



P-32 CQI LOCAL DRAFT PRINTER

XEROX

VP Series Reference Library
Version 1.0

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1. Overview

This section contains the software and hardware procedures for installing a P-32 CQI Dot Matrix Local Draft Printer (hereafter referred to as the local draft printer) and Quadram Microfazer Print Buffer (hereafter referred to as the print buffer) to an 8010 or 6085 workstation, including procedures for isolating problems.

Note: These products are customer installable. Xerox service, however, can be provided for a nominal charge if requested.

Contact your local Xerox Support Center as required.

Related information

For additional installation, maintenance, and diagnostic instructions, refer to the following materials:

- For the **P-32 CQI Local Draft Printer**: *Models P12CQI and P32CQI Matrix Printers Operator's Guide* provided with the local draft printer
- For the **print buffer**: *Quadram Microfazer Serial In/Parallel Out Operation Manual* provided with the print buffer

Note: Please read the associated reference materials before installing the local draft printer.

Hardware/software requirements

The following are the hardware and software requirements for connecting a local draft printer to a 6085 or an 8010 workstation.

Hardware

- A 6085 Professional Computer System, or an 8010 Information System
- P-32 CQI Local Draft Printer
- Print buffer
- Printer cable (10-foot Xerox-supplied)

Software

- Xerox ViewPoint software
- VP Document Editor software
- VP Local Draft Printer software

Xerox ViewPoint software and VP NetCom, VP RemoteCom, or VP StandAlone software, must be installed and enabled on the workstation.

VP Document Editor software and all prerequisite software must be installed, enabled, and running on the workstation. Before using the software, open the application loader icon and verify that the appropriate software is loaded and running.

The sub-tab titled "Application loader" in the VP Series reference library contains additional information on the application loader.

Required tools

The following tools are required to install the printer:

- Phillips screwdriver
- Flat head screwdriver
- Sharp knife

Local draft printer features

Local draft printer features include the ability to print folders, documents, and single page tables containing text and graphics, using large format (LF) display software to generate the bit map images.

Background printing

Text and graphics printing on the local draft printer occurs as a background process. This enables additional workstation operations to be performed during printing.

Move/copy printing

Printing is started by moving or copying the desired document icon to the local printer icon

Note: Whether you use <MOVE> or <COPY>, a copy of the document is retained on the desktop.

Multi-size document printing

The local draft printer uses standard sprocket edge fanfold paper. Portrait (8.5- by 11-inch) and landscape (11- by 8.5-inch) images can be printed on 8.5- by 11-inch continuous fanfold paper. Additionally, the local draft printer can print portrait (8.5- by 14-inch) and landscape (11- by 8.5-inch) images on 14- by 11-inch continuous sheet paper.

Multi-copy document printing

The local draft printer can print one original and up to four copies using standard multi-carbon sprocketed fanfold paper.

Multi-page table printing

The local draft printer only supports the printing of multi-page tables if the document is in portrait format (8 1/2-inch width by 11-inch length). If the document is in landscape format (11-inch width by 8 1/2-inch length), only the first page of multiple-page tables (more than one page in length) are printed.

Single (cut) sheet printing

The local draft printer only supports the printing of fanfold paper. If a single (cut) sheet of paper is used, unpredictable results may occur.

Mail note printing

The local draft printer currently does not support the printing of mail notes.

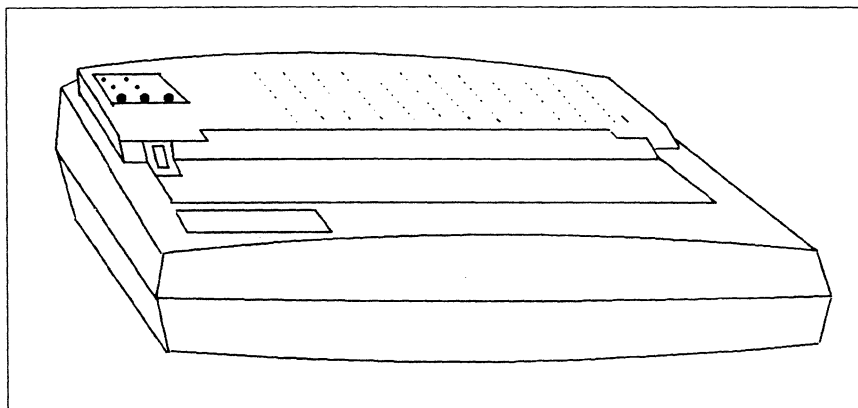


Figure 1-1 P-32 CQI Local Draft Printer

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2. Software installation

VP Local Draft Printer software is an optional ViewPoint application that is separately loaded at a networked, remote, or standalone 6085 or 8010 workstation. When loaded, this software enables documents to be printed on the local draft printer attached to the workstation.

VP Local Draft Printer software can be loaded from a floppy disk or from a network File Service.

Installing the software from a floppy disk

To install VP Local Draft Printer software from a floppy disk:

1. Log on to the workstation.
2. Place the VP Local Draft Printer floppy disk in the workstation's floppy disk drive

WARNING

If the floppy disk is not titled VP Local Draft Printer, do not load the software. Contact the Software Supply Center for a free floppy disk replacement.

3. On the desktop, select the floppy disk drive icon and press <OPEN>. The floppy disk drive window appears.
4. Select the VP Local Draft Printer software, press <COPY>, and select the loader icon. The pointer appears as an hourglass as the floppy disk's contents are read.
5. Select the loader icon and press <OPEN>.
6. Select the VP Local Draft Printer application, and select [RUN] in the loader window.

Note: You can also select the VP Local Draft Printer application, press <PROP'S> to display the application property sheet, and select [YES] for Auto Run at System Startup so that the VP Local Draft Printer application is running when you log on. The sub-tab titled "Application Loader" in the VP Series reference library contains additional information on the application loader.

7. Remove the floppy disk from the floppy disk drive.

The software option is now available on the workstation.

Installing the software from the network

To install VP Local Draft Printer software from a network file service:

1. Log on to the workstation.
2. Open the directory, open the filing divider, and open the VP Applications file drawer.

Note: Ask your System Administrator for assistance in locating the File Service for the VP Applications file drawer, if necessary.

3. Select the VP Local Draft Printer application, press <COPY>, and select the loader icon. The pointer changes to an hourglass as the application is loaded over the network.
4. Select the loader icon and press <OPEN>.
5. Select the VP Local Draft Printer application, and select [RUN] in the application loader window.

Note: You can also select the VP Local Draft Printer application, press <PROP'S> to display the application property sheet, and select [YES] for Auto Run at System Startup so that the VP Local Draft Printer application is running when you log on. The sub-tab titled "Application Loader" in the VP Series reference library contains additional information on the application loader.

The software option is now available on the workstation.

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3. Hardware configuration

To establish the proper interface for the local draft printer, the print buffer, and the 6085 or 8010 workstation, it is necessary to configure the print buffer and the local draft printer.

Configuring the print buffer

To configure the print buffer, it is necessary to set three internal jumpers.

Note: Refer to the *Quadram Microfazer Serial In/Parallel Out Operation Manual* for additional jumper and installation instructions, if necessary.

To configure the print buffer:

1. Unpack the print buffer and identify the front (Figure 3-1) and the back (Figure 3-2) of the unit.

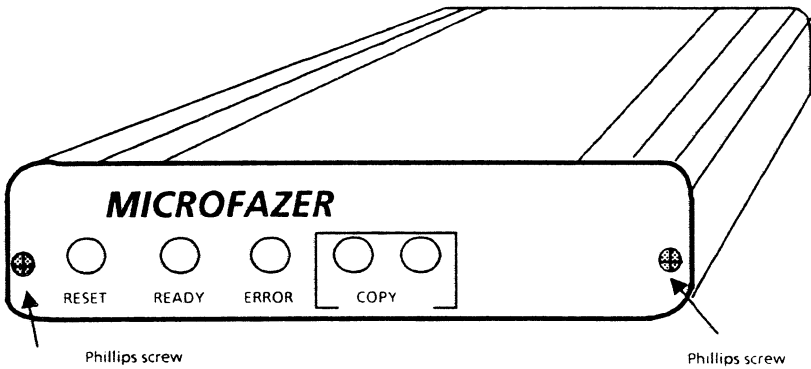


Figure 3-1 Print buffer (front view)

- Using a Phillips screwdriver, remove the screws (refer to Figure 3-2) and the back cover of the print buffer.

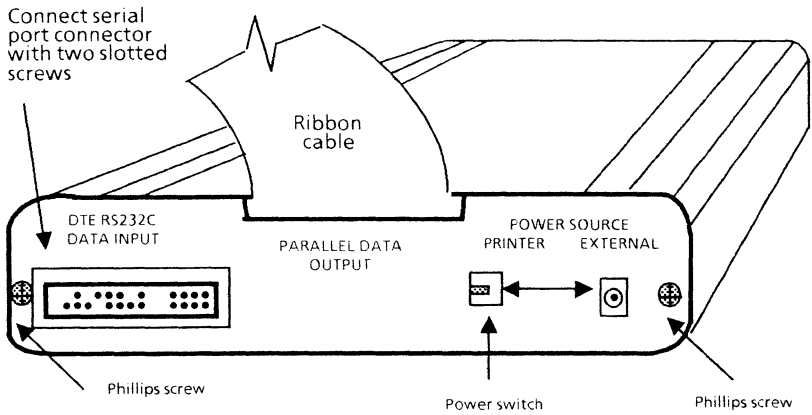


Figure 3-2 Print buffer (rear view)

- Remove the printed circuit board from the casing and position it component-side up. The end with the ribbon cable should be on the right, with the word Microfazer in the lower righthand corner (refer to Figure 3-3).

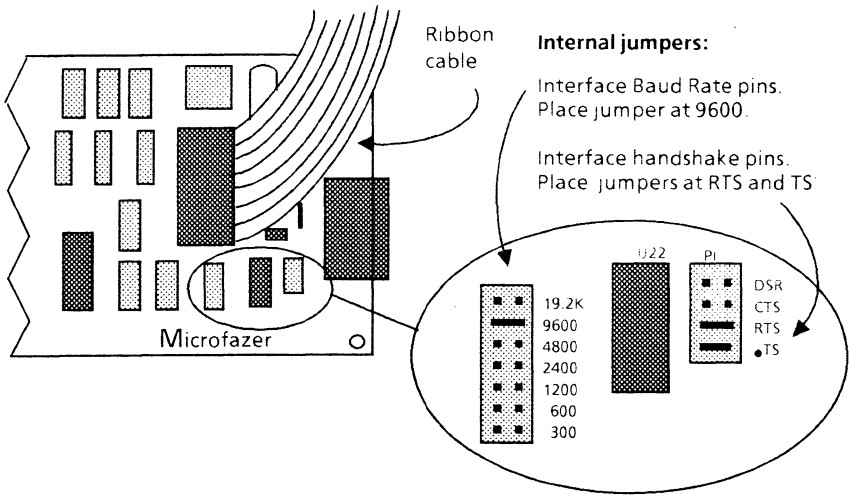


Figure 3-3 Print buffer (internal view)

4. Locate the Interface Baud Rate pins on the circuit board (refer to Figure 3-3).
 5. The print buffer is usually factory-configured with the Interface Baud Rate jumper set at 9600. If the print buffer is not set to 9600, remove the jumper by gently pulling it up, and then place the jumper across the pair of side-by-side pins for the 9600 baud rate.
 6. Locate the Request To Send (RTS) and Data Terminal Ready (TS) interface handshake signal pins on the circuit board (refer to Figure 3-3).
 7. The print buffer is usually factory-configured with the jumpers set on RTS, TS, and CTS. Remove the jumper from the CTS pins, as this jumper is not used.
- Note:** A jumper should now be set on each of the following pins: 9600, RTS, and TS.
8. Gently slide the printed circuit board back in the print buffer casing and replace the back cover. Be careful not to pinch the ribbon cable between the back cover and the casing.
 9. Gently tighten the two phillips screws.

Note: Do not overtighten the screws.

WARNING

The back panel of the print buffer must be reinstalled upon completion.

Configuring the local draft printer

To configure the local draft printer, it is necessary to set print attribute switches.

Note: Refer to the *Models P12CQI and P32CQI Matrix Printer Operator's Guide* for a complete list of the available print attribute switches and installation instructions, if necessary.

To configure the local draft printer:

1. Unpack and install the printer according to the installation instructions in the P12CQI and P32CQI operator's guide provided with the local draft printer.
2. Open the top cover of the local draft printer and identify the print attribute switches located along the top edge of the printer circuit board beside the operator control panel (Figure 3-4).

Note: S05 through S12 are numbered S1 through S8 on the switch.

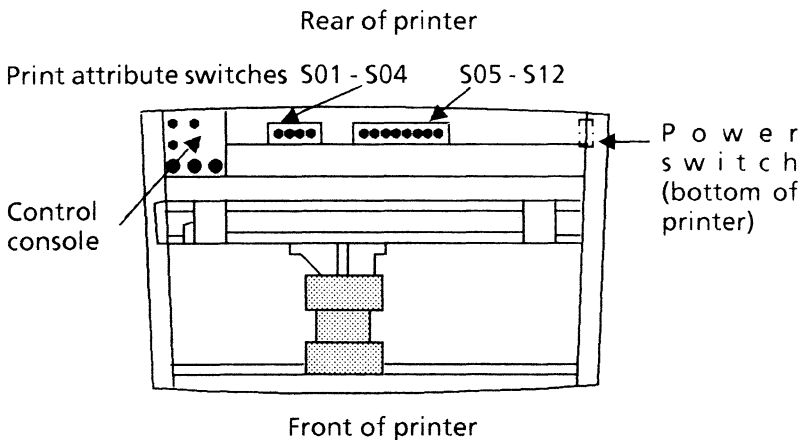


Figure 3-4 Local draft printer (top open)

3. Using a ballpoint pen, gently flip the print attribute switches to the switch positions listed in Table 3-1.
4. Close the top cover of the printer.

The local draft printer is now configured and is ready to be installed with the print buffer on the 6085 or 8010 workstation.

WARNING

The top cover of the P-32 CQI Local Draft Printer must be closed upon completion.

Table 3-1 Print attribute switch settings

Switch number	Function	P-32 Setting
S01	Disable downloading	ON
S02 S03 S04	Character set selection (IBM character set)	OFF OFF OFF
S05 (S01)	IBM graphic printer	ON
S06 (S02)	IBM character set 1	OFF
S07 (S03)	Must always be on	ON
S08 (S04)	Line feed with carriage return	ON
S09 (S05)	Paper eleven-inch length Note: S09 is optional when attached to an 8010 workstation.	OFF
S10 (S06)	Eight lines per inch	ON
S11 (S07) S12 (S08)	Print density (10 characters per inch)	OFF OFF

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4. Hardware installation

The local draft printer can be connected to a 6085 workstation or an 8010 workstation. To connect the printer to a 6085 workstation, refer to the procedure, "Connecting the printer to a 6085 workstation." To connect the printer to a 8010 workstation, refer to the procedure, "Connecting the printer to an 8010 workstation."

Connecting the printer to a 6085 workstation

To connect the printer to a 6085 workstation, the workstation is connected to the print buffer and then the print buffer is connected to the local draft printer.

WARNING

The 6085 workstation must be powered down and unplugged from the electrical outlet to connect the local draft printer.

Workstation to print buffer

1. Connect (with slotted screws) one end of the RS232C Xerox-supplied cable (the end with the pins visible) to the port named Printer/DCE on the back of the 6085 processor (refer to Figure 4-1). **Xerox-supplied cables must be used.** To ensure proper connection to the workstation, gently tighten the screws.

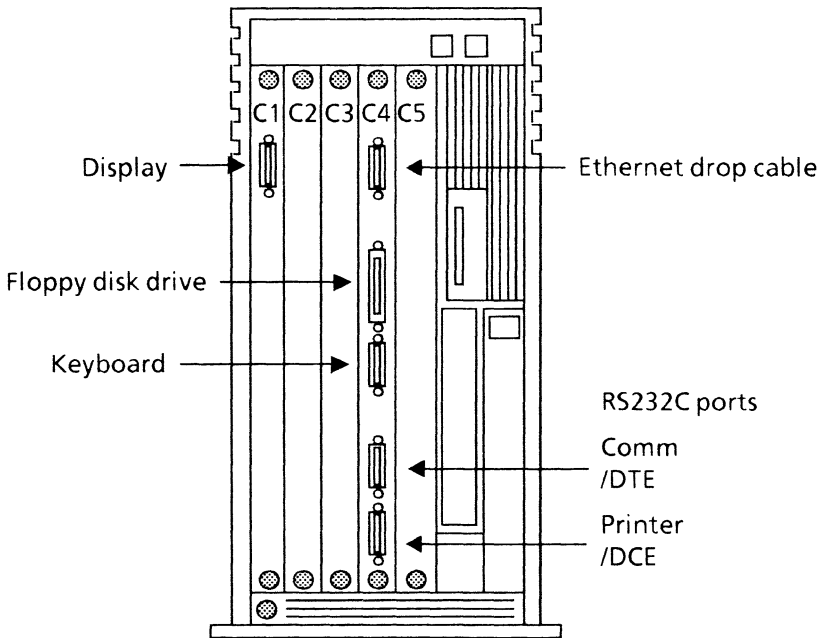


Figure 4-1 6085 processor (rear view)

WARNING

The P-32 CQI Local Draft Printer must be powered down and unplugged from the electrical outlet before it can be connected to a 6085 workstation.

2. Connect (with slotted screws) the opposite end of the Xerox-supplied cable to the RS232C serial port connector on the back of the print buffer (Figure 4-2). To ensure proper connection to the print buffer, gently tighten the screws.

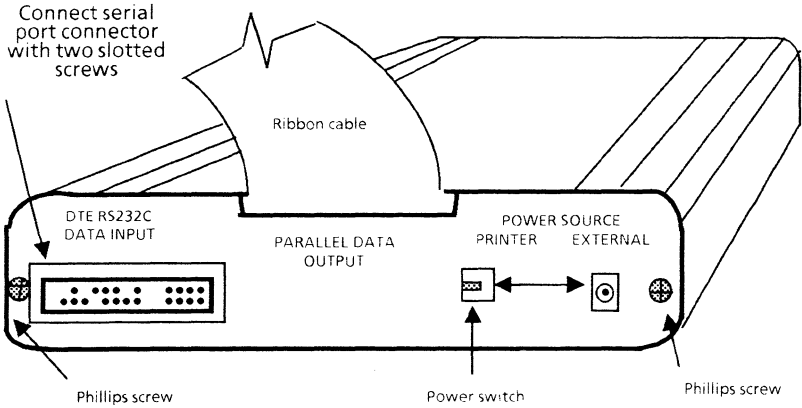


Figure 4-2 Print buffer (rear view)

Print buffer to printer

1. Connect (with the thumbscrews supplied with the printer) the end of the ribbon cable (attached to the print buffer) to the interface connector located at the left rear of the printer (Figure 4-3).

Note: The ribbon cable, when attached to the printer, should extend to the right of the printer.

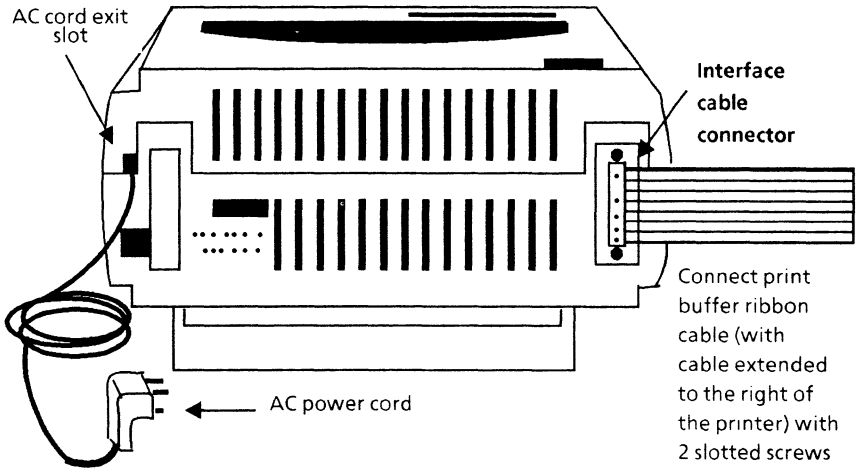


Figure 4-3 Local draft printer (rear view)

2. Locate the power switch on the rear of the print buffer (refer to Figure 4-2).
3. Set the external/printer power switch on the print buffer to the "printer" position to enable the print buffer to be powered by the printer.
4. Plug in the processor, and power up the workstation.
5. Locate the printer power switch on the bottom right rear side of the printer (refer to Figure 3-4).
6. Plug in and power up the printer.

7. Load the sprocketed fanfold paper in the printer.
8. Press the RESET button on the front of the print buffer to initialize the print buffer and clear its memory. The READY LED and COPY LED indicators should be on. The ERROR LED indicator should be off.

Note: If the ERROR LED indicator is on, ensure that paper is properly loaded in the printer and that all cables are securely connected.

Connecting the printer to an 8010 workstation

To connect the printer to an 8010 workstation, the workstation is connected to the print buffer and then the print buffer is connected to the local draft printer.

WARNING

The 8010 workstation must be powered down and unplugged from the electrical outlet before a local draft printer can be connected.

Note: On a 29-megabyte workstation, the printer must be installed on the processor unit. This unit contains the maintenance panel, ON/OFF, B RESET, and ALT B switches.

Workstation to print buffer

1. Using a flathead screwdriver, loosen the quarter turn fasteners and remove the back cover of the 8010 processor. **Under no condition should any covers not indicated be removed.**
2. Identify the PRINTER DTB port on the connector panel on the back of the 8010 processor (refer to Figure 4-4).

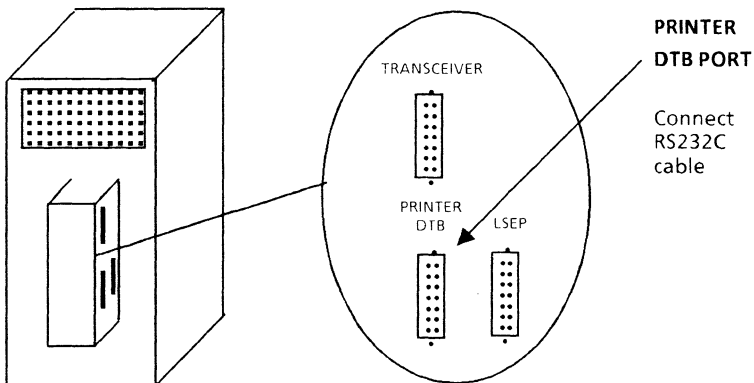


Figure 4-4 8010 processor (rear view)

3. Remove the plastic inserts installed in the DTB port receptacles, pins 9 and 22 (if applicable). The plastic inserts can be removed by cutting off the flared head with a knife or a pair of scissors (refer to Figure 4-5).

DTB Printer Port RS232C Connector

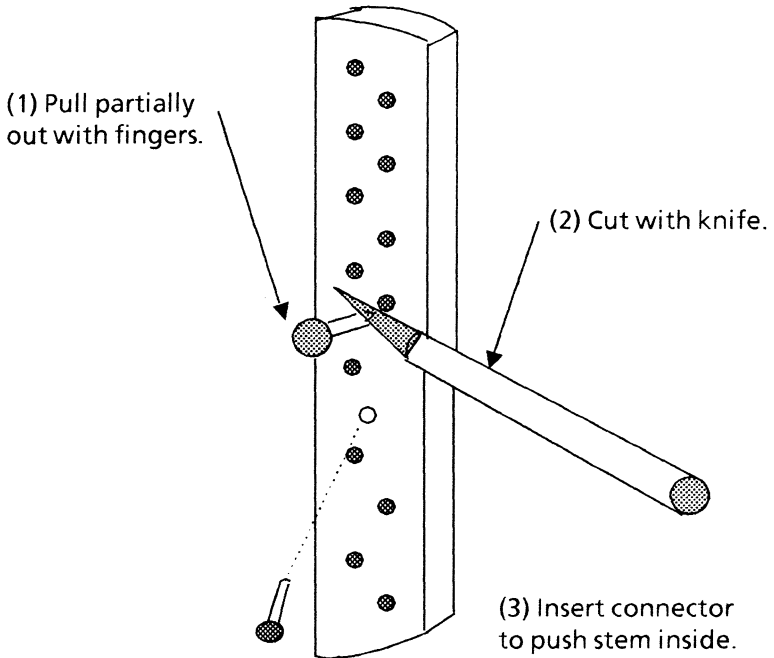


Figure 4-5 Plastic insert removal

4. Connect (with slotted screws) one end of the RS232C Xerox-supplied cable (the end with the pins visible), to the port named PRINTER DTB on the back of the 8010 processor (refer to Figure 4-4). **Xerox-supplied cables must be used.** To ensure proper connection to the workstation, gently tighten the screws.

5. Reinstall the back cover of the 8010 workstation before continuing with the next step.

WARNING

The P-32 CQI Local Draft Printer must be powered down and unplugged from the electrical outlet before it can be connected to an 8010 workstation.

6. Connect (with slotted screws) the opposite end of the Xerox-supplied cable to the RS232C serial port connector on the back of the print buffer (Figure 4-6). To ensure proper connection to the print buffer, gently tighten the screws.

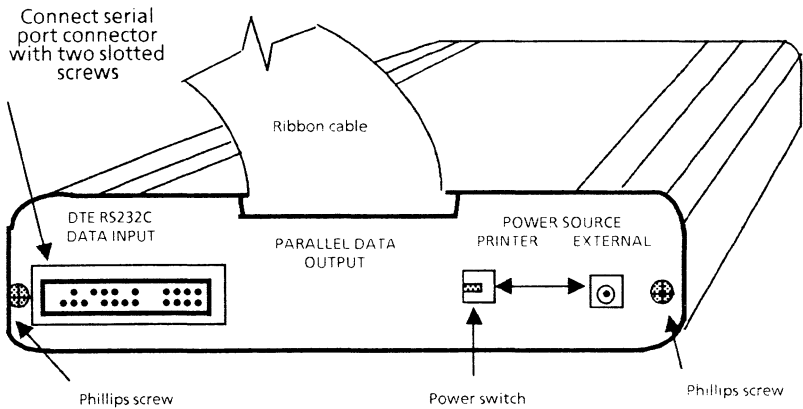


Figure 4-6 Print buffer (rear view)

Print buffer to printer

1. Connect (with the thumbscrews supplied with the printer) the end of the ribbon cable (attached to the print buffer) to the interface connector located at the left rear of the printer (Figure 4-7).

Note: The ribbon cable, when attached to the printer, should extend to the right of the printer.

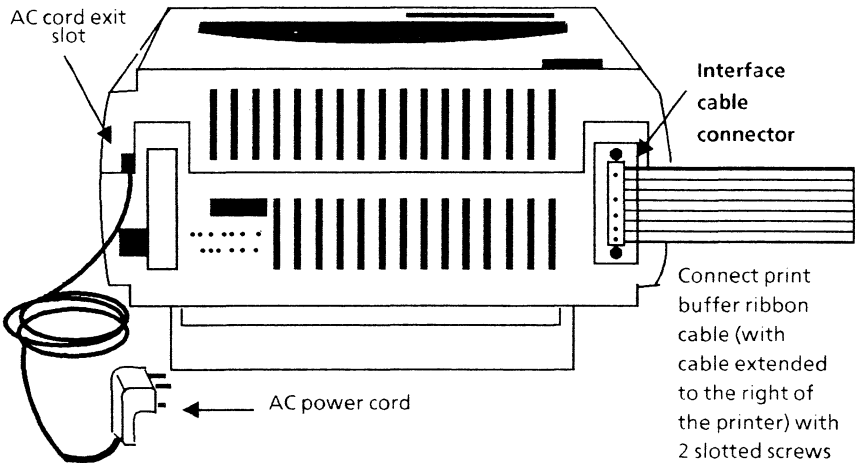


Figure 4-7 Local draft printer (rear view)

2. Locate the power switch on the rear of the print buffer (Figure 4-6).
3. Set the external/printer power switch on the print buffer to the "printer" position to enable the print buffer to be powered by the printer .
4. Plug in the processor, and power up the workstation.
5. Locate the printer power switch on the bottom right rear side of the printer (refer to Figure 3-4).
6. Plug in and power up the printer.

7. Load the sprocketed fanfold paper in the printer.
8. Press the RESET button on the front of the print buffer to initialize the print buffer and clear its memory. The READY LED and COPY LED indicators should be on. The ERROR LED indicator should be off.

Note: If the ERROR LED indicator is on, ensure that paper is properly loaded in the printer and that all cables are securely connected.

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5. Operation

This chapter contains procedures for copying the local draft printer icon to the desktop and printing documents.

Copying the local draft printer icon

The local draft printer icon (Figure 5-1) is copied from the directory to the desktop.



Figure 5-1 Local draft printer icon

To copy the local draft printer icon to the desktop:

1. Select and open the directory icon.
2. Select and open the workstation divider icon.
3. Select and open the local devices divider icon.
4. Copy the local draft printer icon to the desktop.
The printer is now available for operation on the workstation.

Note: Documents can also be printed by copying or moving the document icon to the Local draft printer icon in the local devices divider.

Printing a document

To print a document on the local draft printer:

1. Select the data icon to print.
2. Press <COPY> or <MOVE>. Using either key in printing retains the original icon on your desktop.
3. Select the local printer icon. The printing option sheet (Figure 5-2) is displayed.
4. Select the desired printing options on the local draft printer property sheet. You can specify the width of paper being used: 80 columns (11-inches) or 132 columns (14-inches). "Local draft printer property sheet" contains information on the property sheet.
5. Select [START].

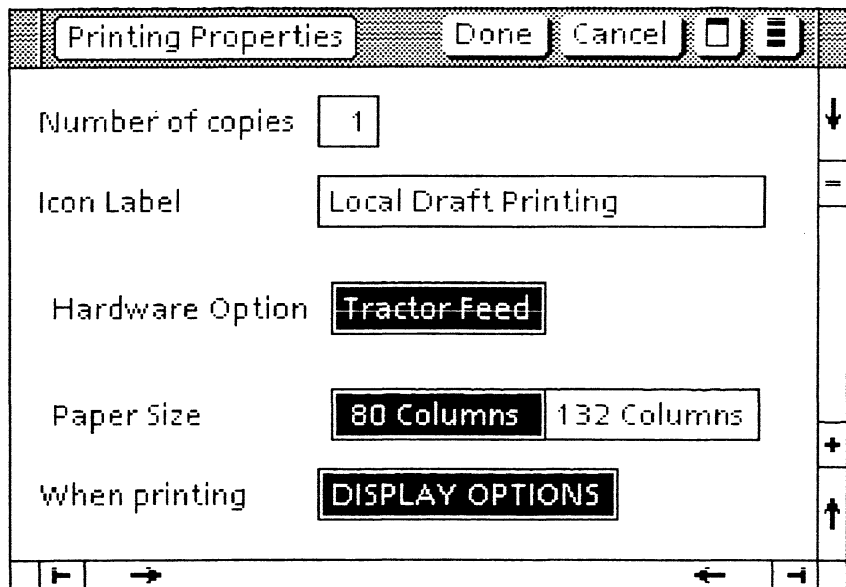


Figure 5-2 Local draft printer property sheet

Local draft printer property sheet

The local draft printer property sheet (Figure 5-2) is used to select options for printing documents.

The local draft printer property sheet is displayed by selecting the local draft printer icon and pressing <PROP'S>.

Window commands

The following is a description of the commands located at the top of the property sheet window in the gray area.

[DONE]

Closes the property sheet and applies the properties currently set.

[CANCEL]

Closes the property sheet without applying any changes to the properties.

[CLOSE]

Closes the window.

[START]

Begins printing the document.



Causes the window management commands to appear when the pointer is placed over the auxiliary menu and the left mouse button is held down. For detailed information on the window management commands, refer to the sub-tab titled "Windows" in the VP Series reference library.



Causes the window commands that have floated into the auxiliary menu to appear when the pointer is placed over the auxiliary menu and the left mouse button is held down. Window commands float into the auxiliary menu when the window is not wide enough to accommodate the commands.

Properties

The following is a list of the properties.

Number of copies

Specifies number of copies to be printed.

Icon label

Optionally specifies a name for for the local printer.

Hardware option

[TRACTOR FEED]

Specifies the type of paper feed for printing on standard sprocket edge fanfold paper.

Paper size

[80 COLUMNS]

Specifies the width of paper in the printer as 80 columns or 8.5-inches.

[132 COLUMNS]

Specifies the width of paper in the printer as 132 columns or 14-inches.

When printing

[DISPLAY OPTIONS]

When this option is selected, the local draft printer property sheet is displayed when a document is copied or moved to the local draft printer icon. When this option is not selected, printing is started immediately upon copying or moving a document icon to the local draft printer icon.

6. Isolating problems

If printing problems occur when using the local draft printer, try to determine where the problem lies in order to contact the appropriate technical representative.

To isolate problems, perform diagnostics in the following order:

- Local draft printer
- Print buffer
- 6085 or 8010 workstation

Local draft printer

To determine if the printer is at fault, perform the printer diagnostics as described:

Turn printer power off, then turn the printer on while holding down the FORM FEED switch. This causes the printer to print a test pattern repeatedly until the ONLINE switch is pressed. If problems occur, notify the appropriate technical representative.

A complete description of the printer diagnostics is described in the operator's guide provided with the printer.

Print buffer

To determine if the print buffer is at fault, perform the Print Buffer memory test as described in the operation manual provided with the print buffer.

- Verify the power source switch on the print buffer is in the printer position.
- Perform the print buffer memory test as follows:
 - a. Hold down RESET, and press PAUSE/COPY.
 - b. Release RESET, wait 1 second, and release PAUSE/COPY. After 4 or 5 seconds, results of the test will print out the buffer memory size (16K).
 - c. Press the RESET button to stop the test.

Note: If problems occur, replace the print buffer.

6085 workstation

To determine if the 6085 workstation is at fault, use the online diagnostics. The section titled "6085 Diagnostics" in the VP Series Reference Library contains information on using the diagnostics.

8010 workstation

To determine if the 8010 workstation is at fault, follow these steps:

1. Press and release the B RESET button on the processor's maintenance panel. The numbers on the maintenance panel begin to cycle.
2. When the numbers reach the 0300 range, press <STOP> on the workstation keyboard. The number 0399 appears.
3. Type **P** and press the return key. The number 0899 will appear.
4. Type **S23** and press the return key. The workstation diagnostics test should print on the local draft printer.
5. To repeat the test, type **i**.

To continuously run the test type **L** and **i**. To stop the test after 1 minute, press <STOP> on the workstation keyboard. (The printer continues printing until the buffer is empty).

If a problem occurs, the maintenance panel flashes a sequence of numbers beginning with 0818. Record the sequence of numbers and contact your technical representative.

Once the sequence of numbers has been recorded, reboot your workstation.