IBM Network Printer 24
IPDS Installation Instruction

G544-5506-00

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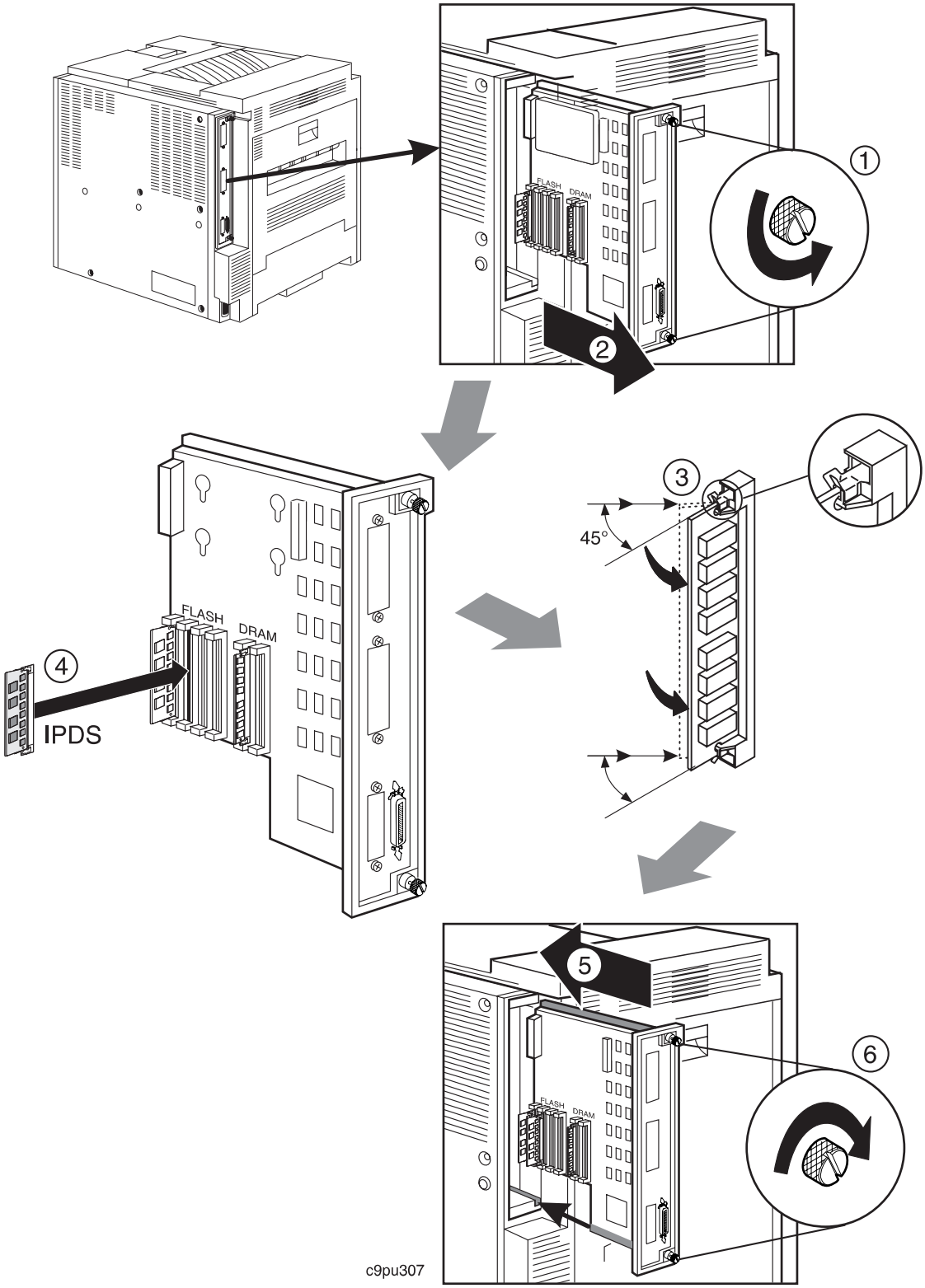
Quick Start for Installing IPDS Option

If you need further details, go to “Installing the IPDS Option SIMM” on page 3.



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IBM Network Printer 24 IPDS Option

The enclosed IPDS SIMM and CD ROM are intended for the IBM Network Printer 24. If you have a different printer, contact your point of purchase to obtain the correct IPDS option.

Installing the IPDS Option is a four step process:

1. Install the IPDS SIMM in the printer. (See “Installing the IPDS Option SIMM.”)
2. Verify the IPDS SIMM was properly installed. (See “Installing the IPDS Option SIMM.”)
3. Determine amount of DRAM memory needed to properly print jobs using IPDS. (See “Determining DRAM Memory Requirements for IPDS.”)
4. Determine if you need to update printer Controller Microcode. (See “Determining If You Need to Update Controller Microcode” on page 6.)

Installing the IPDS Option SIMM

1. Setup the printer as described in *Network Printer 24 and 24PS: Quick Setup*.
2. If you are already familiar with installing options in the controller, install the IPDS SIMM. The IPDS Option SIMM can go in any socket within the 4-socket group (labelled FLASH). For further details, review the *User's Guide*.

   Note: When you handle the IPDS option and other computer components, take these precautions:
   - Limit your movement. Movement can cause static electricity to build up around you.
   - Always handle components carefully. Handle adapters and memory-module kits by the edges. Never touch any exposed circuitry.
   - When you are installing a new option, touch the static-protective package containing the option to the mounting bracket on the controller card for at least two seconds. This reduces static electricity from the package and from your body.
   - When possible, remove the option and install it directly in the controller without setting the option down. When this is not possible, place the static-protective package that the option came in on a smooth, level surface and place the option on it.
   - Do not place the option on the printer cover or other metal surface.
3. Reinstall the controller card. Verify that the controller and options are installed correctly by printing a new Configuration Page. See step 4.
4. Print a Configuration Page (full details are in the *Quick Setup*):
   a. Make sure the printer is offline. If the printer is online, press the **Online** key to take it offline.
   b. Press the **Menu** key once. TEST MENU appears in the message display area.
   c. Press the **Item** key once. CONFIG PAGE appears in the message display area. Note that the menu name appears on the top line and the action item appears on the second line.
   d. Press the **Enter** key to print the Configuration Page.
5. Verify the IPDS SIMM was installed properly by checking the Configuration Page, under **Installed Options** for IPDS.

Determining DRAM Memory Requirements for IPDS

Below are DRAM memory requirements for updating IPDS microcode and for printing jobs using IPDS.

1. Verify that you have at least 8MB DRAM memory installed. IPDS requires a minimum of 8MB DRAM (printer memory) to work properly. If the Configuration Page you printed in step 4 does not show at least 8MB Total Memory, install additional DRAM memory. Review the *User's Guide* for more information on installing DRAM SIMMs.

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2. Review the following memory requirements to determine how much memory you need installed on the printer.

   Memory requirements are determined by factors such as whether you print one side (simplex) or two-sides (duplex) and whether you use certain functions, such page protection (PAGEPROT). Printing two-sides (duplex) and using the page protection (PAGEPROT) function require more memory. And when you are using both the IPDS and PostScript options, additional memory is required.

Table 1. PCL with IPDS for Network Printer 24

Function	Simplex	Duplex
PAGEPROT = AUTO	8MB	12MB
PAGEPROT = ON (Letter/A4)	8MB	16MB
PAGEPROT = ON (A3)	12MB	20MB
MEMCONFIG ON (PCL SAVE or PS SAVE)	12MB	16MB

Table 2. PCL with IPDS and Postscript for Network Printer 24

Function	Simplex	Duplex
PAGEPROT = AUTO	8MB	16MB
PAGEPROT = AUTO (Letter/A4)	12MB	20MB
PAGEPROT = ON (A3)	16MB	32MB
MEMCONFIG ON (PCL SAVE or PS SAVE)	16MB	20MB

Note:

IPDS requires a minimum of 8MB DRAM to work properly. If you need to update IPDS microcode on an existing IPDS Option SIMM, you will need a minimum of 10MB DRAM. The reason for this is the installation process requires 10MB DRAM. After the IPDS microcode is installed, IPDS will still work properly with 8MB DRAM.

Using IPDS

- You must have at least 8MB Total Memory installed. See step 1 on page 3 for more information.

  Note:

  If the printer does not have enough memory, the “80 ADD MEMORY FOR IPDS” message is displayed when you power on the printer.

- In the IPDS MENU on your operator panel, check for the PAGEPROT item. If it is available, set PAGEPROT=AUTO.

  (If you have problems with graphics or images, and MRT COMPRESSION displays, try changing to PAGEPROT=ON. You may need more memory to use page protection.)

- IPDS data can be dynamically accepted from more than one attachment. The IPDS PORT setting in the IPDS menu does not need to be set.

- ***PSF Recommendations for TCP/IP*** (System Administrator Information)

  The *Ethernet and Token Ring Configuration Guide*, G544-5240, includes full PSF details and is shipped with the CD ROM.

  Here are some tips:

– If you have trouble connecting the printer or get Activation Timeout errors, try increasing the connect timer or activation timer in the PSF settings. (Some users who had problems with the default of 30 seconds were successful with 120 seconds or more.)

– Change the system disconnect times so that the printer will be able to print other data streams (PCL, PS, SCS, DSC/DSE) in addition to IPDS:

  - **PSF/MVS** customers should set the Printer Proc parameters MGMTMODE=OUTAVAIL and DISCINTV=15. This indicates that when no more output is available to the printer, it will disconnect in 15 seconds. (Assumes PSF/MVS Version 2 Release 2.0 with APARs OW15599, OW15018, and OW16442.)

  - Both **PSF/2 and PSF for AIX** have a Tuning Option named the Job Interval Shutdown Timer. Set this option to 15 so the printer will disconnect after 15 seconds of inactivity.

  - **PSF/400** customers must follow different procedures depending on which release of OS/400 you are using. In all cases you will be configuring PSF/400 to release the connection with the printer within 15 seconds if there are no spooled files to print. Listed below are the commands and parameters to use on the OS/400 releases in which PSF/400 TCP/IP support is available.

    V3R1 Use the WRKAFP2 command to specify INACTTMR(*SEC15), the inactivity timer.

    V3R2 Use either the CRTPSFCFG or CHGPSFCFG commands to specify RLSTMR(*SEC15) and ACTRLSTMR(*NORDYF), the release timer and activity release timer.

    V3R6 Use the WRKAFP2 command to specify RLSTMR(*SEC15).

- If IPDS is the active datastream and the printer is taken offline, the following TEST MENU items will ***not*** be selectable:

  – CONFIG PAGE
  – PRINT PS FONTS
  – PRINT PCL FONTS
  – PRINT PS DEMO
  – PRINT IPDS FONTS
  – PRINT SCS CHARS

  These items will re-appear in the TEST MENU once a port timeout occurs for the port supporting the IPDS session. (For example with Twinax jobs, 90 seconds if the TWINAX SETUP MENU/PORT TMEOUT is left at the factory default.) They will also reappear if you power off, wait 10 seconds, and power up again.

- For details about using printer menus and installing network interface cards, see the printer *User's Guide*.

- Programmers requiring more information about the support provided by the IPDS option may want to order the *IPDS and SCS Technical Reference*, S544-5312.

Using IPDS with the ETHERNET Network Interface Card

- IPDS must be sent with TCP/IP.

- In the ETHERNET MENU, the default is PERSONALTY=AUTO. If you want to dedicate the Ethernet port to IPDS, set PERSONALTY=IPDS.

- For information about setting up the card, refer to the *Ethernet and Token Ring Configuration Guide* that was shipped with the card.

Using IPDS with the TOKEN RING Network Interface Card

- IPDS must be sent with TCP/IP.
- In the TOKEN RING MENU, the default is PERSONALTY=AUTO. If you want to dedicate the Token Ring port to IPDS, set PERSONALTY=IPDS.
- For information about setting up the card, refer to the *Ethernet and Token Ring Configuration Guide* that was shipped with the card.

Using IPDS with the TWINAX Network Interface Card

- You must set the IPDS ADDRESS in the TWINAX SETUP MENU. To make the activate the address, you may need power off the printer, wait 10 seconds, and power on again.

  Note: You can also set the SCS ADDRESS in the TWINAX MENU, but it must have a different address from IPDS.
- For information about setting up the card, refer to the *Twinax/Coax Configuration Guide* that was shipped with the card.

Using IPDS with the COAX Network Interface Card

- For information about setting up the card, refer to the *Twinax/Coax Configuration Guide* that was shipped with the card.

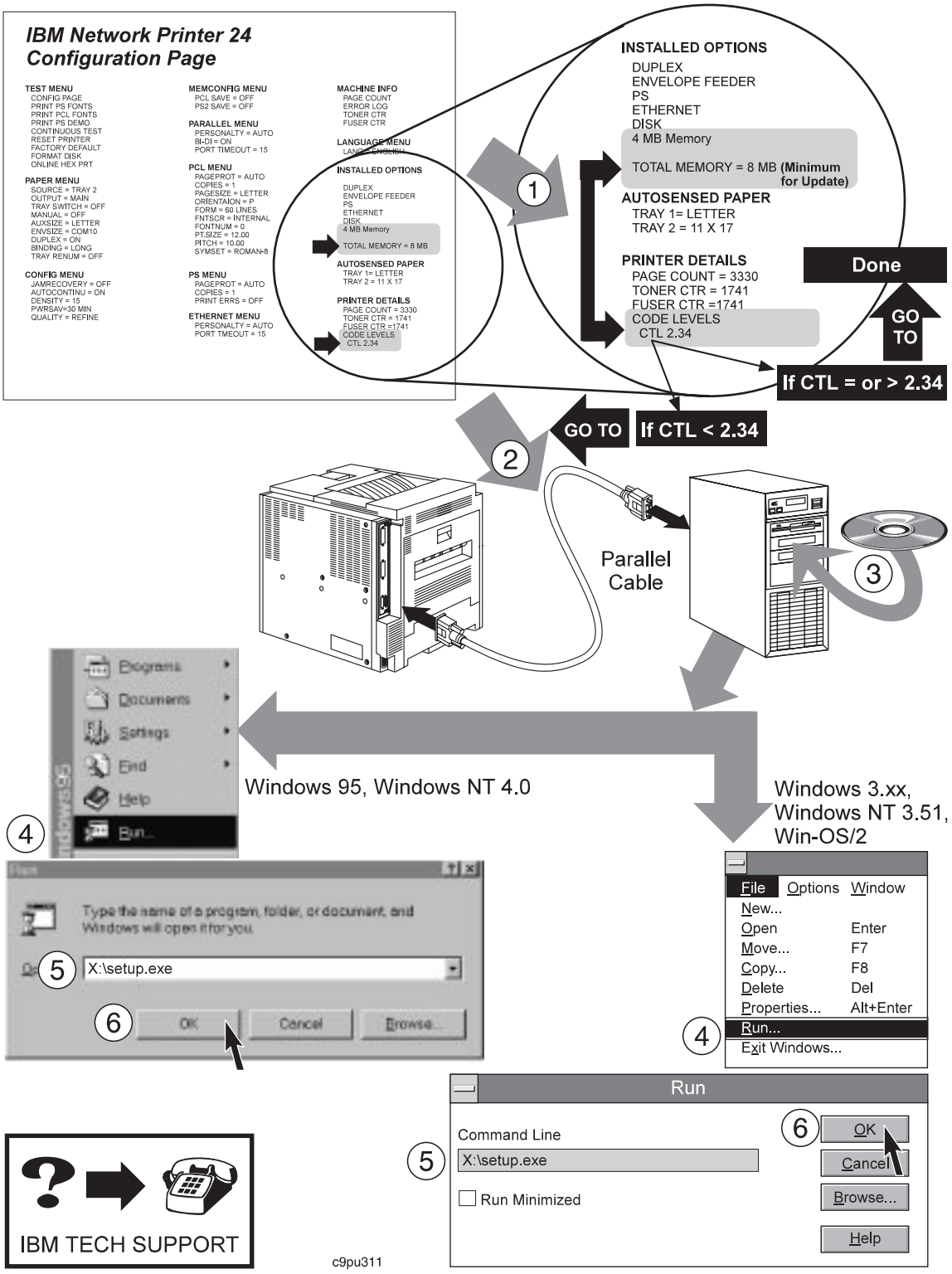
Determining If You Need to Update Controller Microcode

It may be necessary to update printer Controller Microcode using the supplied CD-ROM. Follow these steps to determine if you need to update microcode:

1. Review the Configuration Page, under **Printer Details**, to determine microcode levels for Controller (CTL) Microcode.
2. If Controller Microcode (CTL) is 2.34 or greater, you do not need to update the Controller Microcode.
3. If Controller Microcode (CTL) is less than 2.34, you need to update the Controller Microcode. Go to “Updating Controller Microcode” on page 8.

Quick Start for Updating Controller Microcode

If you need further instructions, go to “Updating Controller Microcode” on page 8.



Updating Controller Microcode

The CD ROM that was shipped with the IPDS Options SIMM contains printer software and utilities. Follow these steps to update the printer Controller Microcode.

Memory Requirements for Controller Microcode Update

To update the Controller Microcode, your printer must have at least 8MB DRAM installed.

To update the microcode, follow these steps:

1. Locate the printer within 6 feet of a workstation (or laptop). The workstation must be able to run Windows (Windows 3.1, Windows 95, or Windows NT) or WIN-OS/2.

   Note: The WIN-OS/2 session must be from OS/2 3.0 (WARP) or higher. To get the session, select the OS/2 System icon from the desktop, select the Command Prompts icon, and then select the WIN-OS/2 icon.

2. If the printer is already parallel-attached, skip to step 3.

   Turn off the printer power and the workstation power. Attach the workstation to the printer using a 6-foot **parallel cable**.

   Note: You must use the parallel connection to update microcode, you cannot update microcode over the LAN.

3. Turn on the workstation power.
4. Close any applications that are running.
5. Find the CD ROM that was shipped with this option.
6. Insert the CD ROM into your CD ROM drive.
7. For Windows 95 and Windows NT 4.0, select **Start**, then select **Run** and enter **x:\setup.exe** (x is the letter assigned to your CD ROM drive, which is often D or E). Select **OK** to start the program.

   If you have your system set to autoplay a CD ROM, the program will start automatically once the CD ROM is inserted into the CD ROM drive.

8. For Windows 3.X, Windows NT 3.51, and WIN-OS/2 select **Run** from **File Menu**, then enter **x:\setup.exe** (x is the letter assigned to your CD ROM drive, which is often D or E). Select **OK** to start the program.
9. Select the tab labeled **Getting Started** and read the instructions provided, including the **READ.ME** file.
10. After reading the instructions, choose the **Microcode** tab.

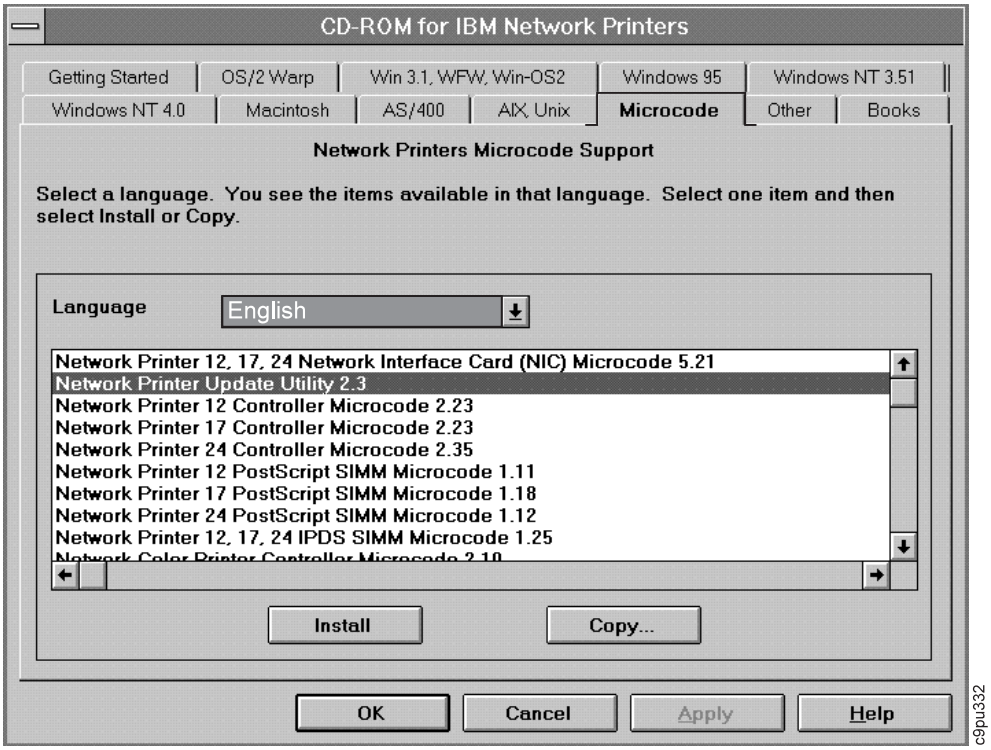
11. From the list of software, select **Network Printer Update Utility**. The Network Printer Update Utility is needed to load microcode, such as the Network Printer 24 Controller Microcode, onto the printer through the parallel port.

    a. If you previously installed the IBM Network Printer Update Utility, please remove the previous version before installing this version.
    b. Make sure you have enough disk space for the Network Printer Update Utility and microcode.

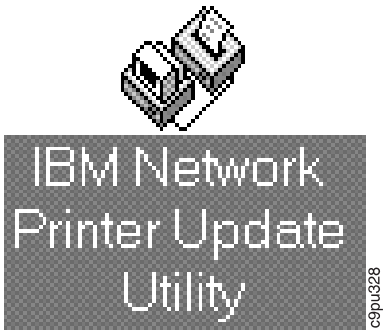
Utility or Microcode	Fixed Disk Space
Network Printer Update Utility	Approximately 7MB
Controller Microcode	Approximately 4MB

    After you update the microcode, you can remove the directory where you installed the IBM Network Printer Update Utility and the microcode.

12. Select **Install** and then follow the steps displayed on your screen. (Make a note of the directory where you installed the **Network Printer Update Utility** as you will want to copy microcode to that directory.)



13. Once you install the utility, you should have an icon called **IBM Network Printer Update Utility** as shown below:



14. After you have installed the **IBM Network Printer Update Utility**, from the CD ROM, under the **Microcode** tab, select **Network Printer 24 Controller Microcode**.
15. Select **Copy**. You may want to copy the microcode to the same directory where you installed the Network Printer Update Utility. Follow the instructions displayed on your screen.
16. After copying the microcode, select the **IBM Network Printer Update Utility** icon and follow the instructions displayed on your screen to load microcode in the printer.
17. If an error message is displayed, turn printer power off, then turn printer power back on. Print a configuration page and check, under **Printer Details**, to see if the microcode level was changed. If not, try starting the Network Printer Update Utility again to load microcode in the printer.

    If you cannot solve the problem, contact Technical Support (in US and Canada: 1-800-358-6661) or your point of purchase.

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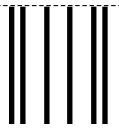

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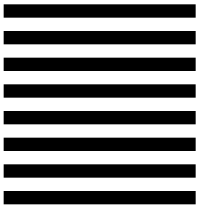

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