#### PREFACE

#### ABOUT YOUR LASERWRITER

The LaserWriterSelect300 includesmany featuresdesignedto producehigh-qualityext and

- FinePrintenhancesthe printer'sresolutionto producean exceptionallyharpedge on line
- $\ PhotoGrad \ \textit{\textbf{(}} availabl \ \textit{\textbf{ew}} hen you upgradeprinter \textit{memory)} produce \textit{\textbf{sm}} any \textit{\textbf{more }} shades of \textit{\textbf{gray }} w$
- TrueTypefontsproducesharpcharacterson the screenor printerat any size.
- GraySharesoftwarelets you share your personal printerwith other users on a network.
- Expandabilitys availablethroughmemoryupgrades,a varietyof paperfeedingoptions,ar

### FinePrint

The LaserWriteßelect300 incorporate&pple'sFinePrinttechnologyFinePrintsmoothsout Most laserprintershave a fixedresolution of 300 dots per inch (dpi). If you look closely For each line or curve, the LaserWriteßelect300 calculates the best possibleedge to a ve Standard300-dpiprinting

300-dpiprinting with FinePoint

The verticaldot size is unchanged but the horizontalincrement are much finer.

Optimumedge

### PhotoGrade

Apple Photo Gradetechnology is available with a 4 megabyte (MB) Photo Grade pgrade kit. Photo Laser printers, including the Laser Write Select 300, creates had esof gray by printing a pc With its precise control of dot placement, the Photo Gradesystem can produce many more shad

### LaserWriterfonts

The Macintoshdisksprovidedwith your LaserWritercontainmany widely used font families, i You can also obtain a wide selection of additional fonts from both commercial and public-do

# TrueType

The fonts supplied with the Laser Writerincludes ever al True Type fonts. True Type is a font to Each characterin a True Type font is produced by instructions that describe its shape, rath In addition to True Type fonts, the Laser Writer Select 300 works with all other fonts produced by the select 300 works with all

SharingYour Printer

With the GrayShareprintersoftwareprovided, you can eitheruse the LaserWriteßelect300 When you share the printer, it remains connected to your own Macintosh Networkusers can se You have complete control over the shared printer. You can turn sharing on or off at any times.

### Expandability

The LaserWriteßelect300 can be upgradedwith more memory, added paper-feeding ptions, ar

### Memoryupgrades

You can obtain 1 MB and 4 MB memoryupgradeswhereyou purchasedyour printer. The 1 MB upgill warning to ir warning to warning to an authorized service provider in stallany memoryupgrade. Attempting to ir

### Paper-feedingptions

In additionto memoryupgrades, you can expandyour printerwith added cassettes and a mult

### PostScriptprinting

Your Macintoshcontrolsthe LaserWriterSelect300 using Apple's QuickDrawgraphicss of twar CHAPTER1

### SETTINGUP YOUR PRINTER

This chaptertells you how to set up the printerand connectit to your computer, and insta

### Choosinga Locationfor the Printer

Choosea flat, stablesurfacewith adequateroom around the printeras shown. The area shou Allow3 inches(7.6 cm) at the back of the printerfor the power cord.

 ${\tt Allowspace} for \verb"airflow" around the fan.$ 

Leave enoughroom at the front of the printerto attachthe 4 paper cassette.

# ${\tt Important} Safety {\tt Instructions}$

Alwaystake the following precautions:

- Protectthe printerfrom dampness and sources of liquids.
- Don'tuse devices that produce open flames, such as Bunsenburners, near the printer.
- Don'tuse alcohol-basedr ammonia-basedleanerson or aroundthe printer.
- Cleanthe printerwith only a damp cloth, and a mild soap or detergentif necessary.Be connectthe powerplug immediately if any of the following situation soccur:
- The power cord or plug is frayedor damaged.

- Liquidgets spilledon or into the printer.
- The printerneeds cleaning, servicing, or repair.
- ! WARNING: Electricalequipmentmay be hazardousif misused.Operationof the printermust

Pluggingin the Printer

A powercord is supplied with your printer.

Insertthe power cord into the receptaclon the back of the LaserWriter. Then plug the cor

! WARNING: The LaserWriteris equippedwith a three-wiregroundingplug -- a plug that has

Connecting the Printerto a Macintosh

To connectthe printer, you need a peripheralcable with a mini-DIN8-pinconnector, also kr Attachone end of the peripheralcable to the printerport or modemport on the Macintosh.

! IMPORTANT: If your computeris connected to an AppleTalknetworkthroughthe printerport

Installingthe PrinterSoftware

Beforeyou can print, you need to installthe softwareon the disksthat came with your prin

Systemrequirements

To use the printersoftware, you need Macintoshsystemsoftwareversion 6.0.7 or later. If y The printersoftwarecan operateon a Macintoshusing System 7 with at least 2 MB of memory

Installation

Followthesesteps to install the Macintosh software.

 $1. \quad Insert the \ Laser \textit{Write} \\ \textit{Select 300 Installation} \\ \textit{disk and open the disk icon.}$ 

A windowappears, showing the contents of the disk.

2. Drag the TeachTextand CleaningPage iconsto your hard disk.

If you alreadyhave a copy of TeachTexton your hard disk, you don't need to drag this icon The CleaningPage is a TeachTextdocumentyou'llneed to print in the futurewhen you repla

3. Open the Installericon.

The Installer's Welcomescreendescribes the items that will be installed on your disk.

 ${\tt 4. \quad ClickOK \ to \ clear the \ Welcomes creen and \ display the \ Installer dialog box.}$ 

The Easy Installdialogbox appears.

Note: Installingustomize printers of tware: These instruction sover the Easy Installpro

- 5. Make sure that the disk indicate on the screenis the one on which you want to install If the wrong disk name appears, click Switch Disk until the correct name appears.
- 6. ClickInstall.

Statusmessagesinformyou of progressduringinstallation.

- 7. Insertadditionaldisks when messageson your screen request them.
- 8. When you see a messagereportingthat the installatiowas successful click Restart.

Go on to Chapter2 to installa toner cartridgeand load the paper cassette, and then to Cha

#### CHAPTER2

#### ADDINGTONERAND PAPER

This chaptertells you how to installa toner cartridge into the printer and load paper into Installingr Changinga Toner Cartridge

Toneris the powderedink that produces the imageon the paper. Follow these steps to insta

- 1. Open the printeraccessdoor.
- 2. If you are replacing a used cartridge, remove the old cartridge and set it aside.
- 3. Unpack the new toner cartridge and gently rock it to distribute the toner inside.

Gentlyrock the cartridgein a see-sawmotion.

4. Pull the tape tab to remove the tape.

Pull the tape completelyout.

5. Insertthe cartridgeinto the printer.

Line up the markingson the sides of the cartridgewith the arrowsin the printer.

Line up the arrowson the toner cartridgewith the arrowsinside the printer.

6. Closethe accessdoor.

Using the CleaningPage After You Changethe Toner Cartridge

This step is not necessarythe first time you install a toner cartridge. If you are setting The CleaningPage is a file, included with the printers of tware, that you print each time you

1. Selectthe CleaningPage icon on your disk.

You shouldhave installed the Cleaning Page documentas part of the software installation ir

2. ChoosePrintfrom the Filemenu.

The Printdialogbox appears.

3. ClickPrint.

The CleaningPage prints. It contains only a wide, black stripe.

4. Open the manual feed tray.

If you need help, see Chapter3 for instructions.

- 5. Take out the printedpage, turn it over, and feed it againthroughthe manual feed tray Feed the printedpage a second time.
- $6. \quad {\tt Once again, select the Cleaning Page icon and choose Print from the File menu.}$
- $7. \quad \text{In the Print dialogbox, choose} \\ \text{Manual Feed from the Paper Source pop-upmenu.}$
- 8. ClickPrint.

The cleaningprocessis finished.Discardthe CleaningPage.

Loadingthe Paper Cassette

The cassettesuppliedwith your printerholdsup to 250 sheetsof copier-weighbond paper.

To load the paper cassette:

- 1. Inserta stackof paper that fits below the top edge of the paper bracketins ide the cas
  Be sure to set the sliding backstop to one of the four standard paper sizes marked in the tr
  ! IMPORTANT: Adjust the sliding backstop in the cassettes o it clicks into the notch for tr
- 2. Slide the cassettein to the printer.

Push firmly to make sure the cassetteis in place.

3. Pressfirmlyon the uppercornersof the cassetteto make sure it is secure.

To remove the cassette to refillit, graspit and pull firmly straightout.

Loading3-holepunchedpaper

Followthe instruction for loading or dinary paper, and position the sheets as shown below.

The holes should line up along the right side of the cassette as you insert it into the prin

Loadingletterheaфaper

 $Follow the \ instruction \textbf{\$} or \ loading ordinary paper, and \ position the \ sheets as \ shown below.$ 

Insertletterheaфaperface up with the top of the page at this end of the cassette.

CHAPTER3

#### PRINTING

This chapterexplainshow to print documents on a LaserWriter Select 300 connected to your o More printing instructions and be found in the manual sfor your application programs, such a Beforeyou use the printer, you should have installed the software as described in Chapter 1

#### TurningOn the Printer

The power switchis locatedon the side near the rear of the printer. When the power is turn

## Using the Chooser the First Time You Print

You use the Chooserdesk accessory to tell the Macintosh where to send print jobs.

In the Chooser, you choosethe printerport to which you connected the Laser Writer and can

! IMPORTANT: Once you choose the printerin the Chooser, you won't need to repeat this step

### 1. Choosethe Chooserfrom the Applemenu.

Firstclickthe LW Select300 icon in this box.

Then click the serial port that you used to connect the printer.

Clickhere to share the printerover a networkor to createa log of printedjobs. See "Sha If you used the printerport to connectthe printer, be sure to make AppleTalkinactive(see Backgroun&rintinglets you use your computerfor other things while it is printing. For de

### 2. Afteryou choosethe printer, closethe Chooser.

## Definingthe Page Setup

The Page Setup commandis found in the File menu of nearly all Macintoshprograms. Dependir Click one of these iconsto chooseverticalor horizontalpage orientation.

Type any size from 5% to 999% or choosea presetsize from the menu.

Choosefrom six paper sizes: U.S. Letter, U.S. Legal, Executive A4, #10 Envelope, and Mor Click Options to display the dialogbox below.

Clickhere to reduce the image by 4%. This makes the printed dots proportional to the dots clickhere to reduce the margins and print closer to the edge of the page

#### Printinga Document

The LaserWrite printsyour documentusing the cassetteunlessyou specifya differentpape

- 1. Open the documentyou want to printor selectits icon in the MacintoshFinder.
- 2. ChoosePrintfrom the Filemenu.

3. Choosethe appropriatesettingsand click Print.

To printmore than one copy, type a numberhere.

If you don'twant to print all pages, click in these boxes and type the first and last page Choose the paper source from the top menu. To print the first page on special paper, click "Choose Grayscale to print text, lines, or shades of gray. If printer memory is upgraded to 4 Choose from an alert message or a system sound to not if you when a print job is finished. Click here to display the printer 's darkness control. See "The Image Is Too Lightor Too Dar

PrintingPaperor Envelopeswith the ManualFeed Tray

If you want to use paper that is different from the paper in the cassette, you can use the m

1. Open the manual feed tray.

Flip open the extension on the paper guide.

- 2. Open the documentyou want to printor selectits icon in the MacintoshFinder.
- 3. ChoosePrintfrom the Filemenu.
- 4. In the Printdialogbox, chooseManualFeed from the PaperSourcepop-upmenu.
- 5. Inserta sheetof paperor envelopeas shown. Be sure to keep the page straightso it for  $\epsilon$  Insertenvelopes this way.

Make sure the paper is centered

Top of sheetgoes in first (letterheaface down)

ClickPrint.

The sheetyou insertedis printed. If the documenthas additionalpages, a messageon yours

Printingon Both Sides of a Page

Followthesesteps to print a documentusing both sides of the paper.

- $1. \quad \hbox{Print the first side of the page using manual feed or the paper cassette.}$
- 2. Take out the printedsheet, turn it over, and print the second side using manual feed, i

Openingthe OutputTray

The printerhas an outputtray that holds sheets in place as they are ejected from the printer Pull the tray to the stop indicate of for your paper size.

SharingYour PrinterWith Other Users

If your Macintoshis connected to an AppleTalknetwork, you can use the GrayShareLaserWrit

Followthesesteps to turn on the printer's sharing feature:

- 1. Choosethe Chooserfrom the Applemenu.
- 2. Clickthe LW Select300 icon.

Clickthe LW Select300 icon in this box.

Click the serial port to which you connected the printer.

ClickSetup.

- ClickSetup.
- 4. ClickSharethis Printerand enterthe optionsfor the sharedprinterin the Setupdial Clickto placean X in this checkbox.

Type a name for the printer. This is the name other users will see in their own Chooser.

 $\label{thm:continuous} \textbf{Type a password} \textbf{if you want to share the printerwith only users who know the password.}$ 

Clickto placean X here if you want to keep a recordof all print jobs. The log file (a te)

- 5. ClickOK.
- 6. Closethe Chooserwindow.

Networkusers can now chooseyour printerin their Chooser (see the next section for detail

Using a shared printer connected to another Macintosh

To print on a sharedLaserWriteßelect300, networkusers must have the LW Select300 driv Each user wanting to use the sharedprinters hould use the LaserWriteßelect300 installat Once the software is installed, the sharedprinter appears in the list of network printers

- 1. Choosethe Chooserfrom the Applemenu.
- 2. Clickthe LW Select300 icon.
- 3. In the list of printerson the right, click the name of the sharedLaserWriterSelect30 First click the LW Select300 icon.

Then click the name of the shared printer.

You can click the Get Info buttonin the Chooserwindowto see whetherany fonts in your sys

4. Closethe Chooser.

Your Macintoshwill now use the LaserWriterSelect300 Page Setup and Printdialogboxes and

Controlling the use of your printerby others

Afteryou turn on the sharingfeature, you still have complete control over the shared prin

- You can turn sharingon or off at any time.

- You can use the PrintMonitorprogramin your Macintoshsystemsoftwareto view a list of The PrintMonitorprogramis availablewhen you have Backgroun&rintingturnedon in the Cr Note: Your computer'sperformance: While your computer is printing in the background you m

#### CHAPTER4

#### TROUBLESHOOTING

This chapterprovides solution sto printing problem syou may encounterwhile using your print. ! WARNING: If you have a problem with your printer and nothing presented in this chapters c

## SafetyPrecautions

Considerthese rules of safety before you open the printeror attempt to trouble shoop robl

- Don'tattemptto disassembl∉he printer.
- Don'tuse oil insidethe printer.
- Don'tuse ammonia-basedleanerson or aroundthe printer. They may react with the toner.
- Don'tuse alcohol-basedleanerson or aroundthe printer. They may react with the plasti
- Don'tleave the accessdoor open. Exposing the toner cartridge to light may damage the car
- Don'topen the drum-protectiosnhutteron the toner cartridge.

! IMPORTANT: The fixingassemblyin the printeroperatesat very high temperatures When you This area can get hot.

#### Checkingthe Printer's Status Lights

Alwayscheckthe statuslightsfirstwhen a printingproblemoccurs. These oftentell you th

- The Ready/InUse lightshouldglow steadilywheneverthe printeris on, and blinkwhen it
- The PaperOut lightis on only when there is no paper in the cassetteor tray currentlyse
- The Paper Jam lightis on when any obstructionoccursin the paper path.

#### The Chooserdoesn'tshow the LW Select300 icon

If the LW Select300 icon is missingfrom the box that identifies different printertypes, y

If there's no LW Select300 icon here, you haven'tinstalled the printers of tware correctly

To install the software, follow the instruction in "Installing the Printer Software" in Cha

#### The Macintoshcan't find the printer

If you have selectedthe printericon in the Chooserbut nothingprintsor you get a messag

- The printerhas been turnedoff. Make sure it is pluggedin and turnedon (the green stat
- In the Chooser, you may have chosen the wrong printeror selected the wrong serial port (t
- There'sa looseplug somewhere .Check to make sure that all the cablesare properly conne
- The printeris connected to the Macintoshprinterport and AppleTalkis active.Openthe C

If you still can't resolve the problem, the printermay not be functioning properly. Contac

Printingtakesa long time

Printingmay be slow on pages containing complex graphics, pages printed using lands cape (how Printing grays cale images using Photo Grade can take particularly long, because pages printe The processing peed of your computer and the amount of memory it has also directly affect p

The printerwon't print a particula mage or document

If a documentcontainsa page with very complex graphic images, the printermay have insuff If you encounter the "printerout of memory" message frequently consider having a Laser Wri

Type looks jagged

If you don'thave a TrueTypeversionof a font, the text in that font is printedusing bitme

Some text changesto the Genevafont

When your computerruns low on memory, TrueTypeturns itselfoff and some TrueTypefonts may

The printerprintson only part of the paper

Make sure you have selected the appropriat papersize in the Page Setup dialogbox.

Checkthe adjustmentof the backstopin the paper cassetteto make sure it is correctfor yo

Paperis jammed

If the PaperJam statuslightis on, open the printerand removethe jammedsheetfrom one o

Paperfeedsimproperly

If papertears, gets skewed, or comesthroughthe printercrumpled, it may not be enteringt Removeany jammedsheets from inside the printer. Open the paper cassette, turn the stack of

The imageon a page is out of place

This problemmay resultfrom one of the following:

- You are not using the recommende opaper (20-lb.typewriteror photocopybond).
- The marginsare set wrongin the documentyou are printing.
- The paper cassettemay be too full, causing paper to feed incorrectly.

Unwantedlinesor stripesappear

If whiteor dark linesappearon the page, try the following:

- Removethe tonercartridgeand rock it to redistribut the toner. Be sure to hold the cart Gentlyrock the cartridge a see-sawmotion.

 $To ner stains appear on \ printed pages$ 

If the printedpages are not clean, there may be a buildupof toneron the printingrollers

If stains appearon the backs of printedpages, you may have printed an image that is large

Problemscausedby paper

Many problems such as toners mearing , or paper curlingor feeding improperly can be caused

- Extremelyslickor shinypaper
- Paperthatis highlytextured
- Coatedpaper
- Stapledpaper
- Multipartforms
- Letterheaфaperthat was printedusinglow-temperaturæyes or thermography (Suchmater To assuregood results, test a few sheetsof any paper before you order large quantities.

The image is too lightor too dark

If printingis too lightor too dark, try the following:

- Take out the toner cartridgeand rock it gently to distribute oner. If this doesn'thelp
- ChoosePrintfrom the File menu and clickOptionsto displaythe PrintDensitycontrol.

Drag the slidertowardthe right to darkenthe image.

- If the problemoccurson paper other than the recommende 20-lb. photocopyor typewriter by the problemoccurs of the problemoccurs of paper other than the recommended 20-lb. photocopyor typewriter by the problemoccurs of paper other than the recommended 20-lb. photocopyor typewriter by the problemoccurs of paper other than the recommended 20-lb. photocopyor typewriter by the problemoccurs of paper other than the recommended 20-lb. photocopyor typewriter by the problemoccurs of paper other than the recommended 20-lb. photocopyor typewriter by the problemoccurs of paper other than the recommended 20-lb. photocopyor typewriter by the paper of paper other than the recommended 20-lb. photocopyor typewriter by the paper of paper other paper of paper other paper of paper other paper of paper other paper of paper o

APPENDIXA

ADDINGMEMORY, CASSETTES, AND OTHER OPTIONS

You can purchaseadditionalmemoryfor your printer, accessories to feed paperor envelopes

The LaserWriteßelect300 can have up to three papersources simultaneous lynstalled:

- the paper cassette that comes with the printer
- a secondpaper cassettein a feederthat fits as a base below the printer
- a multipurposeray for variouspapersizes, which fits into the manual feed slot and feed.

  This appendixcontains instruction for installing and using the paper-handling accessorie

You can order the following optional equipment where you purchase dyour printer:

- sheet feeder with 250-sheetuniversal-sizeassette (accepts the same paper size as the pr
- sheetfeederwith 500-sheetU.S. Lettercassette
- sheetfeederwith 500-sheetA4 cassette
- multipurposeray, which automaticall feeds up to 50 sheets of variable papersizes
- 250-sheetU.S. Legal cassette(fits the standardor optional 250-sheetfeeder)
- 250-sheetuniversal-sizeassette

envelopecassette(fitsthe standardor optional250-sheetfeeder)

- 1 MB memoryupgrade(letsyou printmore complexpages)
- 4 MB memoryupgrade(requiredto use PhotoGrade)
- PostScript-compatib@entrollemboard

Installingand using the optional sheet feeder and cassette

The optionalsheet feederlooks and works exactly like the built-infeeder that forms the lc The illustration bere depict the 250-sheet feeder, but apply also to the 500-sheet size.

- 1. Turn off the printerand unplugthe power cord.
- 2. Removeand set aside the paper cassettes from both the printer and the sheet feeder.
- 3. Set the sheet feederon a flat, stable surface and lower the printer over it so the side
- 4. Snapeach of the four plastic retainer clips into its slots to lock the upper and lower Press the retainer clip until it snaps into place.
- 5. Replacethe paper cassettes into the feeders, plug in the power cord, and turn on the pr

Using the paper cassettein the sheet feeder

- 1. ChoosePrintfrom the Filemenu.
- $\hbox{2. ChooseLower Cassette from the Paper Source menuin the Print dialogbox.}$
- ClickPrint.

Installingand Using the OptionalMultipurpos ∉ray

The multipurpos & ray can be used with various paper sizes. The tray fits over the manual f  $\epsilon$ 

- 1. Holdingthe tray foldedas shown, insertthe pin on the left side of the tray into the h
- 2. Slideback the blacklatchat the rightside of the tray and snap the tray into positio Insertthis side first.

Push the latch to the left, position the tray, and release.

3. Tilt open the first flap of the tray, then pull out the extensionas shown.

Do not stack the paper above this tab.

Slidethe paperguidesto fit your paper.

4. Stackpaperin the tray and adjust the paperguides to fit, but not so snuglyas to ham!

Using the paper in the multipurpos ∉ray

- 1. ChoosePrintfrom the Filemenu.
- 2. ChooseManualFeed from the Paper Sourcemenu in the Printdialogbox.
- ClickPrint.

Loadingand Using the EnvelopeCassette

The optionalenvelopecassetteautomaticall feeds up to 30 standardweightenvelopes.

To load the envelopecassette:

- 1. Stackthe envelopesas shown: face up (with the flap down), with the top edge againstth
- 2. If the side bracketsneed adjustment slide them to fit against the stack of envelopes
- 3. If the rear bracketneeds adjustment s queezeboth sides and slide it until the top lip Top edge here with flap down .

Adjustbracketsto fit your envelope.

This attachments for a postcardsize that is standardin Japan. If you do not need it, di

Printingenvelopes

- 1. Open the programin which you'llbe printing.
- $\hbox{2. ChoosePage Setup from the File menu.}\\$
- 3. Choosethe envelopesize in the Page Size pop-upmenu.
- 4. Click the icon for horizontalpage orientation.

5. ClickOK.

The Page Setupdialogbox closes.

6. Type the addressin the positionyou want and print.

Some trial and errormay be necessaryto get the addressblockin the exactpositionyou war

APPENDIXB

### **SPECIFICATIONS**

Markingengine

- Fuji Xeroxlaser-xerographic

Printquality

- 300 dots per inch for text and graphics, enhanced by Fine Printresolution Photo Gradegray

PrinterRAM

- 512K of RAM standard,upgradeabl to 1.5 MB or 4 MB

Printerfonts

- TrueTypefont familiesstandard.The LaserWriterSelect300 can supportadditionalfonts f

Speed

- Five pages per minutemaximum. Actual speed depends on the images printed and the compute

Interface

- Serial, externally clocked

Recommendedduty cycle

- Minimumlife expectancy is 150,000 pages, with no monthly page limit.

Paper feed

- Automaticfeed from paper cassette sand optional multipurpos & ray; manual feed for singl

Printingmaterials

Applerecommend ≥0-lb.photocopyor typewriterbond (75 g/m2). You can use 16-lb. (60 g/m2

Paper sizes and capacity

The standardpaper cassettecan hold up to 250 sheetsof U.S. Letter, A4, A5, B5, and Execu

The optionalmultipurposeray can hold up to 50 sheetsof all the above sizes of paper, or Imageablearea

- Maximumprintableline: 203 mm (8.00in.)
- Minimumtop and bottommargins:6.35 mm (0.25 in.)
- Minimumleft and rightmargins:6.35 mm (0.25 in.)

Actualimageablearea may vary depending on the application program. The printersenses cas:

#### Dimensions

- Height:25.3 cm (8.0 in.)
- Width:38 cm (15 in.)
- Depth:45 cm (18.3in.)

### Weight

- 12 kg (26 lb.)

Operatingenvironment

### Temperature

- 50° to 90° F (10° to 32° C)

## Humidity

- 20 to 80 percent, noncondensing

Tonercartridgetransitenvironment

$$-4^{\circ}$$
 to  $+104^{\circ}$ F ( $-20^{\circ}$ to  $+40^{\circ}$ C)

Inputelectricalrequirements

U.S./Japan

- 100-115V (10%),50-60Hz (2 Hz)

Europe/Australia

- 220-240V (10%),50 Hz (2 Hz)

Powerconsumption

# Operating

- 450 W maximumat 115 V or 220 V

### Ozoneemission

- 0.05 partsper millionmaximum, measuredin accordancewith ECMA 129 or UL114 standardsfc