Also supports disks located in #5052 Storage Expansion Unit or #5082 Storage Expansion Tower, but not at Ultra SCSI speeds. Offers performance improvements over #6502, #6512, and #6530. A minimum of four drives and a maximum of ten drives are supported in a RAID-5 array. A maximum of four arrays are allowed for each #6533. SPD slots required: One Prerequisite: #9364 System Unit Expansion with #9331 Expansion Unit for SPD Cards or #5072/#5073/#5082/#5083 Minimum OS/400: V4R2 Minimum OS/400 to support integrated hardware disk compression: V4R3 Minimum OS/400 to support integrated hardware disk compression on #6714/#8714 17.54 GB Disk Units: V4R4 Model 620 only.
#6534	**#6534 Magnetic Media Controller (SPD) (Ultra SCSI)** The #6534 provides attachment for one 3490E Cxx with #5040, 3490E Exx, 3490E Fxx, 3494 D1x or L1x, 3570, 3575, 3590, 7208, 9348, or 9427 Tape Drives or 3995 C4x Optical Library Dataserver. SPD slots required: One Prerequisite: #9364 System Unit Expansion with #9331 Expansion Unit for SPD Cards or #5072/#5073 1063 Mbps System Unit Expansion Tower Minimum OS/400 to support the 3995: V4R2 Model 620 only.
#9728	**#9728 Base Disk Unit Controller (Ultra SCSI)** The #9728 is the Base IOA for the system unit. The #9728 provides Ultra SCSI attachment for up to five internal disk units, one internal CD-ROM (standard) and one internal tape drive. Does not support RAID. Supports the #1349, #1350, #1355, #1360, #6481, #6482, #6485, or #6490 tape units. Mutually exclusive with the #2726, #2740, or #2741, in the same system unit. The #9728 is not capable of integrated hardware disk compression. High-speed PCI slots required: One Maximum: One per system unit

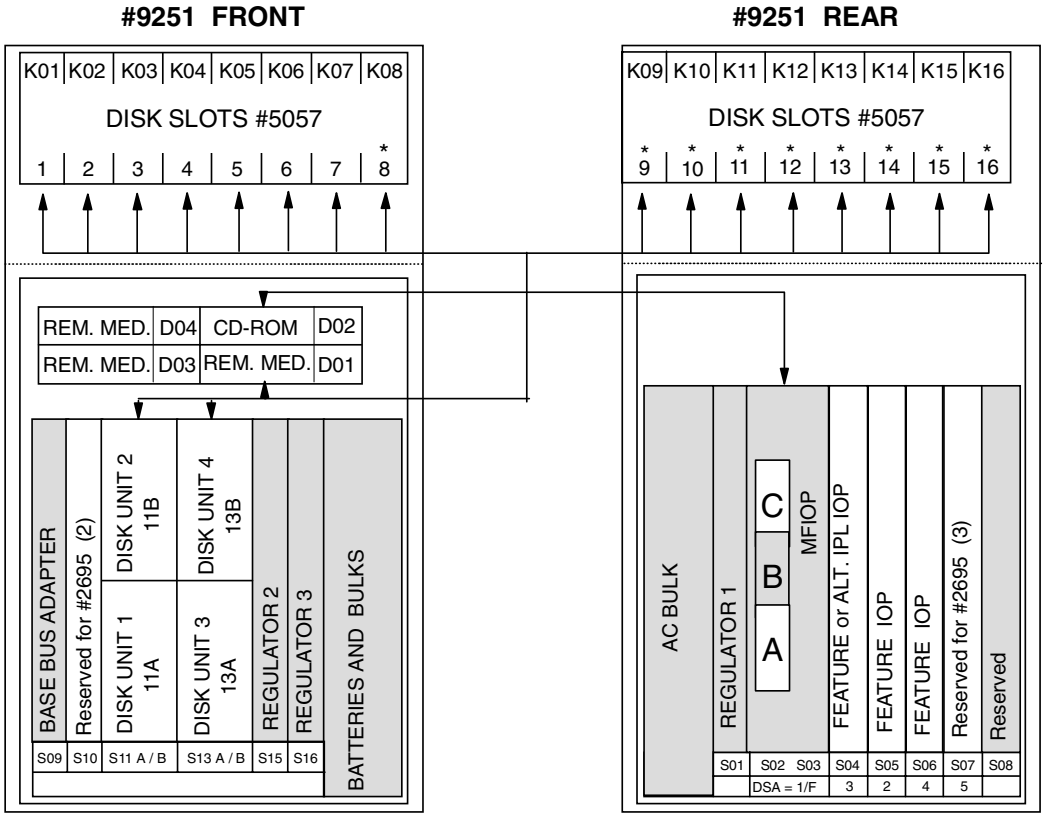
10.10 9406 Model 640 system unit



10.11 9406 Model 650 system unit



10.12 #9251 Base I/O Tower



= Are part of the base configuration

* One byte disks cannot be installed in these slots

For diagrams of the #507X and #508X expansion towers, see 9.10, “9406 System Unit Expansion Towers for 6xx and 7xx” on page 237.

10.13 AS/400e Model 640 and 650 features

Note: The darker shaded cells in the tables indicate the base features.

PROCESSORS	
#2237	**319.0 RSP CPW Processor. Base Memory 512 MB** Model 640 only.
#2238	**583.3 RSP CPW 2-way Processor. Base Memory 512 MB** Model 640 only.
#2239	**998.6 RSP CPW 4-way Processor. Base Memory 512 MB** Model 640 only.
#2240	**1794.0 RSP CPW 8-way Processor. Base Memory 1024 MB** Model 650 only.
#2243	**2340.0 RSP CPW 12-way Processor. Base Memory 1024 MB** Model 650 only.

#2188	**3660.0 RSP CPW 8-way Processor. Base Memory 1024 MB** Model 650 only. Minimum OS/400: V4R3
#2189	**4550.0 RSP CPW 12-way Processor. Base Memory 1024 MB** Model 650 only. Minimum OS/400: V4R3
	POWER AND PACKAGING
Base Optical Bus Adapter	**Base Optical Bus Adapter** This is the Base Optical Bus Adapter identified as CCIN 2696 with no feature code required. Model 640 and 650 only.
#2686	**#2686 Optical Link Processor (266 Mbps)** The #2686 is a card that is used for attaching #5044 System Unit Expansion Rack. Each #2686 supports a maximum of one #5044. Card slots used: None Maximum: Nine Prerequisite: #2695 Optical Bus Adapter or IOA slot on the Base Optical Bus Adapter.
#2688	**#2688 Optical Link Processor (1063 Mbps)** The #2688 is a card that is used for attaching #5072, #5073, #5082, or #5083 Storage Expansion Towers. Each #2688 supports a maximum of two #50xx Towers. Card slots used: None Maximum: Nine Prerequisite: #2695 Optical Bus Adapter or IOA slot on the Base Optical Bus Adapter.
#2695	**#2695 Optical Bus Adapter** The #2695 allows for the addition of up to three #2686 or #2688 Optical Link Processors in any combination. Card slots used: One Maximum: Two
#2730	**#2730 Programmable Regulator** The #2730 is required when five or more main storage cards are installed in a Model 640. Model 640 only. Card slots used: None Maximum: One
#5043	**Primary to Secondary Rack Conversion** The #5043 provides for the conversion of a 9406 F Model system unit rack to a 9309 #9171 type rack. The new rack retains the #5043 feature. Only available when upgrading from 9406 F Models. Also available as a feature conversion from #5040.
#5044	**#5044 System Unit Expansion Rack** The #5044 is a 12 I/O card slot cage in a rack enclosure. Each unit provides two buses with six I/O card slots per bus. The #5044 is supported for upgrades only. It is a conversion of a #5040 or #5042 rack. Prerequisite: #2686 Optical Link Processor and #2695 Optical Bus Adapter or #2686 Optical Link Processor and an IOA slot on the Base Optical Bus Adapter.
#5052	**#5052 Storage Expansion Unit** The #5052 provides space for up to 16 disk units. It attaches to the top of the #5072 1063 Mbps System Unit Expansion Tower and the #5082 Storage Expansion Tower. The #5052 is only supported for upgrades only. Only one #5052 per tower is supported. A #5143 Power Supply may be required.
#5055	**#5055 Storage Expansion Unit (Ultra SCSI)** The #5055 provides space for up to eight disk units. It attaches to the top of the Model 640 system unit. Model 640 only. Prerequisite: #9751 or #9754 MFIOP with RAID and #5151 Power Supply .
#5057	**#5057 Storage Expansion Unit (Ultra SCSI)** The #5057 provides space for up to 16 disk units. It attaches to the top of the Model 650 system unit. Model 650 only. Prerequisite: #9751 or #9754 MFIOP with RAID.
#5058	**#5058 Storage Expansion Unit (Ultra SCSI)** The #5058 provides space for up to 16 disk units. It attaches to the top of the #5073 1063 Mbps System Unit Expansion Tower and the #5083 Storage Expansion Tower. Only one #5058 per tower is supported.

#5065	**#5065 Storage/PCI Expansion Tower** The #5065 provides an additional bus. It includes a 1063 Mbps optical bus card. The #5065 has redundant, hot swappable power supplies. It supports three LAN/WAN/Workstation controllers, 12 PCI IOA cards, two removable media, and up to 45 disk units. Three specific disk slots may be used for #4331 1.6 GB Read Cache Device features. The #5065 is the only storage expansion unit to support Ultra2 SCSI. Maximum: Eighteen on the Model 640 and 650. Prerequisite: #2688 Optical Link Processor Minimum OS/400: V4R4 The #5065 is a Customer Install Feature (CIF).
#5066	**#5066 1.8 M I/O Tower** The #5066 provides two additional buses. The #5066 is actually two #5065 Storage/PCI Expansion Towers installed in a #5066 1.8 M I/O Tower. The #5066 reports to the system as two #5065s. The #5066 includes two 1063 Mbps optical bus cards, various cables (including optical cables) and the 1.8M I/O Tower. The #5066 includes 24 PCI IOA slots, space for 90 disk units, space for four removable media devices, battery backup, redundant/hot swap power supplies, and two base PCI LAN/WAN/Workstation IOPs (CCIN 2824). The #5066 is capable of controlling Ultra2 SCSI disk units. Two line cords must be specified. Maximum: Nine on the Model 640 and 650. Prerequisite: #2688 Optical Link Processor Minimum OS/400:V4R4
#5072	**#5072 1063 Mbps System Unit Expansion Tower** The #5072 provides an I/O tower for creating additional buses on the Model 640 and 650. It includes a 1063 Mbps optical bus card, 13 SPD I/O card slots, space for up to four internal tape units or CD-ROMs (a maximum of three), and battery and power supplies. It can support one #5052 Storage Expansion Unit. Due to power restrictions, some combinations of high powered cards may mean that an additional #5072 is required. Prerequisite: #2688 Optical Link Processor and #2695 Optical Bus Adapter or #2688 Optical Link Processor and an IOA slot on the Base Optical Bus Adapter. The #5072 is supported for upgrades only.
#5073	**#5073 1063 Mbps System Unit Expansion Tower** The #5073 provides an I/O tower for creating additional buses on the Model 640 and 650. It includes a 1063 Mbps optical bus card, 13 SPD I/O card slots, space for up to four internal tape units/CD-ROMs (a maximum of three), and battery and power supplies. It can support one #5058 Storage Expansion Unit. Due to power restrictions, some combinations of high powered cards may mean that an additional #5073 is required. Prerequisite: #2688 Optical Link Processor and #2695 Optical Bus Adapter or #2688 Optical Link Processor and an IOA slot on the System Unit Base Optical Bus Adapter.
#5082	**#5082 Storage Expansion Tower** The #5082 provides a DASD tower for adding up to 16 disk units. A total of 32 disk units are supported with an addition of #5052. It includes a 1063 Mbps Optical Bus Card, two SPD I/O card slots for the disk IOPs (#6502, #6512, #6530—supported but not orderable; #6532 or #6533—for new orders), and battery and power supplies. Prerequisite: #2688 Optical Link Processor and #2695 Optical Bus Adapter or #2688 Optical Link Processor and an IOA slot on the Base Optical Bus Adapter. The #5082 is supported for upgrades only.
#5083	**#5083 Storage Expansion Tower (Ultra SCSI)** The #5083 provides a DASD tower for adding up to 16 disk units. A total of 32 disk units are supported with an addition of #5058. It includes a 1063 Mbps Optical Bus Card, two SPD I/O card slots for the disk IOPs (#6502, #6512, #6530—supported but not orderable; #6532 or #6533—for new orders), and battery and power supplies. Prerequisite: #2688 Optical Link Processor and #2695 Optical Bus Adapter or #2688 Optical Link Processor and an IOA slot on the Base Optical Bus Adapter.
#5101	**30 Disk Expansion Feature** The #5101 provides two 15 unit disk enclosures, a 700-watt power supply, backplanes, and internal cables. Maximum: One per #5065 Storage/PCI Expansion Tower.
#5143	**#5143 Power Supply** The #5143 is a 400-watt power supply that is normally a prerequisite of a #5052 installed in a #5072/#5082 Storage Expansion Tower. Maximum: One per #5072 or #5082
#5150	**Battery Backup (external)** An external battery backup that when used in conjunction with internal battery backup is capable of extending the Continuously Power Main Storage (CPM) time to at least 48 hours. On Model 640 and 650, a standard internal battery backup is capable of maintaining CPM on 16 GB of main storage for at least 24 hours. The #5150 is required when main storage exceeds 16 GB on a Model 650.

#5151	**Power Supply (650 watts)** The #5151 is a 650-watt feature power supply that is a prerequisite for #5055 Storage Expansion Unit. Also required when six or more main storage cards are installed. Model 640 only. Maximum: One
#9251	**#9251 Base I/O Tower** The #9251 is the Base Tower on a Model 650. Includes four feature SPD IOP slots, space for three removable media devices, one CD-ROM drive, one MFIOP, the ability to add up to 20 feature disk units (with #5057 Storage Expansion Unit), and battery and power supplies. Model 650 only.
	MAIN STORAGE
#3179	**256 MB Main Storage** Must be added in pairs on Model 640. Must be added in fours on Model 650. Requires one dedicated memory card slot. Maximum: Five pairs on Model 640; four fours on Model 650. Minimum OS/400: V4R2
#3180	**512 MB Main Storage** Must be added in pairs on Model 640. Must be added in fours on Model 650. Requires one dedicated memory card slot. Maximum: Five pairs on Model 640; four fours on Model 650. Minimum OS/400: V4R2
#3189	**128 MB Main Storage** Must be added in pairs on Model 640. Must be added in fours on Model 650. Requires one dedicated memory card slot. Maximum: Five pairs on Model 640; four fours on Model 650.
#3190	**256 MB Main Storage** Must be added in pairs on Model 640. Must be added in fours on Model 650. Requires one dedicated memory card slot. Maximum: Five pairs on Model 640; four fours on Model 650.
#3191	**512 MB Main Storage** Must be added in pairs on Model 640. Must be added in fours on Model 650. Requires one dedicated memory card slot. Maximum: Five pairs on Model 640; four fours on Model 650.
#3192	**1024 MB Main Storage** Must be added in pairs on Model 640. Must be added in fours on Model 650. Requires one dedicated memory card slot. Maximum: Five pairs on Model 640; four fours on Model 650.
#3193	**2048 MB Main Storage** Must be added in pairs on Model 640. Must be added in fours on 650. Requires one dedicated memory card slot. Maximum: Four pairs on 640; four fours on Model 650. Minimum OS/400: V4R3
#8180	**Optional Base 512 MB Main Storage** The #8180 provides an optional 512 MB main storage card in place of a base 256 MB card. Must be added in pairs on Model 640. Must be added in fours on Model 650. Requires one dedicated memory card slot. Minimum OS/400: V4R2
#8191	**Optional Base 512 MB Main Storage** The #8191 provides an optional 512 MB main storage card in place of a base 256 MB card. Must be added in pairs on Model 640. Must be added in fours on Model 650. Requires one dedicated memory card slot. The #8191 can only be ordered on a Model 640 or 650 that is already installed.
#8192	**Optional Base 1024 MB Main Storage** The #8192 provides an optional 1024 MB main storage card in place of a base 256 MB card. Must be added in pairs on Model 640. Must be added in fours on Model 650. Requires one dedicated memory card slot.
#8193	**Base 2048 MB Main Storage** The #8193 provides an optional 2048 MB main storage card in place of a base 256 MB card. Must be added in pairs on Model 640. Must be added in fours on Model 650. Requires one dedicated memory card slot. Minimum OS/400: V4R3

#9179	**Base 256 MB Main Storage** Must be added in pairs on Model 640. Must be added in fours on Model 650. Requires one dedicated memory card slot. Minimum OS/400: V4R2
#9190	**Base 256 MB Main Storage** Must be added in pairs on Model 640. Must be added in fours on Model 650. Requires one dedicated memory card slot.
	WORKSTATION CONTROLLERS
Base IOP	**Base Controller for Storage/#5065 Storage/PCI Expansion Tower** This IOP comes as standard (no feature required) with #5065 Storage/PCI Expansion Tower. It is installed in slot C03 and is identified as CCIN 2824. It is used for attaching LAN, WAN, and workstation IOAs through two high-speed slots and two low-speed slots. The #2718, #2729, or #2748 are supported in C04 only. The #2723/#9723, #2724/#9724, #2645, #2746, #2750, #2751, #2761, or #4800 are supported in C04 or C05. The #281X or #2838/#9738 are supported on C05 only. The #2723/#9723, #2724/#9724, #2745, #2746 #2750, #2751, or #2761 are supported in C01 or C02. Restrictions apply. Maximum: One
#2629	**#2629 LAN/WAN/Workstation IOP** The #2629 supports up to three #2699, #6149, #6180, or #6181 LAN/WAN/ Workstation IOAs. The #6149 and #6181 cannot occupy all three positions of the #2629. Also supported is the #9280 IOA. No more than seven #2629s can be placed in one #5072 1063 Mbps System Unit Expansion Tower. The #2629 cannot be placed in slot 14 of a #5072. There is no restriction on placing the #2629 in #5073 1063 Mbps System Unit Expansion Tower. Card slots required: One
#2746	**#2746 PCI Twinaxial Workstation IOA (PCI)** The #2746 is an eight-port attachment which supports 40 active twinaxial devices. PCI slots required: One Prerequisite: #5065 Storage/PCI Expansion Tower. Minimum OS/400: V4R4 The #2746 is a Customer Install Feature (CIF).
#2824	**#2824 PCI Feature Controller** The #2824 can be used for attaching additional LAN, WAN, and Workstation IOAs to the system. There is a maximum of two in the #5065 Storage/PCI Expansion Tower. In #5065 Storage/PCI Expansion Tower slots C08 or C13, it supports two high-speed and two low-speed slots: The #2718, #2729 or #2748 are supported in C09 and C14 only. The #2838/#9738 and #281x are supported in C05, C10, and C15 only. The #2738/#9738, #2724/#9724, #2745, #2746, #2750, #2751, #2761 or #4800 are supported in C09, C10, C14, or C15. The #2723/#9723, #2724/#9724, #2745, #2746, #2750, #2751 or #2761 are supported in C06, C07, C11, or C12. Additional restrictions apply. Minimum OS/400: V4R4 The #2824 is a Customer Install Feature (CIF).
#5540	**#5540 System Console on Twinaxial Workstation IOA Specify** The System Console attaches to #6180 or #9280 Twinaxial Workstation IOA or other migrated twinaxial workstation controller.
#5541	**System Console Attached to ASCII Workstation Controller Specify** The System Console attaches to #9141 or #6141 ASCII Workstation Controller.
#5543	**Client Access/400 System Console Specify** The System Console is a PC attached to the #9751 MFIOP. Prerequisite: #0344 Cable for attaching Client Access Console and #9699 Base Two-Line WAN IOA in slot B in the #9751 MFIOP.
#5544 #0328	**#5544 System Console on Operations Console** The system console is a PC. Prerequisite: Cable #0328 to be attached to port 0 of the #9699 Base Two-Line WAN IOA in slot B of the #9751 or #9754 MFIOP. **#0328: Operations Console cable**. The #0328 is a 6-meter cable used to attach a PC to a #9699 communications adapter for use as a remote PC Console. Mutually exclusive with #0344.

#6050 #9050	**#6050 Enhanced Twinaxial Workstation Controller** One eight-port attachment is provided to support up to 40 twinaxial devices. The #9050 is the base twinaxial workstation controller on some older models. The #6050/#9050 is supported for upgrades only. Card slots required: One
#6140 #9140	**#6140 Twinaxial Workstation Controller** One eight-port attachment is provided to support up to 40 twinaxial devices. The #9140 is the base twinaxial workstation controller on some older models. The #6140/#9140 is supported for upgrades only. Card slots required: One
#6141 #9141	**#6141 ASCII Workstation Controller** The #6141 supports up to six ASCII devices. The #9141 is a Base Workstation Controller. Card slots required: One
#6142	**#6142 ASCII 12-Port Workstation Attachment** The #6142 plugs into the #6141 or #9141 ASCII Workstation Controller providing an additional 12 ports. Eighteen ASCII devices can now be supported. Only one #6142 can be attached per #6141 or #9141. Card slots required: None
#6180 #9280	**#6180 Twinaxial Workstation IOA** One eight-port attachment is provided to support up to 40 twinaxial devices. The #9280 is specified on a base twinaxial workstation when there is no ASCII workstation controller. One #6180/#9280 is placed in slot C of the #9751 or #9754 MFIOP when the System Console is ASCII. All other #6180s must be placed in a #2629 LAN/WAN/Workstation IOP. IOA slots required: One #2629, #9751, or #9754 slot.
#9751	**MFIOP with RAID (Ultra SCSI)** The #9751 is standard on the Model 640 and 650. Contains function for controlling 20 disk units, one tape unit and one CD-ROM unit. Has three IOA slots for controlling LANs, twinaxial workstations, and communications. IOA slot A is reserved for attaching one #2699 Two-Line WAN IOA or one #6149 or #6181 LAN IOA. IOA slot B is reserved for attaching the #9699 Base Two-Line WAN IOA. IOA slot C is reserved for attaching one #2699 Two-Line WAN IOA or one #6180 or #9280 Twinaxial IOA. Occupies two card slots. The #9751 is not capable of integrated hardware disk compression. The #9751 has CCIN 6751.
#9754	**#9754 MFIOP with RAID (Ultra SCSI)** The #9754 contains function for controlling 20 disk units, one tape unit and one CD-ROM unit. Has three IOA slots for controlling LANs, twinaxial workstations, and communications. IOA slot A is reserved for attaching one #2699 Two-Line WAN IOA or one #6149 or #6181 LAN IOA. IOA slot B is reserved for attaching the #9699 Base Two-Line WAN IOA. IOA slot C is reserved for attaching one #2699 Two-Line WAN IOA or one #6180 or #9280 Twinaxial IOA. Occupies two card slots. The #9754 is standard on the Model 640 and 650 and on systems ordered with V4R2. Minimum OS/400: V4R2 Minimum OS/400 to support integrated hardware disk compression: V4R3 Minimum OS/400 to support integrated hardware disk compression on #6714/#8714 17.54 GB Disk Units: V4R4 The #9754 has CCIN 6754.
COMMUNICATIONS	
#2605	**#2605 ISDN Basic Rate Interface Adapter** Connects to #2623 to support one communications line connecting to an ISDN network. The ISDN Basic Rate Interface supported by #2605 contains two high-speed ISDN user channels. One or two #2605s may be attached to one #2623 with no other IOAs allowed on the #2623. Card slots required: None Prerequisite: #2623 Six-Line Communications Controller
#2609	**#2609 EIA 232/V.24 Two-Line Adapter** Connects to #2623 to support two communications lines using Async, BSC, SDLC, or X.25 protocols. Two cables must be specified: #9023 EIA 232/V.24 20-ft. (6m) enhanced cable #9835 EIA 232/V.24 50-ft. (15m) enhanced cable #9022 EIA 232/V.24 20-ft. (6m) cable #9836 EIA 232/V.24 50-ft. (15m) cable The #2609 is supported for upgrades only. Card slots required: None Prerequisite: #2623 Six-Line Communications Controller

#2610	**#2610 EIA 232/V.24 Two-Line Adapter** The #2610 connects to #2623 to support two communications lines using X.21 or X.25 networks. Two cables must be specified: #9021 X.21 20-ft. (6m) cable #9839 X.21 50-ft. (15m) cable The #2610 is supported for upgrades only. Card slots required: None Prerequisite: #2623 Six-Line Communications Controller
#2612	**#2612 EIA 232/V.24 One-Line Adapter** The #2612 connects to #2623 to support one communications line using Async, BSC, SDLC, or X.25 protocols. One cable must be specified: #9021 X.21 20-ft. (6m) cable #9839 X.21 50-ft. (15m) cable The #2612 is supported for upgrades only. Card slots required: None Prerequisite: #2623 Six-Line Communications Controller
#2613	**#2613 V.35 One-Line Adapter** The #2613 connects to #2623 to support one V.35 communications line using either BSC, SDLC, or X.25 protocols. Each #2623 supports one V.35 line at speeds up to 640 Kbps, or two V.35 lines at speeds up to 512 Kbps, or three V.35 lines at speeds up to 384 Kbps. No other adapters are allowed on #2623 when running T1/E1/J1. One cable must be specified: #9020 V.35 20-ft. (6m) cable The #2613 is supported for upgrades only. Card slots required: None Prerequisite: #2623 Six-Line Communications Controller
#2614	**#2614 X.21 One-Line Interface Adapterr** The #2614 connects to #2623 to support one communications line using X.21 or X.25 networks. One cable must be specified: #9021 X.21 20-ft. (6m) cable #9839 X.21 50-ft. (15m) cable The #2614 is supported for upgrades only. Card slots required: None Prerequisite: #2623 Six-Line Communications Controller
#2620	**#2620 Full Cryptographic Processor** The #2620 provides full cryptographic support for encrypting and decrypting data. Distribution of the #2620 is restricted by U.S. Government Export Regulations. In countries outside the U.S.A. and Canada, it can only by marketed to financial institutions and subsidiaries of U.S. companies. If a #2620 cannot be sold, a #2628 should be sold in its place. Card slots required: One Maximum: One
#2623	**#2623 Six-Line Communications Controller** The #2623 controller provides for attachment of a wide range of iSeries or AS/400e communications adapters. These adapters are supported by the #2623: #2605, #2609, #2610, #2612, #2613, #2614, #2654, #2655, #2656, #2657, #2658, #2659, #6153, and #6173. The #2623 supports two #2605 ISDN adapters or up to three EIA 232/V.24, X.21, and V.35 adapters. The #2623 are only orderable on Model 640 and 650 for customers purchasing the #2605 ISDN adapter. The #2623 is supported for upgrades only. Card slots required: One
#2628	**#2628 Limited Cryptographic Processor (SPD)** The #2628 provides the same function as #2620 except that is does not include data encryption/decryption using commercial Data Masking Facility for data scrambling. Can be marketed to any non-U.S. company. Card slots required: One Maximum: One
#2629	**#2629 LAN/WAN/Workstation IOP** The #2629 supports up to three #2699, #6149, #6180, or #6181 LAN/WAN/ Workstation IOAs. The #6149 and #6181 cannot occupy all three positions of the #2629. Also supported is the #9280 IOA. No more than seven #2629s can be placed in one #5072 1063 Mbps System Unit Expansion Tower. The #2629 cannot be placed in slot 14 of a #5072. There is no restriction on placing #2629 in #5073 1063 Mbps System Unit Expansion Tower. Card slots required: One

#2664	**#2664 Integrated Fax Adapter (SPD)** The #2664 provides two ports capable of transmission and receipt of facsimile data to or from a Group 3 capable Fax machine, another iSeries or AS/400e with the #2664, or PCs with appropriately programmed Fax adapter. The #2664 consists of a card, a wrap cable, two country unique attachment couplers and telephone cables, and Licensed Internal Code. Card slots required: One Restriction: Not supported with V5R1 and later Maximum: 32
#2666	**#2666 High-Speed Communications Adapter** The #2666 provides one communications line capable of T1/E1 (1.544/2.048 Mbps) speeds. The #2666 consists of a card, a wrap connector, and a cable. One of these cables must be specified: #9879 20-ft. (6m) V.35 CCITT cable #9880 80-ft. (24m) V.35 CCITT cable #9882 20-ft. (6m) RS449/V.36 CCITT cable #9883 80-ft. (24m) RS449/V.36 CCITT cable* #9884 150-ft. (45m) RS449/V.36 CCITT cable* #9885 20-ft. (6m) X.21 CCITT cable * These cables are only allowed when the customer's modem supports Looped Clocking Mode. The #2666 is supported for upgrades only on Model 640 and 650. Card slots required: One Maximum: Twenty on Model 640; thirty on Model 650
#2699 #9699	**#2699 Two-Line WAN IOA** The #2699 supports up to two multiple protocol communications ports when any one or two if these cables are attached: #0328 20-ft. (6m) Operations Console cable (on #9699 and V4R3 defaulted)* #0329 V.24/EIA 232 80-ft. (24m) cable #0330 V.24/EIA 232 20-ft. (6m) cable #0331 V.24/EIA 232 50-ft. (15m) cable #0332 V.24/EIA 232 20-ft. (6m) enhanced cable #0333 V.24/EIA 232 50-ft. (15m) enhanced cable #0334 V.24/EIA 232 80-ft. (24m) enhanced cable #0335 V.36/EIA 449 20-ft. (6m) cable #0336 V.36/EIA 449 50-ft. (15m) cable #0337 V.36/EIA 449 150-ft. (45m) cable #0338 V.35 20-ft. (6m) cable #0339 V.35 50-ft. (15m) cable #0340 V.35 80-ft. (24m) cable #0341 X.21 20-ft. (6m) cable #0342 X.21 50-ft. (15m) cable #0344 20-ft. (6m) Communication Console cable *For the #2699: Used to support the Operations Console function on CPU Models supporting logical partitioning (LPAR) for secondary partitions when logical partitioning is implemented (V4R4 and later). The #0380 Remote Control Panel Cable is optional for the base partition only. The #0380 cable does not attach to a communication port. The #9699 is the base communications adapter card and is placed in slot B of the #9751 or #9754 MFIOP. Prerequisite for #2699: #2629 LAN/WAN/Workstation IOP or a spare IOA slot in #9751 or #9754 MFIOP with RAID MFIOP. IOA slots required for #2699: One on #2629, #9751, or #9754

#2745	**#2745 PCI Two-Line WAN IOA** The #2745 supports up to two multiple protocol communications ports when one or two of these cables are attached: #0348 V.24/EIA232 20-ft. (6m) PCI cable #0349 V.24/EIA232 50-ft. (15m) PCI cable #0350 V.24/EIA232 20-ft. (6m) enhanced PCI cable #0351 V.24/EIA232 50-ft. (15m) enhanced PCI cable #0352 V.24/EIA232 80-ft. (24m) enhanced PCI cable #0353 V.35 20-ft. (6m) PCI cable #0354 V.35 50-ft. (15m) PCI cable #0355 V.35 80-ft. (24m) PCI cable #0356 V.36 20-ft. (6m) PCI cable #0357 V.36 50-ft. (15m) PCI cable #0358 V.36 150-ft. (45m) PCI cable #0359 X.21 20-ft. (6m) PCI cable #0360 X.21 50-ft. (15m) PCI cable #0365 V.24/EIA232 80-ft. (24m) PCI cable #0367 Operations Console PCI Cable 20-ft. (6m)* *Used to support the Operations Console function on CPU Models supporting logical partitioning (LPAR) (V4R4 and later). A maximum of one #0367 cable is allowed per #2745. Prerequisite: #5065 Storage/PCI Expansion Tower PCI card slots required: One
#2750	**#2750 PCI ISDN BRI U Adapter** The #2750 is a 4 port (8 channel) ISDN BRI (basic rate, 2 wire interface) full size card. Each port consists of 2B+D configuration. A wrap cable/plug and four 30-ft. (9.3 m) RJ-45 to RJ-45 cables are shipped with each card. Each #2750 counts as eight communication lines against the system maximums. It supports SLIP/PPP, IDLC, and Fax protocols. The feature is country-specific. Prerequisite: #5065 Storage/PCI Expansion Tower, #2824 PCI Feature Controller Minimum OS/400: V4R4 with PTF MF22528 (or supersede) or Cumulative PTF Package C9313440.
#2751	**#2751 PCI ISDN BRI S/T IOA** The #2751 is a 4 port (8 channel) ISDN BRI (basic rate, 4 wire interface) full size card. Each port consists of 2B+D configuration A wrap cable/plug and four 30-ft. (9.3 m) RJ-45 to RJ-45 cables are shipped with each card. Each #2751 counts as eight communication lines against the system maximums. It supports SLIP/PPP, IDLC, and Fax protocols. The feature is country-specific. Prerequisite: #5065 Storage/PCI Expansion Tower, #2824 PCI Feature Controller Minimum OS/400: V4R4 with PTF MF22528 (or supersede) or Cumulative PTF Package C9313440.
#2761	**#2761 Integrated Analog Modem** The #2761 supports multiple analog modem ports (eight phone lines). The feature includes a wrap cable/plug and eight 30-ft. (8 meter) phone cables. Each #2761 counts as eight communication lines against the system maximums. It supports SLIP/PPP, SDLC and FAX protocols. Does not support ECS line. To the iSeries or AS/400e server, the #2761 looks like a single IOA with eight individual line resources available. The feature is country-specific. Prerequisite: #5065 Storage/PCI Expansion Tower, #2824 PCI Feature Controller Minimum OS/400: V4R4 with PTF MF22528 (or supersede) or Cumulative PTF Package C9313440.
#2824	**#2824 PCI Feature Controller** The #2824 can be used for attaching LAN, WAN, and Workstation IOAs to the system. Prerequisite: #5065 Storage/PCI Expansion Tower Minimum OS/400: V4R4
#4800	**#4800 PCI Cryptographic Processor** The #4800 is a hardware cryptography solution based on the IBM 4758 card. It is a half length PCI card. Since the feature is temperature sensitive, it is shipped separately in specially designed, insulated packaging. Maximum: Three per system. Prerequisite: #2824 PCI Feature Controller Minimum OS/400: V4R4

#4802	**#4802 PCI Cryptographic Processor** The #4802 is a hardware cryptography solution based on the IBM 4758 (LEEDS-1) card. The #4802 is a half-length PC form-factor PCI card, which offers rich cryptography function, secure storage of cryptographic keys, and 12 MB/s performance (at the card level) for bulk data encryption. The #4802 provides greater security by use of 168-bit key (versus 56-bit key on #4800). The #4802 is available worldwide. The level of cryptographic function is determined by the Cryptographic Access Provider licensed program, which is downloaded to the adapter. Prerequisite: An available high-speed slot under a #2824 PCI Feature Controller in a #5065/#5066 PCI Expansion Tower Maximum: Three per system Minimum OS/400:V4R5
LANS/ATM	
#2617	**#2617 Ethernet/IEEE 802.3 Adapter/HP (SPD)** The #2617 provides a single attachment to one Carrier Sense Multiple Access/Collision Detect Local Area Network. Consists of an adapter card and internal code, which supplies Ethernet Version 2 and IEEE 802.3 Media Access Control (MAC) plus IEEE 802.2 Logical Link Control (LLC) functions. An AUI Ethernet cable must be ordered separately. Supports 10 Mbps half-duplex only. SPD slots required: One Supported but not orderable
#2618	**#2618 Fiber Distributed Data Interface Adapter** The #2618 provides one interface to connect an iSeries or AS/400e to an FDDI LAN that complies with ANSI X3T9.5 and ISO 9314 standards. Consists of a card, a wrap connector, and Licensed Internal Code that supplies IEEE 802.2 Logical Link Control (LLC), ANSI X3T9.5/ISO 9314 Media Access Control (MAC) functions, and ANSI X3T9.5 Station Management (SMT) functions. A multi-mode (62.5/125 micron) FDDI optical fiber jumper cable to connect the adapter to the FDDI ring must be ordered separately. Card slots required: One
#2619	**#2619 LAN/WAN/Workstation IOA (SPD)** The #2619 provides a single attachment to a 16 Mbps or a 4 Mbps Token Ring Network. It consists of an adapter card, internal code (supplies IEEE 802.5 Media Access Control (MAC) and IEEE 802.2 Logical Link Control (LLC) functions), and an external 8-ft. (2.4m) cable. The #2619 is supported only for upgrades only. Card slots required: One
#2626	**#2626 16/4 Mbps Token Ring Adapter** The #2626 provides a single attachment to a 16 Mbps or a 4 Mbps Token Ring Network. It consists of an adapter card, internal code (supplies IEEE 802.5 Media Access Control (MAC) and IEEE 802.2 Logical Link Control (LLC) functions), and an external 8-ft. (2.4m) cable. The #2626 is supported for upgrades only. Card slots required: One
#2629	**#2629 LAN/WAN/Workstation IOP** The #2629 supports up to three #2699, #6149, #6180, or #6181 LAN/WAN/ Workstation IOAs. The #6149 and #6181 cannot occupy all three positions of the #2629. Also supported is the #9280 IOA. No more than seven #2629s can be placed in one #5072 1063 Mbps System Unit Expansion Tower. The #2629 cannot be placed in slot 14 of a #5072. There is no restriction on placing #2629 in #5073 1063 Mbps System Unit Expansion Tower. Card slots required: One
#2663	**#2663 I/O Attachment Processor (SPD)** The #2663 I/O processor is a prerequisite when attaching the #2668 Wireless LAN Adapter. The #2663 and #2668 are integrated in a single hardware package to operate as a unit. Card slots required: One (with #2668)
#2665	**Shielded Twisted-Pair Distributed Data Interface Adapter** The #2665 provides one interface to connect to an FDDI LAN which is constructed of IBM Cabling System Type 1, 2, 6, or 9 shielded twisted-pair wiring. It consists of a card, a wrap connector, and Licensed Internal Code, which supplies IEEE 802.2 Logical Link Control (LLC), ANSI X3T9.5/ISO 9314 Media Access Control (MAC) functions and ANSI X3T9.5 Station Management (SMT) functions. IBM FDDI copper jumper cables to connect the adapter to the FDDI ring must be ordered separately. Card slots required: One

#2668	**#2668 Wireless LAN Adapter (SPD)** The #2668 provides wireless connectivity to workstations or other systems connected to a wireless LAN network. One of these antenna cables must be specified: #9814 20-ft. (6m) antenna cable #9815 50-ft. (15m) antenna cable One of these antenna must be specified: #9889 YAGI Directional Antenna #9890 Omni Directional Antenna (360 degree) #9891 Hemispherical Antenna (180 degree) #9892 Directional Antenna (90 degree) Card slots required: One (with #2663) Prerequisite: #2663 I/O Attachment Processor Maximum: Three. The #2668 is supported for upgrades only.
#2723 #9723	**#2723 PCI Ethernet IOA** The #2723 provides a single attachment to one Carrier Sense Multiple Access/Collision Detect Local Area Network. Consists of an adapter card and internal code, which supplies Ethernet Version 2 and IEEE 802.3 Media Access Control (MAC) plus IEEE 802.2 Logical Link Control (LLC) functions. The Ethernet/IEEE 802.3 IOA is capable of operating in half or full duplex mode. Has a RJ45 connector and a 15 pin D-shell connector for attachment of customer supplied cabling. AUI Ethernet or RJ45 twisted pair cable must be ordered separately. Cabling must meet or exceed Industry Standard EIA/TIA T568B. Prerequisites: #6617 Integrated PC Server, #6618 Integrated Netfinity Server or #5065 Storage/PCI Expansion Tower.
#2724 #9724	**#2724 PCI 16/4 Mbps Token Ring IOA** The #2724 provides a single attachment to a 16 Mbps or a 4 Mbps Token Ring Network. It consists of an adapter card, internal code, which supplies IEEE 802.5 Media Access Control (MAC) and IEEE 802.2 Logical Link Control (LLC) functions and an external 8-ft. (2.4m) cable. Alternatively a twisted pair cable for attachment to the RJ45 connector on the IOA can be ordered separately. The #2724 IOA is capable of operation in half or full duplex modes. Prerequisites: #6617 Integrated PC Server, #6618 Integrated Netfinity Server or #5065 Storage/PCI Expansion Tower.
#2810	**#2810 LAN/WAN IOP** The #2810 IOP is required to attach one #2838 PCI 100/10 Mbps Ethernet IOA or #2811/#2812/#2815/#2816/#2818/#2819 PCI ATM IOA. Prerequisite for the preceding features. Card slots required: One with any of the preceding features.
#2811	**#2811 PCI 25 Mbps UTP ATM IOA** The #2811 provides attachment into an Asynchronous Transfer Mode (ATM) network using Unshielded Twisted Pair (UTP) cabling. The #2811 is typically used where 25 Mbps speed is required over distances of less than 100 meters. Card slots required: One (with #2810) Prerequisite: #2810 LAN/WAN IOP Minimum OS/400: V4R2
#2812	**#2812 PCI 45 Mbps Coax T3/DS3 ATM IOA** The #2812 provides attachment into an Asynchronous Transfer Mode (ATM) network using coax cabling and the T3/DS-3 interface. The #2812 is typically used where 45 Mbps speed is required over distances less than 1000 meters. Card slots required: One (with #2810). Prerequisite: #2810 LAN/WAN IOP. Minimum OS/400: V4R2
#2815	**#2815 PCI 155 Mbps UTP OC3 ATM IOA** The #2815 provides attachment into an Asynchronous Transfer Mode (ATM) network using the Unshielded Twisted Pair (UTP-5) interface. This interface is intended for connection to both local area switches and direct connection to service provider equipment. The #2815 is typically used where 155 Mbps speed is required over distances of less than 100 meters. Card slots required: One (with #2810). Prerequisite: #2810 LAN/WAN IOP. Minimum OS/400: V4R2

#2816	**#2816 PCI 155 Mbps MMF ATM IOA** The #2816 provides attachment into an Asynchronous Transfer Mode (ATM) network using the Multi-Mode Fiber (MMF) 62.5 micron interface. This interface is intended for connection to both local area switches and direct connection to service provider equipment. The #2816 is typically used where 155 Mbps speed is required over distances of less than 2 kilometers. Card slots required: One (with #2810). Prerequisite: #2810 LAN/WAN IOP. Minimum OS/400: V4R2
#2818	**#2818 PCI 155 Mbps SMF OC3 ATM IOA** The #2818 provides attachment into an Asynchronous Transfer Mode (ATM) network using the Single-Mode Fiber (SMF) 9 micron interface. This interface is intended primarily for direct connection to service provides equipment but can be used for local area switches. The #2818 is typically used where 155 Mbps speed is required over distances from 16 to 40 kilometers. Card slots required: One (with #2810). Prerequisite: #2810 LAN/WAN IOP. Minimum OS/400: V4R2
#2819	**#2819 PCI 34 Mbps Coax E3 ATM IOA** The #2819 provides attachment into an Asynchronous Transfer Mode (ATM) network using coax cabling and the E3 interface. The #2819 is typically used where speed of 34 Mbps is required over distances of less than 1000 meters. Card slots required: One (with #2810). Prerequisite: #2810 LAN/WAN IOP. Minimum OS/400: V4R2
#2838 #9738	**#2838 PCI 100/10 Mbps Ethernet IOA** The #2838 provides attachment to a standard 100 Mbps high-speed Ethernet LAN and allows attachment to existing 10 Mbps Ethernet LAN. The #2838 IOA is capable of operating in half or full duplex modes. The adapter comes with an RJ45 connector for attachment to UTP-5 media. SPD card slots required: One (with #2810) or three (with #6617#6618). PCI slots required: One Prerequisite: #2810 LAN/WAN IOP or #6617/#6618 or #5065 Storage/PCI Expansion Tower.
#6149	**#6149 16/4 Mbps Token Ring IOA** The #6149 provides a single attachment to a 16 Mbps or a 4 Mbps Token Ring Network. It consists of an IOA card, internal code (supplies IEEE 802.5 Media Access Control (MAC) and IEEE 802.2 Logical Link Control (LLC)), and an external 8-ft. (2.4m) token ring cable. Alternatively, a twisted pair cable for attachment to the RJ45 connector on the IOA can be ordered separately. The #6149 can operate in full or half-duplex mode. Card slots required: None Prerequisite: #2629 LAN/WAN/Workstation IOP, #6616 Integrated PC Server, #9751, or #9754 MFIOP with RAID MFIOP slot
#6181	**#6181 ASCII Workstation Controller (SPD)** The #6181 provides a single attachment to one Carrier Sense Multiple Access/Collision Detect Local Area Network. Consists of an adapter card and internal code, which supplies Ethernet Version 2 and IEEE 802.3 Media Access Control (MAC) plus 802.2 Logical Link Control (LLC) functions. Has a RJ45 connector and a 15 pin D-shell connector for attachment of customer supplied cabling. Cabling must meet or excess industry standard EIA/TIA T568B. The #6181 IOA is capable of operating in half or full duplex mode. This cable can be ordered if the customer is choosing IBM AUI cabling: #9025 Ethernet Cable (3 meter AUI) If the customer is not choosing IBM AUI cabling, AUI Ethernet or RJ45 twisted pair cable must be ordered separately. Cabling must meet or exceed Industry Standard EIA/TIA T568B. SPD slots required: None Card slots required: None Prerequisite: #2629 LAN/WAN/Workstation IOP, #6616 Integrated PC Server, #9751, or #9754 MFIOP with RAID MFIOP slot.

IPCS #6516 #6517 #6518 #6519 #6526 #6527 #6528 #6529	**Integrated PC Server (formerly known as FSIOP)** Contains a 66 MHz 486 Processor, main storage, and the ability to attach to one or two LANs for high performance serving to LAN attached PCs. The initial order configurations can be upgraded using the #6509 and #6520: 16 MB One-Port Integrated PC Server 32 MB One-Port Integrated PC Server 48 MB One-Port Integrated PC Server 64 MB One-Port Integrated PC Server 16 MB Two-Port Integrated PC Server 32 MB Two-Port Integrated PC Server 48 MB Two-Port Integrated PC Server 64 MB Two-Port Integrated PC Server These cables need to be specified depending on the LAN being attached to: #9024 Token ring cable (2.4m) #9025 Ethernet Cable (3m AUI) Card slots required: Two contiguous slots
#6509	**Additional 16 MB for Integrated PC Server** The #6509 is used to increase the memory on an installed Integrated PC Server up to the maximum of 64 MB.
#6520	**Upgrade One-Port Integrated PC Server to Two Port Integrated PC Server** The #6520 cannot be used with a Two-Port Integrated PC Server. The #9024 or #9025 can be ordered with the #6520 depending on the LAN to be attached. Maximum: Sixteen
#6616	**#6616 Integrated PC Server (SPD)** The #6616 contains a 166 MHz Pentium Processor, two main storage slots, and two LAN IOA slots for higher performance serving to LAN attached PCs. The two main storage slots can each contain one of these features, giving a maximum of 256 MB. At least one main storage feature is required: #2861 32 MB Integrated PC Server Memory #2862 128 MB Integrated PC Server Memory Either one or two of these LAN IOAs are supported: #6149 16/4 Mbps Token Ring IOA #6181 ASCII Workstation Controller Card slots required: Two contiguous slots Maximum: Sixteen
#6617	**#6617 Integrated PC Server (SPD)** The #6617 contains a 200 MHz Pentium Processor, four main storage slots and three LAN IOA slots for high performance serving to LAN attached PCs. The four main storage slots can each contain one of these features, giving a maximum of 512 MB. At least one main storage feature is required: #2861 32 MB Integrated PC Server Memory #2862 128 MB Integrated PC Server Memory Up to three of these LAN IOAs are supported. At least one LAN IOA is required. A maximum of two of the LAN IOAs can be #2838. #2723 PCI Ethernet IOA Specify # is not required #2724 PCI 16/4 Mbps Token Ring IOA Specify # is not required #2838 PCI 100/10 Mbps Ethernet IOA Specify #0220 is required for each #2838 ordered. The third LAN and the second #2838 can only be used if running Windows NT on the #6617. The #0222 100/10 Mbps Ethernet on IPCS is required for each #2838 attached to the #6617 Integrated PC Server. If running Windows NT on the #6617, then: The #0325 Integrated PC Server Extension cable for Windows NT is required. The #1700 Integrated PC Server Keyboard/Mouse for Windows NT is recommended (in those countries offering it). A display unit must be connected to the IPCS to support Windows NT. A minimum of 64MB is required if running Windows NT. When running OS/2 on the #6617, then: #0325 and #1700 are not allowed. Only two of the LAN IOA slots can be used and only one can contain a #2838. A maximum of 512 MB IOP memory is supported. When running Novell Netware on the #6617, then: #0325 and #1700 are not allowed. Only two of the LAN IOA slots can be used and only one can contain a #2838. A maximum of 256 MB IOP memory is supported.

#6617 (cont.)	For country-specific keyboard/mouse and display support, see the Web site at: http://www.ibm.com/eserver/iseries/windowsintegration/ Card slots required: Three contiguous slots. Cannot be placed in #5044 System Unit Expansion Rack. Minimum OS/400: V4R2
#6618	**#6618 Integrated Netfinity Server (SPD)** The #6618 contains a 333 MHz Pentium Processor, four main storage slots, and three LAN IOA slots for high performance serving to LAN-attached PCs. The four main storage slots can each contain one of these features, giving a maximum of 1024 MB. At least one main storage feature is required: #2861 32 MB Integrated PC Server MemorySpecify # is not required #2862 128 MB Integrated PC Server MemorySpecify # is not required #2867 256 MB Integrated PC Server MemorySpecify #0220 is required for each #2838 ordered Up to three of these LAN IOAs are supported. At least one LAN IOA is required. A maximum of two of the LAN IOAs can be #2838. #2723 PCI Ethernet IOA Specify # is not required #2724 PCI 16/4 Mbps Token Ring IOA Specify # is not required #2838 PCI 100/10 Mbps Ethernet IOA Specify #0222 is required The third LAN and the second #2838 can only be used if running Windows NT on the #6618. The #0222 100/10 Mbps Ethernet on IPCS is required for each #2838 attached to the #6618 Integrated Netfinity Server. If running Windows NT on the #6618, then: A minimum of 64 MB IOP memory is required. The #0325 Integrated PC Server Extension Cable for Windows NT is required. The #1700 Integrated PC Server Keyboard/Mouse for Windows NT, the default in the U.S.A. A display is required to support Windows NT on the IPCS. For country-specific keyboard/mouse and display support, see the Web site at: http://www.ibm.com/eserver/iseries/windowsintegration/ When running OS/2 on the #6618, then: The #0325 and #1700 are not allowed. Only two of the LAN IOA slots can be used and only one can contain a #2838. A maximum of 512 MB IOP memory is supported. When running Novell Netware on the #6618, then: The #0325 and #1700 are not allowed. Only two of the LAN IOA slots can be used and only one can contain a #2838. A maximum of 256 MB IOP memory is supported. SPD slots required: Three contiguous slots. Cannot be placed in #5044 System Unit Expansion Rack. Minimum OS/400: V4R2 and Cumulative PTF Package C8342420 or V4R3 and Cumulative PTF Package C8349430.
DISK UNITS	
#1602	**1.03 GB One-byte Disk Unit Conversion Kit** The #1602 provides the hardware for migrating one 1.03 GB one-byte SCSI disk unit. Supported only in the system unit or #5052, #5057, and #5058 Storage Expansion Unit positions 1 through 7. One #1602 migrates #1312, #6602, #6802, or #9602 disk. Two #1602 migrates #2802, #6612, #6812, #8612, or #9802 dual disks.
#1603	**#1603 1.96 GB Single Disk Unit Conversion Kit** The #1603 provides the hardware for migrating one 1.96 GB one-byte SCSI disk unit. Supported only in the system unit or #5052, #5057, and #5058 Storage Expansion Unit positions 1 through 7. One #1603 migrates #1313 or #6603 disk. Two #1602 migrates #6613, #7613 or #8613 dual disks.
#4308	**4.19 GB Additional Two-byte Disk Unit (Ultra SCSI)** The #4308 provides a 3 ½-inch single disk unit with 4.19 GB capacity for a dditional disk storage. Prerequisite: #5065/#5066 PCI Expansion Tower with #2748 PCI RAID Disk Unit Controller. Minimum OS/400: V4R4 The #4308 is a Customer Install Feature (CIF). Supported in the #5065/#5066 PCI Expansion Tower only
#4314	**#4314 8.58 GB Disk Unit (Ultra SCSI)** The #4314 provides an additional 3 ½-inch two-byte single disk unit with 8.58 GB capacity (7200 RPM). Prerequisite: #5065/#5066 PCI Expansion Tower with #2748 PCI RAID Disk Unit Controller. Minimum OS/400: V4R4 The #4314 is a Customer Install Feature (CIF). Supported in the #5065/#5066 PCI Expansion Tower only

#4317	**#4317 8.58 GB Disk Unit 10k RPM (Ultra2 SCSI)** The #4317 provides an additional 3 ½-inch single disk unit with 8.58 GB capacity. Prerequisite: #5065/#5066 PCI Expansion Tower with #2748 PCI RAID Disk Unit Controller. Minimum OS/400: V4R4 The #4317 is a Customer Install Feature (CIF). Supported in the #5065/#5066 PCI Expansion Tower only
#4318	**#4318 17.54 GB Disk Unit 10k RPM (Ultra2 SCSI)** The #4318 provides an additional 3 ½-inch single disk unit with 17.54 GB capacity. Prerequisite: #5065/#5066 PCI Expansion Tower with #2748 PCI RAID Disk Unit Controller. Minimum OS/400: V4R4 The #4318 is a Customer Install Feature (CIF). Supported in the #5065/#5066 PCI Expansion Tower only
#4324	**17.54 GB Additional Two-byte Disk Unit (Ultra SCSI)** The #4324 provides a 3 ½-inch single disk unit with 17.54 GB capacity for additional disk storage (7200 RPM). Prerequisite: #5065/#5066 PCI Expansion Tower with #2748 PCI RAID Disk Unit Controller. Minimum OS/400: V4R4 The #4324 is a Customer Install Feature (CIF). Supported in the #5065/#5066 PCI Expansion Tower only
#4331	**#4331 1.6 GB Read Cache Device** The #4331 provides 1.6 GB of capacity for large read cache function. It is mutually exclusive with DASD compression. The system arrives in performance mode with compression function turned off on the #2748 PCI RAID Disk Unit Controller. Prerequisite: #2748 PCI RAID Disk Unit Controller One DASD slot 1.6-inch Maximum: One per #2748 IOP Minimum OS/400: V4R4 The #4331 is a Customer Install Feature (CIF) Supported in the #5065/#5066 PCI Expansion Tower only
#6605	**1.03 GB Additional Two-byte Disk Unit** The #6605 provides a 3 ½-inch single disk unit with 1.03 GB capacity for additional disk storage. The #6505 is supported for upgrades only.
#6606 #9606	**1.96 GB Additional Two-byte Disk Unit** The #6606 provides a 3 ½-inch single disk unit with 1.96 GB capacity for additional disk storage. The #6606 is supported for upgrades only. The #9606 specifies a 1.96 GB base disk unit.
#6607 #7607	**4.19 GB Additional Two-byte Disk Unit** The #6607 provides a 3 ½-inch single disk unit with 4.19 GB capacity for additional disk storage. The #6607 is supported for upgrades only. The #7607 specifies an optional 4.19 GB base disk unit.
#6650	**1.96 GB Additional Two-byte Disk Unit** The #6650 provides a 3 ½-inch single disk unit with 1.96 GB capacity for additional disk storage. The #6650 is supported for upgrades only.
#6652	**1.03 GB Additional Two-byte Disk Unit** The #6652 provides a 3 ½-inch single disk unit with 1.03 GB capacity for additional disk storage. The #6652 is supported for upgrades only.
#6713 #7713 #8713	**#6713 8.58 GB Disk Unit (Two-byte) (Ultra SCSI)** The #6713 provides a 3 ½-inch single disk unit with 8.58 GB capacity for additional disk storage. For best performance, use attached to the #9751 or #9754 MFIOP, or #6532 or #6533 RAID Disk Unit Controller (Ultra SCSI) in the system unit; #5055, #5057, or #5058 Storage Expansion Unit; or #5083 Storage Expansion Tower. The #7713 and #8713 specify an optional 8.58 GB base disk. The #7713 is supported for upgrades only.
#6714 #8714	**#6714 17.54 GB Disk Unit (Two-byte) (Ultra SCSI)** The #6714 provides a 3 ½-inch single disk unit with 17.54 GB capacity for additional disk storage. For best performance, use attached to the #9751 or #9754 MFIOP, or #6532 or #6533 RAID Disk Unit Controller (Ultra SCSI) in the system unit; #5055, #5057, or #5058 Storage Expansion Unit; or #5083 Storage Expansion Tower. The #8714 specifies an optional 17.54 GB base disk. Minimum OS/400: V4R2 Minimum OS/400 to support integrated hardware disk compression: V4R4

#6717 #8617	**#6717 8.58 GB 10k RPM Disk Unit (Two-byte) (Ultra SCSI)** The #6717 provides a 3 ½-inch single disk unit with 8.58 GB capacity for additional disk storage. Supported in #5052, #5055, #5057, or #5058 Storage Expansion Units, or #5082, #5083 Storage Expansion Towers and in #9251 Base I/O Tower or Model 640 System Tower. For best performance when installed in Storage Expansion or Storage Expansion Tower, use the #6532 or #6533 RAID Disk Unit Controller (Ultra SCSI) in a #5058 or #5083. Not supported on #6502/#6512/#6530. The #8617 specifies an optional 8.58 GB base disk. Minimum OS/400: V4R3
#6718 #8618	**#6718 17.54 GB 10k RPM Disk Unit (Two-byte) (Ultra SCSI)** The #6718 provides a 3 ½-inch single disk unit with 17.54 GB capacity for additional disk storage. Supported in #5052, #5055, #5057, or #5058 Storage Expansion Unit, or #5082 or #5083 Storage Expansion Towers and in #9251 or Model 640 System Tower. For best performance when installed in Storage Expansion or Storage Expansion Tower, use the #6532 or #6533 RAID Disk Unit Controller (Ultra SCSI) in a #5058 or #5083. Not supported on #6502/#6512/#6530. The #8618 specifies an optional 17.54 GB base disk. Minimum OS/400: V4R4
#6906	**1.96 GB Additional Two-byte Disk Unit (Ultra SCSI)** The #6906 provides a 3 ½-inch single disk unit with 1.96 GB capacity for additional disk storage. For best performance, use attached to the #9751 or #9754 MFIOP, or #6532 or #6533 RAID Disk Unit Controller (Ultra SCSI) in the system unit; #5055, #5057, or #5058 Storage Expansion Unit; or #5083 Storage Expansion Tower.
#6907 #9907	**4.19 GB Additional Two-byte Disk Unit (Ultra SCSI)** The #6907 provides a 3 ½-inch single disk unit with 4.19 GB capacity for additional disk storage. For best performance, use attached to the #9751 or #9754 MFIOP, or #6532 or #6533 RAID Disk Unit Controller (Ultra SCSI) in the system unit; #5055, #5057, or #5058 Storage Expansion Unit; or #5083 Storage Expansion Tower. The #9907 specifies a 4.19 GB base disk included with Model 640 or 650 orders and with upgrades to these Models from CISC Models.
INTERNAL CD-ROM AND TAPE UNITS	
#1379	**1.2 GB ¼-inch Cartridge Tape Unit Conversion Kit** The #1379 provides the hardware for migrating 1.2 GB ¼-inch cartridge tape units. The #1379 migrates the #1349, #5348, #6348, #6368, #7348, #8348, or #9348 Tape Units. Attaches to the #2621, #6513, #9751, or #9754 MFIOP.
#1380	**2.5 GB ¼-inch Cartridge Tape Unit Conversion Kit** The #1380 provides the hardware for migrating 2.5 GB ¼-inch cartridge tape units. The #1380 migrates the #1350, #5349, #6349, #6369, #7349, #8349, or #9349 Tape Units. Attaches to the #2621, #6513, #9751, or #9754 MFIOP.
#4425	**#4425 CD-ROM** Supported only in #5065 Storage/PCI Expansion Tower. Prerequisite: #2748 PCI RAID Disk Unit Controller Minimum OS/400: V4R4 The #4425 is a Customer Install Feature (CIF).
#4482	**#4482 4 GB ¼-inch Cartridge Tape Unit** Supported only in #5065 Storage/PCI Expansion Tower. The #4482 can be used for save/restore, alternate IPL, migration, and ¼-inch cartridge tape exchange using the appropriate media and density. This tape unit is not compatible with System/36 ¼-inch cartridge tape units. The #4482 is a Customer Install Feature (CIF).
#4483	**#4483 16 GB ¼-inch Cartridge Tape Unit** Supported only in #5065 Storage/PCI Expansion Tower. The #4483 can be used for save/restore, alternate IPL, migration, and ¼-inch cartridge tape exchange using the appropriate media and density. This tape unit is not compatible with System/36 ¼-inch cartridge tape units. The #4483 is a Customer Install Feature (CIF).
#4486	**#4486 25 GB ¼-inch Cartridge Tape Unit** The #4486 can be used for save/restore, alternate IPL, migration, and ¼-inch cartridge tape exchange using the appropriate media and density. This tape unit is not compatible with System/36 ¼-inch cartridge tape units. The #4485 is a Customer Install Feature (CIF). Supported only in #5065 Storage/PCI Expansion Tower.
#4487	**#4487 50 GB ¼-inch Cartridge Tape Unit** The #4487 can be used for save/restore, alternate IPL, migration and ¼-inch cartridge tape exchange using the appropriate media and density. The #4487 tape unit is not compatible with System/36 ¼-inch cartridge tape units. Supported only in the #5065 Storage/PCI Expansion Tower. Prerequisite: #2748/#2778 PCI RAID Disk Unit Controller. Minimum OS/400: V5R1 The #4487 is a Customer Install Feature (CIF).

#5032	**Removable Media Device Cluster Box** The #5032 is a rack-mounted unit that allows the attachment of between one and four #6368 1.2 GB or #6369 2.5 GB ¼-inch cartridge tape units. The #5032 is supported for upgrades only. Attaches to the #2621 Storage Device Controller.
#6325	**#6325 Optional CD-ROM** The #6325 is available on #5072/#5073 1063 Mbps System Unit Expansion Tower. Limits the use of tape in the same tower to the #6380 and #6390. Maximum three per I/O tower. Prerequisite: #2624 Storage Device Controller. Minimum OS/400: V4R4
#6368	**1.2 GB ¼-inch Cartridge Tape Unit** The #6368 can be used for save/restore, alternate IPL, migration, and ¼-inch cartridge tape exchange using the appropriate media and density. This tape is installed in a #5032. The #6358 is supported for upgrades only.
#6369	**#6369 2.5 GB ¼-inch Cartridge Tape Unit** The #6369 can be used for save/restore, alternate IPL, migration, and ¼-inch cartridge tape exchange using the appropriate media and density. This tape is installed in a #5032. The #6369 is supported for upgrades only.
#6380	**#6380 2.5 GB ¼-inch Cartridge Tape Unit** The #6380 can be used for save/restore, alternate IPL, migration, and ¼-inch cartridge tape exchange using the appropriate media and density. The #6380 is supported for upgrades only. Attaches to the #2624, #6513, #9751, or #9754 MFIOP.
#6381	**#6381 2.5 GB ¼-inch Cartridge Tape** The #6381 can be used for save/restore, alternate IPL, migration, and ¼-inch cartridge tape exchange using the appropriate media and density. Attaches to the #6513, #9751, or #9754 MFIOP.
#6382	**#6382 4 GB ¼-inch Cartridge Tape Unit** The #6382 can be used for save/restore, alternate IPL, migration, and ¼-inch cartridge tape exchange using the appropriate media and density. This tape unit is not compatible with System/36 ¼-inch cartridge tape units. Attaches to the #6513, #9751, or #9754 MFIOP.
#6383	**#6383 16 GB ¼-Inch Cartridge Tape Unit** The #6383 can be used for save/restore, alternate IPL, migration, and ¼-inch cartridge tape exchange using the appropriate media and density. This tape unit is not compatible with System/36 ¼-inch cartridge tape units. Supported only in the #5072, #5073 or #9251 Towers and in the Model 640 System Tower. One can be controlled by the MFIOP. Additional #6383s must be controlled by the #6513.
#6385	**#6385 13 GB ¼-Inch Cartridge Tape Unit** The #6385 can be used for save/restore, alternate IPL, migration, and ¼-inch cartridge tape exchange using the appropriate media and density. This tape unit is not compatible with System/36 ¼-inch cartridge tape units. Attaches to the #6513, #9751, or #9754 MFIOP.
#6386	**#6386 25 GB ¼-inch Cartridge Tape Unit** The #6386 can be used for save/restore, alternate IPL, migration, and ¼-inch cartridge tape exchange using the appropriate media and density. This tape unit is not compatible with System/36 ¼-inch cartridge tape units. Attaches to the #6513, #9751, or #9754 MFIOP.
#6390	**#6390 7 GB 8 mm Cartridge Tape Unit** The #6390 can be used for save/restore, alternate IPL, migration, and 8 mm cartridge tape exchange using the appropriate media and density. Attaches to the #2624, #6513, #9751, or #9754 MFIOP.
MAGNETIC MEDIA CONTROLLERS	
#2621	**#2621 Storage Device Controller** The #2621 provides attachment for one or two of these devices with hardware data compression for tapes: 2440, 9348, 7208, 3995, 9427, and #5032. Dual drive 7208s count as two devices. If the #2621 supports a 3995 or #5032, it must be dedicated to it. If the #2621 supports a 9427, attach the 9427 to both ports of the #2621. Card slots required: One Maximum: Four for external tape; two for #5032; 22 for 3995
#2624	**#2624 Storage Device Controller** The #2624 provides support for up to three internal tape drives. With the addition of #6146 it supports one external diskette drive. Supports the #6325 Optional CD-ROM in #5072/#5073 1063 Mbps System Unit Expansion Towers. Card slots required: One Maximum: Seven for internal tape, two for diskette

#2644	**#2644 Magnetic Tape Attachment Card/HP** The #2644 provides attachment for 3422, 3430, 3480, 3490 Axx, 3490 Bxx, 3490 Dxx, 3490E Axx, 3490E Bxx, 3490E Cxx, and 3490E Dxx Tape Subsystem Models. Also requires #9980 Serpentine Cable except for 3490E Cxx when ordered with internal cables. Card slots required: One Maximum: Eight
#2718	**#2718 PCI Magnetic Media Controller** The #2718 provides SCSI attachment for one 7207-122 QIC-SLR Tape Bridge Box (4 GB External ¼-inch Cartridge Tape Drive) (4 GB ¼ inch cartridge external tape drive), 7208-345 60GB External 8mm Tape Drive, 7210-020 CD ROM, or 7210-025 DVD-RAM. See 16.7.4, "#2718/#2768 PCI Magnetic Media Controller: Device cabling rules" on page 530, for information on connecting devices to the #2718. High-speed PCI slots required: One Prerequisite: #2824 PCI Feature Controller and #5065 Storage/PCI Expansion Tower Maximum: Three in the #5065 Minimum OS/400 to support the 7210-020 and 7208-345: V4R5 Minimum OS/400 to support the 7210-025: V5R1
#2729	**#2729 PCI Magnetic Media Controller** The #2729 provides SCSI attachment for one 3490E Exx, 3490E Fxx, 3490E Cxx with #5040, 3494 D1x or L1x, 3570, 3575, 3590, 7208, 9348 or 9427 Tape Drive, or 3995 C4x Optical Library Dataserver. High-speed PCI slots required: One. Prerequisite: #2824 PCI Feature Controller and #5065 Storage/PCI Expansion Tower Maximum: Three in the #5065.
#2748	**#2748 PCI RAID Disk Unit Controller–26 MB Cache (RAID Mirrored/Unprotected) (Ultra2 SCSI)** The #2748 is Ultra2 SCSI capable when installed in the #5065 Storage/PCI Expansion Tower. The #2748 has a 26 MB write-cache and provides RAID-5 protection and compression for internal disk units. It supports up to 15 disks. A minimum of four drives and a maximum of ten drives are supported in each array. A maximum of three arrays are allowed for each #2748. The #2748 supports both compression and non-compression modes. The mode is determined by a hardware jumper on the card. The #2748 also supports #4331 1.6 GB Read Cache Device. It supports up to two internal tapes and CD-ROM. Supports #1349, #1350, #1355, #1360, #4482, #4483, #4486, #6480, #6481, #6482, #6483, #6485, #6486, or #6490 tape units. High-speed PCI slots required: One Prerequisite: #5065 Storage/PCI Expansion Tower Minimum OS/400:V4R4 Maximum: Three per #5065
#2778	**#2778 PCI RAID Disk Unit Controller–104 MB Cache (RAID Mirrored/Unprotected) (Ultra2 SCSI)** The #2778 is an Ultra2 SCSI controller with a maximum compressed write cache size of 104 MB that provides RAID-5 protection and compression for internal disk units and supports internal tape units and CD-ROMs. The #2778 supports both disk compression and enhanced modes. The mode of operation is determined by a hardware jumper and disk compression mode should only be used when disk compression is desired. In addition to providing RAID-5 protection for disks, the #2778 is also designed to work as a high performance controller for disks protected by system mirroring or disks with no protection. A minimum of four disk units of the same capacity are needed for a valid RAID-5 configuration. A maximum of four arrays are allowed per controller, with a maximum of 10 disk units allowed per array. All disk units in an array must be of the same capacity. The #2778 also supports the #4331 1.6 GB Read Cache Device, which is used by Extended Adaptive Cache to provide increased performance. The #4331 1.6 GB Read Cache Device is supported only when #2778 is in enhanced mode. The #2778 controller supports a maximum of 15 disk units. The #2778 controls up to two removable media devices (internal tape or CD-ROM). Maximums: Three (in combination with #2748) per #5065 Storage/PCI Expansion Tower. Six (in combination with #2748) per #5066 1.8 M I/O Tower. Prerequisite: An available High-speed SCSI slot in #5065/#5066 PCI Expansion Tower Minimum OS/400: V5R1
#6112	**Magnetic Storage Device Controller** The #6112 provides attachment for up to two 9331-001 or 002 Diskette Units and up to two 9347 Tape Units. The #6112 is supported for upgrades only. Card slots required: One Maximum: Two for 9331, two for 9347
#6146	**#6146 Diskette Adapter (SPD)** The #6146 provides attachment for one 9331 011 or 012 Diskette Unit. Card slots required: None Prerequisite: #2624 Storage Device Controller Maximum: Two

#6500	**Direct Access Storage Device Controller** The #6500 provides attachment for one 9337 0xx or 1xx Disk Unit. The #6500 is supported for upgrades only. Card slots required: One
#6501	**Tape/Disk Device Controller** The #6501 provides attachment for up to two 9337 2xx, 4xx, or 5xx Models. Also supports up to two 3490E Cxx with #5040, 3490E Exx, 3490E Fxx, 3494 Lxx or Dxx, 3570, 3575, or 3590 Models. Also provides attachment for 2105 Versatile Storage Server. DASD and Tape Units cannot be mixed on the same #6501. The #6534 is used in preference to #6501 if it supports the tape device being configured. Card slots required: One Maximum: Eight for tape; for disk, see the model overview tables at the beginning of this chapter.
#6502	**RAID Disk Unit Controller–2 MB Cache (RAID/Mirrored/Unprotected)** The #6502 provides RAID protection and a 2 MB write-cache for up to 16 disks located in the #5052 or #5058 Storage Expansion Unit or the #5082 or #5083 Storage Expansion Tower. A minimum of four drives and a maximum of 10 drives are supported in each array. A maximum of two arrays are allowed for each #6502. The #6502 is supported for upgrades. The #6502 is not capable of integrated hardware disk compression. Card slots required: One
#6512	**#6512 High Performance Controller–4 MB Cache (RAID/Mirrored/Unprotected)** The #6512 provides RAID protection and a 4 MB write-cache for up to 16 disks located in #5052 or #5058 Storage Expansion Unit, #5082 or #5083 Storage Expansion Tower. A minimum of four drives and a maximum of 10 drives are supported in each array. A maximum of two arrays are allowed for each #6512. The #6512 is supported for upgrades. The #6512 is not capable of integrated hardware disk compression. Card slots required: One
#6513	**Internal Tape Device Controller** The #6513 provides support for up to two internal tape drives when located in Model 650 system unit or four internal tape drives when located in #5072/#5073 1063 Mbps System Unit Expansion Tower. The #6513 is the default controller unless a #2624 is installed. Supports #1379, #1380, #6380, #6381, #6382, #6383, #6385, #6386, and #6390 Tape Units. Card slots required: One Maximum: Five
#6530	**Disk Unit Controller–No Cache (Mirrored/Unprotected)** Controller for up to 16 disks located in #5052 or #5058 Storage Expansion Unit, or #5082 or #5083 Storage Expansion Tower. The #6530 is supported for upgrades. The #6530 is not capable of integrated hardware disk compression. Card slots required: One.
#6532	**#6532 RAID Disk Unit Controller–4 MB Cache (RAID/Mirrored/Unprotected) (Ultra SCSI)** Ultra SCSI Controller for up to 16 disks installed in #5058 Storage Expansion Units or #5083 Storage Expansion Tower. Also supports disks located in #5052 Storage Expansion Unit, or #5082 Storage Expansion Tower, but these is not at Ultra SCSI speeds. Offers performance improvements over #6502, #6512, and #6530. A minimum of four drives and a maximum of ten drives are supported in each array. A maximum of four arrays are allowed for each #6532. The #6532 is not capable of integrated hardware disk compression. Card slots required: One
#6533	**#6533 RAID Disk Unit Controller –4 MB Cache (RAID/Mirrored/Unprotected) (Ultra SCSI)** Ultra SCSI Controller for up to 16 disks installed in #5058 Storage Expansion Unit or #5083 Storage Expansion Tower. Also supports disks located in #5052 Storage Expansion Unit, or #5082 Storage Expansion Tower, but not at Ultra SCSI speeds. Offers performance improvements over #6502, #6512, and #6530. A minimum of four drives and a maximum of ten drives are supported in each array. A maximum of four arrays are allowed for each #6533. Card slots required: One Minimum OS/400: V4R2 Minimum OS/400 to support integrated hardware disk compression: V4R3 Minimum OS/400 to support integrated hardware disk compression on #6714/#8714 17.54 GB Disk Units: V4R4
#6534	**#6534 Magnetic Media Controller (SPD) (Ultra SCSI)** The #6534 provides attachment for one 3490E Cxx with #5040, 3490E Exx, 3490E Fxx, 3494 L1x or D1x, 3570, 3575, 3590, 7208, 9348, or 9427 Tape Drive or 3995 C4x Optical libraries Dataserver. Card slots required: One Maximum: Eight Minimum OS/400 to support the 3995: V4R2

#9751	**MFIOP with RAID–4 MB Cache (RAID/Mirrored/Unprotected) (Ultra SCSI)** The #9751 is an Ultra SCSI controller for up to 20 disks installed in the system unit and #5055 or #5057 Storage Expansion Unit. On the Model 640, disks 1 to 12 can be located in the system unit and 13 to 20 in the #5055 Storage Expansion Unit. On the Model 650, disks 1 to 4 can be located in the system unit and 5 to 20 in the #5057 Storage Expansion Unit. A minimum of four drives and a maximum of ten drives are supported in each array. A maximum of four arrays are allowed. The #9751 is not capable of integrated hardware disk compression. The #9751 has CCIN 6754. Card slots required: Two Maximum: One
#9754	**#9754 MFIOP with RAID–4 MB Cache (RAID/Mirrored/Unprotected) (Ultra SCSI)** The #9754 MFIOP is an Ultra SCSI controller for up to 20 disks installed in the system unit and #5055 or #5057 Storage Expansion Unit. On the Model 640, disks 1 to 12 can be located in the system unit and 13 to 20 in the #5055 Storage Expansion Unit. On the Model 650, disks 1 to 4 can be located in the system unit and 5 to 20 in the #5057 Storage Expansion Unit. A minimum of four drives and a maximum of 10 drives are supported in each array. A maximum of four arrays are allowed. The #9754 is standard on all systems ordered with V4R2. Card slots required: Two Maximum: One Minimum OS/400 to support integrated hardware disk compression: V4R3 Minimum OS/400 to support integrated hardware disk compression on #6714/#8714 17.54GB Disk Units: V4R4 The #9754 has CCIN 6754.

10.14 Upgrades to Model 600, 620, 640, and 650

10.14.1 Models 2xx, 3xx, 4xx, and 5xx to Model 6xx

The process of upgrading to an AS/400e based on RISC Technology from CISC Technology (F, 2xx, and 3xx models) requires careful planning. Refer to *AS/400 Roadmap for Changing to PowerPC Technology*, SA41-5150, for information on planning, ordering, and executing upgrades to RISC Models.

The following table indicates the valid upgrades to 6xx models. B, C, D, and E models cannot be upgraded to 6xx Models. It also shows the percentage increase in power given by the announced upgrade paths.

Effective 31 March 1999, these upgrades were withdrawn from marketing:
- Fxx to 6xx
- 200 to 6xx
- 3X0 to 6xx

From 9402/4/6		To 9402/9404/9406 Model 600, 620, 640, and 650															
		600				620					640			650			
	Proc	#2129	#2134	#2135	#2136	#2175	#2179	#2180	#2181	#2182	#2237	#2238	#2239	#2240	#2243	#2188	#2189
Model	RSP CPW[1]	22.7	32.5	45.4	73.1	50.0	85.6	113.8	210.0	464.3	319.0	583.3	998.6	1794	2340	3660	4550
F02	5.5	313%	491%	725%													
F04	7.3	211%	345%	522%	901%												
F06	9.6	136%	239%	373%	661%												
F10	9.6	136%	239%	373%	661%	420%	792%										
F20	11.6	96%	180%	291%	530%	331%	638%	881%									
F25	13.7	66%	137%	231%	434%	265%	525%	731%									
F35	13.7	66%	137%	231%	434%	265%	525%	731%									
F45	17.1		90%	165%	327%	192%	401%	565%									
F50	27.8					80%	208%	309%	655%								

From 9402/4/6		To 9402/9404/9406 Model 600, 620, 640, and 650															
		600				620					640			650			
	Proc	#2129	#2134	#2135	#2136	#2175	#2179	#2180	#2181	#2182	#2237	#2238	#2239	#2240	#2243	#2188	#2189
Model	RSP CPW[1]	22.7	32.5	45.4	73.1	50.0	85.6	113.8	210.0	464.3	319.0	583.3	998.6	1794	2340	3660	4550
F60	40.0						114%	185%	425%	1064%	698%						
F70	57.0							100%	268%	715%	460%	923%					
F80	97.1								116%	378%	229%	501%					
F90	127.7								64%	264%	150%	357%	682%				
F95	148.8										114%	292%	571%				
F97	177.4										80%	229%	463%	911%			
236[3]	16.3			179%	348%	207%	425%	598%									
200/#2030	7.3	211%	345%	522%	901%	585%	1073%										
200/#2031	11.6	96%	180%	291%	530%	331%	638%	881%									
200/#2032	16.8		93%	170%	335%	198%	410%	577%									
400/#2130[2]	13.8	64%	136%	229%	430%	262%	520%	725%									
400/#2131[2]	20.6		58%	120%	255%	143%	316%	452%	919%								
400/#2132[2]	27.0			68%	171%	85%	217%	321%	678%								
400/#2133[2]	33.3				120%		157%	242%	531%								
436/#2102	16.3			179%	348%	207%	425%	598%									
436/#2104	20.6			120%	255%	143%	316%	452%	919%								
436/#2106	27.4							315%	666%								
300/#2040	11.6	96%	180%	291%	530%	331%	638%	881%									
300/#2041	16.8		93%	170%	335%	198%	410%	577%									
300/#2042	21.1		54%	115%	246%	137%	306%	439%	895%								
310/#2043	33.8						153%	237%	521%	1274%	844%						
310/#2044	56.5							101%	272%	722%	465%	932%					
320/#2050	67.5							69%	211%	588%	373%	764%					
320/#2051	120.3								75%	286%	165%	385%	730%				
320/#2052	177.4										80%	229%	463%	911%			
500/#2140	21.4					134%	300%	432%	881%								
500/#2141	30.7					63%	179%	271%	584%	1412%	939%						
500/#2142	43.9						95%	159%	378%	958%	627%	1229%					
510/#2143	77.7							46%	170%	498%	311%	651%	1185%				
510/#2144	104.2								102%	346%	206%	460%	858%				
530/#2150	131.1										143%	345%	662%	1268%			
530/#2151	162.7										96%	259%	514%	1003%			
530/#2152	278.8											109%	258%	543%	739%	1213%	
530/#2153	459.3												117%	291%	409%	697%	890%
530/#2162	509.9												96%	252%	359%	618%	792%
Note 1	Relative system performance (Commercial Processing Workload (CPW)). For the 6x0 models, this is based on V4. For the "from" model, this is based on V3R1 for CISC boxes and V3R7 for RISC boxes. Boxes still on V3R6, therefore, see greater improvements.																
Note 2	400 includes package Models 40E, 40G, 40L, 41E, 41G, 41L, 42E, 42G, and 42L.																
Note 3	The 236 does not run OS/400. However, the 436-2102 has an equivalent processor so the figures for that have been used.																

All new systems are a 9406 machine type (for example, 9406 Model 600). However, AS/400e servers that are upgraded from a 9402 or 9404 retain that machine type number to become a 9402/9404 Model 6xx, despite the fact that physically, it is the same as a 9406 6xx.

10.14.2 Model 6xx to Model 6xx upgrades

From 9402/4/6		To 9402/9404/9406 Model 600, 620, 640, and 650															
		600				620					640			650			
	Proc	#2129	#2134	#2135	#2136	#2175	#2179	#2180	#2181	#2182	#2237	#2238	#2239	#2240	#2243	#2188	#2189
Model	RSP CPW[1]	22.7	32.5	45.4	73.1	50.0	85.6	113.8	210.0	464.3	319.0	583.3	998.6	1794	2340	3660	4550
600 #2129	22.7		43%	100%	222%	120%	277%	401%	825%								
#2134	32.5			40%	125%	54%	163%	250%	546%								
#2135	45.4				61%		89%	151%	363%	923%							
#2136	73.1							56%	187%	535%							
620 #2175	50.0						71%	128%	320%	829%	538%						
#2179	85.6							33%	145%	442%	273%	581%					
#2180	113.8								85%	308%	180%	413%	718%				
#2181	210.0									121%	52%	178%	376%	754%			
#2182	464.3												115%	286%	404%	688%	880%
640 #2237	319.0											83%	213%	462%	634%	1047%	
#2238	583.3												71%	208%	301%	527%	680%
#2239	998.6													80%	134%	267%	356%
650 #2240	1794														30%	104%	154%
#2243	2340															56%	94%
#2188	3660																24%
#2189	4550																

10.14.3 Upgrade considerations for CISC-based models to RISC-based AS/400e 6xx models

Refer to 19.2, “Supported OS/400 upgrade paths” on page 571, to identify the supported software upgrade paths for OS/400.

1. OS/400 Version 4 is a prerequisite for all 6xx models.
2. Prior to ordering an upgrade from CISC to the 6xx models, customers should order 5798-TBU. They receive *AS/400 Roadmap for Changing to PowerPC Technology*, SA41-5150, as well as the Upgrade Assistant PTFs that allows them to plan, order, and execute the upgrade.
3. If upgrading from a RISC Model to the 6xx models, customers should consult *System Upgrade Roadmap (RISC to RISC)*, SA41-5155.
4. For physical planning information such as weights, dimensions, and power requirements of the 6xx models, customers should consult the *Physical Planning Reference Manual*, SA41-5109.
5. Consider the customer’s plans for growth before proposing an upgrade to a Model 600 as the Model 600 provides limited expansion for adapters. For example, if a fully configured Integrated PC Server supporting two LANs (token ring or Ethernet) is installed, space remains for four additional adapters, two of which are dedicated for use by the #2838 PCI

100/10 Mbps Ethernet IOA or #281x ATM IOAs and the #2729 PCI Magnetic Media Controller. Therefore, the Model 620 should be considered.

6. The Model 600 supports PCI cards only. Therefore, when upgrading to this model, all SPD cards have to be replaced. Most functions are supported with PCI format cards. However, these IOPs and adapters are not supported with PCI cards and are not supported on the Model 600:
   - Cryptographic processors
   - Fax Adapter
   - ASCII Adapters
   - ISDN Adapter
   - SDDI Adapter
   - FDDI Adapter
   - Wireless LAN
   - LocalTalk Adapter
7. All upgrades to 6xx models ship new system units.
8. Upgrades from Fxx, 2x0, and 3x0 models require increased main storage. The general rule is to double the existing memory except where the current memory is less than 160 MB when the recommendation is to double and add a further 16 MB. BEST/1 should be used to confirm these requirements.
9. Memory requirements should be planned with care due to the rule that on most 6xx processors memory must be installed in pairs or fours.
10. When moving from Fxx, 2x0, and 3x0 models to RISC models, application software must be in an observable format or have source code available or have a RISC-based version ready.
11. These racks are supported with the 9406 RISC models:
    - 9309 - #9171: General Purpose Rack with SPCN (stage 2)
    - 9406 - #5044: Converted D/E/F System (#5042) or Bus (#5040) Extension Unit)
    - 9406 - #5043: Converted D/E/F system unit (equivalent to 9309-#9171)
    - 9309 - #9141: General Purpose Rack without SPCN (stage 1). Must connect to one of the above three racks for power control.

    The #9141 can attach to all system units if a jumper (P/N 93X0167) is installed. This is only recommended if the rack contains tape or diskette (not on Model 600). The #9141 can be converted to a #9171 using chargeable RPQ 843849. Older racks can be converted to the #9141 rack.
12. Upgrades from Fxx, 2x0, and 3x0 have a 4.19 GB disk included with the upgrade. Upgrades from 4x0 and 5x0 do not. No other disks are included unless ordered. Version 4 Release 1, Release 2, and Release 3 require more disk space than Version 3 Release 6 or Release 7. Refer to the *Software Installation Guide*, SC41-5120.
13. A CD-ROM drive is included on all RISC based models. All IBM AS/400e software is now shipped on CD-ROM for these models.
14. The CD-ROM on the 6xx models is not identified by a feature. This also applies to base memory on the 600/620 models.
15. It is likely that conversion kits is required for internal tapes and disk units. Therefore, the expected placement of such units should be checked to ensure the correct number of these kits are ordered. It should be noted that the same feature code kit may contain different parts depending on which model it is placed in. And, the same tape unit may require different kits depending on what model it is placed in.

16. AS/400e RISC-based models use a substantially faster bus. All existing tower or racks have to have their bus controller converted to the faster bus controller using conversion kits.
17. No 320 MB, 400 MB, 640 MB (dual), 800 MB (dual), 988 MB, or 1976 MB (dual) disk units are supported on the 6xx model range and these must be replaced.
18. The 120 MB and 525 MB ¼-inch cartridges and the 840 MB ¼-inch cartridge mini-cartridge tape units are not supported on the 6xx models.
19. Be aware of card technology changes from PCI to SPD when upgrading a Model 620 to a 640 or 650.
20. The use of CFAS400 or the PC-based Portable Configurator PCAS400 is mandatory for all upgrades.

10.14.4 Upgrade specify codes/options on CISC-to-RISC upgrades

Replacing the release (#0200): This no-charge specify code denotes the upgrade is done using the Replacing the Release method. This upgrade method may be used for upgrading systems running OS/400 Version 3 Release 1 or Release 2 or Version 3 Release 2. The Replacing the Release method is based on user objects remaining on the DASD units throughout the upgrade process. All supported DASD units are retained in the upgrade to the Version 4 system. To prepare the DASD units on the prior release system for the prior to the upgrade, run the Disk Preparation Utility to prepare the DASD units on the prior release system for the 4 KB page size. All necessary object conversions are done by the system as part of the upgrade. This is the preferred approach for larger systems when all DASD units are moved to the Version 4 system. Replacing the release reduces potential problems caused by save/restore and tape handling. It is the method most commonly used by AS/400e customers. This upgrade method keeps the same serial number.

Unload/reload (#0201): This no-charge specify code denotes the upgrade is done using the Unload/reload upgrade method. This method consists of unloading user applications and data to tape, upgrading the hardware, installing OS/400 Version 4 and reloading the user applications and data. This approach is attractive for smaller systems, and reduces upgrade time compared to replacing the release. It may also be an effective method for upgrading common programs and files on multiple systems. This upgrade method keeps the same serial number unless ordered with the #0203.

Staged upgrade offering (#0202): This priced option provides an upgrade alternative that allows a customer to use the upgrade hardware for a limited period of time to translate and validate user applications prior to the actual upgrade. This option is available using either the #0200 (Replacing the Release) or #0201 (Unload/Reload) methods. This priced offering requires careful advance planning. *AS/400 Roadmap for Changing to PowerPC Technology*, SA41-5150, describes this offering in detail. This hardware is delivered with this option:

- Power/Frame/Covers/Power Cord
- Processor card
- Base memory
- Feature memory
- Base DASD
- Feature DASD

The customer can order optional features for inclusion in this hardware package. This package does not include a workstation controller, a tape adapter (or internal tape drive), or a communications adapter to allow transferring of data and programs. The customer needs to supply these for the duration of the transition. These can be “borrowed” from the current system, if possible.

Side-by-side Install (#0203): This no-charge specify code is used to alert IBM service representatives of the intention to install a new system concurrently with an existing system, and over time, move applications to the new system. This method may be used when adding a system to an existing complex or network, or when a replaced system is being moved to another location. *AS/400 Roadmap for Changing to PowerPC Technology,* SA41-5150, describes this option in detail. This is a new system and, therefore, results in a new serial number.

Staged side-by-side upgrade (#0204): This no-charge specify code denotes that the Staged side-by-side upgrade method is used. Feature #0202 (Staged Upgrade Offering) is a prerequisite that provides a base functional RISC system that is used to translate and validate user applications prior to the actual upgrade. The #0204 assumes that the customer is purchasing enough disk storage (and other features as necessary) to completely duplicate the disk storage of their production CISC machine. The #0204 also indicates that the upgrade is performed using a method similar to the Side-by-side install method (#0203), which is described in *AS/400 Roadmap for Changing to PowerPC Technology*, SA41-5150. This offering requires careful advanced planning. This upgrade method keeps the same serial number.

10.14.5 Upgrade specify code/option for RISC-to-RISC data migration

RISC-to-RISC data migration (#0205): This specify code is used when a customer has ordered a new (RISC) AS/400e server to replace an existing (RISC) AS/400e server. The #0205 is orderable on any initial order AS/400e server 170 model or 7xx model. Preloading licensed programs, in manufacturing, is not allowed with #0205. Manufacturing only loads SLIC up through QSYS of OS/400 when the #0205 is on an order.

The #0205 and #5000 are mutually exclusive.