

User Manual

Tektronix

**Phaser[®] 380
Color Printer**

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Tektronix warrants that the Phaser 380 printer will be free from defects in materials and workmanship for a period of one (1) year from the date of shipment. If this product proves defective during the warranty period, Tektronix, at its option, will either repair the defective product on-site without charge for parts and labor, or provide a replacement in exchange for the defective product.

In order to obtain service under the one year on-site product warranty, Customer must notify Tektronix or its authorized representative of the defect before the expiration of the warranty period and make suitable arrangements for the performance of service. Tektronix or its authorized representative will provide such service at the Customer's site, if required, without charge during the warranty period, if the service is performed within the United States or outside the United States if the product is located in a normal on-site service area. Outside the U.S., a description of the normal on-site service area can be obtained from the Local Tektronix Subsidiary or Authorized Tektronix Distributor.

The maintenance tray in this product will be free from defects in materials and workmanship for a period of ninety (90) days from the date of shipment or six (6) months where longer periods are required by law. If this product proves defective during the warranty period, 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 90 day warranty applies only to maintenance trays returned to the designated Tektronix depot. For trays returned to other locations, Customer will be assessed an applicable service charge. The preceding limitation shall not apply within the European Economic Area, where trays may be returned for warranty service to the nearest designated service depot regardless of the place of purchase.

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 10,000 pages per month has been reached; all service thereafter shall be billed on a time and material basis.

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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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Introduction

Overview

The Tektronix Phaser® 380 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.

With a fast print speed, low cost per copy, support for a wide range of paper sizes and weights, Tabloid / A3 full-page bleeds and manual-feed duplex capability, the printer is well suited to graphic arts environments.

From its universal media tray, the Phaser 380 printer produces laser-quality color prints on transparency, peel-off label media, and paper up to 117 g/m² (80 lbs.). The media tray recognizes seven sizes: Executive, A4, Letter, Legal, Tabloid, A3 and Tabloid Maximum (for Tabloid / A3 full-page bleeds) and supports printing of custom media sizes from 184.2 to 332.5 mm (7.25 to 13.1 in.) wide to 266.7 to 471.2 mm (10.5 to 18.55 in.) long.

Using the printer's manual-feed capability, you can print on envelopes and non-glossy cover stock up to 181 g/m² (100 lbs.). The manual feed slot also supports printing of custom media sizes from 92.2 to 332.5 mm (3.63 to 13.1 in.) wide to 152.4 to 471.2 mm (6 to 18.55 in.) long.

For transparency printing, Tektronix offers specially formulated Letter-, A4- and Tabloid Maximum-size transparencies to provide enhanced ink adhesion, durability and superior print quality.

Configurations. In its standard configuration, the printer provides 300 x 300 dots-per-inch (dpi) resolution color printing, 16 Mbytes of memory and a total of 39 fonts. Adding the Extended Features option increases print resolution and print performance, making it *the* choice for demanding print jobs. The Extended Features option adds 600 x 300 dpi resolution printing, 32 Mbytes of memory (48 Mbytes total), print collation, Check Print, job pipelining, Copystation software support 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 Lower Paper Tray Assembly increases the printer's paper printing capacity by 250 sheets. Having the optional lower tray allows printing on both paper (lower tray) and transparency media (upper tray) or different media sizes without changing the media in the tray. Network options make the printer a fast, sharable printing resource. A Printer Station, designed specifically to support the weight of a Phaser 380 printer and Lower Paper Tray Assembly, features hinged doors, a removable drawer and lockable caster wheels. The Printer Station raises the printer to a comfortable operating height while providing a convenient location to store the printer's media supplies and consumable components.

Network printing. The printer works with PCs, Macintosh computers, and UNIX and VMS workstations, making it a resource that can be shared across mixed platforms. Simultaneously active interface ports with automatic port and protocol sensing and switching make the printer accessible in mixed network environments. In addition to its standard bidirectional parallel port, optional PhaserShare network interface cards provide Ethernet, Token Ring or LocalTalk/serial connectivity.

Language support. You can make color prints from a variety of software applications, since the printer incorporates Adobe's PostScript Level 2 software. The printer also 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, additional PostScript fonts can be downloaded to the printer's memory or can be stored on a SCSI-connected external hard disk.

Color corrections. TekColor™ Correction provides several user-selectable color correction modes that let you optimize your color prints.

Print quality modes. The printer provides three print-quality modes that let you balance print requirements between speed and quality.

- **Fast Color** mode for good print quality.
- **Standard** mode for better print quality.
- ***Enhanced (600 x 300) dpi** mode for the best text and image quality.

* Requires the printer's Extended Features option.

PhaserLink software 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 software provides these functions using HTTP (HyperText Transfer Protocol, the basis for World Wide Web browsers). PhaserLink software lets you 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 software, the printer must be connected to a network running TCP/IP. Refer to the **PhaserShare Network Cards and Software System Administrator Manual** for complete details.*

Easy to use and maintain. Designed for the graphic arts environment, the printer is fast and easy to use. 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. The printer produces consistently accurate and vibrant prints without the need for user calibration.

To order ColorStix solid-ink sticks, transparencies, paper, 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**.

Information roadmap

Tektronix provides information on the Phaser 380 printer in several ways:

User Manual

The *Phaser 380 Color Printer User Manual* (this manual) includes information on setting up and using the printer:

- Hardware and software set up
- Selecting print features in a driver
- Caring for your printer
- Maintaining print quality and troubleshooting problems

Diskettes

The printer's diskettes contain printer drivers, printer description files, color sampler charts, and utility files.

CD-ROM

The printer's CD-ROM contains the same files as the printer's diskettes and the contents of this user manual, as well as supplemental information, in HTML and Adobe® Acrobat® (PDF) formats. For a list of CD-ROM topics, refer to the Index at the back of this manual.

For instructions on installing and using the Adobe Acrobat Reader to view PDF files, refer to the *README* files on the CD-ROM.

World Wide Web

If you have access to the Internet, you can view documentation topics and answers to Frequently Asked Questions available at Tektronix' web site:

`http://www.tek.com/Color_Printers/userdoc/introduction.html`

Getting Set Up

At a glance

Installation of your printer involves these tasks:

1. **Setting up the printer** (page 2-2).
Putting all the pieces together: unpacking the printer and accessories, installing the optional equipment such as the Lower Paper Tray Assembly, Printer Station and Phaser Copystation, loading the media tray(s), loading ink sticks, and installing the maintenance tray.

Note *For instructions on installing a SCSI hard disk for font storage and/or print collation, refer to the CD-ROM that came with your printer.*

2. **Connecting the power and interface cables** (page 2-20).
3. **Selecting a language for the front panel** (page 2-29).
4. **Installing printer driver software on your computer** (page 2-31).
Using the Printer Software diskettes or the printer's CD-ROM to install software – for example, drivers, PostScript Printer Description (PPD) files and utility files – on a Macintosh, or a PC running Windows 95, Windows 3.1, or Windows NT.

Caution *To ensure proper printer operation, install the printer on a flat surface having no more than 2 degrees of tilt. This is approximately equivalent to lifting one side of the printer 16 mm (0.625 in.) off a level surface.*

Setting up the printer

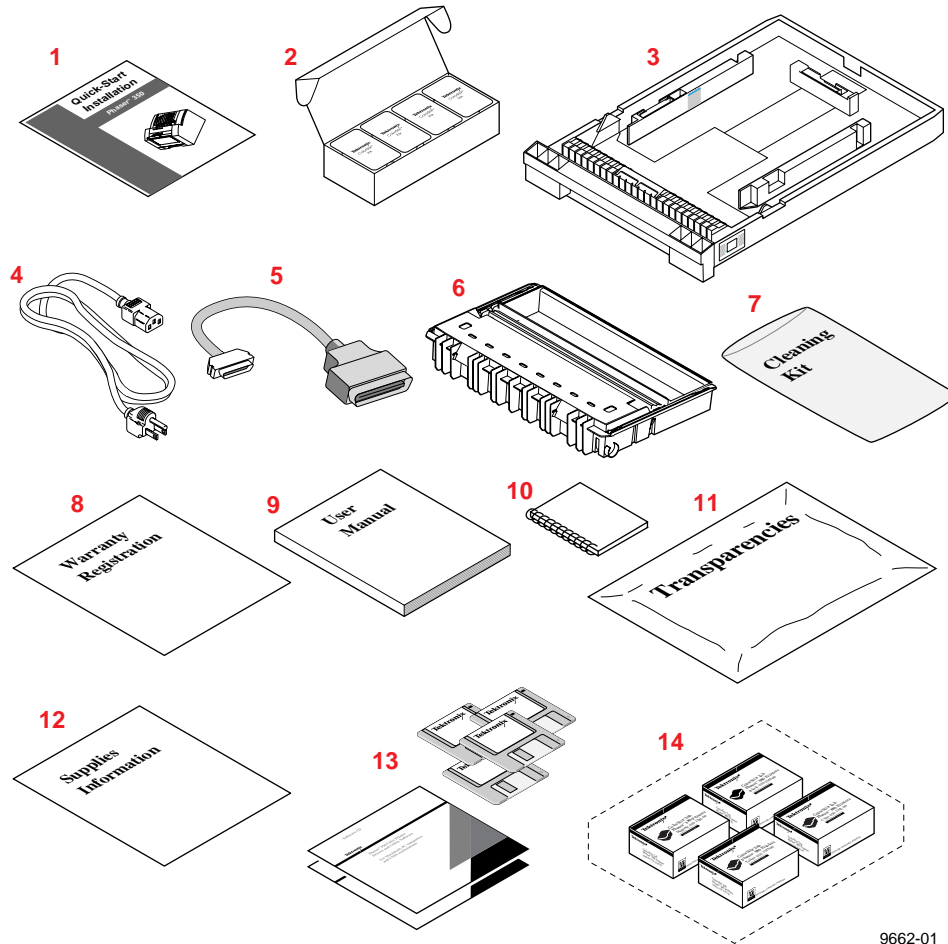
What you get with your printer

The printer and its basic accessories are shipped in a single box. If you ordered an optional PhaserShare™ network card, Lower Paper Tray Assembly, Printer Station, or Phaser Copystation, each is shipped separately.

The following items are shipped with the printer:

1. Quick-Start Installation guide
2. Phaser 380 printer ColorStix® ink starter pack
3. Paper tray (universal)
4. Power cord
5. Parallel cable adapter
6. Maintenance tray
7. Cleaning kit
8. Warranty registration card
9. *Phaser 380 Color Printer User Manual*
10. *Phaser 380 Color Printer Quick Reference Guide*
11. Tektronix Phaser 380 printer transparencies
12. Supplies information sheet
13. Phaser 380 printer driver software (CD-ROMs and diskettes)
14. Optional: Two-pack of each color ColorStix ink sticks

See “Interface cables and adapters” on page 8-3 for additional information on interface cables and adapters.

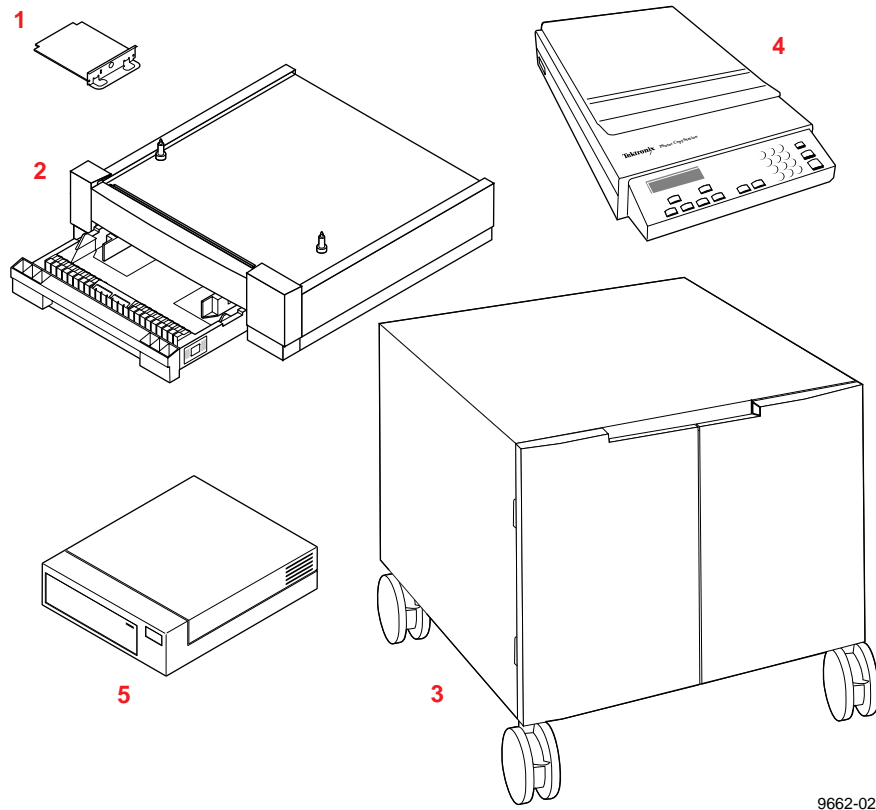


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Optional accessories

When you order one of the printer's optional accessories, each is shipped separately.

1. **PhaserShare™ network card (recommended).** A PhaserShare network interface card provides Ethernet, Token Ring or LocalTalk/serial connectivity to PCs, Macintosh computers, and UNIX and VMS workstations.
2. **Lower Paper Tray Assembly (recommended).** With a 250-sheet capacity (paper only), the Lower Paper Tray Assembly adds dual-tray printing capability to your printer. This is especially useful if you commonly print on different sizes or types of media. For example, you might want to print on transparencies, letterhead, label media or Tabloid Maximum-size media from the upper tray and use the lower tray for printing on an alternate size of paper, such as Letter-size.
3. **Printer Station (recommended).** The Printer Station is designed to safely support the weight of the Phaser 380 color printer (100 kg / 220 lbs.) and the printer's Lower Paper Tray Assembly (36.8 kg / 81 lbs.). Adding a Printer Station to the printer raises it to a comfortable operating height, while providing a convenient location to store the printer's supplies. The Printer Station features hinged doors, a removable drawer, and lockable caster wheels.
4. **Phaser Copystation.** The Phaser Copystation adds easy-to-use, walk-up color copying capability to the printer. Its front panel controls the number of copies and selects 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.
5. **SCSI disk for fonts and collation.** A Tektronix-approved SCSI hard disk is available for use with the printer's SCSI port to increase font storage space and allow print job collation (Extended Features option required). The Quick Collate feature performs document collation *in the printer*, which is faster than the collation feature that exists in some applications.

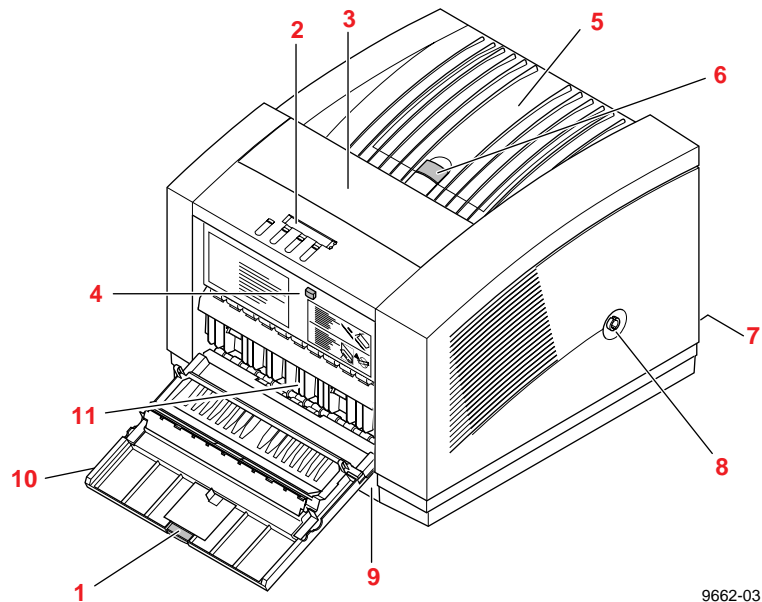


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Touring the printer

Use the following illustration to familiarize yourself with the printer.

1. Front-cover release
2. Front-panel menu display and buttons
3. Exit cover
4. Exit-cover release button
5. Ink-loading bins (under top cover)
6. Top-cover release
7. On/Off switch and access to I/O ports
8. Transit restraint lock
9. Media tray
10. Front cover
11. Maintenance tray (consumable item)



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Registering the printer

The printer is shipped with a warranty registration card.

1. Find the registration card that is appropriate for you (U. S. or international versions).
2. 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, services, and accessories as they becomes available.

Removing the packing material

Remove the packing materials and plastic bag surrounding the printer. The *Phaser 380 Color Printer Quick Reference Guide* contains detailed illustrations that show unpacking procedures.

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

Installing the optional Lower Paper Tray Assembly

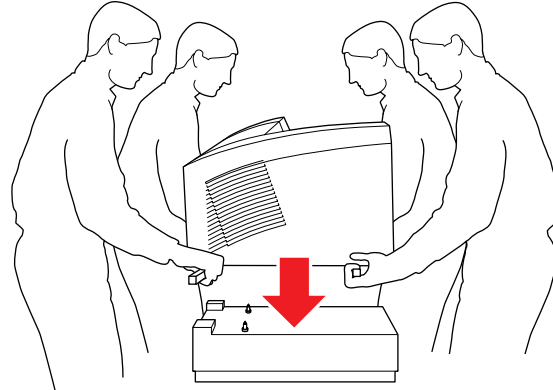
A Lower Paper Tray Assembly for paper printing is available as an option. Use Tektronix order number Z380LTA.

Caution *To avoid damage, let the printer cool down for at least 45 minutes before you begin installing a Lower Paper Tray Assembly. This provides sufficient time for the melted ink to solidify.*

The Lower Paper Tray Assembly uses a universal tray with a capacity of 250 sheets of paper. The lower tray does not support printing of transparencies. The **Transparency/Paper** switch on the side of the media tray is ignored when the universal tray is installed in the Lower Paper Tray Assembly.

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 100 kg (220 lbs.). Do not attempt to lift the printer without the assistance of others. Always use the four pull-out handles located under each corner of the printer when moving it.



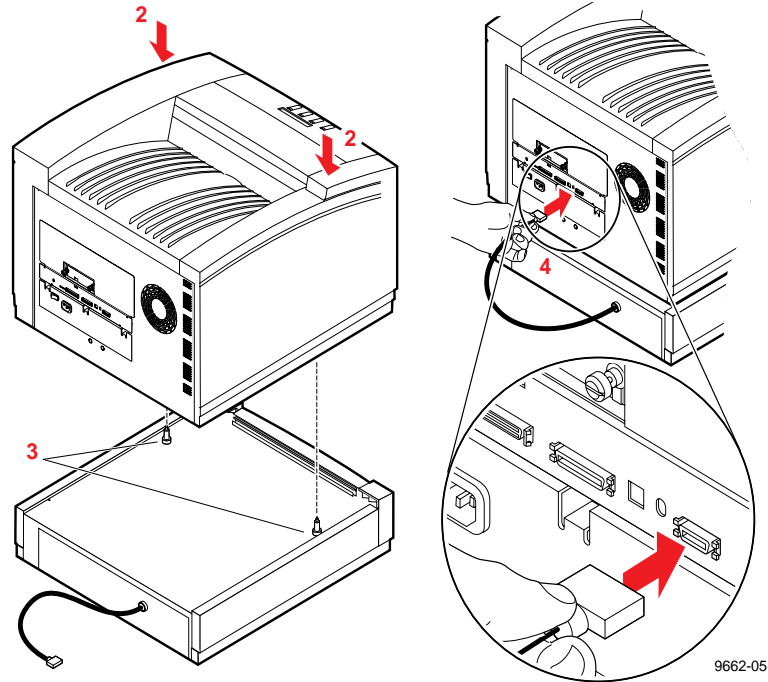
9662-04

Install the Lower Paper Tray Assembly using these steps:

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

Note *To ensure proper printer operation, install the printer and Lower Paper Tray Assembly on a flat surface having no more than 2 degrees of tilt. This is approximately equivalent to lifting one side of the printer 16 mm (0.625 in.) off a level surface. The operating location must be capable of safely supporting approximately 136 kg (300 lbs.). To support this weight, the Printer Station is recommended for use with the printer and 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.

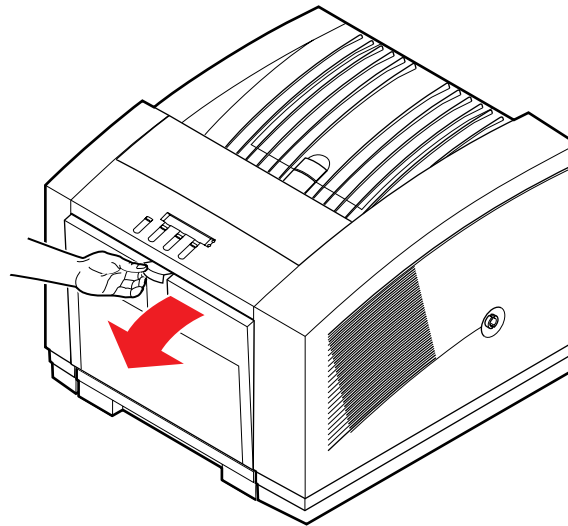


Installing the maintenance tray

The printer is shipped with a maintenance tray that must be installed before printing is possible. The front panel displays a message indicating when the maintenance tray is low, allowing you to make a limited number of prints before the tray is depleted. To avoid printing delays, always keep an extra maintenance tray available. When you reorder a replacement maintenance tray for the printer, use Tektronix order number 436-0303-00.

Note *There is a 20-minute warm-up period required after installing a new maintenance tray. As the printer initializes, it cycles the new maintenance tray to prepare it for use. Noises during the warm-up period are normal and are not an indication of a problem.*

1. Open the front cover.



9662-07

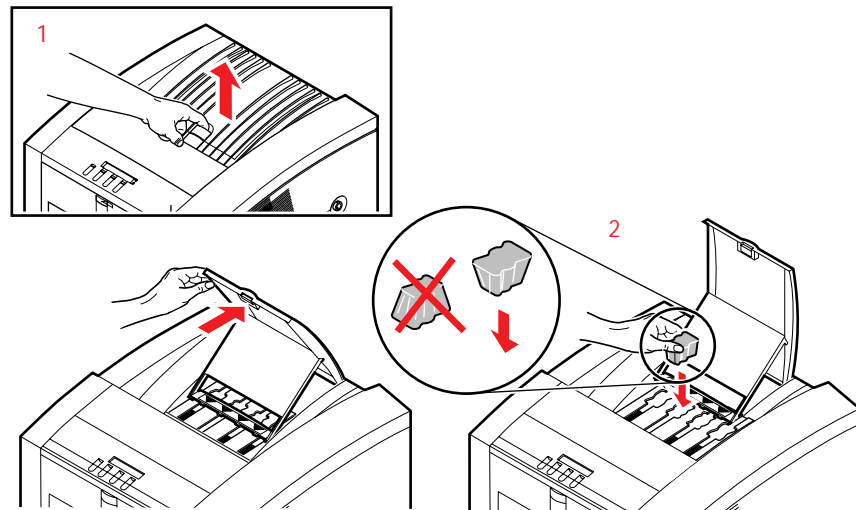
2. Open the maintenance tray shipping box and remove the maintenance tray. Refer to "Replacing the media tray separator pad" on page 5-10 for directions on using the replacement separator pad included with each maintenance tray.

Loading ink sticks

The printer's standard accessories include a box containing one of each color Phaser 380 ColorStix solid-ink sticks: magenta, cyan, yellow and black. You'll need to load the box of ink sticks during printer set up. To ensure that your printer is always available for use, immediately reorder and maintain a stock of each color ink stick. Refer to "Ordering printer supplies" on page 8-2 for ordering information.

Caution *Tektronix Phaser 380 ColorStix ink is formulated specifically for use with the Phaser 380 printer. To avoid damaging the printhead, only use Phaser 380 ColorStix solid-ink sticks.*

1. Open the top cover. A color-coded label inside the top cover corresponds to the color of each ink-loading bin.
2. Drop the appropriate color Phaser 380 ColorStix ink sticks into each ink-loading bin. Ink sticks are uniquely shaped to fit into the correct ink-loading bin. Add up to three ink sticks for each color.



9662-09

3. After loading the colored ink sticks, close the top cover.

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

Choosing media tray configurations

Standard media tray

Use the adjustable, 250-sheet media tray shipped with your printer for paper, letterhead, label stock, and transparency print jobs. A media selector switch located on the side of the media tray selects between paper and transparency printing. Depending on the switch setting, the printer changes the ink density to match the type of media used (paper or transparency).

Note *Printing with the media selector switch incorrectly set to **Paper** (for transparency print jobs) or **Transparency** (for paper print jobs) will result in lower-quality prints.*

If you often print on transparencies or specialty papers, you can save time and effort by purchasing a Lower Paper Tray Assembly. Having a lower tray lets you quickly switch between printing on paper and transparencies by simply making a selection in the printer driver. There is no need to load and unload media from the tray when changing between different types or sizes of media.

Optional Lower Paper Tray Assembly

For maximum flexibility, you'll want to add the optional 250-sheet Lower Paper Tray Assembly to supplement the standard media tray. The lower paper tray is convenient when you want to print on two different types, weights or sizes of media. For example, you could load Tabloid-size Cover paper in the upper tray and load Tektronix Tabloid Maximum-size Bond paper in the lower tray. With dual-tray capability, you can make printer driver selections that specify a print job by its paper size or by tray position (upper or lower) without the need to leave your computer to switch trays. Refer to "Establishing a default media tray (optional)" on page 3-37 for information on selecting between the upper and lower tray as the default printing tray.

Note *Use the Lower Paper Tray Assembly only for paper print jobs. The Lower Paper Tray Assembly ignores the **Transparency** position of the media selector switch on the side of the lower paper tray.*

Loading media trays

The universal tray shipped with the printer recognizes seven media sizes: Executive, A4, Letter, Legal, Tabloid, A3 and Tektronix Tabloid Maximum. Tray-fed printing of custom media sizes ranging from 184.2 to 332.5 mm (7.25 to 13.09 in.) wide to 266.7 to 471.2 mm (10.55 to 18.55 in.) long are also supported. The printer's media tray accepts bond, book and cover paper ranging from 60 to 117 g/m² (16 to 80 lbs.).

The optional Lower Paper Tray Assembly uses the same tray as the printer's media tray. The lower paper tray also accepts bond, book and cover paper ranging from 60 to 117 g/m² (16 to 80 lbs.). Transparency printing from the lower paper tray is not supported.

Note *The printer is designed to handle a wide variety of paper sizes, weights and textures. However, you may find that some types of paper, for example heavy-weight, coated Tabloid Maximum stock, require manual feeding for best operation.*

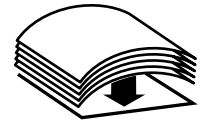
For more information about media types, refer to "All about media" on page 3-28. For more information about printing on other types of media, refer to "Manual-feed printing" on page 3-41.

Loading paper in the upper and lower trays

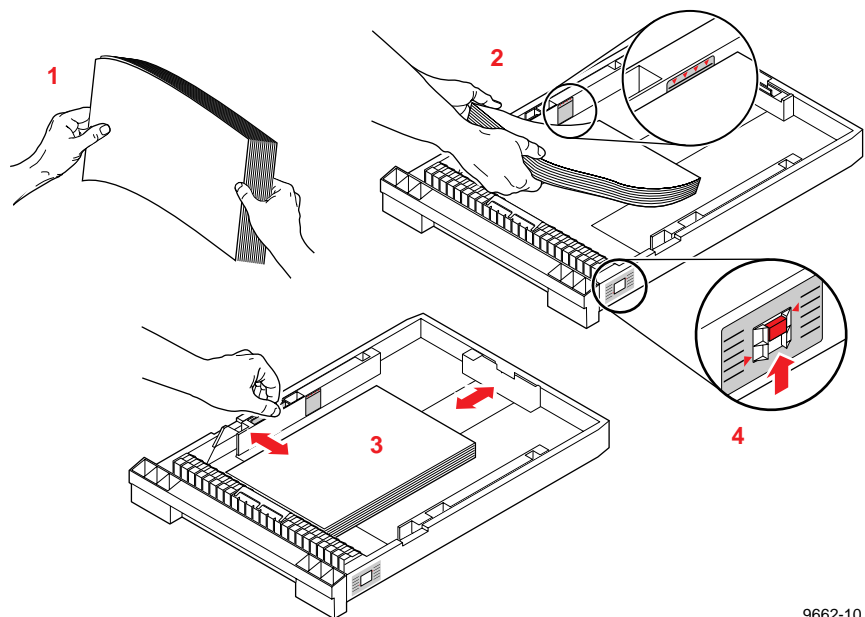
Note The Lower Paper Tray Assembly accepts paper media only; it should not be used for printing transparencies or label stock.

1. Prior to loading paper in a tray, fan the paper to release sheets that are stuck together.
2. Load up to 250 sheets of paper in the media tray. A label on the inside of the paper tray provides a fill line to indicate the tray's maximum capacity.

Note Some thinner grades of paper may curl and cause media feeding problems. Always load curled paper concave-side down.

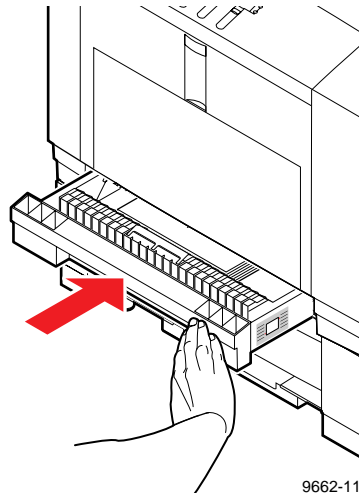


3. Pressing both blue tabs at the same time, adjust the side and end stops to fit snugly against the loaded paper.
4. Set the media selector switch on the side of the tray in the upper position for **Paper**.



9662-10

5. Insert the media tray into the printer.



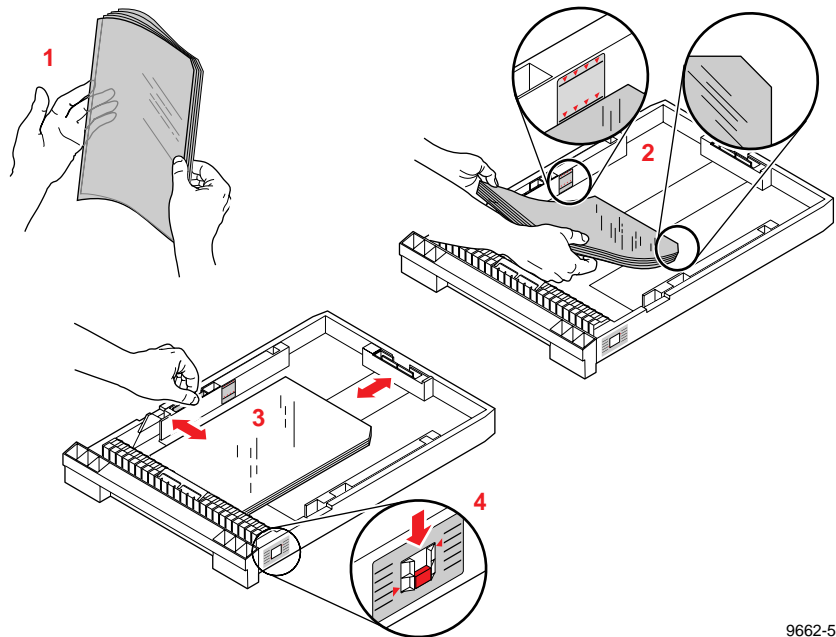
9662-11

Loading transparencies in the media tray

1. Prior to loading transparencies in the upper media tray, fan the transparencies to release sheets that are stuck together. Always handle transparencies by the edges and with both hands to avoid fingerprints and creases, which can result in poor print quality.
2. Load up to 100 transparency sheets in the upper media tray. A label on the inside of the paper tray provides a fill line to indicate the tray's maximum capacity.

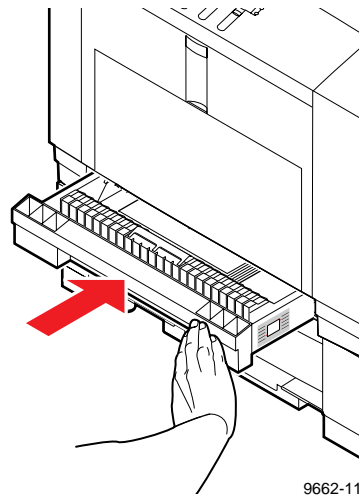
Note *If you are using Tektronix transparency media, you must position the transparency notch in the back, right corner of the tray. Jams will occur if transparencies are incorrectly loaded.*

3. Pressing both blue tabs at the same time, adjust the side and end stops to fit snugly against the loaded transparencies.
4. Set the media selector switch on the side of the tray in the lower position for **Transparency**.



9662-56

5. Insert the media tray into the printer.



9662-11

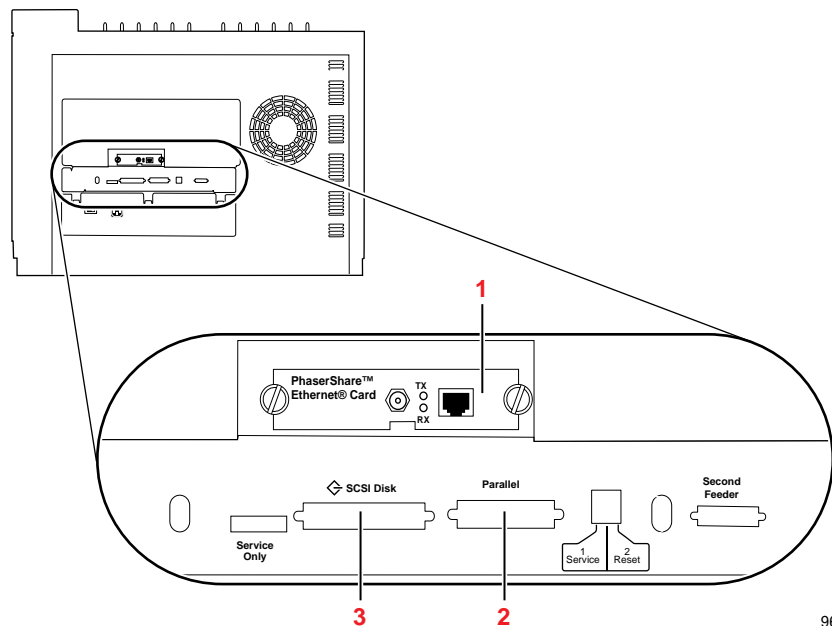
Connecting the printer

Printer ports

The printer is shipped with parallel and SCSI port connectors available on the rear panel. In addition, the printer can support one optional PhaserShare™ network card.

Note See “Interface cables and adapters” on page 8-3 about ordering cables for connecting the printer.

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



9662-15

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

1. PhaserShare card port (optional)

The printer accepts one of the following:

- PhaserShare Ethernet card supporting TCP/IP, Novell NetWare, EtherTalk, Telnet and FTP protocols.
- PhaserShare Token Ring card supporting TCP/IP, Novell NetWare, TokenTalk, Telnet and FTP protocols.
- PhaserShare LocalTalk/Serial card.

The *PhaserShare Network Cards and Software System Administrator Manual* contains all the information necessary for configuring and using the optional network interfaces. Refer to “PhaserShare network cards (recommended)” on page 8-7 for ordering information.

2. Parallel port (standard)

The parallel port is a standard IEEE 1284 high-density port. The adapter that is included with the printer may be used with low-density parallel cables if an appropriate high-density cable is not available.

3. SCSI port (standard)

The SCSI port is used only for connecting an external SCSI hard disk or for connecting the Phaser Copystation. Refer to “SCSI peripheral devices” on page 2-24 for more information on the SCSI port. Refer to “Phaser Copystation” on page 8-8 for more information on the Phaser Copystation.

PhaserShare network and serial connections

Optional PhaserShare cards provide Ethernet, Token Ring, or LocalTalk/Serial connections for the printer. PhaserShare network cards 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.

PhaserShare cards can be purchased initially with the printer or later as a separate upgrade kit. For ordering information, refer to “PhaserShare network cards (recommended)” on page 8-7.

Installing PhaserShare™ network cards

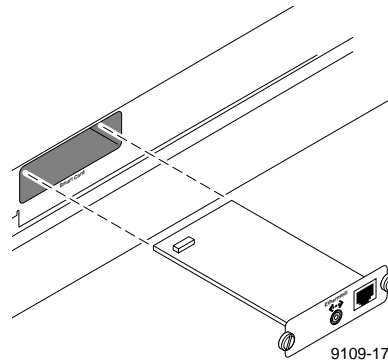
The *PhaserShare Network Cards and Software System Administrator Manual* contains detailed information on installing, configuring and using the optional network interfaces.

Caution *Observe static electricity precautions when installing a PhaserShare network card.*

1. Power down the printer. Do not unplug the printer; this preserves a ground path to dissipate static charges. Unpack the network card.

Note *The Token Ring Network Card requires jumpers to be properly positioned on the network card to support the speed of the network.*

2. Remove the network card cover plate from the rear panel of the printer. Slide the network card into the card slot and firmly push it into place. Secure the card in place with its thumbscrews.



3. Connect the appropriate network interface cable to one end of the network card's connectors.

Parallel connection

The printer supports a standard (uni-directional) parallel port. The parallel port can also be set for bi-directional communications using downloadable utility files or from your World Wide Web browser. Refer to the on-line manual on the printer's CD-ROM for instructions on using utility files to control the parallel port. The CD-ROM and the *PhaserShare Network Cards and Software System Administrator Manual* also covers other topics such as disabling timeouts, bi-directional status reporting and the parallel port pinout.

When connecting the printer to your computer's parallel port, you have two options:

- Use the Tektronix parallel cable adapter (order number 013-0299-00) included with the printer and a standard PC-printer cable (36-pin low-density Centronics connector to 25-pin DSUB connector). The adapter converts the standard cable from a low-density parallel connector to the high-density parallel connector required for the printer.
- Obtain an optional parallel cable from Tektronix (order number 012-1468-00). This cable features a 36-pin high-density parallel connector for the printer and a 25-pin DSUB connector for the computer.

SCSI peripheral devices

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 the *Phaser Copystation User Manual*. Refer to “Phaser Copystation” on page 8-8 for ordering information.

■ External SCSI hard disk

- Provides storage for additional downloadable PostScript fonts. You can connect one or more SCSI external hard disks to the printer for additional font storage. When you download a PostScript font to an external disk, the font remains there until you remove it.
- Allows for collation of print jobs on Phaser 380 printers with the Extended Features option. Refer to “Using the Quick Collate option” on page 4-13 for more information.

Refer to “SCSI hard disk” on page 8-8 for ordering information. Refer to “Interface cables and adapters” on page 8-3 for information on ordering SCSI cables. Refer to the printer’s CD-ROM for information on connecting SCSI hard disks.

Selecting a SCSI hard disk

- **For font storage.** The Phaser 380 printer can use most SCSI hard disks that support the full SCSI command set. Also, most SCSI hard disks that work with an Apple LaserWriter will work with a Phaser 380 printer. Contact your computer or Tektronix printer dealer for more information. Tektronix offers a 1.2 Gigabyte SCSI hard disk for font storage (order number Z350DSK).
- **For printer collation.** To use the collation feature available with the printer’s Extended Features option, you’ll need to obtain a SCSI hard disk with up to 2 Gigabytes of storage capacity. Tektronix offers a SCSI hard disk (order number Z350DSK) specially optimized for use with Tektronix printers.

Turning on the printer

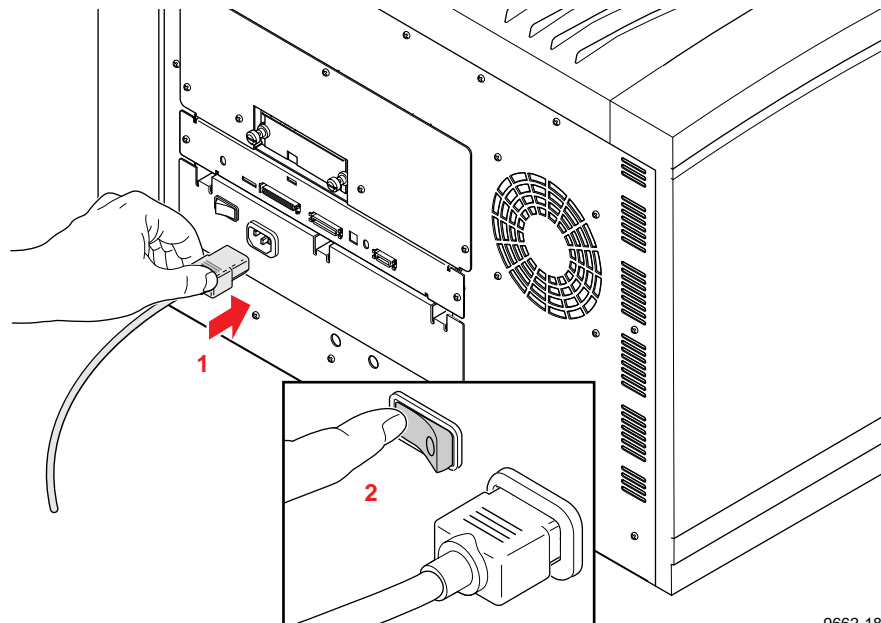
After you have connected the interface cables, you are ready to connect the power cord and turn on the printer. If you need to turn the printer off, wait until the display shows *Ready* or the printer's name before powering it down.

Caution *To avoid damaging the printer, make sure that the power switch is in the **off** position before connecting the power cord.*

If you move the printer to a location that requires a different type of power cord, refer to "Changing line voltage" on page 5-56 for more information.

1. Plug the power cord into the printer and into a grounded outlet capable of supplying a minimum of 15 Amps at 115 VAC.
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.*

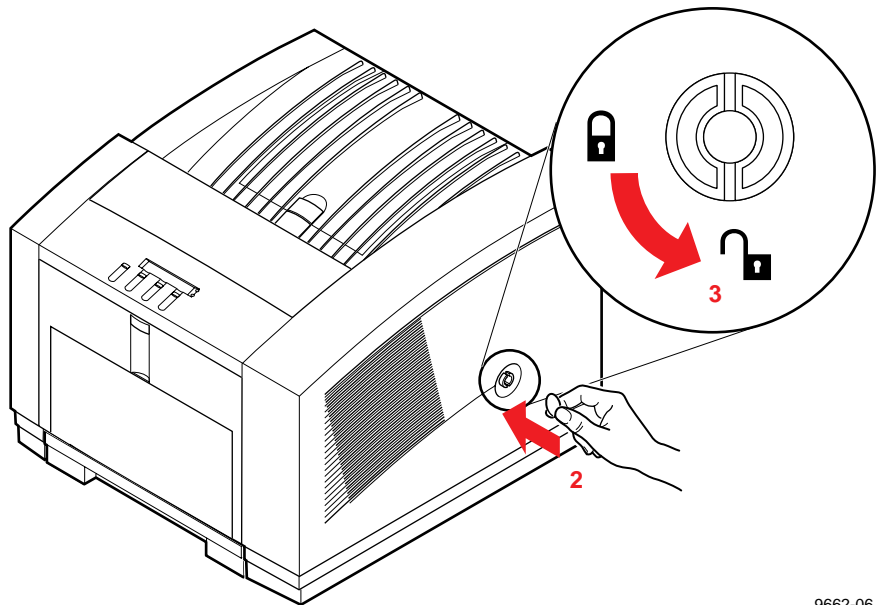


9662-18

Unlocking the transit restraint

Caution To avoid damaging the printer, always turn the printer power **on** and **off** using the rear panel On/Off switch. Turn the printer power **on** before unlocking the transit restraint.

1. Turn the printer power on 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 or large coin 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.



9662-06

Caution If you move or ship the printer, be sure to lock the transit restraint to protect the printhead from damage. Refer to “Moving your printer” on page 5-53 for more information.

As the printer warms up

The first time you turn your printer on, it will take about 20 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 Ready or the printer's name.

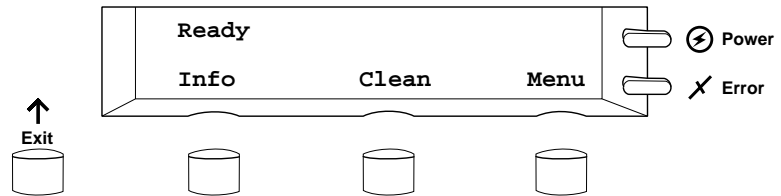
Turning off the Startup Page

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 "Front panel overview" on page 7-1 for instructions on using the front panel. You can also control the Startup Page through a utility file provided on the printer's CD-ROM, or through your World Wide Web browser. Refer to the CD-ROM 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 20 minutes to completely warm up. During the warm-up cycle, the **Error** indicator goes out, the **Power** indicator flashes, 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 **Info**, **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**.



9662-19

Accessing the front panel menu

With default settings, you access the front panel menu 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 “Enabling and disabling the front panel menu” on page 7-4 for more information.

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 Ready or the printer's name 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. Refer to "Printer Help Pages" on page 7-6 for a detailed list of available Help Pages. You can print the Help Pages from the front panel; refer to the instructions below. You can also print Help Pages using your World Wide Web browser; refer to the *PhaserShare Status Software User Manual* for information.

Printing Help Pages from the front panel

After setting up the printer, you may want to print Help Pages to check that the printer is operating correctly. A general description of printing Help Pages from the front panel is described in the following steps. For detailed steps on printing specific Help Pages, refer to the on-line manual on the printer's CD-ROM.

1. When the printer is on and the Ready message or the printer's name 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 Page, RGB Color Sampler, and CMYK Color Sampler.
4. Press the **Print** button to print the displayed page(s).

PC/Windows software

Installer overview

The Phaser 380 printer's CD-ROM and diskettes include an installer application that automatically installs the printer's software onto your computer's hard disk. You can select a standard installation (Easy Install), or select individual items (Custom Install) from the CD-ROM or diskettes.

Note *ATM software is available on a separate CD-ROM included with the printer's Extended Features option. See "Font upgrade" on page 8-6 for more information on fonts.*

You may wish to make a note of the following information and refer to it during the on-screen installation procedure.

1. What is your printer's configuration? Look on the printer's Startup Page:

Extended Features: **No** Phaser 380 - Base version

Extended Features: **Yes** Phaser 380 - Extended version

2. To which port is your printer connected?

See the following topics for information on installing software for your computer system:

- "Installing printer software for Window 95" on page 2-32
- "Installing printer software for Windows NT 4.0" on page 2-34
- "Installing printer software for Windows NT 3.51" on page 2-38
- "Installing printer software for Windows 3.1" on page 2-42

Installing printer software for Window 95

Note *If you are installing from floppy diskettes, you may need more than one diskette depending on your Windows system. Keep all of the printer's diskettes handy during the installation, and insert each diskette when you are prompted by the installation program.*

1. Insert either the printer's CD-ROM or the Phaser 380 Color Printer Installer for Windows Disk 1 into the appropriate drive on your computer.
2. Click the **Start** icon in the taskbar, and select **Run**.
3. Type in the drive for the CD-ROM or diskette, type **SETUP**, and click **OK**.
4. Click **Next** in the two introduction screens in the *Installer*.
5. In the **Select Installation Type** dialog box, select either **Easy Installation** or **Custom Installation**, and click **Next**.

Easy Installation	Custom Installation
<p>The following files are copied to your hard disk:</p> <ul style="list-style-type: none"> ■ QuarkXPress PDF (installs an application-specific printer description file, if the application is found) ■ PhaserPrint Plug-in for Photoshop (installs an application-specific plug-in, if the application is found) ■ Samplers (installs color sampler charts and a fonts sampler) 	<ol style="list-style-type: none"> 1. In the Driver Installation dialog box, select from the following options: <ul style="list-style-type: none"> ■ Drivers/PPDs (installs driver files and printer description files) ■ QuarkXPress PDF (installs an application-specific printer description file, if the application is found) ■ PhaserPrint Plug-in for Photoshop (installs an application-specific plug-in, if the application is found) 2. Click Next. 3. In the Custom Install: Select Utilities dialog box, select from the following options: <ul style="list-style-type: none"> ■ Printer Utilities (installs utility files for selecting printer features) ■ Network Utilities (installs utility files for using the printer on a network) ■ Samplers (installs color sampler charts and a fonts sampler) <i>Use the default Destination Directory or click Browse.</i> 4. Click Next. 5. Files are copied to your hard disk.

6. The **Finish Installation** dialog box contains instructions for completing the printer software setup; click **Next**. The **Add Printer Wizard** program is automatically launched.

Note *The setup instructions remain visible while the Add Printer Wizard is running. If you click on the instructions dialog box, press the <Alt><Esc> keys to see the Add Printer Wizard again.*

7. In the **Add Printer Wizard**, click **Next** in the opening dialog box.
8. Select your printer's connection, either **Local Printer** or **Network Printer**, and click **Next**.
9. In the **Manufacturers/Printers** dialog box, click **Have Disk**.
10. Type in the drive for the CD-ROM or diskette, and click **OK**.
11. Select your printer, and click **Next**:
 - **Tektronix Phaser 380** (standard printer configuration)
 - **Tektronix Phaser 380 Extended** (Extended Features option)If you are not sure which version of the printer you have, check the printer's Startup Page for **Extended Features: Yes** or **No**.
12. Select the port or network queue your printer is connected to, and click **Next**.
13. Enter a name for the printer, and select the Phaser 380 as the default printer if desired, and click **Next**.
14. Decide if you want to print a test page, **Yes** or **No**, and click **Finish**.
15. In the **Installation Completed** dialog box, click **Finish**.
16. You may see a **Restart Windows** dialog box if the system needs to update some files. Decide if you want to restart now or later, and click **OK**.

Note *See the "Adobe PostScript Printer Driver User Guide" on the printer's CD-ROM (USERGUIDE.PDF) for detailed information on the AdobePS 4 driver.*

Installing printer software for Windows NT 4.0

If you are installing software from floppy diskettes, you may need more than one diskette depending on your Windows system. Keep all printer diskettes handy during the installation, and insert each diskette when you are prompted by the installation program.

Note *If you are going to be using a printer on a network, refer to your Windows NT manual for instructions on installing network software (either **Services for Macintosh** (AppleTalk) or **TCP/IP print services** (for TCP/IP; lpr print services)).*

1. Insert either the printer's CD-ROM or the Phaser 380 Color Printer Installer for Windows Disk 1 into the appropriate drive on your computer.
2. Click the **Start** icon in the taskbar, and select **Run**.
3. Type in the drive for the CD-ROM or diskette, type **SETUP**, and click **OK**.
4. Click **Next** in the two introduction screens in the *Installer*.
5. In the **Select Installation Type** dialog box, select either **Easy Installation** or **Custom Installation**, and click **Next**.

Easy Installation

The following files are copied to your hard disk:

- **QuarkXPress PDF**
(installs an application-specific printer description file, if the application is found)
- **PhaserPrint Plug-in for Photoshop**
(installs an application-specific plug-in, if the application is found)
- **Samplers**
(installs color sampler charts and a fonts sampler)

Custom Installation

1. In the **Driver Installation** dialog box, select from the following options:
 - **Drivers/PPDs**
(installs driver files and printer description files)
 - **QuarkXPress PDF**
(installs an application-specific printer description file, if the application is found)
 - **PhaserPrint Plug-in for Photoshop**
(installs an application-specific plug-in, if the application is found)
 2. Click **Next**.
 3. In the **Custom Install: Select Utilities** dialog box, select from the following options:
 - **Printer Utilities**
(installs utility files for selecting printer features)
 - **Network Utilities**
(installs utility files for using the printer on a network)
 - **Samplers**
(installs color sampler charts and a fonts sampler)
Use the default Destination Directory or click Browse.
 4. Click **Next**.
 5. Files are copied to your hard disk.
-

6. The **Finish Installation** dialog box contains instructions for completing the printer software setup; click **Next**. The **Add Printer Wizard** program is automatically launched.

Note *The setup instructions remain visible while the Add Printer Wizard is running. If you click on the instructions dialog box, press the <Alt><Esc> keys to see the Add Printer Wizard again.*

7. In the **Add Printer Wizard**, click **Next** in the opening dialog box.
8. Select printer management, either **My computer** or **Network printer server**, and click **Next**.
9. Select a local printer port, or follow these instructions for a network port:

LPR port (for TCP/IP) setup instructions	AppleTalk port setup instructions
<ol style="list-style-type: none"> 1. Click the Add Port button. 2. In the Printer Ports dialog box, under Available Printer Ports, select LPR Port. 3. Click the New Port button; the Add LPR compatible printer dialog box appears. 4. For Name or address of host providing lpd, type your printer's IP address (or Host name if known to the network). <p>Note: The printer's IP address may be available on the printer's Configuration Page. If not, ask your network administrator.</p> <ol style="list-style-type: none"> 5. For Name of printer or print queue on that server, type in one of the following (use uppercase letters): <ul style="list-style-type: none"> ■ PS for PostScript ■ AUTO for automatic selection 6. Click OK. 7. In the Printer Ports dialog box, click the Close button to return to the Add Printer Wizard. 8. Click Next and continue with Step 10 below. 	<ol style="list-style-type: none"> 1. Click the Add Port button. 2. In the Printer Ports dialog box, under Available Printer Ports, select AppleTalk Printing Devices. 3. Click the New Port button. 4. Under AppleTalk Printing Devices, double-click on the appropriate zone (if there are multiple AppleTalk zones). 5. Select your Tektronix printer and click OK. 6. At the prompt: Do you want to capture this AppleTalk Printing Device?, click No. <p>Note: Clicking Yes hides the printer from regular Macintosh users, forcing them to use NT Server as a spooler, as long as NT Server allows sharing of this printer.</p> <ol style="list-style-type: none"> 7. Click OK. 8. In the Printer Ports dialog box, click the Close button to return to the Add Printer Wizard. 9. Click Next and continue with Step 10 below.

10. In the **Manufacturers/Printers** dialog box, click **Have Disk**.

11. Type in the drive for the CD-ROM or diskette, and click **OK**.

12. Select your printer, and click **Next**:
 - **Tektronix Phaser 380** (standard printer configuration)
 - **Tektronix Phaser 380 Extended** (Extended Features option)

If you are not sure which version of the printer you have, check the printer's Startup Page for **Extended Features: Yes** or **No**.

13. Enter a name for the printer, and select the Phaser 380 as the default printer if desired, and click **Next**.
14. Decide if you want to share the printer, **Shared** or **Not shared**, and click **Next**.

If you are installing drivers for platforms other than Windows NT 4.0, for example Windows 95, a message appears during the installation procedure asking for the location of printer files. If you see this message, at the prompt, type in the CD-ROM drive followed by `\PPDS95NT.DVR`, and click **OK**. Files are copied to your hard disk.

If you are installing drivers for Windows NT 3.51 for platforms other than i386, click **Browse** to locate the appropriate subdirectory under `\PPDS95NT.DVR\WINNT351` on the printer's CD-ROM.

15. Decide if you want to print a test page, **Yes** or **No**, and click **Finish**.
16. In the **Installation Completed** dialog box, click **Finish**.
17. You may see a **Restart Windows** dialog box if the system needs to update some files. Decide if you want to restart now or later, and click **OK**.

Installing printer software for Windows NT 3.51

If you are installing software from floppy diskettes, you may need more than one diskette depending on your Windows system. Keep all printer diskettes handy during the installation, and insert each diskette when you are prompted by the installation program.

Note *If you are going to be using a printer on a network, refer to your Windows NT manual for instructions on installing network software (either **Services for Macintosh** (AppleTalk) or **TCP/IP print services** (for TCP/IP; lpr print services)).*

1. Insert either the printer's CD-ROM or the Phaser 380 Color Printer Installer for Windows Disk 1 into the appropriate drive on your computer.
2. From the **File** menu, select **Run**.
3. Type in the drive for the CD-ROM or diskette, type **SETUP**, and click **OK**.
4. Click **Next** in the two introduction screens in the *Installer*.
5. In the **Select Installation Type** dialog box, select either **Easy Installation** or **Custom Installation**, and click **Next**.

Easy Install	Custom Install
<p>The following files are copied to your hard disk:</p> <ul style="list-style-type: none"> ■ QuarkXPress PDF (installs an application-specific printer description file, if the application is found) ■ PhaserPrint Plug-in for Photoshop (installs an application-specific plug-in, if the application is found) ■ Samplers (installs color sampler charts and a fonts sampler) 	<ol style="list-style-type: none"> 1. In the Driver Installation dialog box, select from the following options: <ul style="list-style-type: none"> ■ Drivers/PPDs (installs driver files and printer description files) ■ QuarkXPress PDF (installs an application-specific printer description file, if the application is found) ■ PhaserPrint Plug-in for Photoshop (installs an application-specific plug-in, if the application is found) 2. Click Next. 3. In the Custom Install: Select Utilities dialog box, select from the following options: <ul style="list-style-type: none"> ■ Printer Utilities (installs utility files for selecting printer features) ■ Network Utilities (installs utility files for using the printer on a network) ■ Samplers (installs color sampler charts and a fonts sampler) <i>Use the default Destination Directory or click Browse.</i> 4. Click Next. 5. Files are copied to your hard disk.

6. The **Finish Installation** dialog box contains instructions for completing the printer software setup; click **Next**. The **Print Manager** opens automatically.

Note *The setup instructions remain visible while the Print Manager is running. If you click on the Instruction's dialog box, press the <Alt><Tab> keys to see the Print Manager again.*

7. From the **Printer** menu, select **Create Printer**.

8. In the **Create Printer** dialog box, under **Driver**, select **Other**; the **Install Driver** dialog box appears.
9. Type in the drive for the printer's CD-ROM or diskette, for example **D:** and click **OK**.
10. In the **Select Driver** dialog box, under **Printer Driver**, select your Phaser 380 printer, and click **OK**:
 - **Tektronix Phaser 380 Extended** (Extended Features option)
 - **Tektronix Phaser 380** (standard printer configuration)

If you are not sure which version of the printer you have, check the printer's startup page for **Extended Features: Yes** or **No**.

11. In the **Create Printer** dialog box, select a local printer port, or follow the instructions below for a network port:

LPR port (for TCP/IP) setup instructions	AppleTalk port setup instructions
<ol style="list-style-type: none"> 1. In the Print Destinations dialog box, under Available Print Monitors, select LPR Port and click OK; the Add LPR compatible printer dialog box appears. 2. For Name or address of server providing lpd, type your printer's IP address (or Host name if known to the network). <p>Note: The printer's IP address may be available on the printer's Configuration Page. If not, ask your network administrator.</p> <ol style="list-style-type: none"> 3. For Name of printer or print queue on that server, type in one of the following (use uppercase letters): <ul style="list-style-type: none"> ■ PS or PostScript ■ AUTO for automatic selection 4. Click OK. 5. Continue with the instructions in Step 12. 	<ol style="list-style-type: none"> 1. In the Print Destinations dialog box, under Available Print Monitors, select AppleTalk Printing Devices. 2. Click OK. 3. In the Available AppleTalk Printing Devices dialog box, double-click on the appropriate zone (if there are multiple AppleTalk zones). 4. Select your Tektronix printer and click OK. 5. At the prompt: Do you want to capture this AppleTalk Printing Device?, click No. <p>Note: Clicking Yes hides the printer from regular Macintosh users, forcing them to use NT Server as a spooler, as long as NT Server allows sharing of this printer.</p> <ol style="list-style-type: none"> 6. In the Printer Properties dialog box, click OK. 7. Continue with the instructions in Step 12.

12. Select options in the **PostScript Printer Setup** dialog box, and click **OK**.

Note: Enabling the **Use Printer Halftoning** option is recommended.

13. In the **Print Manager**, from the **Printer** menu, select **Exit**.
14. In the **Installation Completed** dialog box, click **Finish**.

Installing printer software for Windows 3.1

If you are installing software from floppy diskettes, you may need more than one diskette depending on your Windows system. Keep all printer diskettes handy during the installation, and insert each diskette when you are prompted by the installation program.

1. Insert either the printer's CD-ROM or the Phaser 380 Color Printer Installer for Windows Disk 1 into the appropriate drive on your computer.
2. From the **File** menu, select **Run**.
3. Type in the drive for the CD-ROM or diskette, type **SETUP**, and click **OK**.
4. Click **Next** in the two introduction screens in the *Installer*.
5. In the **Select Installation Type** dialog box, select either **Easy Installation** or **Custom Installation**, and click **Next**.

Easy Installation

The following files are copied to your hard disk:

- **Tektronix Printer Driver**
- **QuarkXPress PDF**
(installs an application-specific printer description file, if the application is found)
- **Samplers**
(installs color sampler charts and a fonts sampler)

Custom Installation

1. In the **Driver Installation** dialog box, select from the following options:

- **Drivers/PPDs**
(installs driver files and printer description files)
- **QuarkXPress PDF**
(installs an application-specific printer description file, if the application is found)

2. Click **Next**.

3. If you selected **Drivers/PPDs** in the previous window, the **Custom Install: Select Drivers** dialog box appears. Select one of the following drivers and click **Next**:

- **Adobe Printer Driver for Windows 3.1**
- **Tektronix Printer Driver for Windows 3.1**

***Note:** The Tektronix Printer Driver for Windows 3.1 must be installed in the Windows directory (default Destination Directory). Do not change the Destination Directory when installing the Tektronix driver unless you are installing the driver on a network and you know the location of the Windows directory on the network drive.*

4. In the **Custom Install: Select Utilities** dialog box, select from the following options:

- **Printer Utilities**
(installs utility files for selecting printer features)
- **Network Utilities**
(installs utility files for using the printer on a network)
- **Samplers**
(installs color sampler charts and a fonts sampler)

*Use the default Destination Directory or click **Browse**.*

5. Click **Next**.

6. Files are copied to your hard disk.

6. Select your printer type and click **Next**:
 - **Tektronix Phaser 380 Base version** (printer's standard configuration)
 - **Tektronix Phaser 380 Extended version** (Extended Features option)

If you are not sure which version of the printer you have, check the printer's Startup Page for **Extended Features: Yes** or **No**.

7. The **Finish Installation** dialog box contains instructions for completing the printer software setup; click **Next**.
8. In the **Installation Completed** dialog box, click **Finish**.
9. Continue with the setup instructions depending on the driver you selected in the installer.

**Tektronix Driver for Windows 3.1:
Setup instructions**

If you selected **Easy Installation**, or if you selected the **Tektronix Driver for Windows 3.1** in the **Custom Installation**, continue with the following instructions:

1. Open the Windows **Control Panel**.
2. Open the **Printers** dialog box.
3. Under **Installed Printers**, select your Phaser 380 printer, click **Connect**:
 - **Phaser 380 (TekColor) Ext**
(Extended Features option)
 - **Phaser 380 (TekColor)**
(standard printer configuration)
4. Select the printer's port, click **OK**.

**AdobePS 3 Driver for Windows 3.1:
Setup instructions**

If you selected the **AdobePS 3 Driver for Windows 3.1** in the **Custom Installation**, continue with the following instructions:

1. In the Adobe installer, click **Read** or **Skip** in the **README.WRI** dialog box to start the installation.
 2. Click **Continue** in the **PostScript Printer Driver Setup** dialog box. Files are copied to your computer.
 3. Click the **Restart Windows** button in the dialog box that appears.
 4. After Windows restarts, the **Install PostScript Printer from PPD** dialog box opens. Select your printer in the list and click **Install**:
 - **Tektronix Phaser 380 Extended**
(Extended Features option)
 - **Tektronix Phaser 380**
(standard printer configuration)
 5. Click **OK** in the next dialog box.
 6. Click **Close** in the **Install PostScript Printer from PPD** dialog box.
 7. Click **OK** in the information dialog box.
 8. In the **Control Panel**, double-click **Printers**.
 9. In the **Printers** dialog box, select the printer you just installed, and click **Connect**.
 10. In the **Connect** dialog box, select the port the printer is connected to, and click **OK**.
-

Macintosh software

Installer overview

The Phaser 380 printer's CD-ROM and diskettes include an installer application that automatically installs the printer's software onto your Macintosh hard disk. You can select a standard installation (Easy Install), or select individual items (Custom Install) from the CD-ROM or diskettes.

Note *ATM software is available on a separate CD-ROM included with the printer's Extended Features option. See "Font upgrade" on page 8-6 for more information on fonts.*

Deciding which driver to install

Step 1: Select a driver	Step 2: Install/setup the driver	Step 3: Use the driver
Phaser 380 Driver (based on the LaserWriter 7.1.2 driver) <ul style="list-style-type: none"> ■ Use this driver if you are printing large files and you want to disable the background printing feature for better performance. 	see page 2-48	see page 3-18
Apple LaserWriter 8.3.4 (recommended) <ul style="list-style-type: none"> ■ Use this driver if you prefer Apple's PostScript driver. ■ Use this driver with applications such as PageMaker. 	see page 2-48	see page 3-18
Phaser 380 GX Driver <ul style="list-style-type: none"> ■ Use this driver with QuickDraw GX. 	see page 2-50	see page 3-19

Using the Macintosh Installer

1. Insert either the Phaser 380 Color Printer Installer for Mac OS Disk 1 or CD-ROM into the appropriate drive on your computer.
2. Double-click the **Phaser 380 Installer** icon. Click **Continue** until the **Easy Install** window appears.
3. Select **Easy Install** or **Custom Install**:

Easy Install	Custom Install
1. Click Install to install the items listed in the Easy Install window.	1. Select Custom Install from the pull-down menu.
2. For details on each item, click Read Me .	2. Select individual items to install.
	3. Click the I buttons for information on each item.
	4. Click Install to install the selected items.

4. Continue with driver setup instructions depending on the driver you are using.

Installer options	Software	Installed location
Custom Install	Easy Install	
	Phaser 380 Driver	<i>System Folder: Extensions</i>
	Phaser 380 GX Driver	<i>System Folder: Extensions</i>
	LaserWriter 8.3.4 Driver	<i>System Folder: Extensions</i>
	Printer Descriptions	<i>System Folder: Extensions: Printer Descriptions</i>
	ColorSync Profile	<i>System Folder: Preferences: ColorSync™ Profiles</i>
	Samplers (Color sampler charts and a fonts sampler)	<i>PhaserTools: Samplers</i>
	QuarkXPress PDF File	<i>QuarkXPress application folder: PDF folder</i>
	PhaserPrint Plug-in for Photoshop	<i>Photoshop application folder</i>
	Pantone Files*	<i>PhaserTools: Pantone Files</i>
	Screen Fonts	<i>Standard: System Folder: Fonts</i> <i>Extended Features option: Install ATM software from a separate CD-ROM.</i>
	Printer Utilities	<i>PhaserTools: Printer Utilities</i>
Network Utilities*	<i>PhaserTools: Network Utilities</i>	

* These files are available with the Custom Install options on the printer's CD-ROM only.

Setting up the Phaser 380 printer driver

The Phaser 380 printer driver is a Tektronix-modified version of Apple's LaserWriter 7.1.2 printer driver. Use the Phaser 380 printer driver if you are using System Software 6.0.7, or 7.0 and later.

1. Install the printer's software as described on page 2-47. Choose **Easy Install** to install all of the necessary software, or select **Phaser 380 Driver** in the **Custom Install** window.
2. Select **Chooser** from the **Apple** menu.
3. Click on the **Phaser 380** printer driver icon on the left side of the **Chooser**. A list appears with the printers you have connected to your Macintosh or printers that are available on a network. (If the printer driver icon does not appear, check the cable connections on your computer and printer.)
4. Click on the **Zone** your printer is in. See your network administrator if you have questions.
5. Click on your Phaser 380 printer in the list of printers on the right side of the **Chooser**.

Close the **Chooser** by clicking its close box.

Setting up the Apple LaserWriter 8.3.4 driver

The LaserWriter 8.3.4 driver uses printer-specific PPDs (PostScript Printer Description files) to learn a printer's page sizes, printing options, and media type options. To use the LaserWriter 8.3.4 driver with a Phaser 380 printer, do the following steps. 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 8.3.4 driver leaves other versions of the LaserWriter driver (such as 7.x and 6.x) intact, but overwrites an earlier version of the LaserWriter 8 driver, if one exists.*

1. Install the printer's software as described on page 2-47. Select **Easy Install** to automatically install all of the necessary software, or select **LaserWriter 8.3.4 Driver** and **Printer Descriptions** in the **Custom Install** window.
 2. Open the **Chooser**.
 3. Select the **LaserWriter 8** driver icon.
 4. Click on the **Zone** your printer is in. See your network administrator if you have questions.
 5. Select your printer from the list.
 6. Still in the **Chooser**, click the **Setup** button to see a list of options.
 7. A dialog box opens showing the PPD files you have installed in the *Printer Descriptions* folder, in the *Extensions* folder, inside your *System Folder*. Click one of the following PPDs and click **Select**:
 - Use *TKPH3801.PPD* with the standard version of the printer.
 - Use *TKP380P1.PPD* with the printer's Extended Features option.
- Note** *If you are not sure which configuration of the printer you have, the printer's Startup Page lists this information under **Extended Features: Yes/No**. See page 2-30 for instructions on printing a copy of the printer's Startup Page.*
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 the Phaser 380 GX driver

If you are using Apple Macintosh QuickDraw GX and System Software 7.5 or later, use the Phaser 380 GX driver to print to your Phaser 380 printer.

- The Phaser 380 GX driver works with QuickDraw GX and non-QuickDraw GX applications.
- QuickDraw GX does not work with non-QuickDraw GX printer drivers. If you want to print from non-QuickDraw GX applications with a driver such as the LaserWriter 8.3.4, you must first disable QuickDraw GX.

Note Refer to the on-line manual on the printer's CD-ROM for details on using the Phaser 380 GX driver.

1. Install the printer's software as described on page 2-47. Select **Easy Install** to automatically install all of the necessary software, or select **Phaser 380 GX Driver** in the **Custom Install** window.
2. Select **Chooser** from the **Apple** menu.
3. Click the **Phaser 380 GX** printer driver icon on the left side of the **Chooser**. A list appears with the printers available on your network. (If the printer driver icon does not appear, **Restart** your Macintosh, and repeat the printer driver installation procedure; also, check the cable connections on your computer and printer.)
4. Click on the **Zone** your printer is in. See your network administrator if you have questions.

5. In the **Connect via** field's pop-up menu, select your printer's communication method:
 - The **AppleTalk** option is the standard network connection.
 - The **Servers** option is used to select a shared desktop printer.
6. Click on your Phaser 380 printer in the list of printers on the right side of the **Chooser**.
7. Click the **Create** button to create a desktop printer. An icon of the printer appears on the desktop with the same name as the printer selected in the **Chooser**.
8. Close the **Chooser** by clicking its close box.

Workstation software

PhaserPrint™ software for UNIX

For UNIX environments, Tektronix offers the optional PhaserPrint™ software. PhaserPrint software includes driver-selectable printer options, and provides fast, raster file and screen copy printing to Tektronix color printers. The printer's CD-ROM contains a demonstration copy of the PhaserPrint software, and an on-line instruction guide, in the *UNIXDEMO* directory. To purchase a licensed copy of PhaserPrint software, see page 8-9 for instructions.

Downloadable printer utility files

Note Refer to the on-line manuals on the printer's CD-ROM for more information on printing from a workstation.

If you do not have a licensed copy of PhaserPrint software, you can use the PostScript utility files on the Phaser 380 printer's CD-ROM with UNIX and VMS workstations. These files let you set up your spooling system to select between media trays, print-quality modes, color correction modes, etc. UNIX workstation users can access utility files in the following ways:

- Copy the files from the Tektronix Phaser 380 printer's CD-ROM if your system includes a CD-ROM drive. Workstation-specific files are located in the *bin* directory.
- Copy the files from the printer's diskettes. Workstation files are available in both Macintosh and PC format.
- Access Tektronix via the Internet:
 - http://www.tek.com/Color_Printers/support Home page
 - <ftp://ftp.tek.com/cpid/bbs/<platform>/380> Utility files
(where *<platform>* is pcs, macintosh, or unix)

Download utility files from the Tektronix Bulletin Board Service (BBS); refer to the printer's CD-ROM for information.

Printing Basics

Overview

You can print to your printer from IBM-compatible personal computers, Macintosh computers, and workstations.

Make sure your printer is set up with the appropriate interface port; refer to "Connecting the printer" on page 2-20.

If you haven't already installed the printer's software, refer to "PC/Windows software" on page 2-31 or "Macintosh software" on page 2-46 for instructions before continuing.

Refer to the following topics for specific information:

- "Printing from a PC" on page 3-2
- "Printing from a Macintosh" on page 3-16
- "Printing from a workstation" on page 3-20

Printing from a PC

You can print from a PC with or without a printer driver. The supported drivers allow you to select printing features right from your computer. Without a supported driver, you can make some printing selections from the printer's front panel.

Using Windows printer drivers

To select printer-specific features, print from one of the following provided drivers. See page 3-3 for a reference table listing the printing features, and how to find them quickly, in each of these drivers.

Windows 95 (AdobePS 4 driver)	see page 3-4
Windows 95 (Microsoft PostScript driver)	see page 3-4
Windows 3.1 (Tektronix-modified Microsoft driver)	see page 3-6
Windows 3.1 (AdobePS 3 driver)	see page 3-10
Windows NT 3.51 (Microsoft PostScript driver)	see page 3-12
Windows NT 4.0 (Microsoft PostScript driver)	see page 3-12

Using the printer's front panel

Refer to "Front panel overview" on page 7-1 for instructions on using the printer's front panel.

Print features quick reference: Windows printer drivers

Feature	Windows 3.1 drivers		Windows 95 drivers	Windows NT 4.0 driver
	AdobePS 3 PostScript	Tektronix driver	Microsoft PostScript AdobePS 4 PostScript	
Print-quality modes <input type="checkbox"/> Fast Color <input type="checkbox"/> Standard <input type="checkbox"/> Enhanced (600 x 300)*	Features tab ↳ Print Quality	Printers ↳ Setup ↳ Options ↳ Printer Features ↳ Print Quality	Properties ↳ Device Options tab ↳ Printer features ↳ Print Quality	Print ↳ Properties ↳ Advanced tab ↳ Printer features ↳ Print Quality
Color correction <input type="checkbox"/> None <input type="checkbox"/> Vivid Color (default) <input type="checkbox"/> Simulate Display <input type="checkbox"/> SWOP Press <input type="checkbox"/> Euroscale Press <input type="checkbox"/> Commercial Press <input type="checkbox"/> SNAP Press <input type="checkbox"/> Toyo <input type="checkbox"/> DIC <input type="checkbox"/> FujiProof <input type="checkbox"/> Monochrome <input type="checkbox"/> Use Printer Setting	Features tab ↳ Color Correction	Printers ↳ Setup ↳ Options ↳ Printer Features ↳ Color Correction	Properties ↳ Device Options tab ↳ Printer features ↳ Color Correction	Print ↳ Properties ↳ Advanced tab ↳ Printer features ↳ Color Correction
Media size <input type="checkbox"/> Executive <input type="checkbox"/> Letter <input type="checkbox"/> Legal <input type="checkbox"/> Tabloid <input type="checkbox"/> A3, A4, A5 <input type="checkbox"/> Tabloid Extra <input type="checkbox"/> Personal Env. <input type="checkbox"/> #10 Envelope <input type="checkbox"/> ISO B4/B5/B6 <input type="checkbox"/> C6 Envelope <input type="checkbox"/> DL Envelope <input type="checkbox"/> Custom	Paper tab ↳ Paper Size	Printers ↳ Setup ↳ Paper Size	Properties ↳ Paper tab ↳ Paper Size	Print ↳ Properties ↳ Advanced tab ↳ Paper/output ↳ Paper Size
Media trays <input type="checkbox"/> Upper <input type="checkbox"/> Lower <input type="checkbox"/> Paper <input type="checkbox"/> Transparency <input type="checkbox"/> Manual Paper <input type="checkbox"/> Manual Transparency	Paper tab ↳ Paper Source	Printers ↳ Setup ↳ Paper Source	Properties ↳ Paper tab ↳ Paper Source	Print ↳ Properties ↳ Advanced tab ↳ Paper/output ↳ Paper Source
Quick Collate* <input type="checkbox"/> On <input type="checkbox"/> Off	Features tab ↳ Quick Collate	Printers ↳ Setup ↳ Options ↳ Printer Features ↳ Quick Collate	Properties ↳ Device Options tab ↳ Printer features ↳ Quick Collate	Print ↳ Properties ↳ Advanced tab ↳ Printer features ↳ Quick Collate
Check Print* <input type="checkbox"/> On <input type="checkbox"/> Off	Features tab ↳ Check Print	Printers ↳ Setup ↳ Options ↳ Printer Features ↳ Check Print	Properties ↳ Device Options tab ↳ Printer features ↳ Check Print	Print ↳ Properties ↳ Advanced tab ↳ Printer features ↳ Check Print
Image Smoothing <input type="checkbox"/> On <input type="checkbox"/> Off	Features tab ↳ Image Smoothing	Printers ↳ Setup ↳ Options ↳ Printer Features ↳ Image Smoothing	Properties ↳ Device Options tab ↳ Printer features ↳ Image Smoothing	Print ↳ Properties ↳ Advanced tab ↳ Printer features ↳ Image Smoothing
Color Control Strip <input type="checkbox"/> On <input type="checkbox"/> Off	Features tab ↳ Color Control Strip	Printers ↳ Setup ↳ Options ↳ Printer Features ↳ Color Control Strip	Properties ↳ Device Options tab ↳ Printer features ↳ Color Control Strip	Print ↳ Properties ↳ Advanced tab ↳ Printer features ↳ Color Control Strip

* These features are available with the printer's Extended Features option only.

Using the AdobePS 4 and Microsoft drivers with Windows 95

To select printing options, follow these steps:

1. From the taskbar, select **Start**. In the menu that appears, select **Settings**, then **Printers**.
2. In the **Printers** window, click the **Phaser 380** printer icon with the right mouse button, then select **Properties** from the menu.
3. Click the following tabs to see printing options; refer to your Windows 95 documentation for more information on tabs and options.
 - Click the **Details** tab to access timeout settings and other options.
 - Set the **Timeout settings** if your printer is connected to a local port.

Not Selected: Type a value in this text box to change the number of seconds Windows waits before notifying you that a printer is off-line. The default is **15** seconds, and is recommended.

Transmission Retry: On large or multiple-page documents you may see an Alert message that the printer is no longer accepting data before the job is completely sent to the printer. To avoid these unnecessary timeouts, set this option to a larger value, such as **900 seconds** (15 minutes). Type a value between **45** and **999** in this text box; the Windows default setting is **45** seconds.

- Click the **Paper** tab to see media options, such as media sizes, media trays, and media types.
- Click the **Graphics** tab to see graphics options.

Note *To change the print quality modes (dpi settings), use the **Print Quality** selections in the **Device Options** tab. These **Print Quality** selections override the **Resolution Options** in the **Graphics** tab.*

Note *If you are using host color correction, you need to make selections in the **Graphics** and **Device Options** tabs. Refer to the on-line manuals on the printer's CD-ROM for more information on host color correction.*

- Click the **Device Options** tab to see printer-specific options.
 - Select **Printer Features**, such as **Color Corrections**.
 - Select **Installable Options**, such as the **Optional Lower Tray**.
- Click the **PostScript** tab to see PostScript-related options.
 - The PostScript header contains important PostScript information that must accompany each print job; it is not a banner page printed with each job. If an option is not selected, an error message is displayed on your computer screen and your job does not print. Click one of the following in the **PostScript header** field:

Select **Download header with each print job**. This option downloads PostScript header information with each print job. This is the recommended setting.

Click the **Send Header Now** button to save the PostScript header information in the printer, then select the **Assume header is downloaded and retained** option. This option makes print files a little smaller and faster than the first option, but you need to click the **Send Header Now** button every time the printer is turned on.

- Click the **Advanced** button to see more options. Select **Use PostScript Level 2 features**. Click **OK** when finished.

Note *For faster printing, select **Binary communications protocol** under **Data format**.*

Using the Tektronix driver for Windows 3.1

To select printing options, follow these steps:

1. From the **Control Panel**, double-click the **Printers** icon.
2. In the **Printers** dialog box, choose your printer from the list of installed printers.
3. Click the **Set As Default Printer** button if you want to select your printer as the default.
4. Click the **Connect** button; the **Connect** dialog box appears.
5. Select the port your printer is connected to.

The printer's configuration page contains the information you need to set up the printer's port. Refer to "Printing Help Pages from the front panel" on page 2-30 for instructions on printing a Configuration Page.

Interface	Select	Then do the following
Parallel	LPTx	Go to Step 6.
Serial	COMx	Go to Step 6.
Network	Network port (LPTx or COMx)	<ol style="list-style-type: none"> 1. Click the Network button to open the Printers-Network Connections dialog box. 2. Fill in each item based on your configuration, then click OK. <p>Refer to your Microsoft Windows documentation for details, or ask your network administrator for help.</p>

Note *You can use **CONNECT TO FILE** to save a document as a PostScript file instead of sending it to the printer. For more information, see your Microsoft Windows documentation.*

6. Set the **Timeouts**. These options regulate your computer's communications with its printer ports.
 - **Device Not Selected:** Type a value in this text box to change the number of seconds Windows waits before notifying you that a printer is off-line. The default is 15 seconds, and is recommended.
 - **Transmission Retry:** On large or multiple-page documents you may see an Alert message that the printer is no longer accepting data before the job is completely downloaded to the printer. To avoid these unnecessary timeouts, set this option to a larger value, such as **850 seconds** (14 minutes, 10 seconds). Type a value between 45 and 850 in this text box; the Windows default setting is 45 seconds.
7. Click **OK** to return to the **Printers** dialog box, then click the **Setup** button. A dialog box appears with the name of the printer you selected across the top. Use this dialog box to select paper source, paper size, number of copies, and image orientation.

Note *You may want to set the number of copies from your application because the number of copies in the Setup dialog box remains the same until you change it again. Also, if you are printing multiple copies, make sure the Transmission Retry is set for **at least** 600 seconds (10 minutes).*

8. From the **Setup** dialog box, click the **Options** button to see the **Options** dialog box. Refer to your Microsoft Windows documentation for details on the options in this dialog box. Make sure the **Color** check box is **on** to print in color. Select one of the following header options:
 - Make sure the **Send Header with Each Job** check box is **on** to download PostScript header information with each print job. This is the recommended setting.
 - Click the **Send Header** button. In the **Send Header** dialog box, select either **Printer** or **File**, and click the **Send Now** button. This saves the PostScript header information in the printer. This option makes print files a little smaller and faster, but you need to click the **Send Now** button every time the printer is turned on.

9. From the **Options** dialog box, click the **Printer Features** button to see the **Tektronix Printer Features** dialog box. Make color correction and print quality selections in this dialog box. Click **OK** to return to the **Options** dialog box.
10. From the **Options** dialog box, click the **Advanced** button to see the **Advanced Options** dialog box. Make sure the **Use PostScript Level 2 Features** check box is checked *on*.

Note *The **Use PostScript Level 2 Features** option affects the print time of bitmapped (raster) images by improving the image transfer time from the computer to the printer, and by improving the image processing time in the printer. This option is only available to applications that use this Tektronix driver with Tektronix PostScript Level 2 printers, such as the Phaser 380 printer. When this box is checked, the **Compress Bitmaps** option is unavailable (grayed-out).*

11. Click **OK** until you return to the **Printers** dialog box, then click **Close**.

If you are using PC/NFS

If you have PC/NFS software installed on your computer, you need to make the following selection in the **Network Options** dialog box:

1. From the **Main** window, double-click the **Print Manager** icon.
2. From the **Options** menu in the **Print Manager**, select **Network Settings**.
3. In the **Network Options** dialog box, uncheck the **Print Net Jobs Direct** box.
4. Click **OK**.

Using the Adobe PostScript driver for Windows 3.1

To select printing options, follow these steps:

1. From the **Control Panel**, double-click **Printers**.
2. In the **Printers** dialog box, select the **Tektronix Phaser 380** printer, then click **Setup**. A dialog box appears with the printer's name across the top.
3. Click the following tabs to see printing options; refer to your Windows documentation for more information on tabs and options.
 - Click the **Paper** tab to see media options, such as media sizes, media trays, and media types.
 - Click the **Features** tab to see printer-specific options, such as color corrections.

- Set the **Timeout settings**.

Not Selected: Type a value in this text box to change the number of seconds Windows waits before notifying you that a printer is off-line. The default is **15 seconds**, and is recommended.

Transmission Retry: On large or multiple-page documents you may see an Alert message that the printer is no longer accepting data before the job is completely sent to the printer. To avoid these unnecessary timeouts, set this option to a larger value, such as **900 seconds** (15 minutes). Type a value between **45** and **999** in this text box; the Windows default setting is **45 seconds**.

- Click the **PostScript** tab to see PostScript-related options.
 - In the **Performance Options** field, select the **Use PostScript Level 2 Features** option.

- Click the **Job Control** tab to see job-related options.
 - The PostScript header contains important PostScript information that must accompany each print job; it is not a banner page printed with each job. If an option is not selected, an error message is displayed on your computer screen and your job does not print. Click one of the following in the **PostScript Header** field:
 - Select **Download Each Job**. This option downloads PostScript header information with each print job, and is the recommended setting.
 - Select the **Already Downloaded** option to save the PostScript header information in the printer, then click the **Download** button. This option makes print files a little smaller and faster than the first option, but you need to click the **Download** button every time the printer is turned off or reset.
 - For better performance, select the **Binary Mode** option.

Using the Windows NT 3.51 PostScript driver

If you are using Microsoft Windows NT, follow the instructions in “Installing printer software for Windows NT 3.51” on page 2-38 to install a Windows NT PostScript driver with a Phaser 380 printer. You can select printer page sizes in the driver for Windows NT applications, however, TekColor color corrections and other PostScript Level 2 features are not supported by the Windows NT driver. Refer to page 3-24 for instructions on selecting color corrections from the printer’s front panel or from downloadable utility files. Refer to your Microsoft Windows NT documentation for details on features in the Windows NT driver.

Using the Windows NT 4.0 PostScript driver

Setting up installed options

Note *If you are not sure which printer options you have installed, the printer’s Startup Page lists some of this information, such as SCSI hard disks. You can print a copy of the Startup Page from the printer’s front panel.*

1. From the **Properties** dialog box, click the **Device Settings** tab.
2. In the **Device Setting** sheet, scroll to the end of the list to **Installable Options**.
3. Under **Installable Options**, highlight **Optional Lower Tray**.
4. In the box that appears at the bottom of the window, click **Installed**.
5. Select other options you have installed.
6. Click **OK** to return to the **Control Panel**.

Making default settings

1. From the **Properties** dialog box, click the **Device Settings** tab.
2. In the **Device Settings** sheet, locate **Form To Tray Assignment**.
3. Under **Form To Tray Assignment**, highlight the first tray.
4. In the box that appears at the bottom of the window, select the size media you will be using in that tray.
5. Repeat Steps 3 and 4 for each installed tray.
6. Click **OK** to return to the **Control Panel**.

Selecting a printer's Default Document Properties

Note *Document properties set from an application always override document defaults set in the printer's **Document Properties** sheets. However, if an application does not set a document property (such as page orientation or paper size), the printer defaults to the document properties set in the printer's **Document Properties** sheets.*

1. From the Control Panel, open the **Printers** folder.
2. With the right mouse button, click on the printer's icon.
3. With the left mouse button, click on **Document Defaults**.
4. Click the **Advanced** tab to change any printer features, including TekColor color corrections.
5. Click the **Page Setup** tab to see other features.

Selecting printer options within an application: **Print**

1. From the **File** menu, select **Print**; the **Print** dialog box appears. You can select a different printer and other settings in this dialog box.
2. Click on the **Properties** button; the **Printer Document Properties** sheet appears.
3. Click the **Advanced** tab to change any printer features, including TekColor color corrections. This tab displays the same information as the **Document Defaults Properties Advanced** tab.
4. Click the **Page Setup** tab to see other features. This tab displays the same information as the **Document Defaults Properties Page Setup** tab.

Note *Changes to any of these settings overrides the **Default Printer Properties** settings in the **Printers** folder.*

Selecting printer options within an application: **Page Setup**

Note *If changing the Printer Driver settings through Page Setup causes problems with the application you are using, then change the Printer Driver settings through **Print** under the **File** menu, described on page 3-14.*

1. Select **Page Setup** from the **File** menu; the **Page Setup** dialog box appears.
2. Select **Paper Size** and **Source**.

Note *Selecting **Printer Folder Setting** as the **Paper Source** uses the default setting made under **Document Defaults** in the **Printers** folder. To change this setting, select a different **Source** in **Page Setup**.*

3. Click the **Printer** button; another **Page Setup** dialog box appears. You can select a different printer here.
4. Click the **Properties** button; the **Printer Document Properties** sheet appears.
5. Click the **Advanced** tab to change any printer features, including TekColor. This tab displays the same information as the **Document Defaults Properties Advanced** tab.
6. Click the **Page Setup** tab to see other features. This tab displays the same information as the **Document Defaults Properties Page Setup** tab.

Note *Changes to any of these settings overrides the Default Printer Properties settings in the Printers folder.*

Printing from DOS

Refer to the on-line manuals on the printer's CD-ROM for information on printing from DOS.

Printing from a Macintosh

To print from a Macintosh, you need a printer driver. Installing one of the supported drivers allows you to select printing features right from your computer. Without a supported driver, you can make some printing selections from the printer's front panel.

Using Macintosh printer drivers

To select printer-specific features, print from one of the following provided drivers. See page 3-17 for a reference table listing the printing features, and how to find them quickly, in each of these drivers.

Phaser 380	see page 3-18
Apple LaserWriter 8.3.4	see page 3-18
Phaser 380 GX	see page 3-19

Using the printer's front panel

Refer to "Front panel overview" on page 7-1 for instructions on using the printer's front panel.

Print features quick reference: Macintosh printer drivers

Feature	Phaser 380 driver	Apple LaserWriter 8.3.4 driver	Phaser 380 GX driver
Print-quality modes <ul style="list-style-type: none"> ■ Fast Color ■ Standard ■ Enhanced (600x300)* 	Print <ul style="list-style-type: none"> ↳ TekColor ↳ Print Quality 	Print <ul style="list-style-type: none"> ↳ Options ↳ Print Quality 	Printing <ul style="list-style-type: none"> ↳ Printer Driver Defaults ↳ Print Quality
Color correction <ul style="list-style-type: none"> ■ None ■ Vivid Color ■ Simulate Display ■ SWOP Press ■ SNAP Press ■ Euroscale Press ■ Commercial Press ■ Toyo ■ DIC ■ FujiProof ■ Monochrome ■ Use Printer Setting 	Print <ul style="list-style-type: none"> ↳ TekColor ↳ Color Correction 	Print <ul style="list-style-type: none"> ↳ Options ↳ Color Correction 	Printing <ul style="list-style-type: none"> ↳ Printer Driver Defaults ↳ Color Correction
Media size <ul style="list-style-type: none"> ■ Executive ■ Letter ■ Legal ■ Tabloid ■ A3, A4, A5 ■ Tabloid Maximum ■ Personal Env. ■ #10 Envelope ■ ISO B4/B5/B6 ■ C6 Envelope ■ DL Envelope ■ Custom** 	Page Setup <ul style="list-style-type: none"> ↳ Paper 	Page Setup <ul style="list-style-type: none"> ↳ Paper 	Page Setup <ul style="list-style-type: none"> ↳ Paper
Media tray selection <ul style="list-style-type: none"> ■ Upper ■ Lower ■ Paper ■ Transparency ■ Manual Paper ■ Manual Transparency 	Print <ul style="list-style-type: none"> ↳ TekColor Options ↳ Tray Selection 	Print <ul style="list-style-type: none"> ↳ Paper Source ↳ Tray Selection 	Printing <ul style="list-style-type: none"> ↳ Printer Driver Defaults ↳ Tray Selection
Quick Collate* <ul style="list-style-type: none"> ■ On ■ Off 	Print <ul style="list-style-type: none"> ↳ TekColor ↳ Quick Collate 	Print <ul style="list-style-type: none"> ↳ Options ↳ Quick Collate 	Printing <ul style="list-style-type: none"> ↳ Printer Driver Defaults ↳ Quick Collate
Check Print* <ul style="list-style-type: none"> ■ On ■ Off 	Print <ul style="list-style-type: none"> ↳ TekColor ↳ Check Print 	Print <ul style="list-style-type: none"> ↳ Options ↳ Check Print 	Printing <ul style="list-style-type: none"> ↳ Printer Driver Defaults ↳ Check Print
Image Smoothing <ul style="list-style-type: none"> ■ On ■ Off 	Print <ul style="list-style-type: none"> ↳ TekColor ↳ Image Smoothing 	Print <ul style="list-style-type: none"> ↳ Options ↳ Image Smoothing 	Printing <ul style="list-style-type: none"> ↳ Printer Driver Defaults ↳ Image Smoothing
Color Control Strip <ul style="list-style-type: none"> ■ On ■ Off 	Print <ul style="list-style-type: none"> ↳ TekColor ↳ Color Control Strip 	Print <ul style="list-style-type: none"> ↳ Options ↳ Color Control Strip 	Printing <ul style="list-style-type: none"> ↳ Printer Driver Defaults ↳ Color Control Strip

* These features are available with the printer's Extended Features option only.

** Available only with the LaserWriter 8 driver.

Using the Phaser 380 printer driver

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

In the **Print** dialog box, click the **TekColor** button to see the **TekColor Options** dialog box. Select printer-specific features as desired, such as media trays and color corrections.

Using the Apple LaserWriter 8.3.4 driver

- From the **File** menu, open the **Page Setup** dialog box. Use the **Paper** pop-up menu to select the printer's supported paper sizes.
- From the **File** menu, open the **Print** dialog box. Select paper trays in the **Paper Source** field.

In the **Print** dialog box, click the **Options** button to see the **Print Options** dialog box. Select printer-specific features listed in the bottom half of the dialog box.

Using the Phaser 380 GX driver

Note *Refer to the on-line manuals on the printer's CD-ROM for details on using the Phaser 380 GX driver.*

Printing with a desktop printer

- If you are using QuickDraw GX applications, do *one* of the following:
 - Select any desktop printer in the **Print** dialog box.
 - Drag a document onto a desktop printer icon. The application corresponding to the document opens, prints the document, and then quits.
- If you are using non-QuickDraw GX applications, do *one* of the following:
 - Print to the *default* desktop printer with the **Print** command from the **File** menu.
 - Drag a document onto a desktop printer icon. The application corresponding to the document opens, displays the **Print** dialog box, and waits for you to click **Print**. After printing the document, the application quits.

Selecting printing options

Most of the commands in the **Printing** menu are standard QuickDraw GX driver commands, and are documented by Apple (see the *Macintosh Guide* on-line document for details). The last group of commands in this menu are printer-specific.

Use the **Printer Driver Defaults** command in the **Printing** menu to set default options for the selected desktop printer.

Note *The printer defaults dialog box is also available through the **Print** command in the **File** menu for QuickDraw GX applications.*

Printing from a workstation

Overview

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

To use the TekColor color corrections and other printer features, use one of the following methods:

- PhaserPrint™ software for UNIX workstations functions like a printer driver for selecting printing options, and provides fast screen copy printing.
- PhaserSym™ software and EasyCopy / X for VMS workstations provides proper communication with the printer.
- The menus on the printer's front panel let you select printing options; refer to "Front panel overview" on page 7-1 for instructions on using the front panel.
- Downloadable utility files let you select printing options; refer to the on-line manuals on the printer's CD-ROM for instructions.

UNIX workstations

For UNIX environments, Tektronix offers the optional PhaserPrint™ software. PhaserPrint software offers driver-selectable printer options and provides fast, raster file and screen copy printing to Tektronix color printers.

PhaserPrint software is available for these workstations:

Workstation	Operating System
Sun	SunOS 4.1.3 Solaris 2.x
SGI	IRIX 5.2, 5.3, 6.x
HP 9000 700/800	HPUX 9.0.5, 10.x
IBM RS/6000	AIX 3.2, 4.x
DECstation	Ultrix 4.0, 4.4
DEC Alpha	OSF/1 3.0, 3.2

PhaserPrint software works with the workstation's native spooling system to print PostScript files and raster files in these formats:

Sun Raster Format (SRF)	BMP (Microsoft Windows)
xwd	PCX (Paintbrush)
SGI RGB	PBM (Portable Bitmap)
HP Starbase	TIFF baseline with these extensions: <ul style="list-style-type: none"> ■ CCITT Bi-level Encoding ■ LZW compression ■ Pack Bits compression ■ JPEG compression

The printer's CD-ROM contains a demonstration copy of PhaserPrint software and an on-line instruction guide in the *UNIXDEMO* directory. If you would like to purchase a licensed version of PhaserPrint software, contact your dealer, local Tektronix office, or in the United States, call **1-800-835-6100**.

VMS workstations

To print from VMS workstations, the optional PhaserSym™ utility, a VMS print symbiont, functions as a driver for selecting printing options, and as a queue manager. PhaserSym software is compatible with DEC workstations running VAX/VMS version 5.0 and later. PhaserSym software communicates over the printer's optional TCP/IP Ethernet interface, and is required for proper communication with the printer.

Printing from specific applications

For printing from most applications, follow the instructions in “PC/Windows software” on page 2-31 or “Macintosh software” on page 2-46 to install drivers and printer software. Refer to the following application notes for details on a few applications with special requirements.

General hints and tips

For hints and tips on printing from a specific application, you can get information in the following places:

- **World Wide Web:** If you have access to the Internet, you can view selected topics on the Phaser 380 printer’s web page:

http://www.tek.com/Color_Printers/userdoc/introduction.html

- **HAL:** Request a document catalog from HAL or EuroHAL, Tektronix’ automated fax systems. Refer to “Using the automated fax systems” on page 6-3 for instructions.

Applications tips

QuarkXPress

To use the printer with QuarkXPress, use the installer application on the printer’s CD-ROM or diskettes to install the *PDF* printer description file. The file is installed automatically with Easy Install. Refer to instructions on installing the printer’s software. Once the file is installed, the printer’s name appears alphabetically in the list of installed printers in the QuarkXPress custom **Page Setup** dialog box. In the list, select **Phaser 380** rather than **Tektronix Phaser 380**.

Adobe Photoshop

The PhaserPrint™ software plug-in operates within the Photoshop application to improve the image data transfer time from your computer to your printer. Use the installer application on the printer's CD-ROM or diskettes to install the PhaserPrint software plug-in. The file is installed automatically with Easy Install. Refer to the instructions on installing the printer's software. Once the file is installed, open the **File** menu, choose **Export**, and select **PhaserPrint** to make printing selections. Refer to the on-line manuals on the printer's CD-ROM for details on using the PhaserPrint software plug-in.

Pantone

If you are using an application that produces PANTONE Colors, see the on-line manual on the printer's CD-ROM for information on color library files available for specific applications

Other applications

To use the printer with Adobe PageMaker or Macromedia FreeHand, and other applications, use the installer application on the printer's CD-ROM or diskettes to install the *PPD* printer description files. Refer to the instructions on installing the printer's software. Once the files are installed, you can use them to set up a PPD-driven printer driver, such as the Apple LaserWriter 8.3.4 or AdobePS 4 for your printer.

Selecting print features

This printer supports several ways to select print features:

- **Through a supported printer driver (recommended)**
Use these selections to override the settings on the printer's front panel.
- **From the printer's front panel**
Use these settings *only* when printing from a non-supported driver.
- **Using PhaserLink software**
If your network is running TCP/IP and you have a World Wide Web browser, you can use this browser to view printer status and select printer features. Refer to the *PhaserShare Status Software User Manual* for complete information.
- **Sending PostScript utility files to the printer**
Use these settings *only* when printing from a non-supported driver. You can find detailed information on the printer's CD-ROM and the Phaser 380 printer's web page:
http://www.tek.com/Color_Printers/userdoc/introduction.html

Print features quick reference: Printer's front panel

Feature	Feature descriptions	Front Panel
Print-quality modes <ul style="list-style-type: none"> ■ Fast Color ■ Standard ■ Enhanced (600 x 300)* 	See page 3-26	Print Quality Menu
Color correction <ul style="list-style-type: none"> ■ None ■ Vivid Color ■ Display ■ SWOP Press ■ SNAP Press ■ Euroscale Press ■ Commercial Press ■ Toyo ■ DIC ■ FujiProof ■ Monochrome 	See page 3-27	TekColor Correction Menu
Media size <ul style="list-style-type: none"> ■ Executive, Letter, A4 ■ Legal, Tabloid, A3 ■ Tabloid Maximum 	See page 3-33	not applicable; determined by media tray
Media tray selection <ul style="list-style-type: none"> ■ AutoSelect*** ■ Media Tray** ■ Upper*** ■ Lower*** ■ Paper ■ Transparency 	See page 3-35	Printer Defaults Menu ↳ Default Tray Menu
Quick Collate*	See page 4-13	not applicable
Check Print* <ul style="list-style-type: none"> ■ Enabled ■ Disabled 	See page 4-15	Printer Defaults Menu ↳ Check Print ↳ Check Print Timeout
Image Smoothing <ul style="list-style-type: none"> ■ On ■ Off 	See page 4-17	Printer Defaults Menu ↳ Image Smoothing

* Only available with the printer's Extended Features option.

** Only available when the lower paper tray is not present.

*** Only available when the lower paper tray is installed.

Print quality modes

Using the printer drivers provided with your printer, you can select from three print quality modes:

Fast Color Produces the fastest full-color prints. This print-quality mode is not available for transparency printing. Transparency prints made with this setting are printed using the **Standard** print-quality mode instead.

Standard The default print-quality setting for full-color printing. Select this print-quality mode for the fastest printing of transparencies.

Enhanced (600 x 300) Available with the Phaser 380 printer's Extended Features option. Used for PANTONE Color matching (set TekColor Correction to **None**). For paper printing, select this print-quality mode for the best text quality and the smoothest color blends. For transparency printing, select this print-quality mode to produce transparencies with the most vibrant colors, the smoothest color gradations and color sweeps, and the highest durability.

Print speed

Print speeds listed in the following table are based on the time it takes the printer to make a single print. Printing of Tabloid Maximum-size transparency is supported only from the manual feed slot.

Print-quality mode	Paper print speed	Transparency print speed
Fast Color	A4/Letter: 3.5 ppm	A4/Letter: not supported
	A3/Tabloid Maximum: 2.0 ppm	A3/Tabloid Maximum: not supported
Standard	A4/Letter: 2.5 ppm	A4/Letter: 1.5 ppm
	A3/Tabloid Maximum: 1.3 ppm	A3/Tabloid Maximum: manual feed slot
Enhanced (600 x 300)	A4/Letter: 1.2 ppm	A4/Letter: 0.64 ppm
	A3/Tabloid Maximum: 0.6 ppm	A3/Tabloid Maximum: manual feed slot

ppm is pages per minute

Color corrections

The printer provides TekColor Dynamic Correction software, which consists of the following color correction modes. Refer to “Color correction descriptions” on page 4-6 for more information.

Color correction mode	Description
None	No correction made to colors. Used with the 600 x 300 (Enhanced) print quality mode for PANTONE Color matching.
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.
SNAP Press	Specifications for Non-Heat Advertising Printing. Use this option with newsprint paper to preview works for a non-heat web offset printing press.
Euroscale Press	Used to match equivalent 3M Matchprint® proofs.
Commercial Press	Used to match commercial 3M Matchprint® proofs.
Toyo	This option is designed to match Toyo printing inks on coated paper.
DIC	This option is designed to match Dai Nippon printing inks on coated papers.
FujiProof	This option is typically used in the United States. It is designed to match the Fuji Color Art System for commercial North American 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’s front panel setting rather than any printer driver setting.

Vivid Color, the default color correction mode, is generally recommended.

You can view an approximate sample output of some color corrections at the bottom of the printer’s Startup Page. Refer to “Startup Page” on page 7-6 for more information.

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-supported drivers.*

All about media

The printer prints on a variety of paper sizes and grades, transparencies, and full-sheet, peel-off label stock (such as Avery 5160). The size and grade of paper you select depends on your printing needs and whether you are using the paper tray or manually feeding media into the printer. Tektronix offers a Tabloid Maximum-size paper that measures 332.49 x 471.17 mm (13.09 x 18.55 in.) to accommodate printing of Tabloid / A3 full-size bleeds.

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

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

Tektronix Phaser 380 printer transparency media offers enhanced ink adhesion and print quality for overhead transparencies. The Lower Paper Tray Assembly is not intended for use with transparencies or label stock. If you attempt to print transparencies from the lower tray, lower-quality prints will result.

Caution *Do not use paper or transparency media intended for ink-jet or thermal-wax printers. Tektronix does not guarantee printer performance on non-Tektronix transparency media.*

Tektronix Phaser 380 printer inks are specially formulated to ensure the best print quality and long-term reliability.

Caution *Tektronix Phaser 380 ColorStix ink is formulated specifically for use with the Phaser 380 printer. To avoid damaging the printhead, only use Phaser 380 ColorStix solid-ink sticks.*

For information on ordering Tektronix' paper and transparency media, refer to the supplies information sheet included with your printer or "Ordering printer supplies" on page 8-2.

Media sizes

Media tray sizes. The standard paper tray and optional Lower Paper Tray Assembly tray recognize seven different media sizes: Executive, A4, Letter, Legal, Tabloid, A3 and Tabloid Maximum (for Tabloid / A3 full-size bleeds). Printing of custom media sizes is also supported. Refer to “Margins and image area” on page 3-33 for details on the size of the image area.

The following table presents guidelines for selecting media sizes for use with the printer’s upper and lower media trays.

Media tray sizes

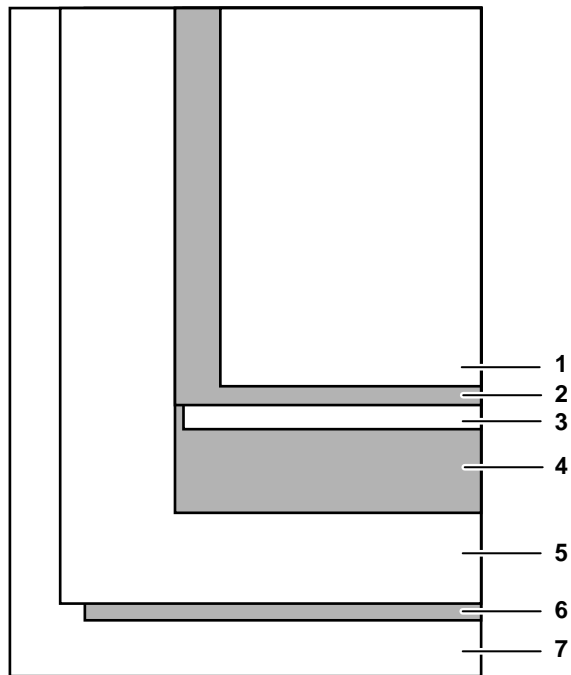
Media size	Dimensions
Executive	184.15 x 266.70 mm (7.25 x 10.5 in.)
Letter	215.90 x 279.40 mm (8.5 x 11 in.)
A4	210 x 297 mm (8.27 x 11.69 in.)
Legal	215.90 x 355.60 mm (8.5 x 14 in.)
Tabloid	279.40 x 431.80 mm (11 x 17 in.)
A3	297 x 420 mm (11.69 x 16.54 in.)
Tektronix Tabloid Maximum*	332.49 x 471.17 mm (13.09 x 18.55 in.)
Custom sizes	Width: 184.2 to 332.5 mm (7.25 to 13.09 in.) Length: 266.7 to 471.2 mm (10.5 to 18.55 in.)

* Allows printing of Tabloid / A3 full-size bleeds.

Note *When the media size set in the printer driver does not match the actual media loaded in the tray, then images larger than the media’s dimensions may be clipped.*

Relative media sizes. The following illustration shows the relative sizes of the media that the printer's media tray recognizes.

1. Executive
2. Letter
3. A4
4. Legal
5. A3
6. Tabloid
7. Tektronix Tabloid Maximum



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Manual feed sizes. The printer's manual feeder recognizes seven different fixed media sizes: Executive, A4, Letter, Legal, Tabloid, A3 and Tabloid Maximum (for Tabloid / A3 full-size bleeds). The manual feeder also supports printing of custom media sizes, as well as printing of envelopes.

The following table presents guidelines for selecting media sizes for use with the printer's manual feeder.

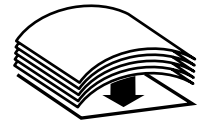
Manual feed sizes

Media size	Dimensions
Custom sizes	Width: 92.2 to 332.5 mm (3.63 to 13.1 in.) Length: 152.4 to 472 mm (6 to 18.55 in.)
Fixed sizes	Executive, A (US letter), A4, Legal, Tabloid, A3, Tabloid Maximum
Personal envelope	92.07 x 156.09 mm (3.625 x 6.5 in.)
#10 envelope	104.77 x 241.29 mm (4.125 x 9.5 in.)
C6 envelope	114 x 162 mm (4.49 x 6.38 in.)
DL envelope	110 x 220 mm (4.33 x 8.66 in.)

Media weight

The following table lists the supported weights for paper media printed from the media tray and from the manual feeder.

Note *Some thinner grades of paper may curl and cause media feeding problems. Always load curled paper concave-side down in the media tray.*



Refer to “Margins and image area” on page 3-33 for details on the size of the image area.

Guidelines for paper weight

Input method	Grade	Weight
Media tray	Bond	60 to 150 g/m ² (16 to 28 lb.)
	Book	60 to 117 g/m ² (40 to 80 lb.)
	Cover	167 to 179 g/m ² (60 to 65 lb.)
Manual feeder	Bond	60 to 150 g/m ² (16 to 28 lb.)
	Book	60 to 117 g/m ² (40 to 80 lb.)
	Cover	187 to 218 g/m ² (8 to 10 pt.)
	Bristol/Index	163 to 181 g/m ² (90 to 100 lb.)
	Envelope	90 g/m ² (24 lb.)

Note *The printer is designed to handle a wide variety of paper sizes, weights and textures. However, you may find that some types of paper require manual feeding for best operation. Examples of this could be heavy weight, Tabloid Maximum coated stock or light weight book stock.*

Margins and image area

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

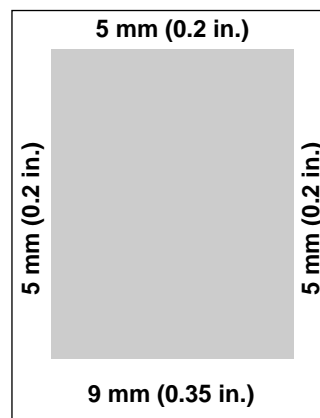
Note For maximum print speed on Letter-size media, set left and right margins in your application to 7.3 mm (0.29 in.) or larger. For duplex landscape print jobs, keep both margins for the narrow ends of the paper at 9 mm (0.35 in.) to avoid image offset problems.

Media image areas

Media size	Image area
Executive	174.15 x 252.70 mm (6.86 x 9.95 in.)
Letter	205.90 x 265.40 mm (8.11 x 10.45 in.)
A4	200 x 283 mm (7.87 x 11.14 in.)
Legal	205.90 x 341.60 mm (8.11 x 13.45 in.)
Tabloid	269.40 x 417.80 mm (10.61 x 16.45 in.)
A3	287 x 406 mm (11.3 x 15.98 in.)
Tabloid Maximum	322.49 x 457.17 mm (12.70 x 18 in.)
Custom	Media size minus standard margins*

* Standard margins (5 mm top and sides; 9 mm bottom)

The following illustration shows the printable image area and top, side and bottom margin dimensions for the printer.



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Paper and ink handling tips

- Keep the media supplies, trays, and ink in covered containers. Dust and dirt can be transferred to the paper, resulting in poor print quality.
- To avoid having the paper stick together, gently fan the media before loading it into the media 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.
- Some thinner grades of paper may curl and cause media feeding problems. Always load curled paper concave-side down in the media tray.



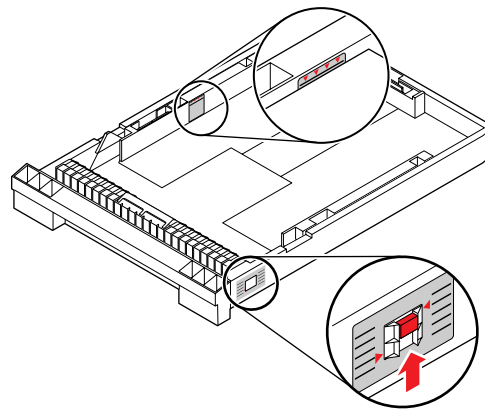
Media trays

Standard tray

The printer is shipped with a universal media tray that accepts both paper and transparency media. The media tray supports media sizes ranging from 184.2 to 332.5 mm (7.25 to 13.09 in.) wide to 266.7 to 471.2 mm (10.55 to 18.55 in.) long.

The media tray holds approximately 250 sheets of paper or 100 sheets of transparency media. A media selector switch on the side of the tray selects between paper and transparency print jobs. A label on the inside of the media tray provides fill lines to indicate the tray's maximum capacity for paper and transparencies.

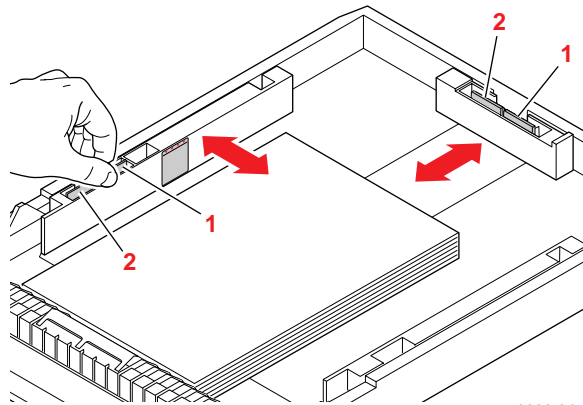
Note *Printing with the media selector switch incorrectly set to **Paper** (upper switch position) for transparency prints or **Transparency** (lower switch position) for paper prints results in lower-quality prints.*



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Changing media sizes. The media tray uses two adjustable, blue-colored guides to hold paper and transparency media in position. Each guide has two tabs that operate independently. To adjust a guide, press both tabs at the same time and slide the guide in or out to position it against the media.

1. Tab number 1 controls the stop position of the guide at seven fixed media sizes: Executive, A4, Letter, Legal, Tabloid, A3 and Tabloid Maximum.
2. Tab number 2 controls the stop position of the guide in small increments for all other (custom) media sizes.



Note *If tab number 1 in the rear of the tray is not locked in one of seven fixed-media positions, the printer sees the media as a custom size and must measure the media during the first print job to determine the actual media size. Image clipping can occur when the printer encounters “unknown” media sizes.*

Lower paper tray

The Lower Paper Tray Assembly, using the same universal media tray, operates identically to the printer's standard tray with one exception. It does not support printing of transparencies, and therefore ignores the position of the media-selector switch on the side of the media tray.

Note *The Lower Paper Tray Assembly accepts paper media only; do not use it with transparencies or label stock. If you attempt to print transparencies from the lower tray, lower-quality prints will result.*

Establishing a default media tray (optional)

When you add the Lower Paper Tray Assembly to your printer, you then have the option of selecting which tray (the upper or lower) is the default tray for printing. You can set the default media tray selection through the printer's front panel, through PhaserLink software (refer to the *PhaserShare Network Cards and Software System Administrator Manual*), or a PostScript utility file (refer to the printer's CD-ROM). When using a supported printer driver, driver selections override the printer's default media tray setting.

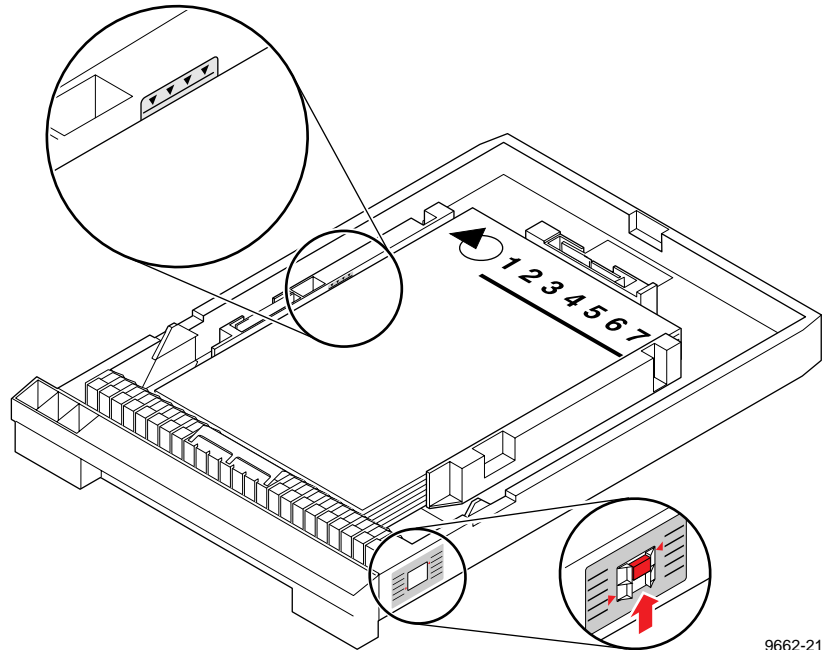
When the Lower Paper Tray Assembly is first installed, the default media tray selection is set to `AutoSelect`. With this selection, the printer automatically switches to the upper tray if the lower tray becomes empty. If paper of the same size exists in the upper tray slot, then printing resumes. However, if a different size media is installed, then the printer prompts you to load paper in the Lower Paper Tray Assembly. With the `AutoSelect` setting, you can choose between two different media sizes (or types) loaded in the printer directly from the printer driver. The printer then decides which media tray contains the appropriate media for the print job.

Other default media tray selections (`Upper`, `Lower`, `Paper`, `Transparency`) let you explicitly set printing 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. If you are using an unsupported printer driver and want to print on letterhead in the upper tray, you will need to change the default media tray setting to `Upper`. (Users with supported printer drivers can choose between the upper and lower trays directly from the printer driver.)

If you print transparencies using a non-supported driver the printer uses a paper print mode, producing unsatisfactory results. To print transparencies, use a supported printer driver and explicitly select **Transparency**.

Printing on letterhead

Letterhead must be loaded face up in the media tray with the bottom edge of the page closest to the media tray handle. Set the media selector switch on the side of the printer to **Paper**. A label inside the media tray indicates the tray's maximum paper capacity, approximately 250 sheets.



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

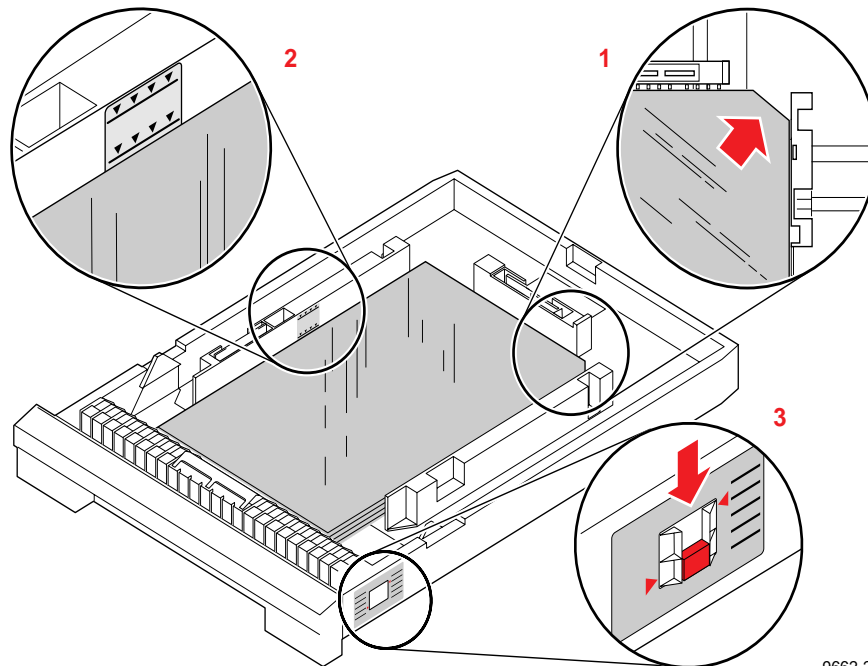
Printing transparencies

Tektronix transparency media is recommended for use in this printer, as it provides optimal image quality, enhanced ink adhesion, and durability. Tektronix transparency media is available in A, A4 and Tabloid Maximum sizes.

Note Do not use transparency media intended for ink-jet or thermal-wax printers. For best results, use Tektronix Phaser 380 printer transparency media.

1. Load Tektronix transparencies in the media tray with the notched corner of the sheet in the back-right corner of the tray.

Note Jams will occur if transparencies are incorrectly loaded.



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2. When you are printing transparencies using the standard media tray, load up to 100 transparency sheets in the tray. A label inside the media tray indicates the tray's maximum transparency capacity.
3. Set the media selector switch on the side of the media tray to **Transparency** and install the media tray in the printer.
4. When you print, use a supported printer driver and specify **Transparency** to obtain the correct print mode for transparency media.

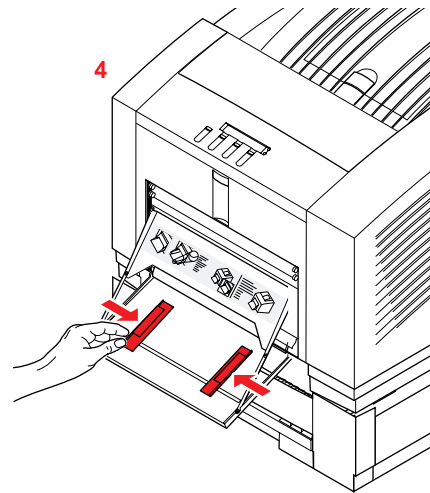
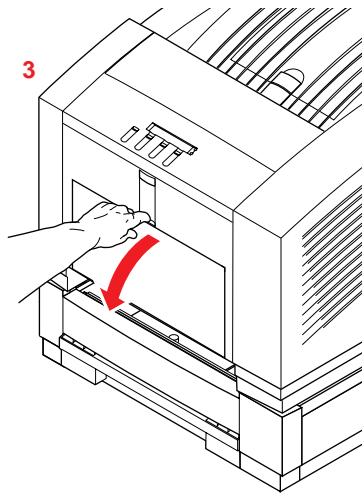
Transparency quality tips

- Keep transparencies in covered containers. Dust and dirt can transfer to the 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.
- To avoid having the transparencies stick together, gently fan the media before loading it into the media tray.
- Place slip sheets between printed transparencies or use a protective cover to prevent contact between transparencies.
- If your transparency prints have slightly darker bands running the length of the print, you may need to clean the media-feed rollers. Refer to "Cleaning for ink smears and transfix problems: internal paper path" on page 5-41.
- Select the **Standard** print-quality mode in the printer driver for the fastest color printing of transparencies. Use the **Enhanced (600 x 300)** print-quality mode (Extended Features option) to produce transparencies with the most vibrant colors, the smoothest color gradations and color sweeps, and the highest durability.
- Use large type on overheads; 18-point type or larger works well.
- Use yellow or other light colors for text on solid-color backgrounds.

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).

Manual-feed printing

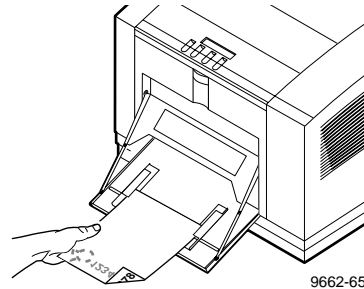
1. Select **Manual Feed** from a supported printer driver.
2. Click on the **Print** button.
3. Go to the printer and open the manual-feed cover using the recessed finger tab.
4. Adjust the guide on the inside of the manual-feed cover to match the media you are using. *Always feed the narrow edge of the media first.*



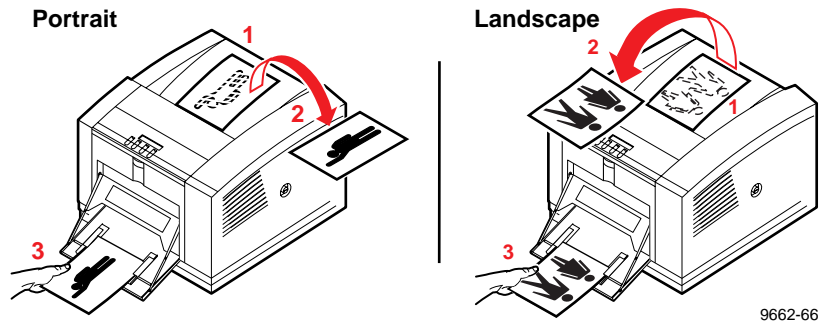
9662-23

5. When prompted by the front panel, feed the narrow edge one sheet of paper or transparency media until it stops. Use the following illustrations to help orient the media in the manual-feed slot.

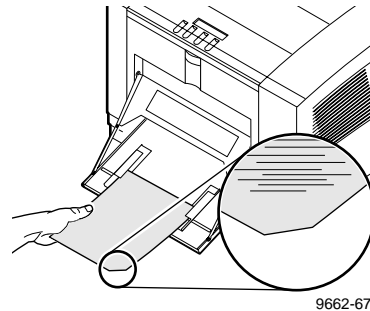
Manual-feed letterhead: When you manually feed letterhead, orient the letterhead face-down and feed the bottom edge first.



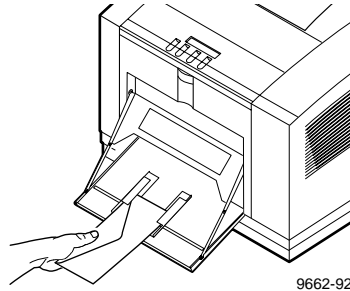
Manual-feed duplex prints: When you manually feed a paper sheet for second-side (duplex) printing, you'll need to rotate the paper differently depending on whether you are printing portrait or landscape images.



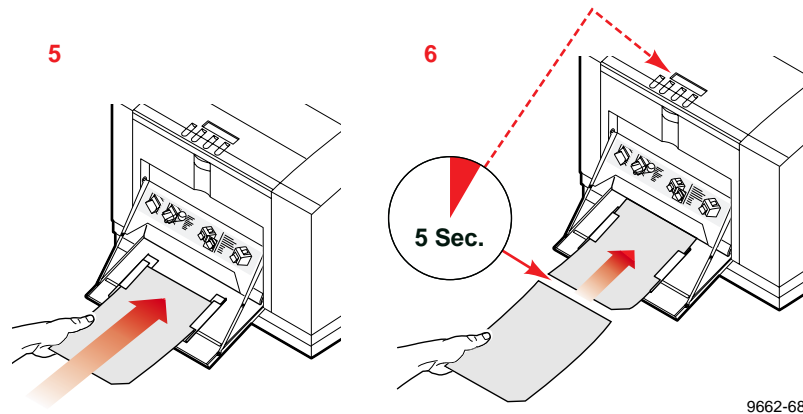
Manual-feed transparencies: When you manually feed Tektronix transparencies, orient the transparency notched corner closest to you with the notch on the right side.



Manual-feed envelopes: When you manually feed envelopes, orient the envelope with the printing side face down and the hinge of the flap on the left side.



6. After the first sheet enters the printer, wait for the front panel to prompt you again before feeding the next sheet.



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.*

Duplex printing

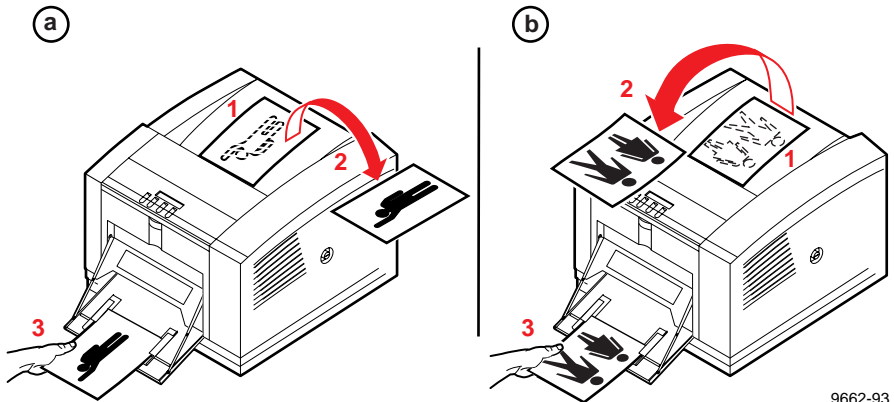
The printer supports duplex printing from the manual-feed slot.

Note Frequent duplexing increases the need to perform paper feed roller cleaning procedures. Refer to “Identifying cleaning procedures” on page 5-16 for more information.

When you manually feed a paper sheet for second-side (duplex) printing, you’ll need to rotate the paper differently depending on whether you are printing portrait or landscape images.

Note When printing two-sided landscape documents, maintain a minimum margin of 9mm (0.35 in.) on the leading and trailing (narrow) edges of the paper. Maintaining at least a 9mm margin lets you to avoid offset problems between the front and back sides of your document. If your application allows, you can rotate either the front or the back side image 180° to avoid margin offset issues.

- a. Portrait duplex printing
- b. Landscape duplex printing



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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.

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.

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 CD-ROM or Tektronix' World Wide Web site for instructions.

If automatic language selection is enabled, you can send PostScript, HP-GL, and PCL5 files 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. Refer to the printer's CD-ROM or Tektronix' World Wide Web site for instructions.

Fonts

For general information on fonts, you can request a document catalog from HAL or EuroHAL, Tektronix' automated fax systems. Refer to "Using the automated fax systems" on page 6-3 for instructions on using HAL and EuroHAL. For instructions on downloading fonts and printing a fonts sampler, see the on-line manuals on the printer's CD-ROM.

Resident typefaces (PostScript)

The printer accepts Adobe Type 1 and Type 3 downloadable fonts, TrueType fonts, PCL5 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 the printer's CD-ROM or Tektronix' World Wide Web site for more information.

The Phaser 380 printer's standard configuration is shipped with a set of 39 resident fonts in the following typeface families:

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

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

Courier
Courier Bold
Courier Oblique
Courier Bold Oblique

Helvetica
Helvetica Bold
Helvetica Oblique
Helvetica Bold Oblique

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

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

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

Palatino
Palatino Italic
Palatino Bold
Palatino Bold Italic

Times Roman
Times Bold
Times Italic
Times Bold Italic

ITC Zapf Chancery
 ITC Zapf Dingbats (☆ * ❖ ❖ ❖ ❖ ❖)
 Symbol (Σ ψ μ β ο λ)

Printing: Beyond the Basics

Refer to the following topics:

- Working with color
- TekColor corrections — making the best selection
- Using color sampler charts
- Methods of printing PANTONE Colors
- Using the Quick Collate option
- Previewing with Check Print
- Using Image Smoothing
- Printing Color Control Strip

Working with color

Whether you are producing color reports, memos, graphs, charts, overhead transparencies for presentations, color handouts, or design comps, there are a few things to keep in mind when using color.

- A large area of color looks more saturated (brighter) than a small area of the same color.
- A color looks brighter against a dark background than it does against a white background.
- Colors look different due to the background color or to the surrounding colors.
- The appearance of a color varies with the type and amount of light, for example fluorescent lighting versus sunlight.

General guidelines

- Keep a document or design simple and consistent.
- Select colors that look good together and that reinforce your message.
- Check your application for standard palettes to get you started.
- Use a color scheme of five or six shades, and in a series of images, use the colors in a consistent manner throughout the series.
- Use color to highlight the most important information, such as a bar or pie segment in a chart or graph.
- Use color to show relationships between objects, such as a range of values. Objects with a similar meaning or value should be in similar colors.
- Use color as graphic elements in the design of newsletters, logos, and brochures.
- Avoid red and green combinations; these colors are hard for people with red/green color blindness to distinguish.

TekColor corrections — making the best selection

The printer's TekColor color correction options provide simulations of different color devices. Follow these basic guidelines so that the printer accurately reproduces the colors you want on your prints.

- For typical printing purposes, select the **Vivid Color** option before printing.
- For particular graphic arts effects, there are several printing press standards to choose from:
 - SWOP Press** (Specifications for Web Offset Publications)
 - SNAP Press** (Specifications for Non-Heat Advertising Printing)
 - Commercial Press**
 - Euroscale Press**
 - DIC** (Dai Nippon Ink on Coated Paper)
 - FujiProof**
 - Toyo**
- For engineering and scientific imaging applications, try printing with the **Simulate Display** option.

Color corrections can be selected from printer drivers, set in the printer with downloadable utility files, or set from the printer's front panel.

TekColor color corrections are performed in the printer. To use ColorSync color matching on a Macintosh, or to use host color correction in Windows 95, refer to the printer's CD-ROM or Tektronix' World Wide Web site for additional information.

Note *TekColor color corrections do not affect colors specified in the PostScript Level 2 international color standard CIE XYZ developed by the Commission Internationale de l'Eclairage (International Commission on Illumination).*

Deciding which color correction to use

Color printers and computer display screens produce color differently. Printers use the subtractive primaries CMYK (cyan, magenta, yellow, and black), and produce color when light is reflected off the paper. Computers use the additive primaries RGB (red, green, blue) with a light-emitting CRT screen. The printer and the computer screen each have a different range of possible colors they can produce, with some overlap between them.

Software application packages specify color in different ways, for example as CMYK or RGB, or they may give you a choice. Get to know your applications so you can work more effectively.

There are methods available offering a finer degree of control over color. The TekColor color corrections, selectable from drivers, the printer's front panel, and downloadable utility files, provide the easiest method of adjusting printed colors. You can also use one of the following Color Management Systems (CMS) supported by printer profiles:

- ColorSync on a Macintosh
- Windows 95 Image Color Matching (ICM).

Refer to the on-line manuals on the printer's CD-ROM for details on these color systems.

Printing objective or problem	Color correction to use
Turn off all color corrections	None
Using PANTONE Colors	
Brightest, most vibrant colors	Vivid Color
Overhead transparency presentations	
Blue colors are printing too purple	
Colors are washed out or faded	
Colors should match computer display screen*	Simulate Display
Colors are too dark	
Colors should match a printing press standard	SWOP Press Euroscale Press Commercial Press SNAP Press DIC FujiProof Toyo
Print in gray scale	Monochrome
Use printer's current color defaults	Use Printer Setting
Use Adobe's standard color conversions**	Raw CMYK Raw RGB

* For other ways of matching the screen's colors, use ColorSync color matching on a Macintosh or use host color correction in Windows 95 (refer to the printer's CD-ROM or Tektronix' World Wide Web site for more information).

**These utility files are described in the on-line manual on the printer's CD-ROM.

Color correction descriptions

Turning off all color corrections

If you do not want to use any TekColor color corrections, you can specify no corrections from a supported driver, with a PostScript utility file, from the printer's front panel or through PhaserLink software. Select **None** when you are doing the following:

- Using applications that do their own color adjusting
- Using ColorSync on a Macintosh or host color correction in Windows 95
- Printing PANTONE Colors

Printing the brightest colors and a truer blue

The **Vivid Color** option is the best choice for the brightest, most vibrant prints. This option also makes printed blue appear less purple by reducing the amount of magenta used to print blue colors. Other colors in the cyan-blue-purple-magenta range in the image are also adjusted to compensate for the adjusted blue. Colors in the red-orange-yellow-green range are not affected. This selection is good for making presentation graphics, such as overhead transparencies, and for bright-looking colors that don't need to match the screen's colors or printing press colors.

Vivid Color adjusts CMYK colors using a method that adds black to other components. This option prints more saturated (darker) colors and may be useful for printing overhead transparencies for presentations from some applications, such as CorelDRAW!. Use this option if you have specified a color in the CMYK system, *and* the color has a black component, *and* the color appears lighter than you expected when printed.

Simulating display screen colors

The **Simulate Display** option makes printed colors approximate the colors on a standard display screen. This selection should improve the screen-to-printer color accuracy for most applications that don't perform their own color corrections. This selection is best for applications that define colors as RGB (red, green, blue), HLS (hue, lightness, saturation), or HSB (hue, saturation, brightness).

Closely match printing press colors

There are several printing press color correction options. Each press option conforms to a different printing standard. Use a press option if you are previewing work for a four-color job to be printed on a printing press. These options simulate a four-color commercial printing press, *not* solid spot colors, such as PANTONE Colors.

Note *If you are selecting PANTONE Colors in your application, use the TekColor **None** option; see page 4-6 for details. Also, use the **None** option with other color management systems, such as EfiColor.*

Printing press color corrections

Press option	Inks	Base (paper)	Target match (equivalent 3M Matchprint®)
SWOP Press	SWOP/soy	publication	SWOP: Specification for Web Offset Publications This option uses specifications for color separation films and color proofing that are used to ensure the consistency of printed colors between different publications. This option is typically used in the U.S. Tends to be high-volume, web press printing.
Commercial Press	commercial	commercial	This option is typically used in the U.S., and is characterized to match commercial 3M Matchprint proofs. Tends to be high-quality, sheet-fed printing.
Euroscale Press	Euroscale	publication	This option is typically used in Europe, and is characterized to match the equivalent 3M Matchprint.
DIC	Dai Nippon	publication	This option is designed to match Dai Nippon printing inks on coated papers.
FujiProof	Fuji Color	publication	This option is typically used in the United States. It is designed to match the Fuji Color Art System for commercial North American proofs.
Toyo	Toyo	publication	This option is designed to match Toyo printing inks on coated paper.
SNAP Press	SNAP	newsprint	SNAP: Specifications for Non-Heat Advertising Printing This option uses a set of production standards for printing on uncoated and newsprint papers. This option is targeted to match typical colors for this type of printing in the U.S. Use this option if you are previewing work for a non-heat web offset printing press using newsprint paper.

Printing in gray scale

The **Monochrome** option prints your color image as a monochrome gray scale (shades of gray between black and white). Use this option to print page masters for photocopying in black-and-white.

Using the printer's current color defaults

The **Use Printer Setting** option is available only in the supported drivers. This option sends no color correction information to the printer. It uses the current default in the printer to process colors for printing. The printer's default can be one of the following:

- Any option selected in the **TekColor Corrections** menu on the printer's front panel.
- One of the color correction utility files sent to the printer.
- **Vivid Color** is the factory default color correction selection.

Special considerations

If your Phaser 380 printer is shared on a network

Another user may use the downloadable color correction utility files, or the printer's front panel, to change the printer's default color correction setting. If this situation occurs, the prints you make through a non-supported driver may not print as expected. Refer to "Sharing the printer on a network" on page 6-38 for details on how the color corrections interact with the driver settings for either supported or non-supported drivers.

Application color corrections

Some applications (such as CorelDRAW!) perform color corrections to improve screen-to-printer color matching. The TekColor color correction options in the supported drivers adjust colors in the printer after the application has performed its color corrections.

- If the application uses CIE (Commission Internationale de l'Eclairage) colors, the TekColor corrections will *not* be applied.
- If you select a TekColor color correction option in a driver other than **None**, the selection may override the features of another color management system.
- If you try one of the TekColor color correction options in a supported driver and the printed results are not what you expected, then select the **None** option and try reprinting your image.
- Select the **None** TekColor color correction option in a supported driver if you are using ColorSync color matching on a Macintosh, host color correction in Windows 95, or any other color management system (refer to the printer's CD-ROM or Tektronix' World Wide Web site).

If you are using an unsupported driver

If you are not using one of the printer drivers shipped with the printer, or another PPD-driven driver, then use the downloadable utility files or the printer's front panel to set the default color correction.

Printing and using the color sampler charts

You can print color sampler charts from your printer to see how the colors, as specified from within an application, will look when printed. Having a pre-printed sample of each color can help you save time in selecting the right color for your use. Each chart can be printed on Letter-size paper.

The printer's color sampler files are available from a variety of sources, according to the following table:

Printing color sampler charts

Color Sampler Charts	Print from the front panel See page 2-30.	Print from CD-ROM and diskettes See "Printing the Color Sampler Charts" on the CD-ROM.	Download from World Wide Web Visit the Tektronix web site: http://www.tek.com/Color_Printers/support/ or use PhaserLink software to print sampler charts from your web browser.
CMYK sampler chart* (cyan, magenta, yellow, and black color model)	yes	yes	yes
RGB sampler chart* (red, green, and blue color model)	yes	yes	yes
HSB sampler chart* (hue, saturation, and brightness color model)	Not available	yes	yes**
PANTONE sampler chart	Not available	yes	yes**

* You can also use Tabloid-size paper for printing two Letter-size pages on each sheet.

** These sampler charts are unavailable via PhaserLink software.

Methods of printing PANTONE Colors

There are two ways of working with PANTONE Colors:

- “Printer-specific PANTONE Colors” on page 4-11 are process color simulations of PANTONE Spot Colors.
- “PANTONE Colors from swatch books” on page 4-12 let you specify PANTONE Colors for printing on a press.

Printer-specific PANTONE Colors

Your printer can produce process color simulations of PANTONE Spot Colors. Use the following instructions when printing proofs for these types of print jobs:

- Printing proofs with one or more spot colors and black (no process colors) for final output on a printing press.
 - Printing proofs with spot colors and process colors for final output on a 5+ color printing press.
 - Printing proofs with spot colors for final output on your Phaser 380 printer.
1. Refer to the on-line manuals on the printer’s CD-ROM to print a copy of the printer-specific PANTONE Color chart.
 2. Use the individual color reference numbers on the chart to select spot colors within an application.
 3. When you print your file, use the **None** color correction.
 4. If you are printing proofs with spot colors and process colors for final output on a 5+ color printing press: For any color that will be printed as a process color (not a spot color), replace the printer’s PANTONE process colors with standard PANTONE Colors within the application before separating the file for plates.

PANTONE Colors from swatch books

In some applications, you can select PANTONE Colors from a swatch book. These colors can be proofed on your Phaser 380 printer before final printing on a printing press. Use the following instructions when printing proofs for these types of print jobs:

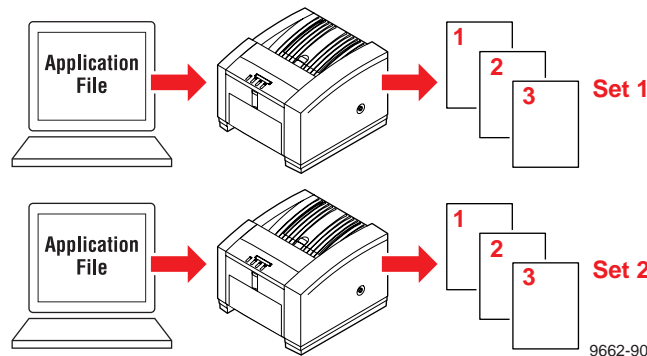
- Printing proofs for final output on a 4-color printing press (no spot colors).
 - Printing proofs with spot colors and process colors for final output on a 5+ color printing press.
1. Select PANTONE Colors within an application using the individual color values from a PANTONE Colors swatch book.
 2. Print your file to a Phaser 380 printer with the **Commercial Press** color correction. (The proof colors may not be completely accurate, but the PANTONE Colors will be printed correctly on a printing press.)
 3. When you are satisfied with the proof, the file can be separated for plates without adjustment to the file.

Using the Quick Collate option

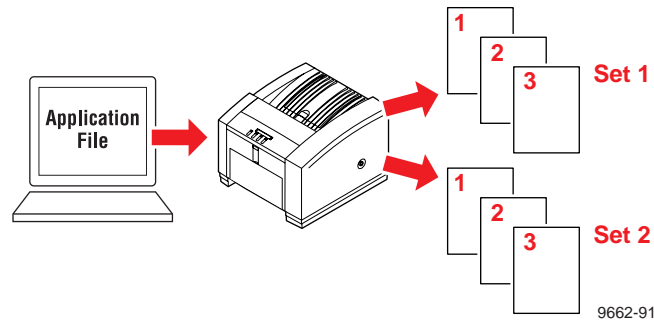
The **Quick Collate** option in the supported drivers performs document collation *in the printer*. This is faster than the collate option that exists in some applications because applications send each page to the printer in sequence, as many times as necessary to provide the requested number of copies. With the Phaser 380 printer's **Quick Collate** option, the job is *sent only once*, and then multiple collated sets are produced *by the printer*.

Note The **Quick Collate** feature requires that the printer be configured with the **Extended Features** option. The printer must also be connected to a 1.2-Gigabyte external SCSI hard disk before collation is possible. Tektronix offers a SCSI hard disk optimized for use with Tektronix printers; refer to "SCSI hard disk" on page 8-8 for ordering information.

Application collation



Phaser 380 Printer Quick Collate option

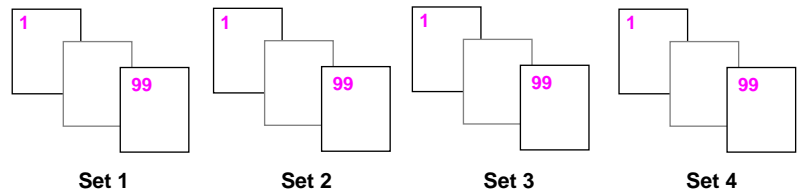


The number of pages that can be collated at one time depends on these factors:

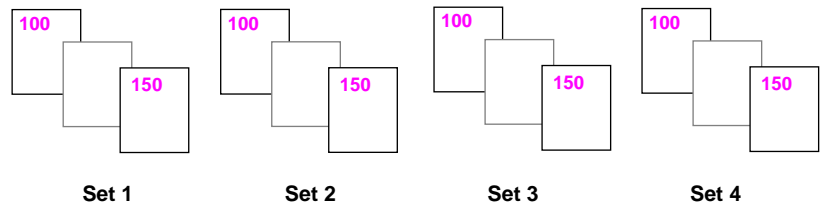
- The number of hard disks attached to the printer.
- Complexity of the pages to be collated.

According to these factors, the printer collates in sequential sets as many pages as will fit in the available disk space. For example, you have a 150-page job and you request 4 copies. Because the print job is very complex, all of its description will not fit on the hard disk. In this case, the printer divides the job into two segments and prints in this manner:

❶ **4 sets of pages 1 through 99**



❷ **4 sets of pages 100 through 150**



Quick Collate and the Check Print option

When you use the Phaser 380 printer's **Quick Collate** option in combination with the **Check Print** option, only the first page of the first set is printed before pausing for review.

Previewing with Check Print

This feature is available only with the printer's Extended Features option. When sending a multiple-page file to the printer through the driver, you can select **Check Print** to preview the first page of the job and determine if the job is printing as expected before proceeding with the remainder of the job. This is especially useful when printing a large job.

The ability to access **Check Print** from the driver is enabled and disabled in the printer's front panel. You can also set the timeout in the front panel (the timeout is the amount of time the printer will wait after sending the first page of a file, before it continues with the remainder of the job).

By default, access to **Check Print** is enabled, with a default timeout of 5 minutes. Refer to "Front panel menu map" on page 7-5 for information on navigating the front panel menus.

Use the following instructions to select the **Check Print** option in the printer driver:

1. Select **Check Print** in a supported driver:

Windows 95 PostScript driver (AdobePS 4 or Microsoft):	Select Check Print in the Printer features field in the Device Options tab.
Tektronix driver for Windows 3.1:	Select Check Print options in the Tektronix Printer Features dialog box, available by clicking the Printer Features button in the Options dialog box.
Adobe PS3 driver for Windows 3.1:	Select Check Print in the Features tab.
LaserWriter 8.3.4 driver:	Select Check Print in the Print Options dialog box, available by clicking the Options button in the Print dialog box.
Phaser 380 driver:	Select Check Print in the TekColor Options dialog box, available by clicking the TekColor button in the Print dialog box.
Phaser 380 GX driver:	Select Check Print in the TekColor printing extension in the Print dialog box (or in the Printer Driver Defaults dialog box available from the Printing menu).

2. Check your first print. At the **Check Print** message on the printer's front panel, press one of the buttons:
 - **Reprint:** Reprints the first page, then the printer pauses again for the duration of the selected timeout or until you press one of the buttons. This feature is useful, for example, when you need to reposition letterhead to print in the correct orientation.
 - **Cancel:** Cancels the print job.
 - **Continue:** Continues printing the entire print job.

Using Image Smoothing

Image Smoothing blends the adjacent colors in an image so that color transitions are less noticeable. Image smoothing is typically used when the image being printed is at a lower resolution than the printer's output resolution. For example, printing an image downloaded from the World Wide Web at 72 dpi using the printer's **Standard** print-quality mode (300 dpi). Images printed using Image Smoothing will appear with less sharp detail but with smoother color transitions. Image Smoothing is not recommended for printing 300-dpi or 600-dpi images.

The **Image Smoothing** feature that appears in the printer driver is enabled and disabled in the front panel's **Printer Defaults** menu. There are two ways of selecting Image Smoothing:

- In a supported printer driver, check the **Image Smoothing** box *on*.
- Download a PostScript utility file to the printer to turn on Image Smoothing. Use the following utility files for your computer type:

Macintosh file name	PC file name
<i>Image Smoothing On</i>	<i>SMOOTHON.PS</i>
<i>Image Smoothing Off</i>	<i>SMOTHOFF.PS</i>

Refer to the on-line manual on the printer's CD-ROM for instructions on downloading utility files.

Printing the Color Control Strip

The **Color Control Strip** feature in supported printer drivers prints a band of colors along the bottom edge of your print job. Use this feature to check the consistency of printed colors between prints made on this printer and other printers.

The colors on the strip are the printer's eight primary and secondary colors: cyan, magenta, yellow, black, red (magenta and yellow), green (cyan and yellow), blue (cyan and magenta), and black (cyan, magenta, and yellow).

The colors are printed at 100 percent saturation or brightness, and also at 50 percent. The colors reflect the current color correction selected in the driver. The printed band also includes information about the file, such as **File** (file name), **Color Profile** (color correction), and the **Date/Time** of printing.

To use the **Color Control Strip**, refer to the quick reference tables for Windows (page 3-3) and for Macintosh (page 3-17) that contain instructions on selecting the **Color Control Strip** in the driver you are using.

Caring for Your Printer

Overview

The following topics will help you to care for the printer and keep it in peak operating condition:

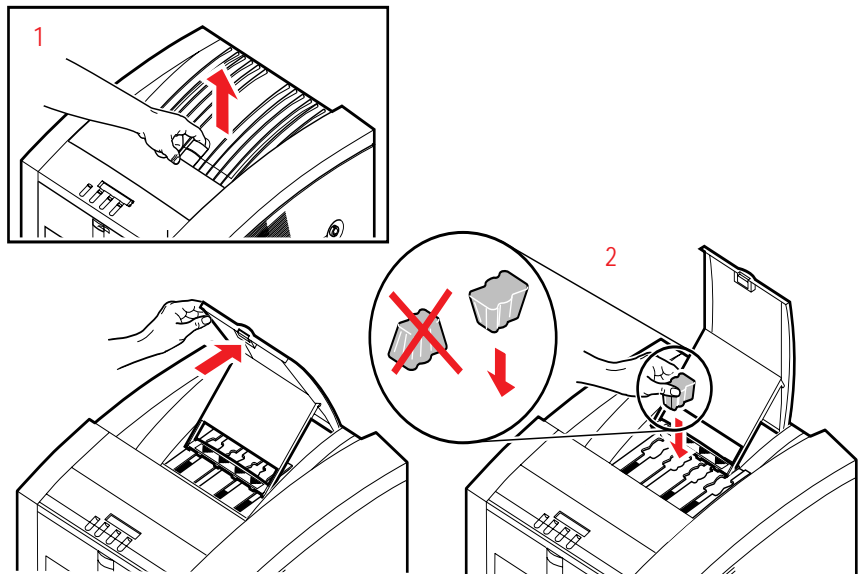
- **Adding ink**
Add ink when the ink level drops to one-half stick. The front panel displays an Ink Low message indicating when to add ink.
- **Emptying the waste liner**
Empty the excess ink from the waste liner when a front panel message tells you that the waste liner is full or anytime you remove the maintenance tray.
- **Replacing the maintenance tray**
Replace the maintenance tray when a front panel message indicates that the maintenance tray is low.
- **Replacing the media tray separator pad**
Replace the media tray separator pad when you begin to notice a wear pattern on the pad and media mispicks become frequent.
- **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.
- **Moving the printer**
Describes the steps you must take to properly move the printer from one location to another.

Adding ink

Approximate time to complete: 1 minute

The printer uses Phaser 380 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 of each color to the printer before continuing to print.

1. Open the top cover. A color-coded label inside the top cover corresponds to the color of each ink-loading bin.
2. Drop the appropriate color Phaser 380 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.



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

The print-quality setting and ink coverage per print affect the printer's ink consumption. To reorder additional ink sticks, contact your local dealer or, in the United States, call Tektronix at **1-800-835-6100** to locate a dealer near you.

Printer ink sticks

016-1540-00	Phaser 380 ColorStix solid ink — 2 Black sticks
016-1541-00	Phaser 380 ColorStix solid ink — 2 Cyan sticks
016-1542-00	Phaser 380 ColorStix solid ink — 2 Magenta sticks
016-1543-00	Phaser 380 ColorStix solid ink — 2 Yellow sticks

Ink handling tips

- Phaser 380 printer ColorStix ink is formulated specifically for use with the Phaser 380 printer. Only Tektronix ColorStix ink is certified for PANTONE Color matching.
- 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 may break if dropped; handle them with care.

Caution *Use only Phaser 380 ColorStix ink sticks. The Phaser 380 printer cannot be used with solid-ink ColorStix ink sticks intended for other Phaser printers.*

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.

Emptying the waste liner (A)

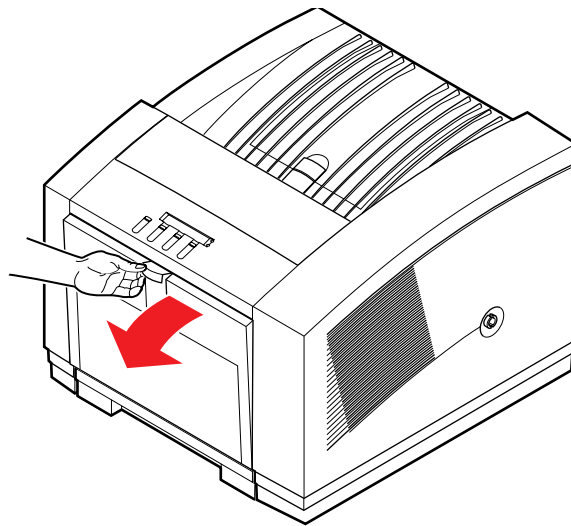
Approximate time to complete: 3 minutes

The waste liner (A) fits inside the maintenance tray (B) which is located behind the front cover. You should empty the waste liner when the front panel displays the following message:

Waste Liner (A) Full
Open Front Cover

Note *It is important that you empty the waste liner when the printer prompts you, even if it does not appear to be full.*

1. Open the front cover.



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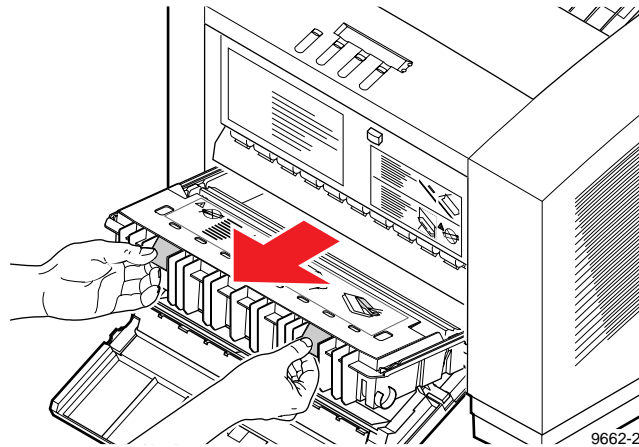
Caution *Some surfaces inside the printer may be hot. Be careful not to touch the areas marked with this caution icon:*



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

Waste Liner (A) Full
Remove Tray (B)

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



You may notice an accumulation of ink, paper dust and drum fluid on the maintenance tray blade of a used maintenance tray. These deposits are normal and do not affect its operation. Refer to “Cleaning the maintenance tray blade (optional)” on page 5-49 for more information.

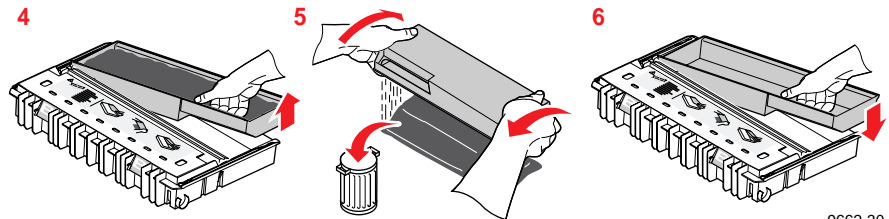
Note *Once the maintenance tray has been partially used, it will leak drum fluid if tipped. Place the maintenance tray on a flat surface after removing it from the printer. Contact with the waste ink and drum fluid poses no known health risk, but can permanently stain clothing. Refer to “MSDS for silicone oil” on page 9-6 for more information.*

5 Caring for Your Printer

4. Lift one end of the blue waste liner by its handle to release it from the maintenance tray; remove the waste liner from the maintenance tray.
5. Empty the contents of the waste liner by twisting it. Used ink is nontoxic; it can be treated as normal office waste.

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

6. Replace the waste liner in the maintenance tray.
 - a. Place the side opposite the handle into the maintenance tray first.
 - b. Press down firmly on the handle end of the waste liner to lock it into place. Make sure that the waste liner is fully seated in the maintenance tray.



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Note *If you break a waste liner, you can obtain a replacement waste liner from Tektronix (order number 436-0308-00).*

7. Replace the maintenance tray in the printer.
8. Close the front cover.

Replacing the maintenance tray (B)

Approximate time to complete: 22 minutes

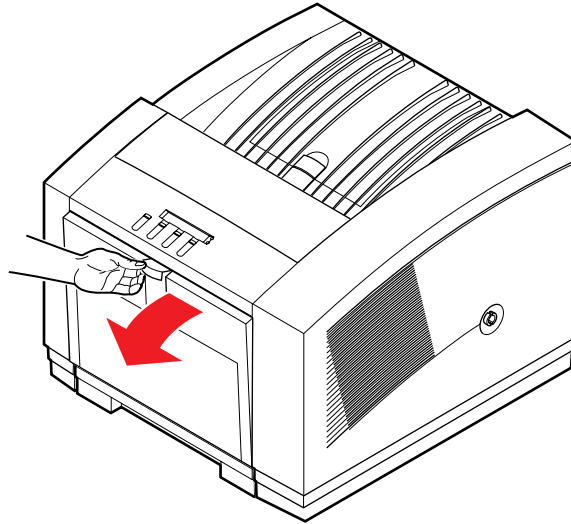
The printer uses the maintenance tray, located inside the printer behind the front cover, prior to each printing and during cleaning operations. A front panel message tells you when the maintenance tray is low, allowing you to make a limited number of prints before the tray is depleted. Install a new 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 20-minute warm-up period required after replacing the maintenance tray. As the printer initializes, it cycles the new maintenance tray to prepare it for use. Noises during the warm-up period are normal and are not an indication of a problem with the printer.*

To order a maintenance tray (Tektronix order number 436-0303-00), contact your local dealer or, in the United States, call Tektronix at **1-800-835-6100**.

5 Caring for Your Printer

1. Open the front cover.



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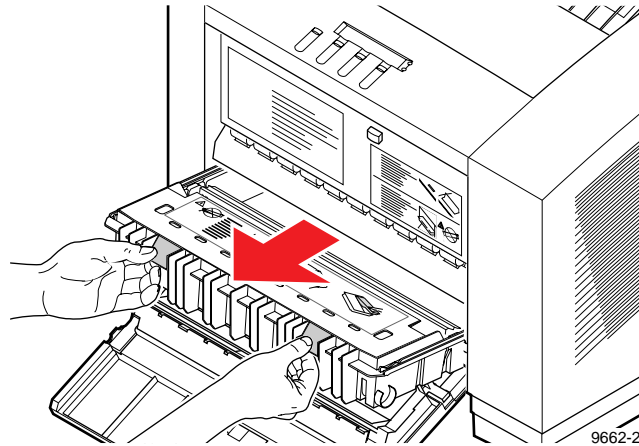
Caution *Some surfaces inside the printer may be hot. Be careful not to touch the areas marked with this caution icon:*



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

Caution Hot Surfaces
Install New Tray (B)

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



You may notice an accumulation of ink, paper dust and drum fluid on the maintenance tray blade of a used maintenance tray. These deposits are normal and do not affect its operation. Refer to “Cleaning the maintenance tray blade (optional)” on page 5-49 for more information.

- 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 waste ink and drum fluid poses no known health risk, but can permanently stain clothing. Refer to “MSDS for silicone oil” on page 9-6 for more information.*
4. Install a new maintenance tray in 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.

- Note** *When you install a new maintenance tray in the printer, the printer enters a warm-up cycle lasting approximately 20 minutes. Noises during the warm-up cycle are normal and not an indication of problems with the printer.*

Replacing the media tray separator pad

Approximate time to complete: 2 minutes

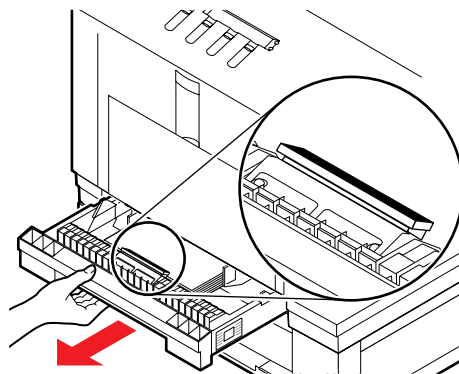
The printer uses a separator pad in the media tray to help separate sheets of media being drawn from the tray. If you often experience problems with the printer picking multiple sheets from the upper media tray or lower paper tray, you may need to replace the media tray separator pad. A visible wear pattern on the separator pad is also an indication that it is time to replace the separator pad.

Note *Noises that result from picking and feeding transparency media is normal and is not an indication that the separator pad should be replaced.*

A replacement separator pad and installation instructions are included in each maintenance tray box. To avoid media picking problems, replace the separator pad in the media tray each time you replace the printer's depleted maintenance tray.

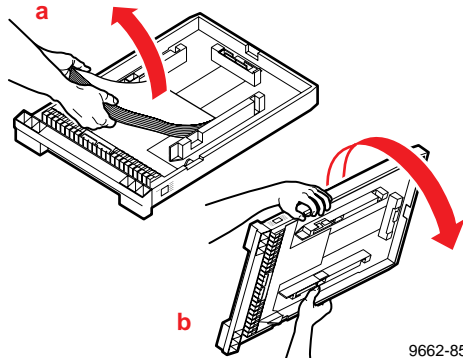
Note *Media feeding problems can also be caused by incorrectly loading the tray. Refer to "Loading media trays" on page 2-15 and "Media weight" on page 3-32.*

1. Remove the upper or lower tray from the printer.

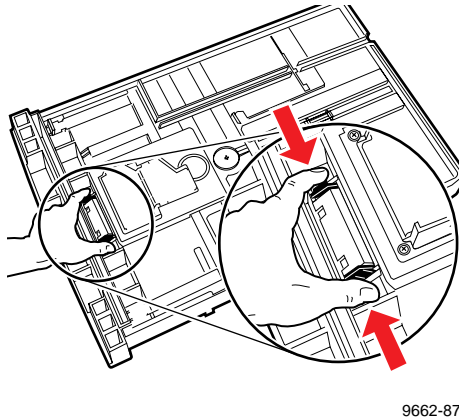


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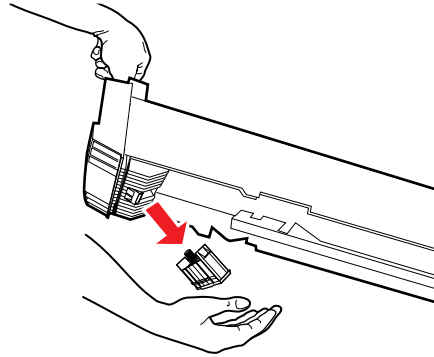
2. Remove any media loaded in the tray and turn the tray over.



3. Locate the two blue-colored tabs associated with the replaceable separator pad. Pinch the two blue tabs together to release the separator pad from the media tray and push it out from the tray.



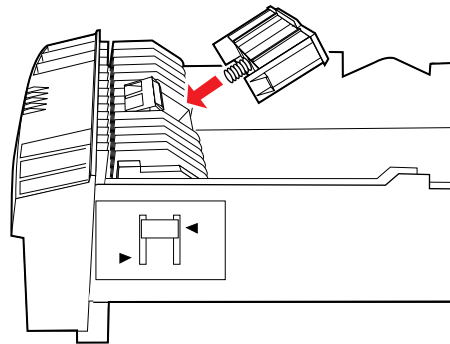
4. Remove and discard the old separator pad.



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5. Install the new replacement separator pad. An alignment guide on the separator pad assembly ensures proper installation.

Note *When properly aligned, the separator pad should slide easily into position. The separator pad will not operate properly if incorrectly installed.*



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6. Replace media into the tray and install the tray into the printer.

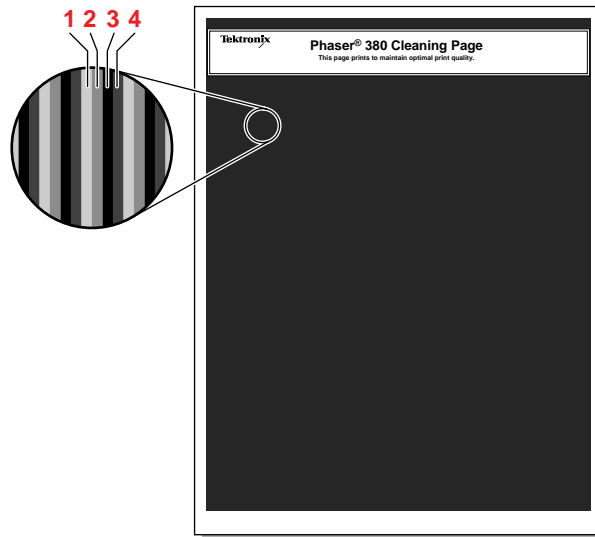
Cleaning the printer

Periodically cleaning the printer keeps it in peak operating condition. Automatic cleaning procedures to cure many problems are available through the front panel by pressing the **Clean** button. Front panel messages guide you through the necessary steps to perform cleaning procedures.

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

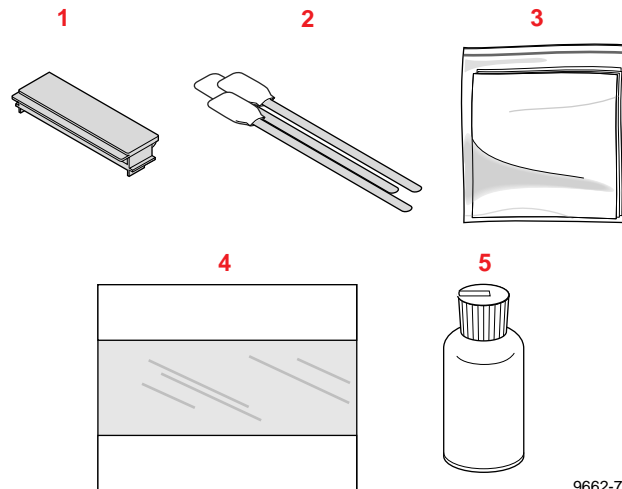


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Cleaning supplies

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

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



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Some cleaning procedures require you to use cloth wipes or swabs saturated with isopropyl alcohol. Since shipping regulations prohibit supplying alcohol or pre-soaked 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 016-1520-00), 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 re-order the cleaning kit, you'll automatically receive isopropyl alcohol-saturated wipes in place of the dry wipes.

Using isopropyl alcohol

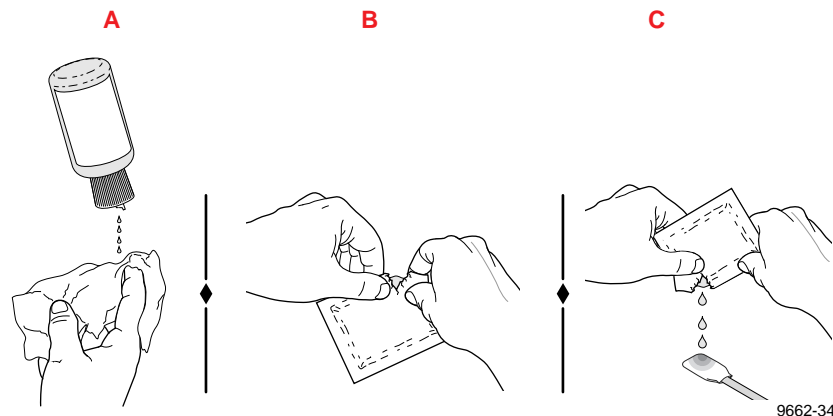
In general, it is best to use the purest isopropyl alcohol (99%) available to you. You can use 90% pure isopropyl alcohol, but if you do, you must wait after cleaning to make sure that printer parts are completely dry. 99% isopropyl alcohol dries quickly; 90% isopropyl alcohol may take several minutes 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 016-1520-00) includes these pre-soaked alcohol cloth packets.



Identifying cleaning procedures

Cleaning procedures are referenced by the type of printing problem you may be experiencing. Use the following tables to help you locate an appropriate cleaning procedure.

Light stripes or missing colors

Problem type	Solution
Missing or light-colored stripes on prints.	Refer to "Cleaning for light stripes: printhead" on page 5-17.

Media jams at the upper or lower tray

Problem type	Solution
Paper-pick or jamming problems at the upper tray.	Refer to "Cleaning for upper tray jams: media pick roller" on page 5-20.
Paper-pick or jamming problems at the lower tray.	Refer to "Cleaning for lower tray jams: paper pick roller" on page 5-34. Refer to "Cleaning for lower tray jams: paper-feed rollers" on page 5-39.

Media jams inside the front cover

Problem type	Solution
Media feed problems; media jams inside front cover	Refer to "Cleaning for jams and ink smears: media-feed rollers" on page 5-28.

Oil, ink smears or random streaks

Problem type	Solution
Oil (drum fluid) on a print.	Refer to "Cleaning for ink smears and transfix problems: internal paper path" on page 5-41.
Ink smears on the front, back or edges of a page.	Refer to "Cleaning for ink smears and transfix problems: internal paper path" on page 5-41. Refer to "Cleaning for jams and ink smears: media-feed rollers" on page 5-28. Refer to "Cleaning for ink smears: paper-exit path" on page 5-43. Refer to "Cleaning the maintenance tray blade (optional)" on page 5-49.

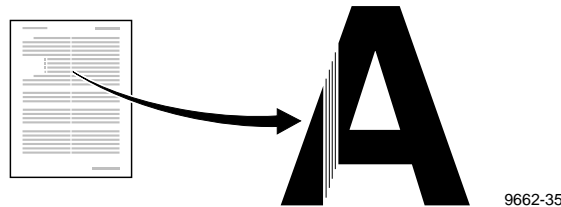
Media sticking to transfix roller

Problem type	Solution
Media wrapping around black transfix roller inside the exit cover.	Refer to "Cleaning for ink smears and transfix problems: internal paper path" on page 5-41.

Cleaning for light stripes: printhead

Approximate time to complete: 3-10 minutes

If your prints have 2.5 mm (1/10 in.) 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.



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

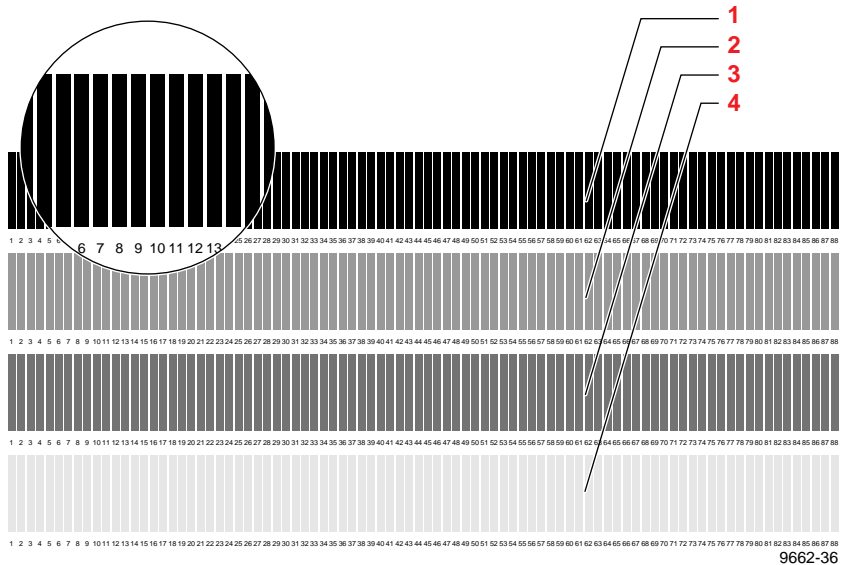
```
Clean:Light Stripes
<---- Clean Test
```

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



6. If one or more of the color bars are still missing, repeat the cleaning sequence. Press the **Clean** button once again to initiate a more aggressive cleaning sequence. 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.

7. If your prints still have color stripe problems after the third cleaning sequence, service may be required.
8. Return the printer to normal operation by pressing the **Exit** button.

Cleaning for upper tray jams: media pick roller

Approximate time to complete: 5 minutes

If you are experiencing media feeding problems including mispicks and multiple picks at the upper media tray, you can generally correct the problem by cleaning the media-pick roller with isopropyl alcohol. Refer to "Using isopropyl alcohol" on page 5-15 for more information.

The printer guides you through the necessary steps to perform automatic cleaning procedures. 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. You can also clean the media pick roller manually using an alcohol-soaked cloth; refer "Cleaning the upper pick roller manually" on page 5-24.

1. When the printer is on and the Ready message or the printer's name 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:

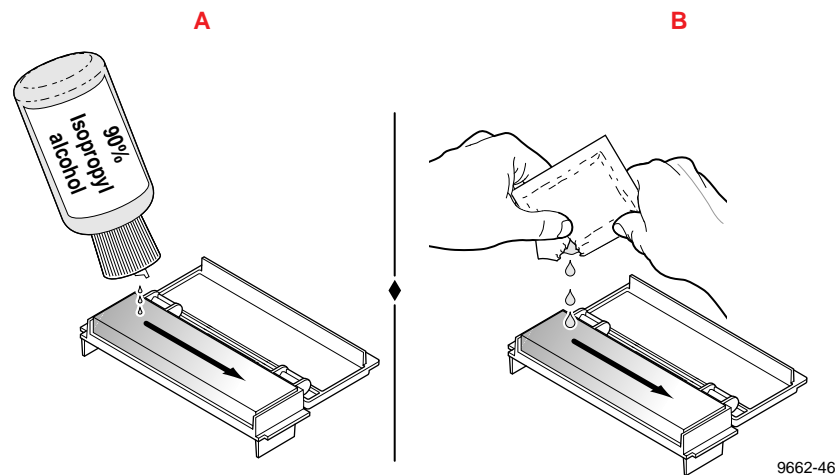
```
Clean:Media Tray Jams  
<---- Clean Test
```

For printers equipped with a Lower Paper Tray Assembly, the following message appears:

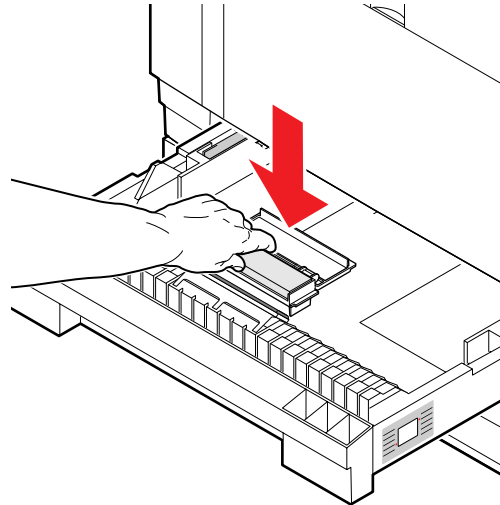
```
Clean:Jam At Upper Tray  
<---- Clean Test
```

3. Press the **Clean** button. A front panel message prompts you to install the cleaning tray in the upper media tray.
 - a. Remove the upper 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. Lightly wet the cleaning tray sponge with isopropyl alcohol (A); a bottle is provided in the cleaning kit for the alcohol. Alternately, you can squeeze the alcohol from two pre-soaked alcohol wipe packets 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.



- 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.



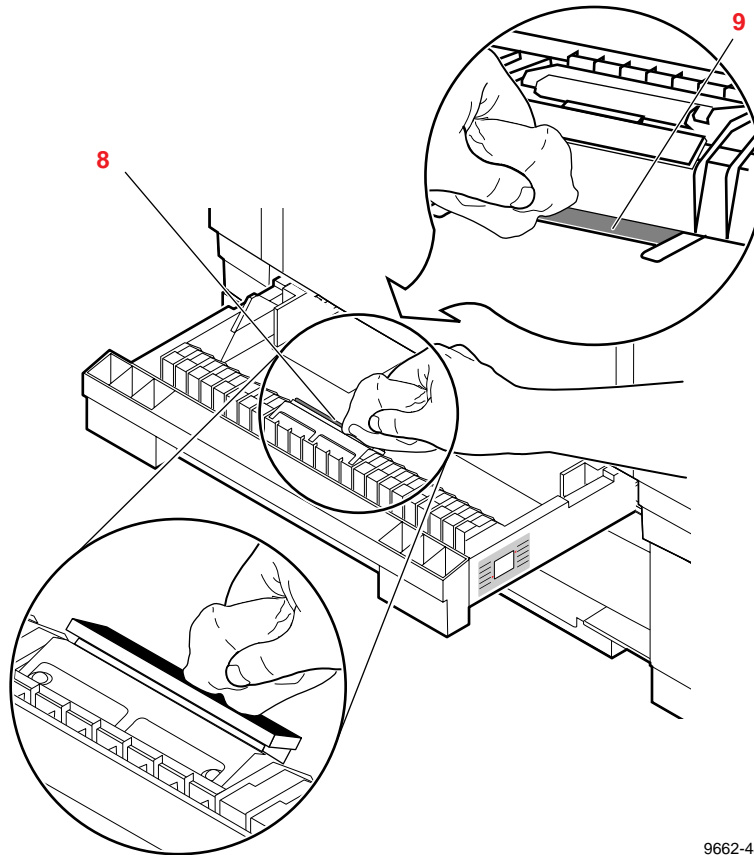
9662-47

- e. Gently insert the upper media tray with the cleaning tray into the printer.
4. Press the **Clean** button. The printer cleans the media-pick roller while displaying the following message:

Cleaning
 5. When the cleaning operation is complete, a message instructs you to remove the cleaning tray.
 6. Remove the upper media tray from the printer.
 7. Remove the cleaning tray from the media tray.

8. To remove paper dust, use a clean cloth or a dry brush to wipe the separator pad located inside the media tray near the paper tray's handle.

Note *If the separator pad appears worn or the printer is picking multiple sheets of media, consider replacing the separator pad. Refer to "Replacing the media tray separator pad" on page 5-10 for more information.*



9662-48

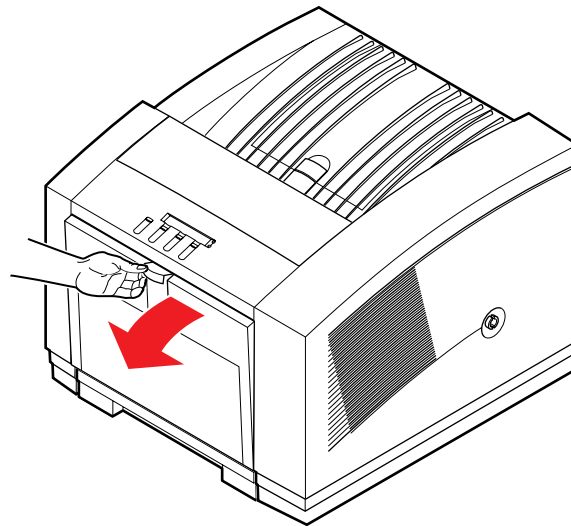
9. Use a clean cloth or a dry brush to wipe the cork pad located in the bottom of the media tray.

10. Reload media in the media tray. Replace the upper media tray in the printer.
11. Press the **Exit** button to return to normal operation. Store the cleaning tray in its original packaging for later use.

If media-feed problems persist, you may need to manually clean the media-pick roller by hand with an alcohol-soaked cloth.

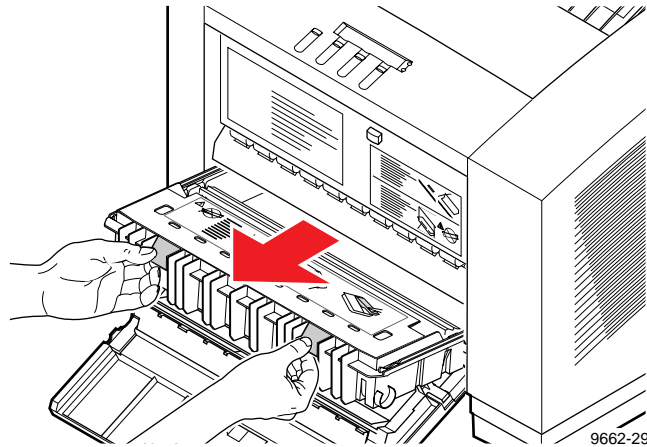
Cleaning the upper pick roller manually

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



9662-07

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.



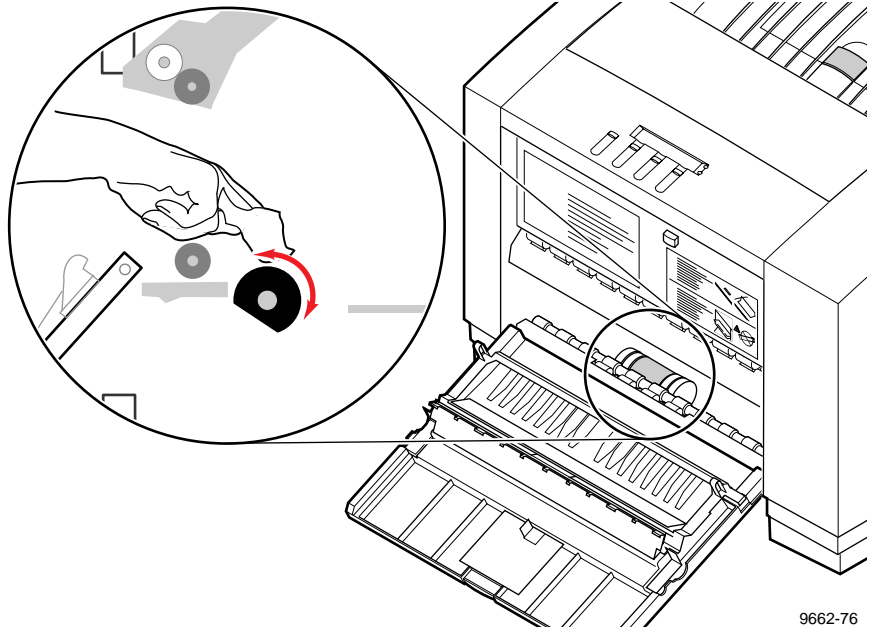
Note *Once the maintenance tray has been partially used, it leaks drum fluid if tipped. Contact with the drum fluid poses no known health risk; refer to “MSDS for silicone oil” on page 9-6 for more information.*

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.

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.*

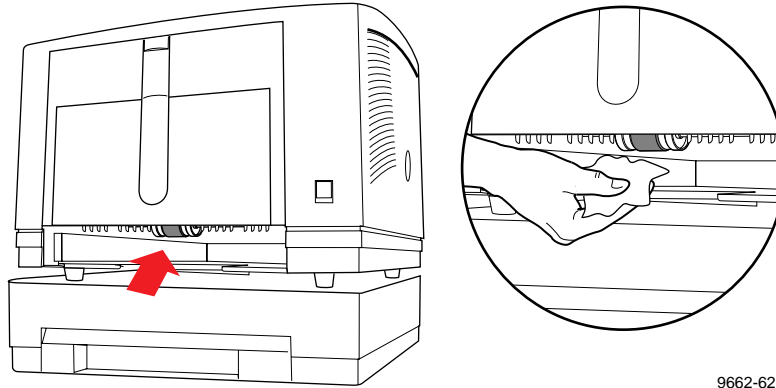


5. **Scrub the surface of the media-pick roller thoroughly.** If the cloth becomes dirty, discard it and use another.



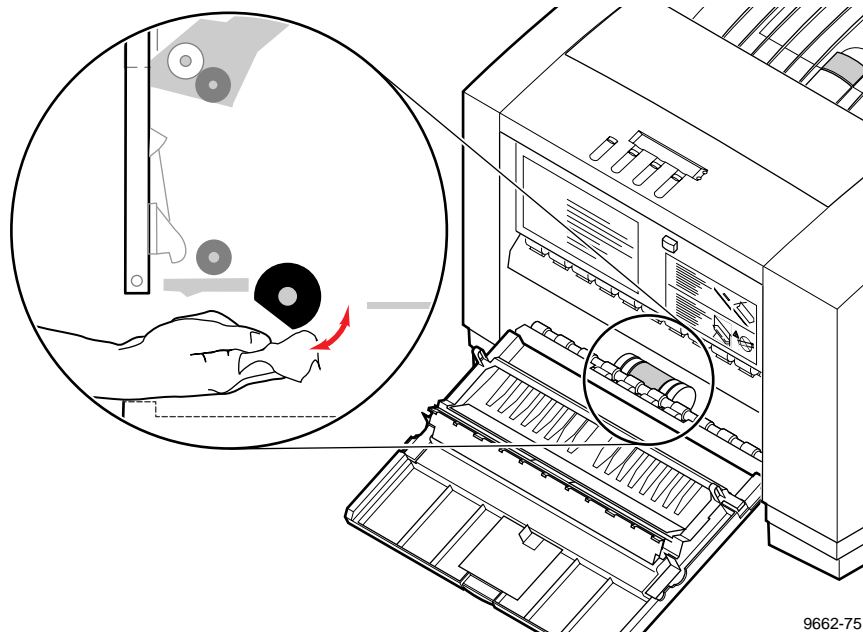
6. Replace the maintenance tray in the printer.
7. Close the front cover.

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



9662-62

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



9662-75

10. Replace the upper media tray in the printer.

Cleaning for jams and ink smears: media-feed rollers

Approximate time to complete: 5 minutes

If you have already performed the “Cleaning for ink smears: internal paper path” cleaning procedure but ink smear problems persist, clean the upper and lower paper feed rollers. You should clean the upper and lower media feed rollers if any of the following conditions exist:

- Media is consistently jamming behind the front cover or at the manual-feed slot.
- Ink smear problems persist after you have performed the “Cleaning for ink smears: internal paper path” procedure.

The media 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 creating slick or contaminated surfaces. When media feed problems or ink smears appear on prints, you can generally correct the problem by scrubbing the media feed rollers using an alcohol-soaked cleaning card. Refer to “Using isopropyl alcohol” on page 5-15 for more information.

Sample ink smear: media feed rollers



9662-38

1. When the printer is on and the Ready message or the printer's name 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:Feed Rollers  
<---- Clean Test
```

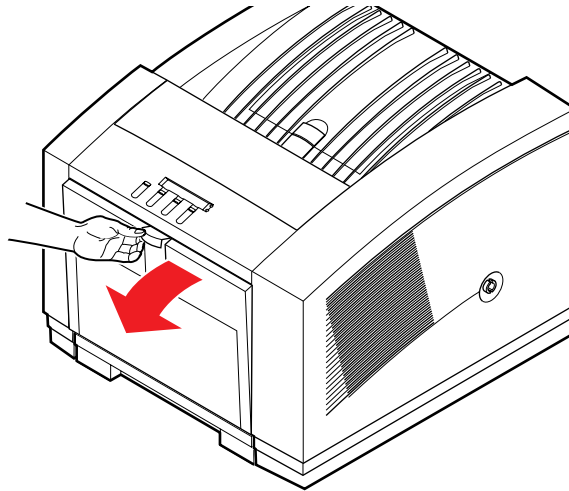
3. Press the **Clean** button and the following message appears:

```
Clean:Upper Feed Rollers  
<---- Clean Cancel
```

4. Press the **Clean** button and the following message appears:

```
Open Front Cover  
Cancel
```

5. Open the front cover.



9662-07

6. The following message appears:

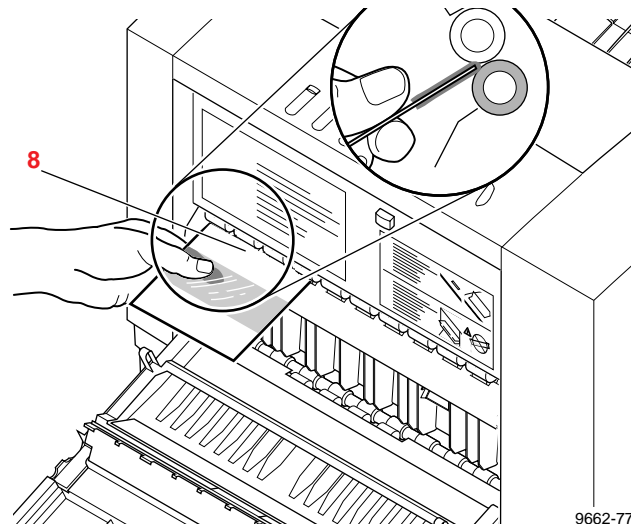
Turn Upper Feed Rollers
Clean Cancel

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.*



7. There are two sets of upper media-feed rollers located above the maintenance tray. One set of rollers is rubber; the other set is white plastic. Turning the upper rubber rollers also turns the upper plastic rollers.

To clean the upper rollers, wet the front and back sides of a cleaning card and place it between the upper black and white rollers at the far left side of the printer. While firmly holding the cleaning card against the rollers, press the **Clean** button on the front panel to turn the rollers.



8. After the printer turns the rollers several times, move the cleaning card to the right to continue cleaning the upper media-feed rollers.
9. Repeat Steps 8 and 9 until all upper media-feed rollers have been cleaned. If a cleaning card becomes dirty during cleaning, discard it and use another.
10. Press **Exit** and the printer displays the following message:

```
Clean:Upper Feed Rollers
<---- Clean Cancel
```

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

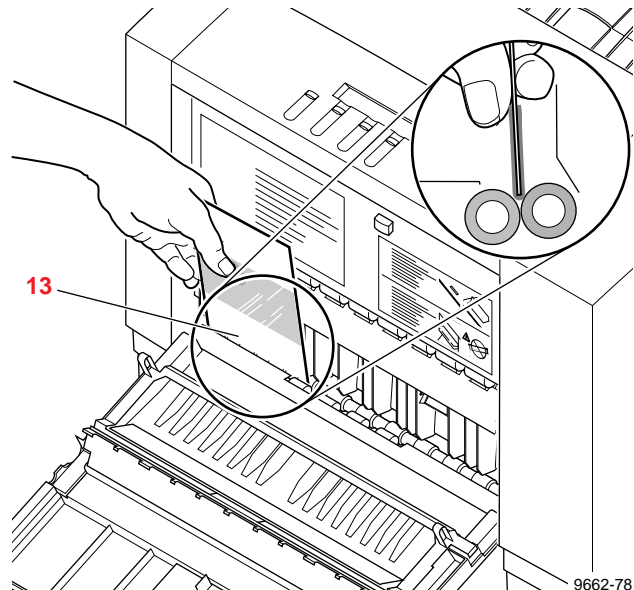
```
Clean:Lower Feed Rollers  
<---- Clean Cancel
```

12. Press **Clean**, the following message appears:

```
Turn Lower Feed Rollers  
Clean Cancel
```

13. There are two sets of black, lower media-feed rollers located below the maintenance tray.

To clean the lower media-feed rollers, wet the front and back sides of a cleaning card and place it between the two sets of rollers at the far left side of the printer. While firmly holding the cleaning card against the rollers, press the **Clean** button on the front panel to turn the rollers.



14. After the printer turns the rollers several times, move the cleaning card to the right to continue cleaning the lower media-feed rollers.
15. Repeat Steps 14 and 15 until all lower media-feed rollers have been cleaned. If a cleaning card becomes dirty during cleaning, discard it and use another.
16. Close the front cover. If the problem persists, refer to the procedure for cleaning ink smears in the paper exit path.

Cleaning for lower tray jams: paper pick roller

Approximate time to complete: 5 minutes

If you are experiencing media feeding problems including mispicks and multiple picks at the Lower Paper Tray Assembly, you can generally correct the problem by cleaning the media-pick roller with isopropyl alcohol. Refer to “Using isopropyl alcohol” on page 5-15 for more information.

The printer guides you through the necessary steps to perform automatic cleaning procedures. 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. You can also clean the media pick roller by hand using an alcohol-soaked cloth; refer “Cleaning the lower paper-pick roller manually” on page 5-38.

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

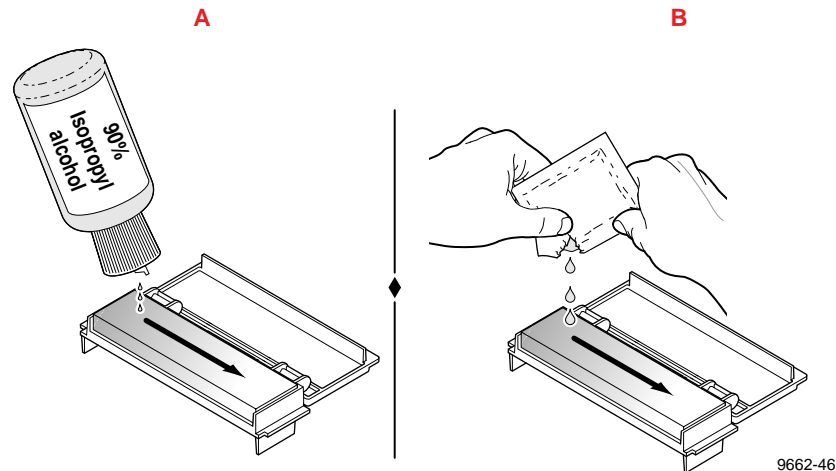
```
Clean:Light Stripes  
<---- Clean Test
```

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

```
Clean:Jam At Lower Tray  
<---- Clean Test
```

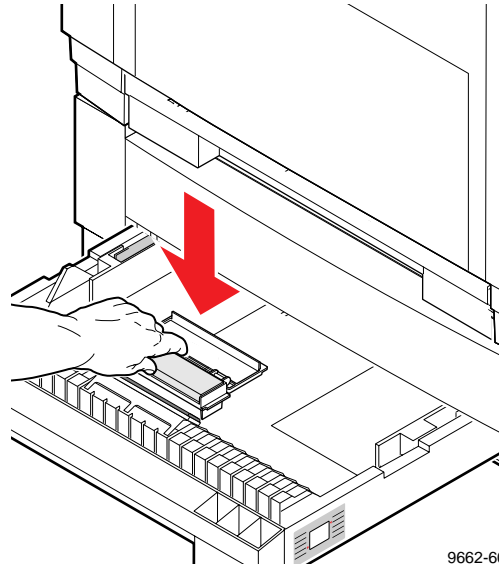
3. Press the **Clean** button. A front panel message prompts you to install the cleaning tray in the lower paper tray.
 - a. Remove the lower paper tray from the printer. Remove all paper from the paper tray.
 - b. Remove the cleaning tray from the cleaning kit and open the tray lid to reveal the cleaning tray sponge.
 - c. Lightly wet the cleaning tray sponge with isopropyl alcohol (A); a bottle is provided in the cleaning kit for dispensing the alcohol. Alternatively, you can squeeze the alcohol from two pre-soaked alcohol wipe packets 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.



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- d. Place the cleaning tray in the lower paper 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.



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- e. Insert the paper tray with the cleaning tray into the Lower Paper Tray Assembly.
4. Press the **Clean** button. The printer cleans the paper-pick roller while displaying the following message:

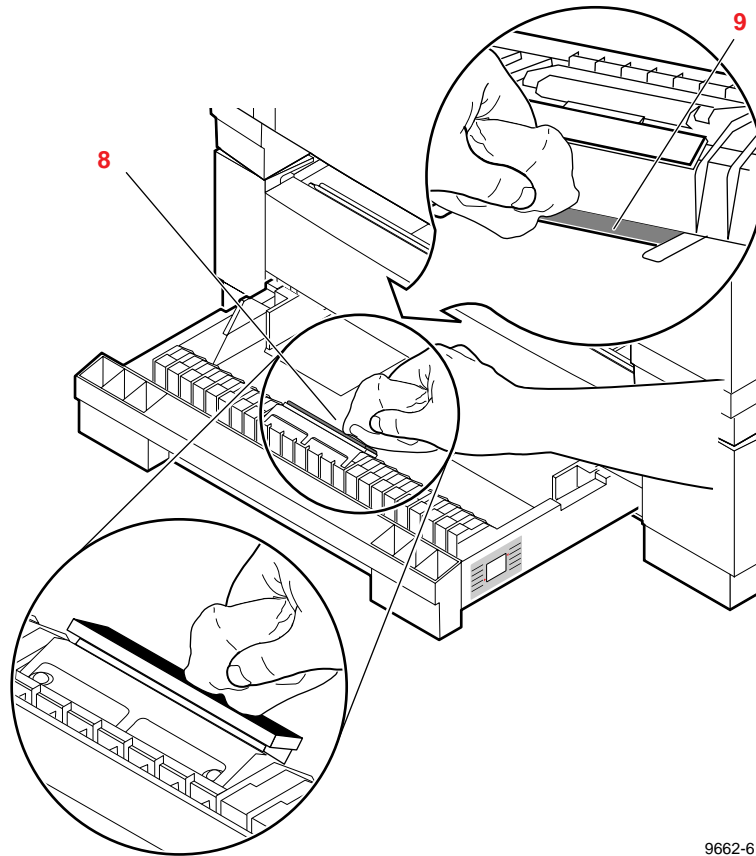
Cleaning

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

Remove Cleaning Tray

6. Remove the paper tray from the printer.

7. Remove the cleaning tray from the paper tray.
8. To remove paper dust, use a clean cloth or a dry brush to wipe the separator pad located inside the paper tray near the paper tray's handle.



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9. Use a clean cloth or a dry brush to wipe the cork pad located in the bottom of the media tray.
10. Reload paper in the paper tray. Replace the paper tray in the Lower Paper Tray Assembly.

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

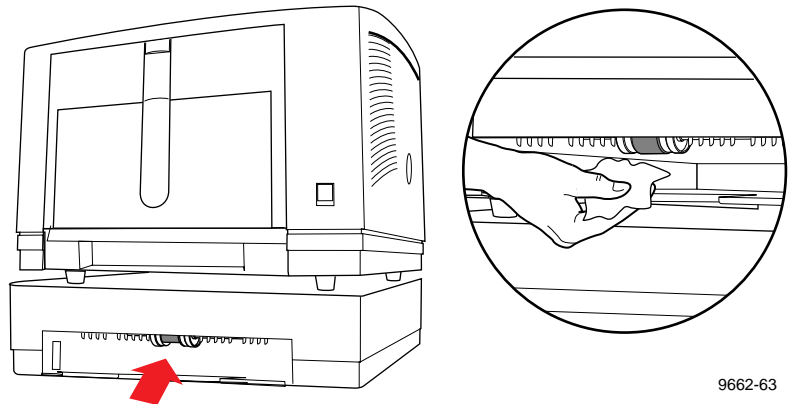
```
Clean:Jam At Lower Tray  
<---- Clean Test
```

12. Press the **Exit** button to return to normal operation. Store the cleaning tray in its original packaging for later use.

If media feed problems persist, you may need to manually clean the media-pick roller by hand with an alcohol-soaked cloth.

Cleaning the lower paper-pick roller manually

1. Remove the lower paper tray from the Lower Paper Tray Assembly.
2. Locate the media pick roller according to the following illustration.



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3. Using an alcohol-soaked cloth, wipe the pick roller to remove any paper dust.
4. Replace the lower paper tray in the printer.

Cleaning for lower tray jams: paper-feed rollers

Approximate time to complete: 5 minutes

The Lower Paper Tray Assembly's paper-feed rollers carry the paper from the lower paper tray up to the printer's feed rollers. Occasionally, paper particles become attached to the Lower Paper Tray Assembly's paper feed rollers creating slick or contaminated surfaces. When media feed problems occur from the lower tray, you can generally correct the problem by scrubbing the paper-feed rollers using an alcohol-soaked cleaning card.

1. When the printer is on and the Ready message or the printer's name 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:Feed Rollers
<---- Clean Test
```

3. Press the **Clean** button and the following message appears:

```
Clean:Upper Feed Rollers
<---- Clean Cancel
```

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

```
Clean:Lower Tray Rollers
<---- Clean Test
```

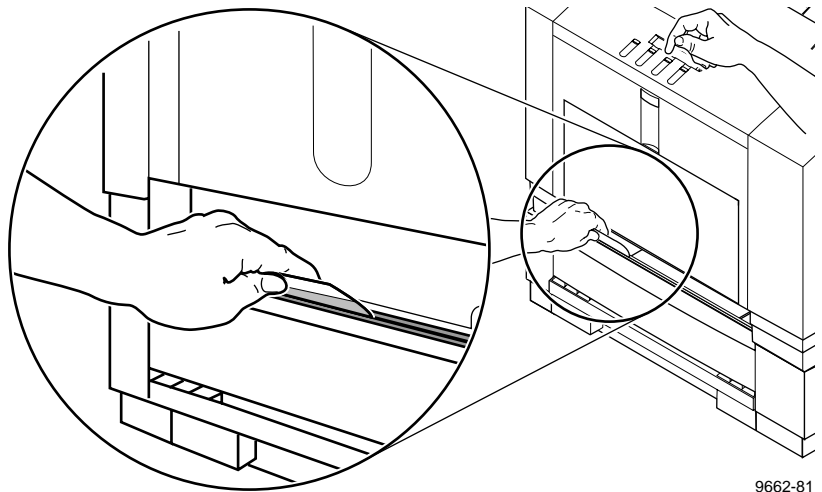
5. Press the **Clean** button; a front panel message prompts you to remove the upper media tray.

6. Remove the upper media tray from the printer and the following message appears:

Turn Lower Tray Rollers
Clean Cancel

7. To clean the lower paper tray's rubber transport rollers, wet the front and back sides of a cleaning card and place it into the slot provided on the top of the Lower Paper Tray Assembly. Starting at the far left side of the printer, push the cleaning card down into the slot until it contacts the rubber transport rollers.

Note *Guide marks molded into the Lower Paper Tray Assembly indicate the left and right boundaries of the area to be cleaned.*



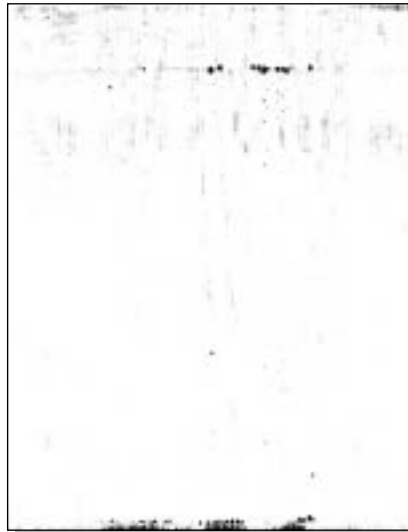
8. While firmly holding the cleaning card against the rollers, press the **Clean** button on the front panel to turn the rollers. Each button press turns the rollers several revolutions.
9. After the printer turns the rollers several times, move the cleaning card to the right to continue cleaning the lower transport rollers.
10. Repeat Steps 7 and 8 until all rollers have been cleaned. Press the **Exit** button and replace the media tray in the printer.

Cleaning for ink smears and transfix problems: internal paper path

Approximate time to complete: 3-20 minutes

If your prints have oil stains, stray ink marks on the front or the back, or the media is wrapping around the transfix roller inside the top cover, you can correct the problem by cleaning the printer's internal paper path. The printer automatically feeds sheets of paper through the print path when you run the `Clean:Ink Smears` routine from the front panel.

Sample ink smear: internal paper path



9662-37

1. When the printer is on and the `Ready` message or the printer's name 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:

Clean:Ink Smears
Quick Extended

4. Press the **Quick** button. After a short delay during the warm-up period, the printer begins an automatic sequence of feeding 5 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 5 Sheets

Caution *Always use clean sheets of paper to clean the paper path. Do not reuse cleaning sheets. Large-format, high-grade paper heavier than 150 g/m² (28 lbs.) works best.*

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 using the **Extended** cleaning routine.

Note *The **Extended** cleaning routine takes approximately 20 minutes to complete. After a short warm-up period, the printer feeds 10 sheets of paper, then finishes the cleaning routine with a short cool-down period.*

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

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 but problems persist, you should clean the paper-exit path. Refer also to “Cleaning for jams and ink smears: media-feed rollers” on page 5-28. If you have already performed the ink smear cleaning procedures for the internal paper path and the paper feed rollers but problems persist, you should manually clean the paper exit path.

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 or cloths. Refer to “Using isopropyl alcohol” on page 5-15 for more information.

Sample ink smear: paper exit path



9662-41

1. When the printer is on and the Ready message or the printer's name 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:Feed Rollers  
<---- Clean Test
```

3. Press the **Clean** button and the following message appears:

```
Clean:Upper Feed Rollers  
<---- Clean Cancel
```

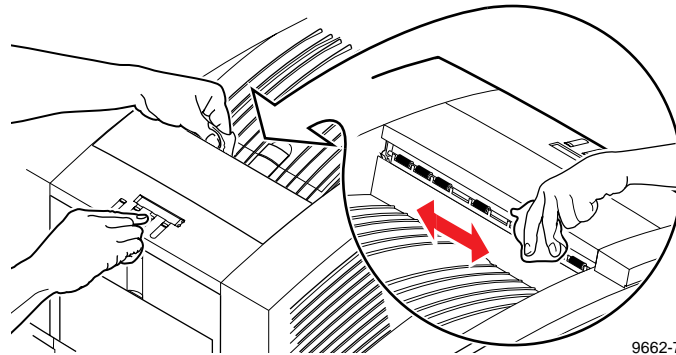
4. Press the left arrow (<---) button until the following message appears:

```
Clean:Exit Rollers  
<---- Clean Test
```

5. Press the **Clean** button and the following message appears:

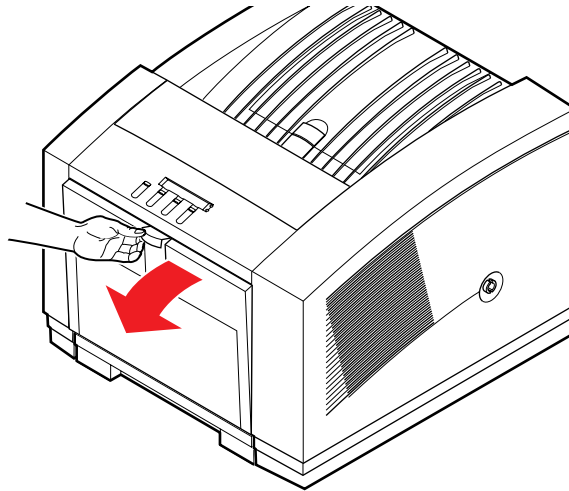
```
Turn Exit Rollers  
Clean Cancel
```

6. To clean the rubber exit rollers from the outside of the printer, place an alcohol-soaked cleaning cloth against the rubber rollers in the exit tray (where the prints are ejected). Start from the far left side of the printer.



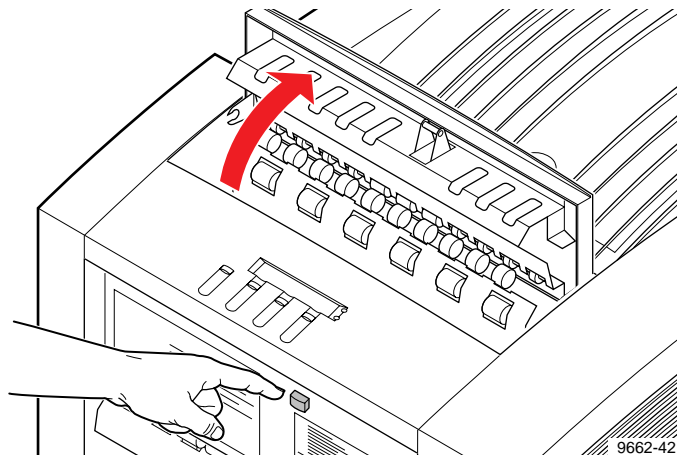
7. While firmly holding the cleaning cloth against the exit rollers, press the **Clean** button on the front panel to turn the exit rollers.
8. Move the cleaning cloth to the right to continue cleaning the exit rollers and repeat Steps 6 and 7. If the cleaning cloth becomes dirty during cleaning, discard it and use another.

9. To check the condition of the exit fingers, first open the front cover.



9662-07

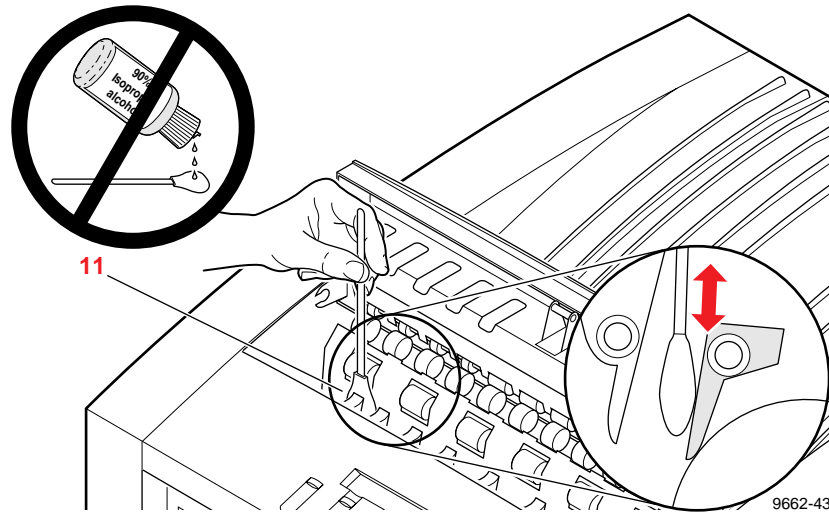
10. Open the exit cover using the blue release button located inside the front cover at the top of the printer.



9662-42

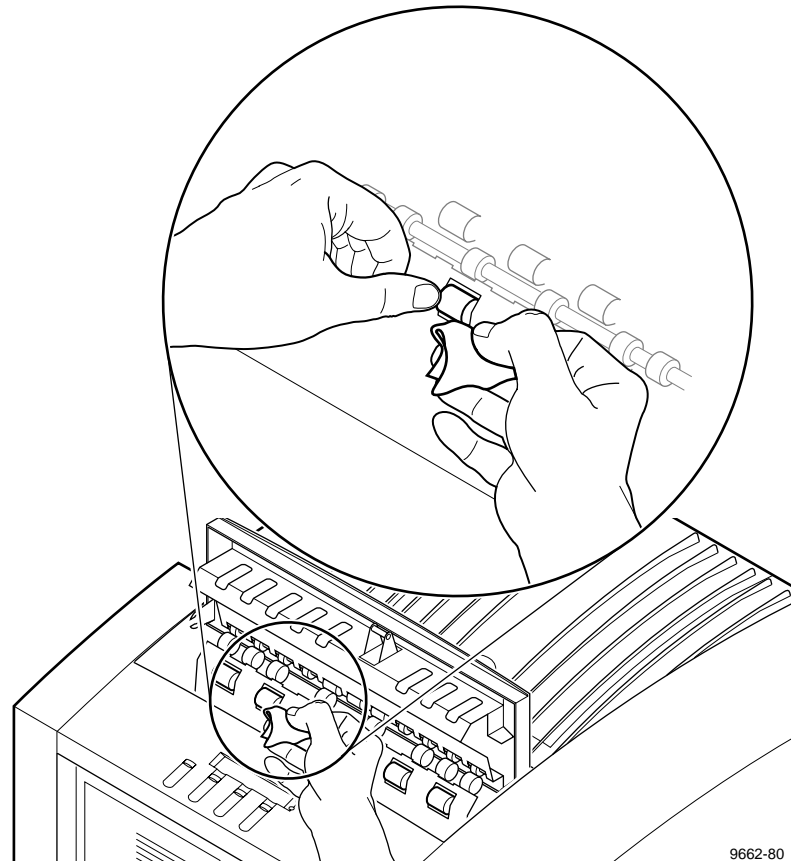
11. To clean excess ink particles and drum fluid from the blue-colored exit fingers, gently wipe the top surface of each finger using a *dry* swab.

Caution To avoid damaging the print drum and exit fingers, never scrape excess ink with a tool or fingernail. Use a dry swab provided with the cleaning kit.



Note If ink flakes from the exit fingers fall into the printer, they can cause print quality problems. Refer to “Cleaning for ink smears and transfix problems: internal paper path” on page 5-41.

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



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Caution *To avoid damaging the print drum and exit fingers, never scrape excess ink with a tool or fingernail. Use only the materials provided with the cleaning kit.*

13. Close the exit cover and the front cover.

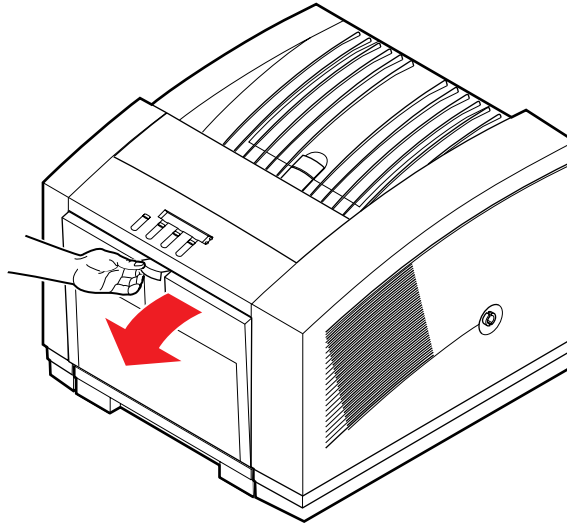
Cleaning the maintenance tray blade (optional)

During normal use, you may notice an accumulation of ink, paper dust and drum fluid on the maintenance tray blade. In most cases, build-up of deposits on the blade does not affect the operation of the maintenance tray. Cleaning of the blade is *not* normally necessary.

If, however, you notice oil streaks or spots on your prints, cleaning the maintenance tray blade may eliminate the problem. Cleaning the maintenance tray felt pad near the maintenance tray blade is not recommended.

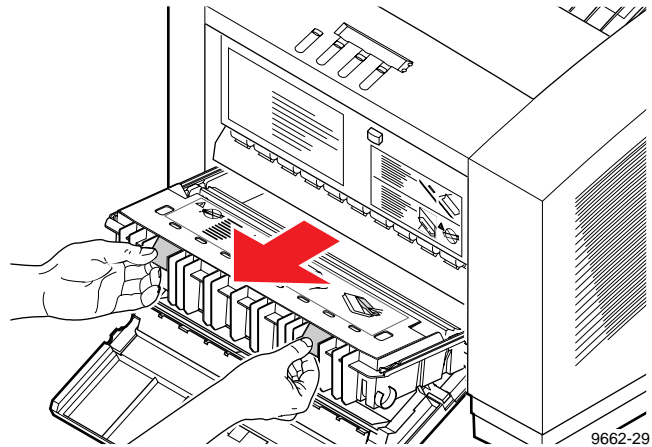
Caution Use a dry, lint-free cloth to clean the maintenance tray blade. Use of isopropyl alcohol will damage the blade and shorten the rated life of the maintenance tray.

1. Open the front cover.



9662-07

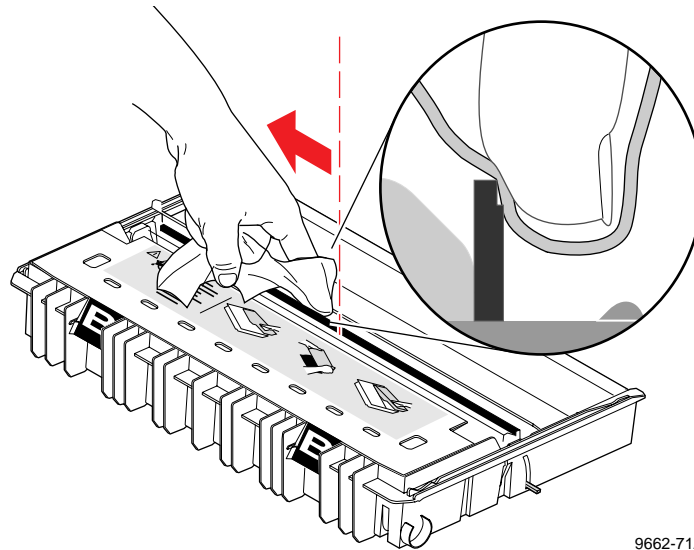
2. Grasp the maintenance tray by the front handle and lift up while sliding it out of the printer. Place the maintenance tray on a level surface.



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 waste ink and drum fluid poses no known health risk, but can permanently stain clothing. Refer to “MSDS for silicone oil” on page 9-6 for more information.*

3. Using a dry, lint-free cloth, clean one end of the maintenance tray blade by lightly wiping the blade from the center and moving outward. Pay particular attention to cleaning the upper edge of the blade closest to the felt pad. Cleaning the sides of the blade is not necessary and is not recommended.

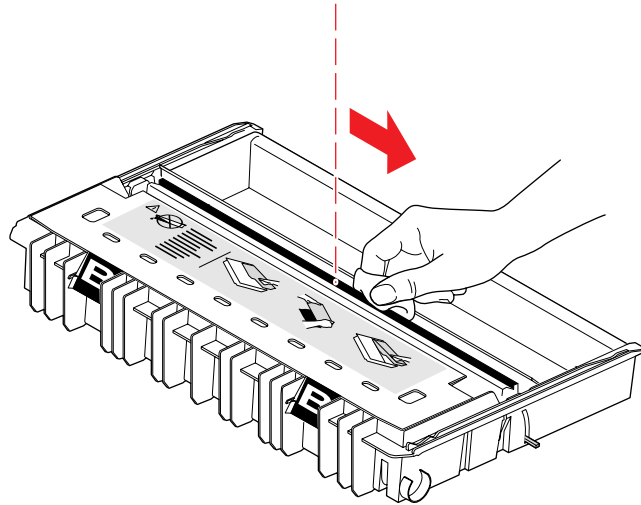
Caution *Damage to the maintenance tray blade can occur if the cleaning cloth catches and lifts the end of the blade. Always wipe the blade by starting near the center and moving outward. Never expose the maintenance tray blade to isopropyl alcohol or other cleaning solvents.*



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5 *Caring for Your Printer*

4. Clean the other end of the blade by wiping from the center of the blade and moving outward in the opposite direction.



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5. Install the maintenance tray in the printer.
6. Close the front cover and wait for the printer to warm up.

Moving your printer

Before moving the printer, follow these three important steps as described later in detail.

1. Turn off the printer and wait for at least 45 minutes.
2. Remove the maintenance tray (B).
3. Lock the transit restraint.

Waiting 45 minutes before moving

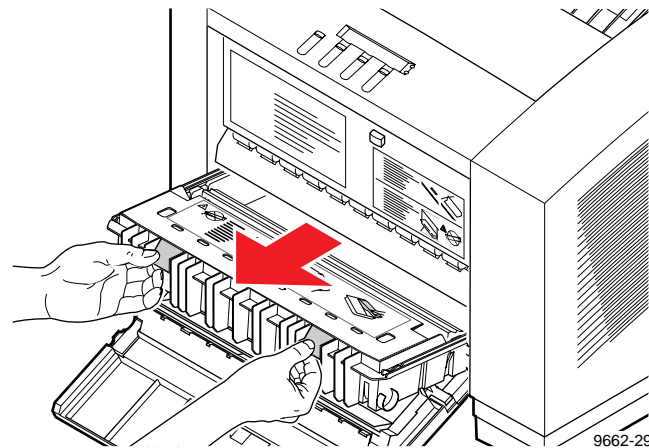
Caution *To avoid damaging the printer, let the printer cool down for at least 45 minutes before you move it so that the ink has time to solidify. Failure to wait 45 minutes will likely result in an ink spill that will damage the printer's internal components.*

Before you move the printer, wait for the printer to display the Ready message or the printer's network name, then turn off the printer using the rear-panel **On/Off** switch.

Warning *The printer weighs about 100 kg (220 lbs.). Do not attempt to lift the printer without the assistance of others. Always use the four pull-out handles located under each corner of the printer when moving it.*

Removing the maintenance tray (B)

1. Remove the maintenance tray from the printer, keeping it level. Remove, empty, and replace the waste liner if it contains large deposits of waste ink. Refer to “Emptying the waste liner (A)” on page 5-4 for detailed instructions. Refer to the information on the maintenance tray if you need 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 9-6 for more information.*

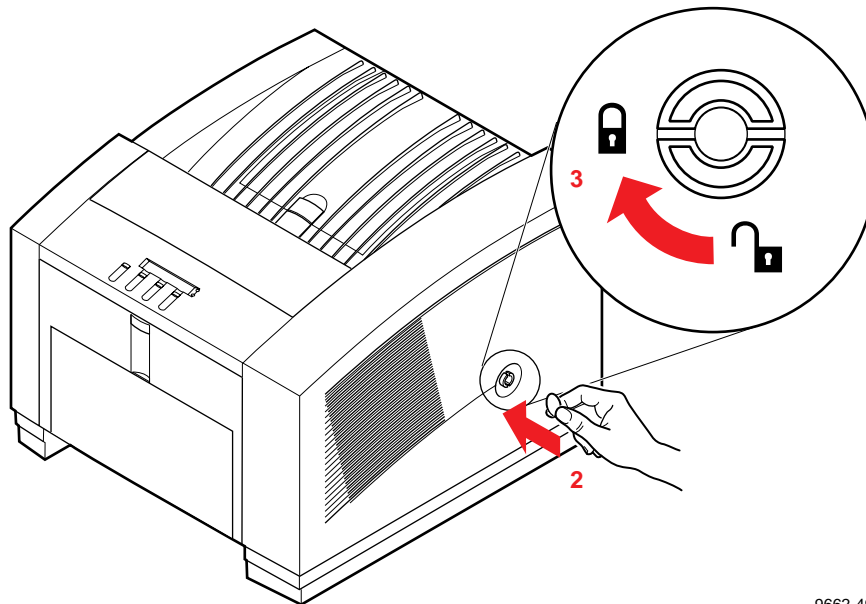
Locking the transit restraint

Refer to the following illustration while performing these steps.

1. When the printer displays the Ready message or the printer's name, power it down using the rear-panel **On/Off** switch. The printer places the printhead 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 printer's internal components and may invalidate your printer's warranty.*

2. Locate the transit restraint on the right side of the printer and insert a coin into the transit restraint slot.



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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 different line voltage, the printer automatically switches to use the new line voltage. The new location may require a different power cord; contact your local Tektronix office or dealer for details.

Warning *To avoid damaging the printer, turn the printer power off using the On/Off switch before changing the power cord. To avoid risk of electric shock, do not remove any of the printer's covers.*

Troubleshooting

If you need help

If you need assistance, contact your local Tektronix dealer or sales representative or any of these listed resources:

Type of service	How to access	Details
Product Support (hardware and software troubleshooting and service repair)	U. S. and Canada 1-800-835-6100	Monday through Friday 6:00 am to 5:00 pm PST
	Australia 1800 811 177 Austria 0 660 5804 Belgium 0800 1 5059 Brazil 0800 16 0220 Denmark 80 01 81 76 Eastern Europe/Middle East +44 1908 68187 Finland 0800 1 14494 France 05 90 85 41 Germany 0130 82 10 68 Hong Kong 852 2585 6688 India 91 80 225 2996	
	Italy 1678 77261 Japan 81 3 3448 4872 Korea 82 2 528 5299 Luxembourg 0800 2853 Norway 800 11782 Singapore 65 356 3900 Spain 900 97 4499 Sweden 020 795 177 Switzerland 155 9493 Taiwan 886 2 765 6362 The Netherlands 06 0221647 UK 0800 558668	
	All other locations, contact local Tektronix dealers or local Tektronix offices.	

Type of service (cont'd.)	How to access (cont'd.)	Details (cont'd.)
Online services		
World Wide Web	www.tek.com/Color_Printers/	
Technical Support	www.tek.com/Color_Printers/support/colcare.html	
Tektronix Bulletin Board Service (BBS)	(503) 685-4504	24 hours per day, 7 days per week
Anonymous FTP server	ftp.tek.com/Color_Printers	
HAL automated fax system	(503) 682-7450 direct outside U. S., Canada 1-800-835-6100 toll-free for U. S., Canada	24 hours per day, 7 days per week
EuroHAL automated fax system	Refer to "Using the automated fax systems" on page 6-3 in this manual.	24 hours per day, 7 days per week
OzHAL automated fax system (Australia)	02 9878 0332 or 1-800-650-633 toll-free	24 hours per day, 7 days per week
Email update notices (see below)	www.tek.com/Color_Printers/support/subscribe.html	

Receiving email update notices

Using the World Wide Web, you can register to receive email notification of new printer drivers, accessories and upgrades for your Tektronix Phaser color printer as they become available. To subscribe to this free service, simply follow these steps:

1. Point your browser to the Tektronix web site:
http://www.tek.com/Color_Printers/support/subscribe.html
2. Enter your email address and select your model of Phaser color printer from the pull-down list.
3. Click the **subscribe** button.

Using the automated fax systems

As an alternative to other resources, and to provide up-to-date information quickly, Tektronix has set up HAL (Highly Automated Library), EuroHAL and OzHAL 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).

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

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.

Country	Numbers
Austria	
Belgium	
Denmark	00 44 1908 681839
Finland	
Holland	
Italy	
Norway	
Switzerland	
France	0800 90 81 86
Germany	0130 819 220
Spain	07 44 1908 681839
Sweden	009 44 1908 681839
UK	01908 681839
Other countries	+44 1908 681839 (where + is your country's International Access Code)

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 information in the following table to determine an appropriate action for each type of message.

You can learn more detailed information regarding the problem by checking the associated seven-digit error code that is stored in the printer's **Service Support/Fault History** front panel menu. Refer to the Phaser 380 printer's web page for more information:

http://www.tek.com/Color_Printers/userdoc/introduction.html

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 or call Tektronix Service in the U.S. and Canada at **1-800-835-6100**.

Front panel messages

Message	Explanation/Action
Check Print	The printer is waiting for confirmation of the print job from the front panel.
Empty Waste Liner (A)	The waste liner (A) in the printer's maintenance tray (B) is full. Open the front cover, remove the maintenance tray and empty the blue waste liner.
Incorrect Media Size	The paper fed into the printer was shorter than that specified. <ul style="list-style-type: none"> ■ Use an approved media size. ■ Feed the narrow edge of the paper first into the manual-feed slot.
Ink Low/Out of Ink	The <i>Ink Low</i> message appears when ink level drops to one-half stick. Open the top cover and add the appropriate color of ColorStix solid ink stick.

Front panel messages (cont'd.)

Message	Explanation/Action
Install New Tray (B)	Maintenance tray (B) is empty. Open the front cover, remove the maintenance tray and replace it with a new maintenance tray.
Jam At Exit Tray	<p>Open the front cover, press the exit cover release button and remove the jammed paper.</p> <ul style="list-style-type: none"> ■ The printer's output tray may be too full. Remove your prints from the output tray. ■ The paper fed into the printer was shorter than that specified or longer than 493.5 mm (19.5 in.). Use an approved media size. ■ Feed the narrow edge of the paper first into the manual-feed slot.
Jam:Open Front Cover	<p>Open the front cover and remove the paper jam from the manual-feed slot or behind the front cover.</p> <ul style="list-style-type: none"> ■ The media may be too narrow to transfer the entire image off of the drum. Check that the specified page size in the printer driver matches the actual media size. ■ The media may be skewed. Check for proper adjustment of paper guides in the tray and at the manual-feed slot. ■ You may need to clean the paper feed rollers. Refer to "Cleaning for jams and ink smears: media-feed rollers" on page 5-28. ■ If you are printing Tabloid Maximum transparency from the media tray, try feeding it from the manual-feed slot.
Jam:Open Exit Cover	<p>Open the exit cover and remove the paper jam.</p> <ul style="list-style-type: none"> ■ The printer's output tray is too full; remove your prints. ■ The media may too light or too heavy. Refer to "All about media" on page 3-28. ■ If the printer is feeding multiple sheets of media, refer to "Cleaning for upper tray jams: media pick roller" on page 5-20. ■ You may need to clean the paper exit path; refer to "Cleaning for ink smears: paper-exit path" on page 5-43.

Front panel messages (cont'd.)

Message	Explanation/Action
Jam:Remove Upper Tray	There is a paper jam at the upper media tray as opposed to the lower paper tray. Remove the upper media tray and the jammed media.
Jam:Remove Media Tray	<ul style="list-style-type: none"> ■ You may need to clean the paper-pick or paper-feed rollers. Refer to “Cleaning for upper tray jams: media pick roller” on page 5-20 and “Cleaning for jams and ink smears: media-feed rollers” on page 5-28. ■ Remove all media present in the tray when running an automatic pick-roller cleaning operation. ■ Do not remove the media tray during a print job.
Jam:Remove Lower Tray	There is a paper jam at the lower paper tray as opposed to the upper media tray. Remove the lower paper tray and the jammed paper. <ul style="list-style-type: none"> ■ You may need to clean the paper-pick or paper-feed rollers. Refer to “Cleaning for lower tray jams: paper pick roller” on page 5-34 and “Cleaning for lower tray jams: paper-feed rollers” on page 5-39. ■ Remove all media present in the tray when running an automatic pick-roller cleaning operation. ■ Do not remove the paper tray during a print job.
Jam:Retry Manual Feed	Remove the media from the manual-feed slot and re-insert it.
Load xx Media	The printer is attempting to clean an image off of the printer drum but requires a larger sheet of paper to do so. Load the tray with several sheets of paper; the correct size is indicated by xx.
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.
Tray (B) Low	The Tray (B) Low message appears when the maintenance tray is nearly empty. Open the front cover, remove the maintenance tray, and replace it with a new one.
Unlock Transit Restraint	Unlock the transit restraint on the right side of the printer before sending print jobs.
Upper Media Tray Empty	Add paper or transparencies to the standard media tray.


Front panel messages (cont'd.)

Message	Explanation/Action
Waiting For Manual Feed	Insert paper or transparency in the manual-feed slot.
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 . Check that the media selector switch on the side of the tray is set for Paper.
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 . Check that the media selector switch on the side of the tray is set for Transparency.
Waste Liner (A) Full	Open the front cover, remove the maintenance tray (B) and empty the waste liner (A).

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 pick problems at the upper tray.	Use standard weight paper or Tektronix transparency media. Do not load the tray beyond the fill line. Paper tray capacity is 250 sheets paper or 100 sheets transparency. Refer to "All about media" on page 3-28.
	Some light-weight grades of paper may curl and cause mispick problems. Remove the curled media from the tray and reload with the concave side facing down in the media tray.
	Check that the maintenance tray is fully latched.
	If you are printing Tabloid Maximum transparency from the media tray, try feeding it from the manual-feed slot.
	Refer to "Cleaning for upper tray jams: media pick roller" on page 5-20. Refer to the cleaning procedure "Cleaning for media tray jams: media pick rollers."
Paper feed or pick problems at the lower paper tray.	Use standard weight paper. Do not load the tray beyond the fill line. Paper tray capacity is 250 sheets. Refer to "All about media" on page 3-28.
	Refer to "Cleaning for lower tray jams: paper pick roller" on page 5-34.
	Some light-weight grades of paper may curl and cause mispick problems. Remove the curled media from the tray and reload with the concave side facing down in the media tray.
Paper jamming inside the printer.	Remove and re-latch the maintenance tray. Refer to "Replacing the maintenance tray (B)" on page 5-7. For detailed instructions, refer to the information on replacing the maintenance tray. Also refer to "Media jams."
	Refer to "Cleaning for jams and ink smears: media-feed rollers" on page 5-28. Refer to the cleaning procedure "Cleaning for ink smears: paper feed rollers."

Media feeding or jamming problems

Symptom	Solution
Paper jamming at manual-feed slot.	<p>Wait for the front panel prompt before feeding paper. Make sure that the proper page size is selected for the slot. Align paper against the left edge of the manual-feed slot.</p> <p>Use standard weight paper or Tektronix transparency media. Refer to "All about media" on page 3-28.</p> <p>Select Manual Feed and the appropriate page size in the printer driver.</p> <p>Refer to "Cleaning for jams and ink smears: media-feed rollers" on page 5-28.</p>

Image quality problems

Symptom	Solution
Missing or light color stripes on prints.	Refer to "Cleaning for light stripes: printhead" on page 5-17.
Ink streaks or oil on front, back or edges of print.	Refer to "Identifying cleaning procedures" on page 5-16.
Transparency print quality poor.	Use Tektronix transparency media. Specify Transparency in a supported printer driver. Refer to "Transparency quality tips" on page 3-40.
Envelope print quality poor.	Envelope seams may cause minor print artifacts with solid-fill images. Reduce the image color saturation or adjust the image position to avoid printing on envelope seams.
600 x 300 dpi prints look like 300 dpi quality.	600 x 300 dpi mode is not included in the Phaser 380 printer's standard configuration. Refer to "Print quality modes" on page 3-26.
Print is wrinkled.	<ul style="list-style-type: none"> ■ You may be using paper that is too thick or thin. Refer to "All about media" on page 3-28. ■ Seams on envelopes can cause envelopes to wrinkle. Try a lighter-weight envelope.

Image quality problems (cont'd.)

Symptom	Solution
Printed image is shifted, the wrong color, or margins are not correct.	<ul style="list-style-type: none"> ■ You may have to make adjustments in the application or print driver. Refer to “Printing and installation problems” on page 6-12. ■ Make sure that the paper is not curled. Also refer to “Cleaning for jams and ink smears: media-feed rollers” on page 5-28. ■ Microsoft PowerPoint users: <ul style="list-style-type: none"> ■ Macintosh users need to leave Background Printing in the Chooser set to Off. ■ PC users need to turn off print spooling through the Printer Properties.
Colors do not print as expected.	<ul style="list-style-type: none"> ■ Refer to “TekColor corrections — making the best selection” on page 4-3 for details on how to select TekColor color corrections. ■ You may have attempted to print transparency but did not specify transparency as the print media in the printer driver. Refer to “Transparency quality tips” on page 3-40 for more information. ■ Refer to “Printed colors are not what you expected” on page 6-31 for more tips. ■ Refer to “Printing and using the color sampler charts” on page 4-10.

Image quality problems (cont'd.)

Symptom	Solution
Image prints in black-and-white instead of color.	<ul style="list-style-type: none"> <li data-bbox="699 288 1299 418">■ 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 "Printing from a workstation" on page 3-20 for information on drivers. <li data-bbox="699 430 1299 482">■ Microsoft Excel users: Be sure to check the Print using color option in the print dialog box. <li data-bbox="699 494 1299 621">■ Macintosh users: Use a supported color PostScript printer driver and the Phaser 380 printer's PPD file. Select Color/Grayscale in the Print Options dialog box. Refer to "Printing from a Macintosh" on page 3-16 for more details on how to print from a Macintosh. <li data-bbox="699 633 1299 685">■ You may need to install application-related files such as a PDF file for QuarkXPress. <p data-bbox="727 713 1230 765">PC Users: Refer to "PC/Windows software" on page 2-31 for information.</p> <p data-bbox="727 793 1271 845">Macintosh Users: Refer to "Macintosh software" on page 2-46 for information.</p> <ul style="list-style-type: none"> <li data-bbox="699 857 1299 960">■ You may have incorrectly sent the Monochrome TekColor color correction utility file to the printer or changed the correction to Monochrome from the front panel.

Network problems

Symptom	Solution
The printer doesn't appear in the Chooser on a Macintosh.	<ul style="list-style-type: none"> ■ 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 "Printer Help Pages" on page 7-6. 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.	<ul style="list-style-type: none"> ■ You can get tips on printing from specific applications (such as QuarkXPress and PageMaker) from the Tektronix World Wide Web site: http://www.tek.com/Color_Printers/userdoc/introduction.html ■ Information on printing from specific applications is also available by contacting HAL, the Tektronix automated information system. Refer to "Using the automated fax systems" on page 6-3
Text prints in <i>Courier</i> font.	The font you have specified is not available. The standard Phaser 380 printer supports 39 resident fonts. An additional 30 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 3-46.

Printing and installation problems (cont'd.)

Symptom	Solution
The printer processes an image but does not finish printing (the printer times out).	<ul style="list-style-type: none"> ■ 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, 2 or 3.) ■ Load the error handler from the front panel and resend the print job. Refer to "Using a PostScript error handler" on page 6-27 for more information.
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. Refer to "Check the printer's language mode" on page 6-25 for more information.
The area of paper that the printer prints on is smaller than the media size.	See "Margins and image area" on page 3-33 for more details. To maximize the image area, you may have to adjust the margins in your application software.
First print has smaller than expected image. Print appears to be reduced to fit Executive-size media. Images on consecutive prints are correctly sized.	<p>Printer is unable to determine media size loaded and is defaulting to a small image size. During first print, printer measures paper size and scales image to correctly fit paper on subsequent print jobs.</p> <ul style="list-style-type: none"> ■ Be sure the correct media size is specified within the printer driver. ■ Move the paper guides inside the media tray or at the manual feed slot and ensure the guides lock into position. ■ If your application uses additional printer description files, be sure these are selected from within the application and the correct media size is specified within the printer driver.

Printing and installation problems (cont'd.)

Symptom	Solution
A Macintosh printed image has shifted or the margins are not correct.	<ul style="list-style-type: none"> ■ You should install a supported printer driver and the Phaser 380 printer PPD onto your Macintosh to select the correct page sizes from the driver. Refer to "Using the Macintosh Installer" on page 2-47 for information. ■ Turn off Background Printing through the Chooser. ■ Refer to the topic "Printing from a Macintosh" on page 3-16 for details on how to print from a Macintosh.
The front panel never indicates that it is processing a job.	<ul style="list-style-type: none"> ■ Make sure that Phaser 380 printer 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 8-3 for information on ordering Tektronix interface cables. ■ Check to see if a print job is stuck in the print queue. ■ Refer to "Using a PostScript error handler" on page 6-27 for details on using the Tektronix Error Handler to determine the cause of the problem. ■ Turn the printer's power off and wait at least 15 seconds before turning the power on again.
A Macintosh file does not print and a virtual memory (VM) error appears.	<ul style="list-style-type: none"> ■ You may need to expand printer memory. Refer to "Memory upgrade" on page 8-6 for more information. ■ Reduce the file size by using fewer fonts or simplifying complex paths in vector-based graphics.
Files sent during power-up do not print.	Before printing a file, wait until the printer's front panel displays <i>Ready</i> or the printer's name.
The printer processes a file sent via 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). Refer to "If your file doesn't print" on page 6-21. Also refer to the on-line manual on the printer's CD-ROM for information on setting timeouts and Ctrl-D characters.
The printer processes a file sent via the serial or parallel port. 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). Refer to "If your file doesn't print" on page 6-21. Also refer to the on-line manual on the printer's CD-ROM for information on setting timeouts and Ctrl-D characters.

Printing and installation problems (cont'd.)

Symptom	Solution
The printer processes a file sent via the serial or parallel port and the job prints successfully. After printing, the printer 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). Refer to the on-line manual on the printer's CD-ROM 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 380 printer supports 300 dpi resolution printing. 600 x 300 dpi printing for paper is optionally available. Refer to "Print quality modes" on page 3-26. Refer to "Printer Help Pages" on page 7-6 to find out about printing the Configuration Page.

Operational hints

Hint/Symptom	Solution
Printer consumes ink at a fast rate.	<p>Leave the printer on. Each time you turn off the printer, 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.</p> <p>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.</p>

Operational hints (cont'd.)

Hint/Symptom	Solution
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 7-8.
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 6-17.
Turn off the Startup Page.	Refer to "Startup Page" on page 7-6.
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.

All about media jams

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

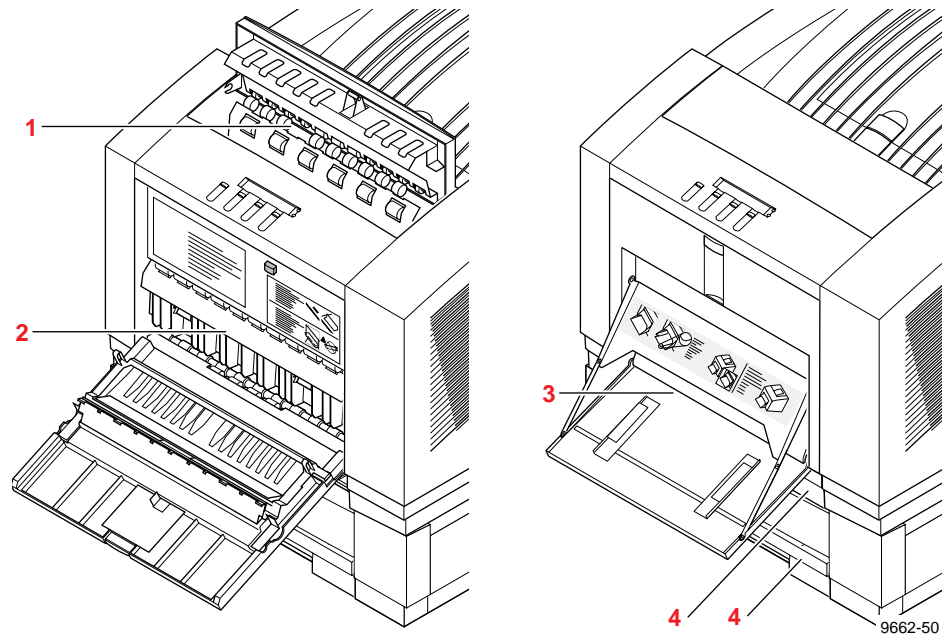
- When installing a new maintenance tray, push on *both* sides of the tray to latch it firmly into the printer.
- Periodically clean the printer to keep it operating in peak condition. Refer “Identifying cleaning procedures” on page 5-16.
- Fan the paper or transparency media before loading it into the media tray. For additional information on loading media trays, refer to “All about media” on page 3-28.
- Use standard grade paper of the appropriate weight; use the manual-feed slot for thick papers. Refer to “Media weight” on page 3-32 for more information.
- 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.

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 when a Lower Paper Tray Assembly is installed. 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 7-9.

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 upper media tray and Lower Paper Tray Assembly.



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



Removing jammed media

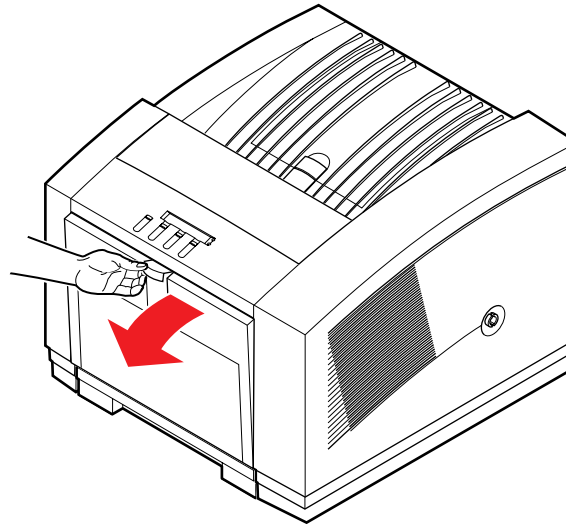
To avoid ink smears inside the printer, always try to pull jammed paper or transparency media out through the top of the printer (the exit cover). If the jammed media cannot be cleared from the exit cover, open the front cover and check for jammed media. If the jam is not inside the front cover, remove 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: paper-exit path” on page 5-43.

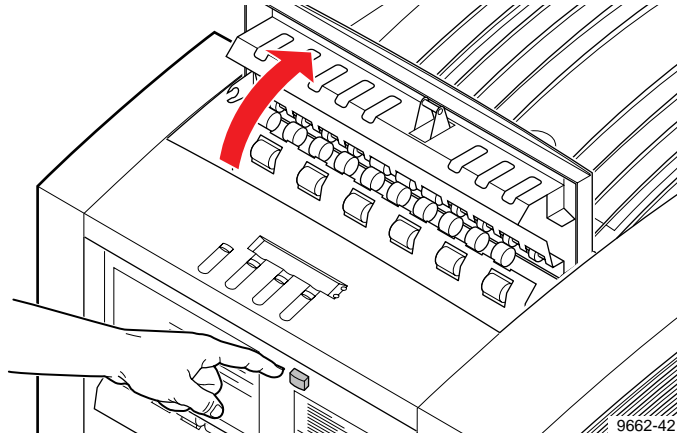
Follow these steps when removing jammed media:

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.

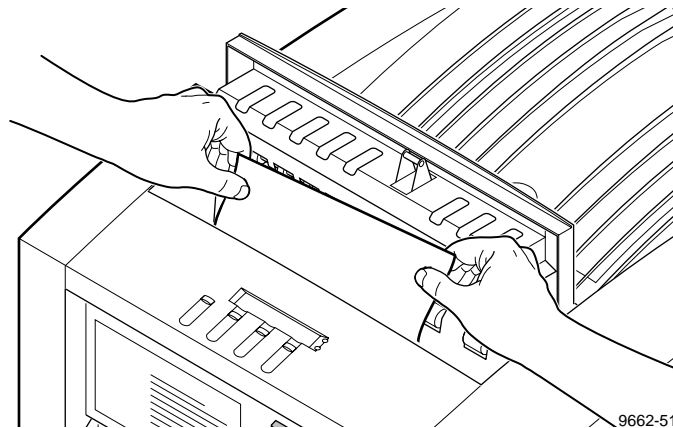


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3. If necessary, open the exit cover using the blue release button located inside the front cover, at the top of the printer.



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



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

If your file doesn't print

If you've configured a supported driver for your printer but your printer isn't printing, try the following suggestions. If these suggestions fail to solve the problem, use the Tektronix PostScript Level 2 error handler utility to determine what is wrong. Refer to "Using a PostScript error handler" on page 6-27 for information on using the error handler.

General things to check for

Macintosh users

- Open the **Chooser** and select a supported driver, such as the LaserWriter 8.x, and your printer.
 - If the driver isn't installed or properly set up with your printer, refer to "Macintosh software" on page 2-46 for instructions.
 - Try turning off **Background Printing**.
 - Close the **Chooser** and try printing again.
- If you are having trouble printing from the Finder in System 7.1, for example if the driver's dialog boxes are not opening, it may be because the Finder doesn't have enough allocated memory. Reinstall a supported driver to automatically allocate enough memory for printing from the Finder.
- For PCI-based PowerMacs, you should be using the latest version of **Open Transport**, available from Apple Computer.

Windows users (general)

- Check to make sure that you have configured the communications ports and the Handshake option correctly. Refer to “Printing Help Pages from the front panel” on page 2-30 for information on printing a Configuration Page.
- Make sure that you are using the correct cables for your computer and printer. See “Interface cables and adapters” on page 8-3 for cable information.

Windows 3.1 users

- Make sure that your printer is connected to the port you selected in the driver’s **Printers/Connect** dialog box.
- Check the **Options** dialog box to make sure **Printer, not Encapsulated PostScript File**, is selected in the driver’s **Print To** box.
- If the error message *Windows Header has not been downloaded to the printer* appears on your computer screen, click the **Job Control** tab and click one of the options for PostScript Header. Refer to “Using the Adobe PostScript driver for Windows 3.1” on page 3-10 for details on the **Job Control** tab.

Windows 95 users

- Make sure that your printer is connected to the port you selected in the driver’s **Details** tab.
- Make sure that the correct port is selected in the driver’s **Details** tab.
- If the error message *Windows Header has not been downloaded to the printer* appears on your computer screen, click the **PostScript** tab and click one of the options for **PostScript Header**. Refer to “Using the AdobePS 4 and Microsoft drivers with Windows 95” on page 3-4 for details on the **PostScript** tab.

If you are using PC/NFS

If you have PC/NFS (Personal Computer /Network File System) software installed on your computer, you need to make the following selection in the **Network Options** dialog box:

1. From the **Main** window, double-click the **Print Manager** icon.
2. From the **Options** menu in the **Print Manager**, select **Network Settings**.
3. In the **Network Options** dialog box, uncheck the **Print Net Jobs Direct** box.
4. Click **OK**.

If you can't print from Windows to an LPT port

- Load the PostScript error handler utility; refer to "Using a PostScript error handler" on page 6-27 for details.

Windows 3.1

If your printer is connected through an LPT (parallel) port and your document doesn't print, try the following:

1. Double-click the **Printers** icon in the **Control Panel**.
2. In the **Printers** dialog box, choose your printer from the list of installed printers.
3. Click the **Connect** button; the **Connect** dialog box appears.
4. Refer to "Fixing timeout problems in Windows" on page 6-28 for instructions on fixing timeout problems.
5. Click **OK**.

Note You can also try changing your port connection from LPTx to LPTx.DOS (where x is 1, 2, or 3).

Windows 95

1. Select **Start** in the taskbar on your screen.
2. In the menu that appears, select **Settings**.
3. In the next menu, select **Printers**; the **Printers** window appears.
4. Click on your printer's icon and select **Properties** from the **File** menu.
5. Click the **Details** tab.
6. Click **Add Port**.
7. Click **Other**.
8. Make sure **Local Port** is highlighted, then click **OK**.
9. Type **LPTx.DOS** (where x is 1, 2, or 3).
10. Click **OK**.
11. In the **Details** tab, the *Print to the following port* should be **LPT.DOS** (unknown local port).

Note *Your system's LPT.VXD file may require an update; refer to your Microsoft documentation for details.*

Check the printer's language mode

If your file doesn't print, the language on the printer's port you are using may have been changed.

1. Print a copy of the printer's Configuration Page to see the language mode on each port. Refer to the on-line manual on the printer's CD-ROM for instructions on printing a Configuration Page.
2. If the printer port you are using has the wrong language set for the type of application you are using, send one of the following utility files to the printer:
 - To print PostScript files, use the *PSCRIPT.PS* file to set up a port to receive PostScript. Refer to the on-line manual on the printer's CD-ROM for details.
 - To print HP-GL files, use the *HPGL.PS* file to set up a port to receive HP-GL. Refer to the on-line manual on the printer's CD-ROM for details.
 - To print PostScript, or HP-GL, or Monochrome PCL5 files interchangeably, use the *AIS.PS* file to set up a port for automatic language selection. Refer to the on-line manual on the printer's CD-ROM for details.

PostScript printing errors

Note For information on specific applications, request a document catalog from HAL or EuroHAL, the Tektronix automated fax systems. Refer to “Using the automated fax systems” on page 6-3 for instructions on using these systems.

If you get a PostScript error when printing from PageMaker, FreeHand, QuarkXPress, or Canvas, you may be using an older version of the printer description file. Other common mistakes include selecting the wrong PPD or PDF file, incorrect timeout settings, corrupt image data, and bad cable connections.

The PostScript error handler utility can provide useful information about your particular printing problem. Refer to “Using a PostScript error handler” on page 6-27 for details on this utility.

You can check Tektronix’ on-line services to see if the printer-related files you have are the most recent. Refer to the on-line manual on the printer’s CD-ROM or “If you need help” on page 6-1 for information on Tektronix’ online services. To determine the **date** of the file you are using, do the following:

- **Macintosh users:**
Select (highlight) a printer description file. From the **File** menu choose **Get Info**. Make a note of the version date.
- **Windows 3.1 users:**
In the **File Manager**, check a printer description file’s creation date. Make a note of the version date.
- **Windows 95 users:**
In the **Windows Explorer**, check a printer description file’s creation date. Make a note of the version date.

Using a PostScript error handler

The error handling utility is useful for diagnosing problems when a job doesn't print. This utility installs a PostScript error-handling function in the printer to help determine the cause of some PostScript printing problems. PostScript errors are printed on a page with other status information when an error occurs. This utility can be useful to programmers for debugging PostScript code.

You can enable and disable the error handler through the printer's front panel menu (**Printer Defaults** menu), through PhaserLink software (refer to the *PhaserShare Network Cards and Software System Administrator Manual*), or a PostScript utility file (refer to the printer's CD-ROM).

Once you've enabled the error handler through the front panel or through PhaserLink software, the error handler remains active until you manually disable it. Cycling the printer's power does not disable the error handler. If you use a PostScript utility file to enable the error handler, you can disable it by cycling the printer's power.

Fixing timeout problems in Windows

If print jobs are timing out and not printing, you may need to increase the timeout values in Windows **and** in the printer.

Try one of the following procedures to change the Windows timeout. If the Windows procedure doesn't work for you, try the DOS procedure. Then, follow the procedure to change the printer's timeout.

Windows timeout: From Windows 3.1

1. Open the **Control Panel** from the **Main** menu.
2. Double-click the **Printers** icon to open the **Printers** dialog box.
3. Click your printer's icon.
4. Click the **Connect** button to open the **Connect** dialog box.
5. Increase the **Transmission Retry** to **950** seconds by typing in the new number.
6. Click **OK**.

Windows timeout: From Windows 95

1. Click the **Start** icon in the taskbar on your computer screen; a menu appears.
2. Move the cursor over **Settings**; another menu appears.
3. In the menu, click **Printers**; the **Printers** window appears.
4. In the **Printers** window, select the **Phaser 380** printer icon (or **Phaser 380 Extended** if you have the printer's Extended Features option). From the **File** menu, select **Properties**.
5. Click the **Details** tab and increase the **Transmission Retry** to **999** seconds (or higher).
6. Click **OK**.

Windows timeout: From DOS (and Windows 3.1)

Note *To use this procedure, the printer must be connected directly to your computer, not on a network.*

1. At the DOS prompt, issue the DOS **MODE** command by typing the following:

MODE LPT1:,,P

2. Start Windows 3.1.
3. Open the **Control Panel** from the **Main** menu.
4. Double-click the **Printers** icon to open the **Printers** dialog box.
5. Click the **Connect** button to open the **Connect** dialog box.
6. Change the port selection from **LPT1** to either **LPT1.DOS** or **LPT1.OS2**, depending on the options you see in the dialog box.
7. Click **OK**.

Printer's timeout

Note *This is the basic procedure for changing one of the printer's timeout values. For more information on the printer's timeouts, refer to the on-line manual on the printer's CD-ROM.*

You can use the *Set Timeouts* (Macintosh) or *TIMEOUTS.PS* (PC) file to change the PostScript and HP-GL job and wait timeout values. When sent to the printer, your edited version of the timeouts file changes the values in the printer, but *only* while the printer is turned on; if the printer is turned off or reset the values return to their defaults. To restore your desired timeout settings, you must send your edited timeouts file to the printer again. Any drivers that allow the job timeout and wait timeout values to be changed will override the printers timeout settings when using that driver. These include the Adobe driver, Windows 95 driver and Windows NT drivers. The Macintosh LaserWriter drivers (versions 7.1.2 and 8) automatically set only the wait timeout to 300 seconds.

Note *The `TIMEOUTS.PS` file affects printer operation. If the printer is shared on a network, using this file may affect the prints requested by other users.*

1. Locate the utility files in the `PHSR380` directory on the printer's CD-ROM.
2. Copy the `TIMEOUT.PS` file to your hard disk.
3. Open the file using a text editor. The default value is **40** seconds for the wait timeout. Change the value in the `WaitTimeOut` line to 999.
4. Use one of the following methods to send the `TIMEOUTS.PS` file to the printer:
 - **PC users:** Use the DOS **COPY** command to send the file to the printer. (Windows 3.1 users can also use the **Copy** command in the **File Manager**.)
 - **Workstation users:** Send the file to the printer as you would any PostScript file.

Printed colors are not what you expected

In general

- Check the printer settings in the printer driver.
- Try selecting another **Color Correction** option. Supported printer drivers provide access to the various TekColor color corrections. Refer to “Color correction descriptions” on page 4-6 for more information.
- If you are not using a supported driver and are sharing the printer with other users on a network, another user may have changed the printer's default color adjustment setting. Refer to “Sharing the printer on a network” on page 6-38 for more information.
- If you use the driver's **Use Printer Setting** option and printed colors are not what you expected, check the following:
 - A selection may have been made in the **TekColor Correction** menu on the printer's front panel. These settings change the printer's color correction setting.
 - A color correction utility file may have been downloaded to the printer. These files change the printer's color correction setting.Refer to “Sharing the printer on a network” on page 6-38 for details on how these settings affect prints made from a driver.
- If you are using a color management system, make sure to set the printer's TekColor color correction to **None**. Refer to the documentation supplied with your particular color management system.

Printing PANTONE Colors

If a Phaser 380 printer's printer-specific PANTONE Colors are not printing as expected, make sure you are printing with **Enhanced (600 x 300)** mode with color corrections set to **None**. Refer to "Printing the PANTONE Color Chart" in the on-line manual on the printer's CD-ROM for more information.

There are many variables in process reproduction of colors simulated by the Phaser 380 printer, any one of which may affect the quality of the PANTONE Color simulation, including:

- Type of ink used on printing press
- Type of ink film used on printing press
- Effective final resolution
- Dot structure/halftones

If you have questions about PANTONE Color Matching, you can get information in the following places:

- **HAL:** Request a document catalog from HAL or EuroHAL, Tektronix' automated fax systems. Refer to "Using the automated fax systems" on page 6-3 for instructions on using HAL and EuroHAL.
- **World Wide Web:** If you have access to the Internet, you can view selected topics on the Phaser 380 printer's web page. Access the printer's documentation from this web address:

http://www.tek.com/Color_Printers/userdoc/introduction.html

Blue colors look too purple

If printed blue colors look too purple, print your document with the **Vivid Color** color correction. Refer to "TekColor corrections — making the best selection" on page 4-3 for more information.

Using the Tektronix halftone screens

Tektronix halftone screens are designed for Tektronix printers, and improve print quality over application-set halftone screens. The *Setscreen Off* (*SCRENOFF.PS*) utility file redefines some PostScript operators, such as the *setscreen*, *setcolorscreen* and *sethalftone*. By default, the printer prevents applications from overriding the Tektronix proprietary halftone screens. Use the following utility files, depending on your computer type, to control application-defined halftone screens in your prints.

Macintosh file name	PC file name
<i>Setscreen On</i>	<i>SCREENON.PS</i>
<i>Setscreen Off</i> and <i>LaserWriter Utility</i>	<i>SCRENOFF.PS</i>

Macintosh users

1. Refer to “Using the Macintosh Installer” on page 2-47 for instructions on installing the utility files from the Phaser 380 printer’s CD-ROM.
2. Select the appropriate printer in the **Chooser**.
3. In the *PhaserTools* folder on your computer’s hard disk, locate the *LaserWriter Utility* and double-click its icon to start the application.
4. From the **Utilities** menu, choose **Download PostScript File**.
5. Select either the *Setscreen On* or the *Setscreen Off* file from the list, then click **Open**. (These files were installed in the *Printer Utilities* folder, inside the *PhaserTools* folder.)
6. At the prompt `Save PostScript output as:` you are asked for a file name for saving printer output. Use either the default name given in the edit box or type a new name. Click **Save** to send the file to the printer.
7. If no output is returned by the printer, the *LaserWriter Utility* displays a dialog box; click **OK** continue.

PC and workstation users

1. Locate the utility files in the *PHSR380* directory on the printer's CD-ROM.
2. Copy the files that you need to your computer's hard disk or use them directly from the CD-ROM.
3. Use one of the following methods to send the *SCREENON.PS* or the *SCRENOFF.PS* file to the printer:
 - **PC users:** Use the DOS **COPY** command to send the file to the printer. (Windows 3.1 users can also use the **Copy** command in the **File Manager**.)
 - **Workstation users:** Send the file to the printer as you would any PostScript file.

Selecting page sizes in Windows applications

In some Windows applications, you can select printer page sizes in a **Print Setup** dialog box accessed from the **File** menu. If you use a **Print Setup** dialog box to select the Phaser 380 printer from your application, some page sizes may not be visible in the list.

If the Phaser 380 printer page size you want to use is not visible in the list, do the following:

Windows 3.1

1. From the **Main** window, open the **Control Panel** and double-click the **Printers** icon.
2. In the **Printers** dialog box, select the **Tektronix Phaser 380** printer in the list of printers.
3. Click the **Setup** button.
4. In the **Setup** dialog box, select the page size you want and click **OK**.
5. Return to your application. If you open the **Print Setup** dialog box again from within your application, the page size selection may be blank. The page size you just selected in the driver is still selected, it is just not visible in the list.
6. Print as usual.

If you open the **Print Setup** dialog box from within an application, and the page size selection is blank, the blank represents the page size last selected from the printer driver through the **Control Panel**. You can leave the page size selection blank and print as usual, or you can select another page size from the list.

Windows 95

1. Click the **Start** icon in the taskbar on your computer screen; a menu appears.
2. Move the cursor over **Settings**; another menu appears.
3. In the menu, click **Printers**; the **Printers** window appears.
4. In the **Printers** window, select the **Phaser 380** printer icon, then select **Properties** from the **File** menu.
5. Click the **Paper** tab.
6. Choose your page size, and click **OK**.
7. Return to your application.

Fonts printing incorrectly from Windows

If fonts are printing incorrectly from Windows, make sure you installed the correct printer with either the Tektronix driver for Windows 3.1, or with the Windows 95 PostScript driver.

- If you have the standard version of the printer, you should have installed **Tektronix Phaser 380**.
- If you have the printer's Extended Features option, you should have installed **Tektronix Phaser 380 Extended** for Windows to recognize and use all of the printer's fonts.

If you select **Tektronix Phaser 380 Extended** and you have only the standard version of the printer with 39 fonts, any of the additional fonts selected within an application are printed in the Courier typeface.

If you are not sure which version of the printer you have, print a copy of the printer's Startup Page. The standard configuration has 39 fonts and 16 Mbytes of memory; the Extended Features option has 69 fonts and 48 Mbytes of memory. Refer to "Printing Help Pages from the front panel" on page 2-30 for instructions on printing a Startup Page.

Refer to the instructions on installing the printer and drivers.

Sharing the printer on a network

Driver, utility files, and front panel interactions

If your Phaser 380 printer is shared by other users on a network, using the downloadable utility files or the printer's front panel to change the printer's default color correction setting can affect prints made by other users.

- When you print from a supported driver with any TekColor color correction selection *except* **Use Printer Setting**, the driver selection *overrides* the following selections *for prints made from the driver*:
 - A color correction utility file, if one has been downloaded to the printer.
 - The selection on the printer's front panel **TekColor Corrections** menu.
- When you print from a supported driver with the **Use Printer Setting** option, your images are printed with one of the following selections:
 - A color correction utility file, if one has been downloaded to the printer.
 - The selection on the printer's front panel **TekColor Corrections** menu.

- When you print from a non-supported driver, your images are printed with one of the following selections:
 - A color correction utility file, if one has been downloaded to the printer.
 - The selection on the printer's front panel **TekColor Corrections** menu.
- If the colors on your prints are not what you expected, and your system administrator has disabled some of the printer's front panel menus, find out what settings are in effect and whether a color correction utility file has been downloaded to the printer. You can also print a Configuration Page to see the current color correction selection; see "Printing Help Pages from the front panel" on page 2-30 for instructions.

If the LaserWriter Utility does not work

The *LaserWriter Utility* cannot be used if the printer is connected to a print server. See your system administrator to temporarily remove the printer from the print server to download any of the PostScript utility files.

Using the Front Panel

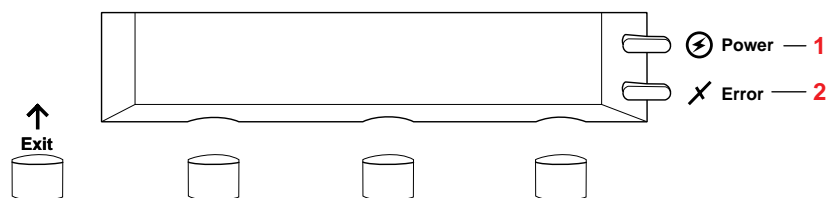
Front panel overview

The printer's front panel provides you with information about the printer's operation, as well as buttons for accessing printer menus.

Front panel indicators

The front panel also includes two indicator lights:

1. **Power** (green LED)
2. **Error** (red LED)

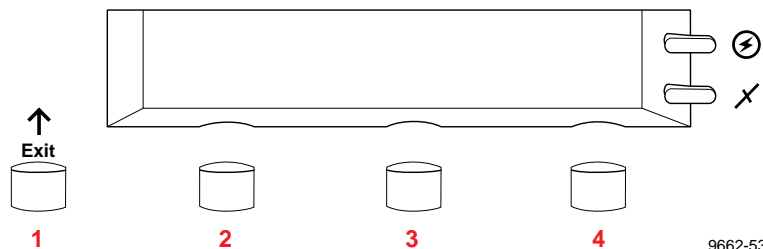


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Indicator	On	Blinking	Off
1. Power	The printer is on and ready for operation.	The printer is in standby mode, processing, or printing an image. The printer is in interactive mode: you have pressed the Menu button.	The printer is off, not ready, or 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.

Front panel buttons

1. The **Exit** button allows you to perform these menu functions:
 - Back up a level in the menu without making a selection.
 - Exit the menu.
2. Button 2, labeled **Info**, lets you cycle through information such as the printer's name, print server name, and the printer's IP address. Pressing **Info** during a print job displays the job name and job source. When you enter the front panel menu by pressing **Menu**, Button 2 has this function:
 - <----- 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.
 - **Confirm** Confirm an address change (IP, Broadcast, Gateway).
4. Button 4, labeled **Menu** during normal operation, lets you enter the front panel menu. After entering the menu, Button 4 changes meaning as you select submenus:
 - **Menu** Provides access to submenus.
 - **Print** Executes the selected print.
 - **Test** Performs a test print or paper feed operation.
 - **OK** Accepts the selected value.



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Two-line display

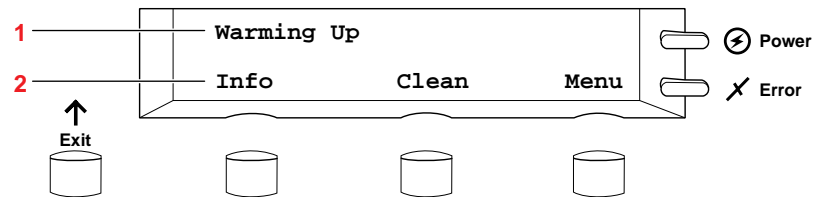
The two lines of the display have the following functions:

Line 1

- Displays status messages such as *Ready*, *Printing* or the printer's name.
- 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*, **Info** for displaying printer information, **Menu** for access to a menu of selections, **Clean** for access to cleaning menus, and **Print** and **OK** to make selections.



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Refer to "Front panel messages" on page 6-4 for a description of the front panel messages. For a roadmap to the front panel menu selections, refer to "Front panel menu map" on page 7-5.

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 printer's CD-ROM or the World Wide Web.

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
```

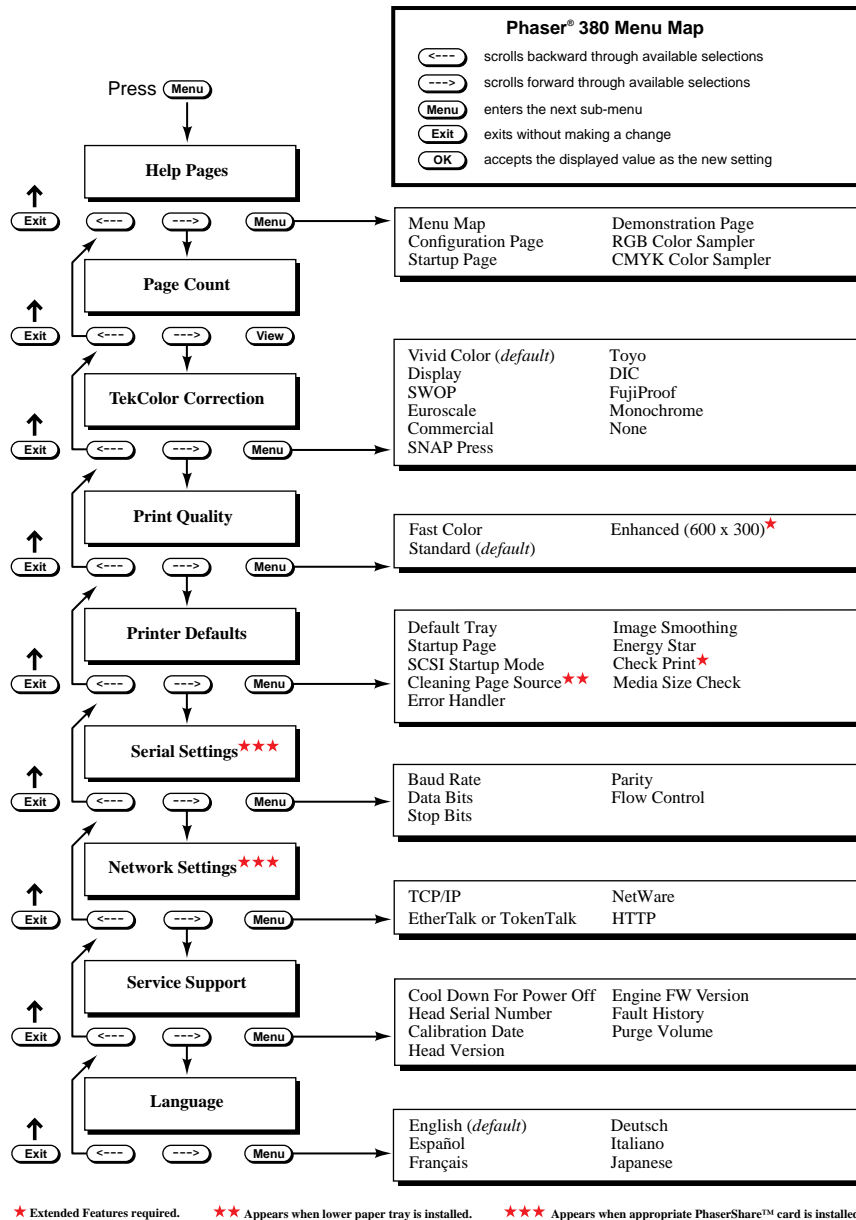
To access the entire menu with the front panel disabled, you must use a special key sequence to enter the menu.

- Press and hold down the **Menu** button and press the **Exit** button. The front panel displays the following message:

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

The full set of menus is now available.

Front panel menu map



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Printer Help Pages

The printer has several Help Pages that you can print from the front panel to learn more about the printer.

Menu Map

The menu map provides a graphical view of the front panel menus. The menu map can be used as a convenient navigation aid for quickly determining the location of menu items. An online version of the menu map is also available on the World Wide Web.

Configuration Page

The configuration page lists information on the printer's hardware and software configuration and current settings. This page is especially useful during network installation and troubleshooting. You can print the Configuration Page through the front panel, by sending a PostScript language file to the printer (refer to the printer's CD-ROM), or through the World Wide Web (refer to the *PhaserShare Status Software User Manual*).

Startup Page

The Startup Page lists the number of pages printed, installed interface ports, software version numbers, installed RAM memory, the number of fonts in memory, and other useful information. By default, printing of the Startup Page is enabled on power up.

Printing of the Startup Page can be enabled and disabled through the front panel menu, by sending a PostScript language utility file to the printer, or through a web browser using PhaserLink software (refer to the *PhaserShare Status Software User Manual*). If the printer detects a non-fatal failure, it automatically prints a Startup Page containing diagnostic information regardless of the Startup Page setting in the front panel menu.

Demonstration Page

You can print copies of a sample demonstration page through the front panel or through the World Wide Web (refer to the *PhaserShare Status Software User Manual*.)

RGB and CMYK Color Samplers

The RGB and CMYK color samplers provide multi-page charts containing color samples and their corresponding color values based on the RGB and CMYK color models. Print these charts to help you select colors for use in your documents. You can print the color sampler charts through the front panel or from the printer's CD-ROM.

Printer standby modes

You can change or disable Energy Star settings through the front panel (refer to “Front panel menu map” on page 7-5) or through the World Wide Web (refer to the *PhaserShare Status Software User Manual*.)

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 20 minutes.

For printers ordered with the Energy Star option, the Energy Star default is set to 1 hour. After an hour of inactivity, the printer begins a cool-down cycle that requires a 20 minute warm-up period before being ready to use again. Increasing the Energy Star value from 1 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 120 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.

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.

You can change the cleaning page source through the front panel or by sending a PostScript language file to the printer (refer to the printer's CD-ROM). To change the cleaning page source from the printer's front panel, follow these steps:

1. While the **Ready** message or the printer's name is displayed, press the **Menu** button. The printer displays 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.

7 *Using the Front Panel*

Supplies, Accessories, and Expanding Your Printer

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 *Tektronix Phaser 380 ColorStix® ink is formulated specifically for use with the Phaser 380 printer. Only Tektronix ColorStix ink is certified for PANTONE Color matching. To avoid damaging the printhead, only use Phaser 380 ColorStix solid-ink sticks in the printer.*

Customizing your printer

Tektronix offers upgrade and accessory kits to expand your printer's capabilities. To order upgrade kits, refer to the following information provided or 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**.

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
016-1540-00	Phaser 380 ColorStix Solid Ink — 2 Black sticks
016-1541-00	Phaser 380 ColorStix Solid Ink — 2 Cyan sticks
016-1542-00	Phaser 380 ColorStix Solid Ink — 2 Magenta sticks
016-1543-00	Phaser 380 ColorStix Solid Ink — 2 Yellow sticks
016-1554-00	A-size Tektronix transparency*, 50 sheets
016-1555-00	A4-size Tektronix transparency*, 50 sheets
016-1567-00	Tabloid Maximum-size Tektronix transparency*, 50 sheets
016-1130-00	Transparency sleeves, A-size, 3-hole, open on 2 ends, 50 per pack
016-1194-00	Transparency pockets, A-size, 3-hole, open on 1 end, 50 per pack
016-1255-00	Tabloid Maximum-size Tektronix paper, 250 sheets, 176 g/m ² (Cover 65 lbs.)
016-1254-00	Tabloid Maximum-size Tektronix paper, 500 sheets, 99 g/m ² (Bond 24 lbs.)
016-1139-00	Tabloid-size Tektronix paper, 500 sheets, 90 g/m ² (Bond 24 lbs.)
016-1140-00	A3-size Tektronix paper - no watermark, 500 sheets, 90 g/m ² (24 lbs.)
016-1142-00	Letter-size Tektronix paper, 250 sheets, 176 g/m ² (Cover 65 lbs.)
016-1368-00	Letter-size Tektronix paper, 500 sheets, 90 g/m ² (24 lbs.)
016-1143-00	A4-size Tektronix paper, 250 sheets, 176 g/m ² (Cover 65 lbs.)
016-1369-00	A4-size Tektronix paper, 500 sheets, 90 g/m ² (24 lbs.)
436-0303-00	Phaser 380 printer maintenance tray (includes waste ink liner and tray separator pad)
436-0308-00	Phaser 380 printer waste ink liner
016-1520-00	Cleaning kit: cleaning tray, cleaning cards, alcohol wipes, foam swabs, bottle
016-1646-00	Cleaning cards, pack of 5
006-7824-01	Pack of 10 lint-free, alcohol-soaked cleaning wipes
118-9548-00	Media tray separator pad (included with maintenance tray 436-0303-00)
070-9662-00	<i>Phaser 380 Color Printer User Manual</i>
070-9538-01	<i>PhaserShare Network Cards and Software System Administrator Manual</i>
070-9539-01	<i>PhaserShare Status Software User Manual</i>
063-2673-00	Phaser 380 printer Drivers and Utilities diskette set
063-2830-01	<i>Phaser 380 Quick Reference Guide</i>
063-2664-XX	Phaser 380 printer CD-ROM; standard and Extended Features configurations (XX Ordering versions: -00 English, -10 French, -20 Italian, -30 German, -40 Spanish, -70 Simplified Chinese, -80 Traditional Chinese, -90 Korean)
063-2665-00	Adobe Type Manager software CD-ROM, used with Extended Features configuration

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

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 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 IEEE 1284-B plug to 36-pin high-density IEEE 1284-C plug
	Adapts your system's existing low-density, Centronics parallel cable connector to the printer's high-density 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.	

Extended Features upgrade

In its standard configuration, the Phaser 380 printer offers **Fast Color** and **Standard** color printing modes, 16 Mbytes of RAM memory, and 39 fonts. The Extended Features upgrade consists of a replacement ROM and additional memory, both of which are required.

The Extended Features upgrade is especially suited for workgroups, enhancing the printer's performance in the following ways:

- Adds 600 x 300 dpi printing mode. Used for the best text quality and the smoothest color blends on paper. Produces transparencies with the most vibrant colors, the smoothest color gradations and color sweeps, and the highest durability.
- Adds 32 Mbytes of memory, totalling 48 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. Required for 600 x 300 dpi printing.
- Adds 30 fonts for a total of 69 fonts.
- Adds software support for Phaser Copystation.
- Provides a Check Print feature allowing you to review the first page of a document or multi-page print job before continuing. Refer to "Previewing with Check Print" on page 4-15 for more information.
- Provides a collation feature for printing several copies of a multiple-page document. Refer to "Using the Quick Collate option" on page 4-13 for more information. Requires use of an approved external SCSI hard disk; refer to "Selecting a SCSI hard disk" on page 2-24 for more information.

To determine if your printer has the Extended Features option, check the printer's Startup Page. For information on the Startup Page, refer to "Printer Help Pages" on page 7-6. To order the Extended Features upgrade for a Phaser 380 printer, use Tektronix order number Z380FX.

Lower Paper Tray Assembly (recommended)

An optional, 250-sheet Lower Paper Tray Assembly for paper printing lets you configure the printer for dual-tray printing capability. Two trays are especially useful if you commonly print on several sizes and types of media. For example, you might want to print on transparencies, letterhead, label media or Tabloid Maximum-size media from the upper tray and use the lower tray for printing on an alternate size of paper, such as Letter-size.

To order an optional Lower Paper Tray Assembly, use Tektronix order number Z380LTA.

Printer Station (recommended)

The Printer Station is designed to safely support the weight of the Phaser 380 color printer (100 kg /200 lbs.) and the printer's Lower Tray Assembly (36.8 kg /81 lbs.). Adding a Printer Station to the printer raises it to a comfortable operating height, while providing a convenient location to store the printer's media supplies and consumable components, such as maintenance trays, transparency media, and ColorStix ink sticks. The Printer Station features hinged doors, a removable drawer, and lockable caster wheels. The Printer Station measures approximately 51.5 cm (20.25 in.) high, 59.7 cm (23.5 in.) wide and 62.2 cm (24.5 in.) deep.

To order the Phaser 380 Printer Station, use Tektronix order number: Z380CRT.

Media tray

The printer is shipped with a Universal-size media tray that holds approximately 250 sheets of paper or 100 sheets of transparency media. Additional trays can be ordered for convenience. If you often print transparencies or letterhead, you can save time and effort by purchasing a second media tray and dedicate it for printing special paper types. Having separate trays for each type of media lets you easily print on multiple media types by simply swapping trays. There is no need to load and unload trays when changing between media types.

To order an additional Universal-size media tray, use Tektronix order number 436-0323-00.

Memory upgrade

16 Mbytes of Memory. In its standard configuration, the Phaser 380 printer has 16 Mbytes of memory. You can upgrade the printer to 48 Mbytes or 64 Mbytes of memory to gain printing features and improve performance.

Note *The Startup Page reports how much RAM memory is installed in the printer. For information on the Startup Page, refer to “Printer Help Pages” on page 7-6.*

48 Mbytes of Memory. Upgrading to 48 Mbytes of memory provides 600 x 300 dpi printing, support for job collation, 30 additional fonts, the Check Print feature, support for the Phaser Copystation, and job pipelining. Refer to “Extended Features upgrade” on page 8-4 for detailed information.

64 Mbytes of Memory. Upgrading to 64 Mbytes of memory provides additional space for more downloadable fonts and improves job pipelining to speed printer throughput and offloading of print jobs from your computer.

Total memory	Upgrade from 16 Mbytes	Upgrade from 48 Mbytes
48 Mbytes	Order Z380FX	Not applicable
64 Mbytes	Order Z380FX and ZMA16	Order ZMA16

Font upgrade

You can add an additional 30 fonts to the standard 39 fonts by upgrading to the Extended Features configuration. Refer to “Extended Features upgrade” on page 8-4 for more information. Refer to “Fonts” on page 3-46 for more information on font typefaces.

600 x 300 dpi upgrade

You can upgrade the Phaser 380 printer to print with 600 x 300 dpi resolution print quality by ordering the Z380FX upgrade. Refer to “Extended Features upgrade” on page 8-4 for more information.

PhaserShare network cards (recommended)

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
Z350FP1	Adds Ethernet interface; includes support for Novell NetWare, EtherTalk, TCP/IP, Telnet and FTP.
Z350FP3	Adds LocalTalk/Serial interface.
Z350FP4	Adds Token Ring interface; includes support for Novell NetWare, TokenTalk, TCP/IP, Telnet and FTP.

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 380 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*.

SCSI hard disk

A SCSI hard disk can be used with the printer's SCSI port in the following ways:

External font storage. You can connect one or more external SCSI hard disks to the printer for additional font storage. Refer to "SCSI peripheral devices" on page 2-24 for more information.

External collation disk. For printers with the Extended Features option, you can connect a 1.2-Gigabyte SCSI hard disk for multi-page job collation. Tektronix offers a SCSI hard disk (order number Z350DSK) that is optimized for use with Tektronix printers. Refer to "Using the Quick Collate option" on page 4-13 for more information.

PhaserPrint for UNIX software

For printing in Unix environments, Tektronix offers PhaserPrint™ for UNIX software. PhaserPrint software provides fast raster file and screen copy printing to Tektronix color printers. PhaserPrint software also provides a graphical user interface for push-button control of Tektronix printer features. PhaserPrint software 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.

The printer's CD-ROM contains a demonstration copy of the PhaserPrint software and an on-line instruction guide in the *unixdemo* subdirectory under the *unix* directory. Refer to "Printing from a workstation" on page 3-20 for more information.

Note To order PhaserPrint software, 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.

8 *Supplies, Accessories, and Expanding Your Printer*

Regulatory Information and Specifications

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 380 printer (Z380)

to which this declaration relates, is in conformity with the following standard(s)
or other normative document(s):

For the EN55022:1986	Limits and Methods of measurement of radio interference characteristics of Information Technology Equipment. Class B level.
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For the EN61000-3-2	Limit for Harmonics current emissions.
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For the EN50082-1:1994	Electromagnetic compatibility Generic immunity standard Part 1: Residential, Commercial and Light Industry.
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IEC801-2:1984	IEC1000-4-4:1993
IEC801-3:1984	EN61000-4-11:1993
IEC801-4:1988	ENV50140:1993
IEC1000-4-2:1993	ENV50141:1993

Following the provisions of the Electromagnetic Compatibility Directive
89/336/EEC.

For the EN60950	Safety of Information Technology Equipment including Electrical Business Equipment.
--------------------	--

Following the provisions of the Low Voltage Directive 73/23/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 limites applicables aux appareils numériques de la classe B prescrites dans le Règlement sur le brouillage radioélectrique édicté par le ministère 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.

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, Inc. is complying with government regulations by providing Material Safety Data Sheets for our products.

Color Printing and Imaging Division
Tektronix, Inc.

MSDS for ColorStix ink sticks

Section I – Product identification

Trade name and Tektronix part number:

<i>ColorStix® Solid Ink — Black</i>	016-1540-00
<i>ColorStix® Solid Ink — Cyan</i>	016-1541-00
<i>ColorStix® Solid Ink — Magenta</i>	016-1542-00
<i>ColorStix® Solid Ink — Yellow</i>	016-1543-00

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 – Fire fighting measures

Flammable Properties:

Flash point: Above 93.3° C (200° F) NFPA class 3B.

Fire & 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

Exposure Guidelines: 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 known impact.

Section XIII – Disposal considerations

These products are 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: August 23, 1994 R.C.

Tektronix, Inc.

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 380 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.

Oral: No first aid should be needed.

Section V – Fire fighting measures

Flammable Properties: Flammable limits not determined.

Flash point: 284.9° C (545° F), minimum open cup.

Fire & 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 should be 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 (148 to 166° F).

Incompatibility With Other Materials: Oxidizing compounds can cause a reaction.

Hazardous Polymerization: Will not occur.

Section XI – Toxicological information

Acute oral LD50: 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 XII – Ecological information

No known impact.

Section XIII – 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 as verified by our suppliers.

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, Inc.

P.O. Box 500

Chemical Documentation

Mail stop 55-769

Beaverton, Oregon 97077

Printer information: 1-800-835-6100

MSDS information: (503) 627-7255

Specifications

Printer tilt

Place the printer on a level surface with no more than 2° tilt in any direction. Equivalent to raising one corner of the printer approximately 16 mm (0.625 in.).

Caution *Tilting the printer more than 2° causes drum fluid to leak from the maintenance tray resulting in damage to your printer not covered by the printer's warranty.*

Temperature

Operating: 15° C to 35° C (59° 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

87 – 128 VAC, 115 VAC nominal 174 – 250 VAC, 220 VAC nominal

Frequency range

48 to 66 Hz

AC input ratings

115 VAC, 12 Amps 220 VAC, 6 Amps

Print quality and Pages Per Minute (ppm) speed

	Fast Color mode	Standard mode	Enhanced mode
A4/Letter-size paper [†]	3.5 ppm	2.5 ppm	1.2 ppm
A4/Letter-size transparency [†]	Not supported	1.5 ppm	0.64 ppm
A3/Tabloid Maximum-size paper ^Δ	2.0 ppm	1.3 ppm	0.6 ppm

[†] Left and right margins for Letter-size media set to 7.3 mm (0.29 in.) or larger.

^Δ Tabloid Maximum transparency supported only from the manual-feed slot.

Power consumption

Operating power consumption: 150 to 600 Watts
 Meets Energy Star power conservation requirements
 with the Energy Star timeout set to one hour.

Printer Dimensions

Height: 50.7 cm (20 in.) *Depth:* 64.2 cm (25.3 in.)

Width: 59.9 cm (23.6 in.) *Weight:* 100 kg (220 lbs.)

Printer Clearances

Top: 45.7 cm (18 in.) *Left side:* no restrictions

Front: no restrictions *Right side:* 10.2 cm (4 in.)

Bottom: no restrictions *Rear:* 10.2 cm (4 in.)

Lower Paper Tray Assembly Dimensions

Height: 20.9 cm (8.25 in.) *Depth:* 64.2 cm (25.3 in.)

Width: 59.9 cm (23.6 in.) *Weight:* 36.8 kg (81 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;1986, EN61000-3-2, EN50082-1;1994.

9 *Regulatory Information and Specifications*

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