User Manual

Tektronix

**Phaser® 340
Color Printer**

Phaser® 340 Warranty

Tektronix warrants that the Phaser 340 will be free from defects in materials and workmanship for a period of one (1) year from the date of shipment and that the Maintenance Cartridge in the Phaser 340 will be free from defects in materials and workmanship for a period of ninety (90) days from the date of shipment or six months where longer periods are required by law. If the Phaser 340 or its Maintenance Cartridge proves defective during their respective warranty periods, Tektronix, at its option, will either repair the defective product without charge for parts and labor, or provide a replacement in exchange for the defective product.

This warranty applies only to products returned to the designated Tektronix depot or the Tektronix authorized representative from which the product was originally purchased. For products returned to other locations, Customer will be assessed the applicable service charge. The above limitation shall not apply within the European Economic Area, where products may be returned for warranty service to the nearest designated service depot regardless of the place of purchase.

In order to obtain service under this warranty, Customer must provide the applicable office of Tektronix or its authorized representative with notice of the defect before the expiration of the warranty period and make suitable arrangements for the performance of service. Customer shall be responsible for packaging and shipping the defective product to the service center designated by Tektronix or its representative, with shipping charges prepaid. Tektronix or its representative shall pay for the return of the product to Customer. Customer shall be responsible for paying any associated taxes or duties.

This warranty shall not apply to any defect, failure or damage caused by improper use or improper or inadequate maintenance and care. Tektronix shall not be obligated to furnish service under this warranty:

    a.   to repair damage resulting from attempts by personnel other than Tektronix representatives to install, repair or service the product;

    b.   to repair damage resulting from improper use or connection to incompatible equipment;

    c.   to repair any damage or malfunction caused by the use of non-Tektronix supplies or consumables;

    d.   to repair a product that has been modified or integrated with other products when the effect of such modification or integration increases the time or difficulty of servicing the product;

    e.   to repair damage or malfunction resulting from failure to perform user maintenance and cleaning at the frequency and as prescribed in the user manual; or

    f.   to repair this product after the limit of its duty cycle of 20,000 pages per month has been reached; all service thereafter shall be billed on a time and material basis.

THE ABOVE WARRANTIES ARE GIVEN BY TEKTRONIX WITH RESPECT TO THIS PRODUCT IN LIEU OF ANY OTHER WARRANTIES, EXPRESS OR IMPLIED. TEKTRONIX AND ITS VENDORS DISCLAIM ANY IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. TEKTRONIX' RESPONSIBILITY TO REPAIR OR REPLACE DEFECTIVE PRODUCTS IS THE SOLE AND EXCLUSIVE REMEDY PROVIDED TO THE CUSTOMER FOR BREACH OF THIS WARRANTY. TEKTRONIX AND ITS VENDORS WILL NOT BE LIABLE FOR ANY INDIRECT, SPECIAL, INCIDENTAL, OR CONSEQUENTIAL DAMAGES IRRESPECTIVE OF WHETHER TEKTRONIX OR THE VENDOR HAS ADVANCE NOTICE OF THE POSSIBILITY OF SUCH DAMAGES.

Users safety summary

Terms in manual: CAUTION   Conditions that can result in damage to the product.
                                WARNING   Conditions that can result in personal injury or loss of life.

Power source: Do not apply more than 250 volts RMS between the supply conductors or between either supply conductor and ground. Use only the specified power cord and connector. Refer to a qualified service technician for changes to the cord or connector.

Operation of product: Avoid electric shock by contacting a qualified service technician to replace fuses inside the product. Do not operate without the covers and panels properly installed. Do not operate in an atmosphere of explosive gases.

                              WARNING   Turning the power off using the On/Off switch does not de-energize the printer. You must remove the power cord to disconnect the printer from the mains. Keep the power cord accessible for removal in case of an emergency.

Safety instructions: Read all installation instructions carefully before you plug the product into a power source.

Terms on product: CAUTION   A personal injury hazard exists that may not be apparent. For example, a panel may cover the hazardous area. Also applies to a hazard to property including the product itself.
                              DANGER   A personal injury hazard exists in the area where you see the sign.

Care of product: Disconnect the power plug by pulling the plug, not the cord. Disconnect the power plug if the power cord or plug is frayed or otherwise damaged, if you spill anything into the case, if product is exposed to any excess moisture, if product is dropped or damaged, if you suspect that the product needs servicing or repair, and whenever you clean the product.

Ground the product: Plug the three-wire power cord (with grounding prong) into grounded AC outlets only. If necessary, contact a licensed electrician to install a properly grounded outlet.

Symbols as marked on product:

DANGER high voltage:

Protective ground (earth) terminal:

Use caution. Refer to the manual(s) for information:

WARNING: If the product loses the ground connection, usage of knobs and controls (and other conductive parts) can cause an electrical shock. Electrical product may be hazardous if misused.

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5   Supplies and Accessories

6   Troubleshooting

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Introduction

The Tektronix Phaser® 340 Color Printer uses Tektronix' solid ink-jet technology. Solid ink-jet refers to the melting of the solid inks inside the printer which then resolidify quickly as the image is transferred onto paper. The ink hardens so rapidly that it does not have time to bleed into the paper, so the printed colors remain brilliant and well-defined.

The Phaser 340 produces laser-quality color prints on Letter-size and A4-size media. You can use common office paper, as well as transparency film and peel-off label media. For best print quality, use Tektronix premium transparencies. With a print speed of four pages-per-minute on paper and two pages-per-minute on transparencies, the printer is well suited to workgroup printing environments.

In its standard configuration, the printer provides 300 x 300 dots-per-inch (dpi) resolution color printing, 8 Mbytes of memory and a total of 17 fonts. Features such as 600 x 300 dpi resolution printing, additional memory for performance and extra fonts are also optionally available.

The Phaser 340 with extended features adds higher print resolution and increased print performance, making it *the* choice for larger workgroups. The extended features option adds 600 x 300 dpi resolution printing, 24 Mbytes of memory and a total of 69 fonts. Additional memory improves the printer's performance by offloading your computer faster, improving processing speeds, allowing job pipelining, and providing storage for more downloadable fonts.

Options and Accessories. The printer can be upgraded with a variety of accessories to expand its capabilities. A 500-sheet Lower Paper Tray Assembly increases print capacity for high-demand printing environments. Optional Letter- and A4-size transparency trays make it possible to print on paper and transparency media without changing trays. Network options make the printer a fast, sharable printing resource.

Network printing. The printer works with PCs, Macintosh computers, and Unix and VMS workstations, making it a resource that can be shared in mixed environments. You can connect the printer to one host or several hosts because it supports simultaneously active interface ports. In addition to its standard bidirectional parallel port, optional PhaserShare network interface cards provide Ethernet, Token Ring and LocalTalk / serial connectivity. Automatic port and protocol sensing and switching makes the printer accessible in mixed network environments.

Language support. Using the Phaser 340, you can make color prints from a variety of software applications, since it incorporates Adobe's PostScript Level 2 software. The Phaser 340 accepts Hewlett-Packard Graphics Language (HP-GL) files and monochrome PCL5 (Printer Command Language) files. The printer can automatically switch between all three supported languages: PostScript, HP-GL, and PCL5.

Font support. The printer accepts Adobe Type 1 and Type 3 downloadable fonts, TrueType fonts, PCL5, and a variety of user-defined fonts. To extend font capacity, the printer supports a SCSI-connected external hard disk for storage of additional fonts.

Color corrections. TekColor Correction provides several user-selectable color correction modes that let you optimize your color prints. Vivid Color produces the brightest colors possible; Display closely matches colors on your monitor; SWOP simulates offset press printing; Commercial Press simulates commercial Matchprint® proofs; Euroscale Press matches the *Pantone Process Color System Guide*, European Edition.

PhaserLink printer control and information access. PhaserLink™ software provides a breakthrough in printer control and information access. Rather than use vendor-proprietary, printer-specific, and platform-specific management utilities, PhaserLink provides this function using HTTP (HyperText Transfer Protocol, the basis for World Wide Web browsers). This allows you to use a standard web browser to view printer status, control printer configuration, and link to online documentation via the World Wide Web.

Note   *To use PhaserLink, the printer must be connected to a network running TCP/IP. Refer to* **PhaserShare Status Software User Manual** *for complete details.*

Easy to use and maintain. Designed for the business office environment, the Phaser 340 is a fast, easy-to-use printer. When the printer is low on ink, you just drop in Tektronix ColorStix™ solid ink sticks and continue printing. Each ColorStix solid ink stick has a unique color and shape to simplify loading. An Energy Star power-saving mode automatically reduces power consumption during idle times.

To order ColorStix solid ink sticks, paper, transparencies or other supplies, refer to the supplies information sheet that is shipped with the printer and contact your local dealer or, in the United States and Canada, call Tektronix at **1**-**800**-**835**-**6100**.

1 *Introduction*

Chapter

2

Getting Set Up

At a glance

Installation of your printer involves these sequential tasks:

1. **Checking the inventory** (page 2-2)
2. **Touring the printer** (page 2-6)
3. **Registering the printer** (page 2-7)
4. **Setting up the printer** (page 2-8)

   ■ *Optional*: Installing the Lower Paper Tray Assembly (page 2-9)

   ■ *Optional*: Installing the Phaser Copystation (page 2-10)

   ■ Unlocking the printer transit restraint (page 2-11)

   ■ Installing the start up maintenance tray (page 2-12)

   ■ Loading ink sticks (page 2-14)

   ■ Selecting a media tray configuration (page 2-15)

   ■ Loading the media tray(s) (page 2-16)

5. **Connecting the power and interface cables** (page 2-21)
6. **Selecting a language for the front panel** (page 2-28)
7. **Installing printer software on your computer** (page 2-30)

Note   *To install a hard disk for font storage, turn to "Adding a hard disk for font storage" on page B-8.*

Checking the inventory

The printer and its standard accessories are shipped in a single box.

1. Quick-Start Installation guide

2. Phaser 340 ColorStix starter pack

3. Paper tray (Letter- or A4-size)

4. Power cord

5. Start up maintenance tray

6. Cleaning kit

7. TekColor Care envelope (includes the registration card)

8. Parallel cable adapter

9. *Phaser 340 Color Printer User Manual*

10. Phaser 340 Media Sampler

11. Supplies information sheet

12. *Phaser 340 Drivers and Utilities Printing Reference* manual CD-ROM, and diskettes

13. PhaserShare User Manuals and diskettes (optional)

14. 52 additional fonts (optional)

1 Quick-Start Installation Phaser 340

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6 Cleaning Kit

7 TekColor™ Care Information Envelope

8

9 User Manual

10 Media Sampler

11 Supplies Information Sheet

12 Printing Reference

13 PhaserShare Manuals

14 52 Optional Fonts

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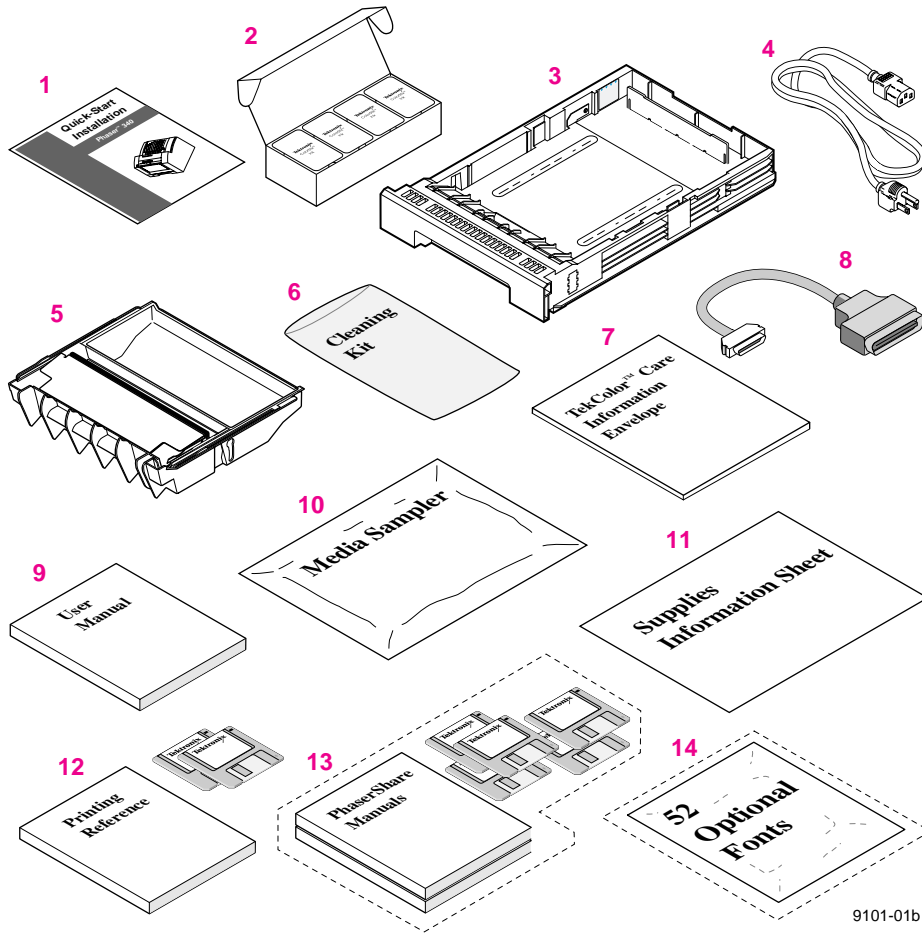
Optional accessories

When you order one of the printer's optional accessories, each is shipped separately in its own box. For information on ordering optional accessories, refer to "Expanding Your Printing System" on page B-1.

1. **Lower Paper Tray Assembly (recommended).** With a 500-sheet capacity, the Lower Paper Tray Assembly transforms the printer into a high-volume printing solution for networked environments. Dual-tray printing capability is especially useful if you commonly print on several types of media, for example office paper in the lower tray and transparencies, letterhead, or label media in the upper tray.

2. **Phaser Copystation.** The Phaser Copystation adds easy-to-use, walk-up color copying capability to the printer. Its front-panel controls let you specify the number of copies and select among color, gray scale and black-and-white copying modes. You can choose to make copies reduced to 25% or enlarged to 200% of the original's size, and you can adjust copies for color balance and lightness.

3. **Transparency tray (recommended).** If you often print transparencies, you can save time and effort by purchasing an optional transparency tray dedicated for printing transparencies. Using both paper and transparency trays, you can conveniently print on several types of media by simply swapping trays. There is no need to load and unload trays when changing between media types.
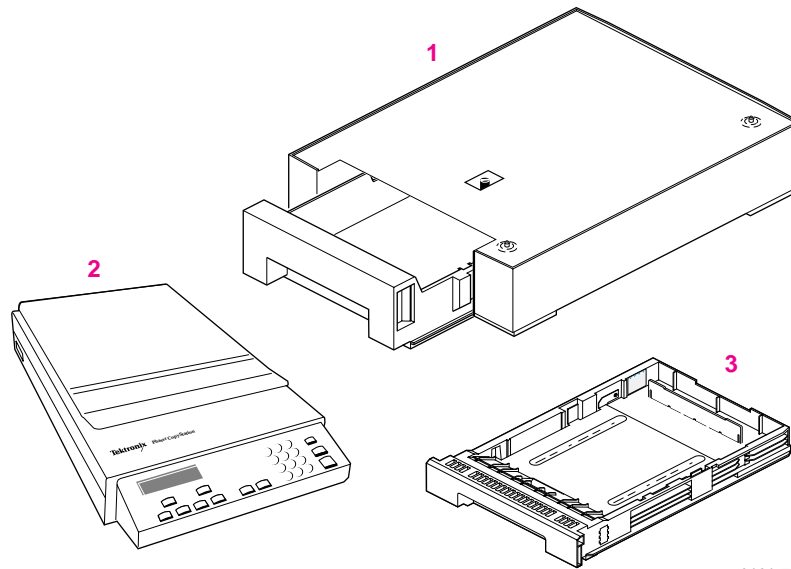
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Touring the printer

Use the following illustration to familiarize yourself with the printer.

1. Front cover release button

2. Front panel menu display and buttons

3. Exit cover

4. Ink loading bins

5. Top cover release button

6. On/Off switch and rear panel ports

7. Transit restraint

8. Media tray

9. Front cover

10. Maintenance tray

11. Exit cover release button
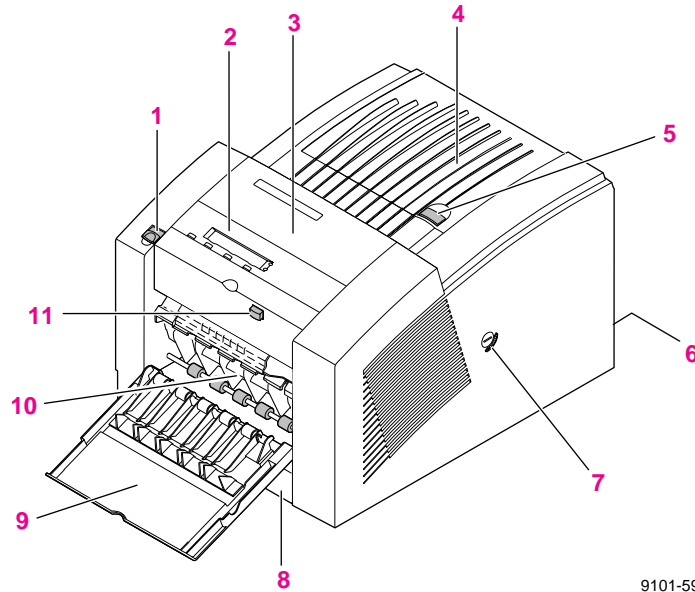
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Registering the printer

The TekColor Care information envelope contains your TekColor Care registration card.

■   Find the registration card that is appropriate for you
(U. S. or international versions).

■   Fill out the registration card and mail it.

By registering your printer with Tektronix, you are validating the product warranty and you are ensuring that you will be sent information about upgrades, service, and accessories as it becomes available.

Setting up the printer

The printer is shipped to you already loaded with ink. To set up the printer for use, follow these basic steps as described in this chapter:

■ Remove the packing material from the printer

■ *Optional*: Install the Lower Paper Tray Assembly

■ Unlock the printer transit restraint

■ Install the start up maintenance tray

■ Load ink sticks

■ Select a media tray configuration

■ Load the media tray(s)

Note *To ensure proper printer operation, install the printer on a flat surface having no more than 3 degrees of tilt. This is approximately equivalent to lifting one side of the printer up 2 cm (0.75 inches) off of a flat surface.*

Quick-Start Installation guide

A *Quick-Start Installation* guide is included with the printer. You may want to reference the instructions in this guide as you set up the printer.

Removing the packing material

Remove the plastic bag and packing materials surrounding the printer.

Note *Save all boxes and packing material in case you need to ship the printer later.*

Installing the optional Lower Paper Tray Assembly

An optional Lower Paper Tray Assembly for paper printing is available as an option (Tektronix order number 4682FTA). With a 500-sheet capacity, the Lower Paper Tray Assembly enables the printer to be used as a high-volume printing solution for networked environments.

Using the optional Lower Paper Tray Assembly, you can configure the printer for dual-tray printing capability. Two trays are especially useful if you commonly print on several types of media, for example office paper in the lower tray and transparencies, letterhead, or label media in the upper tray.

Warning   *The printer is not permanently attached to the Lower Paper Tray Assembly. When moving the printer, first disconnect it from the Lower Paper Tray Assembly and then move each unit separately. Moving the printer incorrectly may cause damage or personal injury.*

The printer weighs about 32 kg. (70 lbs.). Do not attempt to lift the printer without the assistance of another person.
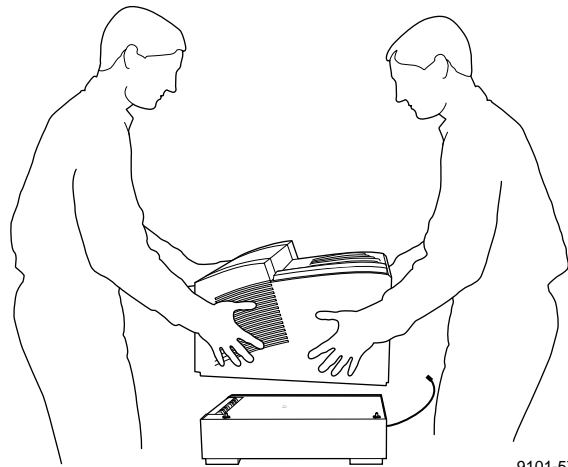
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Install the Lower Paper Tray Assembly using these steps:

1.   Remove the tray from the Lower Paper Tray Assembly. Remove the shipping block from the tray and replace the tray in the Lower Paper Tray Assembly.

2.   Place the printer on top of the Lower Paper Tray Assembly.

3.   Make sure that the left and right alignment pins fit in the holes in the base of the printer.

4.   Plug the Lower Paper Tray Assembly cable into the printer.
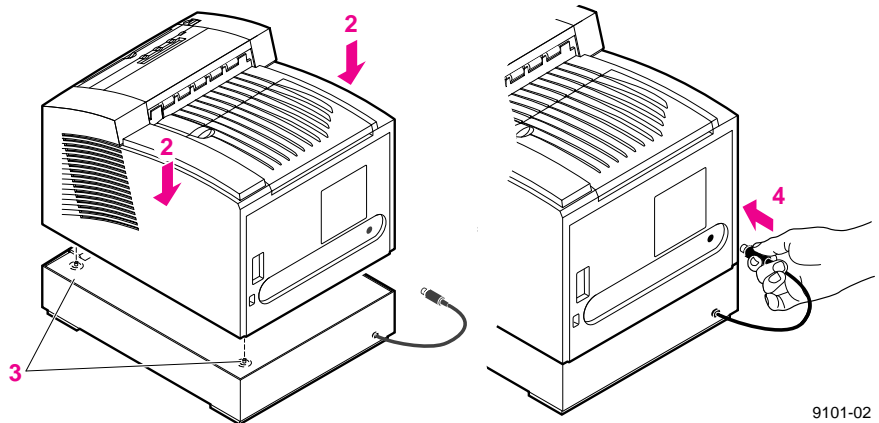
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To move the printer more than a few feet, it is easier to disconnect the Lower Paper Tray Assembly and move the printer separately from the Lower Paper Tray Assembly.

Installing the optional Phaser Copystation

The optional Phaser Copystation allows your color printer to be used as a color copier. Refer to "Phaser Copystation" on page B-7 for ordering information.

To set up the Phaser Copystation and to connect it to your printer, refer to Chapter 2 of the *Phaser Copystation User Manual.*

Unlocking the transit restraint

Caution   *To avoid damaging the printer, always turn the printer power
off using the On/Off switch before locking or unlocking the
transit restraint.*

1.   Turn the printer power off using the rear-panel **On/Off** switch.

2.   The transit restraint lock is located on the right side of the printer.
Insert a wide flat-blade screwdriver into the lock slot.

3.   While pushing inward with slight pressure, turn the lock button
counterclockwise until it springs out flush with the side of the
printer.
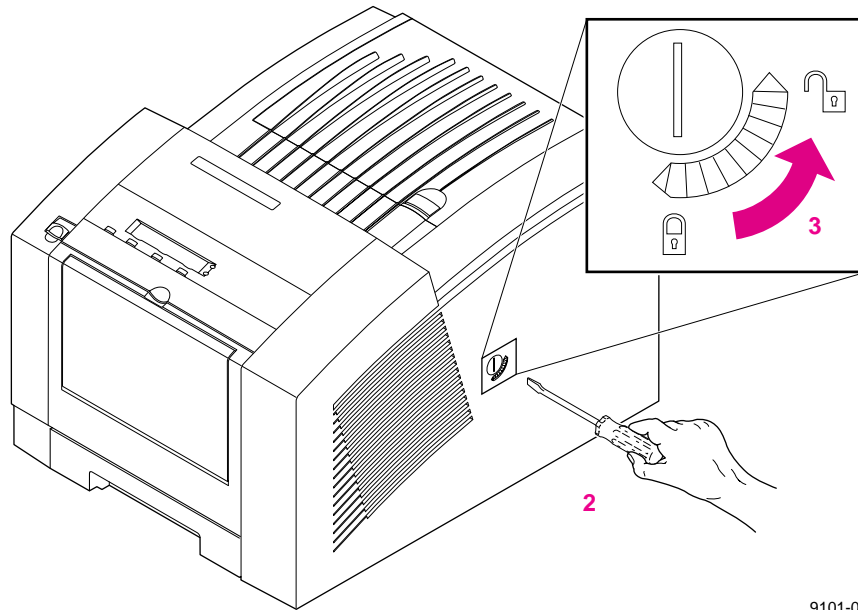
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Caution   *If you move or ship the printer, be sure to lock the transit
restraint to protect the printhead from damage. Refer to
"Locking the transit restraint" on page C-2 for more
information.*

Installing the maintenance tray

The printer is shipped with a start up maintenance tray that must be installed before printing is possible. The front panel displays a message telling you when the start up maintenance tray is low, allowing you to make a minimal number of prints before the tray is depleted. To avoid printing delays, always keep an extra maintenance tray available for use in the printer.

Note   *When you reorder a replacement maintenance tray for the printer, use Tektronix order number 436-0294-03.*

1. Open the front cover.
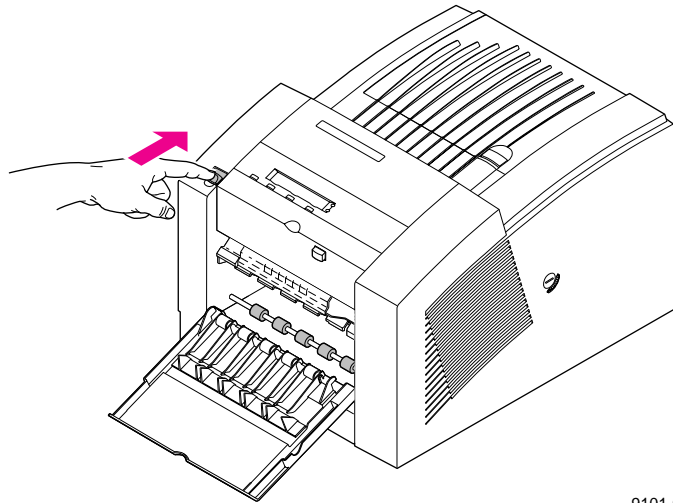
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2. Open the maintenance tray shipping box and remove the maintenance tray.

3. Remove the packing materials from the maintenance tray. Retain the plastic bag for disposal of the used maintenance tray.

4. Install the maintenance tray by sliding it into the printer.

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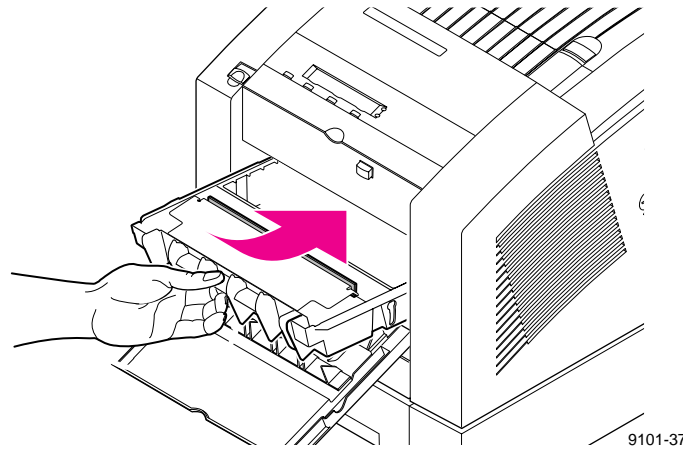
Note   *To prevent jams at the media tray, be sure to push the maintenance tray into the printer until both sides latch firmly into place.*

5. Close the front cover.

Caution   *If you move or ship the printer, be sure to remove the maintenance tray to protect the printer from damage. Refer to Appendix C, "Moving Your Printer," for more information.*

Loading ink sticks

The printer's standard accessories include a box containing one of each color Phaser 340 ColorStix solid ink stick: cyan, magenta, yellow and black. You'll need to load the box of ink sticks during printer setup. To ensure that your printer is always available for use, Tektronix recommends that you immediately reorder and maintain a stock of each color ink stick. Refer to "Ordering printer supplies" on page 5-1 for ordering information.

Note *To ensure optimum printing performance and best ink economy, leave the printer turned on overnight and during weekends.*

1. Open the top cover.

2. Drop the appropriate color Phaser 340 ColorStix ink stick into each ink loading bin. Ink sticks are uniquely shaped to fit into the correct ink-loading bin.
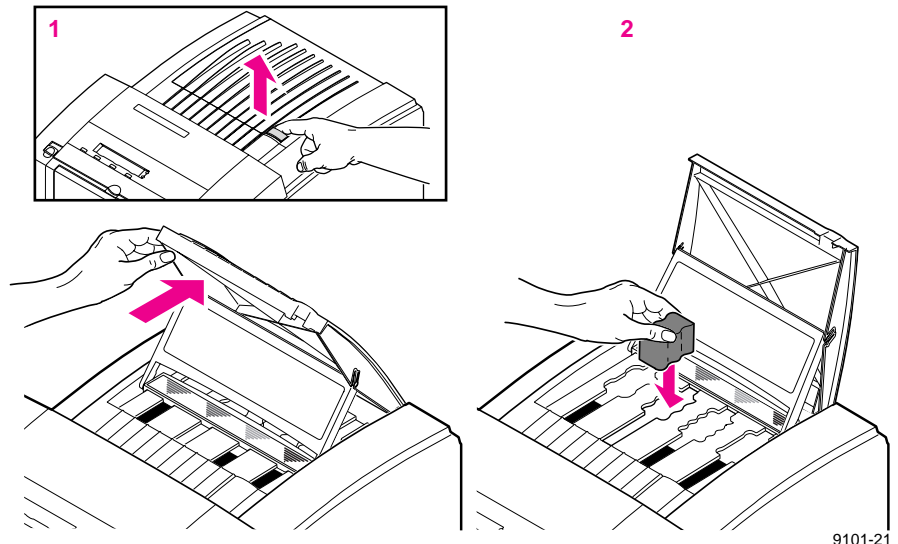
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3. After loading the appropriate color ink stick, close the top cover.

Selecting a media tray configuration

If you print on different types of media (paper and transparencies, letterhead or label stock) or different media sizes (Letter and A4), you'll want to get the appropriate media tray for the type of media you use. For transparency printing, the optional transparency tray is recommended.

The standard paper tray shipped with your printer accepts Letter-size paper and label stock. An optional A4-size paper tray also supports A4-size paper and label stock printing. Optional transparency trays can be ordered for Letter- and A4-size transparency media. An optional Lower Paper Tray Assembly for high-volume printing can be ordered for Letter- and A4-size paper only.

Refer to "Optional media trays" on page B-3 for ordering information.

Office paper, letterhead, and label stock printing

Standard paper tray: Use the standard 200-sheet paper tray shipped with your printer for paper, letterhead, and label stock print jobs.

Optional Lower Paper Tray Assembly: In workgroup printing environments, you'll want to add the optional 500-sheet Lower Paper Tray Assembly to supplement the standard paper tray.   The Lower Paper Tray is also convenient when you want to print on paper (lower tray) and another media, such as transparency, letterhead, or label stock (upper tray). With dual-tray capability, you can print on different media without the need to leave your computer to switch printer trays.

Note   *The Lower Paper Tray Assembly supports printing on paper only.*

Transparency printing

Transparency tray: If you often print transparencies, you can save time and effort by purchasing an optional transparency tray dedicated for printing transparencies. Using both paper and transparency trays, you can easily print on several types of media by simply swapping trays. There is no need to load and unload trays when changing between media types.

When you add the Lower Paper Tray Assembly to the printer, you can select between paper printing (lower tray) and transparency printing (upper tray) without leaving your computer. Refer to "Optional media trays" on page B-3 for ordering information.

Standard paper tray: You can use the standard paper tray to print on transparencies. However, when you print you'll need to follow these instructions:

a. Select **Transparency** as the Media Source in the Tektronix printer driver.

b. When the printer's front panel message prompts you, load the transparency media, confirm your action using the front panel, and continue printing.

c. When printing is completed, remove the extra transparency media from the paper tray and replace paper media.

Loading media trays

The standard tray shipped with the printer accepts common office Letter-size (8.5 x 11 in.) paper ranging from 16 – 32 lbs. An optional A4-size (210 x 297 mm) paper tray supports printing on common office A4-size paper. Optional transparency trays are also available for Letter- size and A4-size transparency printing.

The optional Lower Paper Tray Assembly can be ordered with either a Letter- or an A4-size paper tray for printing on paper ranging from 60 – 120 g/m^2 (16 – 32 lbs.). For more information about media types, refer to "All about media" on page 3-15.

Note   *Samples of paper and transparency media are included in the Media Sampler kit.*

Loading paper and transparency trays

1. Prior to loading paper media in a tray, fan the paper to release sheets that are stuck together.

Note   *Handle transparencies by the edges and with both hands to avoid fingerprints and creases, which can result in poor print quality.*

2. If you are loading paper in the standard paper tray, load up to 200 sheets of common office paper (slightly less than one-half ream). If you are loading transparencies in the standard paper tray, load up to 50 transparency sheets.

3. If you are loading transparencies in the transparency tray, load up to three boxes (175 sheets) of transparency media.

4. If you are using Tektronix premium transparency media, position the transparency notch in the back, right corner of the tray. Standard Tektronix transparencies can be loaded in any orientation.

Make sure that the media fits snugly against the inside front wall of the tray. A label on the inside of the paper and transparency trays provide a fill line to indicate the tray's maximum capacity.
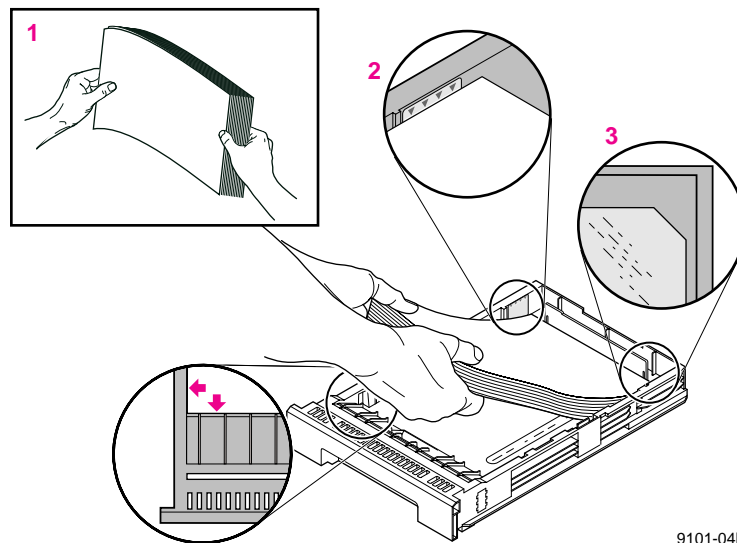
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5. Insert the media tray into the printer.

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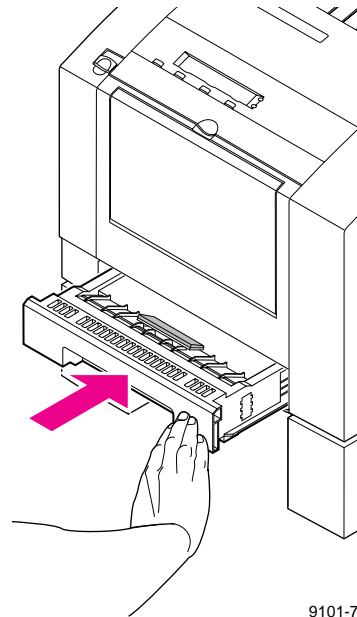
Loading the Lower Paper Tray Assembly

The Lower Paper Tray Assembly holds up to 500 sheets of paper. A label on the inside of the tray provides a fill line to indicate the tray's maximum paper capacity.

Note   *The Lower Paper Tray Assembly accepts paper media only; it should not be used with transparencies or label stock.*

1. Load one-half of a ream (250 sheets or less) of paper at a time.

2. Prior to loading paper in the Lower Paper Tray Assembly, fan the paper stack to release sheets that are stuck together.

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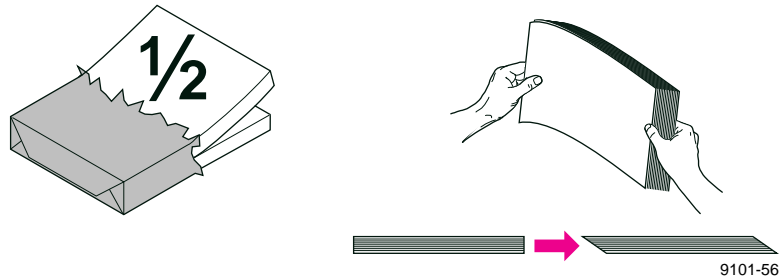
3. Load the first stack of paper in the tray. Make sure that the paper fits snugly against the inside front wall of the tray.

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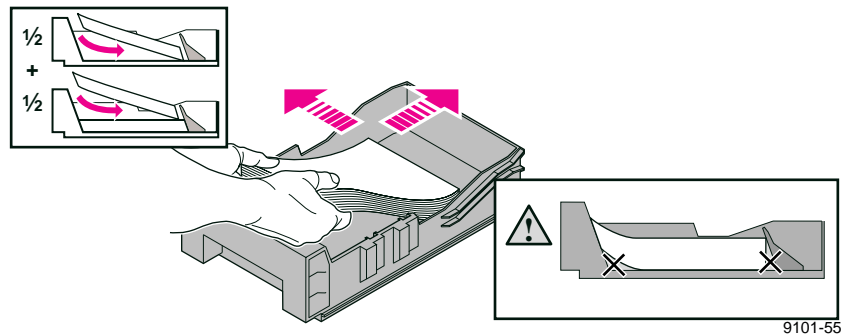
4. Load the second stack of paper. Make sure that the paper fits flat in the tray.

5. Insert the paper tray into the Lower Paper Tray Assembly.
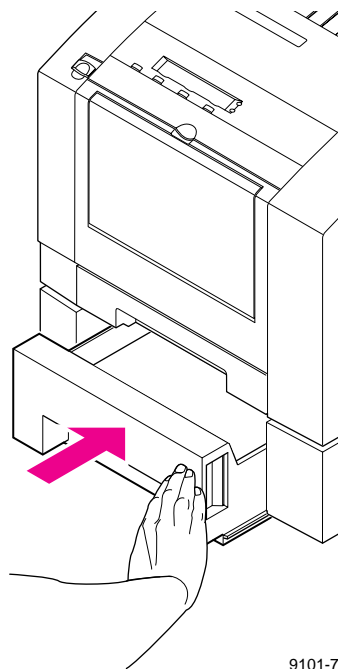
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Connecting the printer

Printer ports

The printer is shipped with a SCSI port and a standard parallel port. The parallel port can be configured for bi-directional communications. The printer can also be configured with one optional PhaserShare™ network card. Refer to "PhaserShare network cards" on page B-6 for ordering information.

All ports and network protocols are simultaneously active. The printer accepts print jobs on a first-come, first-served basis.

1. **PhaserShare card** (*optional)*

    ■   PhaserShare Ethernet card supports Novell NetWare, EtherTalk and TCP/IP protocols.

    ■   PhaserShare Token Ring card supports Novell NetWare, TCP/IP and TokenTalk protocols.

    ■   PhaserShare LocalTalk/serial card.

2. **SCSI** (*standard)*

    The SCSI port is used only for connecting an external hard disk or for connecting the Phaser Copystation. Refer to "Adding a hard disk for font storage" on page B-8 for more information on the SCSI port. Refer to "Phaser Copystation" on page B-7 for more information on the Phaser Copystation.

3. **Parallel** (*standard)*

Note   *Make all printer connections **before** you turn on the printer.*

The *PhaserShare Network Cards and Software System Administrator Manual* contains all the information necessary for configuring and using the optional connections.
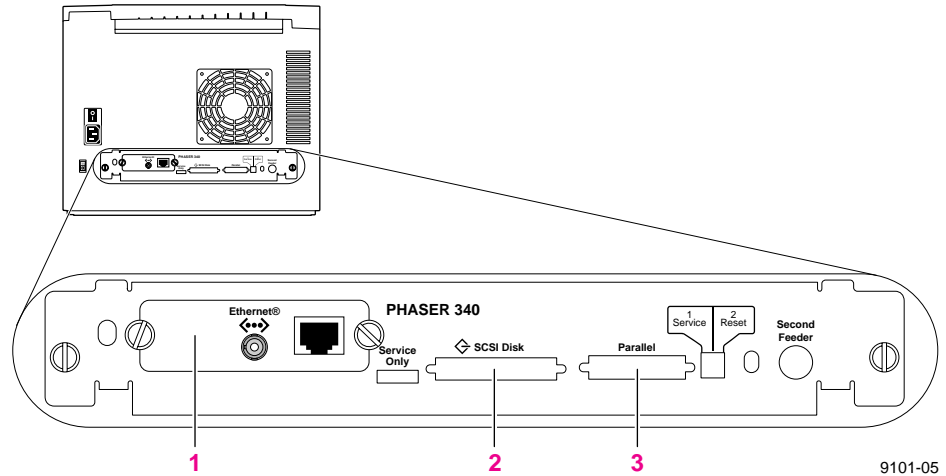
Note   *See "Interface cables and adapters" on page 5-3 about ordering cables for connecting the printer.*

PhaserShare network and serial connections

Optional PhaserShare cards provide Ethernet, Token Ring, or LocalTalk/serial connections for the printer. PhaserShare cards can be purchased initially with the printer as an installed option or later as a separate upgrade kit. If purchased initially, you will find the PhaserShare network manuals included in the shipping box with your printer. If you purchased a PhaserShare card as an upgrade kit, install the card using the directions provided with the upgrade kit.

PhaserShare network interfaces offer high performance and flexible workgroup connectivity. All data input ports and network protocols are simultaneously active. Print jobs are processed on a first-come, first-served basis.

The *PhaserShare Network Cards and Software System Administrator Manual* contains all the information necessary for configuring and using the optional connections. For ordering information, refer to Appendix B. Refer to "Interface cables and adapters" on page 5-3 in this manual for information on ordering serial cables.

SCSI connections

The SCSI port is used for connecting these optional peripheral devices:

■ **Phaser Copystation**
To set up the Phaser Copystation and to connect it to your printer, refer to Chapter 2 of the *Phaser Copystation User Manual.* Refer to "Phaser Copystation" on page B-7 for ordering information.

■ **External font disk**
Refer to "Adding a hard disk for font storage" on page B-8 for more information.

Refer to "Interface cables and adapters" on page 5-3 for information on ordering SCSI cables.

Parallel connection

The printer supports a standard (uni-directional) parallel port. The parallel port can also be set for bi-directional communications using utility files or your World Wide Web browser. Refer to the *Phaser 340 Drivers and Utilities Printing Reference* or the *PhaserShare Network Cards and Software System Administrator Manual*, respectively, for information on changing parallel communications. The printer uses a 36-pin high-density to 25-pin DSUB plug parallel cable. Refer to "Interface cables and adapters" on page 5-3 for information on ordering a parallel interface cable.

Note *The printer's parallel port uses a high density connector, Type IEEE 1284-C. To use a standard Centronics-style parallel cable, use the parallel cable adapter included with the printer.*

1. Connect a parallel interface cable to your computer and to the printer's parallel port.

9101-08
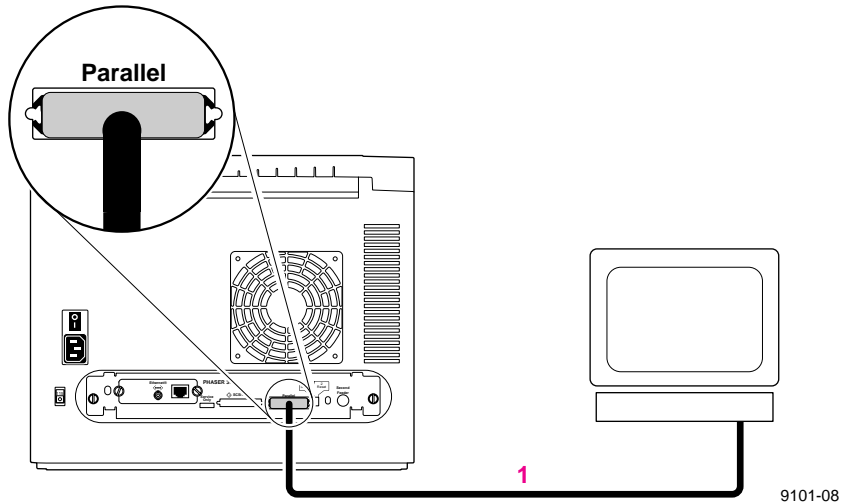
2. If you have no other connections to make, turn immediately to "Turning on the printer" on page 2-25.

Turning on the printer

After you have connected the interface cables, you are ready to connect the power cord and turn on the printer. If you need to turn the printer off, wait until the display shows `Ready` before powering it down.

Caution   *To avoid damaging the printer, make sure that the voltage select switch is set to match the AC line voltage for your location and that the power switch is in the **off** position before connecting the power cord.*

If you move the printer to a location that uses a line voltage other than the printer's current setting, refer to "Changing line voltage" on page C-4 for information on changing the line voltage selection switch.

9101-50
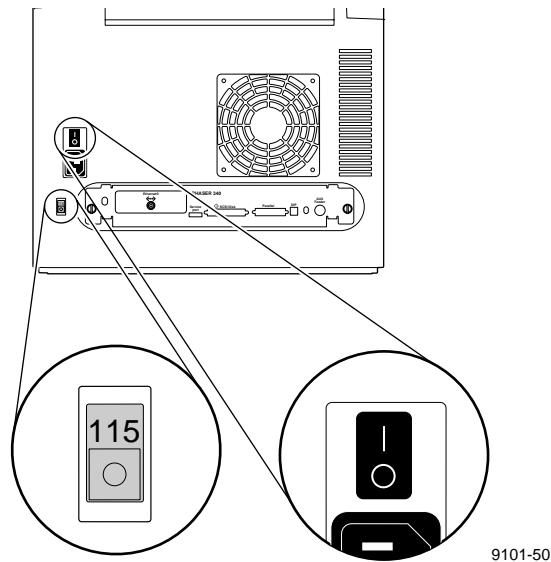
1. Plug the power cord into the printer and into a grounded outlet.

2. Turn on the printer.

Note   *To ensure optimum printing performance and best ink economy, leave the printer turned on overnight and during weekends. The printer automatically switches into a standby mode to reduce power consumption during periods of infrequent use.*
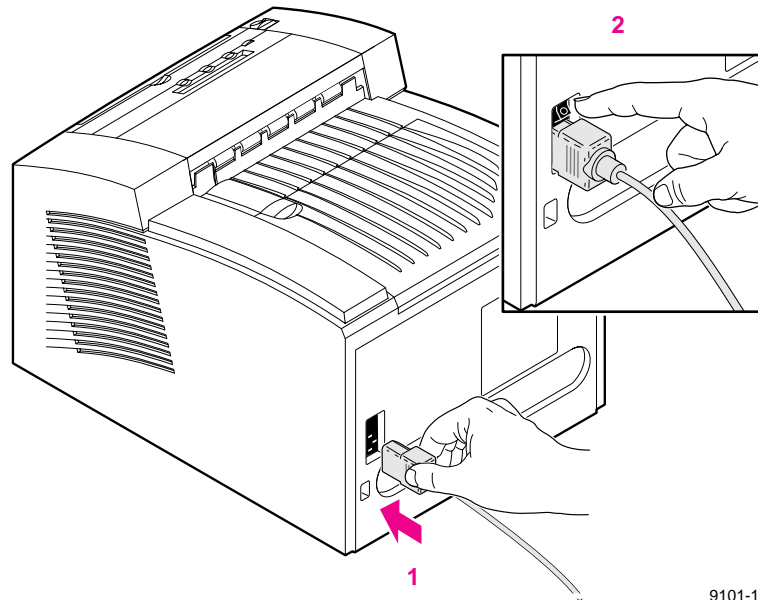
9101-10

As the printer warms up

The first time you turn your printer on, it will take about 15 minutes to warm up. The printer's front panel displays a percentage value to indicate its progress. The warm-up cycle is complete when the front panel displays 100%.

As the printer initializes, you will hear a series of start-up noises that are normal and are not an indication of problems with the printer. During warm-up, the printer outputs a cleaning page as part of its initialization. The printer is available for printing when it displays a `Ready` message.

Turning off the Startup page

After the printer has warmed up, it automatically prints a startup page. If you want to turn off the startup page, you can do so through the front panel. Refer to "Enabling and disabling the startup page" on page A-7 for instructions. You can also control the startup page through a utility file provided on the drivers and utilities diskettes, or through your World Wide Web browser. Refer to the *Phaser 340 Drivers and Utilities Printing Reference* or the *PhaserShare Network Cards and Software System Administrator Manual*, respectively, for information on utility files and web browsers.

Front panel controls

When you first turn on the printer, the **Power** ⊘ and **Error** ╱ indicators on the front panel are lighted. The printer takes about 15 minutes to completely warm up. During the warm-up cycle, the **Power** indicator remains on, the **Error** light goes out, and the front panel displays a series of "Warming up" messages.

Status messages, such as `Warming Up`, appear on the top line of the display. Button labels, such as `Clean` and `Menu`, appear on the lower line of the display. Button labels identify a function for the corresponding button located under the label. For example, to access other menus, press the button located under the word `Menu`.

```
    Ready

                    Clean        Menu
```

Power
Error

↑
Exit
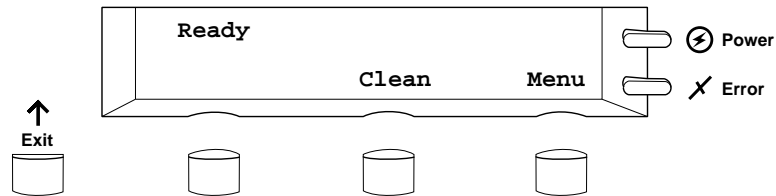
9101-54

Accessing the front panel menu

When the printer is shipped, access to the front panel menu is made by pressing the `Menu` button. System administrators may choose to limit access to front panel menus, requiring users to know a two-button combination to gain full access to menus. Refer to the Chapter 7 for a complete description of front panel controls and menus.

Selecting a language for the front panel

Messages that appear in the front panel window are in English by default. To change the language to Spanish, French, German, Italian, or Japanese, follow these steps.

1. When the printer is on and the `Ready` message appears, press the **Menu** button. The printer displays the first selection in the menu:

   ```
   Help Pages
   <----    ---->    Menu
   ```

2. Using the left (`<----`) or right (`---->`) arrow buttons, scroll through the selections until the following message appears:

   ```
    Language
   <----    ---->    Menu
   ```

3. Press the **Menu** button to access language selections. The printer displays the following message:

   ```
   Language:English*
   <----    ---->    OK
   ```

   where the asterisk (*) indicates the currently selected language.

4. Using the left or right arrow buttons, scroll through the language selections until you reach the appropriate setting.

5. Press the **OK** button to confirm your language selection.

6. Return to the top level of the menu by pressing the (Exit) button until the printer displays the `Ready` message.

Help Pages Overview

The printer has several Help Pages that you can print to learn more about the printer's operation and configuration. Use the printer's front panel or your World Wide Web browser to print the following pages:

Menu Map: Provides a graphical view of the front panel menus.

Configuration Page: Lists general information on printer settings and how the printer is configured.

Startup Page: Lists the number of pages printed, installed interface ports, software version numbers, installed RAM memory, the number of fonts, and other useful information.

Demonstration Pages: Provide a colorful way of learning more about the printer while demonstrating its printing capabilities.

After setting up the printer, you may want to print Help Pages to check that the printer is operating correctly. For information on printing from the front panel, refer to "Printing Help Pages" on page A-1. Refer to the *PhaserShare Status Software User Manual* for information on printing from a web browser.

1. When the printer is on and the `Ready` message appears, press the **Menu** button. The printer displays the following message:

        Help Pages
       <----   ---->   Menu

2. Press the **Menu** button to access the Help Pages. The printer displays the following message:

        Menu Map
       <----   ---->   Print

3. Using the left (`<----`) or right (`---->`) arrow buttons, scroll through these selections: `Menu Map`, `Configuration Page`, `Startup Page`, `Demonstration Pages`.

4. Press the **Print** button to print the displayed page.

Installing the printer's software

Packaged with your printer are the Phaser 340 compact disk (CD-ROM) for platforms with a CD-ROM drive or, if your computer does not have a CD-ROM drive, the diskettes for PC and Macintosh computers. The CD-ROM and diskettes contain software and utility files that work with a printer driver to let you select media type, media trays, print-quality modes, color correction modes and other features.

For complete details on the contents of the CD-ROM and diskettes and how to use them, refer to the *Phaser 340 Drivers and Utilities Printing Reference,* which is shipped with the printer.

The following topics discuss installing software on a PC, Macintosh, and workstation.

PC software

The Phaser 340 diskettes and CD-ROM include an installer application that automatically installs the following printer software on your computer's hard disk:

- ■ *TKPH3401.PDF*
  PostScript printer description file for use with QuarkXPress.

- ■ *TK340172.PPD*
  PostScript printer description file for use with the standard configuration of the printer and a PPD-driven printer driver such as the Adobe PS3.

- ■ *TK340692.PPD*
  PostScript printer description file for use with the printer's extended features option and a PPD-driven printer driver such as the Adobe PS3.

- ■ *TKPH3401.ICM*
  Printer profile for use with host color correcting.

- ■ *SAMPLERS*
  Directory containing color sampler charts and a fonts sampler.

- ■ *PHSR340*
  Directory containing printer utility files.

PC: Software for Microsoft Windows 95

For best performance and added features when printing from Windows 95, use the Windows 95 printer driver (not the Windows 3.1 printer driver, which may cause printing problems in Windows 95). Follow these steps:

1. Remove the Windows 3.1 driver (if applicable) from your PC. For instructions, refer to the *Phaser 340 Drivers and Utilities Printing Reference.*

Caution   *If you installed a Tektronix Windows 3.1 printer driver in Windows 3.1, then upgraded to Windows 95, that driver will appear in Windows 95 and may cause printing problems in the new operating system.*

2. Start Windows 95.

3. Insert either the Printer Software for Windows diskette or the Phaser 340 CD-ROM into the appropriate drive.

4. Click the **Start** icon in the task bar on your screen. In the menu that appears, click **Settings**.

5. In the menu that appears, click **Printers**; the **Printers** windows appears.

6. In the **Printers** window, double-click **Add Printer**; the **Add Printer Wizard** appears. Click **Next**.

7. Select your printer's connection:

   ■ Select **Local Printer** if your printer is connected directly to your computer, then click **Next**.

   ■ Select **Network Printer** if you are accessing your printer through a network. Click **Browse** to search the network and select a printer queue. Then click **Next**.

8. In the window listing **Manufacturers/Printers**, click **Have Disk**.

9. In the **Install From Disk** dialog box, type in the drive for either the Phaser 340 CD-ROM or the Printer Software for Windows diskette, and click **OK**.

10. A list of Tektronix printers appears. Select your printer in the list, then click **Next**.

    ■   Select **Tektronix Phaser 340** if you have the standard configuration of the printer.

    ■   Select **Tektronix Phaser 340 with 600 dpi** if you have the printer's extended features option.

Note   *If you are not sure whether your printer has the standard configuration or the extended features option, print the startup page from the Help Pages menu in the front panel. This page includes an entry for **Extended Features**: **Yes** if installed, **No** if it is not.*

11. Select the port your printer is connected to, then click **Next**.

12. It is recommended that you use the default printer name shown under **Printer name**. Click **Yes** if you want this printer to be the default printer. Then click **Next**.

13. At the prompt, `Would you like to print a test page?` click **Yes** to verify the printer's connection, or click **No**. Then click **Finish**.

     A status bar appears while files are copied to your computer.

14. If prompted, select the path for the PostScript driver file *ICONLIB.DLL*; this should be in your *WINDOWS/SYSTEM* directory.

     If the file isn't installed on your hard disk, insert the Microsoft CD-ROM for Windows 95, select the *WIN95* directory, and click **OK**. Or, insert the requested floppy diskette for Windows 95, select the drive, and click **OK**. The software you need is installed.

15. If your printer is set up correctly, and you clicked **Yes** in Step 13, a test page prints showing the Windows 95 logo and information about your printer.

     Your Phaser 340 printer should be added to the **Printers** window.

When you are done installing the Windows 95 driver, refer to "Installing optional fonts" on page 2-52.

PC: Software for Microsoft Windows 3.1

The following procedure automatically installs the Adobe PS3 printer driver and PostScript printer description files (PPDs) required by some applications. The Adobe PS3 driver works faster and more efficiently with the Adobe PostScript interpreter inside your Phaser 340 than other drivers, especially if you are using TrueType fonts.

Note   *If you are using the Tektronix floppy diskettes for installation, you will need both the Printer Software for Windows diskette and the Adobe PS3 Printer Driver for Windows 3.1 diskette for this procedure.*

1.   Make sure that Windows 3.1 is running on your PC.

2.   The driver installation overwrites an older version of the Adobe PostScript printer driver. If you already have an Adobe driver installed, you may want to remove your installed Tektronix printers before continuing, and reinstall them later with the newer driver. Follow these steps to remove printers with an older driver:

   a.   From the **Control Panel**, double-click **Printers**.

   b.   In the **Printers** dialog box, select a printer that was set up with an older version of the Adobe driver, and click **Remove**.

   c.   Repeat Steps **a** and **b** for all printers installed with the Adobe driver.

   d.   After you have installed the new driver, you can reinstall your existing printers (PPDs) through the **Adobe PostScript Printers** dialog box in the **Control Panel**.

3.   Quit all applications, including the **Control Panel**.

4.   Insert either the Adobe PS3 Printer Driver for Windows 3.1 diskette or the Phaser 340 CD-ROM into the appropriate drive on your computer.

5. In the **Program Manager**, select **Run** from the **File** menu.

6. At the **Command Line**, type one of the following, replacing *A:* with the correct drive, then click **OK**.

   ■ **CD-ROM:**   `A:\win31drv setup`

   ■ **Diskette:**   `A:setup`

7. At the **README.WRI** dialog box, click one of the buttons. The *README* file contains information on installing the driver and application notes. Clicking **Read** opens the *README* file. Clicking **Skip** (or quitting the *README* file) moves you to the next dialog box listed in the next step.

8. In the **PostScript Printer Driver Setup** dialog box, click **Exit** if you need to quit any open applications, or click **Continue** to start the driver installation.

9. You will see a status dialog box during the installation procedure. At the end of the installation, click the **Restart Windows** button.

10. After Windows restarts, the **Install PostScript Printer from PPD** dialog box opens.

11. Select your printer in the **Printer Descriptions Available** list and click **Install**:

    ■ Select **Tektronix Phaser 340** if you have the standard configuration of the printer.

    ■ Select **Tektronix Phaser 340 with 600 dpi** if you have the printer's extended features option.

Note   *If you are not sure whether your printer has the standard configuration or the extended features option, print the startup page from the Help Pages menu in the front panel. This page includes an entry for **Extended Features**: **Yes** if installed, **No** if it is not.*

12. At the installation successful message, click **OK**.

13. Click Close in the **Install PostScript Printer from PPD** dialog box.

14. At the message, click **OK**; the **Control Panel** opens.

15. From the **Control Panel**, double-click **Printers**.

16. In the **Printers** dialog box, select the **Tektronix Phaser 340** printer you just installed, then click **Connect**.

17. In the **Connect** dialog box, select the port the printer is connected to, then click **OK**.

Note   *Refer to the README file on the Adobe PS3 Driver for Windows 3.1 diskette from Tektronix, or to the Adobe PostScript Printer Driver User Guide, for more detailed information on installing and using the Adobe PS3 driver.*

When you are done installing the Windows 3.1 driver, refer to "Installing optional fonts" on page 2-52.

PC: Updating the driver software for Windows NT

If you are using Microsoft Windows NT, follow these instructions to update the printer driver that enables you to print to a Phaser 340. This update procedure provides printer page size information for Windows NT applications. However, TekColor color corrections and other PostScript Level 2 features are not supported by the Windows NT driver. Refer to the *Phaser 340 Drivers and Utilities Printing Reference* for instructions on other ways of selecting color corrections. Refer to your Microsoft Windows NT documentation for details on features in the Windows NT driver.

Note *This procedure requires that a PostScript printer driver be installed on your system. If it is not, you will need your original Windows NT setup diskettes (or CD-ROM).*

1. Start your system with **Windows NT**.

2. If your computer has an Intel-compatible processor, such as the Intel I386, go on to Step **3**.

   If your computer is a MIPS or Alpha, you need to edit the *PRINTER.INF* file on the Phaser 340 CD-ROM or Printer Software for Windows diskette.

   a. The Phaser 340 CD-ROM and Printer Software for Windows diskette are read-only (write-protected). To edit the *PRINTER.INF* file, copy the following files from the top level of either CD-ROM or diskette to a new, formatted floppy diskette.

      Place all files at the top (root) level of the new diskette.

      TEK1
      PRINTER.INF
      TK340172.PPD   (for the standard configuration)
      TK340692.PPD   (for the printer's extended features option)

Note   *If you are not sure whether your printer has the standard configuration or the extended features option, print the startup page from the Help Pages menu in the front panel. This page includes an entry for **Extended Features***: **Yes** *if installed,* **No** *if it is not.*

    b. Open the copy of the *PRINTER.INF* file on the new diskette in a text editor such as **Notepad**.

    c. Locate the following section in the *PRINTER.INF* file:
```
[ProductType]
STF_PLATFORM = I386
```

    d. Replace the **I386** with either **MIPS** (for a MIPS platform) or **Alpha_AXP** (for an Alpha platform).

    e. Save the *PRINTER.INF* file, and go on to the next step.

3. From the **Main** window, double-click on the **Print Manager** icon.

4. If you already have a PostScript printer driver installed, go on to Step **5**.

Note   *If you do not have a PostScript printer driver installed, install one now. The driver files are required to complete the Tektronix printer installation.*

    a. From the **Printer** menu, select **Create Printer**; the **Create Printer** dialog box appears.

    b. Under **Driver**, scroll through the list and select a PostScript printer, such as the Apple LaserWriter NT, and click **OK**.

    c. Follow the online instructions to install the driver files from your Windows NT CD-ROM or diskettes.

5. Install the Tektronix Phaser 340 printer driver. From the **Printer** menu, select **Create Printer**; the **Create Printer** dialog box appears.

6. Under **Driver**, scroll to the end of the list and select **Other**; the **Install Driver** dialog box appears.

7. When prompted, do one of the following.

- **If you are using the Phaser 340 CD-ROM:**
  Type in the CD-ROM drive location. Click **OK**; the **Select Driver** dialog box appears.

- **If you are using the Tektronix Printer Software for Windows diskette:**
  Type in the disk drive location of the diskette. Click **OK**; the **Select Driver** dialog box appears.

- **If you are using an edited copy of the *PRINTER.INF* file from Step 2:**
  Type in the disk drive location of the diskette. Click **OK**; the **Select Driver** dialog box appears.

8. Under **Printer Driver**, choose your Phaser 340 printer from the list, then click **OK**.

- Select **Tektronix Phaser 340** if you have the standard configuration of the printer.

- Select **Tektronix Phaser 340 with 600 dpi** if you have the printer's extended features option.

Note *If you are not sure whether your printer has the standard configuration or the extended features option, print the startup page from the Help Pages menu in the front panel. This page includes an entry for **Extended Features**: **Yes** if installed, **No** if it is not.*

9.   In the **Windows NT Setup** dialog box, type in the same path you used in Step **7** (for example, *B:*).   Click **Continue**; the **Noncritical Error** dialog box appears.

10. When you are prompted for the location of the *PSCRPTUI.DLL* file and the *PSCRIPT.DLL* file, click **Ignore**. (These files were installed in Step **4** or were already installed.)

11. When the **Create Printer** dialog box appears, fill in the other fields as desired, then click **OK**; the **PostScript Printer Setup** dialog box appears.

12. Select options in the **PostScript Printer Setup** dialog box. Enabling the **Use Printer Halftoning** option is recommended. Then click **OK**; the **Windows NT Setup** dialog box appears.

13. If you installed a PostScript printer in Step **4**, follow this procedure to delete it. (Now that the Tektronix printer is installed, this printer is no longer needed.)

   a.   Select the printer you want to remove.

   b.   From the **Printer** menu, select **Remove Printer.**

   c.   At the prompt, click **OK** to remove the selected printer.

When you are done updating the Windows NT driver, refer to "Installing optional fonts" on page 2-52.

PC: DOS and setting up ports

Check the list of supported printers in your DOS application for support of your Phaser 340 printer. If the list does not include this printer, check to see if other Tektronix Phaser series printers are listed and choose one of those. Otherwise, use a generic color PostScript driver. Refer to the *Phaser 340 Drivers and Utilities Printing Reference* for more information.

Note   *Generic PostScript printer drivers do not have information about this particular printer, for example, its page sizes or its image area size. Using a standard Letter- or A4-size media selection should produce acceptable results.*

Setting up the parallel port

If you are using the printer's parallel port, disable timeouts on your computer's parallel port to make sure that large files will print, even if data transmission is slow.

Use the DOS **MODE** command to disable timeouts on your computer's parallel port.

1. Type the following command at the DOS prompt (if LPT1 is not available, use LPT2):

   MODE LPT1:,,P

   See your DOS documentation for details on the **MODE** command.

2. You can add the **MODE** command to your *AUTOEXEC.BAT* file, so that it takes effect every time you turn on your computer. (Refer to your PC user documentation.)

Setting up optional interface ports

For instructions on setting up any of the optional PhaserShare interface ports, refer to the *PhaserShare Network Cards and Software System Administrator Manual.*

When you are done setting up the interface port, refer to "Installing optional fonts" on page 2-52.

Macintosh software

Note   *You must have an optional PhaserShare card installed in the printer before using the driver.*

The Phaser 340 diskettes and CD-ROM include an installer application that automatically installs the following printer software on your Macintosh hard disk. You can select a standard installation or select individual items.

■   **Standard printer software** installs Phaser 340 Utilities, Samplers, PPD files for drivers and applications, ColorSync Profiles, and the Phaser 340 GX printer driver.

■   **Standard plus QuarkXPress printer software** installs the PDF file for QuarkXPress, Phaser 340 Utilities, Samplers, PPD files for drivers and applications, ColorSync Profiles, and the Phaser 340 GX printer driver.

■   **ColorSync Profiles** *(Phaser 340 Profile* printer profile for use with ColorSync 2.0).

■   **Phaser 340 Utilities** installs the following in a *Phaser 340 Utilities* folder inside a *PhaserTools* folder created by the Installer application:

■   Printer utility files, such as color corrections, tray selections, and print quality modes.

■   *PhaserPrint,* a plug-in for use with Adobe Photoshop.

■   *LaserWriter Utility* downloading and utility application.

■ **Samplers** installs color sampler charts and a fonts sampler in a *Samplers* folder inside a *PhaserTools* folder created by the Installer application.

■ **PPD files for drivers and applications** installs the following:

■ *TK340172.PPD*
PostScript printer description file for use with the standard 17-font version of the printer.

■ *TK340692.PPD*
PostScript printer description file for use with the printer's extended features option with 69 fonts.

■ **PDF file for QuarkXPress** (*Phaser 340.PDF* PostScript printer description file for use with QuarkXPress).

■ **Phaser 340 GX printer driver** (printer driver for use with QuickDraw GX and System Software 7.5).

The *Phaser 340 Drivers and Utilities Printing Reference* provides detailed software installation procedures and complete information on using the software with your printer.

Using the installer to load software

To install the printer's software, follow this procedure:

1. Disable virus detection software before starting the *Installer* application:

    ■ **Restart** the Macintosh while holding down the **Shift** key to start the computer with extensions off or refer to the virus software's documentation for instructions.

2. Insert either the Printer Software for the Macintosh diskette or Phaser 340 CD-ROM into the appropriate drive.

3. Double-click the **Phaser 340 Installer** icon. Click **Continue** until the installer dialog box appears.

4. Select one of the standard options or select individual options; shift-click to select more than one item. Then click **Install**.

5. If you select the **Standard** button, the **Install Phaser 340 software** dialog box appears. Click **Install** to load the **Standard printer software**.

LaserWriter 8.x setup

The LaserWriter 8.x driver uses printer-specific PPDs (PostScript Printer Description files) for information on a printer's page sizes, printing options, and media type options. To use the LaserWriter 8.x driver with a Phaser 340 printer, do the following steps depending on the version of the driver you are using. If the printer is busy, it may take some time to complete this configuration procedure; you may want to do this procedure when the printer is idle. You only have to configure a printer once.

Note   *During installation, the LaserWriter 8.x driver leaves other versions of the LaserWriter driver intact.*

Setting up the LaserWriter 8.3 driver

1.   Make sure that the LaserWriter 8.3 driver is installed on your Macintosh.

     If the LaserWriter 8.3 driver is not installed:
     The LaserWriter 8.3 driver software is available from Apple Computer; see your local Apple dealer for details. Refer to the LaserWriter driver's documentation, *LaserWriter 8.x Update Guide*, for instructions on installing the driver.

2.   Follow the instructions in "Installing the printer's software" on page 2-30 to install the *PPD* printer description files. Select one of the standard options to automatically install all of the printer's software, or select the **PPD files for drivers and applications** option.

3.   Open the **Chooser**.

4.   Select the **LaserWriter 8** driver icon.

5.   Select your printer from the list.

6.   Still in the **Chooser**, click the **Setup** button to see a list of options.

7. The dialog box that appears shows the location of the PPD files you installed in the previous procedure. Highlight one of the following PPD files and click **Select**:

   - Use the *TK340172.PPD* file with the standard version of the printer.

   - Use the *TK340692.PPD* file with the extended features configuration of the printer.

Note   *If you are not sure whether your printer has the standard configuration or the extended features option, print the startup page from the Help Pages menu in the front panel. This page includes an entry for* **Extended Features**: **Yes** *if installed,* **No** *if it is not.*

8. In the dialog box that appears, select the appropriate items under **Installable Options** then click **OK**.

9. Click the **Chooser's** close box.

Setting up an earlier version of the LaserWriter 8.x driver

1. Make sure that the LaserWriter 8.x driver is installed on your Macintosh.

    If the LaserWriter 8.x driver is not installed:
    The LaserWriter 8.x driver software is available from Apple Computer; see your local Apple dealer for details. Refer to the LaserWriter driver's documentation, *LaserWriter 8.x Update Guide*, for instructions on installing the driver.

2. Follow the instructions in "Installing the printer's software" on page 2-30 to install the *PPD* printer description files. Select one of the standard options to automatically install all of the printer's software, or select the **PPD files for drivers and applications** option.

3. Open the **Chooser**.

4. Select the **LaserWriter 8** driver icon.

5. Select your printer from the list.

6. Still in the **Chooser**, click the **Setup** button to see a list of options.

7. In the dialog box that appears, click the **More Choices** button to see the full range of options.

Note   *Do not use the **Auto Setup** button; errors can occur with the PPD files. Continue with this procedure to properly set up the driver.*

8. Click the **Printer Info** button, then click the **Update info** button in the next dialog box.

9. Record the information on **PostScript Version** and **Total Memory Installed**; you will need this information later. Click **OK**.

10. Click the **Select PPD** button; the *Printer Descriptions* folder in the *Extensions folder*, inside the *System Folder*, is displayed.

11. Highlight one of the following *PPD* files you installed in Step **2**, and click **Select**:

- ■ Use the *TK340172.PPD* file with the standard version of the printer.

- ■ Use the *TK340692.PPD* file with the extended features configuration of the printer.

Note *If you are not sure whether your printer has the standard configuration or the extended features option, print the startup page from the Help Pages menu in the front panel. This page includes an entry for* **Extended Features***: **Yes** if installed, **No** if it is not.*

12. Make sure the information under **Printer Model** matches the printer you have and the **PostScript Version** information you got in Step **9**.

13. Click **Select**.

Note *If the information under* **Printer Model** *is not an exact match, use the closest printer name, and call Tektronix Customer Support in the U.S. and Canada at **1-800-835-6100** for the latest PPD file. Outside the U.S. and Canada, contact your local Tektronix reseller. You can also download the latest PPD files from the Tektronix Bulletin Board Service (BBS); see page 6-1.*

14. Click **Configure**. In the field for **Memory Configuration** under **Installable Options**, select the amount of memory your printer has installed. Check other options either **Installed** or **Not Installed,** as appropriate.

15. Click **OK** in two dialog boxes and close the **Chooser**.

When you are done installing drivers, refer to "Installing optional fonts" on page 2-52.

Phaser 340 GX driver

If you are using Apple Macintosh QuickDraw GX and System Software 7.5, use the Phaser 340 GX driver to print to the Phaser 340 printer. For details on installing and using the GX driver, refer to the *Phaser 340 Drivers and Utilities Printing Reference.*

When you are done installing 340 GX drivers, refer to "Installing optional fonts" on page 2-52.

Workstation users

The printer-control PostScript files that are on the Tektronix CD-ROM and the Printer Software for Windows diskette (PC format) can be used with UNIX and VMS workstations. The following list contains PhaserPrint supported platforms and tested operating system versions:

- SUN SPARCstation: SunOS 4.1.3

- SUN SPARCstation: Solaris 2.3 and 2.4

- Silicon Graphics Irix: 4.0.1, 5.2 and 5.3

- Hewlett-Packard (9000/700 & 800): HP-UX 9.0.5

- IBM RS/6000: AIX 3.2

- DECstation: ULTRIX 4.0 and 4.4

- DECAlpha AXP: OSF/1 3.0 and 3.2

Note *Tektronix offers a similar solution for DEC OpenVMS VAX and DEC OpenVMS AXP.*

The files provided let you set up your spooling system to select between media trays, print-quality modes, color correction modes and other features. PhaserPrint works with the workstation's native spooling system to print PostScript files and raster files in Sun Raster Format (SRF), **xwd**, SGI RGB, and other formats.

UNIX workstation users can access utility files in the following ways:

■   Install the files from the Tektronix Phaser 340 CD-ROM if your
     system includes a CD-ROM drive.

■   Mount the PC diskette on the workstation.

■   Access the Tektronix anonymous ftp site on the Internet at
     ftp.tek.com.

■   Download utility files from the Tektronix Bulletin Board
     Service (BBS); refer to page 6-1 for more information.

■   Access the Tektronix World Wide Web server on the Internet:

     ■   **http://www.tek.com/Color_Printers/**   Home page
     ■   **ftp://ftp.tek.com/bbs/<*platform*>/340**   Utility files

Most workstations with 3.5-inch disk drives provide a device driver that
allows you to mount a PC floppy diskette. Refer to the *Phaser 340 Drivers
and Utilities Printing Reference* for information on mounting PC diskettes.

If you ordered your printer with an Ethernet or Token Ring interface, a
demonstration copy of PhaserPrint is provided on a compact disk
(CD-ROM). If you did not receive a demonstration copy but would like one,
or if you would like to purchase PhaserPrint, contact your dealer, local
Tektronix office, or in the United States and Canada, call **1-800-835-6100**

Installing optional fonts

If you ordered the optional 52 additional fonts for your printer, you'll need to install them on your computer. Refer to the optional font disks and installation instructions for more information.

What next?

■ When you have set up all the hardware and connections, installed the software on your computer, turned on the power and allowed a warm-up period, you are ready to print. Chapter 3, "Printing," contains useful information on basics such as color correction modes, print media, fonts and printing hints. For detailed information on printing options, refer to the *Phaser 340 Drivers and Utilities Printing Reference.*

■ To install a hard disk for font storage, turn to "Adding a hard disk for font storage" on page B-8.

■ To disable the startup page, refer to "Enabling and disabling the startup page" on page A-7.

3   *Printing*

Which platform?

You can print to your printer from any of the following platforms, providing the printer has the appropriate interface port. Refer to "Printer ports" on page 2-21 for more information.

■   PC — in Windows, Windows 95, Windows NT, and in DOS

■   Macintosh

■   Unix and VMS Workstations

To print from a Macintosh, from Windows, Windows 95, or Windows NT, you should first have installed the printer software, as described in Chapter 2. This chapter describes the basic print features available; for complete information on using the features, refer to the *Phaser 340 Drivers and Utilities Printing Reference*. If you are printing from a PC running DOS, you must first set up the driver in your application software.

Use the following instructions to set up printing from your platform.

Printing from Windows 95

Note *Printing from a PC through an interface port other than the parallel port requires that an optional PhaserShare card be installed in the printer.*

1. Make sure that you have installed the printer software for Windows 95, as described in Chapter 2. If you have not, do so now.

2. In the **Printers** window, select the **Phaser 340** printer icon.

3. Select **Properties** from the **File** menu.

4. Click on any of the tabs along the top of the **Properties** window to view and make selections that control the print features (for example, the **Paper** tab controls **Paper size** and **Paper source** selections.

For information on print features, see "Selecting print features" on page 3-8. Refer to the *Phaser 340 Drivers and Utilities Printing Reference* for detailed information.

Printing from Windows 3.1 and Windows NT

Note *Printing from a PC through an interface port other than the parallel port requires that an optional PhaserShare card be installed in the printer.*

1. Make sure that you have installed the printer software for Windows 3.1 or Windows NT, as described in Chapter 2. If you have not, do so now.

1. From the **Control Panel**, double-click **Printers**.

2. In the **Printers** window, select the **Phaser 340** printer, then click **Setup**. A dialog box appears with the printer's name across the top.

3. Click on any of the tabs along the top of the dialog box to view and make selections that control the print features (for example, the **Features** tab controls resolution, color correction modes, and installable options).

For information on print features, see "Selecting print features" on page 3-8. Refer to the *Phaser 340 Drivers and Utilities Printing Reference* for detailed information.

Printing from a PC: DOS

1. In your application software, set up the printing options for a color printer driver and a communications port. For more information on making these selections, refer to your application software's user manual.

2. Make sure that the PC communication ports have been set up correctly. Refer to "PC: DOS and setting up ports" on page 2-42 for instructions.

3. Select the printer driver for the Phaser 340, a Tektronix Phaser printer, or a generic color PostScript driver.

Note *Generic PostScript printer drivers do not have information about your Phaser 340 printer, for example, its page sizes and its image area size. Using a standard Letter- or A4-size media selection should produce acceptable results.*

   a. Select the appropriate port (an LPT port for parallel; a COM port for serial; one of the LPT or COM ports for network connections).

   b. Set page margins in your application software as needed. For details on the printer's paper and margin sizes, refer to "Margins and image area" on page 3-23.

4. Send a file to the printer from your software application. Refer to the application software's user manual for details.

For details on driver options, refer to the *Phaser 340 Drivers and Utilities Printing Reference.*

Printing from a Macintosh

The CD-ROM and Printer Software diskettes include Printer Description Files (PPDs) that work with the Macintosh drivers to select print features.

Note   *Printing from a Macintosh requires that an optional PhaserShare card be installed in the printer.*

1. From the **File** menu, open the **Page Setup** dialog box. Use the **Paper** pop-up menu to select the printer's supported paper sizes.

2. From the **File** menu, open the **Print** dialog box. Select media options and paper trays in the **Paper Source** field. Refer to "All about media" on page 3-15 for details.

3. In the **Print** dialog box, click the **Options** button to see the **Print Options** dialog box. There are printer-specific **TekColor** features listed at bottom of the dialog box. Refer to "Print quality modes" on page 3-8 for details on **Print Quality** and for details on **Color Correction**.

4. The LaserWriter 8.3 driver offers ColorSync options; refer to the *Phaser 340 Drivers and Utilities Printing Reference* for instructions.

For detailed information on print features, refer to the *Phaser 340 Drivers and Utilities Printing Reference.*

Note   *If you are using the **Phaser 340 GX driver** to print a file, refer to the **Phaser 340 Drivers and Utilities Printing Reference** for complete information on installing and printing from the driver.*

Printing from a Unix or VMS workstation

You can print from a workstation through Ethernet, Token Ring, parallel, or serial interfaces. Workstation users can print from any application that generates color PostScript.

For Unix and VMS environments, Tektronix offers PhaserPrint for fast raster file and screen copy printing to Tektronix color printers. PhaserPrint also provides a graphical user interface for push-button control of Tektronix printer features, such as print quality modes and TekColor color corrections.

For VMS environments, Tektronix also offers PhaserSym, a VMS print symbiont. PhaserSym facilitates communication between VMS hosts and Tektronix Phaser printers. PhaserSym requires that the Phaser printer include lpr printing support. Refer to Appendix B for ordering information.

For information on printing from workstations and setting up spooling systems, you can contact HAL, the Tektronix automated fax system by calling direct (**503) 682**-**7450** or, in the United States or Canada, by calling toll-free **1**-**800**-**835**-**6100**. Refer to "Using the automated fax systems" on page 6-4 for details on using the HAL system.

For workstation users who prefer not to use PhaserPrint, the printer-control PostScript files that are on the Printer Software for Windows diskette (PC format) can be used for Unix workstations. These files let you set up your spooling system to select between media trays, print quality modes, color correction modes and other features. Most workstations with 3.5-inch disk drives provide a device driver that allows you to mount a PC floppy diskette.   Refer to the *Phaser 340 Drivers and Utilities Printing Reference* for information about mounting PC diskettes.

If you don't have the means of transferring utility files to control printer features from the PC diskette or CD-ROM, you can download utilities and files from the Tektronix ftp server, the Tektronix Bulletin Board Service (BBS), or the Tektronix World Wide Web server.   Refer to Chapter 6, "Troubleshooting," for information on Tektronix' online services.

The printer supports printing of PCL5 files from your UNIX host as a separately enabled option. You can determine if the PCL5 language is enabled for your printer by checking the printer's configuration page. Refer to "Help Pages Overview" on page 2-29 for instructions on printing the configuration page.

Refer to the *Phaser 340 Drivers and Utilities Printing Reference* for information on enabling PCL printing.

Printing from specific applications

Refer to the *Phaser 340 Drivers and Utilities Printing Reference* for detailed information on printing from some applications.

You can also get tips on printing from certain applications (such as QuarkXPress and PageMaker) by contacting HAL or EuroHAL, the Tektronix automated information systems. HAL and EuroHAL fax you information immediately on applications and other topics. To receive a HAL FAX catalog, call toll-free in the U.S. **1**-**800**-**835**-**6100** or dial direct, (**503) 682**-**7450**. For a EuroHAL catalog, use the telephone numbers provided in Chapter 6, "Troubleshooting." For more information on HAL and EuroHAL, see "Using the automated fax systems" on page 6-4.

In addition, you can get application information on the Tektronix World Wide Web server and other online services. Refer to "Online services" on page 6-2.

Selecting print features

The printer provides TekColor color corrections that you can select to customize the look of your prints. In addition to the 300 dpi print-quality mode, the Phaser 340 with extended features provides a user selectable 600 x 300 dpi print quality mode. There are several ways to select print features:

■ **Through a printer driver.** Print selections made using a supported printer driver override the settings on the printer's front panel. Refer to the *Phaser 340 Drivers and Utilities Printing Reference* for information on using printer drivers.

■ **From the printer's front panel.** Settings you make on the front panel are *only* used when printing from a non-supported driver. Refer to the instructions included in this chapter.

■ **By sending a PostScript utility file to the printer.** Printer settings downloaded to the printer's front panel are *only* used when printing from a non-supported driver. Refer to the *Phaser 340 Drivers and Utilities Printing Reference* for information on sending utility files to the printer.

■ **From your World Wide Web browser.** Refer to the *PhaserShare Status Software User Manual* for more information.

Print quality modes

The Phaser 340 provides a 300 dpi resolution print quality mode. 600 x 300 dpi resolution is optionally available.

300 dpi The default print-quality setting. This is the fastest mode for full color printing on paper and transparencies. In this mode, the printer operates at 4 ppm (pages-per-minute) for paper and 2 ppm for transparencies.

600 x 300 dpi Available with the Phaser 340 extended features option. The extended features also include 24 Mbytes of memory and a total of 69 fonts. 600 x 300 dpi resolution produces better looking text and the smoothest color blends on paper. In this mode, the printer operates at 2 ppm. This print mode is not available for transparency printing.

Selecting print quality modes from the front panel

Use the following steps to change the print quality mode through the printer's front panel menu.

Note   *The Print Quality selection is only available for the optional 600 x 300 dpi configuration.*

1. When the printer is on and the `Ready` message appears, press the **Menu** button. The printer displays the first selection in the menu:

    ```
     Help Pages
    <----   ---->   Menu
    ```

2. Using the left arrow (`<----`) or right (`---->`) arrow buttons, scroll through the selections until the following message appears:

    ```
     Print Quality
    <----   ---->   Menu
    ```

3. Press the **Menu** button to access print quality selections. The printer displays the following message:

    ```
    Print Quality:300 dpi*
    <----   ---->   OK
    ```

4. Using the right or left arrow buttons, scroll between the print quality selections until you reach the appropriate setting. An asterisk next to the selection indicates the currently active setting.

5. Press the **OK** button to confirm your selection.

6. Return to the top level of the menu by pressing the (Exit) button until the printer displays the `Ready` message.

Color correction

The printer provides TekColor Dynamic Correction, which consists of the following color correction modes:

Color correction mode	Description
None	No correction made to colors.
Vivid Color	Default setting. Produces the brightest possible colors.
Display	Adjusts color to closely approximate the colors on a standard display screen.
SWOP Press	Specification for Web Offset Publications. Typically used to match U.S. press standards.
Euroscale Press	Matches the *PANTONE® Process Color System Guide*, Euroscale Edition. Typically used to match European press standards.
Commercial Press	Used to match commercial 3M Matchprint® proofs.
Monochrome	Prints a color image as a monochrome gray scale. Outputs color page masters in black-and-white for photocopying.
Use Printer Setting	Uses the color correction mode specified in the printer front panel setting rather than any printer driver setting.

Vivid Color, the default color correction mode, is generally recommended for typical office printing.

Note   *The print driver help window provides a short description of each color correction mode. To access information, click on the **Help** button (for a Macintosh, in the **TekColor Options** dialog box; for Windows, in the **Tektronix Printer Features** dialog box).*

You can view an example output of each color correction mode at the bottom of the printer's startup page. Refer to "Printing the startup page" on page A-5 for instructions.

Note   *If your printer is networked and you have changed the front panel settings, make sure that you tell other users on the network. Printer settings affect **all** prints made with non-Tektronix drivers.*

Selecting TekColor corrections from the front panel

Use the following steps to change the TekColor correction mode through the printer's front panel menu.

1. When the printer is on and the `Ready` message appears, press the **Menu** button. The printer displays the first selection in the menu:

```
Help Pages
<----   ---->   Menu
```

2. Using the left (`<----`) or right (`---->`) arrow buttons, scroll through the selections until the following message appears:

```
TekColor Correction
<----   ---->   Menu
```

3. Press the **Menu** button to access color correction selections. The printer displays the following message:

```
TekColor Correction:Vivid Color*
<----   ---->   OK
```

4. Using the right or left arrow buttons, scroll through the color correction selections. An asterisk next to the selection indicates the currently active setting.

5. Press the **OK** button to confirm your selection.

6. Return to the top level of the menu by pressing the ↑(Exit) button until the printer displays the `Ready` message.

Color sampler charts

The printer diskettes and CD-ROM contain color sampler charts for the following color specification methods:

CMYK
Cyan, magenta, yellow, and black

RGB
Red, green, and blue

HSB
Hue, saturation, and brightness

PANTONE® Colors

The charts consist of colored rectangles and coordinate values. Print the appropriate chart for your application, and use the coordinate values (numbers printed beneath each color) to select colors within an application. For example, your printer can produce PANTONE-approved process color simulations. Use the PANTONE Color sampler chart to select the process color values within software applications that support PANTONE Colors.

If you use an application that specifies print colors using CMYK values, use the CMYK charts. If you use an application that specifies print colors using RGB values, use the RGB charts. For details on printing the charts, refer to the *Phaser 340 Drivers and Utilities Printing Reference.*

If you did not receive the color sampler charts, you can download them from the Tektronix ftp server, the Tektronix Bulletin Board Service (BBS), or the Tektronix World Wide Web server. Refer to "Online services" on page 6-2 for information on Tektronix' online services.

All about media

The printer prints on Letter- and A4-size office paper, Tektronix-supplied transparencies, and full sheet, peel-off label stock (such as Avery 5160). Tektronix transparency media is designed to provide optimal image quality and reliable operation. Tektronix offers two grades of transparency media: premium and standard. Tektronix premium transparency media offers enhanced ink adhesion and print quality for overhead transparencies.

Note   *Tektronix inks and transparencies are formulated for use with this printer to ensure the best print quality and long-term reliability. Tektronix does not guarantee printer performance on non-Tektronix transparency media.*

Tektronix office paper is cut with the correct grain so your prints will not wrinkle. For information on ordering Tektronix' paper and transparency media, refer to the supplies information sheet included with your printer.

Caution   *To avoid damaging your printer, do not use perforated paper, three-holed paper, legal-size paper or envelopes.*

Do not use transparency media intended for ink-jet or thermal-wax printers.

Never attempt duplex (two-sided) printing on any type of media. Ink from the back side of the paper will offset onto the internal paper path, requiring you to perform cleaning procedures.

You can recycle the paper printed on a this printer the same way you would recycle paper from any laser printer.

Media trays

Standard paper trays. The printer is shipped with a standard Letter- or A4-size paper tray which holds 200 sheets (slightly less than one-half ream) of paper.

Note *The standard paper trays are designed for use with paper media. You can use a standard paper tray for printing up to 50 transparency sheets. However you must use a Tektronix printer driver to specify* **Transparency** *as the media type and confirm the print at the front panel. Otherwise, transparency print quality is lower.*

Transparency trays. If you print on both paper and transparencies, consider ordering a separate, dedicated transparency tray. This lets you quickly switch between paper and transparency print jobs by simply swapping media trays in the printer. Optional Letter- and A4-size transparency trays have a capacity of 175 sheets (approximately three boxes). Refer to "Optional media trays" on page B-3 for ordering information.

Lower Paper Tray Assembly. An optional Lower Paper Tray Assembly extends the printer's capabilities. Its 500-sheet capacity adds to the 200-sheet capacity of the standard paper tray for high-volume printing environments. When the upper tray is loaded with a second media type such as transparencies or letterhead, the printer then supports printing of two media types without the need to swap trays.

Note *The Lower Paper Tray Assembly only accepts paper media; it should not be used with label stock or transparency media.*

Establishing a default media tray (optional)

When you add the Lower Tray Assembly to your printer, you then have the option of selecting which tray (the upper or lower) will be the default media tray for printing. The printer's default media tray setting is only used when you are printing from a non-Tektronix printer driver. These drivers do not allow you to directly select the printing tray. When using a Tektronix printer driver, explicit driver selections override the printer's default media tray setting.

The default media tray selection can be set through the printer's front panel menu or a downloadable utility file. Refer to the *Phaser 340 Drivers and Utilities Printing Reference* for more information on downloading default media tray selections.

Printing from a non-supported printer driver.   When the Lower Paper Tray Assembly is first installed, the default media tray selection is set to `AutoSelect`. With this selection, the printer automatically switches to the upper tray if the Lower Paper Tray Assembly becomes empty. If a paper tray of the same size exists in the upper tray slot, then printing resumes. However, if the transparency tray is installed, then the printer prompts you to load paper in the Lower Paper Tray Assembly.

Other default media tray selections (`Upper` and `Lower`) let you explicitly set printing from the upper or lower tray with no automatic tray switching capability. This is valuable if you have, for example, common office paper in the Lower Paper Tray Assembly and letterhead in the upper paper tray. You can have the default media tray selection set for printing office paper in the lower tray. When you want to print on letterhead in the upper tray, you will need to change the default media tray setting to `Upper`. (Supported printer driver users can choose between the upper and lower trays directly from the printer driver.)

If you attempt to print transparencies using a non-supported driver, the printer uses the printing mode of the tray (paper) and produces unsatisfactory results. To print transparencies from the upper paper tray, use a supported printer driver and explicitly select **Transparency**, or purchase a dedicated transparency tray. Refer to "Optional media trays" on page B-3.

Selecting the default media tray using the front panel (optional)

1. When the printer is on and the `Ready` message appears, press the **Menu** button. The printer displays the first selection in the menu:

    ```
    Help Pages
    <----    ---->    Menu
    ```

2. Using the left (`<----`) or right (`---->`) arrow buttons, scroll through the selections until the following message appears:

    ```
    Printer Defaults
    <----    ---->    Menu
    ```

3. Press the **Menu** button to access printer default selections. Using the left or right arrow buttons, scroll through the selections until the following message is displayed:

    ```
    Default Tray
    <----    ---->    Menu
    ```

Note   *The* `Default Tray` *selection only appears if the optional Lower Paper Tray Assembly is connected to the printer.*

4. Press the **Menu** button to access default tray selections. The printer displays the following message:

    ```
    Default Tray:AutoSelect*
    <----    ---->    OK
    ```

5. Using the left or right arrow buttons, scroll through the default tray selections until you reach the appropriate setting. An asterisk next to the selection indicates the active setting.

6. Press the **OK** button to confirm your default tray selection.

7. Return to the top level of the menu by pressing the ⏏ (Exit) button until the printer displays the `Ready` message.

Media size

The standard paper trays, optional transparency trays, the optional Lower Paper Tray Assembly trays and manual feed slot accept two sizes of media: Letter/A-size (8.5 x 11 in.) and A4-size (210 x 297 mm). Refer to "Margins and image area" on page 3-23 for details on the size of the image area.

Media weight and thickness

The following table presents guidelines you should follow when selecting media to use with the printer.

Tray type	Paper type	Transparency	Label media
Letter or A4 paper trays	Bond 16 – 32 lb. (60 – 120 g/m$^{2)}$	Supported (50-sheet capacity)	Full-sheet laser printer labels
Letter or A4 transparency trays	Not supported	Supported (175-sheet capacity)	Not supported
Lower Paper Tray Assembly	Bond 16 – 32 lb. (60 – 120 g/m$^{2)}$	Not supported	Not supported
Manual feed	Bond 16 – 32 lb. (60 – 120 g/m^2) Non-glossy Cover 50 – 80 lb. (135 – 220 g/m^2)	Supported	Full-sheet laser printer labels

Paper grain

Grain refers to the direction of fibers in the paper. Paper that contains fibers running the length of the paper is called long-grain paper. For the best printing results, only use long-grain paper. Most common office copy paper is the long-grain variety. You can purchase premium long-grain Letter-size and A4-size paper from Tektronix; refer to "Ordering printer supplies" on page 5-1 for more information.

1. Long-grain paper

2. Short-grain paper

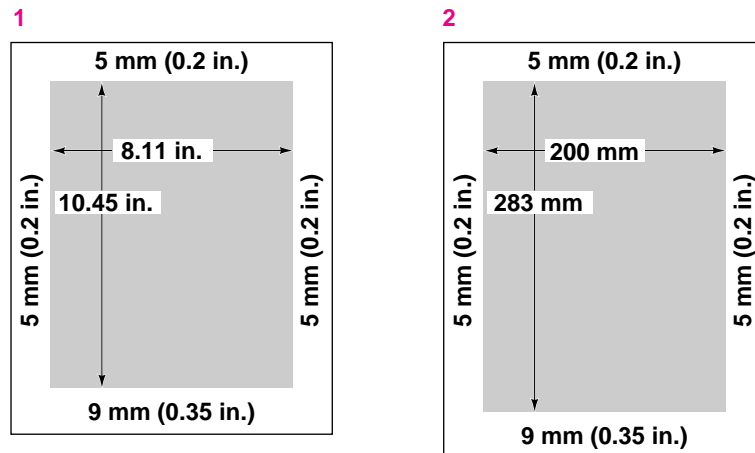9101-15
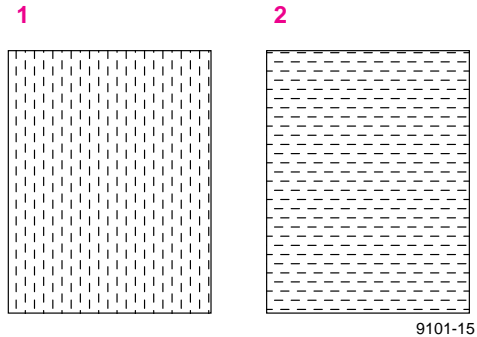
Margins and image area

The image area is the part of the media where the image appears. When the printer places an image on the media, the image area is a bit smaller than the actual media size. You may need to adjust the page margins in your application software to match the image area. The printer must be set for the correct size media through the printer driver.

The image area for the Phaser 340 color printer is 8.11 x 10.45 in. (Letter-size) and 200 x 283 mm (A4-size). The difference between the image area and the media size for the top margin and side margins is 5 mm (0.2 in.). The bottom margin is 9 mm (0.35 in.).

Note   *For maximum print speed, set left and right margins to 0.3 in. (7.4 mm) or larger.*

The following illustration shows the image area and top, side and bottom margins.

1.   Letter-size: 8.5 x 11 in.
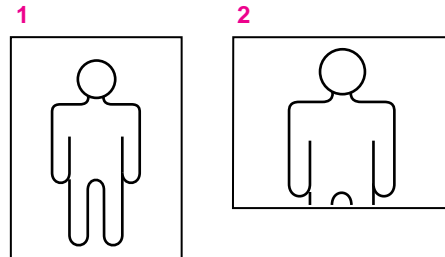
2.   A4-size: 210 x 297 mm

1

5 mm (0.2 in.)

8.11 in.

5 mm (0.2 in.)   10.45 in.   5 mm (0.2 in.)

9 mm (0.35 in.)

2

5 mm (0.2 in.)

200 mm

5 mm (0.2 in.)   283 mm   5 mm (0.2 in.)

9 mm (0.35 in.)

9101-14

Image orientation

Orientation refers to how the image appears on the printed media. You specify the image orientation through your software application or through the printer driver.

1. Portrait

2. Landscape

9101-16

Media and ink handling tips

■ Keep the media supplies, trays, and ink in covered containers. Dust and dirt can be transferred to the paper or transparency media, resulting in poor print quality.

■ Handle transparencies by the edges and with both hands to avoid fingerprints and creases, which can result in poor print quality.

■ Place slip sheets between printed transparencies or use a protective cover to prevent contact between transparencies.

■ To avoid having the paper stick together, gently fan the paper before loading it into the paper tray.

■ Paper that has been sitting out of its sealed wrapper can become distorted, causing paper jams. Keep paper sealed until you are ready to use it for printing.

■ Do not use paper that has been creased or wrinkled.

Printing letterhead

Letterhead must be loaded face up in the standard paper tray with the
bottom edge of the page closest to the paper tray handle.
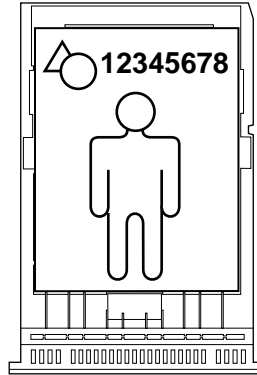
9101-17

Caution   *Some letterhead may be printed using ink that will offset onto
printer internal parts during the overprint, requiring you to
perform cleaning procedures. Run several test sheets of
letterhead to check for letterhead smearing before attempting a
large print job.*

Printing transparencies

Tektronix transparency media is recommended for use in this printer, as it provides optimal image quality and reliable printer operation. Tektronix premium transparency media provides enhanced ink adhesion and print quality. Load transparency media in the appropriate Letter- or A4-size paper tray. For best results, Tektronix recommends that you order the optional transparency tray. (Refer to Chapter 5 for ordering information.) A label inside the transparency tray indicates the tray's maximum transparency capacity.

Note   *Do not use transparency media intended for ink-jet or thermal-wax printers. For best results, use Tektronix transparency media.*

Tektronix premium transparencies must be loaded face up in the media tray with the notched corner of the sheet in the back-right corner of the tray. Tektronix standard transparency media is not notched and can be loaded into the tray in any orientation.
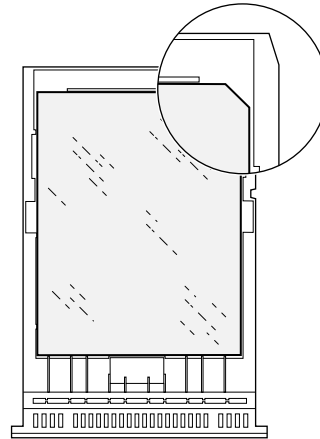
9101-72

Transparency quality tips

■   For best results, use the 300 dpi print-quality setting in the
     printer driver.

■   Use large type on overheads; 18 point type or larger works well.

■   Use yellow or other light colors for text on solid-color backgrounds.

■   Place slip sheets between printed transparencies or use a
     protective cover to prevent contact between transparencies.

Note   *Do not load transparencies in the Lower Paper Tray Assembly. To
            avoid a jam condition, do not re-use transparencies that have been
            fed through the printer once (for example, after a jam or if the
            transparency was ejected without being printed).*

1.   If you are using the optional transparency tray for printing
         transparencies, load up to 175 transparencies (approximately three
         boxes) and install the transparency tray in the printer.

         When you print, use a Tektronix printer driver and specify
         Transparency to obtain the correct print mode for transparency
         media. The printer senses the presence of the transparency tray
   and prints correctly without further interaction.

2.   If you are using the standard paper tray for printing
         transparencies, replace the paper in the tray with up to 50
         transparency sheets and install the paper tray in the printer.

         When you print, use a supported printer driver and specify
         Transparency to obtain the correct print mode for transparency
         media. The printer senses the mismatch of the transparency
         media loaded in the paper tray and asks you to confirm the print
         through the printer's front panel.

Caution   *Never attempt two-sided or two-pass printing on any type of
               media. Ink from the back side of the paper will offset onto the
               internal paper path, requiring you to perform cleaning
               procedures.*

Manual feed printing

1. Select **Manual Feed** from the Tektronix printer driver.

2. Click on the **Print** button.

3. Go to the printer and open the manual feed cover using the recessed finger tab.

4. Adjust the guide on the inside of the manual feed cover to match the Letter- or A4-size media you are using.
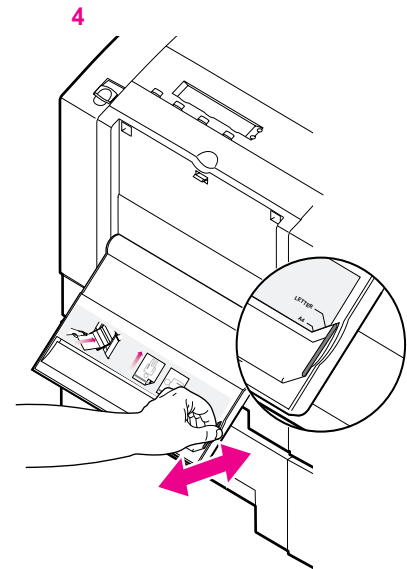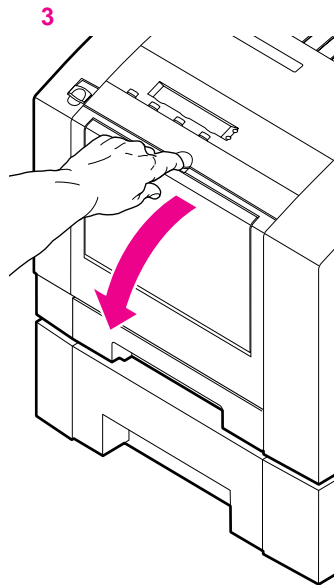

9101-47

Manual feed letterhead: When you manually feed letterhead, orient the letterhead face down and feed the bottom edge first.

Manual feed transparencies: When you manually feed Tektronix premium transparencies, orient the transparency notch closest to you with the notch on the right side. The standard Tektronix transparency media is not notched.

5. When prompted by the front panel, insert one sheet of paper or transparency media until it stops.

6. After the first sheet enters the printer, wait for the front panel to prompt you again before feeding the next sheet (approximately 5 seconds).
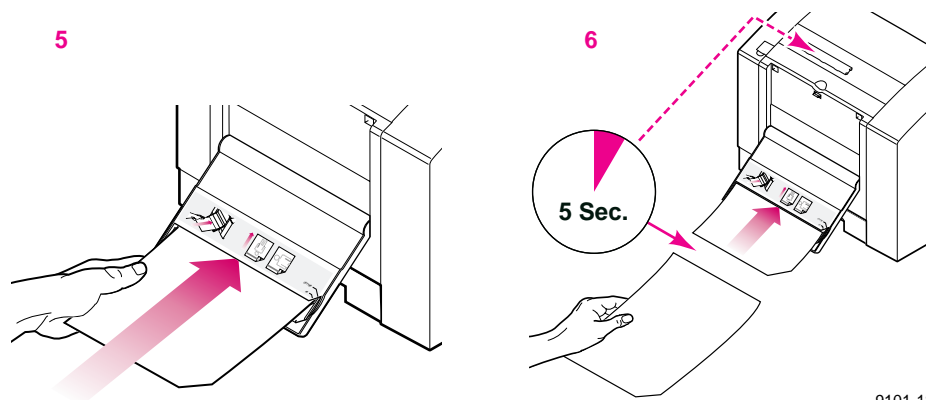
9101-18

Note *A jam error will occur if you feed the second sheet of media into the manual feed slot before the front panel prompts you.*

Fonts

Resident typefaces (PostScript)

The printer accepts Adobe Type 1 and Type 3 downloadable fonts, TrueType fonts, PCL5 (optionally enabled), and a variety of user-defined fonts. To extend font capability, the printer supports a SCSI-connected external hard disk for storage of additional fonts. Refer to "Adding a hard disk for font storage" on page B-8 for more information.

The Phaser 340 standard configuration is shipped with a set of 17 resident fonts.

Courier
Courier Bold
Courier Oblique
Courier Bold Oblique

Helvetica
Helvetica Bold
Helvetica Oblique
Helvetica Bold Oblique

Helvetica Narrow
Helvetica Narrow Bold
Helvetica Narrow Oblique
Helvetica Narrow Bold Oblique

Times Roman
Times Bold
Times Italic
Times Bold Italic

Symbol (Σ ψ μ β ο λ)

9101-19

Additional fonts can be added to the Phaser 340. The optional extended features configuration includes these 52 fonts for a total of 69 fonts. Refer to "Extended features upgrade" on page B-1 for more information.

Americana™ Regular
Americana Extra Bold

ITC Avant Garde Gothic Book
ITC Avant Garde Gothic Book Oblique
ITC Avant Garde Gothic Demi
ITC Avant Garde Gothic Demi Oblique

Barmeno™ Regular
Barmeno Medium
Barmeno Bold
Barmeno Extra Bold

Blackoak™

ITC Bookman Light
ITC Bookman Light Italic
ITC Bookman Demi
ITC Bookman Demi Italic

Carta™

Adobe Caslon™ Regular
Adobe Caslon Italic
Adobe Caslon Semibold
Adobe Caslon Semibold Italic

Formata® Regular
Formata Medium
Formata Italic
Formata Medium Italic

Adobe Garamond™ Regular
Adobe Garamond Italic
Adobe Garamond Bold
Adobe Garamond Bold Italic

Helvetica Condensed
Helvetica Condensed Bold
Helvetica Condensed Oblique
Helvetica Condensed Bold Oblique

Kaufman® Regular

LITHOS™ REGULAR
LITHOS BLACK

New Century Schoolbook
New Century Schoolbook Bold
New Century Schoolbook Italic
New Century Schoolbook Bold Italic

Palatino
Palatino Italic
Palatino Bold
Palatino Bold Italic

Parisian Regular

Park Avenue® Regular

Poetica™ Ornaments Regular

Tekton™ Regular
Tekton Bold

TRAJAN™ BOLD

Adobe Wood Type™ 2 Ornaments

ITC Zapf Chancery
ITC Zapf Dingbats (☆ ✳ ✢ ✻ ❀ ❑ ❂)

9101-64

Resident typefaces (PCL5)

For PCL5 (Printer Command Language) printing (HP Laserjet III emulation), the printer supports Courier, Times, and Universe typefaces in medium, bold, italic medium, and italic bold.

Printing of PCL5 files is supported as a separately enabled option. You can determine if the PCL5 language is enabled for your printer by checking the printer's configuration page. Refer to "Help Pages Overview" on page 2-29 for instructions on printing the configuration page. Refer to the *Phaser 340 Drivers and Utilities Printing Reference* for details on enabling the PCL printing option.)

Downloading Macintosh and TrueType fonts

The fonts resident in the printer are stored in the printer as outlines and are always available for printing. The PostScript interpreter in the printer can also accept and store additional fonts known as downloadable fonts. If you want to print PostScript outline fonts that are not built into the printer, you can transfer or download outline fonts from your computer to the printer. Downloading fonts saves print time if you plan to print several documents or a large document using those fonts.

When you download a font, it is stored in the printer's memory or on a SCSI hard disk attached to the printer. Refer to "Adding a hard disk for font storage" on page B-8 for more information on external font storage. You can download as many outline fonts as the printer's memory or hard disk allow. Adding more memory expands the number of fonts that can be downloaded to the printer.

The printer accepts Type 1 and Type 3 downloadable fonts including those from Adobe, Agfa, Bitstream, Microsoft, Apple, and many others.

The printer also accepts TrueType downloadable fonts which can be scaled to any point size. TrueType fonts look the same on the screen as they do when printed.

You download a font from a PC or Macintosh the same way you download fonts to any PostScript printer. Follow the documentation that was shipped with your fonts.

Installing Macintosh screen fonts

The diskette labeled Printer Software for the Macintosh includes screen fonts in these typeface families: Times, Helvetica, Courier, Symbol, and Helvetica Narrow. You must install these screen fonts if you want to see the printer's resident typefaces on the Macintosh screen. When you order a Phaser 340 with the extended features, 52 additional screen fonts are included that must be installed on your system. Refer to the *Phaser 340 Drivers and Utilities Printing Reference* for information on how to install fonts.

Printer languages: PostScript, HP-GL, PCL5

The printer supports PostScript Level 1 and Level 2 and HP-GL (Hewlett-Packard Graphics Language) printer languages. Additionally, the printer supports the monochrome PCL5 (Printer Command Language) printer language as a separately enabled option. Refer to the *Phaser 340 Drivers and Utilities Printing Reference* for details on enabling the PCL printing option.

The default language for the parallel port is PostScript. For information on default language for other interface ports, refer to the *PhaserShare Network Cards and Software System Administrator Manual*.

If you want to print HP-GL or PCL5 files on a port set to PostScript, you must set up that printer port for that type of data or enable Adobe IntelliSelect™ automatic language selection. Refer to the *Phaser 340 Drivers and Utilities Printing Reference* for instructions.

If automatic language selection is enabled, you can send PostScript, HP-GL, and PCL5 files (when enabled) to the printer and the printer automatically detects the type of file and prints it. You can change the default language so that the next time you turn on the printer, it is set to receive PostScript, HP-GL, or PCL5 data on a specific port.

The printer has default values for the HP-GL parameters, such as pen color and pen width. However, you can change these values.

For more information on changing printer languages, refer to the *Phaser 340 Drivers and Utilities Printing Reference* and the *PhaserShare Network Cards and Software System Administrator Manual*.

Printing hints

Application hints

For information about using specific software applications with your printer, contact Tektronix' HAL or EuroHAL information systems. In the U.S., call **1**-**800**-**835**-**6100** or **(503) 682**-**7450**; for EuroHAL telephone numbers, refer to "If you need help" on page 6-1. For a complete listing of available topics, request a catalog. For instructions on using the HAL and EuroHAL systems, refer to "Using the automated fax systems" on page 6-4.

Tektronix supplies and software

Always use Tektronix supplies to ensure the highest quality prints and printer performance. Tektronix Printer Description Files (PPDs) and utility files work with the drivers to provide the best access to printer features. See Chapter 5 for ordering information.

Getting the best results

There are many variables in process reproduction of colors generated by the Phaser 340, any one of which may affect the quality of the PANTONE Color simulation, including:

- Quality of paper and transparency film

- Selected resolution

- Dot structure/halftones

For optimal results, always use the recommended Tektronix supplies. Refer to Chapter 5 for ordering information.

Relative port speed

Ethernet and Token Ring are the fastest ports, followed by the parallel port, the LocalTalk port, then the serial port.

4

Caring for Your Printer

Overview

This chapter describes the following topics to help you care for the printer and keep it in peak operating condition:

■   **Adding ink**
Add ink when the ink level drops to one-half stick. The front panel displays an `Ink Low` message telling you when to add ink.

■   **Emptying the waste tray**
Empty the excess ink from the waste tray when a front panel message tells you that the waste tray is full or anytime you remove the maintenance tray.

■   **Replacing the maintenance tray**
Replace the maintenance tray when a front panel message tells you that the maintenance tray is low, approximately every 10,000 prints.

■   **All about media jams**
Describes common causes and solutions for media jams inside the printer.

■   **Cleaning the printer**
Describes how to clean the printer to solve specific print problems: light stripes or missing colors, ink smears on prints, and problems picking paper or transparencies from the media tray.

Adding ink

Approximate time to complete: 1 minute

The printer is shipped already loaded with Tektronix Phaser 340 ColorStix solid ink sticks. The front panel displays a message telling you when the printer is low on ink, giving you time to reorder. When the printer is out of ink, it displays an Out of Ink message. Add up to three ink sticks to the printer before continuing to print.

1. Open the top cover.

2. Drop the appropriate color Phaser 340 ColorStix ink stick into the ink loading bin that appears low. Each ink stick is uniquely shaped to fit into the correct ink-loading bin.

9101-21
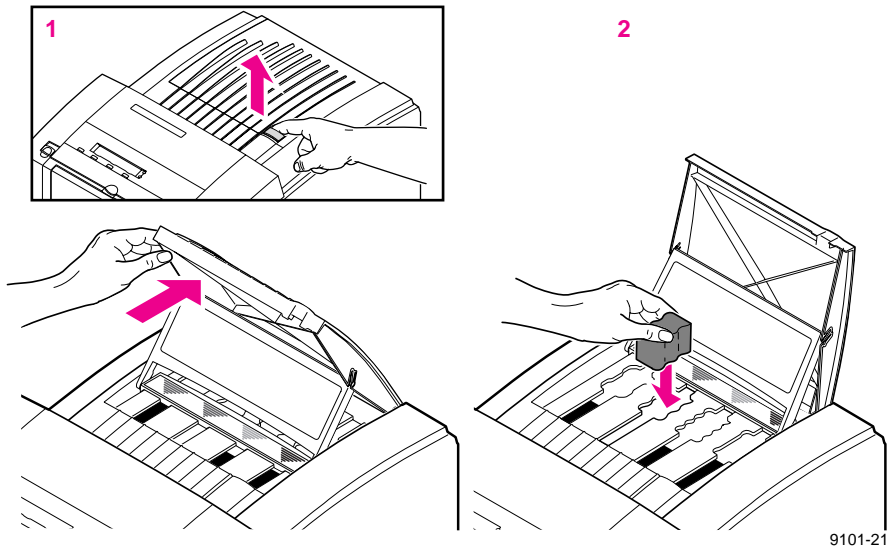
3. After loading the appropriate color ink stick, a front panel message directs you to close the top cover.

For typical office document printing, you'll use one of each color ColorStix ink stick to print approximately 1000 pages. To reorder additional ink sticks, contact your local dealer or, in the United States, call Tektronix at **1**-**800**-**835**-**6100**.

Printer ink sticks

016-1307-00	Phaser 340 ColorStix solid ink — 3 Black sticks
016-1308-00	Phaser 340 ColorStix solid ink — 3 Cyan sticks
016-1309-00	Phaser 340 ColorStix solid ink — 3 Magenta sticks
016-1310-00	Phaser 340 ColorStix solid ink — 3 Yellow sticks

Ink handling tips

■   To ensure optimum print quality and best performance, leave the printer turned on overnight and during weekends. This reduces cleaning cycles which consume ink.

■   Keep ink sticks clean by storing them in their original containers until you are ready to use them.

■   The ColorStix ink sticks will break if dropped; handle them with care.

Caution　*Do not load used ink into the printer. Reusing waste ink ruins the printhead and invalidates the printer's warranty.*

Discard broken ink sticks. Loading broken pieces of ink sticks can cause the ink-loading system to jam.

Use only Phaser 340 ColorStix ink sticks. The Phaser 340 cannot be used with solid-ink ColorStix intended for other printers.

Emptying the waste tray

Approximate time to complete: 3 minutes

The waste tray fits inside the maintenance tray which is located behind the front cover. You should empty the waste tray anytime you remove the maintenance tray or when the front panel displays the following message:

```
Waste Tray Full
Open Front Cover
```

1. Open the front cover.
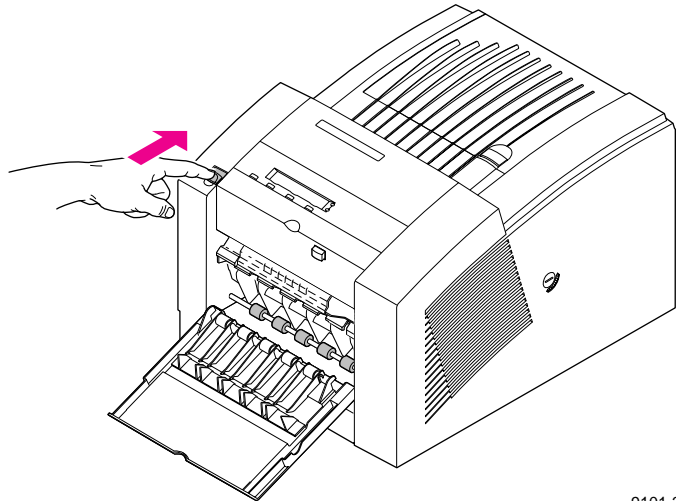
9101-22

Caution   *Some surfaces inside the printer may be hot. Be careful not to touch the areas marked with this caution icon:*

2. When you open the front cover, the following message appears:

```
Waste Tray Full
Remove Maintenance Tray
```

3. Grasp the maintenance tray by the front edge and lift up while sliding it out of the printer.
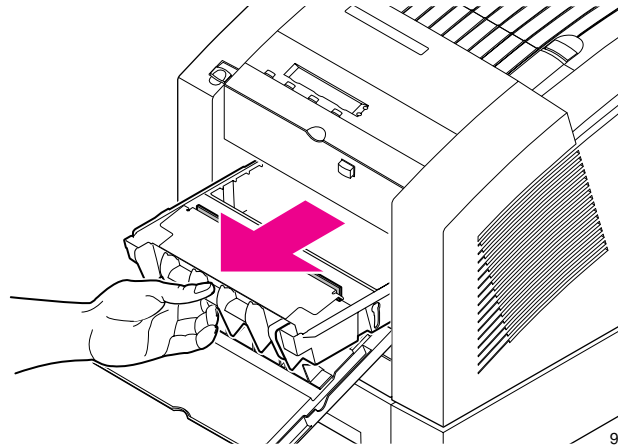
9101-53

Note *Once the maintenance tray has been partially used, it will leak drum fluid if tipped. Place the maintenance tray on a flat surface after removing it from the printer. Contact with the drum fluid poses no known health risk. Refer to "MSDS for silicone oil" on page D-7 for more information.*

4. Lift one corner of the waste tray handle to release it from the maintenance tray; remove the waste tray from the maintenance tray.

5. Empty the contents of the waste tray by twisting it. Used ink is nontoxic; it can be treated as normal office waste.

   Each time you remove the waste tray to empty waste ink, be sure to empty the waste tray completely before replacing it in the maintenance tray.

Caution   *Do not load used ink into the printer. Reusing waste ink ruins the printhead and invalidates the printer warranty.*

6. Replace the waste tray in the maintenance tray.

   a. Place the side opposite the handle into the maintenance tray first.

   b. Press down firmly in the center of the waste tray to lock it into place. Make sure the waste tray is fully seated in the maintenance tray.

9101-39
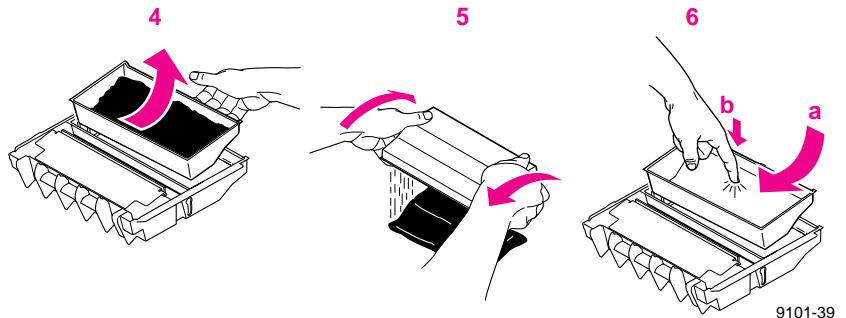
7. Replace the maintenance tray in the printer.

Note   *To prevent media jams at the media tray, be sure to push the maintenance tray into the printer until both sides latch in place.*

8. Close the front cover.

Replacing the maintenance tray

Approximate time to complete: 1 minute

The printer uses the maintenance tray, located inside the printer behind the front cover, prior to each printing and during cleaning operations. A front panel message tells you when the maintenance tray is low, allowing you to make a minimal number of prints before the tray is depleted.   Install a new maintenance tray to continue printing. Each replacement maintenance tray has a print capacity of approximately 10,000 prints.   To avoid printing delays, keep an extra maintenance tray available for use in the printer.

Note   *There is a 15-minute warm-up period required after replacing the maintenance tray.*

To order a maintenance tray (Tektronix order number 436-0294-03), contact your local dealer or, in the United States, call Tektronix at **1-800-835-6100**.

1.   Open the front cover.
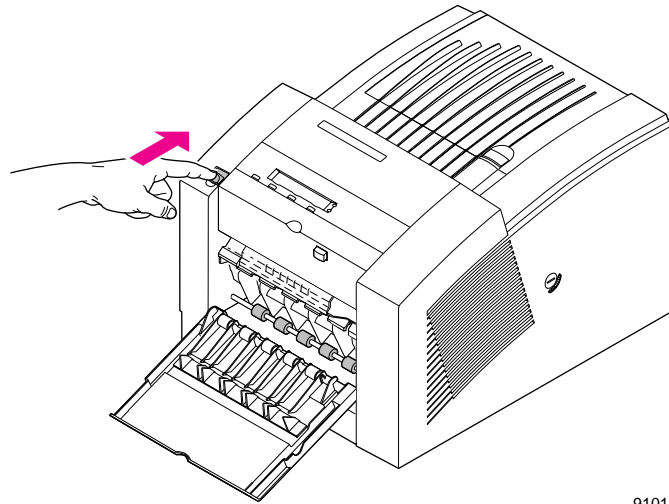
9101-22

Caution   *Some surfaces inside the printer may be hot. Be careful not to touch the areas marked with this caution icon:*

2. When you open the front cover, the following message appears:

```
Caution Hot Surfaces
Replace Maintenance Tray
```

3. Grasp the maintenance tray by the front edge and lift up while sliding it out of the printer.

9101-53
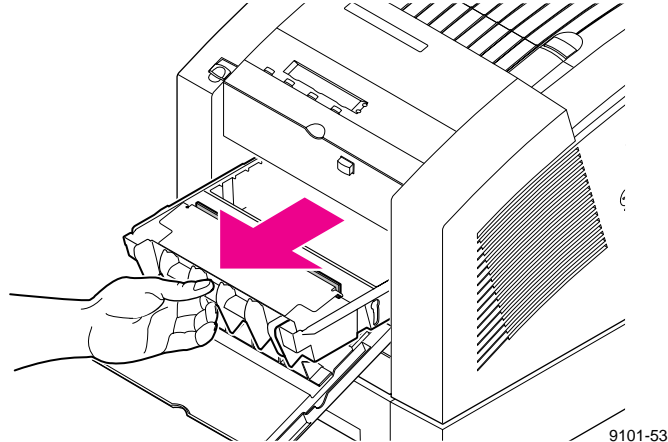
Note *Once the maintenance tray has been partially used, it leaks drum fluid if tipped. Never ship a partially used maintenance tray. Contact with the drum fluid poses no known health risk. Refer to "MSDS for silicone oil" on page D-7 for more information.*

4. Install a new maintenance tray in the printer.

Note *Be sure to push on both sides of the maintenance tray to latch it firmly into the printer.*

5. Close the front cover and wait for the printer to warm-up.

6. To prevent leaking, seal the used maintenance tray in the plastic bag from the new (replacement) maintenance tray. Treat the used maintenance tray as normal office waste.

All about media jams

Use the following guidelines to help prevent paper and transparencies from jamming inside the printer.

■ When installing a new maintenance tray, push on *both* sides of the tray to latch it firmly into the printer.

■ Periodically clean the printer to keep it operating in peak condition. Refer to cleaning details later in this chapter.

■ Fan the paper before loading it into the upper and lower paper trays. For additional information on loading media trays, refer to "All about media" on page 3-13.

■ Use standard grade paper 60–120 g/m^2 (16–32 lb.); use the manual feed slot for thick papers. Do not use three-holed paper, perforated paper, legal-size paper or envelopes.

■ Wait until a front panel message prompts you before feeding a second sheet of paper or transparency into the manual feed slot.

■ Keep paper and other supplies clean and free from dust.

■ Paper that has been sitting out of its sealed wrapper can become distorted, causing paper jams. Keep paper sealed until you are ready to use it for printing.

■ Do not use paper that has been creased or wrinkled.

Caution   *Never attempt two-sided or two-pass printing on any type of media. Ink from the back of the paper will offset onto the internal paper path, requiring you to perform cleaning procedures. Excessive buildup of ink in the paper path may cause paper jams.*

After you clear the jammed media, the printer feeds a cleaning page to remove a partial image that may be on the printdrum. Once the printdrum is cleared, the printer outputs the original image on a second page. The source of the cleaning page (upper tray is default) is selected through the `Cleaning Page Source` front panel menu selection. If you have letterhead or transparencies in the upper tray, you can change the source of the cleaning page to avoid using letterhead for the cleaning page. Refer to "Selecting the cleaning page source" on page A-11.

Locating jammed media

Paper jams can occur in these places:

1. Inside the exit cover

2. Inside the front cover

3. At the manual feed slot

4. At the standard media tray and Lower Paper Tray Assembly
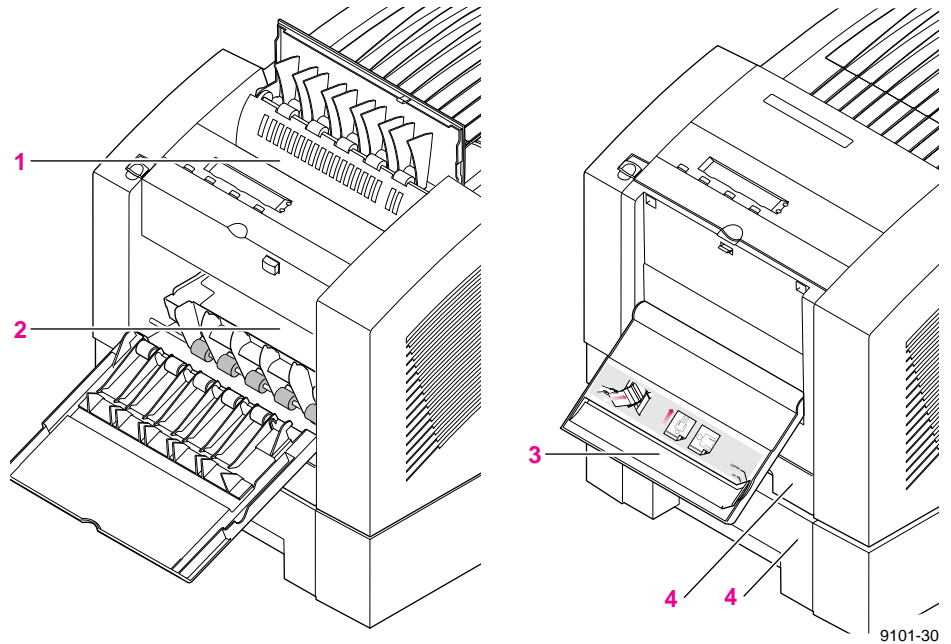
9101-30

**Caution**   *Some surfaces inside the printer may be hot. Be careful not to touch the areas marked with this caution icon:*

Removing jammed media

To avoid ink smears inside the printer, always try to pull jammed paper or transparency media out through the top of the printer (the exit cover). If the jammed media cannot be cleared from the exit cover, open the front cover and check for jammed media. If the jam is not inside the front cover, remove the media tray and check for jammed media.

Follow these guidelines when you remove jammed media:

■   Use both hands to gently pull the media through its normal path out the top of the printer (exit cover), if possible.

■   Do not use excessive force pulling the media; it may tear.

■   After removing the jammed media, inspect it for tears. Leave no media scraps in the printer.

■   If your prints have ink smears after clearing a jam condition, refer to "Cleaning for ink smears: internal paper path" on page 4-26.

1.   Check for jammed media that has partially exited the printer's exit cover. Remove any jammed media by pulling the media out through the top of the printer.

2.   Open the front cover and check for jammed media.
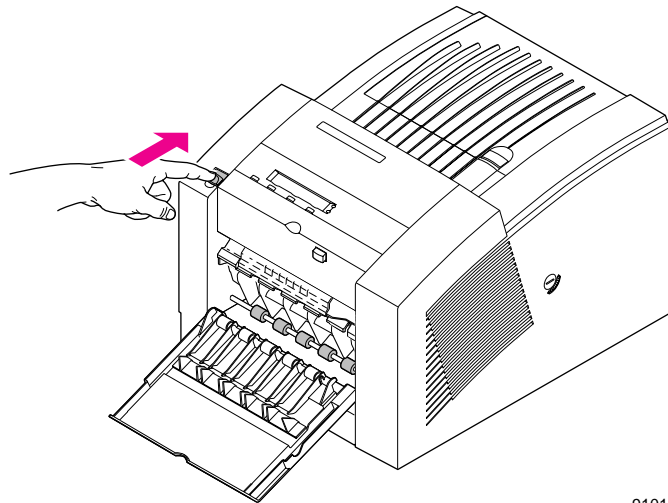
9101-22

3. If necessary, open the exit cover using the blue release button located inside the front cover, at the top of the printer.

9101-29
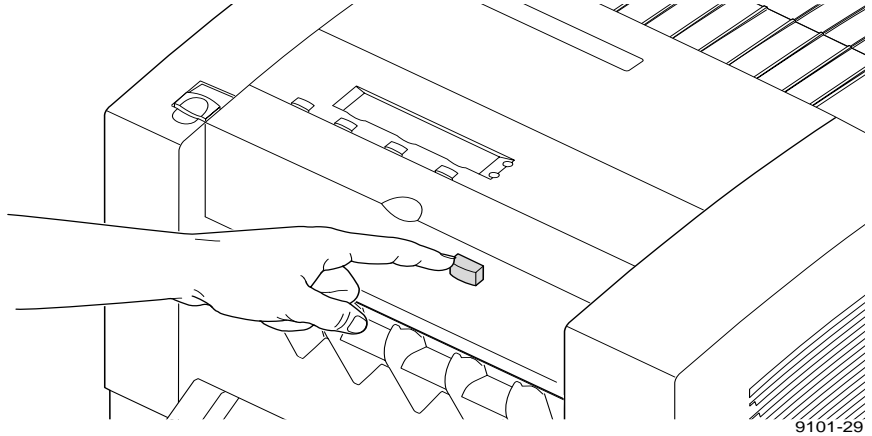
4. Using both hands, pull the jammed media out the top of the printer.

9101-60
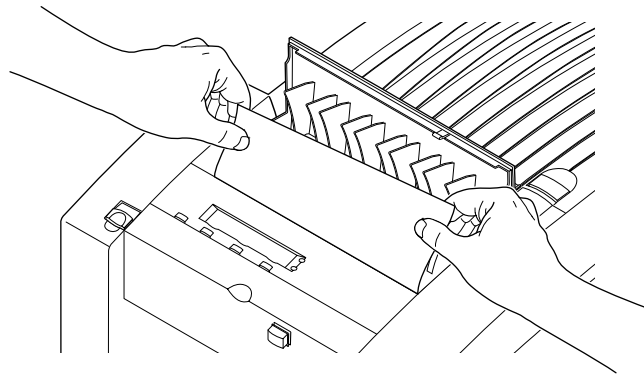
5. If necessary, remove the media tray to locate and clear jammed media.

Cleaning the printer

Periodically cleaning the printer keeps it in peak operating condition. Automatic cleaning procedures to cure most problems are available through the front panel by pressing the **Clean** button. When necessary, the front panel guides you through steps to perform cleaning procedures. When appropriate, the printer offers to print instructions detailing the cleaning procedure.

Cleaning pages

The printer occasionally prints a cleaning page as part of a self-maintenance operation.   This helps the printer maintain the highest quality printing possible. You can clean the printer anytime you see light stripes on your prints by running the `Clean:Light Stripes` cleaning procedure from the front panel. Discard the cleaning page as normal office waste.

1. Red
2. Green
3. Blue
4. Black
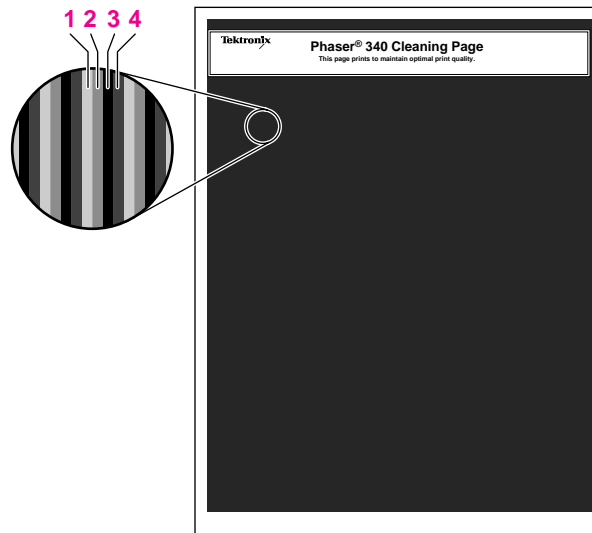
9101-69

Cleaning supplies

When you receive your new printer, you receive these cleaning supplies:

1. Cleaning tray
2. Foam swabs
3. Lint-free wipes (dry)
4. Plastic bottle for dispensing isopropyl alcohol
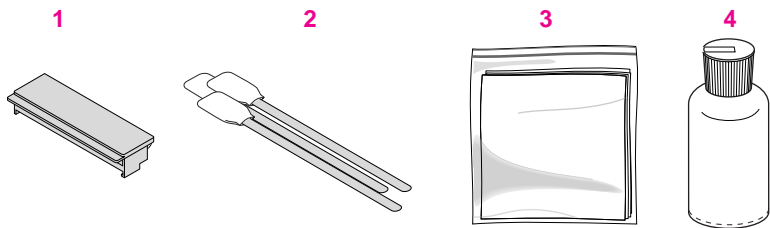
Some cleaning procedures require you to use cloth wipes or swabs saturated with isopropyl alcohol.   Since shipping regulations prohibit supplying alcohol or presoaked cleaning materials with the printer, you must supply 90% pure isopropyl alcohol (available at pharmacies). You can obtain pre-soaked alcohol wipes by ordering a separate cleaning kit from Tektronix or by ordering them in packs of 10 (Tektronix order number 006-7824-01).

Reordering cleaning kit supplies

To reorder the cleaning kit (Tektronix order number 016-1341-00), contact your dealer or local Tektronix office. In the United States, call: **1-800-835-6100,** or order by fax: **(503) 682-2980.**

When you order the cleaning kit, you receive these items:

1. Cleaning tray
2. Foam swabs
3. Lint-free wipes (isopropyl alcohol-saturated)
4. Plastic bottle for dispensing isopropyl alcohol

1   2   3   4

9101-23
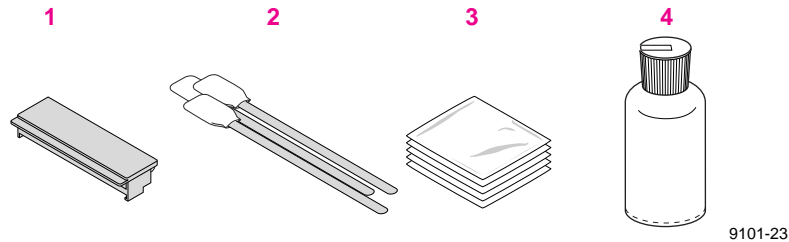
Note   *You can order alcohol-saturated wipe packets separately in packs of 10 (Tektronix order number 006-7824-01).*

Using isopropyl alcohol

In general, it is best to use the purest isopropyl alcohol (99%) available to you. You can use 90% pure isopropyl alcohol, but if you do, you must wait after cleaning to make sure that printer parts are completely dry. 99% isopropyl alcohol dries quickly; 90% isopropyl alcohol may take several minutes to dry.

Caution   *Do not use **rubbing alcohol** because it can contain water and oils that leave undesirable residue on the printer parts. Never use **water** to clean the printer's internal components. Failure to follow these instructions may invalidate your printer's warranty.*

Whenever the cleaning instructions refer to *a lint-free cloth moistened with isopropyl alcohol* (**A**), you can substitute a *pre-soaked alcohol cloth* (**B**). When the cleaning instructions direct you to use an alcohol-soaked swab, you can use the extra alcohol in a pre-soaked alcohol cloth packet to moisten the swab (**C**).

Warning   *Alcohol is flammable; keep alcohol-soaked cloths and swabs away from hot surfaces.*

The reorder cleaning kit (order number 016-1341-00) includes these pre-soaked alcohol cloth packets.
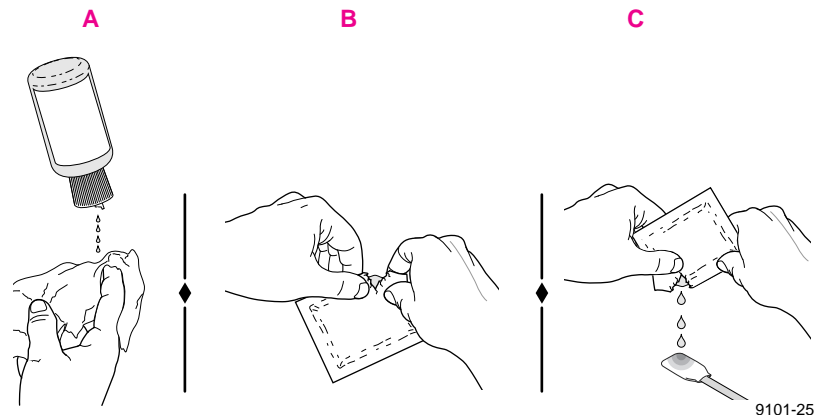
9101-25

Identifying cleaning solutions

Cleaning procedures listed in this chapter are referenced by the type of printing problem you may be experiencing. Use the following tables to help identify cleaning solutions for these printing problems.

Light stripes or missing colors

Problem type	Solution
Missing or light-colored stripes on prints.	Refer to "Cleaning for light stripes: printhead" on page 4-23.

Ink smears or random streaks

Problem type	Solution
Ink smears on the front, back or edges of a page.	Refer to "Cleaning for ink smears: internal paper path" on page 4-26.
Oil (drum fluid) on top edge of print.	Refer to "Cleaning for ink smears: paper feed rollers" on page 4-29.
	Refer to "Cleaning for ink smears: paper exit path" on page 4-34.

Media jams at the standard tray

Problem type	Solution
Paper-pick or jamming problems at the tray.	Refer to "Cleaning for media tray jams: media pick rollers" on page 4-39.

Cleaning for light stripes: printhead

Approximate time to complete: 3-10 minutes

If your prints have 1/10 in. (2.5 mm) lengthwise stripes that are the wrong color or have missing colors, you can correct the problem by cleaning the printhead. The printer automatically executes a printhead cleaning sequence when you run the `Clean:Light Stripes` routine from the front panel.

9101-48

1. When the printer is on and the `Ready` message appears, press the **Clean** button. The printer displays the first selection in the menu:

    ```
    Clean:Light Stripes
    <----   Clean    Test
    ```

2. Press the **Clean** button once again.

3. A series of front panel messages indicate the condition of the printer as it progresses through a sequence of automatic cleaning routines. The printer outputs a cleaning page at the end of the cleaning sequence that you may discard as normal office waste.

4. When the cleaning sequence is completed, the printer displays the following message:

    ```
    Clean:Light Stripes
    <----   Clean    Test
    ```

5. To confirm that the problem has been corrected, press the `Test` button to print a test page. Check for any missing color bars on the test page.

1. Black

2. Cyan

3. Magenta

4. Yellow

9101-49
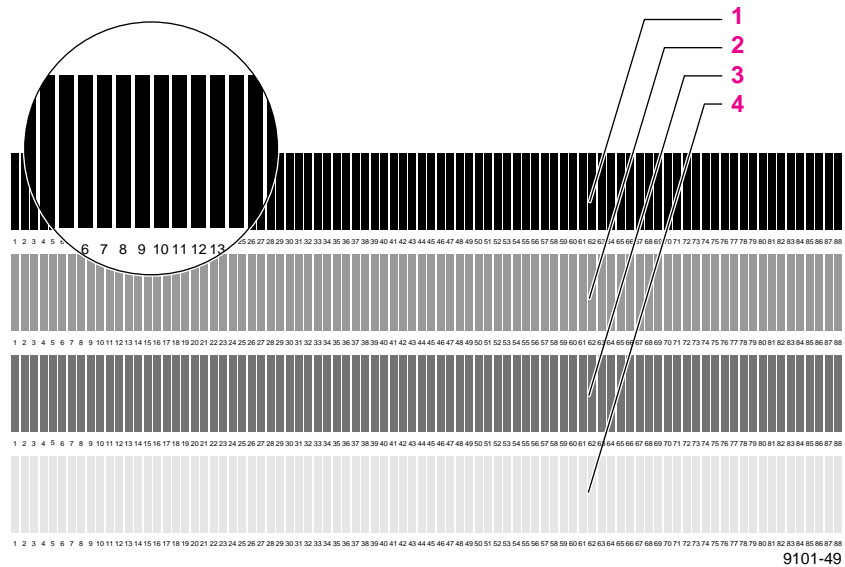
6. If one or more of the color bars are still missing, repeat the cleaning sequence by pressing the `Clean` button once again. When cleaning ends, the printer outputs a cleaning page that you may discard as normal office waste.

   If the second cleaning sequence does not cure the light stripes or missing colors problem, you can press the `Clean` button for a third time to repeat the cleaning sequence.

7. If your prints still have color stripe problems after the third cleaning sequence, service may be required. Refer to "Printer service" on page 6-1 for more information.

8. Return the printer to normal operation by pressing the (Exit) button.

Cleaning for ink smears: internal paper path

Approximate time to complete: 3-6 minutes

If your prints have stray ink marks on the front or the back, you can correct the problem by cleaning the printer's internal paper path surfaces. The printer automatically feeds 10 sheets of paper through the print path to collect stray ink particles when you run the `Clean:Ink Smears` routine from the front panel.

Sample ink smear: internal paper path
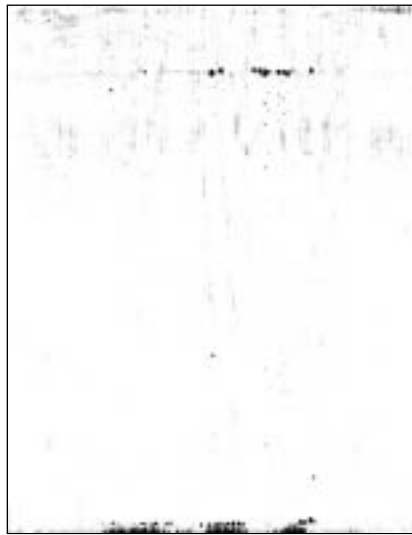
9101-63

1. When the printer is on and the **Ready** message appears, press the **Clean** button. The printer displays the first selection in the menu:

   ```
   Clean:Light Stripes
   <----    Clean    Test
   ```

2. Press the left arrow (`<---`) button until the following message appears:

   ```
   Clean:Ink Smears
   <----    Clean    Test
   ```

3. Press the **Clean** button. The printer displays the following message:

   ```
   Warming Up
           Cancel
   ```

4. After a short delay during the warm-up period, the printer begins an automatic sequence of feeding 10 clean sheets of paper from the upper media tray.

   A front panel message indicates the number of sheets remaining to be fed. For example:

   ```
   Cleaning:Using 10 Sheets
   ```

Caution   *Always use clean sheets of paper to clean the paper path. Do not reuse cleaning sheets.*

Do not attempt duplex (two-sided) printing on any type of media. Ink from the back side of the paper offsets onto the internal paper path, requiring you to perform cleaning procedures.

5. When the cleaning sequence is complete, inspect the last sheet of paper fed through the printer. If it is not clean, repeat the cleaning sequence by pressing the **Clean** button once again.

6. Return the printer to normal operation by pressing the ⬆(Exit) button.

   If the ink smears problem persists after running clean sheets of paper through the paper path, refer to the following two procedures for directions on cleaning paper feed rollers and the paper exit path.

Cleaning for ink smears: paper feed rollers

Approximate time to complete: 5 minutes

If you have already performed the "Cleaning for ink smears: internal paper path" cleaning procedure earlier in this chapter but problems persist, clean the upper and lower paper feed rollers.

The paper feed rollers carry the print media from the media tray and manual feed slot through the printer. Occasionally, stray ink particles become attached to the paper feed rollers causing ink smears on prints. When this occurs, you must clean the paper feed rollers using alcohol-soaked swabs. Refer to "Using isopropyl alcohol" on page 4-20 for more information.

Sample ink smear: paper feed rollers

9101-61

1. Open the front cover.
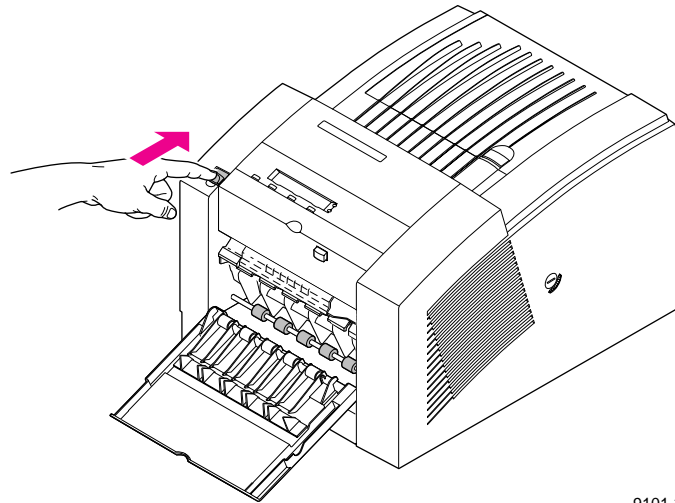
9101-22

Caution *Hot surfaces exist behind the upper paper feed rollers. To avoid personal injury during cleaning procedures, do not reach in behind the paper feed rollers.*

Cleaning Update

Pre-soaked alcohol cloth wipes provide the most effective tool for cleaning the printer's rubber rollers. You can obtain these wipes by ordering them in packs of 10 (Tektronix order number 006-7824-01). As a substitute, use a coffee filter soaked with 90% isopropyl alcohol.

Caution: **Do not use rubbing alcohol because it can contian water and oils that leave an undesirable residue on the printer's parts.**

When cleaning the printer's rubber rollers, fold an alcohol-soaked cloth and hold with moderate pressure against each individual roller while rotating it. **Scrub** each roller thoroughly by rotating the roller at least *four or five complete revolutions.* If the cloth becomes dirty, discard it and use another.

2.   There are two sets of upper paper-feed rollers located above the maintenance tray. One set of rollers is rubber; the other set is white plastic. The rubber rollers are mechanically linked to companion rubber rollers located under the maintenance tray. Turning the lower rubber rollers also turns the upper rollers.

   a.   To clean the upper white plastic rollers, place an alcohol-soaked swab on top of each upper roller and lift on the swab to create pressure against the roller. Turn the lower roller shaft with your thumb and forefinger to operate the upper feed rollers.

   b.   To clean the upper rubber rollers, place and hold an alcohol-soaked swab against the underside of each roller while turning the lower roller shaft with your thumb and forefinger. You may need several swabs to clean the rubber rollers. If the swab becomes dirty during cleaning, discard it and use another.

9101-33
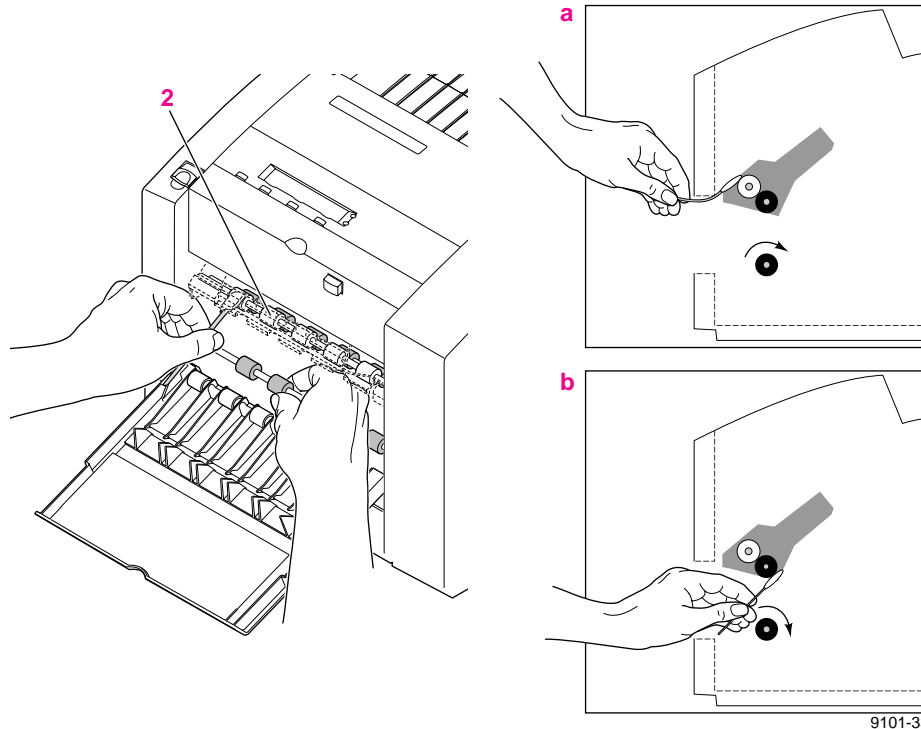
3. There are two sets of lower paper feed rollers. One set of rollers is rubber; the other set is white plastic. The rubber lower rollers are located below the maintenance tray; the white plastic rollers are located on the inside of the front cover.

    a. To clean the lower rubber feed rollers, place and hold an alcohol-soaked swab on top of each roller while turning the lower feed roller shaft.

    b. To clean the lower white plastic rollers, place and hold an alcohol-soaked swab on top of each roller while turning the individual roller with your thumb and forefinger.
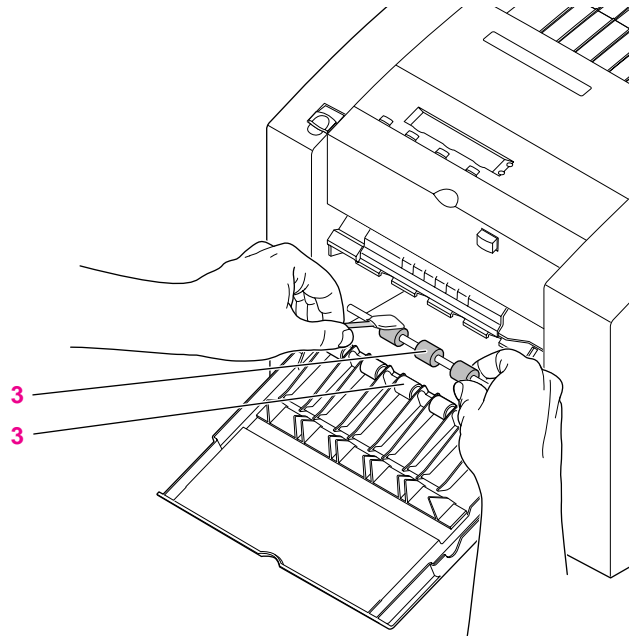
9101-32

4. Close the front cover. If the problem persists, refer to "Cleaning for ink smears: paper exit path" on page 4-34.

Cleaning for ink smears: paper exit path

Approximate time to complete: 10 minutes

If you have already performed the "Cleaning for ink smears" cleaning procedure earlier in this chapter but problems persist, you should manually clean the paper exit path. Refer also to "Cleaning for ink smears: paper feed rollers" on page 4-29.

Occasionally stray ink particles become attached to the exit fingers, rollers and guides under the exit cover causing ink streaks or marks on the top edge, front or back of prints. When this occurs, you must clean these parts using both dry and alcohol-soaked swabs. Refer to "Using isopropyl alcohol" on page 4-20 for more information.

Sample ink smear: paper exit path
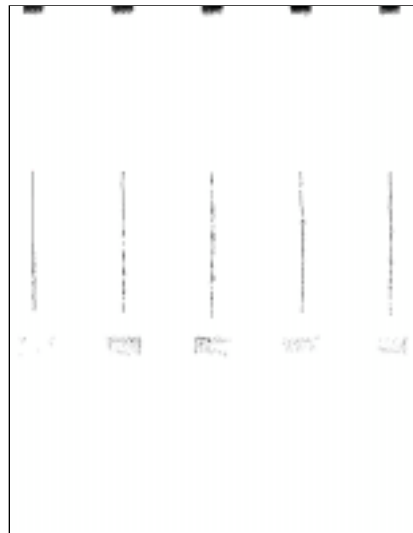
9101-62

1. Open the front cover.
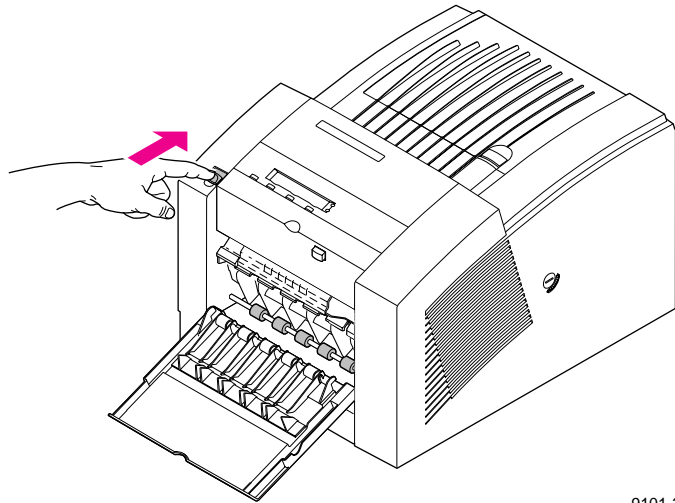
9101-22

2. Open the exit cover using the blue release button located inside the front cover at the top of the printer.
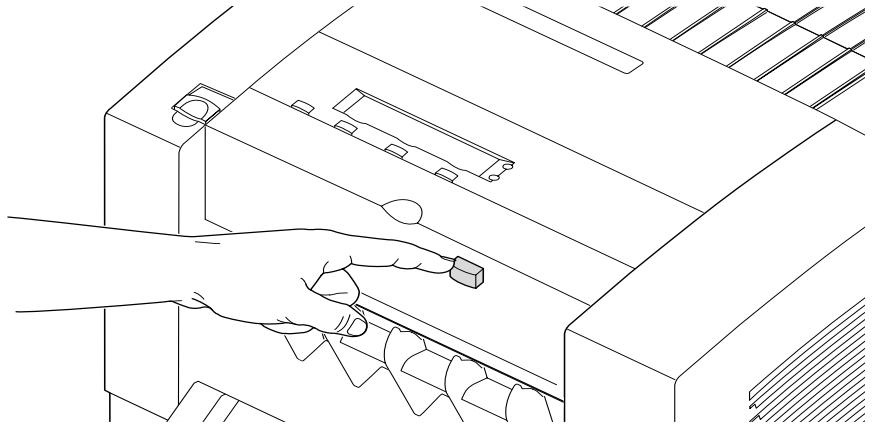
9101-29

3. To clean excess ink particles and drum fluid from the colored exit fingers, gently wipe the top surface of each finger using a *dry* swab.

Caution *To avoid damaging the print drum and exit fingers, never scrape excess ink with a tool or finger nail. Use a dry swab provided with the cleaning kit.*
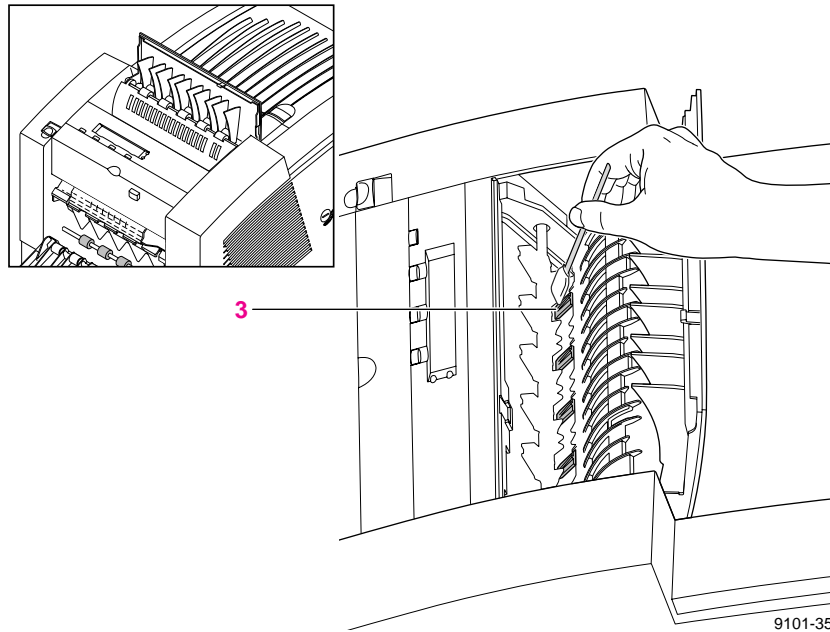
9101-35

Cleaning Update

Pre-soaked alcohol cloth wipes provide the most effective tool for cleaning the printer's rubber rollers. You can obtain these wipes by ordering them in packs of 10 (Tektronix order number 006-7824-01). As a substitute, use a coffee filter soaked with 90% isopropyl alcohol.

Caution: **Do not use rubbing alcohol because it can contian water and oils that leave an undesirable residue on the printer's parts.**

When cleaning the printer's rubber rollers, fold an alcohol-soaked cloth and hold with moderate pressure against each individual roller while rotating it. **Scrub** each roller thoroughly by rotating the roller at least *four or five complete revolutions.* If the cloth becomes dirty, discard it and use another.

4. To clean the rubber exit rollers, place and hold an alcohol-soaked swab against each roller and turn it several times.
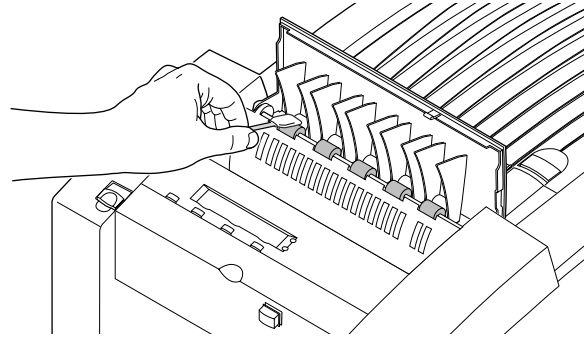
9101-36

Note *You may notice some staining of the exit rollers while performing the cleaning procedure. This is normal and does not indicate additional cleaning is necessary. Simply clean rollers to remove any build-up of ink.*

5. To clean the white plastic exit rollers, place and hold an alcohol-soaked swab on top of each roller while turning the individual roller with your thumb and forefinger.

6. To clean the two sets of ribbed exit guides on the underside of the exit cover, gently wipe the raised ribs using an alcohol-soaked swab.

9101-34
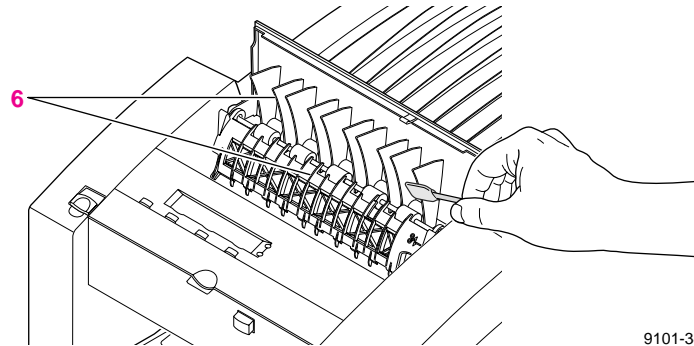
Caution   *To avoid damaging the print drum and exit guide, never scrape excess ink with a tool or finger nail. Use only the materials provided with the cleaning kit.*

7. Close the exit cover and the front cover.

8. If the ribbed guides on top of the printer (the output tray) require cleaning, use an alcohol-soaked wipe.

Cleaning for media tray jams: media pick rollers

Approximate time to complete: 5 minutes

If you are experiencing media feeding problems including mispicks and multiple picks at the standard (upper) media tray, you can generally correct the problem by cleaning the media-pick rollers and the media pick pad with isopropyl alcohol. Refer to "Using isopropyl alcohol" on page 4-20 for more information.

The printer guides you through the necessary steps to perform cleaning. You will need the pick roller cleaning tray included in the cleaning kit when you run the `Clean: Media Tray Jams` routine from the printer's front panel.

Note   *Media picking problems can also occur when the maintenance tray is not properly latched. You may need to remove and re-latch the maintenance tray to cure a media picking problem. Refer to "Replacing the maintenance tray" on page 4-8 for instructions.*

1. When the printer is on and the `Ready` message appears, press the **Clean** button. The printer displays the first selection in the menu:

    ```
    Clean:Light Stripes
    <----   Clean   Test
    ```

2. Press the left arrow(`<---`) button until the following message appears:

    ```
    Clean:Media Tray Jams
    <----   Clean   Test
    ```

3. Press the **Clean** button once again.

4. The following message appears:

    ```
    Print Instructions?
    Continue   Print
    ```

5. If you want a printout of the procedure press `Print`, otherwise press `Continue`

6. When you press `Continue`, a front panel message prompts you to install the cleaning tray in the media tray.

    a. Remove the media tray from the printer. Remove all print media from the media tray.

    b. Remove the cleaning tray from the cleaning kit and open the tray lid to reveal the cleaning tray sponge.

    c. Dampen the cleaning tray sponge with isopropyl alcohol (**A**); a bottle is provided in the cleaning kit for dispensing the alcohol. Alternately, you can squeeze the alcohol from a pre-soaked alcohol wipe packet to moisten the cleaning tray sponge (**B**).

Caution   *Do not use **rubbing alcohol** because it can contain water and oils that leave undesirable residue on the printer parts. Never use **water** to clean the printer's internal components. Failure to follow these instructions may invalidate your printer's warranty.*

A   B
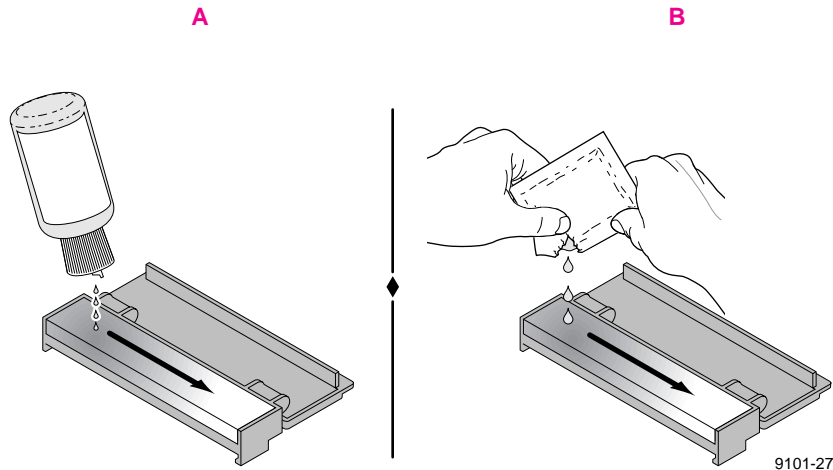
9101-27

d. Place the cleaning tray in the media tray so that the tray's sponge pad is nearest the paper tray's handle. Press the two tabs underneath the cleaning tray into the two square notches provided in the media tray.
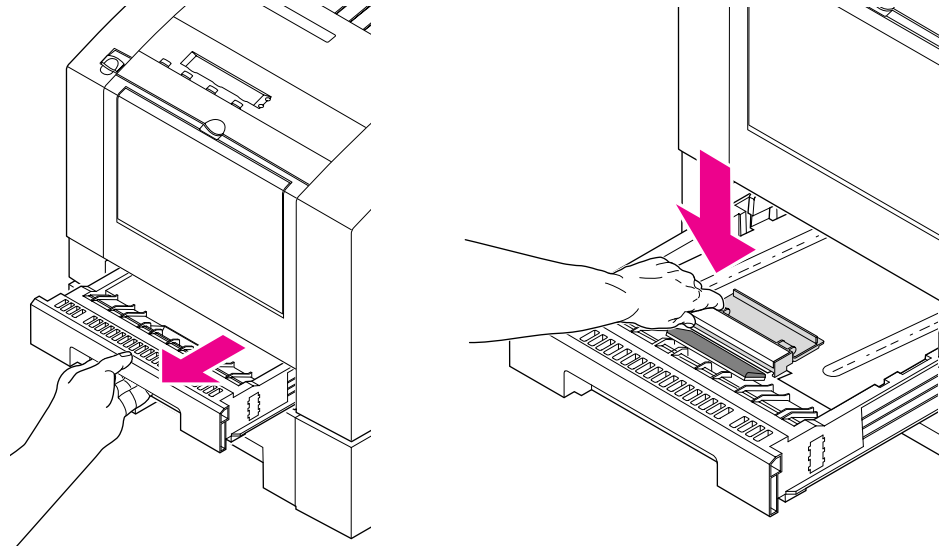
9101-26

e. Insert the media tray with the cleaning tray into the printer.

7. Press the **Clean** button. The printer cleans the media-pick roller while displaying the following message:

```
Cleaning
```

8. When the cleaning operation is complete, the following message appears:

   ```
   Remove Cleaning Tray
   ```

9. Remove the media tray from the printer.

10. Remove the cleaning tray from the media tray.

11. Examine the pick pad located inside the media tray near the paper tray's handle. If it is coated with dust, clean the pick pad using an alcohol-soaked wipe.
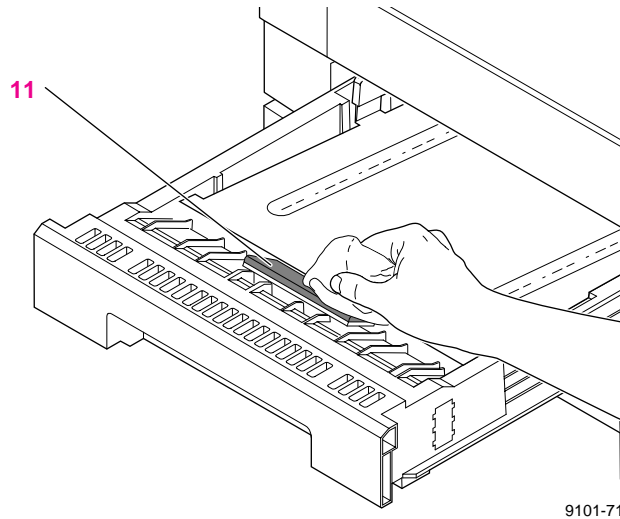
9101-71

12. Reload media in the media tray. Replace the media tray in the printer.

13. The front panel re-displays the following message:

    ```
    Clean:Media Tray Jams
    <----   Clean   Test
    ```

14. Press the (Exit) button to return to normal operation.

15. Store the cleaning tray in its original packaging for later use.

Cleaning Update: Manually Cleaning Rollers

Manually cleaning the upper pick roller

1. Remove the upper media tray from the printer.
2. Open the front cover.
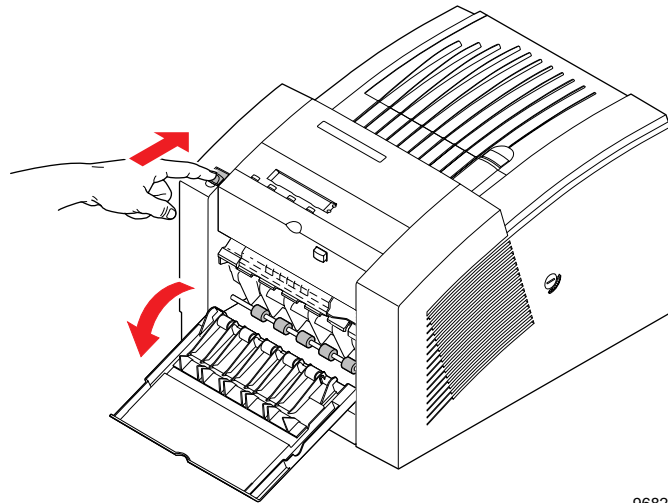
9682-23

Caution   *Hot surfaces exist behind the upper paper-feed rollers. To avoid personal injury during cleaning procedures, do not reach in behind the paper-feed rollers.*

3. Grasp the maintenance tray by the front edge and lift up while sliding it out of the printer. Place the maintenance tray on a level surface.
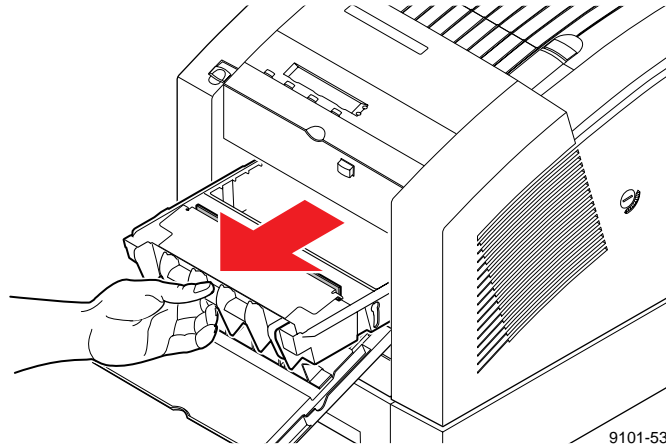
9101-53

4. Locate the top of the media-pick roller behind the black rubber transport rollers. To clean the top surface of the media-pick roller, use either the pre-packaged alcohol-soaked cloth or a lint-free cloth folded into a two-inch square and soaked with alcohol.

5. **Scrub the top surface of the media-pick roller thoroughly.** If the cloth becomes dirty, discard it and use another.

9682-25
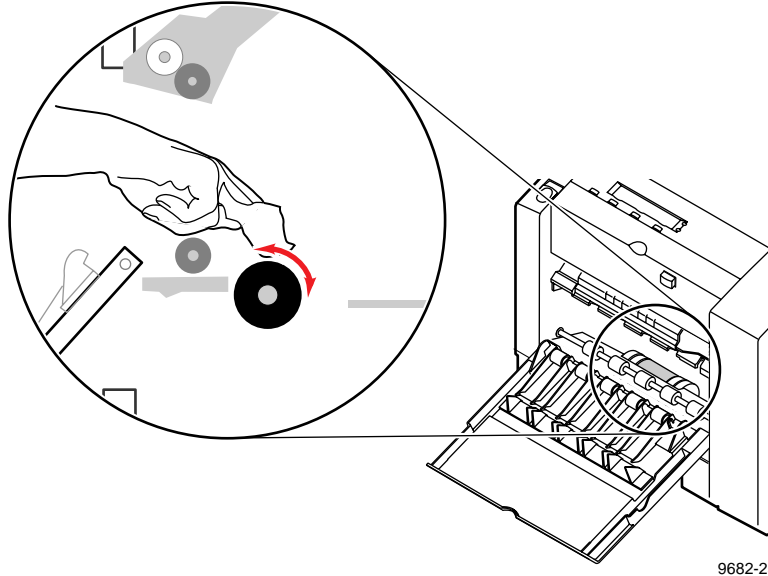
6. Replace the maintenance tray in the printer.

Note   *To prevent media jams at the media tray, be sure to push the maintenance tray into the printer until both sides latch in place.*
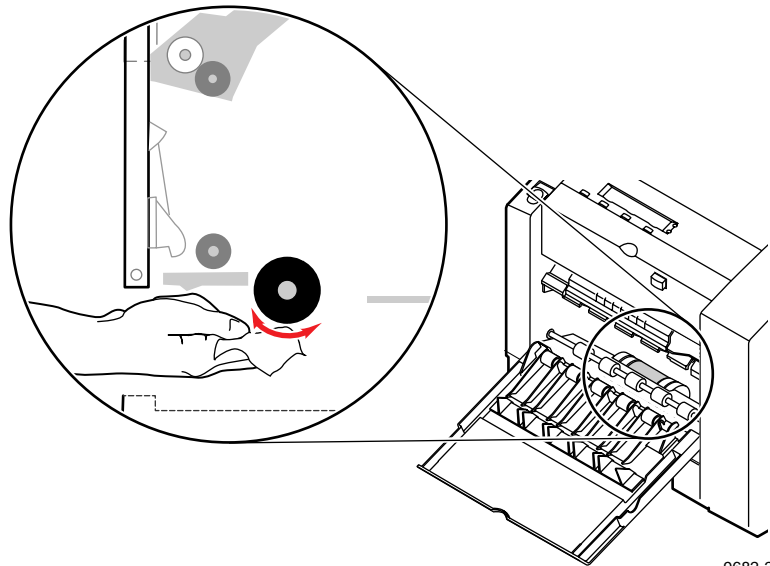
7. Close the front cover.

8. Locate the bottom of the media-pick roller according to the following illustration.
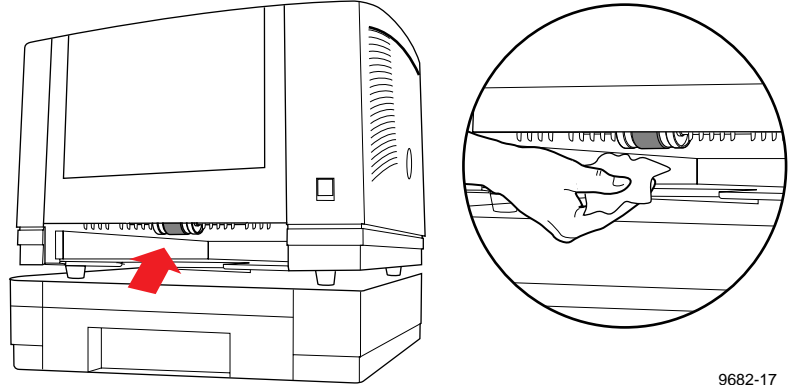
9682-17

9. Using an alcohol-soaked cloth, **scrub the bottom surface of the pick roller thoroughly**.


9682-26

10. Replace the upper media tray in the printer.

Cleaning for lower tray jams: paper-pick rollers

If you are experiencing media-feeding problems, including mispicks and multiple picks of paper from the Lower Paper Tray Assembly, you can generally correct the problem by cleaning the media-pick rollers with isopropyl alcohol.

1. Remove the lower paper tray from the Lower Paper Tray Assembly.

2. Locate the media-pick rollers according to the following illustration.
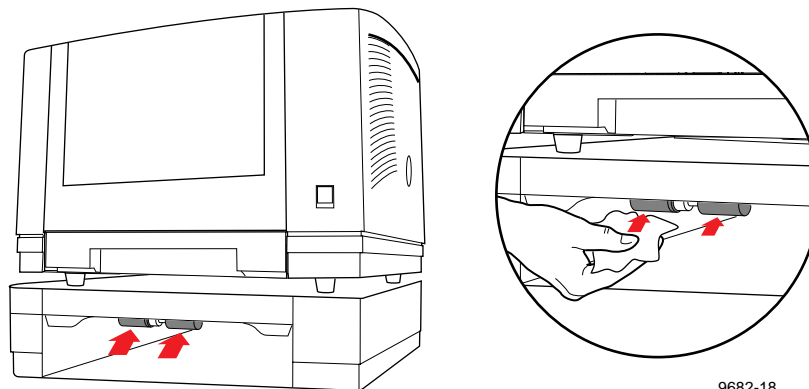
9682-18

3. Using an alcohol-soaked cloth, **scrub both pick rollers thoroughly**.

4. Replace the lower paper tray in the Lower Paper Tray Assembly.

Chapter

5

Supplies and Accessories

Tektronix supplies: the mark of quality

Tektronix supplies are developed and tested as a total *system* — printer, ink, and media. These system components work together to produce consistent, high-quality color images. For the best results, order Tektronix supplies.

Caution   *To avoid damaging the printhead, only use Tektronix Phaser 340 ColorStix® solid ink sticks in the printer.*

Ordering printer supplies

For a complete list of printer supplies, refer to the supplies information sheet that was shipped with the printer and contact your local dealer or, in the United States, call Tektronix at **1-800-835-6100.**

Printer supplies and accessories

Order number	Description
016-1307-00	Phaser 340 ColorStix Solid Ink — 3 Black sticks
016-1308-00	Phaser 340 ColorStix Solid Ink — 3 Cyan sticks
016-1309-00	Phaser 340 ColorStix Solid Ink — 3 Magenta sticks
016-1310-00	Phaser 340 ColorStix Solid Ink — 3 Yellow sticks
016-1361-00	Letter-size Tektronix premium transparency, 50 sheets
016-1362-00	A4-size Tektronix premium transparency, 50 sheets
016-1359-00	Letter-size Tektronix standard transparency*, 50 sheets
016-1360-00	A4-size Tektronix standard transparency*, 50 sheets

* Tektronix premium transparency offers enhanced ink adhesion and superior print quality.

Printer supplies and accessories (cont'd.)

016-1368-00	Letter-size Tektronix paper, 500 sheets, 90 g/m^2 (24 lb.)
016-1369-00	A4-size Tektronix paper, 500 sheets, 90 g/m^2 (24 lb.)
436-0294-00	Phaser 340 maintenance tray (includes waste ink tray)
436-0299-00	Phaser 340 waste ink tray
016-1341-00	Cleaning kit: cleaning tray, alcohol wipes, foam swabs, bottle
006-7824-01	Pack of 10 lint-free, alcohol-soaked cleaning wipes
070-9101-03	*Phaser 340 User Manual*
070-9109-00	*PhaserShare Network Cards and Software System Administrator Manual*
070-9539-00	*PhaserShare Status Software User Manual*
070-9099-01	*Phaser 340 Drivers and Utilities Printing Reference* manual
063-2278-01	Phaser 340 Drivers and Utilities diskette set
063-2491-00	Phaser 340 CD-ROM

Interface cables and adapters

The following cables and adapters are available through Tektronix or your dealer. Contact your dealer for other cables and adapters.

Printer interface cables and adapters

Order number	Description	Connectors and cable length
012-1468-00	Parallel/Centronics cable	36-pin high-density plug to 25-pin DSUB plug; 3 meters (9.84 feet)
	Connects the printer's parallel port to a PC or workstation parallel port.	
013-0299-00	Parallel/Centronics adapter	parallel adapter: converts 36-pin low-density 1284-B plug to 36-pin high-density 1284-C plug
	Adapts your system's existing low-density, Centronics parallel cable connector to the printer's high-density Centronics parallel connector.	
012-1465-00	SCSI-2 HD to SCSI-1 LD cable	50-pin high-density plug to 50-pin low-density plug; 2.0 meters (6.56 feet)
	Connects the printer's SCSI port to a hard disk drive or the Phaser Copystation SCSI port.	
012-1299-00	SCSI-1 LD to Macintosh SCSI cable	50-pin low-density plug to Macintosh SCSI 25-pin plug
	Combine with 013-0297-00 to connect the printer's SCSI port to a hard disk drive with Macintosh SCSI 25-pin plug.	
013-0297-00	SCSI-1 LD to SCSI-2 HD adapter	SCSI adapter: converts 50-pin low-density plug to 50-pin high-density plug
	Use with either 012-1465-00 or 012-1299-00 to convert a low-density SCSI connection to a high-density SCSI connection.	
012-1379-00	Serial (RS-232) Null modem cable	9-socket receptacle to 9-socket receptacle; 1.8 meters (6 feet)
	Connects the printer's serial port to a PC or workstation serial port.	
012-1380-00	Serial (RS-232) Null modem cable	9-socket receptacle to 25-socket receptacle; 1.8 meters (6 feet)
	Connects the printer's serial port to a PC or workstation serial port.	

6

Troubleshooting

If you need help

If you need assistance, contact your local Tektronix dealer or sales representative, Tektronix Customer Support Hotline, the Tektronix Bulletin Board Service (BBS), or Tektronix' interactive fax system (HAL).

Customer Support Hotline

If your problem is still not resolved after first trying the suggestions in this Troubleshooting chapter, call the Tektronix Customer Support Hotline in the United States and Canada at **1-800-835-6100** (from 6:00 am to 5:00 pm PST).

For technical support outside the United States and Canada, contact your local Tektronix dealer or local Tektronix office.

Printer service

If your printer needs service, call **1-800-835-6100** in the United States, from 6:00 am to 5:00 pm PST. Outside the U.S., contact your Tektronix dealer or local Tektronix office.

The Tektronix Bulletin Board Service

The Tektronix Bulletin Board Service (BBS) is available for direct downloading of the latest versions of printer drivers, utilities, and files. If you have a Macintosh or PC, communication software, and modem, you can call the system and use the menus to locate and download the files you want.

To access the BBS 24 hours a day, 7 days a week, call **(503) 685-4504**.

For a detailed instruction guide on system requirements, terminal settings, protocol, modem, connecting to our BBS, and downloading files, request a document catalog from HAL, the Tektronix automated fax system. Refer to "Using the automated fax systems" on page 6-4 for instructions.

Online services

Tektronix color printer information is also available through online services.

- Technical support: **support@ColorPrinters.tek.com**
- World Wide Web: **http://www.tek.com/Color_Printers/**
- Tektronix anonymous ftp server:
                             ftp.tek.com/Color_Printers
- America Online: **keyword Tektronix**
- eWorld: **shortcut Tektronix**
- CompuServe: **go Tektronix**

Using the Tektronix World Wide Web server to download files

You can access the Tektronix World Wide Web server (WWW) to download files such as utilities or drivers. Use a web browser such as Netscape or Mosaic and follow these steps:

1. Start your web browser and enter the following address:

    ftp://ftp.tek.com/Color_Printers/bbs

2. Click on the appropriate platform (*macintosh, pcs, or unix*).

3. Click on *340* for Phaser 340-specific files.

4. Select the file(s) you need; the system prompts you to select a location for downloading the file(s).

Downloading files from the Tektronix ftp server

UNIX and VMS workstation utility files included with the printer on a PC diskette let you set up the printer to select between media trays, print quality modes, color correction modes and other features. If you don't have the means of transferring these files from the PC diskette, you can request files from the Tektronix anonymous ftp server.

If you can exchange electronic mail with other Internet sites, you can access the Tektronix ftp server. From this server you can retrieve driver and utility files and color printer information.

To log onto the Tektronix ftp server and download utility files, follow these instructions:

1. Type the following at the system prompt:

    ftp ftp.tek.com

The system responds:

    `Name (ftp.tek.com:<`*login name*`> :`

2. Type **anonymous** and press the Return key.

The system responds:

    `Guest login ok, send your complete e-mail`
    `address as password.`

3. Enter your e-mail address and press the Return key.

4. Change directories to your printer-specific directory:

    cd Color_Printers/UNIX/<*Tektronix printer***>/utilities**

5. To download the utility files, type the following command:

    mget *

The system prompts you for each file in the directory, to which you respond **y** or **n**.

6. To exit the ftp session, type **quit** or **bye**; then press the Return key.

Using the automated fax systems

As an alternative to the Customer Support Hotline, and to provide up-to-date information quickly, Tektronix has set up HAL (Highly Automated Library) and EuroHAL, two interactive, automated fax systems. These automated fax systems provide Macintosh, PC, and workstation users with the latest technical hints and tips (like color adjustments), solutions to common technical problems, and application notes for software problems (such as CorelDRAW! and QuarkXPress).

You may call HAL or EuroHAL from anywhere in the world. The fax systems are available 24 hours a day, seven days a week.

Use HAL to order a catalog or individual documents in the U.S.A. and Canada

If you have a fax machine and a touch-tone voice telephone, you can order a HAL catalog, listing all of the information offered by HAL, by calling **(503) 682-7450** (direct) or, in the U.S. and Canada, call **1-800-835-6100**.

1. Before you call, write down the area code and telephone number for your fax machine. HAL will ask you to key this number through the keypad on your voice telephone. If you are calling from outside the United States or Canada, you'll need to know the international access code to reach your country from the United States. Without a complete fax number, HAL cannot call your fax machine.

2. Call only from a touch-tone voice telephone.

3. Follow through the voice-prompted menu.

4. Order individual documents by entering the desired document's number as listed in the HAL catalog. Enter the number by using the telephone's keypad.

5. You can order up to three documents per call.

6. The HAL catalog or documents you request are faxed to you in a matter of minutes.

Use EuroHAL to order a catalog or individual documents in Europe
EuroHAL includes many documents, some in English and some in other European languages. If a local version of the document you want is available, EuroHAL will send it in your language. Otherwise, it will send English documents.

If you have a tone-dial telephone and a fax machine, then you can use EuroHAL. If your telephone has star (*) and hash mark (#) keys then it can probably use tones; ask your local telephone supplier if you are not sure.

If your telephone does not have these keys or has a dial, you will need to buy a *tone dialer* from your local telephone or electronics shop. This small box is held to the phone and will send the standard tones that you need to talk to EuroHAL.

1.   To use EuroHAL, dial one of the numbers listed in the following table.

Country	Numbers
Austria	
Belgium	
Denmark	00 44 1908 681 839
Finland	
Italy	
Switzerland	
France	05 90 81 86
Germany	0130 819 220
Holland	09 44 1908 681 839
Norway	0 95 44 1908 681 839
Spain	07 44 1908 681 839
Sweden	0 09 44 1908 681 839
UK	01908 681 839
Other countries	+44 1908 681 839 (where + is your country's International Access Code)

2. EuroHAL answers and asks which language you want to use.

For English	Press **1**
For French	Press **2**
For German	Press **3**

3. The first time you use EuroHAL, you should order a catalog. This lists all the documents that are available and is constantly updated.

4. EuroHAL asks you for your fax machine number. If you are calling from outside the UK, add your country code first, as shown in the following table.

Country	Country code	Your area code and fax number	Press # when finished
Austria	00 43	area code fax number	#
Belgium	00 32	area code fax number	#
Denmark	00 45	area code fax number	#
Finland	00 358	area code fax number	#
France	00 33	area code fax number	#
Germany	00 49	area code fax number	#
Holland	00 31	area code fax number	#
Italy	00 39	area code fax number	#
Norway	00 47	area code fax number	#
Spain	00 34	area code fax number	#
Sweden	00 46	area code fax number	#
Switzerland	00 41	area code fax number	#
UK		just enter your fax number	#
Other countries	00 xx	area code fax number	#

Front panel messages

The front panel displays messages indicating the condition of the printer. Some messages, such as `Standby` and `Warming Up`, simply provide status information. These messages do not require user action. Error messages, such as `Jam:Open Front Cover`, require you to perform some action such as remove a paper jam. Use the following table to determine the appropriate action for each type of front panel message.

The printer may display a numeric error code when it detects certain types of problems. If you see a numeric error code, first write down the number. Try turning off the printer's power and wait at least 15 seconds before turning the power on again. If that does not solve the problem, call your local Tektronix office for assistance in the U.S. and Canada at **1**-**800**-**835**-**6100**.

Front panel messages

Message	Action
`Ready`	No user action required. The printer is ready to print.
`Initializing`	No user action required. Wait for a period of time.
`Warming Up`	No user action required. Wait for a period of time.
`Busy < message >`	No user action required.
`Processing Data`	No user action required.
`Waiting For Data`	No user action required.
`Job Cancelled`	No user action required. Displayed after you press the **Cancel** button.
`Clearing Job`	No user action required. May be displayed after you press the **Cancel** button.
`Melting Ink`	No user action required. Displayed during print jobs that require large amounts of ink.
`Unlock Transit Restraint`	Unlock the transit restraint on the right side of the printer before sending print jobs.
`Close Front Cover`	Close the front cover.
`Close Top Cover`	Close the top cover.
`Close Exit Cover`	Close the exit cover.

Front panel messages (cont'd.)

Message	Action
`Jam:Open Front Cover`	Open the front cover and remove the paper jam from the manual feed slot or behind the front cover. You may need to push on both sides of the maintenance tray to relatch it or clean the upper or lower paper feed rollers.
`Jam:Retry Manual Feed`	Remove the media from the manual feed slot and re-insert it.
`Jam:Open Exit Cover`	Open the exit cover and remove the paper jam. You may need to clean the paper exit path.
`Jam:Remove Upper Tray`	There is a paper jam at the standard media tray. Remove the tray and the jammed paper. You may need to run the `Clean:Paper Jams` routine.
`Jam:Remove Lower Tray`	There is a paper jam at the lower paper tray. Remove the tray and the jammed paper.
`Jam:Remove Media Tray`	There is a paper jam at the paper tray. Remove the tray and the jammed paper. You may need to run the `Clean:Paper Jams` routine.
`Ink Low/Out of Ink`	The `Ink Low` message appears when ink level drops to one-half stick. Open the top cover and add the appropriate color of ColorStix solid ink stick.
`Maintenance Tray Low`	The `Maintenance Tray Low` message appears when the tray is nearly empty. Open the front cover, remove the maintenance tray, and replace it with a new one.
`Replace Maintenance Tray`	Open the front cover, remove the maintenance tray, and replace it with a new one.
`Maintenance Tray Missing`	Insert a maintenance tray into the printer.
`Maintenance Tray Locked`	The printer has locked the maintenance tray because hot ink is present. Wait for a few minutes before trying to remove the maintenance tray.
`Waste Tray Full`	Open the front cover, remove the maintenance tray and empty the waste tray.
`Standby`	Press **Wakeup** or send a print job to bring the printer to `Ready`.
`Energy Star Mode`	Press **Wakeup** or send a print job to bring the printer to `Ready`.

Front panel messages (cont'd.)

Message	Action
`Cleaning`	No user action required. The printer is running an automatic cleaning operation.
`Waiting For Manual Feed`	Insert paper or transparency in the manual feed slot.
`Waiting For Transparency`	The print job specifies transparency but the printer detects that the paper tray is installed. Load transparency in the media tray and press **OK** .
`Waiting For Paper`	The print job specifies paper but the printer detects that the transparency tray is installed. Load paper in the media tray and press **OK** .
`Upper Media Tray Empty`	Add paper or transparencies to the standard media tray.
`Media Tray Empty`	Add paper or transparencies to the media tray.
`Lower Media Tray Empty`	Add paper to the lower media tray.
`Replace Upper Media Tray`	Insert the standard media tray.
`Replace Media Tray`	Insert the standard media tray.
`Replace Lower Media Tray`	Insert the lower media tray.
`Incorrect Media Size`	An incorrect paper size is loaded in the tray or paper narrower than A4-size is in the manual feed slot. Use Letter- or A4-size media.
`Manual Feed Paper`	The printer requires a sheet of paper for cleaning but the media tray contains transparency. Feed a sheet of paper into the manual feed slot.
`Fault.  Service Required`	Turn the printer off, wait at least 15 seconds and turn the printer's power on again. If the failure persists, note the code number in the display. In the U.S., call Tektronix service at **1-800-835-6100**. Outside the U.S., contact your local Tektronix office.

Problems and solutions

Refer to the following tables if you encounter problems with the printer.

Media feeding or jamming problems

Symptom	Solution
Media feed or mispick problems at the standard tray.	Use standard office paper 16–32 lb. (60 – 120 g/m^2) or Tektronix transparency media. Do not load the tray beyond the fill line. Paper tray capacity is 200 sheets paper or 50 sheets transparency. Transparency tray capacity is 175 sheets transparency.
	Refer to "Cleaning for media tray jams: media pick rollers" on page 4-39.
Paper feed problems at the lower paper tray.	Use standard office paper 16–32 lb. (60 – 120 g/m^2). Do not load the tray beyond the fill line. Paper tray capacity is 500 sheets.
Paper jamming inside the printer.	Remove and re-latch the maintenance tray. Refer to "Replacing the maintenance tray" on page 4-8.
	Refer to "Cleaning for ink smears: paper feed rollers" on page 4-29.
Paper jamming at manual feed slot.	Wait for the front panel prompt before feeding paper. Align paper against the left edge of the manual feed slot. Make sure the proper page size is selected for the slot.

Image quality problems

Symptom	Solution
Missing or light color stripes on prints.	Refer to "Cleaning for light stripes: printhead" on page 4-23.
Ink streaks or oil on front, back or edges of print.	Do not print on both sides of the media. Ink may be offset onto the internal paper path.
	Refer to "Identifying cleaning solutions" on page 4-21.
Transparency print quality poor.	Use Tektronix premium transparency media. Use the transparency tray for printing transparencies and specify **Transparency** in the Tektronix printer driver. Refer to "Transparency quality tips" on page 3-28.

Image quality problems (cont'd.)

Symptom	Solution
600 x 300 dpi prints look like 300 dpi quality.	600 x 300 dpi mode is for paper only and is not included in the Phaser 340 standard configuration. Refer to "Print quality modes" on page 3-8.
Print is wrinkled.	You may be using paper that is too thick or thin. Refer to "All about media" on page 3-15.
Paper edge is rippled.	You may be using the wrong grain paper. Load long-grained paper. Refer to "All about media" on page 3-15.
Printed image is shifted, the wrong color, or margins are not correct.	■ You may have to make adjustments in the application or print driver. Refer to "Printing and installation problems" on page 6-13. ■ Make sure that the paper is not curled. Also refer to "Cleaning for ink smears: paper feed rollers" on page 4-29. ■ Microsoft PowerPoint users need to leave **Background Printing** in the **Chooser** set to **Off**.
Colors do not print as expected.	Refer to the *Phaser 340 Drivers and Utilities Printing Reference* for details on how to select TekColor color corrections. You may have attempted to print transparency loaded in a paper tray but did not specify transparency as the print media in the printer driver.

Image quality problems (cont'd.)

Symptom	Solution
Image prints in black-and-white instead of color.	■ PC users: Be sure to use a driver that supports color PostScript. If you are running Windows, use the Tektronix-supplied driver that was shipped with the printer's software. Refer to the *Phaser 340 Drivers and Utilities Printing Reference* for information on drivers.
	■ Excel users: Be sure to check the **Print using color** option in the print dialog box.
	■ Macintosh users: Use the LaserWriter 8.X printer driver and Phaser 340 PPDs that supports color PostScript. Select **Color/Grayscale** in the print dialog box. Refer to "Printing from a Macintosh" on page 3-5 for more details on how to print from a Macintosh.
	■ You may need to install application-related files such as PPDs, PDXs, and PDFs. Refer to the *Phaser 340 Drivers and Utilities Printing Reference* for information.
	■ You may have incorrectly sent the monochrome color correction utility to the printer.
	■ Refer to the *Phaser 340 Drivers and Utilities Printing Reference* for information on the LaserWriter printer driver version 8.X.

Network problems

Symptom	Solution
The printer doesn't appear in the **Chooser**.	■ Always make network connections before turning on the printer. Turn the printer off, wait at least 15 seconds and turn the printer's power on again.
	■ Check the termination; refer to the documentation for your network adapter or connector for information on termination.
	■ Check the configuration page to get the zone name and printer name. Refer to "Printing the configuration page" on page A-3. Make sure that the correct zone and printer name have been selected in the **Chooser**.
	■ If you have changed the printer's name, did you make it a unique name (not the same as any other printer in the zone)?
	■ Make sure that the correct network is selected in the **Network Control Panel**.

Printing and installation problems

Symptom	Solution
You have problems printing from a specific application.	■ Refer to the *Phaser 340 Drivers and Utilities Printing Reference* for application-specific information.
	■ You can get tips on printing from specific applications (such as QuarkXPress and PageMaker) by contacting HAL, the Tektronix automated information system. HAL faxes you information immediately on applications and other topics.
	To receive a FAX catalog, call toll-free in the U.S. **1-800-835-6100** or dial direct **(503) 682-7450**. For more information on HAL, see "Using the automated fax systems" on page 6-4**.**
Text prints in `Courier` font.	The font you have specified is not available. The standard Phaser 340 supports 17 resident fonts. An additional 52 fonts are optionally available, for a total of 69 fonts. Other fonts must be downloaded or available on a SCSI font disk. Refer to "Fonts" on page 3-31 and to "Installing the printer's software" on page 2-30.

Printing and installation problems (cont'd.)

Symptom	Solution
The image does not finish printing (the printer times out).	■ PC users: If you are using the serial or parallel port, use the MODE command to set the PC's communication parameters. For example: **MODE LPT1:,,P** (for parallel port LPT1) **MODE COM1:9600,N,8,1,P** (for serial port COM1) ■ Windows users: Double-click on the **Control Panel**. Double-click the **Printers** icon. Choose your Tektronix printer. Click the **Connect** button. Change the **Transmission Retry** to **850**. ■ Parallel port printing: If you get a timeout from the **Connect** dialog box, change the **Ports** selection from **LPTX to LPTX.DOS**. (Some Windows installations may say **LPTX.OS2**; X is either 1 or 2.)
The area of paper that the printer prints on is smaller than the media size.	See "Margins and image area" on page 3-23 for more details. To maximize the image area, you may have to adjust the margins in your application software.
A Macintosh printed image has shifted or the margins are not correct.	■ You should install the LaserWriter 8.X printer driver and Phaser 340 PPDs onto your Macintosh to select the correct page sizes from the driver. ■ Turn off **Background Printing** through the **Chooser**. ■ Refer to the topic "Printing from a Macintosh" on page 3-5 for details on how to print from a Macintosh. ■ Refer to the *Phaser 340 Drivers and Utilities Printing Reference* for details on the Phaser 340 driver.

Printing and installation problems (cont'd.)

Symptom	Solution
The `Ready` message is displayed but the file does not print.	■ Make sure that Phaser 340 is the selected printer. Try printing the same file to another PostScript printer. If the file prints, then the problem could be with the interface cable. Refer to "Interface cables and adapters" on page 5-3 for information on ordering Tektronix interface cables. ■ Turn the printer's power off and wait at least 15 seconds before turning the power on again. ■ Refer to the *Phaser 340 Drivers and Utilities Printing Reference* for details on using the Tektronix Error Handler to determine the cause of the problem.
A Macintosh file does not print and a virtual memory (VM) error appears.	■ You may need to expand printer memory. Refer to "Memory upgrades" on page B-4 for more information. ■ Upgrade AppleTalk software using the AppleTalk installer disk shipped with the printer.
The file does not print or it prints unexpected data.	Make sure that you have the printer set up to receive the appropriate language (PostScript, HP-GL, or PCL5) for that file.
Files sent during power-up do not print.	Before printing a file, wait until the printer's front panel displays `Ready`.
The printer receives a file on the serial or parallel port but does not print.	Do not set the wait timeout to 0. Also, print files should not have extra characters after the End-of-Job character (Ctrl-D). See the *Phaser 340 Drivers and Utilities Printing Reference* for information on setting timeouts and the Ctrl-D character.
The printer receives a file on the serial or parallel port. The front panel displays `Waiting For Data` indefinitely. Another file sent to a different port causes your computer or network interface to lock up.	Do not set the wait timeout to 0. Also, print files should not have extra characters after the End-of-Job character (Ctrl-D). See the *Phaser 340 Drivers and Utilities Printing Reference* for information on setting timeouts and the Ctrl-D character.

Printing and installation problems (cont'd.)

Symptom	Solution
The printer receives a file on the serial or parallel port and the job prints successfully. After printing, the printer displays `Waiting For Data`, goes into Standby mode, but doesn't come out of Standby mode for the next print job.	To recover, press the **Wakeup** or **Cancel** button or turn the printer's power off, wait at least 15 seconds, and turn the power on again. (If you reset the printer, you must send the print job again.) To prevent this condition, do not set the wait timeout to 0. Also, print files should not have extra characters after the End-of-File character (Ctrl-D). See the *Phaser 340 Drivers and Utilities Printing Reference* for information on setting timeouts and the Ctrl-D character.
The startup page prints although you disabled it.	If the printer detects a non-fatal error at power-up, the startup page prints, even if you have disabled it. A red box on the startup page identifies the type of error. The printer's power-up self-test can detect problems that do not necessarily make the printer completely inoperable. Examples of these non-fatal errors include faulty printer ports and some memory failures. The printer may require service.
You requested printing at 600 x 300 dpi but the page was output at 300 dpi print quality.	The standard configuration of the Phaser 340 supports 300 dpi resolution printing. 600 x 300 dpi printing for paper is optionally available. Refer to "Print quality modes" on page 3-8. Refer to "Printing the startup page" on page A-5 to find out the printer's configuration.

Operational hints

Hint/Symptom	Solution
Leave the printer on.	When you turn off the printer, wait 15 seconds and then turn it on again, it performs a cleaning routine which consumes ink. To ensure optimum printing performance and best economy, leave the printer turned on overnight and during weekends.
	When the printer sits idle, it automatically switches to a standby level that keep it ready to use, but reduces energy consumption. Pressing a front panel button, opening a cover or sending a print job "wakes" the printer.

Operational hints (cont'd.)

Hint/Symptom	Solution
Do not print on both sides of the media.	Do not print on both sides of the paper or transparency media. Printing on both sides causes ink to be offset onto the printer's internal paper path and will require cleaning.
Paper jams occur when you are using the paper tray.	■ Do not fill the paper tray above the fill indicator line. ■ Is the paper too thick or thin for the printer? Refer to "All about media" on page 3-15 for more details on the type of paper you can use with the printer. ■ Check that the maintenance tray is fully latched. ■ You may need to clean the paper-pick rollers. Refer to "Cleaning for media tray jams: media pick rollers" on page 4-39 for details on cleaning these rollers.
The paper jams while you are using manual feed.	■ Wait until the front panel prompts you before inserting media into the manual feed slot. Feed the paper or transparency into the manual feed slot and let the printer take the media out of your hands. ■ Select **Manual Feed** in the printer driver. ■ Select the appropriate size media in the printer driver. ■ Make sure to align the paper against the left edge of the manual feed slot. ■ Is the paper too thick for manual feed? Refer to "Media weight and thickness" on page 3-21. ■ Is the paper the appropriate size for the manual feed slot?
`Ink Low` message appears when ink bins are full.	Apply pressure to each row of ink sticks in the loading bin to make sure they are not jammed.
Delayed printout.	See "Printer standby modes" on page A-9.
Printer outputs two prints after a jam is cleared.	Printer is clearing print drum and reprinting image. Refer to "All about media jams" on page 4-11.
Turn off the startup page.	Refer to the *Phaser 340 Drivers and Utilities Printing Reference* or refer to "Enabling and disabling the startup page" on page A-7 in this manual.
Maintenance tray is locked inside printer.	The printer locks the maintenance tray until it has cooled down. Wait for a few minutes and try removing it again.

7

Front Panel

Front panel overview

The printer's front panel provides you with information about the printer's operation, as well as buttons for accessing printer menus. Refer to "Front panel messages" on page 6-7 for a complete description of the front panel messages. Refer to the Menu Map later in this chapter for a listing of front panel submenus and selections.

Status messages, such as `Ready`, appear on the top line of the display. Button labels, such as **Clean** and **Menu**, appear on the lower line of the display. To access front panel menus, press the **Menu** button.

1. **Printer status:** Describes the condition of the printer and actions required, if any.

2. **Menu buttons:** Access to front panel menu selections.

3. **Power:** Indicates when the printer is on; blinks when the printer processes data.

4. **Error:** Flashes when the printer detects an error condition, such when the printer is out of ink.
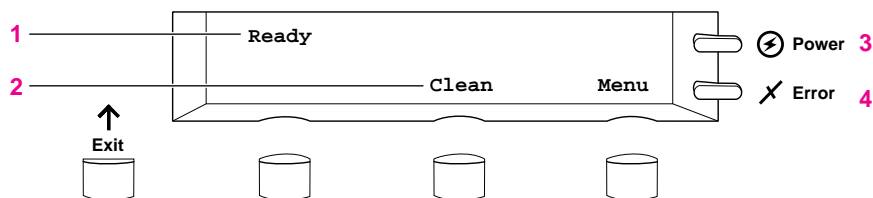
9101-11

Front panel buttons

1. The (Exit) button allows you to perform these menu functions:

    ■ Back up a level of the menu without making a selection.

    ■ Exit the menu.

2. Button 2 is inactive during normal printer operation. However, when you enter the front panel menu by pressing **Menu** , this button allows you to:

    ■ **<---**   Scroll backward through the available selections.

3. Button 3, labeled **Clean** during normal operation, lets you access the cleaning menus. When you enter the front panel menu by pressing **Menu** , Button 3 changes meaning as you select sub-menus:

    ■ **---->**   Scroll forward through the available selections.

    ■ **Cancel** Cancel a print job or selection.

4.   Button 4, labeled `Menu` during normal operation, lets you to enter
     the front panel menu. After entering the menu, Button 4 changes
     meaning as you select sub-menus:

     ■   `Menu`   Provides access to sub-menus.

     ■   `Print`   Executes the selected print.

     ■   `OK`   Accepts the selected value.
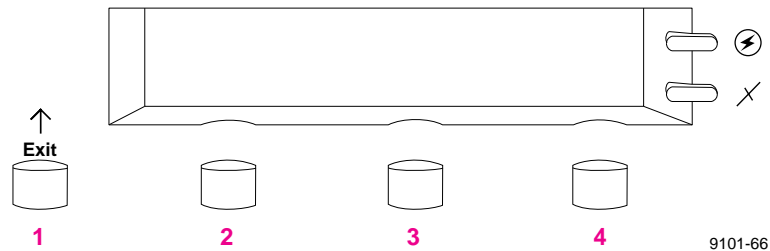
For a map to the front panel menu selections, turn to "Front panel menu
map" on page 7-7.

Two-line display

The two lines of the display have the following functions:

Line 1

■ Displays status messages such as Ready and Printing.

■ Displays operation errors and warnings such as Out Of Ink.

■ Displays the names of menus and parameters you can set.

Line 2

■ Displays button labels such as **<-—** for *previous*, **—->** for *next*, **Menu** for access to the main menu, **Clean** to access cleaning menus, and **Print** and **OK** to make selections.

```
1 ———————————    Warming Up                        ⊘ Power
2 ———————                 Clean        Menu          ✗ Error
    ↑
   Exit
```
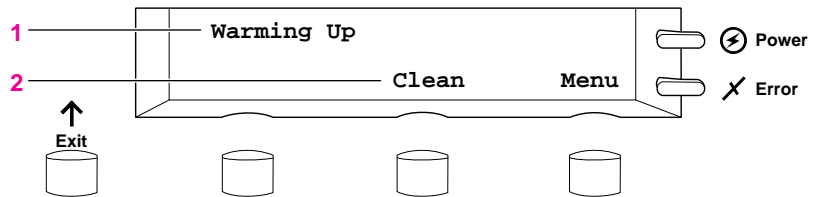
9101-67

For a map to the front panel menu selections, turn to "Front panel menu map" on page 7-7.

Front panel indicators

The front panel also includes two indicator lights:

1. **Power**

2. **Error**
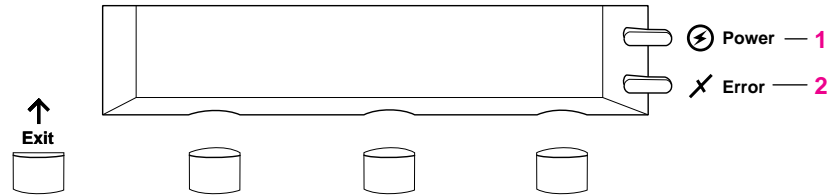
9101-68

Indicator	On	Blinking	Off
1. Power	The printer is on and ready for operation.	The printer is processing or printing an image. The printer is in interactive mode: you have pressed the `Menu` button.	The printer is not ready, or there is an error.
2. Error	If the indicator is on after the power-up sequence, the printer's controller board detects an error that is not user-correctable; the printer requires service.	The printer requires attention: ink is low, for example.	Normal operation: there are no print engine or controller board errors.

Enabling and disabling the front panel menu

The printer allows a system administrator to lock the front panel menu by downloading a utility file. In this protected mode, you can print the pages in the Help Pages menu, but *cannot modify any settings in the rest of the menu.* For more information on enabling and disabling the front panel menu, refer to the *Phaser 340 Drivers and Utilities Printing Reference.*

When the front panel is enabled, all front panel menu selections are available.

■ Press the **Menu** button. The front panel displays the following message:

```
Help Pages
<----   ---->   Menu
```

When the front panel is disabled and you press the **Menu** button, the display shows only the pages in the Help Pages menu (without the heading):

```
Configuration Page
<----   ---->   Print
```

To access the entire menu with the front panel disabled, you must use a special key sequence to enter the menu.

■ Press and hold down the **Menu** button and press the (Exit↑) button. The front panel displays the following message:

```
Help Pages
<----   ---->   Menu
```

Front panel menu map

The front panel menu map provides a convenient navigation aid for quickly determining the location of menu items. The menu map prints in English, regardless of the front panel language setting.

You can print the menu map from the front panel using the following instructions:

1. While the `Ready` message is displayed, press the **Menu** button. The printer displays the first item in the menu:

    ```
    Help Pages
    <----    ---->       Menu
    ```

2. Press the **Menu** button to access the Help Pages. The following message appears:

    ```
    Menu Map
    <----    ---->       Print
    ```

3. Press the **Print** button to print a menu map page.

Press (Menu)

Phaser® 340 Menu Map

(<---)	scrolls backward through available selections
(--->)	scrolls forward through available selections
(Menu)	enters the next sub-menu
(Exit)	exits without making a change
(OK)	accepts the displayed value as the new setting

Help Pages

(Exit) (<---) (--->) (Menu) →
Menu Map   Startup Page
Configuration Page   Demonstration Pages

Page Count

(Exit) (<---) (--->) (View)

TekColor Correction

(Exit) (<---) (--->) (Menu) →
Vivid Color* (*default*)   Commercial
Display   Monochrome
SWOP   None
Euroscale

Print Quality★

(Exit) (<---) (--->) (Menu) →
300 dpi* (*default*)
600 x 300 dpi

Printer Defaults

(Exit) (<---) (--->) (Menu) →
Default Tray   Cleaning Page Source
Startup Page   Energy Star Timeout
SCSI Startup Mode

Serial Settings★★

(Exit) (<---) (--->) (Menu) →
Baud Rate   Parity
Data Bits   Flow Control
Stop Bits

Network Settings★★

(Exit) (<---) (--->) (Menu) →
TCP/IP   NetWare
EtherTalk or TokenTalk   HTTP

Service Support

(Exit) (<---) (--->) (Menu) →
Cool Down For Power Off   Engine FW Version
Head Serial Number   Fault History
Calibration Date   Purge Volume

Language

(Exit) (<---) (--->) (Menu) →
English* (*default*)   Deutsch
Español   Italiano
Français   Japanese

★ **600 x 300 dpi configuration only.**   ★★ **Appears when appropriate PhaserShare™ card is installed.**

A *Technical Notes*

Printing Help Pages

The printer has several Help Pages that you can print to learn more about the printer.

Menu Map: Provides a graphical view of the front panel menus.

Configuration Page: Lists general information on printer settings and how the printer is configured.

Startup Page: Lists the number of pages printed, installed interface ports, software version numbers, installed RAM memory, the number of fonts, and other useful information.

Demonstration Pages: Provide a colorful way of learning more about the printer while demonstrating its printing quality.

Each of these Help Pages is discussed in the following topics.

Printing the front panel menu map

The front panel menu map provides a convenient navigation aid for quickly determining the location of menu items. There are two ways to print the front panel menu map:

■ Use your World Wide Web browser. Refer to the *PhaserShare Status Software User Manual* for more information.

■ Print from the front panel; it is also available in Chapter 7.

To print the menu map from the front panel, use the following steps:

1. While the Ready message is displayed, press the **Menu** button.
   The printer displays the first item in the menu:

   ```
   Help Pages
   <----    ---->      Menu
   ```

2. Press the **Menu** button to access the Help Pages. The following message appears:

   ```
   Menu Map
   <----    ---->      Print
   ```

3. Press the **Print** button to print a menu map page.

Printing the configuration page

The configuration page contains a variety of information especially useful for network installation and troubleshooting.

There are several ways to print the configuration page:

■ Use the printer's front panel menu, according to the following instructions.

1. While the `Ready` message is displayed, press the **Menu** button. The printer displays the first item in the menu:

   ```
   Help Pages
    <----    ---->       Menu
   ```

2. Press the **Menu** button to access the Help Pages. The following message appears:

   ```
   Menu Map
    <----    ---->       Print
   ```

3. Press the left arrow (`<----`) or right arrow (`---->`) buttons until the following message appears:

   ```
   Configuration Page
    <----    ---->       Print
   ```

4. Press the **Print** button to print a configuration page.

■ Send a PostScript language file to the printer. See the *PhaserShare Network Cards and Software System Administrator User Manual* or the *Phaser 340 Drivers and Utilities Printing Reference* for more information on the configuration page.

■ Use your World Wide Web browser. Refer to the *PhaserShare Status Software User Manual* for more information.

Printing the startup page

By default, printing of the startup page is enabled on power up. However, you can print the startup page anytime when you need to learn the number of pages that have been printed, the amount of installed memory, the number of fonts in memory, and installed interface ports.

Note *If the printer detects a non-fatal failure, it automatically prints a startup page containing diagnostic information regardless of the startup page setting.*

There are two ways to print the startup page:

■ Use your World Wide Web browser. Refer to the *PhaserShare Status Software User Manual* for more information.

■ Use the printer's front panel menu, according to the following instructions.

1. While the Ready message is displayed, press the **Menu** button. The printer displays the first item in the menu:

```
Help Pages
<----    ---->      Menu
```

2. Press the **Menu** button to access the Help Pages. The following message appears:

```
Menu Map
<----    ---->      Print
```

3. Press the left arrow (<----) or right arrow (---->) buttons until the following message appears:

```
Help Pages:Startup Page
<----    ---->      Print
```

4. Press the **Print** button to print a startup page.

Enabling and disabling the startup page

You can enable and disable printing of the startup page in several ways:

■   On a PC, send a PostScript language utility file to the printer. For
      more information, refer to the *Phaser 340 Drivers and Utilities
      Printing Reference.*

■   On a Macintosh, use the *LaserWriter utility.*

■   Use your World Wide Web browser. Refer to the *PhaserShare Status
      Software User Manual* for more information.

■   Through the printer's front panel, according to the following
      instructions:

1.   While the `Ready` message is displayed, press the **Menu** button.
      The printer displays the first item in the setup menu:

```
Help Pages
<----    ---->      Menu
```

2.   Using the left arrow (`<----`) or right arrow (`---->`) buttons,
      scroll through the selections until the following message appears:

```
Printer Defaults
<----    ---->      Menu
```

3.   Press the **Menu** button to access the printer defaults settings.

4.   Using the left arrow (`<----`) or right arrow (`---->`) buttons,
      scroll through the selections until the following message appears:

```
Startup Page
<----    ---->      Menu
```

5.   Press the **Menu** button to access the startup page settings.

6.   Press the right arrow (`---->`) button once for the following
      message:

```
Startup Page:Disabled
<----    ---->      OK
```

7.   Press the **OK** button to disable printing of the startup page.

8.   To return to the top level of the menu, press the (Exit) button until
      the printer displays the `Ready` message.

A

Printing the demonstration pages

You can print two demonstration pages anytime you want to show the printing quality of the printer. There are two ways to print the demonstration pages:

■ Use your World Wide Web browser. Refer to the *PhaserShare Status Software User Manual* for more information.

■ Through the printer's front panel, according to the following instructions:

1. When the printer is on and the `Ready` message appears, press the **Menu** button. The printer displays the first item in the menu:

   ```
   Help Pages
   <----    ---->      Menu
   ```

2. Press the **Menu** button to access the Help Pages. Press the left arrow (`<----`) or right arrow (`---->`) buttons until the following message appears:

   ```
   Demonstration Pages
   <----    ---->      Print
   ```

3. Press the **Print** button to print the demonstration pages.

Printer standby modes

Idle for 4 hours When the printer is idle for more than 4 hours, it goes into a standby mode that keeps the printer ready to use yet reduces energy consumption.

The printer exits standby mode when you send a file to the printer, press any front panel button, install or remove a media tray, or open any cover. For example, adding ink causes the printer to exit standby mode. When the printer exits this standby mode, it is ready to print in about 5 minutes.

Energy Star mode When the printer is idle for the time set in the Energy Star front panel menu, it cools down completely. When the printer exits the Energy Star mode, it is ready to print in about 10–15 minutes.

For printers ordered with the Energy Star option, the Energy Star default is set to one hour. After an hour of inactivity, the printer begins a cool-down cycle that requires a 10–15 minute warm-up period before being ready to use again. Increasing the Energy Star value from one hour keeps the printer ready for printing and eliminates the warm-up period. In the printer's standard configuration, the Energy Star default is set to 999 hours.

Since the printer uses ink during warm-up from a power-off condition and when exiting Energy Star mode, you can reduce ink consumption by leaving the printer on. To ensure optimum printing performance and best ink economy, leave the printer turned on overnight and during weekends.

There are two ways you can change the Energy Star mode:

■   Through the printer's front panel. Refer to the menu map in Chapter 7 to locate the Energy Star Timeout setting in the front panel submenu. Refer to "Changing the Energy Star timeout" on page A-10 for directions on changing the Energy Star timeout value.

■   Use your World Wide Web browser. Refer to the *PhaserShare Status Software User Manual* for more information.

Changing the Energy Star timeout

The timeout value for the Energy Star option is one hour. After an hour, the printer begins a cool-down cycle and requires a 10–15 minute warm-up period to be ready for printing. You can increase the timeout value when you want the printer to be ready for print jobs with no warm-up period.

1. When the printer is on and the `Ready` message appears, press the **Menu** button. The printer displays the first selection in the menu:

    ```
    Help Pages
    <----    ---->   Menu
    ```

2. Using the left (`<----`) or right (`---->`) arrow buttons, scroll through the selections until the following message appears:

    ```
    Printer Defaults
    <----    ---->   Menu
    ```

3. Press the **Menu** button to access printer default selections. The printer displays the following message:

    ```
    Startup Page
    <----    ---->   Menu
    ```

4. Using the left or right arrow buttons, scroll through the selections until the following message appears:

    ```
    Energy Star Timeout
    <----    ---->   Menu
    ```

5. Press the **Menu** button to access Energy Star selections. The printer displays the following message:

    ```
    Timeout:999 hrs
    <----    ---->   OK
    ```

6. Using the left or right arrow buttons, scroll through the selections until the appropriate setting is reached.

Note   *Change the Energy Star Timeout from its default value (1 hour) to a maximum value by pressing the left arrow (<----) button.*

7. Press the **OK** button to confirm your Energy Star timeout selection.

8. Return to the top level of the menu by pressing the ⬆(Exit) button until the printer displays the `Ready` message.

Selecting the cleaning page source

The printer picks sheets of paper from a designated media tray as part of its self-maintenance and jam recovery routines. The default cleaning page source for the printer is the upper tray. When the Lower Paper Tray Assembly is installed, you can change the source of the cleaning page to the lower tray to prevent the printer from using transparencies or letterhead loaded in the upper paper tray. To change the cleaning page source, use one of these methods:

■   Send a PostScript utility file to the printer. Refer to the *Phaser 340 Drivers and Utilities Printing Reference* for more information.

■   Use your World Wide Web browser. Refer to the *PhaserShare Status Software User Manual* for more information.

■   Change the printer's front panel, according to the following instructions:

1.   While the `Ready` message is displayed, press the **Menu** button. The printer displays the first item in the setup menu:

```
Help Pages
<----    ---->      Menu
```

2.   Using the left arrow (`<----`) or right arrow (`---->`) buttons, scroll through the selections until the following message appears:

```
Printer Defaults
<----    ---->      Menu
```

3.   Press the **Menu** button to access the printer defaults settings.

4.   Using the left arrow (`<----`) or right arrow (`---->`) buttons, scroll through the selections until the following message appears:

```
Cleaning Page Source
<----    ---->      Menu
```

5.   Press the **Menu** button to access the cleaning page source settings.

```
Cleaning Page Source:Upper
<----    ---->      OK
```

6.   Scroll through the settings until you reach the one you want. Press the **OK** button to confirm the setting.

7.   To return to the top level of the menu, press the (Exit) button until the printer displays the `Ready` message.

Parallel port

The printer has an asynchronous parallel port that lets you interface with PCs. The parallel port supports uni-directional (default) and bi-directional communications. When you use the parallel port, be sure to type this command at the PC (if LPT1 is not available, use LPT2) to disable timeouts:

MODE LPT1:,,P

You can switch to bi-directional communications using either of the following methods:

■ Download a PostScript utility to the printer. Refer to the *Phaser 340 Drivers and Utilities Printing Reference* for more information.

■ Use your World Wide Web browser. Refer to the *PhaserShare Status Software User Manual* for more information.

For bi-directional communications, the parallel port supports two modes: Compatibility Mode and Nibble Mode. The interpretation of interface signals depends on the current mode. Compatibility Mode provides host-to-printer communication in a manner compatible with a uni-directional interface. Nibble Mode provides printer-to-host communication and may be combined with Compatibility Mode to provide bi-directional communication.

Note *For more information, refer to the IEEE P1284 document for parallel interfaces.*

The table shows the parallel port's connected pins. Other pins are not connected.

Parallel port signal descriptions

Pin	Signal mode names: Compatibility/Nibble	Return pin	Signal source	Description
1	Busy/PtrBusy	19	Printer	C mode: Positive true = not ready for data
				N mode: Data bits 3 then 7, then busy status
2	Select/Xflag	20	Printer	C mode: Positive true = online
				N mode: Data bits 1 then 5

Parallel port signal descriptions (cont'd.)

Pin	Signal mode names: Compatibility/Nibble	Return pin	Signal source	Description	
3	nAck/PtrClk	21	Printer	C mode:	Negative true = data transfer acknowledge
				N mode:	Data qualifier
4	nFault/nDataAvail	22	Printer	C mode:	Negative true = printer fault exists that prevents printing
				N mode:	Negative low = data ready, then data bits 0 then 4
5	PError/AckDataReq	23	Printer	C mode:	Positive true = printer error exists, such as media tray empty
				N mode:	Data bits 2 then 6
6	Data 1	24	Host	C mode:	Positive true data input
				N mode:	Not used
7	Data 2	25	Host	C mode:	Positive true data input
				N mode:	Not used
8	Data 3	26	Host	C mode:	Positive true data input
				N mode:	Not used
9	Data 4	27	Host	C mode:	Positive true data input
				N mode:	Not used
10	Data 5	28	Host	C mode:	Positive true data input
				N mode:	Not used
11	Data 6	29	Host	C mode:	Positive true data input
				N mode:	Not used
12	Data 7	30	Host	C mode:	Positive true data input
				N mode:	Not used
13	Data 8	31	Host	C mode:	Positive true data input
				N mode:	Not used

A   *Technical Notes*

Parallel port signal descriptions (cont'd.)

Pin	Signal mode names: Compatibility/Nibble	Return pin	Signal source	Description
14	nInit/nHostRTS	32	Host	C mode: Negative true = reset interface N mode: Set positive
15	nStrobe/HostClk	33	Host	C mode: Negative true = transfer data into printer input latch on rising edge N mode: Negative true = transfer Extensibility Request value into printer input latch on rising edge
16	nSelectIn/1284 Active	34	Host	C mode: Negative true = select printer N mode: Used in conjunction with HostBusy for 1284 hardware handshaking
17	nAutoFd/HostBusy	35	Host	C mode: Not used N mode: Used in conjunction with 1284 Active for 1284 hardware handshaking
18	Host Logic High		Host	Positive true = host signals valid Negative true = host signals invalid
36	Peripheral Logic High		Printer	Positive true = printer on Negative true = printer off

Specifications

Printer tilt
Place the printer on a level surface with no more than 3° tilt in any direction. Equivalent to raising one corner of the printer approximately 2 cm (0.75 inches.)

Caution   *Tilting the printer more than 3° causes drum fluid to leak from the maintenance tray resulting in damage to your printer not covered by the printer's warranty.*

Temperature
Operating:	10° C to 35° C (50° F to 95° F)
Nonoperating:	–30° C to +60° C (–22° F to 140° F)
Storage:	–30° C to +60° C (–22° F to 140° F)

Humidity
Operating:	10% to 80% Relative Humidity, noncondensing
Nonoperating:	10% to 95% Relative Humidity, noncondensing

Altitude
Operating:	0 to 2,400 meters (0 to 8,000 feet)
Nonoperating:	0 to 15,000 meters (0 to 50,000 feet)

Primary voltage ranges (switch-selectable)
87 – 128 VAC, 115 VAC nominal   174 – 250 VAC, 220 VAC nominal

Frequency range
48 to 66 Hz

AC input ratings
115 VAC, 10 Amps   220 VAC, 5 Amps

Printing resolution and speed*
300 x 300 dpi color print on paper: 4 pages per minute
300 x 300 dpi color print on transparency: 2 pages per minute
600 x 300 dpi color print on paper: 2 pages per minute (optionally available)

* Left and right margins set to 0.3 in. (7.4 mm) or larger.

Power consumption
Operating power consumption: 140 to 480 Watts
Meets Energy Star power conservation requirements
with the Energy Star timeout set to one hour.

Printer Dimensions

Height:	33 cm (13 in.)	*Depth:*	50.2 cm (19.75 in.)
Width:	40 cm (15.75 in.)	*Weight:*	32 kg (70 lbs.)

Printer Clearances

Top:	45.7 cm (18 in.)	*Sides:*	10.2 cm (4 in.)
Front:	no restrictions	*Rear:*	10.2 cm (4 in.)
Bottom:	no restrictions		

Lower Paper Tray Assembly Dimensions

Height:	13.0 cm (5.13 in.)	*Depth:*	50.8 cm (20 in.)
Width:	40 cm (15.75 in.)	*Weight:*	7 kg (15.5 lbs.)

Safety and emissions

■ **Listed:** UL 1950 Information Technology Equipment.

■ **Certified:** CSA Standard C22.2 No. 950–M 89, Safety of Information Technology Equipment, Including Electrical Business Equipment.

■ **TÜV licensed:** EN60950.

■ Class B compliant computing device pursuant to sub-part J of Part 15 of FCC rules.

■ Conforms to EC EN55022, EN50082-1; 1992.

Appendix

B

Expanding Your Printing System

Customizing your printer

Tektronix offers upgrade and accessory kits to expand your printer's capabilities. To order upgrade kits, refer to the supplies information sheet that was shipped with the printer and contact your local dealer or Tektronix office. In the United States, call Tektronix at **1-800-835-6100**.

Extended features upgrade

In its standard configuration, the Phaser 340 offers 300 dpi color printing, 8 Mbytes of RAM memory, and 17 fonts. The Phaser 340 optionally supports 600 x 300 dpi resolution printing, 24 Mbytes of memory and 69 fonts. To upgrade your printer, order the Phaser 340 extended features upgrade kit.

The extended features upgrade consists of a replacement ROM and additional memory, both of which are required. To determine if your printer has the extended features, check for the number of fonts listed on the printer's startup page. If you only have 17 fonts available, the printer does not have the extended feature set.

To order the upgrade, obtain the printer's serial number listed on the printer's rear panel and use the table below to determine the appropriate ordering information.

Serial number	What to order
BBXXXXX and below	Order Z340ROM and 4685F16 memory
BCXXXXX and above	Order Z340FX

The extended features option is superior for workgroups, enhancing the printer's performance in the following ways:

■ 600 x 300 dpi resolution printing

■ an additional 16 Mbytes of memory, totalling 24 Mbytes. More memory provides job pipelining to speed printer throughput and offloading of print jobs from your computer, faster processing of image data, and additional storage for more downloadable fonts.

■ an additional 52 fonts for a total of 69 fonts

Note *The startup page reports the printer's configuration, including installed RAM memory and fonts. For information on printing a startup page, refer to "Printing the startup page" on page A-4.*

Optional Lower Paper Tray Assembly

An optional Lower Paper Tray Assembly for paper printing is available for the printer. With a 500-sheet capacity, the Lower Paper Tray Assembly transforms the printer into a high-volume printing solution for networked environments.

Using the optional Lower Paper Tray Assembly, you can configure the printer for dual-tray printing capability. Two trays are especially useful if you commonly print on several types of media, for example office paper in the lower tray and transparencies, letterhead, or label media in the upper tray.

To order, use these Tektronix order numbers:

Order number	Description
Z340LTA	Lower Paper Tray Assembly, holds 500 sheets of paper (US Letter-size paper tray)
Z340LTA: Option 01	Substitute A4 metric-size paper tray

Optional media trays

The printer is shipped with a Letter- or A4-size paper tray. Additional trays can be ordered for convenience. For printing transparencies, the optional transparency tray is recommended.

Order number	Description
436-0301-00	Letter-size transparency tray
436-0302-00	A4-size transparency tray
436-0293-00	Letter-size paper tray
436-0292-00	A4-size paper tray
436-0288-00	Replacement US Letter-size tray for Lower Paper Tray Assembly (500-sheet capacity)
436-0289-00	Replacement A4 metric-size tray for Lower Paper Tray Assembly (500-sheet capacity)

Refer to "Ordering printer supplies" on page 5-1 for information on ordering Tektronix paper and transparencies.

Benefits of multiple media trays

Optional standard paper and transparency trays for Letter and A4 sizes let you configure the printer for different printing environments. An optional Lower Paper Tray Assembly supports high-capacity printing requirements. The Lower Paper Tray Assembly provides the advantages of a dual-tray system by allowing paper and a second media (transparencies or letterhead) to be simultaneously loaded in the printer.

Memory upgrades

Order number	Description
4690F4M	4-Mbyte memory upgrade. For upgrading a Phaser 340 8-Mbyte configuration to a 12-Mbyte configuration. Not available for the extended features configuration.
4685F16	16-Mbyte memory upgrade. Required to upgrade to the extended features. Refer to "Extended features upgrade" on page B-1 for more information.

Note   *The startup page reports how much RAM memory is installed in the printer. For information on printing a startup page, refer to "Printing the startup page" on page A-4.*

Benefits of upgrading memory

The Phaser 340 has 8 Mbytes of standard memory. You can upgrade the printer memory to 12 Mbytes by ordering a 4-Mbyte SIMM (Tektronix order number 4690F4M). Additional memory allows processing of more complex files.

The Phaser 340 can also be upgraded to a 24-Mbyte configuration that supports 600 x 300 dpi printing by ordering the 4685F16 16-Mbyte memory upgrade and Z340ROM or Z340FX upgrade. The installation of either kit upgrades the printer to the extended features configuration. Refer to "Extended features upgrade" on page B-1 for more information.

Font upgrade

You can add an additional 52 fonts to the standard 17 fonts by upgrading to the extended features. Refer to "Extended features upgrade" on page B-1 for more information. Refer to "Fonts" on page 3-26 for more information on font typefaces.

Note   *The startup page reports how many fonts are installed in the printer. For information on printing a startup page, refer to "Printing the startup page" on page A-4.*

600 x 300 dpi upgrade

You can upgrade the Phaser 340 to print with 600 x 300 dpi resolution print quality. Refer to "Extended features upgrade" on page B-1 for more information.

PhaserShare network cards

Tektronix PhaserShare™ network cards offer high-performance network connectivity for your color printer. PhaserShare network cards can be easily installed in your printer.

Order number	Description
4676FP1	Adds Ethernet interface; includes support for Novell NetWare, EtherTalk, and TCP/IP. (Same as Option P1.)
4676FP3	Adds LocalTalk/Serial interface. (Same as Option P3.)
4676FP4	Adds Token Ring interface; includes support for Novell NetWare, TokenTalk, and TCP/IP. (Same as Option P4.)

Benefits of networking the printer

Adding a PhaserShare network card to your printer makes it an efficient, sharable printing resource in network environments. Network connections, such as Ethernet, offer significant speed improvements compared to the standard parallel communication connection. Several varieties of PhaserShare cards allow the printer to be seamlessly integrated into popular network configurations. All ports and protocols are simultaneously active, allowing the printer to be used in mixed environments.

Phaser Copystation

The Phaser Copystation adds easy-to-use, walk-up color copying capability to the Phaser 340 Color Printer.

The Copystation's front-panel controls let you specify the number of copies and select among color, gray scale and black-and-white copying modes. You can choose to make copies reduced to 25% or enlarged to 200% of the original's size, and you can adjust copies for color balance and lightness.

Note   *To order a Phaser Copystation, use Tektronix order number 4540.*

For instructions on connecting a Phaser Copystation to your printer or printer network and for operating instructions, refer to the *Phaser CopyStation User Manual.*

PhaserPrint

For printing in Unix environments, Tektronix offers PhaserPrint™. PhaserPrint provides fast raster file and screen copy printing to Tektronix color printers. PhaserPrint also provides a graphical user interface for push-button control of Tektronix printer features. PhaserPrint works with the workstation's native spooling system to print PostScript files and raster files in the Sun Raster Format (SRF), **xwd**, SGI RGB, and other formats. Refer to "Printing from a Unix or VMS workstation" on page 3-6 for more information.

Note   *To order PhaserPrint, use Tektronix order number 4690F20.*

PhaserSym

For printing in VMS environments, Tektronix offers PhaserSym™. PhaserSym is a VMS print symbiont for DEC OpenVMS VAX, and DEC OpenVMS AXP machines. PhaserSym facilitates communication between VMS hosts and Tektronix Phaser printers. PhaserSym requires that the Phaser printer include Ethernet support.

Note   *To order PhaserSym, use Tektronix order number 4690F41.*

Adding a hard disk for font storage

You can connect one or more Small Computer System Interface (SCSI) external hard disks to the printer for additional font storage. When you download a font to an external disk, the font remains there until you remove it. In general, any disk that works with a LaserWriter NTX works with this printer.

To connect an external disk, you need these items:

■ A SCSI peripheral cable for each disk. The printer uses a SCSI-2, 50-pin connector. See "Interface cables and adapters" on page 5-3 if you need a 50-pin connector.

■ One SCSI cable terminator, unless one of your disks has an internal terminator.

The printer can support up to seven external disks. When connecting a hard disk to the printer, follow these guidelines:

■ You must turn on the disk(s) *before* you turn on the printer. Wait at least one minute after turning on the disk(s) before turning on the printer.

■ The printer must always be at one end of the chain with a terminator at the other end (or a terminated device such as the Phaser Copystation).

■ With multiple disks, each disk must have a unique SCSI ID number. Do not turn on the printer or disk *until each disk has a unique number*.

■ With multiple disks, only one disk can contain a *Sys/Start* file.

Initialization   Unless the disk is already formatted for operation with a PostScript printer, you have to initialize (format) the disk after connecting it to the printer. The printer diskettes contain utility files to help you initialize the disk and download fonts to it. Refer to the *Phaser 340 Drivers and Utilities Printing Reference* for instructions on how to use the utility files.

SCSI ID number   The printer's SCSI number is **7**. Valid ID numbers for the external disk are **0** through **6.**

Note   *If you have a Phaser Copystation connected to the printer, it must be located at one end of the chain, with the printer at the other end and the external disk(s) in the middle. The Copystation uses two SCSI ID addresses, **05** and **06**; therefore, the external disk(s) can use ID numbers **0** through **4**. If you set an external disk to SCSI ID address **05** or **06**, you may see an error on the configuration or startup pages.*

Termination   The printer has an internal terminator.

Startup file   You may load a startup file called *Sys/Start* onto your external disk. The *Sys/Start* job file is similar to an init file. When you turn on the printer it executes that file, providing that *Sys/Start* has been enabled through a control file downloaded to the printer.

Note   *If the Sys/Start file contains an error, the printer ignores the remainder of the file and may not start up as you expect it to.*

Connecting one disk

Caution   *To avoid damaging components, turn off the computer, printer, and external disk before you connect or disconnect a SCSI cable. Turn on the disk before you turn on the printer.*

1. SCSI port

2. External disk SCSI port

3. Terminator (not required if the disk has a built-in terminator or if you have a Phaser Copystation connected at the other end of the chain).

Each disk must have a unique SCSI ID number. Do not turn on the printer or disk until each disk has a unique number.

Note   *See "Interface cables and adapters" on page 5-3 for cable ordering information.*

9101-43
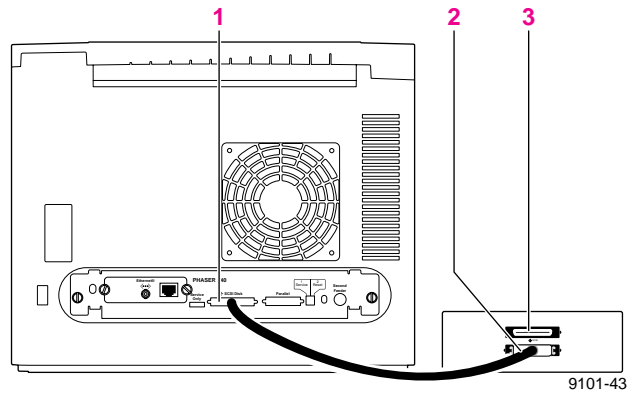
Multiple disks   The printer can support up to seven external disks. When you have more than one disk connected to the printer, follow these guidelines.

■   Each disk must have a unique SCSI ID number. Do not turn on the printer or disk until each disk has a unique number.

■   The printer must always be at one end of the chain with a terminator at the other end.

■   Only one disk can contain a *Sys/Start* file.

Connecting multiple disks

Caution   *To avoid damaging components, turn off the computer, printer,*
                and external disk before you connect or disconnect a SCSI
                cable. Turn on the disks before you turn on the printer.

1. SCSI port

2. External disks

3. Terminator (not required if the *end* disk has a built-in terminator if
you have a Phaser Copystation connected at the other end of the
chain).   The middle disk must *not* have an internal terminator).

Each disk must have a unique SCSI ID number. Do not turn on the printer or
disk until each disk has a unique number.

Note   *See "Interface cables and adapters" on page 5-3 for cable ordering*
             information.

9101-44

B *Expanding Your Printing System*

Appendix

C
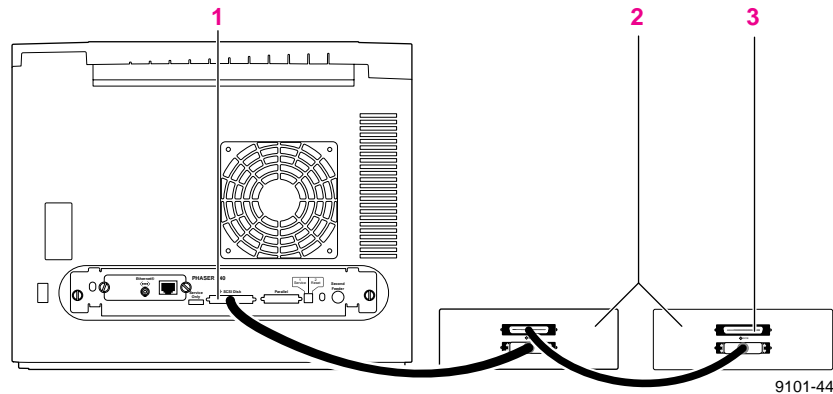
Moving Your Printer

Before turning off the printer, wait for it to display the `Ready` message. Turn off the printer using the rear-panel **On/Off** switch.

Caution   *To avoid damaging the printer, let the printer cool down for at least 30 minutes before you move it so that the ink has time to solidify.*

Before you move the printer, you'll want to complete the steps presented in this chapter.

Removing the maintenance tray

1. Remove the maintenance tray from the printer, keeping it level. Remove, empty, and replace the waste tray. Refer to "Emptying the waste tray" on page 4-5 for detailed instructions.

2. Place the maintenance tray in a plastic bag and seal the bag.

    The maintenance tray contains drum fluid that leaks if the tray is tipped. Keep the maintenance tray level and in a sealed plastic bag while transporting it.

Caution   *To avoid damaging your printer and invalidating your printer's warranty, remove the maintenance tray before moving the printer. Always store a used maintenance tray in a leak-proof package. When handling the maintenance tray, keep it level. Never ship a partially used maintenance tray. Contact with the drum fluid poses no known health risk. Refer to "MSDS for silicone oil" on page D-7 for more information.*

Locking the transit restraint

Refer to the following illustration while performing these steps.

1. When the printer displays the `Ready` message, power it down using the rear-panel **On/Off** switch. The printer places the print head in the locking position.

Caution   *To avoid damaging the printer's internal components, always turn the printer power off and lock the transit restraint before moving the printer. Failure to do so may result in damage to the printers' internal components and may invalidate your printer's warranty.*

2. Locate the transit restraint on the right side of the printer and insert a wide flat-blade screwdriver into the transit restraint slot.
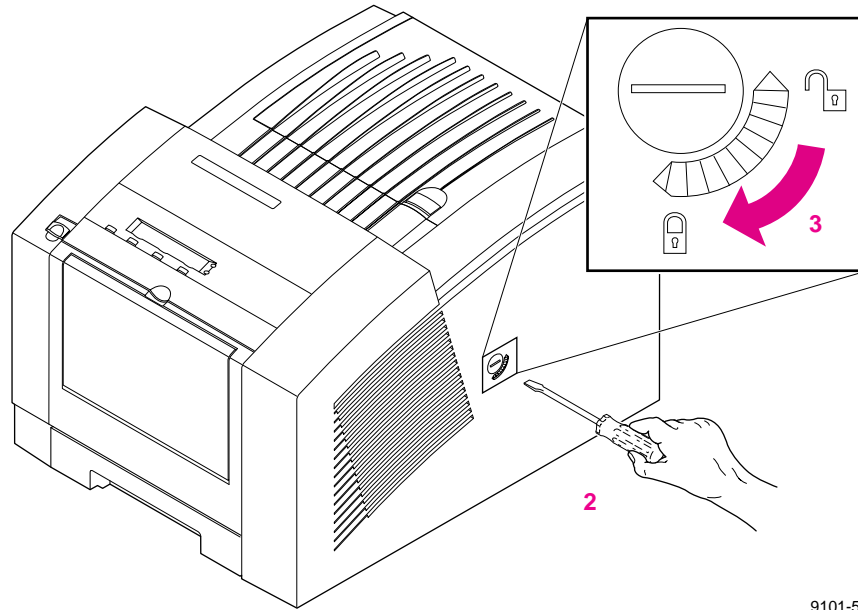
9101-51

3.   While pressing inward with medium pressure, turn the transit
restraint slot in a *clockwise* direction to lock the printhead in
position. The lock button is recessed from the side of the printer
when fully engaged.

Changing line voltage

If you move the printer to a country that uses a line voltage different from the printer's factory setting, you can change the line voltage to the appropriate setting by using the line voltage selector switch.   The line voltage selector switch is located next to the **On/Off** switch.

Warning   *To avoid damaging the printer, turn the printer power off using the On/Off switch and unplug the power cord before changing the line voltage selector switch. To avoid risk of electric shock, do not remove any of the printer's covers.*

The new location may require a different power cord; contact your local Tektronix office or dealer for details.

1.   Line voltage selector switch.
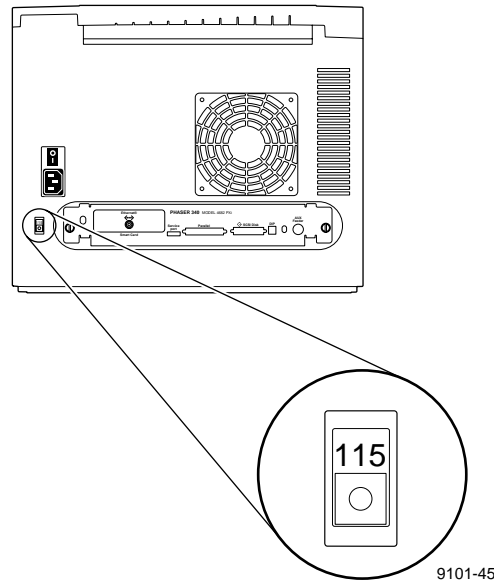
9101-45

D

Regulatory Information

Declaration of conformity

Tektronix, Inc.
Color Printing and Imaging Division
P.O. Box 1000
Wilsonville, Oregon 97070-1000 U.S.A.

declares, under our sole responsibility, that the product

Phaser 340

to which this declaration relates, is in conformity with the following
standard(s) or other normative document(s):

For the   Safety of Information Technology Equipment including
EC EN60950   Electrical Business Equipment

For the   Limits and methods of measurement of radio
EC EN55022   interference characteristics of Information
                 Technology Equipment

For the   Generic Immunity Standard:
EC EN50082-1   Residential, Commercial and Light Industry

Low Voltage Directive 73/23/EEC, the Electromagnetic Compatibility
Directive 89/336/EEC, Machinery Directive 89/392/EEC.

Canadian EMC (Electromagnetic Compatibility) regulatory standards

■ This digital apparatus does not exceed the Class B for radio noise emissions from digital apparatus set out in the Radio Interference Regulations of the Canadian Department of Communications.

■ Le présent appareil numérique n'émet pas de bruits radioélectriques dépassant les limits applicables aux appareils numériques de la classe B prescrites dans le Règlement sur le brouillage radioélectrique édicté par le ministere des Communications du Canada.

FCC Class B warning (for 115 VAC equipment)

The equipment described in this manual generates and uses radio frequency energy. If it is not installed and used properly in strict accordance with Tektronix' instructions, it may cause interference with radio and television reception.

This equipment has been tested and found to comply with the limits for a Class B verified digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a commercial environment. 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.

Changes or modification not expressly approved by Tektronix can affect emission compliance and could void the user's authority to operate this equipment.

Warning *Changes or modifications not expressly approved by Tektronix can affect emission compliance and could void the user's authority to operate this product. To ensure emission compliance, use shielded interface cables.*

Material Safety Data Sheets

Proper management of environmental resources protects the well-being of our employees, customers, shareholders, and the communities we are a part of worldwide.

Tektronix establishes and maintains sound environmental management practices to accomplish this goal and to assure compliance with the laws, regulations, and orders of the responsible governmental authorities wherever Tektronix and its subsidiaries operate.

Tektronix, Incorporated is complying with government regulations by providing Material Safety Data Sheets for our products.

Color Printing and Imaging Division
Tektronix, Incorporated

MSDS for ColorStix ink sticks

Section I — Product identification

- **Trade name and Tektronix part number:**
  ColorStix Solid Ink — Black   016-1307-00
  ColorStix Solid Ink — Cyan   016-1308-00
  ColorStix Solid Ink — Magenta   016-1309-00
  ColorStix Solid Ink — Yellow   016-1310-00

Section II — Information on ingredients

- **Ingredients:**
  Fatty amide waxes
  Rosin ester
  Phthalate ester
  Black, cyan, magenta, or yellow dye

Section III — Hazards identification

Potential health effects

Eyes: Contact unlikely. If any particles get into the eye, flush thoroughly with water.

Skin: Not an irritant based on test results.

Inhalation: Not an expected route of exposure.

Ingestion: Not an expected route of exposure. See section XI.

Section IV — First aid measures

None indicated. This product is a waxy solid and should not cause health hazards when used as intended.

Section V — Firefighting measures

Flammable Properties

Flash point: Above 200° F (NFPA class 3B).

Fire and explosion hazards: These inks will burn. No unusual hazards are expected.

Section VI — Accidental release measures

Spill or leak: Not applicable.

Section VII — Handling and storage

Handling: None.

Storage: Avoid high temperatures.

Section VIII — Exposure control–personal protection

No special protection indicated when used as intended.

TLV/PEL: None established.

Section IX — Physical and chemical properties

Appearance: Waxy, solid. Black, blue, red or yellow in color.

Odor: None.

Solubility: Not water soluble.

Section X — Stability and reactivity

Stability: Stable.

Incompatibility with other materials: None.

Hazardous Polymerization: Will not occur.

Section XI — Toxicological information

Toxicity: Non-toxic orally.

Irritation: Not an irritant based on standard tests.

Sensitization: Not a sensitizer based on standard tests.

Carcinogenicity: Components or product not listed by IARC, NTP or OSHA.

Section XII — Ecological information

No impact known.

Section XIII — Disposal considerations

This product is not a hazardous waste as specified in 40CFR 261. Dispose in accordance with all federal, state and local regulations.

Section XIV — Transport information

D.O.T.: Not regulated.

NMFC: 101720 Sub. 3 - Ink, Printing, N.O.I., Class 55.

Section XV — Regulatory information

TSCA: All components of these inks are listed in the Toxic Substances Control Act inventory as verified by our suppliers.

SARA: Not reportable.

RCRA: TCLP below hazardous waste levels set by EPA.

CERCLA: No reportable quantity for this material.

California Prop. 65: Not listed.

Section XVI — Other information

Original Preparation Date: 8/23/94 R.C.

Tektronix, Incorporated
P.O. Box 500
Chemical Documentation
Mail stop 55-769
Beaverton, Oregon 97077
Printer information: 1-800-835-6100
MSDS information: (503) 627-7255

MSDS for silicone oil

Section I — Product identification

Trade name and Tektronix part number:
Silicone fluid (found in maintenance tray)   006-7912-00

Product use: Used in Tektronix Phaser 340 color printers.

Section II — Information on ingredients

Ingredients:
Polydimethylsiloxane   CAS Number: 63148-62-9

Hazardous Ingredients: None. This is not a hazardous material as defined by the OSHA Hazard Communication Standard.

Section III — Hazards identification

Potential health effects:

Eyes: Direct contact may cause temporary discomfort with mild redness and dryness similar to windburn.

Skin: A single prolonged exposure (24 to 48 hours) causes no known adverse effect.

Inhalation: Not an irritant to respiratory passages.

Ingestion: Swallowing large amounts could cause discomfort.

Section IV — First aid measures

Eyes: Flush immediately with water.

Skin: Wipe off and wash with soap and water.

Inhalation: Not a likely route of exposure.

Ingestion: No first aid should be needed.

Section V — Fire fighting measures

Flammable Properties: Flammable limits not determined.

Flash point: 545° F, minimum open cup.

Fire and explosion hazards: No unusual hazards known.

Section VI — Accidental release measures

Spill or leak: Wipe with absorbent material and dispose in accordance with Federal, State, and Local regulations.

Section VII — Handling and storage

Handling: No special requirements.

Storage: No special requirements.

Section VIII — Exposure control – personal protection

Exposure Guidelines: None established.

Engineering Controls: None needed when used as intended in Tektronix printers.

Eye Protection: None needed.

Skin Protection: None needed.

Respiratory Protection: None needed.

Section IX — Physical and chemical properties

Appearance: Colorless liquid.

Odor: Slight.

Solubility: Not water soluble.

Section X — Stability and reactivity

Stability: Stable. Traces of formaldehyde may form if heated in air above 149° C (300° F). (Normal operating temperature in this printer is 50° to 60°C).

Incompatibility With Other Materials: Oxidizing compounds can cause a reaction.

Hazardous Polymerization: Will not occur.

Section X — Toxicological information

Acute oral LD$_{50}$: Greater than 50 ml/Kg (G.P.).

Eye Irritation: Very mild irritant, normal after 24 to 48 hours.

Skin: Not a skin irritant.

Mutagenicity: Negative in activation and non-activation systems.

Section XI — Ecological information

No known impact.

Section XII — Disposal considerations

Observe all Federal, State, and Local regulations. See section XV.

Section XIV — Transport information

D.O.T.: Not regulated.

Section XV — Regulatory information

EPCRA section 313 Reportable Ingredients: None.

California Prop. 65: Not listed.

Canadian WHMIS: Not considered a hazardous chemical.

TSCA: This product is listed in the Toxic Substances Control Act Inventory.

OSHA: Not considered a hazardous material as defined by 29CFR1910.1200 Hazard Communication.

Section XVI — Other information

Original preparation date: October 21, 1994 R.C.

Tektronix, Incorporated
P.O. Box 500
Chemical Documentation
Mail stop 55-769
Beaverton, Oregon 97077
Printer information: 1-800-835-6100
MSDS information: (503) 627-7255

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