

AS/400e 170 or 250



285A and 285x or 2866 Integrated NetFinity Server Card Instruction

Version 4

AS/400e 170 or 250



285A and 285x or 2866 Integrated NetFinity Server Card Instruction

Version 4

Note

Before using this information and the product it supports, be sure to read the "Safety and Environmental Notices" on page iii and the "Notices" on page 23.

Fifth Edition (July 2000)

This edition applies only to reduced instructions set computer (RISC) systems.

© Copyright International Business Machines Corporation 1998, 2000. All rights reserved.

US Government Users Restricted Rights – Use, duplication or disclosure restricted by GSA ADP Schedule Contract with IBM Corp.

Safety and Environmental Notices

Danger Notices

A danger notice calls attention to a situation that is potentially lethal or extremely hazardous to people.

DANGER

An electrical outlet that is not correctly wired could place hazardous voltage on metal parts of the system or the products that attach to the system. It is the customer's responsibility to ensure that the outlet is correctly wired and grounded to prevent an electrical shock. (RSFTD201)

DANGER

To prevent a possible electrical shock when installing the system, ensure that the power cords for all devices are unplugged before installing signal cables. (RSFTD202)

DANGER

To prevent a possible electrical shock when adding or removing any devices to or from the system, ensure that the power cords for those devices are unplugged before the signal cables are connected or disconnected. If possible, disconnect all power cords from the existing system before you add or remove a device. (RSFTD203)

DANGER

To prevent a possible electrical shock during an electrical storm, do not connect or disconnect cables or station protectors for communications lines, display stations, printers, or telephones. (RSFTD003)

DANGER

To prevent a possible electrical shock from touching two surfaces with different electrical grounds, use one hand, when possible, to connect or disconnect signal cables. (RSFTD004)

Caution Notices

A caution notice calls attention to a situation that is potentially hazardous to people because of some existing condition.

CAUTION:

Telecommunications Statement: This unit contains over-voltage circuits between the ac power outlet and the unit. These circuits meet the standard limits described in International Electrical Commission (IEC) 664, installation category II. It is the customer's responsibility to ensure that the power outlet meets the standards of IEC 664, installation category II. (RSFTC214)

Laser Safety Information

CAUTION:

This product may contain a CD-ROM which is a class 1 laser product.
(RSFTC240)

Product Recycling and Disposal

Components of the system, such as structural parts and circuit cards, can be recycled where recycling facilities exist. IBM does not currently collect and recycle used IBM products from customers in the United States other than those products that are involved in trade-in programs. Companies are available to disassemble, reutilize, recycle, or dispose of electronic products. Contact an IBM account representative for more information.

The system unit contains batteries and circuit boards with lead solder. Before you dispose of this unit, these batteries and circuit boards must be removed and discarded according to local regulations or recycled where facilities exist. This book contains specific information on each battery type where applicable.

Battery Return Program

In the United States, IBM has established a collection process for reuse, recycling, or proper disposal of used IBM batteries and battery packs. For information on proper disposal of the batteries in this unit, please contact IBM at 1-800-426-4333. Please have the IBM part number that is listed on the battery available when you make your call. For information on battery disposal outside the United States, contact your local waste disposal facility.

Environmental Design

The environmental efforts that have gone into the design of the system signify IBM's commitment to improve the quality of its products and processes. Some of these accomplishments include the elimination of the use of Class I ozone-depleting chemicals in the manufacturing process, reductions in manufacturing wastes, and increased product energy efficiency. For more information, contact an IBM account representative.

Installation Instructions

These instructions cover the installation of two cards:

- Feature 285A - Integrated NetFinity Server bridge (smaller) card
- Feature 285x or 2866 - (Card Number 2850) Integrated NetFinity Server card

This feature is customer installed. It will take approximately 1 hour to install the hardware. However, you may elect not to perform this feature installation yourself. You may contact IBM or an Authorized Dealer to make arrangements for them to perform the feature installation for a fee.

You need to allow additional time to complete your jobs, back up your system, IPL your system, and verify your hardware configuration.

- ___ 1. When you use these instructions, you will do the following:
 - Remove the system unit covers.
 - Install your new hardware.
 - Install covers.
 - IPL your operating system.
 - Verify your new hardware configuration.
- ___ 2. Some of the steps in these instructions may require a tool to remove the screws. Use a medium-sized standard screwdriver or a 5.5 mm socket wrench.
- ___ 3. Some of the pictures in these instructions may not look exactly like the system unit that you have. However, the steps to perform the task are the same.
- ___ 4. Before you begin:
 - Ensure that you have a current backup of your operating system and licensed programs. If you have backed up the operating system and licensed programs since the last time you applied PTFs, that backup is acceptable.
 - Ensure that you take a few minutes to become familiar with these instructions.
 - If there are incorrect, missing or visibly damaged parts, contact one of the following:
 - Your authorized dealer
 - Point of purchase (For example, IBM Direct)
 - IBM Rochester Manufacturing Automated Information Line (R-MAIL)
 - 1-800-300-8751 (United States)
 - 1-507-253-5242 (worldwide)
- ___ 5. Determine if there are any existing prerequisites before you install your new feature. Go to this Web site and locate your feature number and OS/400 release and check the prerequisites.

http://as400service.ibm.com/s_dir/slkbase.NSF/

Then do the following to get to the Customer Install Features Prerequisites:

- a. Select **All Documents**
- b. Select **Collapse**

- c. Select **General Information**
- d. Select **Offerings**
- e. Select **Feature Prerequisites**
- f. Select **Customer Install Features Prerequisites**

When you have the following cards, install them in the sequence listed below.

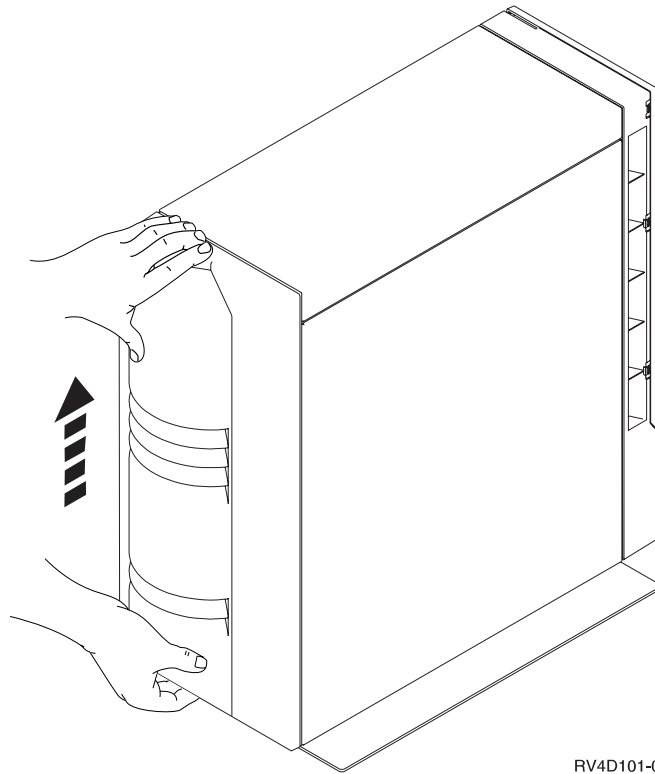
- The 2809 or 2824 LAN/WAN workstation card
- The 285x or 2866 Integrated NetFinity cards
- All other adapter cards

Getting Ready

- ___ 1. You can determine where to install the adapter card by using one of the following:
 - Web site located on the AS/400 home page at URL **WWW.AS400.IBM.COM**. Select **Configuration Station** and **Installable Feature Tool**. When the feature tool is complete, return here and go to step 2.
 - Card placement tables in these instructions. Go to step 2.
 - ___ 2. Ensure that all jobs are complete.
 - ___ 3. When all jobs are complete, type
`pwrdownsys *immed`

on an AS/400 command line and press the Enter key.
- Note:** Should you encounter difficulties during the installation, contact your authorized dealer or service provider.
- ___ 4. When the AS/400 is completely powered down, power off all PCs and devices, such as printers and displays, that are connected to the system unit.
 - ___ 5. Unplug any power cords, such as printers and displays, from electrical outlets.
 - ___ 6. Unplug the system unit power cords from the electrical outlet.
 - ___ 7. Remove the system unit back cover by placing your hand near the bottom of the cover and lifting up and out, (Figure 1 on page 3).

Note: Your *system unit* could be a single (base) unit or a double (base with an expansion) unit.



RV4D101-0

Figure 1. Remove System Unit Back Cover

Installing the Integrated NetFinity Server Cards

1. The adapter card slots are C03 through C09 in the base unit and E02 through E14 in the expansion unit, (Figure 2 on page 4).

Notes:

- a. Slots C01 or E01 are not available positions.
- b. Slot C02 is not visible on the back of the system unit.
- c. Fill the adapter card slots in the base unit first.

Note: Adapter cards installed in the base unit and adapter cards installed in the expansion unit have opposite orientations. Cards on one side look upside down if compared to cards on the other side.

- d. Slot C09 is easier to access when the plastic airflow baffle above it is removed. Reinstall the airflow baffle to ensure proper disk unit operation and cooling.

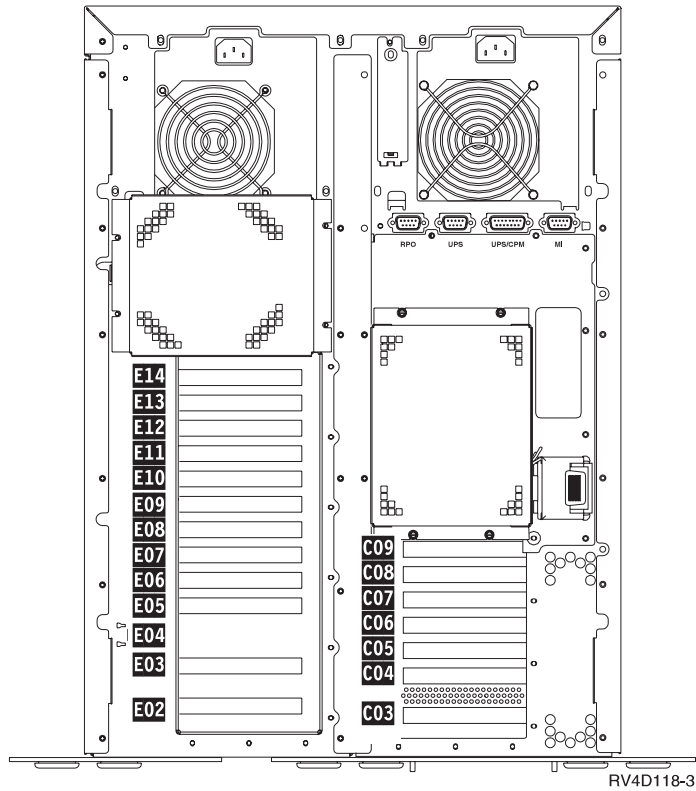


Figure 2. Adapter Card Positions

___ 2. Do you have card placement rules from step 1 on page 2?

No **Yes**

↓ Go to step 4.

___ 3. Do you have a card installed in position C04?

Yes **No**

↓ The 285x or 2866 Integrated NetFinity Server card will be installed in slot C02 and the 285A Integrated NetFinity Server bridge card will be installed in slot C04. Go to step 4 to remove the right side cover.

The 285x or 2866 Integrated NetFinity Server card will be installed in slot E04 and the 285A Integrated NetFinity Server bridge card will be installed in slot E02 in the expansion unit.

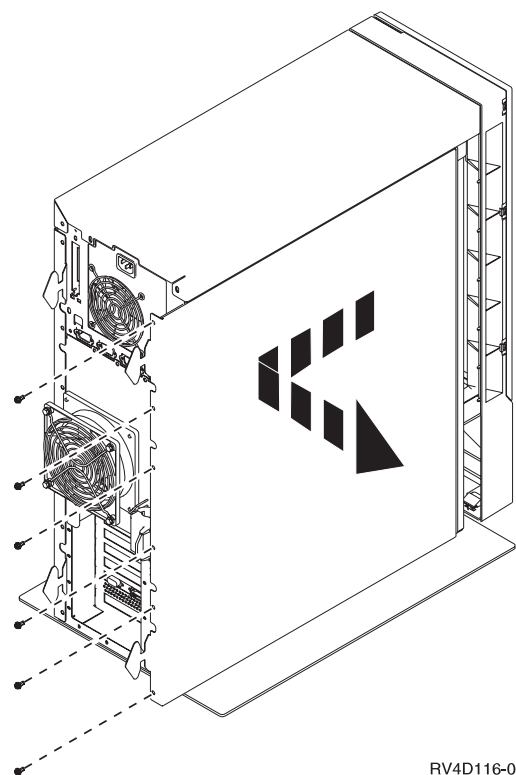
A 2809 or 2824 card must be installed in E07 for the Integrated NetFinity Server to function. Go to step 4 to remove the left side cover.

___ 4. Remove the side cover by removing the screws and sliding the cover from front to back until it stops. Pull the cover out (Table 1 on page 5).

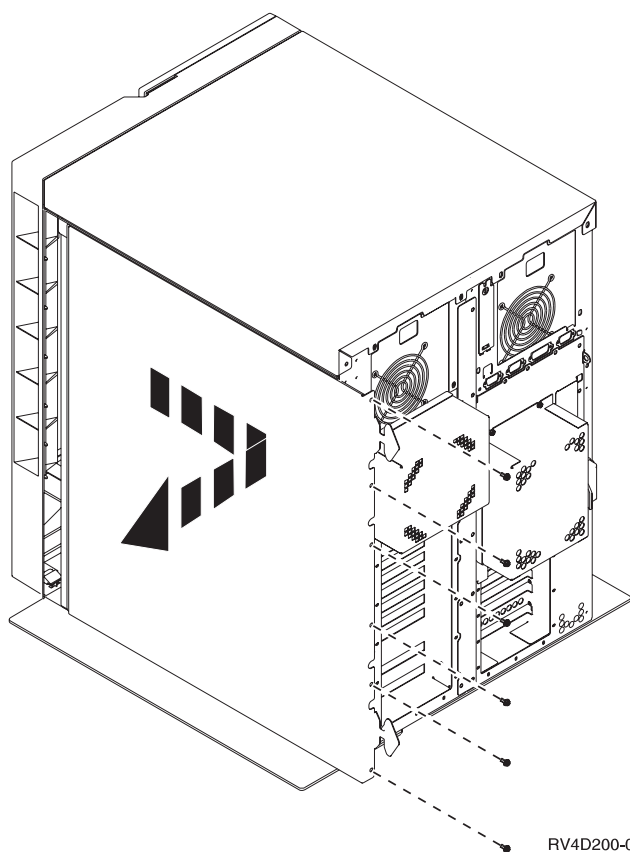
- Remove only the right side cover (looking at the back of the system unit), when installing a device in the base unit.
- Remove the left side cover, when you have an expansion unit, and when you have a device to install in the expansion unit.
- Remove both side covers, when you have an expansion unit, and when you have devices to install in both the base unit and expansion unit.

Table 1. Remove Side Cover

Right Side Cover



Left Side Cover



Your system unit contains a battery that only trained personnel can replace.

— 5. CAUTION:

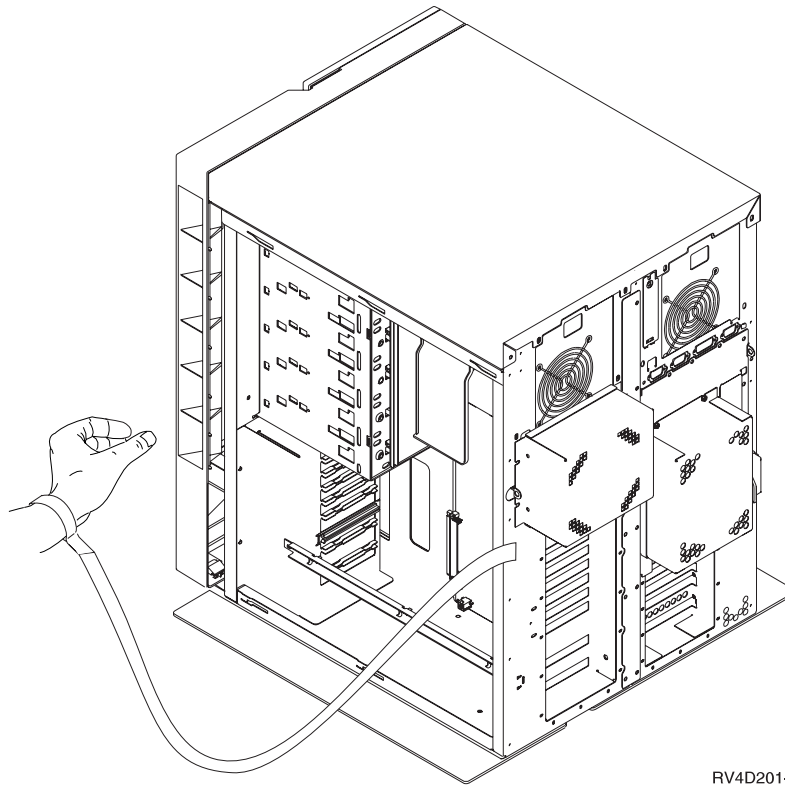
The battery is a lithium battery. Only trained service personnel may replace this battery using the instructions in the Problem Analysis, Repair, and Parts service manual. To avoid possible explosion, do not burn or charge the battery. Exchange only with the IBM-approved part. Discard the battery as instructed by local regulations. (RSFTC241)

— 6. Attach the disposable wrist strap to prevent electrostatic discharge from damaging a device. Figure 3 on page 6 shows an example of where to attach the adhesive part of the foil to an unpainted surface.

Notes:

- a. Follow the same precautions you would use without the wrist strap. The 2209 Disposable Wrist Strap is for static control. It will not increase nor decrease your risk of receiving electric shock when using or working on electrical equipment.
- b. Discard the wrist strap immediately and contact your dealer for a replacement, if the disposable wrist strap appears damaged or cut off. Do not continue until a new wrist strap is available.
- c. Remove the liner from the copper foil at the end, when you unroll the wrist strap.

- d. Attach the copper foil to an **exposed, unpainted** metal surface on the frame of the system unit (electrical ground).



RV4D201-0

Figure 3. Attach Wrist Strap

- ___ 7. Do you have an adapter card in C03 or E03?

Yes No

↓ Go to step 16 on page 11.

- ___ 8. **DANGER**

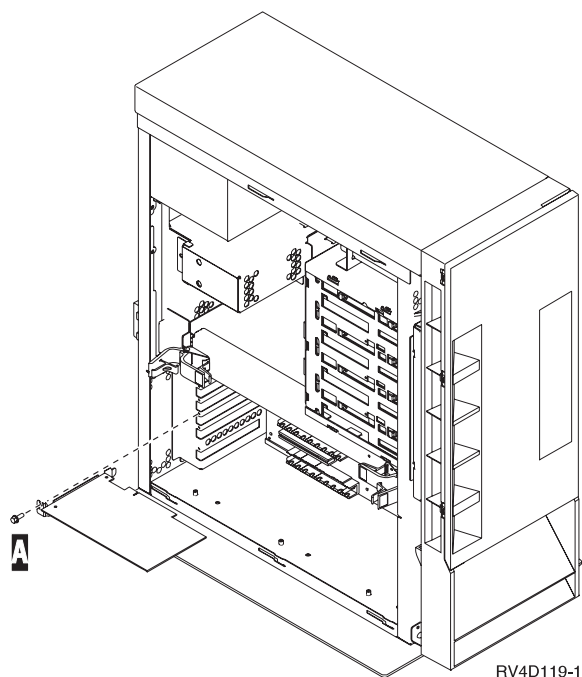
To prevent a possible electrical shock when adding or removing any devices to or from the system, ensure that the power cords for those devices are unplugged before the signal cables are connected or disconnected. If possible, disconnect all power cords from the existing system before you add or remove a device. (RSFTD203)

The card in slot C03 or E03 becomes inactive. Remove the card by doing the following:

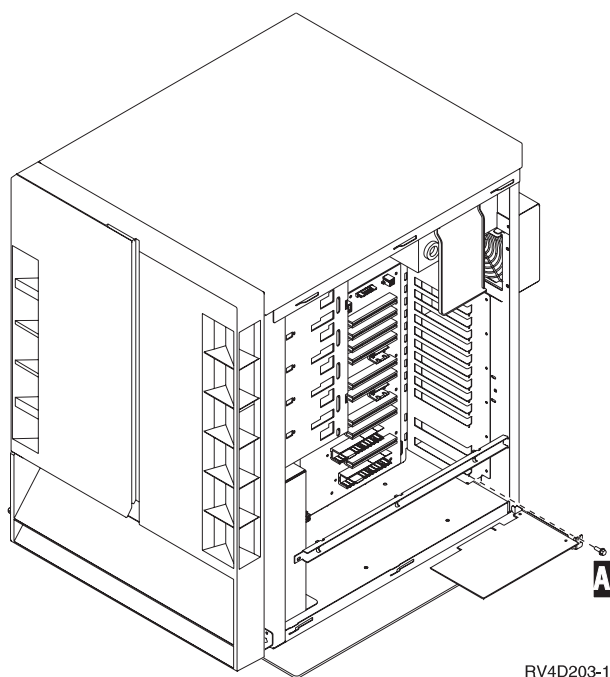
- a. Disconnect the cable from the adapter card.
- b. Remove the screw **A** from the card tab, (Table 2 on page 7).

Table 2. Remove or Install Adapter Card

Base Side



Expansion Side



c. **Attention:** Adapter cards are fragile:

- Handle only by the edges
- Keep fingers off printed circuit area
- Use static strap when handling
- Leave in protective packaging until ready to install

Remove the adapter card from the system unit by pulling straight out from the connector.

- ___ 9. Turn the card over and look for the label with the feature number; for example, 2724, 2723, and so on.

Notes:

- a. If you used the card placement tool in step 1 on page 2, you can use it again to determine where to place the card that you removed from C03 or E03. Then go to step 11 on page 10.
- b. If you are not going to use the card placement tool, continue with the next step.
- ___ 10. It is very important for you to determine in which slot to install the adapter card. Look at the back of your system unit to see which card slots are available. Find the adapter card number in the Card Number column in one of the following tables. If the slot position is not available, use the tables until you find an available slot.
- Go to Table 3 on page 8 if cards are installed or going to be installed in slots C02 and C04.
 - Go to Table 4 on page 8 if you have an expansion unit installed and cards are not installed in slots E02 and E04.
 - Go to Table 5 on page 9 if you have an expansion unit and cards are installed in slots E02 and E04 or are going to be installed.

Remember:

If a slot position is not available, use the next table.

Table 3. A card is installed in C04

Name	Card Number	Card Slot
Integrated NetFinity Server (This feature consists of two cards)	285x or 2866	C02
	285A	C04
Note: Slot C03 is inactive when the Integrated NetFinity Server cards are installed in slots C02 and C04. The card in C03 has to be moved.		
WAN/Twinaxial IOA	2720	C08, C09 (maximum = 1)
Twinaxial Workstation IOA	2722, 2746	C09
Two-Line WAN IOP	2721	C09, C08
Two-Line WAN IOP	2745	C09, C08,
100/10Mbps Ethernet IOA	2838 ¹	C05, C06 (Maximum = 1)
Ethernet IOA (2723), 16/4Mbps Token-Ring IOA (2724)	2723 ¹ , 2724 ¹	C05, C06, C09
Disk Unit controller	2728	C07
RAID Disk Unit Controller	2740, 2748, 2763	C07
¹ When specify code 0220, 0221, or 0222 is on the order, install the card in C05 or C06. The specify codes 0220, 0221, or 0222 indicate that the cards are driven by the Integrated NetFinity (285x or 2866) card.		

If a slot position is not available, use the next table.

Table 4. No card is installed in E02

Name	Card Number	Card Slot
Magnetic Media Controller	2718, 2729	E09
Ethernet IOA (2723), 16/4Mbps Token-Ring IOA (2724)	2723 ⁸ , 2724 ⁸	E13 ² ; E14 ² ; E08 (Maximum = 2)
155Mbps UTP0C3 ATM	2815 ¹ , ⁴	E08
155Mbps MMF ATM	2816 ¹ , ⁴	E08
155Mbps SMF OC3 ATM	2818 ¹ , ⁴	E08
100/10Mbps Ethernet IOA	2838 ¹ , ⁴ , ⁸	E08
Two-Line WAN IOP	2721	E13 ¹ , E14
Two-Line WAN IOP	2745	E13 ¹ , E14, E09 ² , E08
Twinaxial Workstation IOA	2722	E14, E13 ¹
Twinaxial Workstation IOA	2746	E13 ¹ , E14, E09 ² , E08
Integrated Services Digital Network, (2750 BRI U, 2751 BRI S/T), Integrated Analog Modem (2761)	2750 ² , 2751 ² , 2761 ²	E03, E09 or E08 (Maximum of 1 per IOP)
PCI Cryptographic Coprocessor	4758 ²	E03(Maximum = 1)
Combined Function IOP	2809, 2824	E07
2824 or 2809 is required in E07 to install any of the following cards:		
Magnetic Media Controller	2718, 2729	E03
100/10Mbps Ethernet IOA	2838 ⁷ , ⁸	E03

Table 4. No card is installed in E02 (continued)

Name	Card Number	Card Slot
Ethernet IOA (2723), 16/4Mbps Token-Ring IOA (2724)	2723 ^{5, 8} , 2724 ^{5, 8}	E11, E12, E03 (Maximum = 2)
Integrated Services Digital Network (2750 BRI U, 2751 BRI S/T), Integrated Analog Modem (2761)	2750, 2751, 2761	E03 ³ , E08, E09 (Maximum of 1 per IOP)
155Mbps UTPOC3 ATM	2815 ⁷	E03
155Mbps MMF ATM	2816 ⁷	E03
155Mbps SMF OC3 ATM	2818 ⁷	E03
Two-Line WAN IOP	2721	E11, E12
Two-Line WAN IOP	2745	E11, E12, E03
Twinaxial Workstation IOA	2722	E11, E12
Twinaxial Workstation IOA	2746	E11, E12, E03
PCI Cryptographic Coprocessor	4758	E03 ³
<p>¹ If you have a 2824 installed in E10 and a 2838 or ATM card installed in E03 or E08, slot positions E13 and E14 must remain open.</p> <p>² 2824 required in E10.</p> <p>³ 2824 required in E07.</p> <p>⁴ No 2723 or 2724 allowed in E13 or E14.</p> <p>⁵ Not allowed if 2838 or ATM card is installed in E03.</p> <p>⁶ Not allowed if 2838 or ATM card is installed in E08.</p> <p>⁷ No 2723 or 2724 allowed in E11 or E12.</p> <p>⁸ Use Table 5 if specify code 0220, 0221, 0222 is on the order.</p>		

If a slot position is not available, use the next table.

Table 5. A card is installed in E02

Name	Card Number	Card Slot
Magnetic Media Controller	2718, 2729	E09
100/10Mbps Ethernet IOA	2838 ^{1, 3, 4}	E08
Ethernet IOA (2723), 16/4Mbps Token-Ring IOA (2724)	2723 ³ , 2724 ³	E13 ² ; E14 ² ; E08 (Maximum = 2)
155Mbps UTP0C3 ATM	2815 ^{1, 4}	E08
155Mbps MMF ATM	2816 ^{1, 4}	E08
155Mbps SMF OC3 ATM	2818 ^{1, 4}	E08
100/10Mbps Ethernet IOA	2838 ^{1, 4}	E08
Two-Line WAN IOP	2721	E13 ¹ , E14
Two-Line WAN IOP	2745	E13 ¹ , E14, E09 ² , E08
Twinaxial Workstation IOA	2722	E14, E13 ¹
Twinaxial Workstation IOA	2746	E13 ¹ , E14, E09 ² , E08
Integrated Services Digital Network, (2750 BRI U, 2751 BRI S/T), Integrated Analog Modem (2761)	2750 ² , 2751 ² , 2761 ²	E03, E09 or E08 (Maximum of 1 per IOP)

Table 5. A card is installed in E02 (continued)

Name	Card Number	Card Slot
PCI Cryptographic Coprocessor	4758 ²	E09 or E08 (Maximum = 1)
Combined Function IOP	2809, 2824	E07
2824 or 2809 is required in E07 to install any of the following cards:		
100/10Mbps Ethernet IOA	2838	E05 ³ , E06 ³ (Maximum = 1)
Ethernet IOA (2723), 16/4Mbps Token-Ring IOA (2724)	2723, 2724	E05 ³ , E06 ³ , E11 ⁶ , E12 ⁶ Note: When an INS card is in E02/E04, then you can have a LAN card in either E11 or E12, but not in both.
Two-Line WAN IOP	2721	E11, E12
Two-Line WAN IOP	2745	E11, E12
Twinaxial Workstation IOA	2722	E11, E12
Twinaxial Workstation IOA	2746	E11, E12
¹ If you have a 2824 installed in E10 and a 2838 or ATM card installed in E03 or E08, slot positions E13 and E14 must remain open. ² 2824 required in E10. ³ When specify code 0220, 0221, 0222 is on the order, install the card in E05 or E06. ⁴ No 2723 or 2724 allowed in E13 or E14. ⁵ Not allowed if 2838 or ATM is installed in E08.		

___ 11. Did you remove a card from C03 or E03?

Yes No

↓ Go to step 16 on page 11, if you are going to install the Integrated NetFinity card in the base side.

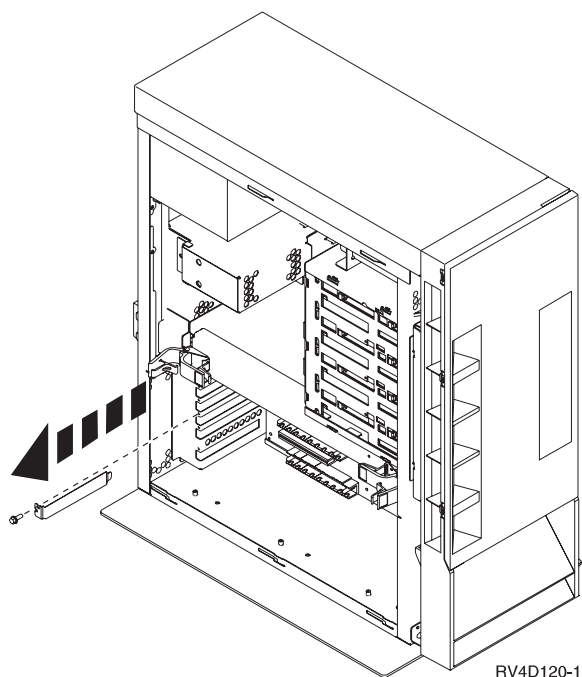
 Go to step 30 on page 14, if you are going to install the Integrated NetFinity card in the expansion side.

___ 12. Before you reinstall the adapter card that you removed from C03 or E03, remove the adapter card slot cover by doing the following:

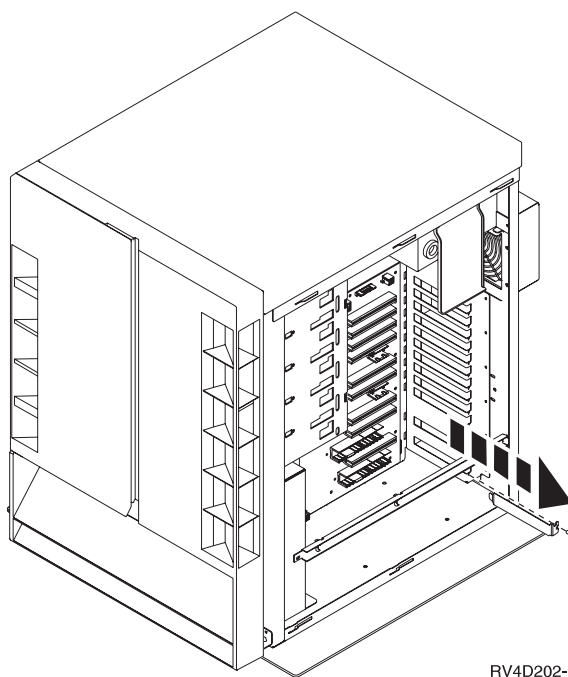
- a. Remove the screw, (Table 6 on page 11).
- b. Slide the slot cover out.

Table 6. Remove Adapter Card Slot Cover

Base Side



Expansion Side



- ___ 13. Install the adapter card by doing the following:
 - a. Align the adapter card with the card slot.

Note: If installing the adapter card in slot C09, the slot is easier to access when the plastic airflow baffle above it is removed. the airflow baffle must be reinstalled to ensure proper disk unit operation and cooling.

- b. Slide the card into the system unit and push on both sides of the card until the card is all the way into the slot and the connector.

Note: The screw tab on the adapter card should be even with the frame on the system unit and aligned with the screw hole when completely installed.

- c. Install the screw **A** that holds the adapter card in place, (Table 2 on page 7).

- ___ 14. Reconnect the cable to the card. Be sure to label the cable with the new card slot.

- ___ 15. Install the adapter card slot cover in slot C03 or E03.

- ___ 16. Are you installing the Server cards in C02 and C04?

Yes No

↓ Go to step 30 on page 14.

- ___ 17. **Installing Integrated NetFinity cards in the base side.**

Find the package that contains the 285x or 2866 Server card that is labeled **2850**. Remove the card from the electrostatic package. The cards are fragile. Handle with care.

- ___ 18. Lay the card on the static protective package you just removed it from.

- ___ 19. **Installing memory on the 2850 Integrated NetFinity Server card.**
Find the package that contains the 286x memory card. Carefully remove the memory card from the static-protective package.
- ___ 20. Install the 286x memory on the 285x or 2866 Server card by doing the following:

Note: Figure 4 **A** shows the location of the first storage card.

- a. Align the memory cards with the next available connector on the 285x or 2866 Server card, (Figure 4).
- b. Snap the card in place by moving it downward in the connector. The memory card has a distinct click as it snaps into the connector.

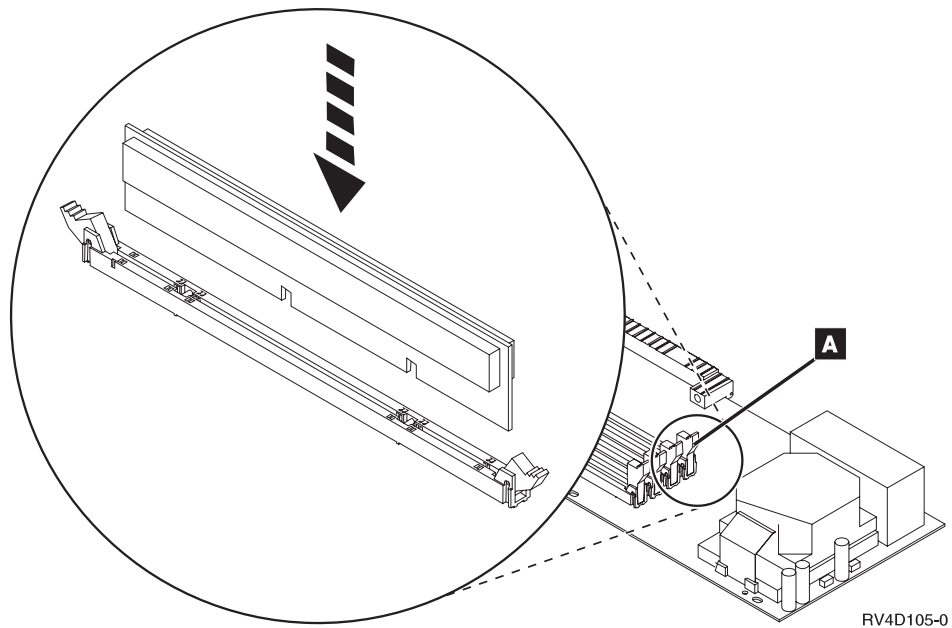


Figure 4. Location of Memory on Server Card

- c. If you have another 286x memory card to install, repeat the procedure you just performed.
- ___ 21. Before you install the 285x or 2866 Server card in slot C02, look at the connector inside the system unit. The connector socket is approximately 3/4 inch wide and has two guide pins, one on either end. There are many fragile pins in this connector, and care must be taken to avoid bending the pins.
- ___ 22. Install the 285x or 2866 Server card into slot C02 by doing the following:
 - a. Align the card with the card slot, (Figure 5 on page 13).
 - b. Slide the card into the system unit and push on both sides of the card until the card is all the way into the slot and the connector.
 - c. Press down slightly on the right edge of the card so that it slides under the card guide frame.

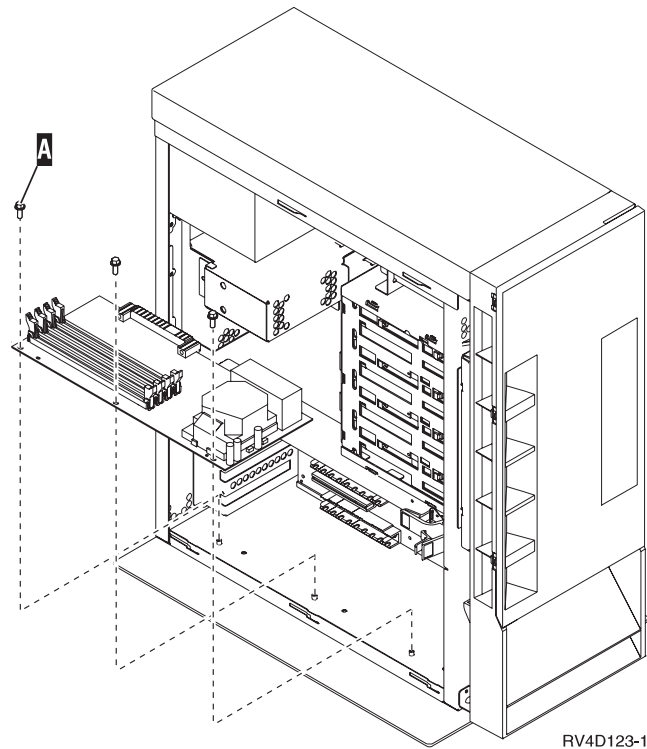


Figure 5. Installing the Server Card

- d. Align the screw holes with the standoffs inside the system unit.
 - e. Install the three screws **A** into the edge of the card and tighten only until they are tight. Do not overtighten these screws or you may damage the card.
- ___ 23. The next card you will be installing is the Integrated NetFinity Server bridge card that is labeled **285A**. Before you install the 285A Server card in slot C04, remove the adapter card slot cover inside the system unit by doing the following:
- a. Remove the screw Table 6 on page 11.
 - b. Slide the slot cover out.
- ___ 24. **Attention:** Adapter cards are fragile:
- Handle only by the edges
 - Keep fingers off printed circuit area
 - Use static strap when handling
 - Leave in protective packaging until ready to install
- Find the package that contains the Integrated NetFinity Server bridge card that is labeled **285A**.
- ___ 25. Before you install the 285A card in slot C04, look at the connector inside the system unit. The connector socket is approximately 3/4 inch wide and has two guide pins, one on either end. There are many fragile pins in this connector, and care must be taken to avoid bending the pins.
- ___ 26. Hold the card with the metal card bracket to the left (card components upward) and the white connector toward the system unit.
- ___ 27. Slide the card into slot C04 and push on the card until it is all the way into the slot and the connector.
- ___ 28. Install the screw into the card tab.

- ___ 29. Go to step 44 on page 16.
- ___ 30. **Installing Integrated NetFinity cards in expansion side.**
The next card you will be installing is the Integrated NetFinity Server bridge card that is labeled **285A**. Before you install the 285A card in slot E02, remove the adapter card slot cover inside the system unit by doing the following:
- Remove the screw Table 6 on page 11.
 - Slide the slot cover out.
- ___ 31. **Attention:** Adapter cards are fragile:
- Handle only by the edges
 - Keep fingers off printed circuit area
 - Use static strap when handling
 - Leave in protective packaging until ready to install
- Find the package that contains the Integrated NetFinity Server bridge card that is labeled **285A**.
- ___ 32. Before you install the 285A card in slot E02, look at the connector inside the system unit. The connector socket is approximately 3/4 inch wide and has two guide pins, one on either end. There are many fragile pins in this connector, and care must be taken to avoid bending the pins.
- ___ 33. Hold the card with the metal card bracket to the right (card components upward) and the white connector toward the system unit.
- ___ 34. Slide the card into slot E02 and push on the card until it is all the way into the slot and the connector.
- ___ 35. Install the screw into the card tab.
- ___ 36. Find the package that contains the 285x or 2866 Server card that is labeled **2850**. Remove the Server card from the electrostatic package.
- ___ 37. Lay the Server card on the static protective package you just removed it from.
- ___ 38. **Installing memory on the 2850 Integrated NetFinity Server card.**
Find the package that contains the 286x memory card. Carefully remove the memory card from the static-protective package.
- ___ 39. Install the 286x memory on the 285x or 2866 Server card by doing the following:
- Note:** Figure 6 on page 15 **A** shows the location of the first storage card.
- Align the memory cards with the next available connector on the 285x or 2866 Server card, (Figure 6 on page 15).
 - Snap the card in place by moving it downward in the connector. The memory cards has a distinct click as it snaps into the connector.

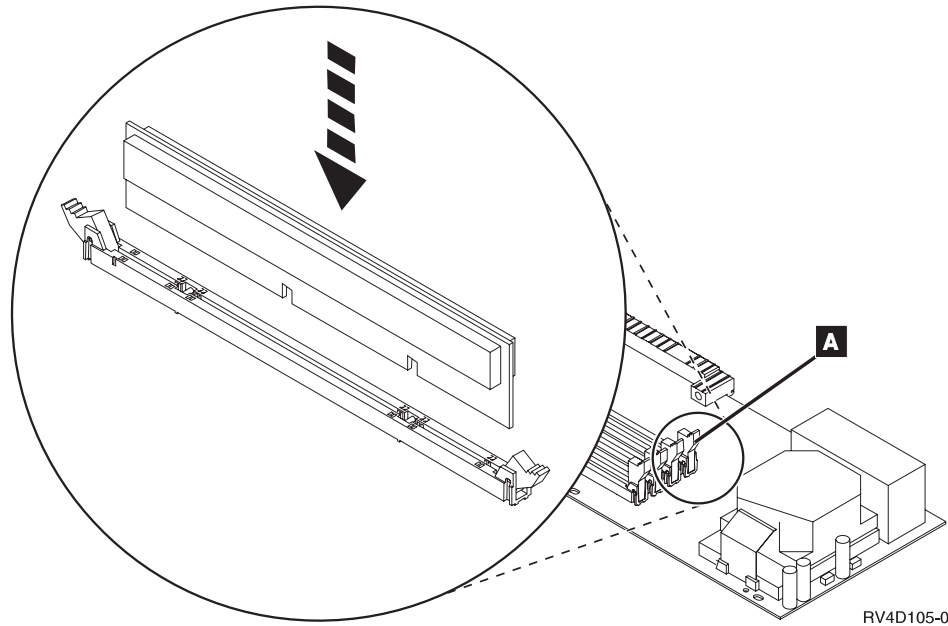


Figure 6. Location of Memory on Server Card

c. If you have another 286x memory card to install, repeat the procedure you just performed.

__ 40. Remove the card bracket **A** from slot E04 by removing the screw **B** (Figure 7).

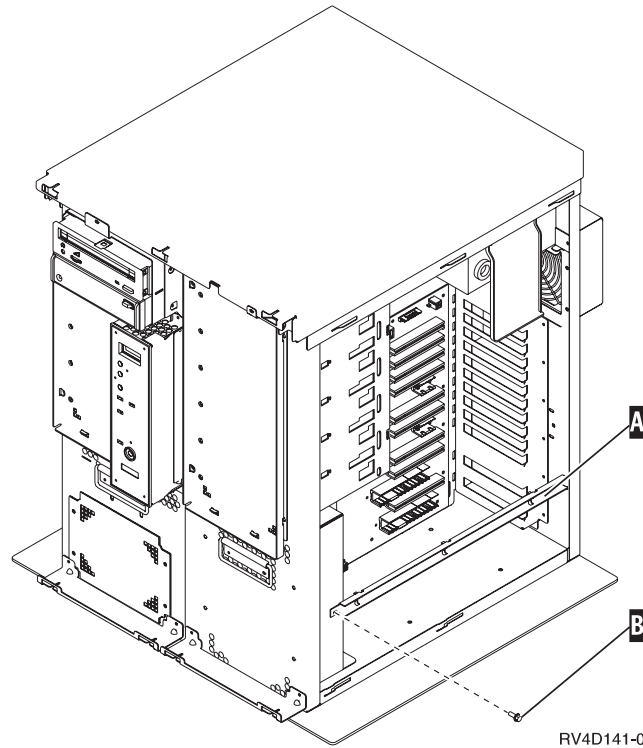


Figure 7. Remove Server Card Bracket from Expansion Unit

__ 41. Before you install the 285x or 2866 Server card in slot E04, look at the connector inside the system unit. The connector socket is approximately

3/4 inch wide and has two guide pins, one on either end. There are many fragile pins in this connector, and care must be taken to avoid bending the pins.

- ___ 42. Install the 285x or 2866 Server card into slot E04 by doing the following:
 - a. Align the card with the card slot Figure 8.
 - b. Slide the card into the system unit and push on both sides of the card until the card is all the way into the slot and the connector.

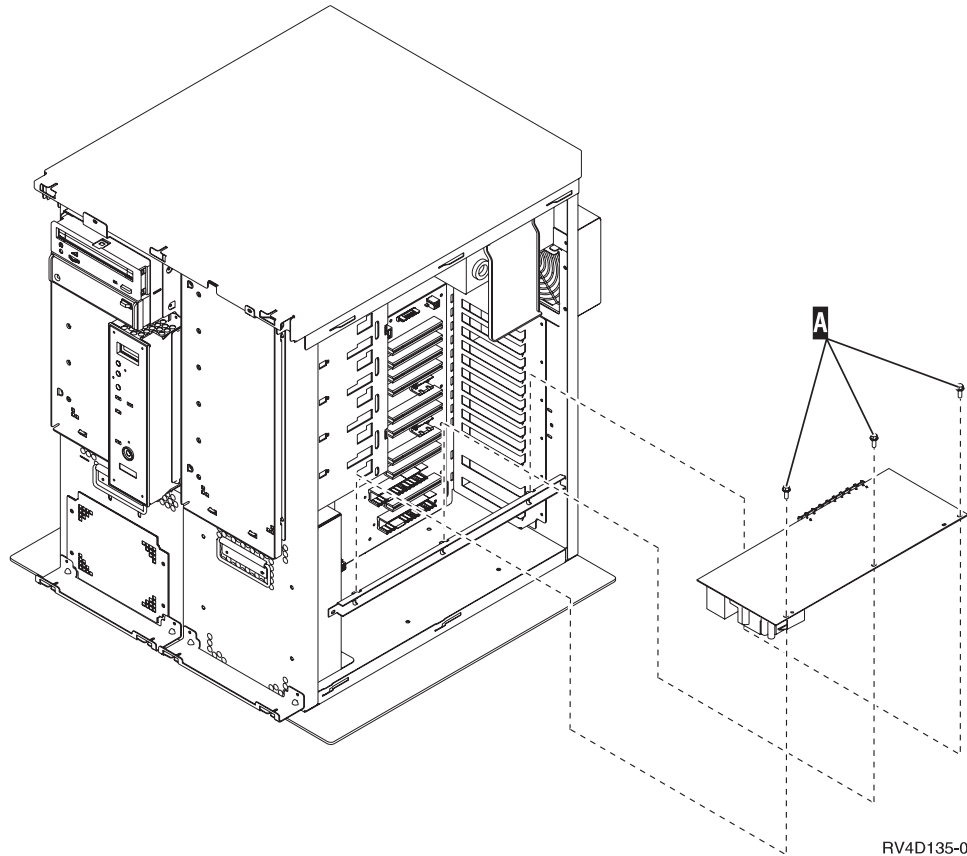


Figure 8. Install Server Card in Expansion Unit

- ___ 43. Install the card bracket by doing the following:
 - a. Insert the bracket **A**, (Figure 7 on page 15), into the right side of the system unit.
 - b. Align the screw hole **B** on the left side and install the screw.
- ___ 44. Are you installing the Windows 95/NT** or Windows 2000** operating system?

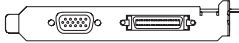
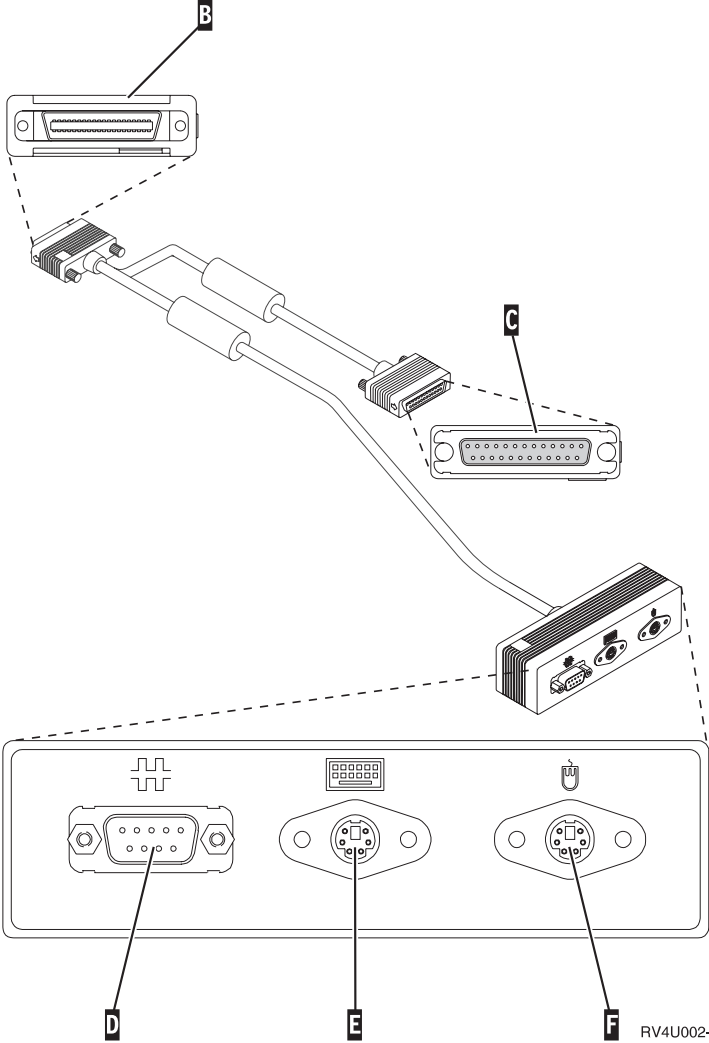
Yes	No
↓	Go to step 46 on page 17.

45. DANGER

To prevent a possible electrical shock when adding or removing any devices to or from the system, ensure that the power cords for those devices are unplugged before the signal cables are connected or disconnected. If possible, disconnect all power cords from the existing system before you add or remove a device. (RSFTD203)

Connect the extension cable (part number 45H2433) to the 285A Integrated NetFinity Server bridge card in slot C04 or E02. Then connect the keyboard and mouse cables (part number 44H8677) to the extension cable. Connect the customer-supplied video cable to the other connector on the card that is located in slot C04 or E02.

Table 7. NT Extension Cable

285A Connectors and Cable Part Numbers that Connect	Cable
<p>285A Card</p>  <p>B Larger connector on 285A, NT extension cable, Part Number 45H2433</p> <p>C Parallel port</p> <p>D Serial port</p> <p>E Keyboard cable connector, Part Number 44H8677</p> <p>F Mouse cable connector, Part Number 44H8677</p> <p>Smaller connector on the 285A, customer supplied video cable</p> <p>Note: You may have a video extension cable, part number 44H8676, to connect to the smaller connector first.</p>	 <p style="text-align: right;">RV4U002-0</p>

46. Do you have any other adapter cards or devices to install?

No Yes

- ↓ If you know where to install the adapter card, follow the steps you just performed to install the card.

If you do not know where to install the adapter card, go to the placement tables in these instructions or go to the instructions that came with the adapter card. Look for the step that tells you where to install the adapter card and complete the installation.

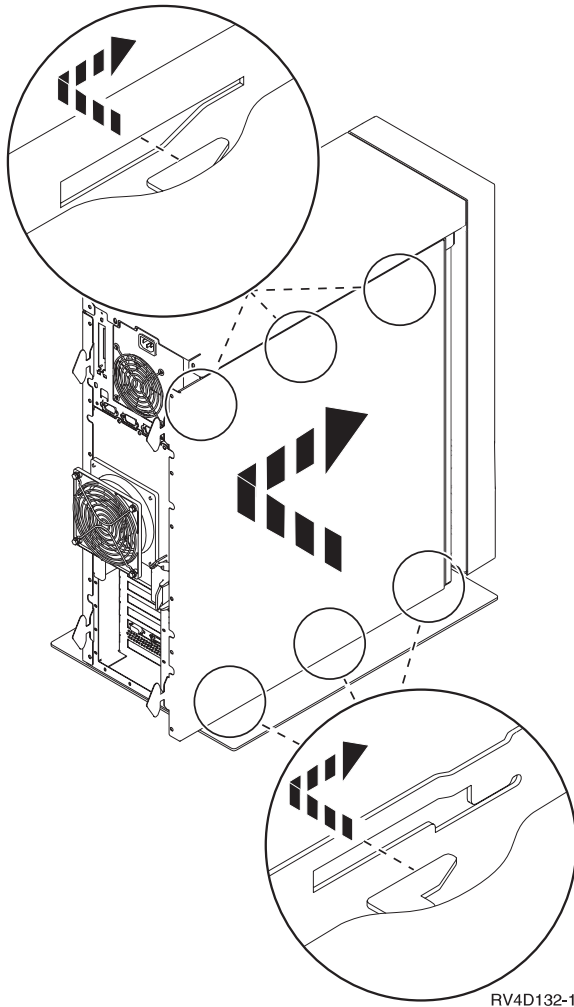
If you have another device such as a disk unit, a tape unit, or a memory card to install, go to the instructions that came with that device.

Completing the Installation

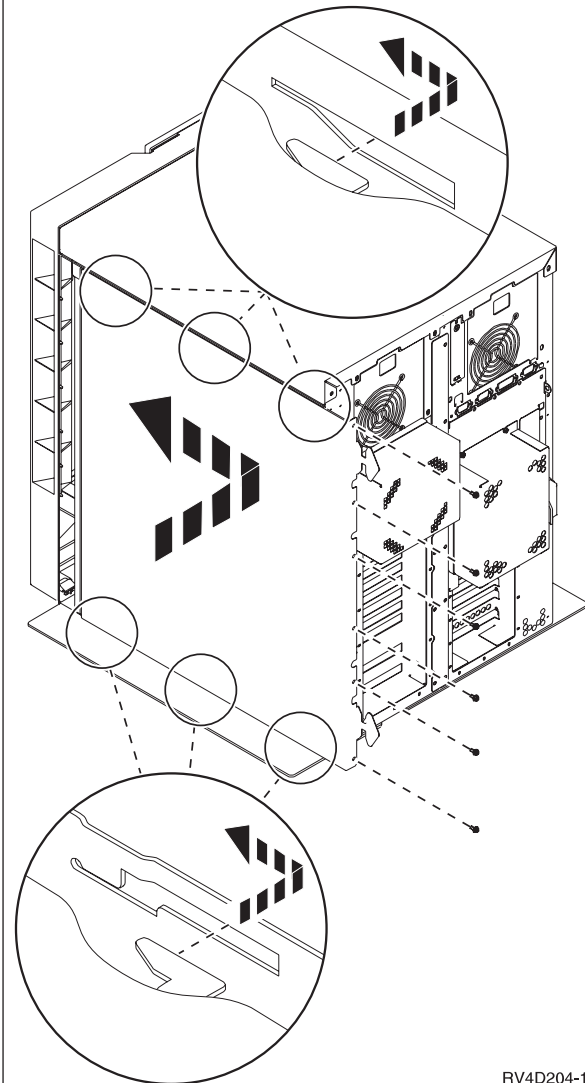
1. Install the system unit side cover by aligning the tabs on the top and bottom edge and press forward to make sure that all tabs enter the slots. Slide the cover toward the front of the system unit until it stops and install the screws, Table 8.

Table 8. Install Side Cover

Base Side



Expansion Side

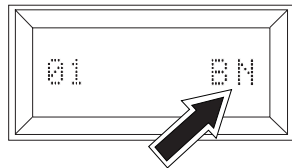


- ___ 2. Install the system unit front cover, if removed.
- ___ 3. Install the system unit back cover.
- ___ 4. **DANGER**

An electrical outlet that is not correctly wired could place hazardous voltage on metal parts of the system or the products that attach to the system. It is the customer's responsibility to ensure that the outlet is correctly wired and grounded to prevent an electrical shock. (RSFTD201)

Plug the following power cords into an electrical outlet.

- System unit
- System unit console
- ___ 5. Plug in and power on all attached devices, such as printers and displays.
- ___ 6. Look at the Function/Data display on the control panel. Does a **B N** appear in the Function/Data display?



RV4D109-0

Yes No

- ↓ Do the following:
 - a. Press the Up or Down select push button until **02** appears in the Function/Data display.
 - b. Press the Enter push button on the control panel.
 - c. Press the Up or Down select push button until **B N** appears in the Function/Data display.
 - d. Press the Enter push button on the control panel.
 - e. Press the Up or Down select push button until **01** appears in the Function/Data display.
 - f. Press the Enter push button on the control panel.
 - g. Go to step 7.

- ___ 7. Power on the workstation or PC that is your console.
- ___ 8. Press the system unit power-on button. The power-on light will appear.

Note: The system takes approximately 3 to 5 minutes to power on and complete an IPL.

- ___ 9. Sign on the system unit. Ensure that you have service tools authority.
- ___ 10. Do the following to verify your adapter card configuration:
 - a. On an AS/400 command line, type:
STRSST

Press the Enter key.
 - b. When the Start a Service Tools menu appears, select the *Start a service tool* option.

Press the Enter key.

- c. When the Start a Service Tool menu appears, select the *Hardware service manager* option.
Press the Enter key.
 - d. When the Hardware Service Manger menu appears, select the *Packaging hardware resources (system, frames, cards...)* option.
Press the Enter key.
 - e. When the Packaging Hardware Resources menu appears, type a **9** in front of the *System Unit*.
Press the Enter key.
If the adapter card is not listed, ensure that the card is properly installed.
 - f. Did you move an adapter card before installing the 285x or 2866 Server card?

No	Yes
↓	Verify that the card you moved is listed by doing the following: <ol style="list-style-type: none"> 1) Return to the Hardware Service Manager menu by pressing F12 twice. 2) Select <i>Failed and Non-Reporting Hardware Resources</i>. 3) On the line that has the question mark, type a 4 in the <i>Opt</i> column to remove the resource from the configuration. 4) Press the Enter key. 5) When Confirm Remove of Packaging Hardware Resources(s) appears, press the Enter key. 6) If you move an adapter card, or replace an adapter card with another adapter card, you need to change the <i>Resource Name</i>. For information on changing resource names, go to AS/400 online information, or the <i>Basic System Operation, Administration, and Problem Handling</i>, SC41-5206-04. 7) When Confirm Remove of Packaging Hardware Resources(s) appears, press the Enter key. 8) Go to step 10g.
 - g. On the Packaging Hardware Resources menu, type an **8** in the *Opt* column next to Communications IOA 285x or 2866. These will be card Type-Model, for example, 2850-011. Press the Enter key.
 - h. When the Logical Resources Associated with a Packaging Resource menu appears, type a **5** in the *Opt* column next to the Communications IOA. Press the Enter key.
 - i. When the Communications Hardware Resource Detail menu appears, look at the line "Memory installed on IOP (MB)". The number should reflect the amount of memory you just installed on your 2850-011 Integrated NetFinity Server.
 - j. Return to the Packaging Hardware Resources menu by pressing **F12** twice.
- ___ 11. When Confirm Remove of Packaging Hardware Resources(s) appears, print the configuration list, if you have a printer.

Note: To print the configuration list, press **F6** on the Packaging Hardware Resources menu.

Place the configuration list in the *Basic System Operation, Administration, and Problem Handling*, SC41-5206-04 book.

- ___ 12. To return to the AS/400 Main menu, press F3 three times and then press the Enter key.
- ___ 13. Your feature upgrade is complete. Keep all miscellaneous parts, such as wrap connectors, with the Service Materials box or in a safe place.
- ___ 14. To install any of the applications that are listed in the following table, use the book that is listed for that application.

Application	Book
Firewall	Information Center from the <i>AS/400e Information Center CD-ROM</i> or from the following Web site: http://www.as400.ibm.com/infocenter
Integration Service (if you want to use your Integrated NetFinity Server as a local area network (LAN) adapter)	<i>Getting Started with Integrated Netfinity Server</i> , SC41-5123-01
Windows NT** or Windows 2000**	Information Center from the <i>AS/400e Information Center CD-ROM</i> or from the following Web site: http://www.ibm.com/as400/infocenter

- ___ 15. For information on how to make your card operational, go to the *AS/400 Information Center*. You can access the Information Center from the *AS/400 Information Center*, SK3T-2027-03 or from the following Web site:
<http://www.ibm.com/as400/infocenter>

Notices

This information was developed for products and services offered in the U.S.A. IBM may not offer the products, services, or features discussed in this document in other countries. Consult your local IBM representative for information on the products and services currently available in your area. Any reference to an IBM product, program, or service is not intended to state or imply that only that IBM product, program, or service may be used. Any functionally equivalent product, program, or service that does not infringe any IBM intellectual property right may be used instead. However, it is the user's responsibility to evaluate and verify the operation of any non-IBM product, program, or service.

IBM may have patents or pending patent applications covering subject matter described in this document. The furnishing of this document does not give you any license to these patents. You can send license inquiries, in writing, to:

IBM Director of Licensing
IBM Corporation
500 Columbus Avenue
Thornwood, NY 10594
U.S.A.

For license inquiries regarding double-byte (DBCS) information, contact the IBM Intellectual Property Department in your country or send inquiries, in writing, to:

IBM World Trade Asia Corporation
Licensing
2-31 Roppongi 3-chome, Minato-ku
Tokyo 106, Japan

The following paragraph does not apply to the United Kingdom or any other country where such provisions are inconsistent with local law:

INTERNATIONAL BUSINESS MACHINES CORPORATION PROVIDES THIS PUBLICATION "AS IS" WITHOUT WARRANTY OF ANY KIND, EITHER EXPRESS OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF NON-INFRINGEMENT, MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. Some states do not allow disclaimer of express or implied warranties in certain transactions, therefore, this statement may not apply to you.

This information could include technical inaccuracies or typographical errors. Changes are periodically made to the information herein; these changes will be incorporated in new editions of the publication. IBM may make improvements and/or changes in the product(s) and/or the program(s) described in this publication at any time without notice.

Information concerning non-IBM products was obtained from the suppliers of those products, their published announcements or other publicly available sources. IBM has not tested those products and cannot confirm the accuracy of performance, compatibility or any other claims related to non-IBM products. Questions on the capabilities of non-IBM products should be addressed to the suppliers of those products.

If you are viewing this information softcopy, the photographs and color illustrations may not appear.

The drawings and specifications contained herein shall not be reproduced in whole or in part without the written permission of IBM.

IBM has prepared this publication for use by customer personnel for operating and planning for the specific machines indicated. IBM makes no representations that it is suitable for any other purpose.

Electronic Emission Notices

Federal Communications Commission (FCC) Statement

Note: This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference, in which case the user will be required to correct the interference at his own expense.

Properly shielded and grounded cables and connectors (IBM Part Number 75G5958, 75G2865, 97H7385, or its equivalent) must be used in order to meet FCC emission limits. IBM is not responsible for any radio or television interference caused by using other than recommended cables and connectors or by unauthorized changes or modifications to this equipment. Unauthorized changes or modifications could void the user's authority to operate the equipment.

This device complies with Part 15 of the FCC rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

Responsible Party:

International Business Machines Corporation
New Orchard Road
Armonk, NY 10504

Telephone: 1-919-543-2193

Industry Canada Compliance Statement

This Class A digital apparatus meets the requirements of the Canadian Interference-Causing Equipment Regulations.

Avis de conformité à la réglementation d'Industrie Canada

Cet appareil numérique de la classe A respecte toutes les exigences du Règlement sur le matériel brouilleur du Canada.

European Community Compliance Statement

This product is in conformity with the protection requirements of EU Council Directive 89/336/EEC on the approximation of the laws of the Member States relating to electromagnetic compatibility. IBM cannot accept responsibility for any failure to satisfy the protection requirements resulting from a non-recommended modification of the product, including the fitting of non-IBM option cards.

Australia and new Zealand Class A Statement

Attention: This is a Class A product. In a domestic environment this product may cause radio interference in which case the user may be required to take adequate measures.

Trademarks

The following terms are trademarks of the IBM Corporation in the United States or other countries or both:

AS/400
AS/400e series
Client Access
Client Access/400
IBM
Operating System/400
OS/400
400
800-IBM-CALL

Microsoft, Windows, Windows NT, and the Windows logo are trademarks or registered trademarks of Microsoft Corporation.

UNIX is a registered trademark in the United States and other countries licensed exclusively through X/Open Company Limited

Other company, product, and service names, which may be denoted by a double asterisk (**), may be trademarks or service marks of others.

Readers' Comments — We'd Like to Hear from You

AS/400e 170 or 250
285A and 285x or 2866
Integrated NetFinity Server
Card Instruction

Publication No. SENG-2850-04

Overall, how satisfied are you with the information in this book?

	Very Satisfied	Satisfied	Neutral	Dissatisfied	Very Dissatisfied
Overall satisfaction	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

How satisfied are you that the information in this book is:

	Very Satisfied	Satisfied	Neutral	Dissatisfied	Very Dissatisfied
Accurate	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Complete	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Easy to find	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Easy to understand	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Well organized	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Applicable to your tasks	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Please tell us how we can improve this book:

Thank you for your responses. May we contact you? Yes No

When you send comments to IBM, you grant IBM a nonexclusive right to use or distribute your comments in any way it believes appropriate without incurring any obligation to you.

Name

Address

Company or Organization

Phone No.



Fold and Tape

Please do not staple

Fold and Tape



NO POSTAGE
NECESSARY
IF MAILED IN THE
UNITED STATES

BUSINESS REPLY MAIL

FIRST-CLASS MAIL PERMIT NO. 40 ARMONK, NEW YORK

POSTAGE WILL BE PAID BY ADDRESSEE

IBM CORPORATION
ATTN DEPT 542
IDCLERK
3605 Highway 52 N
ROCHESTER MN 55901-7829



Fold and Tape

Please do not staple

Fold and Tape



Printed in the United States of America
on recycled paper containing 10%
recovered post-consumer fiber.

SENG-2850-04

