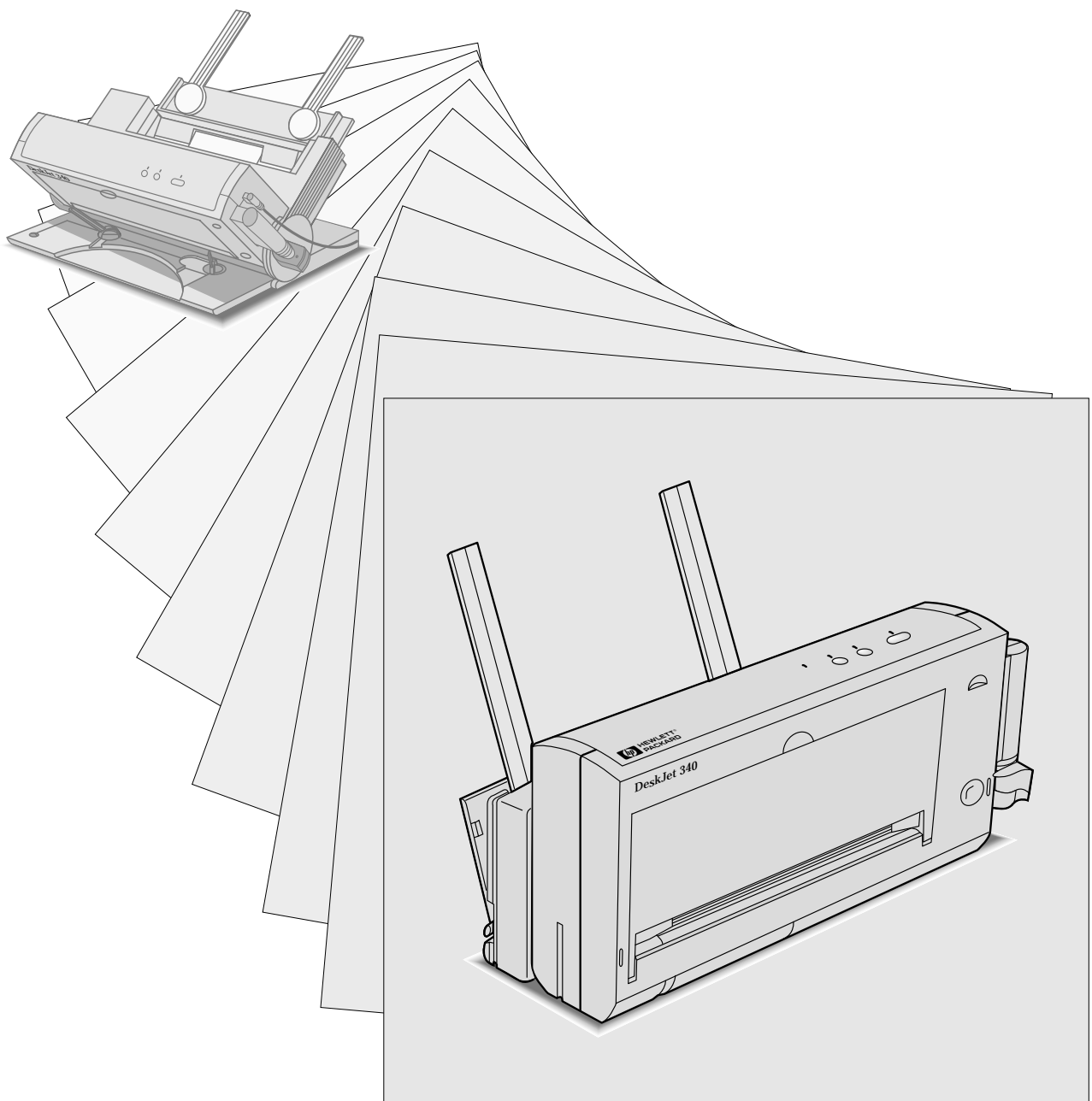


HP DeskJet 300 Series Printer Family Technical Support Solutions Guide



HP DeskJet 300 Series Printer Family Technical Support Solutions Guide

HP DeskJet Portable, DeskJet 310, DeskJet 320 and DeskJet 340



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Italic type is used for the titles of publications and for emphasis in a paragraph.

Warning

Warning text is used where danger to an individual can develop.

Caution

Caution text is used where a risk of damage to equipment can develop.

Note

Note text is used for special instructions.

About This Guide

This guide is designed as a reference for people who provide post-sale technical support to end-users of the HP DeskJet Portable, HP DeskJet 310, HP DeskJet 320 and HP DeskJet 340 printers. It represents a collection of information gathered from Hewlett-Packard's dealer and end-user support organizations. The purpose of this guide is to provide answers to frequently asked questions and solutions to common problems.

While the content of this guide is quite comprehensive, it is not all inclusive. It is not a substitute for other types of product documentation, such as the *User's Guide* and *Quick Start*.

Product Information

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Model Numbers and Product Positioning

There are four printers in the HP DeskJet 300 Series printer family:

- HP DeskJet 340
- HP DeskJet 320
- HP DeskJet 310
- HP DeskJet Portable

Table 1-1. The HP DeskJet 300 Series Printer Model Numbers and Product Positioning

| Printer | Model Number | Model Status | Product Positioning |
|--|--------------|---|--|
| <i>HP DeskJet 340 Printer</i> | C2655A | Available | HP's DeskJet family inkjet printer for notebook PC users with optional color and 600 by 300 addressable rasterpoints per inch resolution |
| <i>HP DeskJet 320 Printer</i> | C2634A | Available only in Japan | HP's DeskJet family inkjet printer for notebook PC users with optional color and 600 by 300 addressable rasterpoints per inch resolution |
| <i>HP DeskJet 320 Printer with Desktop Sheet Feeder bundled</i> | C2637A | Available in Japan only | HP's DeskJet family inkjet printer for notebook PC users with optional color and 600 by 300 addressable rasterpoints per inch resolution |
| <i>HP DeskJet 310 Printer</i> | C2621A | Available | HP's DeskJet family inkjet printer for notebook PC users with optional color and 300 by 300 dots per inch resolution |
| <i>HP DeskJet 310 Printer with Desktop Sheet Feeder bundled</i> | C2622A | Available | HP's DeskJet family inkjet printer for notebook PC users with optional color and 300 by 300 dots per inch resolution |
| <i>HP DeskJet Portable Printer</i> | C2614A | No longer available | HP's DeskJet family inkjet printer for notebook PC users with black printing only and 300 by 300 dots per inch resolution |
| <i>HP DeskJet Portable Printer with Desktop Sheet Feeder bundled</i> | C2624A | Available in Asia Pacific only ¹ | HP's DeskJet family inkjet printer for notebook PC users with black printing only and 300 by 300 dots per inch resolution |

1. Available only in: Australia, China, Hong Kong, India, Indonesia, Malaysia, New Zealand, Singapore, Taiwan, Thailand and some other Asian countries.

HP DeskJet Portable old and new models

As shown in the table above, there are two models of the HP DeskJet Portable, black-only printer. The old model, C2614A, is no longer available. The new model, C2624A, is bundled with a sheet feeder and sold only in the Asia Pacific. There are some minor hardware and firmware differences between these two models. This guide reveals these differences in footnotes to the general information on the HP DeskJet 300 Series printer family. You can identify these two different printer models by the model number printed on the serial number label in the printer's battery compartment. This label has C2614A for the old model and C2624A for the new model.

Support Tools

Hewlett-Packard recommends the following tools for supporting HP DeskJet 300 Series printers.

- Dial caliper or accurate linear scale
- Tissue paper
- Cotton swabs, such as part number 9300-0767
- Clean lint-free soft cloth
- Brush or small computer vacuum cleaner

Features and Benefits

Table 1-2. HP DeskJet 300 Series Printer Features and Benefits

| Feature | Benefit |
|--|---|
| <i>Black output resolution:</i> <ul style="list-style-type: none">• 300 by 300 DPI (HP DeskJet 310 and Portable)• 600 by 300 addressable rasterpoints per inch (HP DeskJet 340 and 320) | Letter-quality output at an affordable price. |
| <i>Prints on plain paper</i> | No special paper required. |
| <i>Drop-on-demand thermal inkjet printing</i> | Proven reliable, letter-quality, and quiet printing solution. |
| <i>Works from a power adapter, an optional battery pack, or optional rapid recharger</i> | Flexible power requirements for greater versatility and portability. Power adapter and rapid rechargers can run from the voltage and frequency of any country or region's AC power. |
| <i>Sheet feeder that detaches easily from the printer</i> | Flexible media handling without sacrificing portability. The sheet feeder can load paper, transparencies and labels automatically. |
| <i>2 to 3 pages per minute printing</i> | Fast generation of hard-copy output. |
| <i>Support for major MS DOS and all Windows 3.x applications</i> <i>The HP DeskJet 340 supports all major macintosh computers using the 68030 chip</i> | Confidence in software compatibility. |
| <i>Supports color¹ graphics output with major MS DOS applications</i> | Good coverage of the top-tier graphics packages in the DOS environment. |
| <i>Supports all Windows applications in color¹ using the HP printer driver, included with the printer.</i> | Confidence in software compatibility for color printing. |
| <i>The HP DeskJet 340 and 320 comes with the enhanced HP ColorSmart printer driver</i> | Produces vibrant colors at the touch of a button. |
| <i>High-quality color¹ graphics capability</i> | Create high-quality color documents. |
| <i>Kerning of the CG Times and Univers internal fonts</i> | Increased satisfaction in the overall appearance of printed text. |
| <i>Internal landscape fonts</i> | Useful for spreadsheet applications. |

1. The HP DeskJet Portable only prints black.

Table 1-2. HP DeskJet 300 Series Printer Features and Benefits (Continued)

| Feature | Benefit |
|--|--|
| <i>TrueType scalable fonts support in Windows using the HP printer driver included with the printer. The HP DeskJet 340 also supports HP, TrueType and Type 1 Postscript scalable fonts.</i> | Create any size text needed in Windows 3.1. (For more information on printing capabilities with Windows 3.0 and 3.1, see table 4-2, "Selecting Printer Drivers for an HP DeskJet 300 Series Printer.") |
| <i>Grayscale output in Windows using the HP printer driver.</i> | 256 levels of grayscale with enhanced dithering using the current HP DeskJet 300 Series printer driver. |
| <i>Expansion slot for PCMCIA Type 1.0 card.</i> | Can be used for HP and third-party solutions for fonts not built into the printer and emulations. HP Greek, Cyrillic, Turkish and East Central Europe fonts are currently available. |
| <i>Transparency support (black and color¹).</i> | Create effective high-quality presentations in black or color. |
| <i>Presentation quality color output capability using HP Premium Paper¹.</i> | Print vibrant color documents. |
| <i>HP Premium Glossy Paper support (black and color)¹.</i> | Create high-quality pages in black or color. |
| <i>Customer replaceable black print cartridge with water resistant ink.</i> | Easy to replace. Smudge-resistant permanent ink. |
| <i>Compatible with the tri-chamber color print cartridge, part number 51625A (cyan, magenta, and yellow inks)¹.</i> | Same convenient, clean, and easy to use solution as black, only for color printing. |
| <i>Print cartridge storage container available with the Color Kit¹.</i> | Maintain a long life of letter-quality output from black and color print cartridges. |

1. The HP DeskJet Portable only prints black.

Views

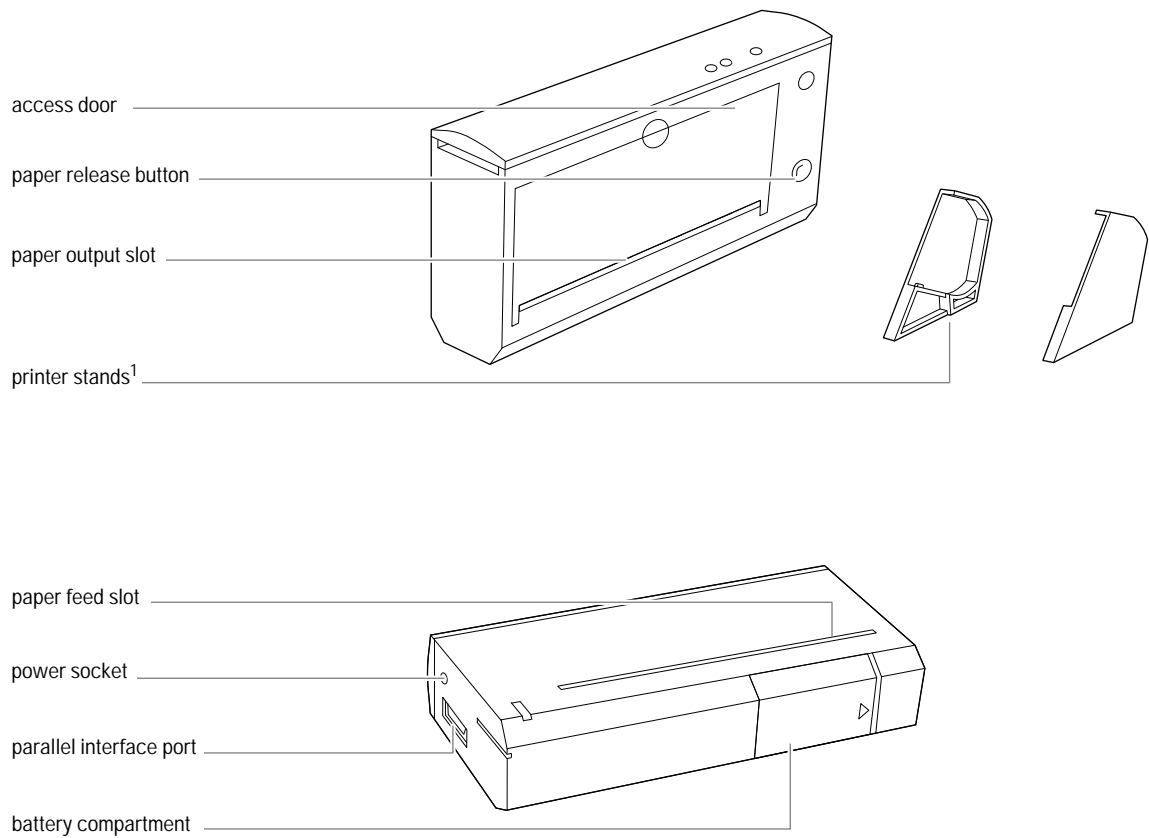


Figure 1-1. The HP DeskJet 300 Series Printer

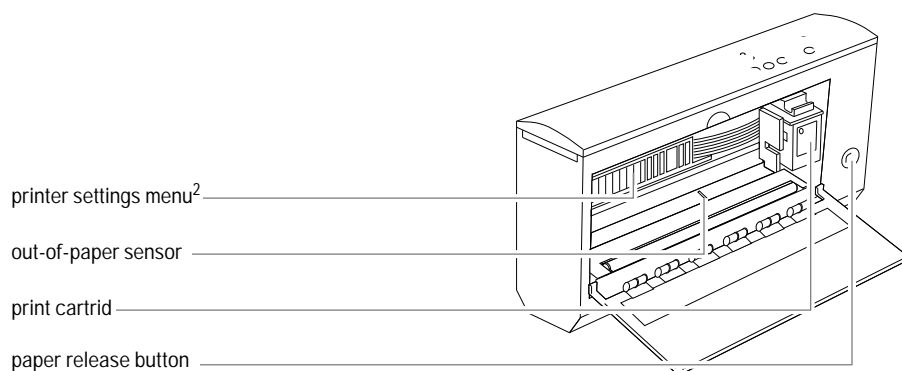


Figure 1-2. The HP DeskJet 300 Series Printer (Internal View)

1. The printer stands are not available with the HP DeskJet 340
2. The HP DeskJet 340 does not have the printer settings menu. Use the print setup or the DJPMenu to set the configuration for this printer.



Figure 1-3. The HP DeskJet 340 Printer and Portable Sheet Feeder in Operating Mode

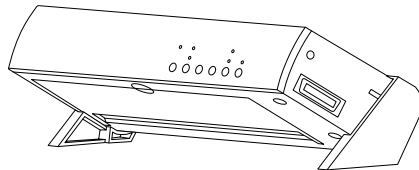


Figure 1-4. The HP DeskJet 300 Series Printer in Operating Mode

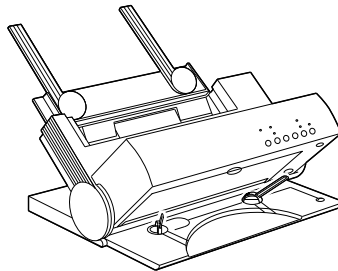


Figure 1-5. The HP DeskJet 300 Series Printer and Desktop Sheet Feeder in Operating Mode

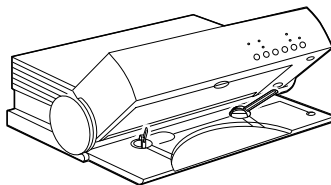


Figure 1-6. The HP DeskJet 300 Series Printer and Desktop Sheet Feeder in the Manual Feed Mode

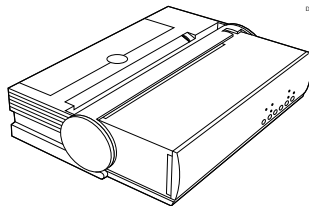


Figure 1-7. The HP DeskJet 300 Series Printer and Desktop Sheet Feeder in Transport Mode

Note

- For physical dimensions, see “Physical Specifications” later in this chapter.
 - For sheet feeder callouts, see “Operating the Printer with the Sheet Feeder” in chapter 3.
-

Similarities and Differences

Table 1-3 discusses similarities and differences between the portable HP DeskJet 300 Series printer family and the desktop HP DeskJet 500 Series printer family.

Table 1-3. Similarities to and Differences from Non-Portable HP DeskJet Family Printers

| Similarities | Differences |
|---|---|
| <p>Black Print Cartridge Compatibility The DeskJet 300 printers can use the same black print cartridge, the 51633A, as other DeskJet family printers.</p> <p>Colour Print Cartridges For printing in color, the DeskJet 340, 320 and 310 can use the specially designed color print cartridge 51625A. The DeskJet 500C, 550C and 560C printers use the same color print cartridge.</p> <p>Centronics Parallel Interface The DeskJet 300 Series printers have the same Centronics parallel interface capabilities as other DeskJet family printers.</p> <p>Repair Strategy The DeskJet 300 Series printers are supported on a centralized repair program. Support personnel determine if the printer has a hardware problem and ship the printer to a centralized repair location for repair.</p> <p>HP PCL Level 3 Programming Language Support The DeskJet 300 Series printers are compatible with all level 3 commands in the HP PCL programming language. However, they do not support all the extensions of other HP DeskJet family printers.</p> <p>Large Selection of Fonts The DeskJet 300 Series printers support a wide selection of printer fonts comparable to the fonts available for other DeskJet printers.</p> | <p>Portability The DeskJet 300 Series printers are the only printers in the DeskJet printer family designed specifically for portability. This design includes an optional sheet feeder that folds flat for transportation.</p> <p>Color Printing The DeskJet 340, 320 and 310 printers, like the DeskJet 500C, can produce full-page 300 dpi color graphics but cannot print color ASCII text. The DeskJet 310, 320 and 340 printers, like the DeskJet 500C, can use the color print cartridge to produce “composite black” on pages with color. The DeskJet 550C, 560C, 1200C, and 1200/PS are the only printers in the DeskJet printer family that can combine black from a black print cartridge on a page with color from a color print cartridge without changing cartridges.</p> <p>High Capacity Print Cartridge Not Recommended for the DeskJet 300 Series Printers The high capacity print cartridge 51626A does not transport well, particularly at higher altitudes. It is not recommended for DeskJet 300 Series printers.</p> <p>No RS-232-C Serial Interface The DeskJet 300 Series printers do not have an RS-232-C serial interface.</p> <p>Different Expansion Slots The DeskJet 300 Series printers are not compatible with the optional plug-in cartridges designed for other HP DeskJet family printers. They have a single card slot for a PCMCIA Type 1.0 card.</p> <p>Multi-voltage Power Adapter The DeskJet 300 Series printers are not compatible with the power modules for desktop DeskJet family printers. The DeskJet 300 Series uses a multi-voltage power adapter, universal rapid recharger, and battery pack incompatible with all other DeskJet family printers.</p> <p>No Downloaded Fonts The DeskJet 300 Series printers do not support downloaded fonts. The DeskJet 500 Series printers can use downloaded fonts.</p> <p>Media Support The DeskJet 300 Series printers do not support printing on envelopes. The DeskJet 500 Series printers can print on envelopes.</p> |

Table 1-4 compares the members of the HP DeskJet 300 Series printer family.

Table 1-4. Similarities and Differences Between the HP DeskJet 300 Series Printers

| Similarities | Differences |
|---|--|
| <p>General Performance The DeskJet 300 Series family are compact high-performance printers that can be moved easily when needed. They can produce output of quality comparable to that of desktop DeskJets and can print about as fast.</p> <p>Portability The DeskJet 300 Series are the only printers in the DeskJet family designed for portability on demand. They are light and convenient to carry, and can be folded flat for transportation with the same optional sheet feeder. In addition, these printers are not chained to AC receptacles and extension cords — they can be run from an optional camcorder-type battery pack.</p> <p>51633A/51633M Black Print Cartridge Compatibility DeskJet 300 Series printers use the same black print cartridge: the 51633A or 51633M. The high capacity black print cartridge 51626A is not recommended for use with these printers.</p> <p>Centronics Parallel Interface DeskJet 300 Series printers have the same Centronics parallel interface capabilities as other DeskJet family printers.</p> <p>No RS-232-C Serial Interface These printers do not have an RS-232-C serial interface.</p> <p>Powering the Printer All DeskJet 300 Series printers work with the multi-voltage power adapter. They can also run from battery power or from an optional universal rapid recharger.</p> <p>Same Card Slot¹ All DeskJet 300 Series printers except the DeskJet 340 have a single card slot for a PCMCIA Type 1.0 card.</p> <p>Envelopes Not Supported None of these printers support printing on envelopes.</p> <p>Repair Strategy All of the DeskJet 300 Series printers are supported on a centralized repair program. Support personnel determine whether the printer has a hardware problem and ship the printer to a centralized location for repair.</p> <p>HP PCL Level 3 Programming Language Support All these printers are compatible with all level 3 commands in the HP PCL programming language. However, they do not support all the extensions of other DeskJet family printers.</p> <p>Warranty All of the DeskJet 300 Series printers have the same one year warranty.</p> | <p>Color Printing The DeskJet 340, 320 and 310 printers can produce, with the optional Color Kit, full-page color graphics. The DeskJet Portable cannot. None of these printers can print color ASCII text. (The HP DeskJet 320 and 340 come with the HP ColorSmart printer driver which produce vibrant colors at the touch of a button.)</p> <p>Color Print Cartridges For printing in color, the DeskJet 340, 320 and 310 printers can use the color print cartridge 51625A. The DeskJet Portable uses the 51633A black print cartridge.</p> <p>Different AC Power Devices Included The DeskJet 340, 320 and 310 printers are shipped with a small, light, automatic-switching worldwide power adapter and a country-specific power cord. The DeskJet Portable may be shipped with a country-specific power module with a permanently attached power cord. This power module is not recommended for use with other DeskJet Series printers.</p> <p>Media Support The DeskJet 340, 320 and 310 printers permit users to load transparencies from the sheet feeder. Users can also hand feed the transparencies. The DeskJet Portable requires that users hand feed transparencies one at a time.</p> <p>Output Resolution The DeskJet 340 and 320 have 600 by 300 addressable rasterpoints per inch black output resolution. It also makes use of HP's RET™ (Resolution Enhancement technology). RET provides curve smoothing to enhance print quality. The DeskJet 310 and the DeskJet Portable only support 300 by 300 dpi.</p> <p>Mac Adapter Cable The Deskjet 340 printer permits users to connect it a Macintosh computer using a special Mac adapter cable.</p> |

1. All these printers can print demonstrations using a PCMCIA card that fits into the printer's card slot. The **DeskJet 310, and 320** should be able to print from the U.S. Demo card designed for the card slot of the DeskJet Portable, but not from the Europe Demo card. DeskJet Portable localized font cards also work with the **DeskJet 310 and 320**.

Printer Options

The HP DeskJet 340, 320 and 310 printers have the same worldwide power adapter for all countries (part number 0950-2435); the power cord and documentation vary with the region's needs. Some HP DeskJet Portable printers may have country-specific power modules with a permanently attached power cord; others will have the same worldwide power adapter as the HP DeskJet 340, 320 and 310. When replacing an HP DeskJet Portable country-specific power module, you must order a new worldwide power adapter as well as a country-specific power cord listed in the table below.

Note

- For HP DeskJet 300 Series printer supplies and accessories, see table 1-8.
- The HP DeskJet 320 and 310 can be purchased together with a sheet feeder. In this case, they have a different part number from that shown in the table below, as given in the table footnotes 1 and 2.

Table 1-5. HP DeskJet 300 Series Printer Options

| Region or Country | HP DeskJet 340 Printer Option Number ¹ | HP DeskJet 320 Printer Option Number ¹ | HP DeskJet 310 Printer Option Number ¹ | HP DeskJet Portable Printer Option Number ¹ | Power Cord Included ² | Language of User Documentation |
|-----------------------|---|---|---|--|----------------------------------|--------------------------------|
| Argentina and Uruguay | C2655A #AC8 | C2634A #AC8 | C2621A #AC8 | C2614A #AC8 | 8120-6312 | Spanish |
| Australia | C2655A #ABG | C2634A #ABG | C2621A #ABG | C2614A #ABG | 8120-6312 | English (International) |
| Brazil | - | C2634A #AC4 | C2621A #AC4 | C2614A #AC4 | 8120-6313 | Portuguese |
| Canada (English) | C2655A #ABA | C2634A #ABA | C2621A #ABA | C2614A #ABA | 8120-6313 | English |
| Canada (French) | C2655A #ABC | C2634A #ABC | C2621A #ABC | C2614A #ABC | 8120-6313 | French |
| Denmark (Danish) | C2655A #ABY | C2634A #ABY | C2621A #ABY | C2614A #ABY | 8120-6314 | Danish |
| Denmark (English) | - | C2634A #ACE | C2621A #ACE | - | 8120-6314 | English (International) |
| East Central Europe | C2655A #AKG | C2634A #AKG | C2621A #AKG | - | 8120-6314 | English (International) |
| Europe (Dutch) | C2655A #ACU | - | - | - | 8120-6314 | Dutch |
| Europe (English) | C2655A #ABB | C2634A #ABB | C2621A #ABB | C2614A #ABB | 8120-6314 | English (International) |
| Europe (French) | - | C2634A #ACS | C2621A #ACS | C2614A #ACS | 8120-6314 | French |
| Finland | C2655A #ABX | C2634A #ABX | C2621A #ABX | C2614A #ABX | 8120-6314 | Finnish |
| France | C2665A #ACS | - | - | - | 8120-6314 | French |

1. If the sheet feeder and printer were purchased *together* all option numbers will begin with:

- C2637A for the **HP DeskJet 320**, instead of C2634A
- C2622A for the **HP DeskJet 310**, instead of C2621A
- C2624A for the **HP DeskJet Portable**, instead of C2614A

2. To replace the country-specific power module of an **HP DeskJet Portable** printer, you must order a new worldwide power adapter. The worldwide power adapter part number is: 0950-2435. Remember to also order a detachable country-specific power cord listed in the table above.

Table 1-5. HP DeskJet 300 Series Printer Options (Continued)

| Region or Country | HP DeskJet 340 Printer Option Number ¹ | HP DeskJet 320 Printer Option Number ¹ | HP DeskJet 310 Printer Option Number ¹ | HP DeskJet Portable Printer Option Number ¹ | Power Cord Included ² | Language of User Documentation |
|-------------------------|---|---|---|--|----------------------------------|--------------------------------|
| Germany | C2655A #ACT | C2634A #ACT | C2621A #ACT | C2614A #ACT | 8120-6314 | German |
| Greece | - | C2634A #AR2 | C2621A #AR2 | - | 8120-6314 | English (International) |
| Intercon | C2655A #ABK | C2634A #ABK | C2621A #ABK | C2614A #ABK | 8120-6315 | English (International) |
| Italy | C2655A #ABZ | C2634A #ABZ | C2621A #ABZ | C2614A #ABZ | 8120-6314 | Italian |
| Latin America | C2655A #ABM | C2634A #ABM | C2621A #ABM | C2614A #ABM | 8120-6313 | Spanish |
| Netherlands and Belgium | C2655A #ACU | C2634A #ACU | C2621A #ACU | C2614A #ACU | 8120-6314 | Dutch |
| Norway | C2655A #ABN | C2634A #ABN | C2621A #ABN | C2614A #ABN | 8120-6314 | Norwegian |
| Portugal | C2655A #AB9 | C2634A #AB9 | C2621A #AB9 | C2614A #AB9 | 8120-6314 | Portuguese |
| Russia | - | C2634A #AR3 | C2621A #AR3 | - | 8120-6314 | English (International) |
| South Africa | - | C2634A #ACQ | C2621A #ACQ | C2614A #ACQ | 8120-6317 | English (International) |
| Spain | C2655A #ABE | C2634A #ABE | C2621A #ABE | C2614A #ABE | 8120-6314 | Spanish |
| Sweden | C2655A #ABS | C2634A #ABS | C2621A #ABS | C2614A #ABS | 8120-6314 | Swedish |
| Switzerland (French) | - | C2634A #ABQ | C2621A #ABQ | - | 8120-6314 | French |
| Switzerland (German) | - | C2634A #ABP | C2621A #ABP | - | 8120-6314 | German |
| Switzerland (Italian) | - | C2634A #ACN | C2621A #ACN | - | 8120-6314 | Italian |
| Taiwan | C2655A #AB0 | - | - | - | 8120-6313 | Chinese |
| Turkey | - | C2634A #AR4 | C2621A #AR4 | - | 8120-6314 | English (International) |
| United Kingdom | C2655A #ABU | C2634A #ABU | C2621A #ABU | C2614A #ABU | 8120-6315 | English (International) |
| U.S. | C2655A #ABA | C2634A #ABA | C2621A #ABA | C2614A #ABA | 8120-6313 | English |
| Zechoslovaki | C2655A #AKB | - | - | - | 8120-6314 | Czech |

1. If the sheet feeder and printer were purchased *together* all option numbers will begin with:

C2637A for the **HP DeskJet 320**, instead of C2634A

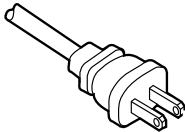
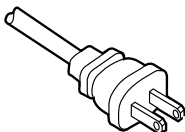
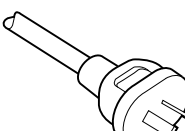
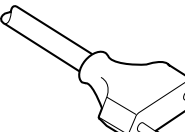
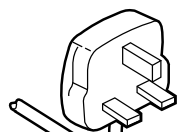
C2622A for the **HP DeskJet 310**, instead of C2621A

C2624A for the **HP DeskJet Portable**, instead of C2614A

2. To replace the country-specific power module of an **HP DeskJet Portable** printer, you must order a new worldwide power adapter. The worldwide power adapter part number is: 0950-2435. Remember to also order a detachable country-specific power cord listed in the table above.

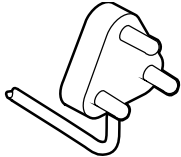
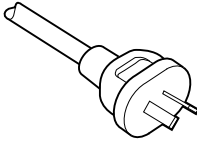
Power Cord, Rapid Recharger, and Battery Pack Part Numbers

Table 1-6. Power Cords and Optional Rapid Rechargers

| Plug Type | Country or Region | Power Cord Part Number ¹ | Region's AC Voltage | Optional Rapid Recharger Part Number |
|---|--|-------------------------------------|---------------------|--------------------------------------|
|  | U.S. Canada Mexico | 8120-6313 | 120 Vac | C3004A |
|  | Japan | 8120-6316 | 100 Vac | C3060A |
|  | Australia | 8120-6312 | 240 Vac | C3064A |
|  | Europe (Including Switzerland and Denmark) | 8120-6314 | 230 Vac | C3063A |
|  | UK | 8120-6315 | 240 Vac | C3062A |

1. To replace the country-specific power module of an **HP DeskJet Portable** printer, you must order a new worldwide power adapter. The worldwide power adapter part number is: 0950-2435. Remember to also order a detachable country-specific power cord listed in the table above.

Table 1-6. Power Cords and Optional Rapid Rechargers (Continued)

| Plug Type | Country or Region | Power Cord Part Number ¹ | Region's AC Voltage | Optional Rapid Recharger Part Number |
|---|----------------------|-------------------------------------|---------------------|--------------------------------------|
|  | South Africa | 8120-6317 | 220 Vac | C3065A |
|  | Argentina Uruguay | 8120-6312 | 220 Vac | C3064A |

1. To replace the country-specific power module of an **HP DeskJet Portable** printer, you must order a new worldwide power adapter. The worldwide power adapter part number is: 0950-2435. Remember to also order a detachable country-specific power cord listed in the table above.

Table 1-7. Optional Battery Packs

| Country or Region | Hewlett-Packard Part Number | Panasonic Part Number |
|-------------------|-----------------------------|-----------------------|
| U.S. | HP C3003A | PV-BP15 |
| Japan | HP 3058A | VW-VBS1 |
| Europe | HP C3059A | VW-VBS1E |

Supplies and Accessories

Table 1-8. HP DeskJet 300 Series Printer Supplies and Accessories

| Part Number | Supply/Accessory Description |
|--|---|
| 51633A | Black print cartridge ¹ |
| 51633M | Mobil Traid black pen |
| 51625A | Color print cartridge |
| C3280A C3281A C3282A | Color Kit, including the color print cartridge ² (cyan, magenta, and yellow inks) and cartridge storage container U.S.A., Canada Europe Latin America, Asia-Pacific, Japan |
| C3005A | Desktop Sheet Feeder – Note that the sheet feeder can be purchased either <i>separately</i> or <i>together with the HP DeskJet 320 and 310 printers</i> (see table 1-1 for bundled printer and sheet feeder part numbers) |
| See table 1-6 | Rapid rechargers |
| See table 1-7 | Battery packs |
| C3061A | Centronics interface cable ³ |
| C3278A | Mac Adapter for HP DeskJet 340 (Europe only) <i>includes printer software and cable</i> |
| C3279A | Mac Adapter for HP DeskJet 340 (US & Asia-Pacific only) <i>includes printer software and cable</i> |
| C3277A | Infrared Adapter (for use with the HP DeskJet 340 printer) |
| C3050A | Carrying Case (holds printer, sheet feeder, and notebook computer) |
| C3834A C3828A C3835A C3832A C3836A C3833A C3837A C3831A 51634Y 51634Z | Media Premium Transparency (U.S. Letter, 50 sheets) Premium Transparency (U.S. Letter, 20 sheets) Premium Transparency Film (A4, 50 sheets) Premium Transparency Film (A4, 20 sheets) Premium Glossy Paper (U.S. Letter, 50 sheets) Premium Glossy Paper (U.S. Letter, 10 sheets) Premium Glossy Paper (A4, 50 sheets) Premium Glossy Paper (A4, 10 sheets) Premium InkJet Paper (U.S. Letter, 200 sheets) Premium InkJet Paper (A4 Letter, 200 sheets) |
| 92296A 92296B 92296C 92296D 92296E 92296F 92296G 92296H 92296J 92296K | HP Labels: Addressing (1 x 2 ⁵ / ₈ in.) Addressing (1 ¹ / ₃ x 4 in.) Addressing (1 x 4 in.) Addressing (2 x 4 in.) Shipping (3 ¹ / ₃ x 4 in.) Return Address (1 ¹ / ₂ x 1 ³ / ₄ in.) File Folder (2 ² / ₃ x 3 ⁷ / ₁₆ in.) 3 ¹ / ₂ -in. disk (2 ³ / ₄ x 2 ³ / ₄ in.) 5 ¹ / ₄ -in. disk (1 ¹ / ₂ x 4 in.) Full sheet (11 x 8 ¹ / ₂ in.) |

1. The high capacity print cartridge, part number 51626A, is not recommended for use with HP DeskJet 300 Series printers. The 51608A black print cartridge is now obsolete.
2. Can be used only with the **HP DeskJet 310, 320 and 340** printers.
3. This HP interface cable has a low-profile design that complements the product design and avoids extending the interface cable directly out of the printer, with or without the optional sheet feeder. A standard Centronics parallel interface cable, however, will work on an HP DeskJet 300 Series printer.

User Documentation

Table 1-9. Available HP DeskJet 300 Series Printers' User Documentation Kits

| Language | User Documentation Kit Part Number | | | |
|---|------------------------------------|----------------|----------------|---------------------|
| | HP DeskJet 340 | HP DeskJet 320 | HP DeskJet 310 | HP DeskJet Portable |
| Danish | C2655-90022 | C2634-60102 | C2621-60102 | C2614-60005 |
| Dutch | C2655-90025 | C2634-60103 | C2621-60103 | C2614-60006 |
| English (USA, Canada, Latin America) | C2655-90001 | C2634-60100 | C2621-60100 | C2614-60003 |
| English-International (Europe and other areas) | C2655-90008 | C2634-60101 | C2621-60101 | C2614-60004 |
| Finnish | C2655-90021 | C2634-60104 | C2621-60104 | C2614-60007 |
| French | C2655-90004 | C2634-60105 | C2621-60105 | C2614-60008 |
| German | C2655-90024 | C2634-60106 | C2621-60106 | C2614-60009 |
| Italian | C2655-90023 | C2634-60107 | C2621-60107 | C2614-60010 |
| Norwegian | C2655-90017 | C2634-60108 | C2621-60108 | C2614-60011 |
| Portuguese | C2655-90014 | C2634-60109 | C2621-60109 | C2614-60012 |
| Spanish | C2655-90007 | C2634-60110 | C2621-60110 | C2614-60013 |
| Swedish | C2655-90020 | C2634-60111 | C2621-60111 | C2614-60014 |
| Czech | C2655-90026 | - | - | - |
| Chinese (Taiwan) | C2655-90011 | - | - | - |
| Japan | C2655-90006 | - | - | - |

Table 1-10. Other User Documentation

| Document | HP Part Number |
|---|-----------------------|
| <i>HP DeskJet 320/310 Printer Technical Reference Guide</i> ¹ | C2634-90145 |
| <i>HP DeskJet 310 Printer Technical Reference Guide</i> ¹ | C2621-90172 |
| <i>HP DeskJet Portable Printer Technical Reference Guide</i> ¹ | C2614-90060 |

1. Available in English only.

Internal Fonts

Note Windows 3.1 does not support these internal fonts. The HP DeskJet 300 Series printer driver uses TrueType fonts when printing from Windows 3.1 (see "Selecting a Printer Driver" in chapter 4).

Table 1-11. Internal Portrait Fonts

| Portrait Fonts | Can be selected with printer buttons | Comments |
|---|--------------------------------------|---|
| Courier Upright (6 and 12 point) 5 cpi 10 cpi 16.67 cpi 20 cpi | ✓ ✓ | Fonts that <i>cannot</i> be selected with printer buttons can be selected by escape sequences or software applications, depending on the application. The HP DeskJet 300 Series printers can print all available portrait fonts in the following modes and enhancements: Modes <ul style="list-style-type: none"> - Draft - Letter-Quality Enhancements <ul style="list-style-type: none"> - Normal - Bold - Underline - Double Underline - Superscript - Subscript |
| <i>Courier Italic</i> (6 and 12 point) 5 cpi 10 cpi 20 cpi | | |
| Letter Gothic (6 and 12 point) 6 cpi 12 cpi 24 cpi | | |
| <i>Letter Gothic Italic</i> (6 and 12 point) 6 cpi 12 cpi 24 cpi | | |
| CG Times (5, 6, 7, 8, 10, 12, and 14 point) Proportional spacing | | |
| <i>CG Times Italic</i> (5, 6, 7, 8, 10, 12, and 14 point) Proportional spacing | | |
| Univers (5, 6, 7, 8, 10, 12, and 14 point) Proportional spacing | | |
| <i>Univers Italic</i> (5, 6, 10, and 12 point) Proportional spacing | | |

Table 1-12. Internal Landscape Fonts

| Landscape Font | Can be selected with printer buttons | Comments |
|--|--------------------------------------|--|
| Courier Upright (6, 12, and 24 point) 10 cpi 16.67 cpi 20 cpi | ✓ ✓ | Fonts that <i>cannot</i> be selected with printer buttons can be selected by escape sequences or software applications, depending on the application. |
| Letter Gothic (6, 12, and 24 point) 12 cpi 24 cpi | | The HP DeskJet 300 Series printers can print all available landscape fonts in the following modes and enhancements: Modes <ul style="list-style-type: none"> - Draft - Letter-Quality Enhancements <ul style="list-style-type: none"> - Normal - Bold |
| Letter Gothic (4.75, 9.5, and 19 point) 16.67 cpi | | |

Specifications

Table 1-13. Performance Specifications

| Category | Specification |
|---|---|
| Print modes | Draft and Letter-Quality (LQ) |
| Print speed Draft (using AC power) Draft (using a battery pack) Letter-Quality | 3 pages per minute (ppm) 2 ppm 2 ppm |
| Mechanism speed (burst at 10 cpi) Draft (using AC power) Draft (using battery power) Letter-Quality | 330 characters per second (cps) ¹ 167 cps 167 cps |
| Programming command set | HP PCL Level 3, with extensions (see appendix A) |
| <i>Print resolution (horizontal × vertical)</i> Draft Letter-Quality DeskJet 340 and 320 DeskJet 310 and Portable | 150 × 300 dots per inch 600 × 300 addressable rasterpoints per inch (black), 300 × 300 dots per inch (color) 300 × 300 dots per inch |
| Dot placement | 600 × 300 addressable rasterpoints per inch |
| Internal fonts (built-in) | See tables 1-11 and 1-12. |
| Character sets | PC-8 (U.S.), HP Roman8, PC-8 Denmark/Norway, United Kingdom, Germany, France, Italy, Norway, Sweden Names, Spain, Ansi ASCII, Portugal, PC-850, ECMA-94 Latin1, HP Legal |
| Paper feed | Manual single sheet feeding Portable Sheet Feeder can hold up to 30 sheets of 16 lb. (60 g/m ²) paper Optional sheet feeder can hold up to 60 sheets of 16 lb. (60 g/m ²) paper |
| Printable area | See figures 1-9 and 1-10, and table 1-24. |
| Printer lights and buttons | See tables 3-1 and 3-2. |

1. The older model C2614A of the **HP DeskJet Portable** printer has a draft speed of 240 cps.

Table 1-14. Reliability Specifications

| Category | Specification |
|-----------------------------------|--|
| Printer usage | 500 pages per month maximum |
| Mean time between failures (MTBF) | 20,000 hours (2000 hours power-on and 12,000 printed pages per year) |
| Mechanism life | 25,000 pages |

Table 1-15. Graphics Resolution

| Horizontal Resolution | Vertical Resolution | Number of Dots Per Pixel |
|--------------------------|---------------------|--------------------------|
| 75 pixels per inch (ppi) | 75 ppi | 16 |
| 100 ppi | 100 ppi | 9 |
| 150 ppi | 150 ppi | 4 |
| 300 ppi | 300 ppi | 1 |

Table 1-16. Interface Specifications

| Category | Specification |
|---------------------|----------------------------|
| Interface | Centronics parallel |
| Receive buffer size | |
| DeskJet 340, 320 | 16K or 48K (using DJPMenu) |
| DeskJet 310 | 48K |
| DeskJet Portable | 48K |

Table 1-17. Battery Pack Specifications

| Category | Specification |
|--|--|
| Battery type | 6 volt, 1.2 Ah nickel cadmium |
| Typical number of black pages printed per charge | 100 pages |
| Typical number of color pages printed per charge | 23 pages (with 25% page area coverage ¹) |

1. "page area coverage" refers to the surface area of a page covered by an image. It does not take into account ink density.

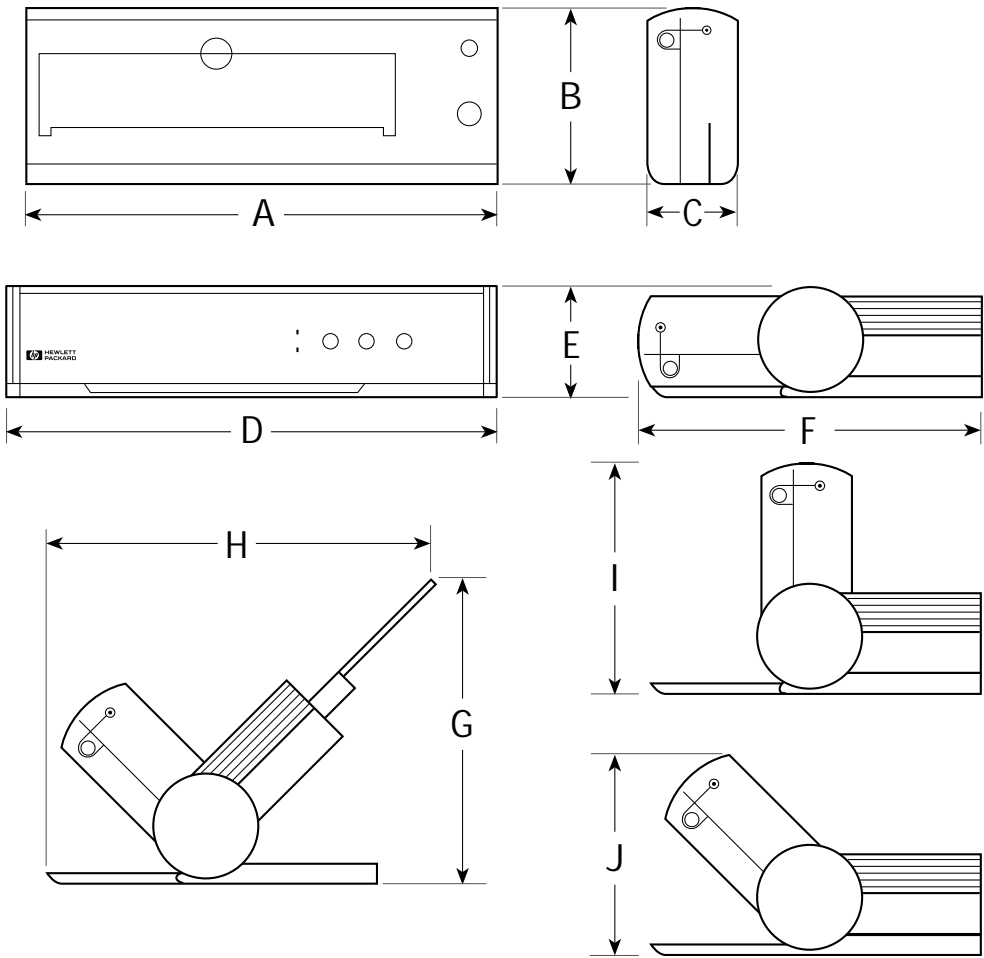


Figure 1-8. Physical Specifications

Table 1-18. Physical Specifications

| Item | Figure 1-7 Reference | Approximate Dimensions | Approximate Weight |
|---|----------------------|-------------------------------|-----------------------------|
| Printer only | | | |
| Width | A | 12.2 in. (310 mm) | 4.3 lb (1.96 kg) |
| Height | B | 5.75 in. (146 mm) | |
| Depth | C | 2.6 in. (65 mm) | |
| Printer with Desktop Sheet Feeder | | | |
| Storage position | | | 7.5 lb (3.43 kg) |
| Width | D | 13.0 in. (330 mm) | |
| Height | E | 3.2 in. (80 mm) | |
| Depth | F | 9.4 in. (240 mm) | |
| Normal printing position | | | |
| Width | D | 13.0 in. (330 mm) | |
| Height | G | 10.4 in. (265 mm) | |
| Depth | H | 13.2 in. (335 mm) | |
| Vertical print position | | | |
| Width | D | 13.0 in. (330 mm) | |
| Height | I | 6.4 in. (162 mm) | |
| Depth | F | 9.4 in. (240 mm) | |
| Manual feed position | | | |
| Width | D | 13.0 in. (330 mm) | |
| Height | J | 6.0 in. (152 mm) | |
| Depth | F | 9.4 in. (240 mm) | |
| Printer with Portable Sheet Feeder | | | |
| Width | A | 12.2 in. (310 mm) | 4.8 lb (2.39 kg) |
| Height | L | 3.8 in. (96 mm) | |
| Depth | K | 5.8 in. (147 mm) | |
| Power adapter¹ | | | |
| Length | M | 4.8 in. (122 mm) ¹ | 0.7 lb (312 g) ¹ |
| Height | | 1.2 in. (30 mm) ¹ | |
| Width | | 2.9 in. (74 mm) ¹ | |
| Cord lengths (input and output) | | O | |
| Optional rapid rechargers | | | |
| Width | P | 6.1 in. (156 mm) | 12.3 oz. (350 g) |
| Height | | 2.8 in. (70 mm) | |
| Depth | | 1.6 in. (40 mm) | |
| Cord lengths (input and output) | | R | |
| Optional battery packs | | | |
| Width | S | 3.5 in. (89 mm) | 5.5 oz. (156 g) |
| Height | T | 0.7 in. (18 mm) | |
| Depth | U | 1.8 in. (46 mm) | |

1. The HP DeskJet Portable printer may come with a country-specific power module different from the HP DeskJet 320 and 310 worldwide power adapter. The HP DeskJet Portable power module's physical specifications are: K=4.1 in. (105mm), L=2.2 in. (57mm), M=2.8 in. (70mm), Weight=2.4 lb. (1.1 Kg).

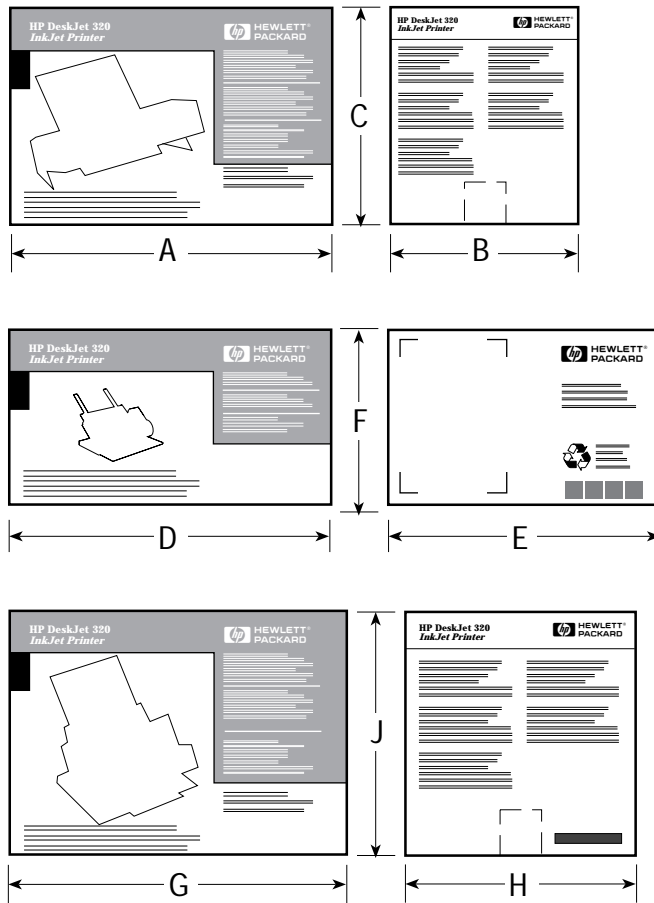


Figure 1-9. Packaging Dimensions Specifications

Table 1-19. Packaging Dimensions Specifications

| Packaging Dimensions Specifications | Figure 1-8 Reference | Dimensions of Package |
|---|----------------------|--------------------------------|
| Printer | | |
| Length | A | 15.4 in. (394 mm) ¹ |
| Width | B | 9.2 in. (233 mm) ¹ |
| Height | C | 10.6 in. (270 mm) ¹ |
| Optional Desktop Sheet Feeder | | |
| Length | D | 16.5 in. (420 mm) ² |
| Width | E | 12.2 in. (310 mm) ² |
| Height | F | 6.6 in. (168 mm) ² |
| Printer <i>plus</i> Desktop Sheet Feeder | | |
| Length | G | 16.3 in. (416 mm) |
| Width | H | 11.3 in. (288 mm) |
| Height | J | 12.1 in. (270 mm) |
| Printer <i>plus</i> Portable Sheet Feeder | | |
| Length | K | 20.2 in. (512 mm) |
| Width | L | 10.4 in. (264 mm) |
| Height | M | 15.1 in. (384 mm) |

1. The older model C2614A **HP DeskJet Portable** packaging dimensions were different from the other DeskJet 300 Series printers. The older DeskJet Portable dimensions were: A=15.7 in. (400mm), B=12.8 in. (325mm), C=7.0 in. (178mm),
2. Older optional sheet feeder packaging had these different dimensions: D=16.7 in. (425 mm), E=6.5 in. (165 mm), F=12.8 in. (325 mm).

Table 1-20. Electrical Specifications

| Category | Specification |
|-------------------------------|-------------------------------|
| Input voltage | 100 to 240 Vac ($\pm 10\%$) |
| Frequency at various voltages | |
| 100 Vac | 50/60 Hz (± 3 Hz) |
| 120 Vac | 60 Hz (± 3 Hz) |
| 220 Vac | 50 Hz (± 3 Hz) |
| 230 Vac | 50 Hz (± 3 Hz) |
| 240 Vac | 50 Hz (± 3 Hz) |
| Power consumption | |
| Idle | 5 watts |
| Printing (maximum) | 13.5 watts |
| Charging (maximum) | 8 watts |
| Transient spike immunity | |
| Amplitude | 1 kV |
| Pulse width | 50 μ seconds |
| Rise time | 1.2 μ seconds |

Table 1-21. Environmental Specifications

| Category | Specification |
|---|--|
| Temperature Operating Non-operating Recommended operating | 5° to 40° C (41° to 104°F) -40° to 60° C (-40° to 140° F) 15° to 35° C (59° to 95° F) |
| Relative humidity Operating with paper Operating with transparencies Non-operating | 15% to 80% RH at 30°C 30% to 80% RH at 30°C 95% RH at 65°C |
| Altitude Printer Operating Non-operating Print cartridge Operating Non-operating | 0 to 4600 meters (15,000 feet) 0 to 15,300 meters (50,000 feet) 0 to 4600 meters (15,000 feet) 0 to 7300 meters (24,000 feet) |
| Mechanical vibration Frequency range Operating Random Non-operating Random Swept sine | 5 to 500 Hz Approximately 0.21 G rms Approximately 2.09 G rms 0.5 G (0 to peak) |
| Noise levels per ISO 9296 Sound pressure (at 1 meter bystander position) Sound power | 45 dB(A) 5.8 B(A) |
| Electrostatic discharge No soft failures 2.5% or fewer soft failures No hard failures | 0 to 5000 V <15,000 V <25,000 V |

Table 1-22. Product Safety Specifications

| Item | Safety Certification |
|---|--|
| Power adapter | UL CSA TÜV SEMKO NEMKO SET/FI LCIE SECV DEMKO SEV MITI NOM ¹ |
| Printer ² | UL CSA TÜV NOM ³ |
| Item | EMI Certification |
| Printer with power adapter ² | FCC Class B when used with a Class B computing device (U.S.A.) EMC Directive 89/336/EEC (European Community) VCCI (Japan) SABS (South Africa) RRL (Korea) ³ |

1. The country specific power module, shipped with some **HP DeskJet Portable** printers, does not have NOM safety certification.
2. The newer model C2624A of the **HP DeskJet Portable** printer, sold only in the Asia Pacific, does not have any safety or EMI certification.
3. The older model C2614A of the **HP DeskJet Portable** printer does not have NOM safety certification or RRL (Korea) EMI certification.

Table 1-23. Paper Handling Specifications

| Category | Specification |
|---|--|
| Paper grain | Long grain only |
| Paper weight | 16 to 24 lb (60 to 90 g/m ²) |
| Media handling Printer only With sheet feeder | Manual single feed 0.2 in. thick stack, or, up to: <ul style="list-style-type: none"> • 60 sheets of 16 lb paper (with desktop sheet feeder) • 30 sheets of 160 lb paper (with portable sheet feeder) |
| Media size U.S. Letter A4 U.S. Legal U.S. Executive Transparencies Labels | 8.5 in. × 11 in. 210 mm × 297 mm 8.5 in. × 14 in. 7.25 in. × 10.5 in. U.S. Letter and A4 U.S. Letter and A4 |

-
- Notes**
- The HP DeskJet 300 Series printers do not support envelopes.
 - The HP DeskJet 300 Series printers work well with most types of paper although variables in paper composition may affect print quality and paper handling. Bond paper, including letterhead, gives excellent quality. Paper should be tested to ensure best performance.
-

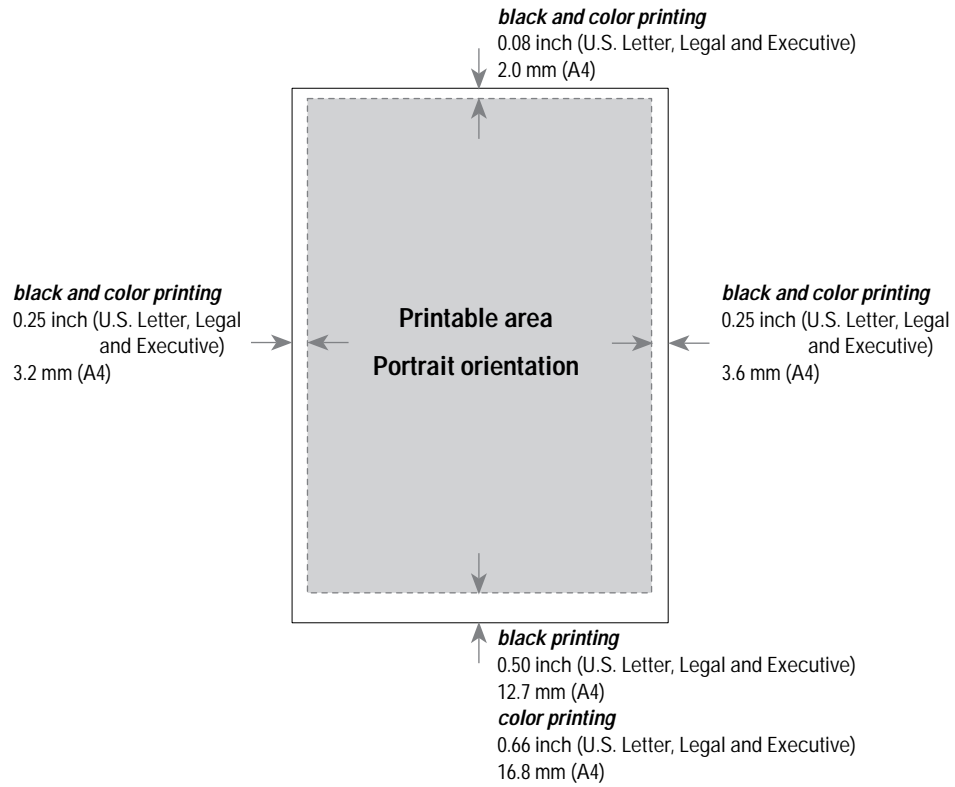


Figure 1-10. Printable Area (Portrait Orientation)

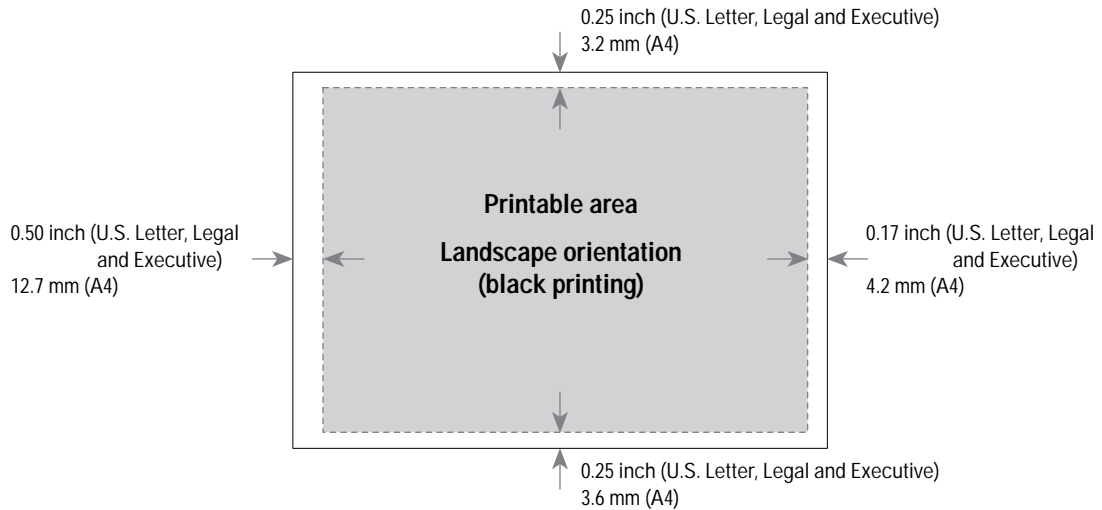


Figure 1-11. Printable Area (Landscape Orientation)

Table 1-24. Printable Area^{1,2}

| Portrait Mode | | | | | |
|--|---|----------------------|---|----------------------|-----------------------------------|
| Page Size | Printable Area ³ | Top Margin | Bottom Margin | Left Margin | Right Margin |
| U.S. Letter 8.5 × 11 in. (215.9 × 279.4 mm) | black printing: 8.0 × 10.5 in. (203.2 × 266.7 mm) color printing: 8.0 × 10.34 in. (203.2 × 262.6 mm) | 0.08 in. (2.0 mm) | black printing: 0.5 in. (12.7 mm) color printing: 0.66 in. (16.8 mm) | 0.25 in. (6.4 mm) | 0.25 in. ⁴ (6.4 mm) |
| U.S. Legal 8.5 × 14 in. (215.9 × 355.6 mm) | black printing: 8.0 × 13.5 in. (203.2 × 342.9 mm) color printing: 8.0 × 13.34 in. (203.2 × 338.8 mm) | | | | |
| Executive Paper 7.25 × 10.5 in. (184.2 × 266.7 mm) | black printing: 6.75 × 10.0 in. ⁴ (171.5 × 254.0 mm) color printing: 6.75 × 9.84 in. (171.5 × 249.9 mm) | | | | |
| A4 210 × 297 mm | black printing: 203.2 × 284.2 mm color printing: 203.2 × 280.2 mm | | | 3.2 mm | 3.6 mm |
| Landscape Mode | | | | | |
| Page Size | Printable Area | Top Margin | Bottom Margin | Left Margin | Right Margin |
| U.S. Letter 11 × 8.5 in. (279.4 × 215.9 mm) | 10.33 × 8.0 in. (262.4 × 203.2 mm) | 0.25 in. (6.4 mm) | 0.25 in. (6.4 mm) | 0.5 in. (12.7 mm) | 0.17 in. (4.2 mm) |
| U.S. Legal 14 × 8.5 in. (355.6 × 215.9 mm) | 13.33 × 8.0 in. (338.6 × 203.2 mm) | | | | |
| Executive Paper 10.5 × 7.25 in. (266.7 × 184.2 mm) | 9.83 × 6.75 in. (249.8 × 171.5 mm) | | | | |
| A4 297 × 210 mm | 280.1 × 203.2 mm | 3.2 mm | 3.6 mm | | |

1. The specifications in this table are based on text scale mode off (63 lines/page on U.S. letter size paper) and perforation skip mode off. The top margin (portrait mode) increases to 0.5 inches with perforation skip on. (The factory default setting for perforation skip mode is on.)
2. Printable area for non-Windows applications. Other applications may have additional restrictions. See the documentation included with the software application or contact the software vendor.
3. Based on perforation skip mode off. Perforation skip mode on reduces the printable area by increasing the top margin to 0.5 inches.
4. The **HP DeskJet Portable** printer has two slightly different measurements for Executive Paper in Portrait Mode:
Right Margin is 0.20 inches, or 5.1 mm
Printable Area is 6.8 × 10.0 inches, or 172.7 × 254.0 mm

Table 1-25. Hewlett-Packard Print Cartridge Specifications

| Category | Specification |
|--|---|
| Type | Plain paper drop-on-demand thermal inkjet printing |
| Cartridge life 51633A black cartridge 1000 characters per page coverage 1500 characters per page coverage 51633M mobile triad pen 1000 characters per page coverage 51625A color cartridge | 500 to 1000 pages ¹ 333 to 666 pages 750 to 1500 pages ¹ 250 pages ² |
| Interconnect specifications Print cartridge Printer | 24 inserts/withdraws per month 122 inserts/withdraws over the life of the cartridge 1440 inserts/withdraws over the life of the printer |
| Number of nozzles 51633A (black) 51625A (color) | 50 Nozzles 48 Nozzles |
| Vertical resolution | 300 dpi |
| Dot size | 130 µm on 25% cotton bond paper |

1. The 51633A and 51633M black print cartridge life specifications are based on printing Courier 10. The lower numbers in the specifications are based on using letter-quality print mode and the higher numbers in the specifications are based on using draft print mode.
2. The 51625A print cartridge life specification is based on using Normal print mode with an average 8% area fill.

Caution

The ink in the print cartridges has been carefully formulated by Hewlett-Packard to ensure superior print quality and compatibility with the printer. Damage to the printer resulting from modifying the print cartridge is not the responsibility of Hewlett-Packard.

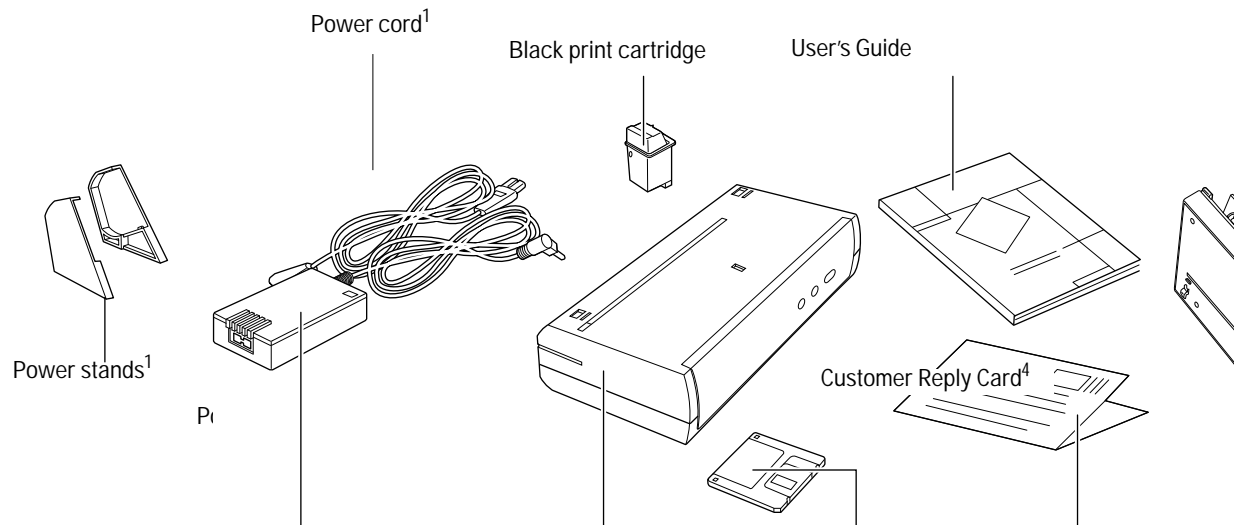
Hewlett-Packard does not support refilling the print cartridges. HP cannot guarantee the print quality from refilled print cartridges. Printer damage caused by refilling is not covered by the Hewlett-Packard warranty or customer service agreements.

Installation and Configuration

Chapter Contents

| Section Title | Page |
|--|------|
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| Connecting the Printer to a Power Adapter or a Rapid Recharger | 2-3 |
| Installing/Replacing a Battery Pack | 2-4 |
| Centronics Parallel Pinout Information | 2-6 |
| Connecting the Interface Cable and Establishing Communication | 2-7 |
| Verifying Communication | 2-8 |
| Configuring the Printer | 2-9 |
| Changing the Printer Settings | 2-10 |
| Configuration Options with the DJPMenu Configuration Utility | 2-15 |
| Running the DJPMenu Configuration Utility | 2-15 |
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| Installing Windows Printer Drivers | 2-18 |

Items Included



1. The **HP DeskJet 340** does not come with printer stands.
2. Some **HP DeskJet Portable** printers may have a country-specific power module with a permanently attached power cord.
3. There may be more than one floppy disk.
4. This item may or may not be included in the box depending on the country where it is purchased.
5. The Portable Sheet Feeder comes with the **HP DeskJet 340** and not the other printers.

Figure 2-1. Items Included

Note

Items *not included* with the HP DeskJet 300 Series printers are listed below:

- Battery Pack
- Rapid Recharger
- Centronics Parallel Interface Cable⁶
- Color Kit
- Infrared Adapter *for use with the HP DeskJet 340*
- Mac Adapter
- Desktop Sheet Feeder

Note that the sheet feeder can be purchased either *separately* or *together with the printer*. See tables 1-1 and 1-5 for model numbers with and without a sheet feeder.

- Carrying Case

See tables 1-7 through 1-9 for the part numbers of these HP DeskJet 300 Series printer accessories.

6. The older model C2614A of the **HP DeskJet Portable** printer may have had a Centronics Parallel Interface Cable shipped with the printer.

Connecting Power to the Printer

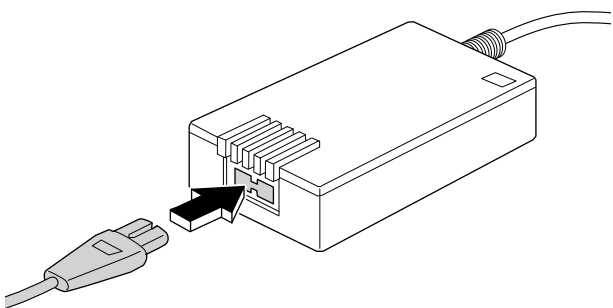
Connecting the Printer to a Power Adapter or a Rapid Recharger

Warning **Do not use a voltage converter with a worldwide power adapter or rapid recharger. This may cause a fire. Both the worldwide power adapter and the rapid recharger can accept any input AC voltage from 100 Vac to 240 Vac, 50 or 60 Hz., therefore, there is no need to use a voltage converter.**

Caution Power adapters and rapid rechargers emit some magnetic interference. Place the adapter or recharger on the floor, or at least one inch (approximately 3 cm) away from the computer, disk drive, or hard disk.

Note Some HP DeskJet Portable printers may have country-specific power modules instead of a worldwide power adapter and power cord. To connect power to these printers, plug the country specific power module into an AC outlet and then into the printer, as shown below in step 2.

1. If you are using the power adapter, attach the power cord to it. Plug the other end of the power cord — for either the power adapter or a rapid recharger — into an AC outlet.



2. Plug the power adapter or rapid recharger connector firmly into the printer's power socket.

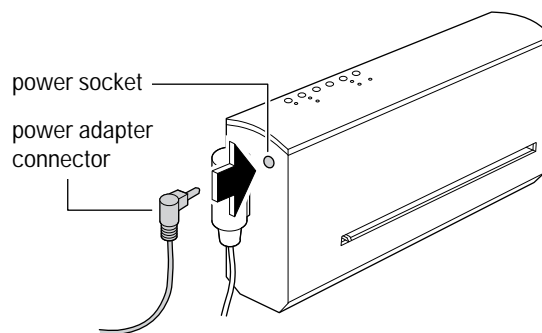


Table 2-1. Power Adapter¹ and Rapid Recharger Information

| Topic | Information |
|---|--|
| <i>Power adapter¹ and rapid rechargers</i> | Either a power adapter or a rapid recharger can be used to power DeskJet 300 Series printers. A multi-voltage power adapter is included with the printer. The rapid rechargers are accessories that are not included with the printer. See table 1-7 for Rapid Recharger part numbers. |
| <i>Power adapter¹ and rapid recharger AC voltage detection</i> | Both the worldwide power adapter and the rapid rechargers are designed to operate from any power source from 100 to 240 Vac, 50 or 60 Hz. Both the adapter and the recharger detect the input voltage and automatically provide the appropriate power output to the printer. |

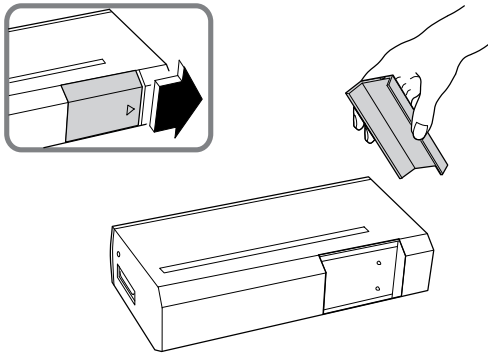
1. Some HP DeskJet Portable printers may have a country-specific power module instead of a worldwide power adapter and power cord.

Table 2-1. Power Adapter¹ and Rapid Recharger Information (Continued)

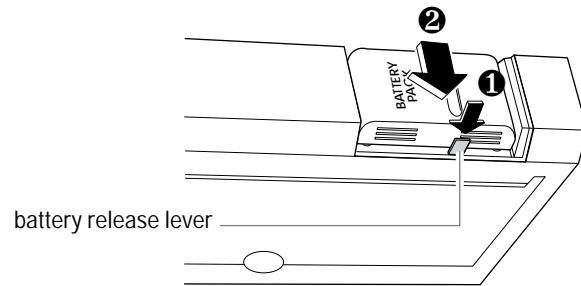
| Topic | Information |
|---|--|
| <i>Differences among the rapid rechargers</i> | Since the rapid rechargers will operate from any power source from 100 Vac to 240 Vac, the difference between one rapid recharger and another is the cord included with it to adapt to a country or region's power receptacle. |
| <i>Power cords¹</i> | See table 1-6 for power cord part numbers. |
| <i>Further information</i> | See "Powering the Printer" in chapter 3. |

Installing/Replacing a Battery Pack

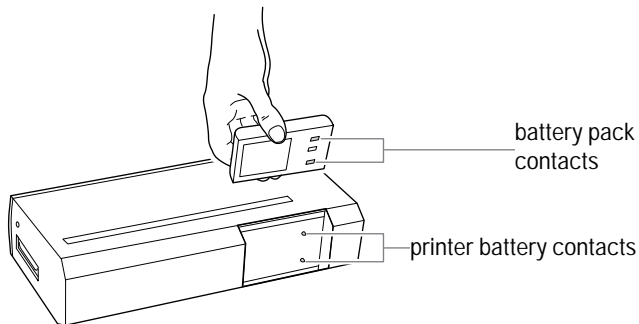
1. If the printer is installed in the sheet feeder, remove the printer from the sheet feeder. Slide the battery compartment cover to the right and remove it from the printer.



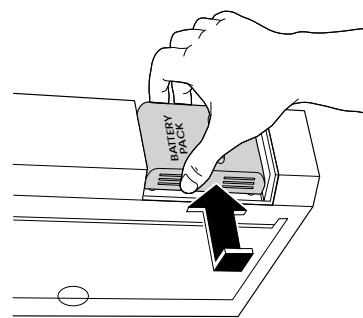
2. If a battery pack is installed, remove it. First, carefully press the battery release lever down toward the body of the printer. Then slide the battery pack toward the battery release lever.



3. To install the new battery pack, align the battery pack contacts with the contacts in the printer.



4. Place the battery pack at the bottom edge of the battery compartment and slide it upward.



Replace the battery compartment cover.

Note

- A battery pack is an accessory and is not included with the printer.
- See table 1-7 for battery pack part numbers.
- For information on using the printer with a battery pack, see “Powering HP DeskJet 300 Series Printers” in chapter 3.
- The printer will operate from the power adapter or the rapid recharger without a battery pack in the printer.
- When installing a new battery pack for the first time, the battery pack must be fully charged before using the printer in the battery-powered mode.
- See “Configuring the Printer” for information on quick charging and discharging battery packs in the printer.

Table 2-2. Battery Pack Troubleshooting Information

| Problem | Probable Cause |
|---|--|
| <i>Battery pack will not attach to the printer</i> | <ol style="list-style-type: none"> 1. Verify that the battery pack is compatible with HP DeskJet 300 Series printers. See table 1-7 in chapter 1. 2. Make sure the battery pack is properly positioned in the printer battery pack compartment. |
| <i>Battery pack will not detach from the printer</i> | <ol style="list-style-type: none"> 1. Press the battery release lever when sliding the battery pack from the printer. 2. Slide the battery pack in the direction shown in step 2 on the preceding page. |
| <i>Printer will not operate from the battery pack</i> | <ol style="list-style-type: none"> 1. Verify that the battery pack is compatible with HP DeskJet 300 Series printers. See table 1-7 in chapter 1. 2. The battery pack may not be charged. <ol style="list-style-type: none"> a. If the printer is not connected to AC power, the Power light will blink if the battery pack charge level is low. The charge light on the DeskJet 340 will blink if the battery charge level is low. b. Check the battery pack charge level by: <ul style="list-style-type: none"> – using the printer's Menu mode – running the self-test on the printer – running the DJPMenu¹ utility on the host computer – or, if using Windows 3.1, by looking at the battery gauge icon during printing. c. If the battery level is unavailable in Menu mode, in the self-test, or in the DJPMenu¹ utility, or if the Windows battery gauge icon does not appear during printing, then the printer does not detect a battery pack in the printer. 3. The printer will not operate from a battery pack connected to a rapid recharger. Install the battery pack in the printer. 4. The battery pack may be faulty. Replace the battery pack. 5. If the printer will not operate from the power adapter or the rapid recharger, the adapter or recharger may be faulty and is not charging the battery pack. Replace the power adapter or the rapid recharger. 6. The printer itself may be faulty. Return the printer for repair. |
| <i>Battery pack has short printing life</i> | <p>Revive the battery pack by fully discharging (draining) and then charging the battery pack. This can be done with the battery pack in the printer or on the rapid recharger. See “Powering HP DeskJet 300 Series Printers” in chapter 3 and “Configuring the Printer” in chapter 2.</p> |

1. The **HP DeskJet Portable** printer does not have the DJPMenu software included with the printer; to get this software, see “Obtaining Printer Drivers” in chapter 6. For more information on DJPMenu, see “Additional Configuration Options with the DJPMenu Program” later in this chapter.

Centronics Parallel Pinout Information

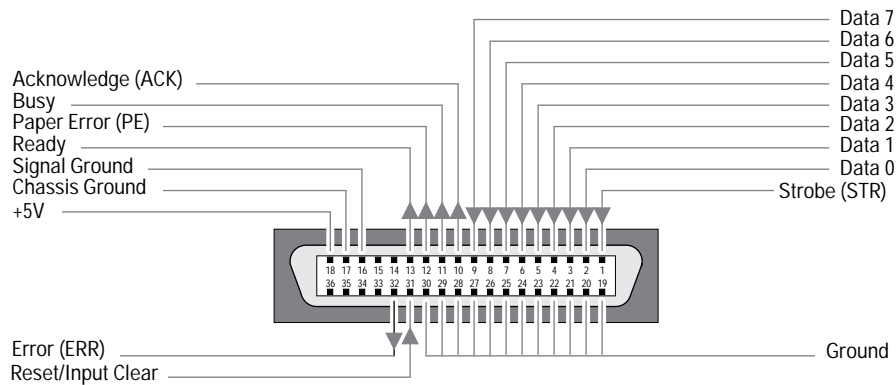


Figure 2-2. Centronics Parallel Interface Connector

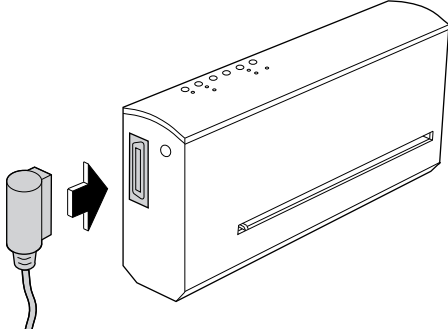
Table 2-3. Centronics Parallel Interface Pinout Information

| Pin Number | Pin ID | Description |
|------------|--------------------------------|--|
| 1 | Strobe ¹ | A low pulse causes the printer to read one byte of data. |
| 2 - 9 | Data 0 - Data 7 | These pins are the data lines. Data 0 is the least significant bit (LSB). |
| 10 | Acknowledge ¹ | The printer sends a low pulse to indicate that it has accepted a byte of data and is ready for more data. |
| 11 | Busy | The printer sends a high logic level to indicate to the computer that it cannot receive data due to data entry, a full buffer, or error status. |
| 12 | Paper Error | The printer sends a high logic level to indicate to the computer that it is out of paper. |
| 13 | Ready | The printer sends a high logic level to indicate to the computer that it is in an online condition. The printer sends a low logic level to indicate that it is offline or that the input buffer is full. |
| 16 | Signal Ground | Signal interface ground. |
| 17 | Chassis Ground | Chassis ground. |
| 18 | +5 V | The printer outputs a +5 volt high logic level through a 2.2K ohm resistor. |
| 19 - 30 | Ground | These pins are tied to signal ground. |
| 31 | Reset/Input Clear ¹ | A low pulse sent by the computer resets the printer and clears the print buffer. The reset occurs on the trailing edge of the pulse. |
| 32 | Error ¹ | The printer sends a low logic level to the computer to indicate that it is in an error state. |

1. Active low.

Connecting the Interface Cable and Establishing Communication¹

- Use a Centronics parallel interface cable to connect HP DeskJet 300 Series printers to the computer.

| | |
|---|--|
| <p>1. Turn off the printer.</p> | <p>2. Connect the computer end of the interface cable to the parallel interface port on the computer. Tighten the screws on the connector to secure the cable to the computer.</p> |
| <p>3. Connect the printer end of the interface cable firmly into the printer's parallel interface port. There are no screws or bail clips to fix the interface cable to the printer interface connector.</p>  <p>The diagram shows a side view of a printer with a parallel interface port on the left side. A parallel interface cable is shown being inserted into the port. An arrow points from the cable towards the port, indicating the direction of insertion.</p> | <p>4. Turn on the printer. The printer Online light should come on.</p> |
| <p>5. Establish communication between the computer and the printer by sending the following DOS command:</p> <p style="text-align: center;"><code>MODE LPT1:,,P</code></p> <p>For DOS 5.0 and DOS 6, send</p> <p style="text-align: center;"><code>MODE LPT1: RETRY=R</code></p> <p>This command causes infinite retries when sending data so that the computer does not timeout while waiting for the printer to print. All data is directed to parallel port 1. If the printer is connected to a different interface port on the computer (such as parallel port 2), modify the Mode command.</p> <p>Note: This DOS command can be added to the AUTOEXEC.BAT file so that it will not be necessary to type the command whenever the computer is turned on. Refer to your DOS manual for instructions on adding this command to the AUTOEXEC.BAT file.</p> | |

1. If you are using a mac adapter with your printer, refer to chapter 5.

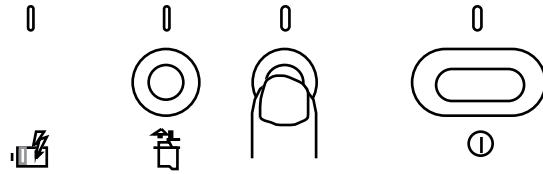
Verifying Communication

1. Type the following to test communication between the computer and the printer:

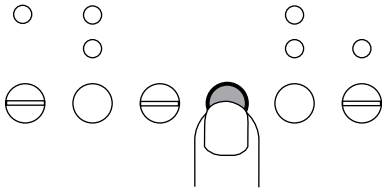
- Type DIR>PRN and press the Enter key on the computer.

The computer should send a list of files of the current DOS directory.

2. Press and hold the Paper Feed button (for the HP DeskJet 340) to eject the page.



3. Press and hold the LF/FF button to eject the page once the printer has finished printing the DOS directory of files .



If the printer does not print the listing of files on the current DOS directory, refer to the "Overall Troubleshooting" section in chapter 6.

Configuring the Printer for the DeskJet 300 Series Printers except the DeskJet 340

When set in the Menu Mode, the printer buttons can be used to configure the DeskJet 300 series printers (except for the HP DeskJet 340). To configure the HP DeskJet 340, install the driver software that comes with the printer and set the print options in the printer setup or the DJPMenu configuration utility (for DOS users). Refer to the Configuration Options with the DJPMenu configuration utility found later in the chapter.

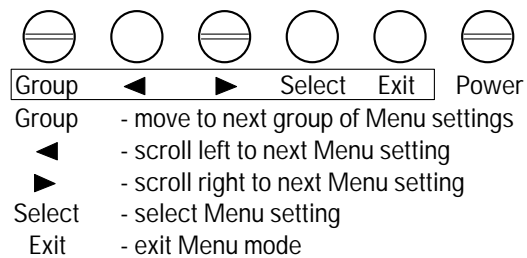


Figure 2-3. Printer Button Definitions in Menu Mode

Note For convenience, definitions of the printer buttons in Menu mode are listed on the inside of the printer access door.

Table 2-4. Printer Button Definitions in Menu Mode

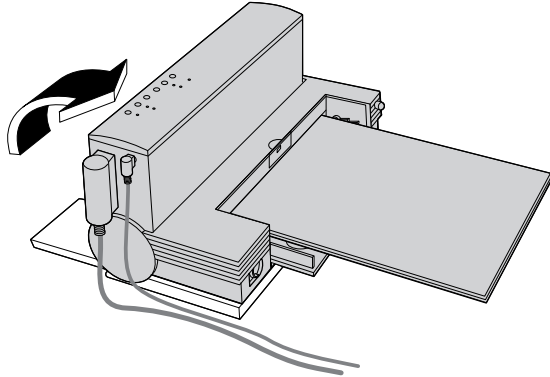
| Printer Button Label | Menu Mode Function | Description |
|----------------------|--------------------|--|
| <i>Online button</i> | Group | Moves the pointer to the next group of settings on the printer settings menu. |
| <i>Font button</i> | ◀ | Moves the pointer one setting to the left within the current group. If the pointer is already at the leftmost setting in the group, the pointer moves to the rightmost setting in that group. |
| <i>Draft button</i> | ▶ | Moves the pointer one setting to the right within the current group. If the pointer is already at the rightmost setting in the group, the pointer moves to the leftmost setting in that group. |
| <i>LF/FF button</i> | Select | Selects the setting the pointer is currently pointing to. The pointer moves back and forth slightly to acknowledge the selection. |
| <i>Setup button</i> | Exit | Exits from Menu mode. |
| <i>Power button</i> | — | The Power button is not redefined in Menu mode. It still turns the power off. |

Changing the Printer Settings

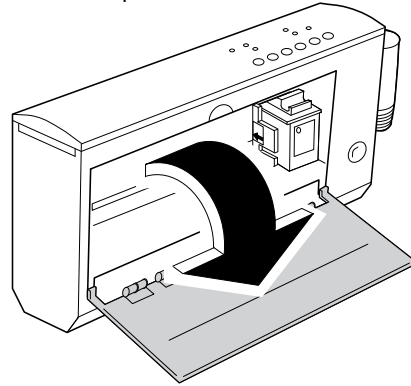
Caution

If using the printer with the sheet feeder, be careful not to damage the paper output guides on the sheet feeder from excessive downward pressure on the access door.

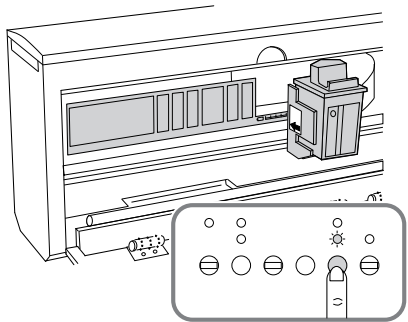
1. Set the printer in the vertical position. If using the sheet feeder, rotate the printer and IN tray such that the IN tray is flat against the sheet feeder base.



2. Open the access door to gain access to the printer settings menu mounted inside the printer. Figure 2-4, on the next page, shows the printer settings menu and pointer inside the printer.

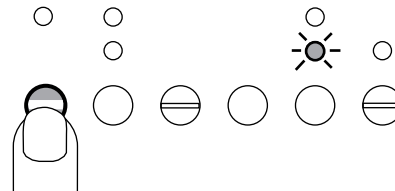


3. Press and hold the Setup¹ button until the Menu light¹ blinks. Then release the Setup button. The printer is in Menu mode when the Menu light is blinking.

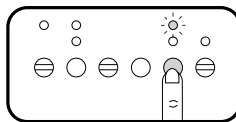


In Menu mode, the printer buttons are redefined. See figure 2-3 and table 2-4 for the printer button definitions.

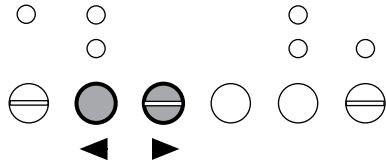
4. With the Menu light¹ blinking, press the Group button (Online button) to select the desired printer settings menu group. The pointer on the left side of the print cartridge cradle points to the presently selected setting of the printer settings menu group.



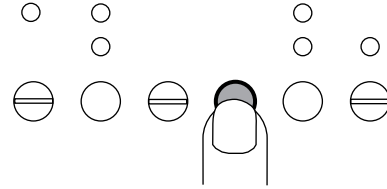
1. The older model C2614A of the **HP DeskJet Portable** printer has "Settings" instead of "Setup" written on the printer's front panel. Also, the "Menu" light is located immediately above the Chg. Pen light, as shown in the figure below:



5. Press the left or right button (Font or Draft button) to move the pointer to the desired setting within the printer settings menu group.



6. With the pointer on the print cartridge cradle pointing to the desired setting, press the Select button (LF/FF button) to save the selection. *The selection is not saved until the Select button is pressed.* (The print cartridge cradle will move slightly to the right and left to indicate the selection of the printer setting.)



7. Repeat steps 4, 5, and 6 until all printer settings have been specified as desired.

8. Having finished selecting the printer settings, press the Exit button (Setup button) to leave Menu mode. The printer buttons are redefined to their normal printing functions and the printer returns to its normal printing mode.

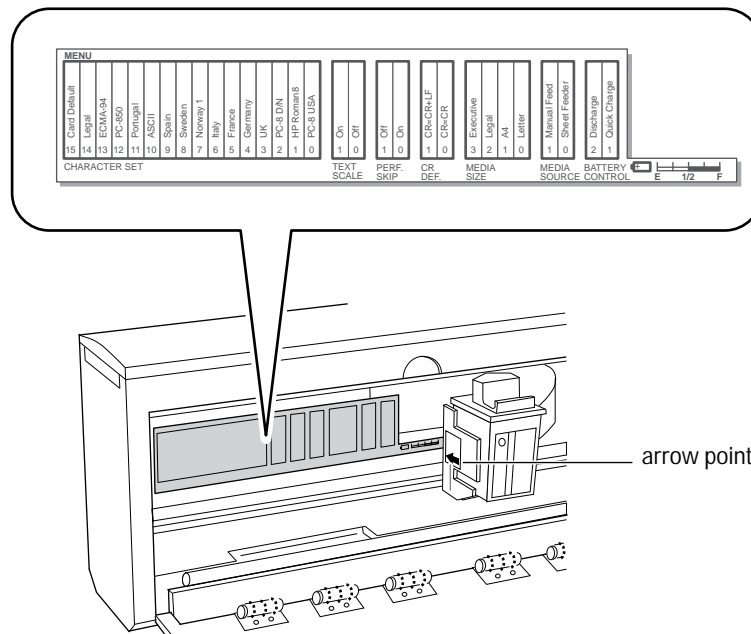
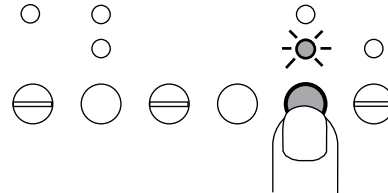


Figure 2-4. Printer Settings Menu¹

1. The older model C2614A of the HP DeskJet Portable printer has a slightly different Printer Settings Menu from the one shown above. The older menu does not have the "Media Source" group. See the printer's *User's Guide* for the exact menu layout.

Table 2-5. Additional Printer Settings Information

| Topic | Information |
|---------------------------------------|---|
| <i>Verifying printer settings</i> | <p>The printer settings can be verified by three methods:</p> <ul style="list-style-type: none"> – The printer self-test identifies the printer settings. In addition, if a battery pack is installed in the printer, the printout will include a battery level gauge. – Using Menu mode will identify the printer settings. Pressing the Group (Online) button in Menu mode causes the pointer on the print cartridge cradle to point to the presently selected setting within the group. – Running the DJPMenu configuration utility¹ from the computer will show the settings on the computer screen. |
| <i>Default settings</i> | <ul style="list-style-type: none"> – Any selections made in Menu mode are stored as the new default printer settings. These values are retained even if the printer is turned off. – Software application and escape sequences can override default printer settings. – The factory default setting is “0” (zero) for each group in the printer settings menu listed below: <ul style="list-style-type: none"> – MEDIA SOURCE² Sheet Feeder – MEDIA SIZE U.S. Letter – CR DEF. CR only – PERF. SKIP On (top margin = 0.5 in. or 13 mm) – TEXT SCALE Off (63 lines/page for U.S. Letter size) – CHARACTER SET PC-8 USA <p>The printer settings menu is located inside the HP DeskJet 300 Series printer.</p> <ul style="list-style-type: none"> – To reset the printer to the factory default settings, press and hold the Online and Setup button while pressing and releasing the Power button. <p>Note: If you have <i>localized</i> the factory default settings to local country default settings with the DJPMenu¹ program, pressing these buttons will reset the printer to the <i>localized</i> country default settings — not the <i>original</i> factory settings. See “Localizing Factory Defaults” in this chapter.</p> |
| <i>Extended settings</i> ¹ | <p>The Power off time, Sleep time, and Graphics Density are called <i>extended settings</i>.</p> <ul style="list-style-type: none"> – You can change the current values for the extended settings, for the DeskJet 310 and 320, only by running the DJPMenu¹ program on the host computer. You <i>cannot</i> change any of the extended settings by using Menu mode. See “Running the DJPMenu Program” in this chapter. – The factory default settings for the extended settings are: <ul style="list-style-type: none"> – Power time 15 minutes³ – Sleep time 2 minutes – Graphics Density 300 dpi – Input Buffer Size⁴ 16K – If you change one or more of these settings from the factory default values, the line “Extended Settings: On” will be <i>added</i> to the printer self-test printout. This line will appear between the last item in the list of printer settings and the beginning of the character set for the first of the internal fonts. If <i>none</i> of these three default settings has been changed from the factory default values, <i>no</i> line appears. – To reset the printer to the factory default settings, press and hold the Online and Setup button while pressing and releasing the Power button. |

1. The **HP DeskJet Portable** printer does not have the DJPMenu configuration utility included with the printer; to get this software, see “Obtaining Printer Drivers” in chapter 6, Service and Support Information. For more information on DJPMenu, see “Additional Configuration Options with the DJPMenu Configuration Utility” later in this chapter.
2. The older model C2614A of the **HP DeskJet Portable** printer does not have the “Media Source” group in the Printer Settings Menu.
3. The **HP DeskJet Portable** has fixed factory default settings of 30 minutes for Power time, 2 minutes for Sleep time, and 300 dpi for Graphics Density. These extended settings cannot be changed.
4. Only the **HP DeskJet 320** has the “Input Buffer Size” extended setting in DJPMenu.

Table 2-5. Additional Printer Settings Information (Continued)

| Topic | Information |
|---------------------------------------|---|
| <i>Menu mode timeout</i> | <ul style="list-style-type: none"> – If after 30 seconds <i>no</i> Menu selections are made, the Menu light stops blinking, the printer exits from Menu mode and returns the print cartridge to the right end of the mechanism. Press and hold the Setup button to return to Menu mode. |
| <i>Left and right buttons</i> | <ul style="list-style-type: none"> – The left and right arrow buttons in Menu mode (Font and Draft buttons) will cycle through the selections in a single printer settings menu group. – Pressing the left or right arrow buttons in Menu mode will <i>not</i> point to selections in other groups. Use the Group (Online) button to move between groups. |
| <i>MEDIA SOURCE group¹</i> | <p>The MEDIA SOURCE group of the printer settings menu enables users to select the most efficient printing environment for using either the sheet feeder or hand feeding.</p> <ul style="list-style-type: none"> – If you specify Manual Feed, the motor will turn on for only half a second to pick up a sheet of paper. That is enough time to catch a hand-fed sheet but not enough time to catch one from the sheet feeder. – If you specify Sheet Feeder, the motor will turn on for 8 seconds. The 8-second run is needed for the printer to bring in a sheet from the sheet feeder. However, the mechanism can still pick up a hand-fed sheet. <p>Commands from software applications or escape sequences will override the MEDIA SOURCE setting, just as they will for other printer settings.</p> |
| <i>BATTERY CONTROL group</i> | <ul style="list-style-type: none"> – The BATTERY CONTROL group of the printer settings menu is not selectable unless a battery pack is installed in the printer. – The left and right arrow buttons (Font and LF/FF buttons) do not move the pointer in the BATTERY CONTROL group since only one selection is available, depending on whether the printer is powered by an AC power source or a battery pack. <ul style="list-style-type: none"> – When the printer is operated from a power adapter or a rapid recharger with a battery pack installed in the printer, the Quick Charge selection is the only available setting in the BATTERY CONTROL group. The printer starts the charge mode after the user presses the Select button. – When the printer is operated from a battery pack, the Discharge selection is the only available setting in the BATTERY CONTROL group. The printer starts to discharge the battery pack once the user selects Discharge. – If you have selected Quick Charge or Discharge but wish to cancel it, turn off the printer. |
| <i>Saving settings</i> | <p>To save a printer setting that you have specified, press the Select (LF/FF) button <i>before</i> moving to the next printer settings menu group. Leaving the menu group or exiting Menu mode without pressing the Select button will <i>not</i> save your selections as the new printer default settings.</p> |
| <i>Overriding printer settings</i> | <p>Commands from software applications or escape sequences override printer settings. However, the settings from these commands are lost when the printer is switched off. When power is reapplied, the printer will use the settings most recently specified in Menu mode or by using the DJPMenu configuration utility².</p> |

1. The older model C2614A of the **HP DeskJet Portable** printer does not have the “Media Source” group in the Printer Settings Menu.
2. The **HP DeskJet Portable** printer does not have the DJPMenu configuration utility included with the printer; to get this software, see “Obtaining Printer Drivers” in chapter 7, Service and Support Information. For more information on DJPMenu, see “Additional Configuration Options with the DJPMenu Configuration Utility” later in this chapter.

Table 2-5. Additional Printer Settings Information (Continued)

| Topic | Information |
|----------------------------|---|
| <i>Battery level gauge</i> | <ul style="list-style-type: none"> – The pointer on the print cartridge cradle in Menu mode <i>skips</i> the battery level gauge if no battery pack is installed in the printer. – If the printer cannot determine the charge level of a newly-installed battery pack, the carriage will point to the $\frac{1}{4}$ level mark on the gauge. – Note that the pointer will show the battery charge level only once, when it first enters Menu mode, provided a battery pack is installed in the printer. To see the battery level gauge indication again, after you have made printer settings selections, you must first <i>exit</i> Menu mode, then re-enter it. – The battery level can also be determined by using the printer self-test or by running the DJPMenu configuration utility¹ from the computer. |

1. The **HP DeskJet Portable** printer does not have the DJPMenu configuration utility included with the printer; to get this software, see “Obtaining Printer Drivers” in chapter 7, Service and Support Information. For more information on DJPMenu, see “Additional Configuration Options with the DJPMenu Configuration Utility” later in this chapter.

Table 2-6. Troubleshooting Common Printer Settings Problems

| Problem | Possible Cause |
|---|---|
| <i>Printer does not save printer settings</i> | <ol style="list-style-type: none"> 1. The Select (LF/FF) button was not pressed after selecting a printer setting. 2. The printer was not in Menu mode. The Menu light must be blinking to change the printer settings. 3. The user is exiting from Menu mode (pressing the Exit button) without having pressed the Select button. 4. A software application is overriding the printer setting. Read the documentation included with the software application for information on specifying printer settings within the software application. |
| <i>Pointer will not point to a setting or a group of settings</i> | <ol style="list-style-type: none"> 1. If the Change Cartridge² light is blinking instead of the Menu light, the printer is in the change cartridge mode instead of Menu mode. Press the Setup² button to exit the change cartridge mode. Then press and hold the Setup button until the Menu light blinks. 2. The left and right arrow (Font and Draft) buttons move the pointer to the settings <i>within</i> a group only. To move between the printer settings menu groups, use the Menu (Online) button. 3. The printer points to the battery level gauge only if there is a battery pack in the printer. Similarly, the printer will not point to the BATTERY CONTROL selections unless there is a battery pack in the printer. 4. With a battery pack in the printer, only one selection is available in the BATTERY CONTROL group. <ul style="list-style-type: none"> – If powered by a power adapter or rapid recharger with a battery pack installed, only the Quick Charge selection is available. – If powered by a battery pack, only the Discharge selection is available. 5. The pointer will show the battery charge level <i>only once</i>, when it first enters Menu mode, provided a battery pack is installed in the printer. To see the battery level gauge indication again, after you have made configuration selections, you must first <i>exit</i> Menu mode, then re-enter it. |

2. The older model C2614A of the **HP DeskJet Portable** printer has “Chg Pen” instead of “Change Cartridge”, and “Settings” instead of “Setup”, written on the printer’s front panel.

Configuration Options with the DJPMenu Configuration Utility

Users can run the DJPMenu configuration utility (for DOS environment) on their host computer. They can specify the printer settings using the DJPMenu. In addition, they can verify the current settings and check the battery charge level.

Beyond this, DJPMenu also permits DeskJet 310 and 320 users to make two kinds of configuration *changes that they cannot make through the printer's Menu mode*.

- You can specify “Advanced Settings” to change the time before the printer turns itself off; change the time before the printer enters sleep mode; change the default graphics resolution (dots per inch); and change the DeskJet 320 and 340's input buffer size from 16K to 48K.
- You can replace the factory default settings with *localized* “factory” defaults for a particular country.

Both of these kinds of changes are discussed below.

| | |
|-------------|--|
| Note | You cannot use the DJPMenu configuration utility with the HP DeskJet Portable printer to change extended settings or factory default settings; you can only use the DJPMenu “Current Settings Menu”. The DJPMenu configuration utility is not included with the HP DeskJet Portable printer; if you want get the DJPMenu configuration utility, see “Obtaining Printer Drivers” in chapter 7, Service and Support Information. |
|-------------|--|

Running the DJPMenu Configuration Utility

To run DJPMenu on the DeskJet 340, first install the DJPMENU.EXE file to the computer's hard drive using INSTALL.BAT from the printer software Installation Disk , then type: **c:\deskjet\djpmenu**.

For the HP DeskJet 320, 310 and Portable users, first copy the DJPMENU.EXE file to the computer's hard drive from the printer software Installation Disk, then type: **djpmenu**.

| | |
|-------------|---|
| Note | To use the DJPMenu configuration utility, the computer and printer must be connected directly. The utility will not work with print spoolers and some switch boxes. |
|-------------|---|

Advanced Settings

The CR Definition, Character Set, Input Buffer Size, Graphics Resolution, Country Defaults, Power Off Time, Sleep Time, SIR Protocol and SIR Packet Size are under the *Advanced Settings*.

If you change one or more of these settings, the line “Axtended Settings: On” will be *added* to the printer self-test printout. This line appears between the last item in the list of printer settings and the beginning of the character set for the first of the internal fonts.

If *none* of these default settings has been changed, *no* line appears.

Changing Power Off Time

You can change the interval after which the printer — if it is being operated from a battery pack — turns itself off if it is not being used. Use the DJPMenu configuration utility to set this “Power off” time to 5 minutes, 15 minutes, 30 minutes, or Never.

The factory default setting is 15 minutes.

Changing Sleep Time

You can change the interval after which the printer — if it is being operated from a battery pack — goes into its power-saving sleep mode if it is not being used. Use the DJPMenu program to set this “Sleep time” to 1 minute, 2 minutes, 4 minutes, or Never.

The factory default setting is 2 minutes.

Changing Default Graphics Density

You can change default graphics resolution from the factory default of 300 dpi to 75, 100, or 150 dpi, and back to 300. You can set this new default Graphics Density from within the DJPMenu configuration utility.

Changing the DeskJet 320 and 340's Input Buffer Size

You can change the DeskJet 320 and 340's input buffer size from the default value of 16K to 48K.

If you are using Windows, the default of 16K is recommended. If you are using a DOS application that prints mainly text, you may find that switching to 48K will shorten the time that your application is tied up printing to the DeskJet 340 and 320.

| | |
|-------------|---|
| Note | You can clear changed extended settings by pressing the Online and Setup buttons while turning on the printer. This action restores <i>all</i> these settings: 300 dpi for default Graphics Density, 15 minutes for Power off time, 2 minutes for Sleep time and 16K for the DeskJet 340 and 320's Input Buffer Size. |
|-------------|---|

Localizing Factory Defaults

You can also use the DJPMenu configuration utility to change the *factory* default settings¹ to those appropriate to a particular *country*. Then when you reset the printer to the factory defaults, you will be setting them to the "country defaults" that you changed with the DJPMenu configuration utility.

Changing a country default will cause the printer — after you have reset it — to use the default character set and media size setting appropriate for that country. See table 2-7.

In order for the country default settings, that you have changed with DJPMenu, to actually take effect, you must reset the printer. First turn it off. Then, hold down the Online and Setup buttons and press the Power button to turn it on.

| | |
|----------------|--|
| Caution | Once you have localized the factory default settings, you cannot restore the printer to the original factory default settings by pressing the Online and Setup buttons while turning on the printer. If you wish to restore the original factory default settings, use DJPMenu to select "US" from the list of countries in the Country Default group box. |
|----------------|--|

Table 2-7. Country Defaults Available in DJPMenu¹

| Country Default | Media Size | Character Set |
|-----------------|------------|---------------|
| <i>US</i> | Letter | PC-8 USA |
| <i>UK</i> | A4 | UK |
| <i>Germany</i> | A4 | Germany |
| <i>France</i> | A4 | France |
| <i>Italy</i> | A4 | Italy |
| <i>Norway</i> | A4 | Norway 1 |
| <i>Sweden</i> | A4 | Sweden |
| <i>Spain</i> | A4 | Spain |
| <i>Portugal</i> | A4 | Portugal |

Note

Hewlett-Packard recommends that you do *not* change the factory default settings unless you have a specific need for localized country default settings. Note that, even without changing the factory default settings, you can make changes to the printer settings in Menu mode that will be retained even after the printer is turned off and on any number of times.

1. The factory default settings cannot be changed on the **DeskJet Portable Printer**.

Installing Windows Printer Drivers

This section outlines the procedures for installing Microsoft's and Hewlett-Packard's printer drivers for Windows 3.0 and 3.1. For more information on available printer drivers, see "Windows Printer Driver Information" in chapter 4.

Table 2-8. Installing a Windows Printer Driver

| Microsoft's Universal Printer Driver: (Included with Windows 3.0 / 3.1) |
|--|
| HP DeskJet Driver (for the HP DeskJet Portable) |
| <ol style="list-style-type: none">1. Open the Printers dialog box by clicking on the Printers icon in the Control Panel.2. Remove any existing HP DeskJet family printer driver listed in the Printers dialog box by clicking on the driver in the menu then selecting Configure and Remove.3. From the Printers dialog box in the Control Panel, click Add and double click HP DeskJet in the List of Printers box.4. Follow the Microsoft Windows instructions to install the printer driver from the Windows' disk onto your computer's hard drive.5. From the Printers dialog box in the Control Panel, configure and select the desired printer settings.6. Close the Printers dialog box and the Control Panel, returning to the Main group window. |

| Hewlett-Packard's Printer Drivers: (Included with the Printer) | | |
|---|---|---|
| HP DeskJet Portable Driver v1.0 (for the HP DeskJet Portable) | HP DeskJet 310 Driver v1.0 (for the HP DeskJet 310 and Portable) HP DeskJet 300 Series Driver v4.0, v4.1 and v5.0 (for the HP DeskJet Portable/310 / 320) | HP DeskJet 340 Driver v6.0 (for the HP DeskJet 340) |
| <ol style="list-style-type: none"> 1. Open the Printers dialog box by clicking on the Printers icon in the Control Panel. 2. Remove any existing HP DeskJet family printer driver listed in the Printers dialog box by clicking on the driver in the menu then selecting Configure and Remove. 3. From the Printers dialog box in the Control Panel, click Add and double click Install Unlisted or Updated Printer in the List of Printers box. 4. Insert the HP DeskJet Portable Printer Drivers disk into your computer's disk drive. 5. Make sure that the drive listed matches your computer's disk drive and click OK. 6. Double click HP DeskJet Portable in the List of Printers box. 7. From the Printers dialog box in the Control Panel, configure and select the desired printer settings. 8. Close the Printers dialog box and the Control Panel, returning to the Main group window. | <ol style="list-style-type: none"> 1. Start Windows and make sure that no Windows applications are running. 2. Click File in the Program Manager window menu. 3. Click Run in the File menu. 4. Insert the HP Installation Disk into the computer's disk drive. 5. Type the computer's disk drive (for example A:), followed by HPSETUP, in the Command Line box. Then click OK. 6. Follow the instructions on the screen to complete the installation of the printer driver. | <ol style="list-style-type: none"> 1. Start Windows and make sure that no Windows applications are running. 2. Click File in the Program Manager window menu. 3. Click Run in the File menu. 4. Insert the HP Installation Disk into the computer's disk drive. 5. Type the computer's disk drive (for example A:), followed by SETUP, in the Command Line box. Then click OK. 6. Follow the instructions on the screen to complete the installation of the printer driver. |

Note

HP DeskJet 300 Series Driver Version 7.0 will be made available at a later date to support the DeskJet 340, 320, 310 and the Portable.

Operation and Usage

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Printer Buttons and Lights

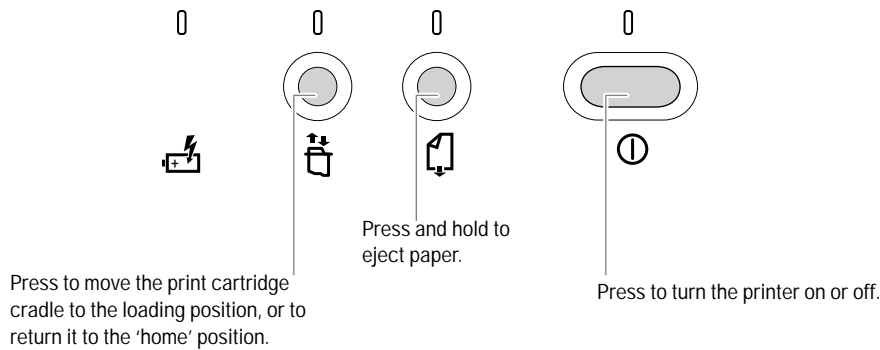


Figure 3-1. HP DeskJet 340 Printer Buttons and Lights

Table 3-1. Description of Printer Buttons and Lights for the HP DeskJet 340

| Button or Light | Operation | Description |
|--|--|--|
| <i>Power button and light</i> | Turns the printer on or off | Press the Power button to turn the printer on or off. The power light blinks when the printer is receiving information from the computer or when printing. |
| <i>Paper Feed button and light</i> | Loads and ejects paper | The Paper Feed light blinks when the printer is out of paper. Load paper in the paper tray and press the Paper Feed button to continue. To eject paper, press and hold the button. |
| | Starts the printer self-test | Turn off the printer. Then, while pressing the Paper Feed button, press and release the Power button. See "Printer Self-Test" in chapter 6. |
| <i>Change Cartridge button and light</i> | Replaces the cartridge | The Change Cartridge light blinks when the printer is waiting for you to change the print cartridge. Press to move the print cartridge cradle to the middle of the printer where you can change the print cartridge. Press again to return the cradle to the right side of the printer. |
| <i>Charge light</i> | Identifying printer status when using a battery pack (battery mode only) | The Charge light indicates the following: <ul style="list-style-type: none"> • The Charge light is lit when the battery pack in the printer is being charged. • The Charge light blinks when the printer is discharging the battery pack. • If the Charge light is off, either the battery pack in the printer is fully charged or there is no battery pack in the printer. |

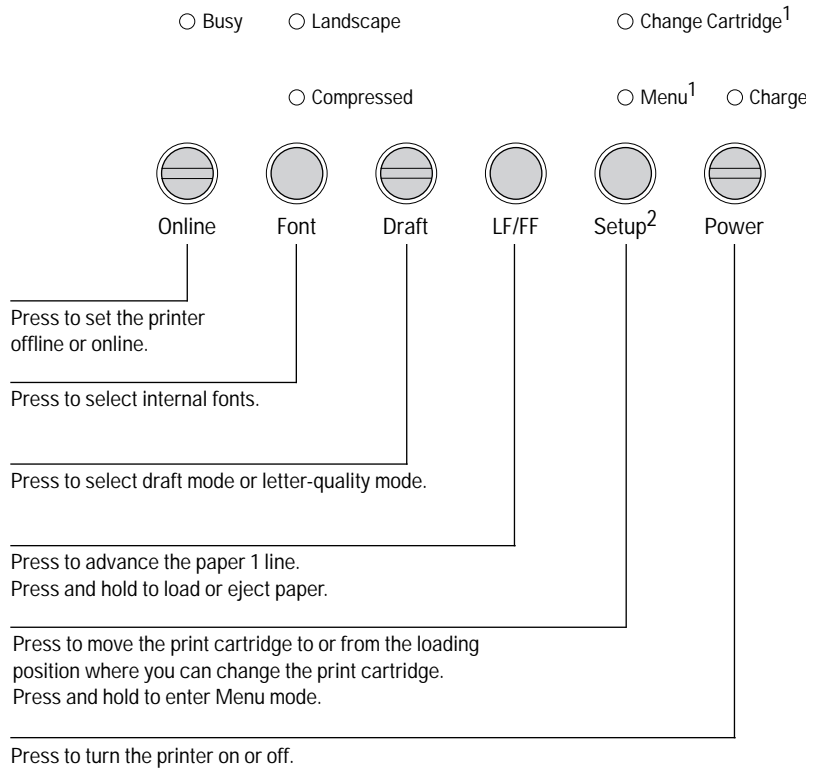


Figure 3-2. HP DeskJet 300 Series Printer Buttons and Lights³

1. The older model C2614A of the **HP DeskJet Portable** printer has these two lights reversed; instead of "Change Cartridge" the top light is labeled "Menu", and instead of "Menu" the bottom light is labeled "Chg. Pen".
2. The older model C2614A of the **HP DeskJet Portable** printer has this button labeled "Settings" instead of "Setup".
3. The HPDeskJet 340 has a different set of buttons. Refer to figure 3-1.

Table 3-2. Description of Printer Buttons and Lights for the HP DeskJet 300 Series except the HP DeskJet 340

| Button or Light | Operation | Description |
|---|---|---|
| <i>Online button and Online light</i> | Setting the printer online | Press the Online button to toggle the printer between its online and offline states. When the printer is <i>ready to print</i> , the Online light — located right on the Online button — is lit. For the printer to print, the printer must be online. |
| | Clearing an out-of-paper condition | If you are using the sheet feeder, the Online light blinks to indicate that the sheet feeder's IN tray is out of paper. Load paper and press the Online button. If you are feeding paper <i>manually</i> , you only need to feed in the next sheet. When you have successfully loaded the paper, the printer returns to an online condition, shown by <i>steady</i> illumination of the Online light. |
| | Resetting the printer to the factory default settings | Turn off the printer. Then, while pressing the Online and Setup buttons, press and release the Power button. Note: If you have specified new defaults using Menu mode, pressing these buttons will reset the printer to the <i>original</i> factory default settings. However, if you have <i>localized</i> the factory default settings with the DJPMenu configuration utility ¹ , pressing these buttons will reset the printer to the <i>localized</i> "country default" settings — not the <i>original</i> factory settings. |
| <i>Font button, Compressed light, and Landscape light</i> | Selecting internal fonts | In order to cycle through the internal fonts that you can select with the printer buttons, press the Font button. The Busy light must be off for the Font button to function. <ul style="list-style-type: none"> If the Landscape light is <i>off</i>, the printer will print in Portrait orientation. If the Landscape light is <i>on</i>, the printer will print in Landscape orientation. If the Compressed light is off, the currently selected font is Courier 10 cpi upright. If the Compressed light is on, the selected font is Courier 16.67 cpi upright. (For example, if the Landscape and Compressed lights are <i>both</i> on, the currently selected font is landscape Courier 16.67 cpi.) Note: Not all internal fonts can be selected with the Font button. See "Internal Fonts" in chapter 1 for information on which internal fonts you can select this way. |
| | Starting the printer self-test | Turn off the printer. Then, while pressing the Font button, press and release the Power button. The Busy light should turn on briefly. See "Printer Self-Test" in chapter 6. |
| | Printing a list of internal fonts ² | Turn off the printer. Then, while pressing the Font and LF/FF buttons, press and release the Power button. The Busy light should turn on briefly. |
| <i>Draft button and Draft light</i> | Selecting draft and letter-quality modes | Press the Draft button to toggle between draft and letter-quality print modes. The Draft light — located right on the Draft button — is lit when draft mode is currently selected. To select draft or letter-quality print mode, the Busy light must be off. |
| | Starting the print cartridge cleaning routine | Turn off the printer. Then, while pressing the Draft button, press and release the Power button. The Busy light should turn on briefly. See "Using the Print Cartridge Cleaning Routine" in chapter 6. |

1. The **HP DeskJet Portable** printer does not have the DJPMenu configuration utility included with the printer; to get this software, see "Obtaining Printer Drivers" in chapter 7, Service and Support Information. For more information on DJPMenu, see "Additional Configuration Options with the DJPMenu Program" in chapter 2, Installation and Configuration.

2. The older model C2614A of the **HP DeskJet Portable** printer does not print a list of internal fonts.

Table 3-2. Description of Printer Buttons and Lights for the HP DeskJet 300 Series except the HP DeskJet 340 (Continued)

| Button or Light | Operation | Description |
|---|---|---|
| <i>LF/FF button</i> | Linefeed and formfeed operations | <ul style="list-style-type: none"> • Press the LF/FF button to advance the paper approximately one line (1/6 inch or 0.4 cm). • Press the LF/FF button several times to advance the paper several lines. • Press and hold the LF/FF button to load or eject paper. <ul style="list-style-type: none"> – If the printer has paper in the mechanism, pressing and holding the LF/FF button will eject paper. – If using the sheet feeder and the printer does not have paper in the mechanism, pressing and holding the LF/FF button will load paper from the sheet feeder IN tray. <p>The Busy light must be off for the LF/FF button to function.</p> |
| | Clearing the printer buffer | If the Busy light is blinking, the printer has stopped printing but there is more information in the printer buffer. Press <i>and hold</i> the LF/FF button to print the remaining information from the printer buffer and eject the page. |
| | Printing an internal data sheet ¹ | Turn off the printer. Then while pressing the LF/FF button, press and release the Power button. The Busy light should turn on briefly. |
| | Printing a list of internal fonts ² | Turn off the printer. Then, while pressing the Font and LF/FF buttons, press and release the Power button. The Busy light should turn on briefly. |
| <i>Setup³ button, Change Cartridge³ light, and Menu light</i> | Replacing the print cartridge | Open the printer access door and press the Setup ³ button to access the print cartridge. The Change Cartridge ³ light blinks to indicate the printer is waiting for the user to replace the print cartridge and press the Setup button. Once the print cartridge is replaced, press the Setup button again to return the print cartridge to the right side of the mechanism — the “home” position. |
| | Enabling Menu mode | To enter the Menu mode, press and hold the Setup ³ button. The Menu light blinks to indicate that the printer is in the Menu mode. In Menu mode, the printer buttons are redefined for specifying printer settings. Use the printer buttons to select the desired configuration settings. Once the printer settings are selected, press the Setup button to return the printer to normal printing operation. For more information, see “Configuring the Printer” in chapter 2 of this manual. Note: You cannot go into Menu mode unless the Change Cartridge ³ light is <i>off</i> . |
| | Resetting the printer to the factory default settings | Turn off the printer. While pressing the Online and Setup buttons, press and release the Power button. Note: If you have specified new defaults using Menu mode, pressing these buttons will reset the printer to the <i>original</i> factory default settings. However, if you have <i>localized</i> the factory default settings with the DJPMenu configuration utility ⁴ , pressing these buttons will reset the printer to the <i>localized</i> “country default” settings — not the <i>original</i> factory settings. |

1. The **HP DeskJet Portable** printer does not print a data sheet.
2. The older model C2614A of the **HP DeskJet Portable** printer does not print a list of internal fonts.
3. The older model C2614A of the **HP DeskJet Portable** printer has “Settings” instead of “Setup” and “Chg. Pen” instead of “Change Cartridge” written on the printer’s front panel.
4. The **HP DeskJet Portable** printer does not have the DJPMenu configuration utility included with the printer; to get this software, see “Obtaining Printer Drivers” in chapter 6, Service and Support Information. For more information on DJPMenu, see “Additional Configuration Options with the DJPMenu Configuration Utility” in chapter 2, Installation and Configuration.

Table 3-2. Description of Printer Buttons and Lights for the HP DeskJet 300 Series except the HP DeskJet 340 (Continued)

| Button or Light | Operation | Description |
|-------------------------------------|---|--|
| <i>Power button and Power light</i> | Turning the printer on and off | <ul style="list-style-type: none"> To turn the printer on, press and release the Power button. The Busy light should turn on briefly. Then release the Power button. The Power light located on the Power button is lit if the printer is on. To turn the printer off, press the Power button. |
| | Identifying printer and battery pack status (<i>battery mode only</i>) | When using a battery pack, the Power light indicates the following: <ul style="list-style-type: none"> The Power light is dim in sleep mode. For more information, see “Sleep Mode” in this chapter. The Power light blinks when the battery pack charge level is low, if the printer is not connected to AC power. |
| | Starting the printer self-test | Turn off the printer. Then while pressing the Font button, press and release the Power button. The Busy light should turn on briefly. See “Printer Self-Test” in chapter 6. |
| | Printing an internal data sheet ¹ | Turn off the printer. Then while pressing the LF/FF button, press and release the Power button. The Busy light should turn on briefly. |
| | Printing a list of internal fonts ² | Turn off the printer. Then, while pressing the Font and LF/FF buttons, press and release the Power button. The Busy light should turn on briefly. |
| | Starting the print cartridge cleaning routine | Turn off the printer. Then while pressing the Draft button, press and release the Power button. The Busy light should turn on briefly. See “Using the Print Cartridge Cleaning Routine” in chapter 6. |
| | Resetting the printer to the factory default settings | Turn off the printer. While pressing the Online and Setup buttons, press and release the Power button. Note: If you have specified new defaults using Menu mode, pressing these buttons will reset the printer to the <i>original</i> factory default settings. However, if you have <i>localized</i> the factory default settings with the DJPMenu configuration utility ³ , pressing these buttons will reset the printer to the <i>localized</i> “country default” settings — not the <i>original</i> factory settings. |
| <i>Charge light</i> | Identifying printer status when using a battery pack (<i>battery mode only</i>) | The Charge light indicates the following: <ul style="list-style-type: none"> The Charge light is lit when the battery pack in the printer is being charged. The Charge light blinks when the printer is discharging the battery pack. If the Charge light is off, either the battery pack in the printer is fully charged or there is no battery pack in the printer. |
| <i>Busy light</i> | Indicating printer status | The Busy light is on when the printer is processing or printing information. Most printer buttons are inoperative when the Busy light is on. |
| | Printing information stored in the printer buffer | If the Busy light is blinking, the printer has stopped printing but there is more information in the printer buffer that has <i>not</i> printed. Press <i>and hold</i> the LF/FF button to print the information in the buffer and eject the page. |

1. The HP DeskJet Portable printer does not print a data sheet.

2. The older model C2614A of the HP DeskJet Portable printer does not print a list of internal fonts.

3. The HP DeskJet Portable printer does not have the DJPMenu configuration utility included with the printer; to get this software, see “Obtaining Printer Drivers” in chapter 6, Service and Support Information. For more information on DJPMenu, see “Additional Configuration Options with the DJPMenu Configuration Utility” in chapter 2, Installation and Configuration.

Note For patterns of lights on the printer that indicate problems, see “Printer Light Indications” in chapter 6.

Rapid Recharger Buttons and Lights



Figure 3-3. The HP Rapid Recharger Buttons and Lights

Table 3-3. Rapid Recharger Buttons and Lights

| Button or Light | Operation | Description |
|-----------------------------|-----------------------------------|--|
| <i>Discharge buttons</i> | Selecting Revive and Charge Modes | <ul style="list-style-type: none"> To revive a battery pack, press the Discharge button until the red light is on or blinking; this starts the discharging of the battery. To charge a battery pack when the red Discharge light is on, press and hold the Discharge button until the red light turns off. |
| <i>Green Charge lights</i> | Battery Pack Charging Status | <ul style="list-style-type: none"> If one of the green Charge lights is blinking, the battery pack on that side of the rapid recharger is being charged. If one of the green Charge lights is on, the battery pack on that side of the rapid recharger is fully charged. If one of the green Charge lights is off, either <ul style="list-style-type: none"> the rapid recharger does not detect a battery pack on that side, <i>or</i>, if the corresponding <i>red</i> light is <i>on</i>, the battery pack is being discharged. |
| <i>Red Discharge lights</i> | Battery Pack Discharging Status | <ul style="list-style-type: none"> If one of the red Discharge lights is on, the battery pack on that side of the rapid recharger is being discharged. If one of the red Discharge lights is blinking, the rapid recharger is currently reviving the battery pack on the <i>other</i> side of the recharger, by discharging it. When that battery pack is fully discharged, the recharger will then begin charging the pack on <i>that</i> side and discharging the pack on <i>this</i> side at the same time. If one of the red Discharge lights is off, the revive function is not selected for the battery pack on that side of the recharger. |

Note There is no power light on the rapid recharger to indicate that the recharger is plugged into an AC power source.

Operating the Printer with the Portable Sheet Feeder

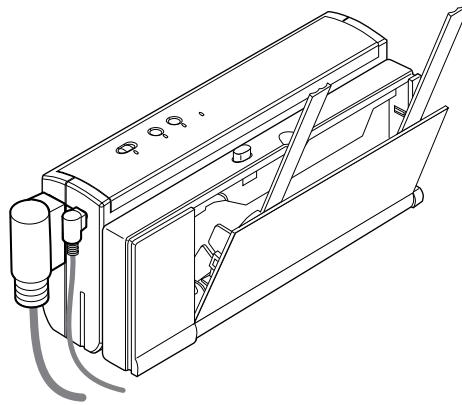
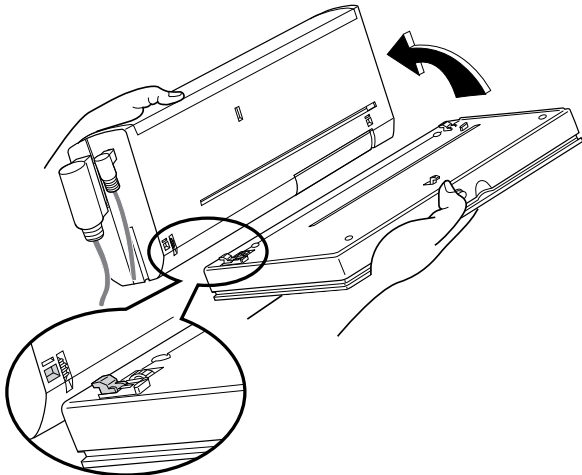


Figure 3-4. The HP DeskJet 340 with the Portable Sheet Feeder

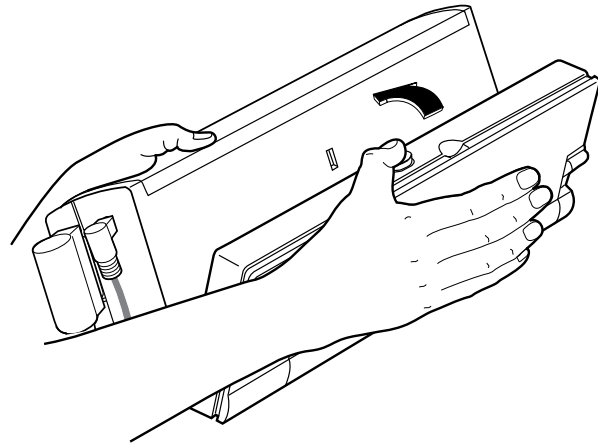
The portable sheet feeder provides paper feeding capability to an HP DeskJet 340 printer. The IN tray holds up to 0.1 inch (approximately 2.5 mm) stack of paper. The printer can be easily attached to the sheet feeder and conveniently stored and transported together. The portable sheet printer is bundled with the HP DeskJet 340.

Attaching the Printer to the Portable Sheet Feeder

1. Insert the two catches near the bottom of the sheet feeder into the corresponding slots near the bottom of the printer face.

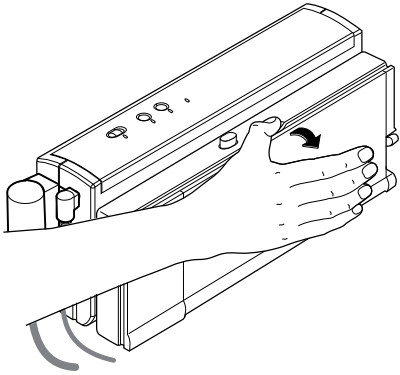


2. Rotate the top edge of the sheet feeder toward the printer and press the two units together. You will hear a click as the sheet feeder latches onto the printer.

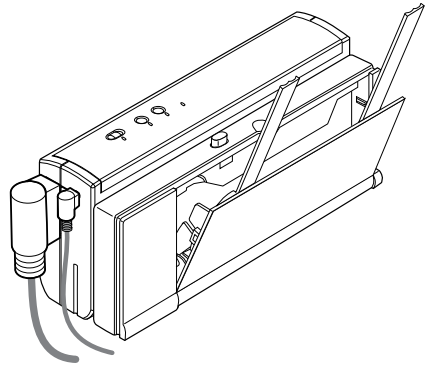


Loading Paper for Automatic Feeding

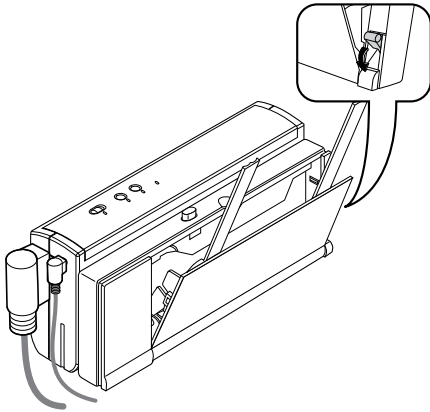
1. Use the recess at the top centre (NOT the button) of the sheet feeder to pull the unit fully open.



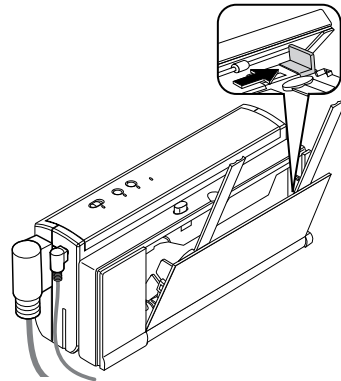
2. Rotate each of the paper support arms until both are pointing upwards.



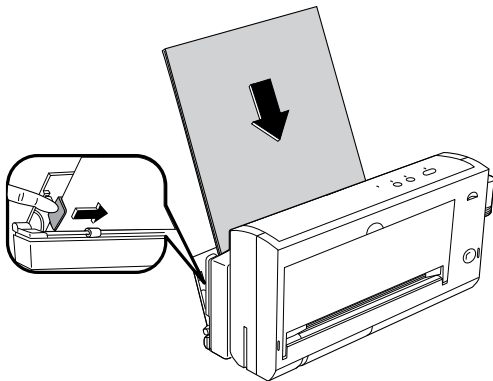
3. Push the paper release lever down to the open position.



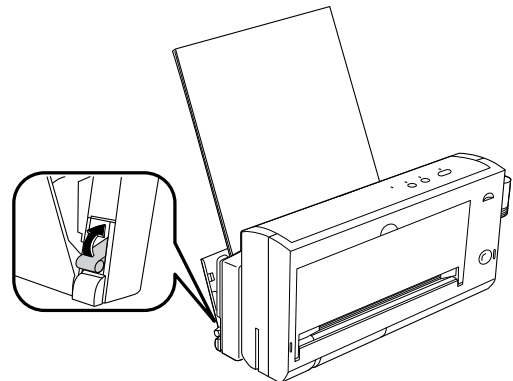
4. Slide the left paper width adjustment guide to the side of the sheet feeder.



5. Insert a stack of paper into the sheet feeder and move the left paper width adjustment guide against the paper.



6. Push the paper release lever up to press the paper against the roller.



Operating the Printer with the Desktop Sheet Feeder

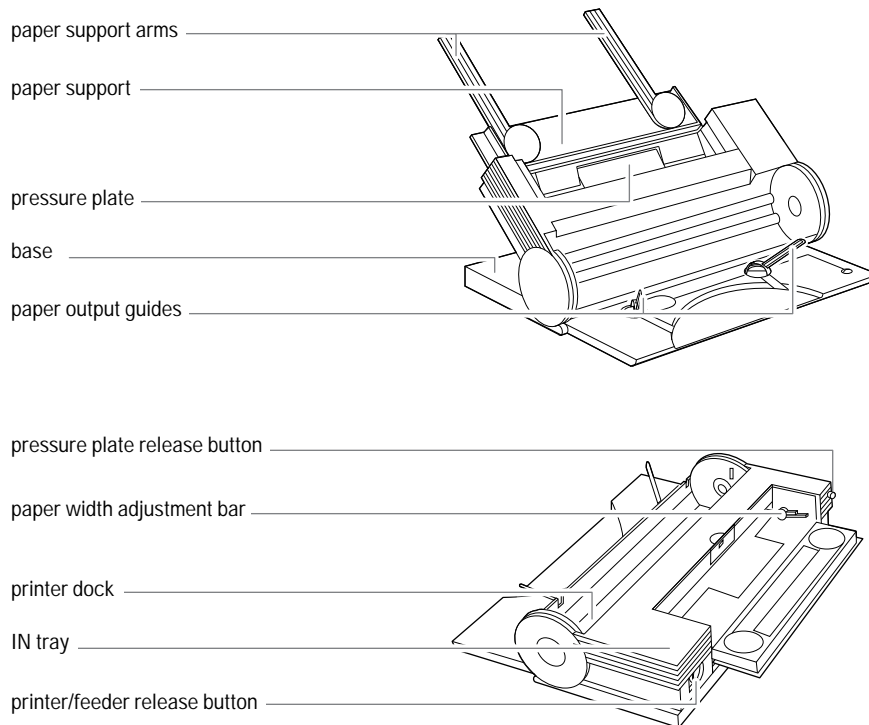


Figure 3-5. The HP Desktop 300 Series Desktop Sheet Feeder

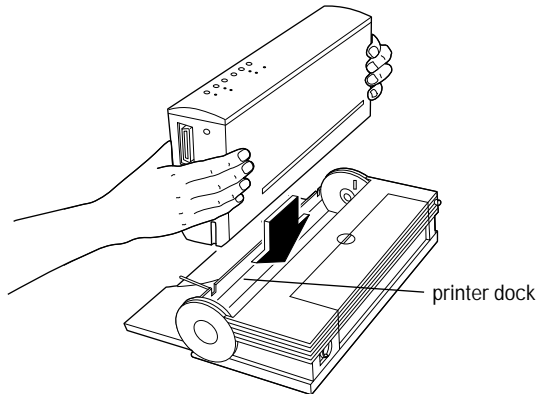
The desktop sheet feeder provides paper feeding capability to an HP DeskJet 300 Series printer. The IN tray holds up to a 0.2 inch (approximately 5 mm) stack of paper. The printer can be easily attached to the sheet feeder and conveniently stored and transported together with it.

The sections that follow describe how to attach the printer to the sheet feeder and discuss the various positions for using the printer with the sheet feeder.

| | |
|-------------|--|
| Note | The desktop sheet feeder can be purchased either <i>separately</i> or <i>together with the printer</i> , see Model Numbers and Product Positioning in chapter 1. |
|-------------|--|

Attaching the Printer to the Desktop Sheet Feeder

Hold the printer with the access door facing *away from* the sheet feeder's IN tray. Make sure that the printer stands are no longer connected to the printer. Insert the printer into the printer dock in the sheet feeder.



If you wish to *remove* the printer from the sheet feeder, pull straight up on the printer while it is in this vertical position.

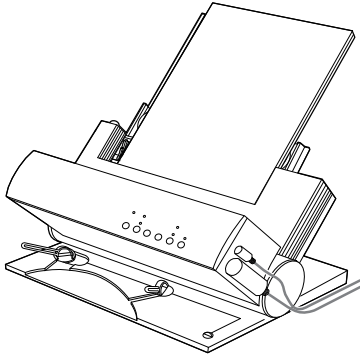
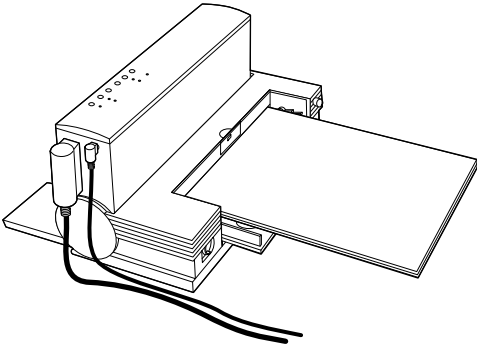
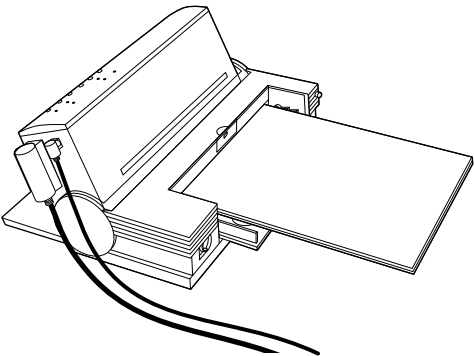
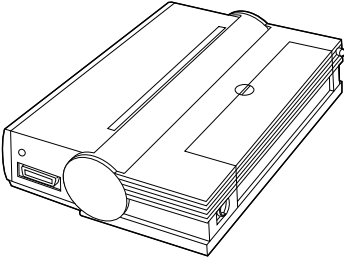
Positions for the Printer and Desktop Sheet Feeder

An HP DeskJet 300 Series printer with the deskjet sheet feeder can be set up into four positions, according to the user's needs, as shown in the figure on the next page:

- Normal print position, for automatic feeding
- Vertical print position, for changing printer settings, changing the print cartridge, printing labels, or removing the printer from the sheet feeder
- Manual feed position, for feeding single sheets with the sheet feeder attached
- Closed position, for storing or transporting the printer and sheet feeder.

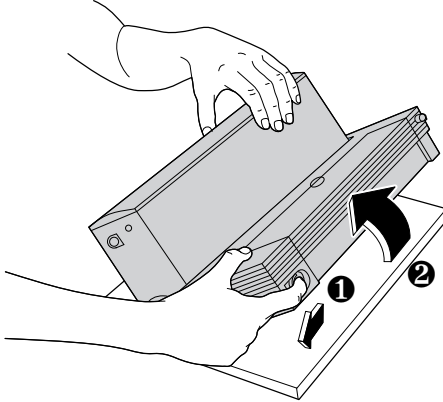
The sections that follow describe how to set up the printer in these various positions.

Table 3-4. The Four Positions for an HP DeskJet 300 Series Printer and Desktop Sheet Feeder

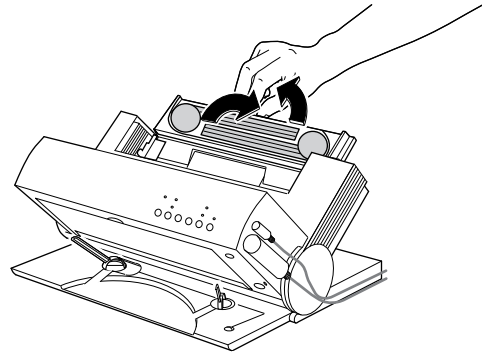
| Position | Setup |
|-------------------------|--|
| Normal Print Position |  |
| Vertical Print Position |  |
| Manual Feed Position |  |
| Closed Position |  |

Normal Print Position, for Automatic Feeding

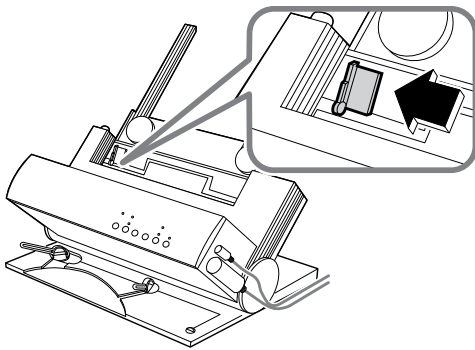
1. Start with the printer in the upright position. Slide and hold the printer/feeder release button. Then rotate the printer and the IN tray of the sheet feeder *together* to the normal printing position, as shown below.



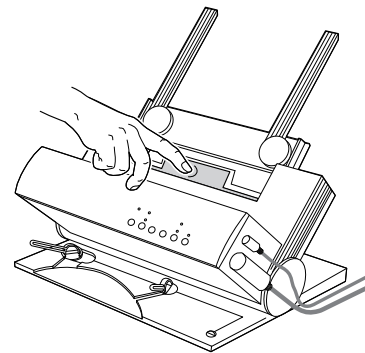
2. Open the paper support on the IN tray and open the paper support arms.



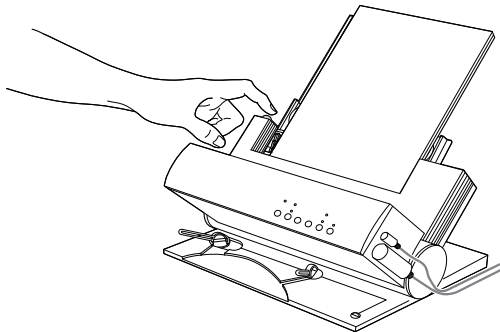
3. Slide the paper width adjustment bar to the left.



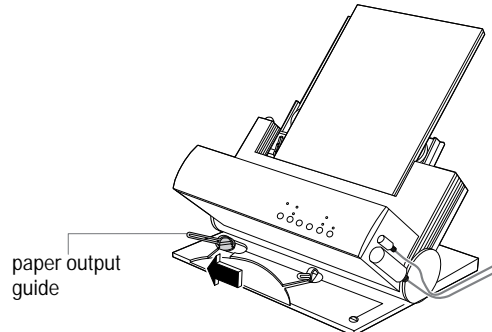
4. Press down on the pressure plate to lock it in the loading position.



5. Insert a stack of media into the IN tray face up, and push the stack against the right side of the IN tray. Slide the paper width adjustment bar against the media. Then press the pressure plate release button to hold the media securely in place.



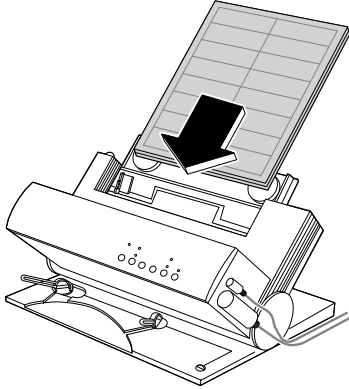
6. Adjust the paper output guide.
 - For U.S. letter, U.S. legal, and A4 size paper, slide the paper output guide to the leftmost position.
 - For U.S. executive size paper, slide the paper output guide to the rightmost position.



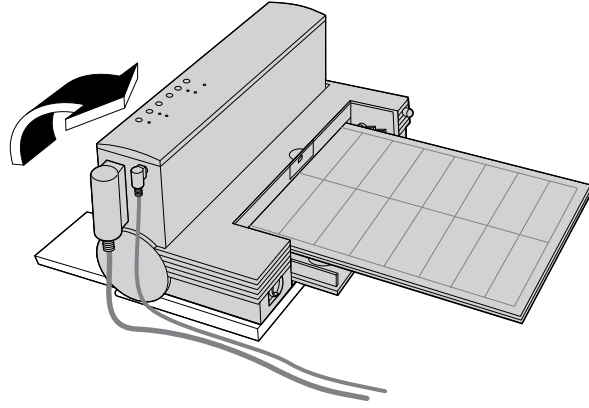
If you find that the media curls over the printer as it exits through the paper output slot, try printing in the vertical print position.

Vertical Print Position, for Changing Printer Settings, Changing the Print Cartridge, Printing Labels, or Removing the Printer from the Desktop Sheet Feeder

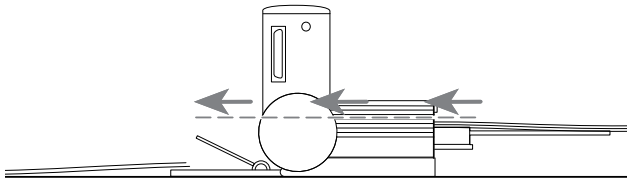
1. If you want to print labels, first load the labels into the printer's IN tray.



2. Rotate the printer and the IN tray together so that the IN tray is flat against the sheet feeder base and the printer is in the vertical position.



This position provides a straight path for the heavy label paper stock. You can also easily open the access door to see the printer settings menu or change the print cartridge.

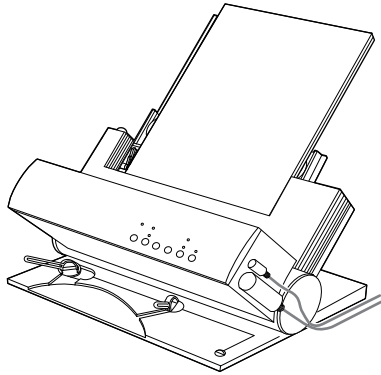


Notes

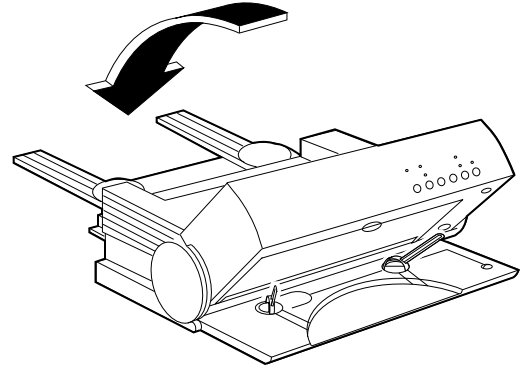
- For information on changing the printer settings, see "Configuring the Printer" in chapter 2.
- For information on replacing a print cartridge, see "Installing/Replacing a Print Cartridge" later in this chapter.

Manual Feed Position, for Feeding Single Sheets with the Desktop Sheet Feeder Attached

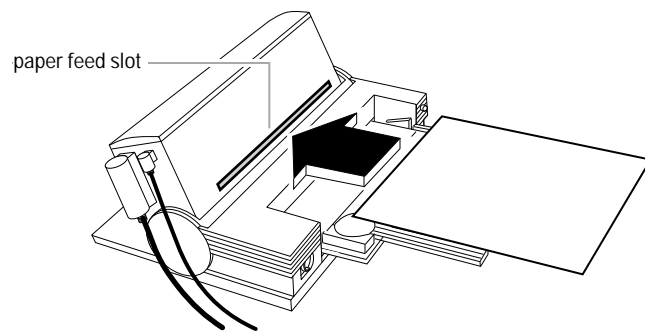
To feed single sheets with the sheet feeder still attached to the printer, as shown in the figure below, follow these steps:



1. While holding the printer at a 45-degree angle to the base, slide and hold the printer/feeder release button, then rotate the IN tray flat against the base.



2. To load a single sheet, insert it into the paper feed slot, print side up, until it will go no farther. Use the alignment mark near the end of the paper feed slot to make sure that the sheet is inserted in the correct position.

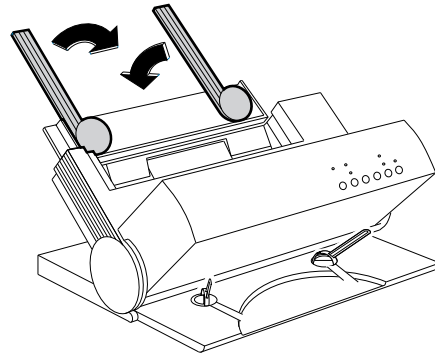


3. After approximately one-half second, the paper feed rollers will grip the sheet. Release the sheet and allow the printer to pull it into the printer.

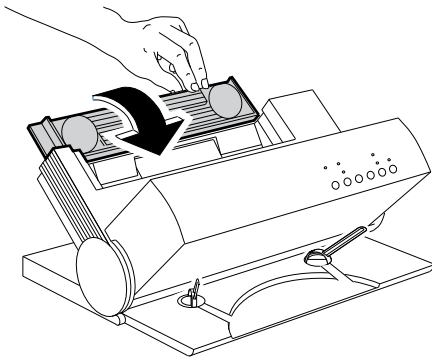
Closed Position, for Storing or Transporting the Printer and Desktop Sheet Feeder

1. Turn off the printer with the Power button to make sure that the print cartridge is returned to the home position. Then disconnect the interface cable and the power adapter. If there is paper in the IN tray, press down on the pressure plate so that you can remove it.

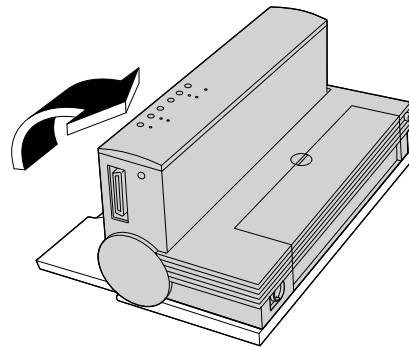
2. Close the paper support arms.



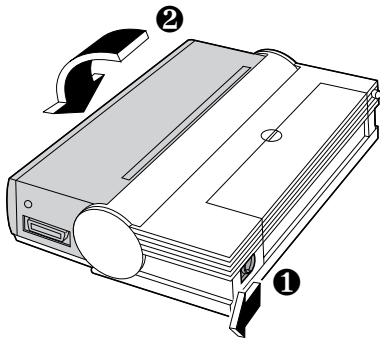
3. Close the paper support on the IN tray.



4. Rotate the printer and IN tray so that the IN tray is flat against the sheet feeder base and the printer is vertical.



5. While sliding and holding the printer/feeder release button, rotate the printer flat against the base.

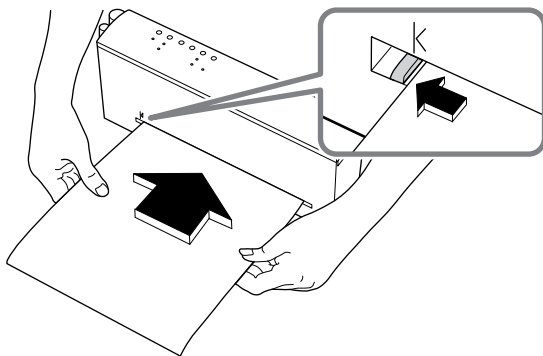


Loading Media

Note The HP DeskJet 300 Series printers are designed to work with *cut-sheet paper and media only*. If continuous Z-fold paper is loaded into the printer — whether you are using the sheet feeder or loading the paper feed slot by hand — the printer will detect a paper jam error and will not operate properly.

Manual Single Load

1. Insert a sheet of media into the paper-feed slot with the edge of the paper against the alignment mark. *Make sure that the print side is up*. Wait one second for the printer to grab the sheet of paper.



2. Let go of the sheet once the printer grips it and pulls it into the printer. The printer will print on this sheet and eject it.

3. If the print job requires another sheet, the Online light will blink to indicate that the printer is out of paper. Insert a sheet into the paper-feed slot as described in step 1.

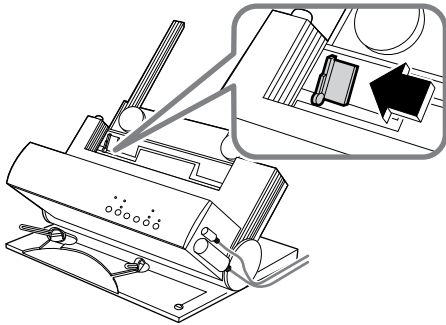
Notes

- Feed sheets into an HP DeskJet 300 Series printer with the print side *up*. Note that this is different from what the desktop printers in the DeskJet 500 Series printer family require.
- If the user expects to be feeding media manually for a large number of sheets, or if the user does not own a sheet feeder, make sure that Manual Feed¹ has been specified — either in the MEDIA SOURCE¹ group in Menu mode, or with the DJPMenu configuration utility, or through the software application. If you specify Manual Feed, the motor will turn on for only half a second to pick up a sheet of paper. That is enough time to catch a hand-fed sheet but not enough time to catch one from the sheet feeder.

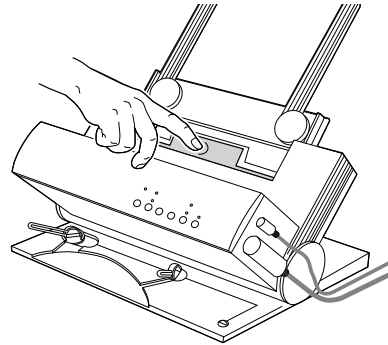
1. The older model C2614A of the **HP DeskJet Portable** printer does not have a “Media Source” group in its printer settings menu. You can only select “Manual Feed” in the software application’s printer settings, or with the DJPMenu configuration utility (see footnote 2 below).
2. The **HP DeskJet Portable** printer does not have the DJPMenu software included with the printer; to get this software, see “Obtaining Printer Drivers” in chapter 7, Service and Support Information. For more information on DJPMenu, see “Additional Configuration Options with the DJPMenu Configuration Utility” in chapter 2.

Loading Media in the Desktop Sheet Feeder

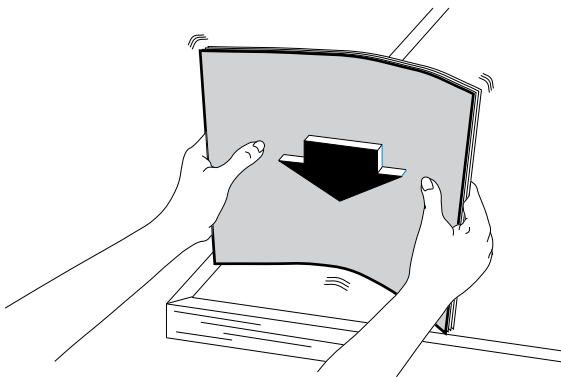
1. With the printer and deskjet sheet feeder set up for automatic loading, slide the paper width adjustment bar to the left.



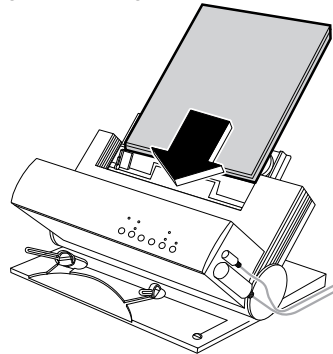
2. Press down on the paper pressure plate to lock it in the load position.



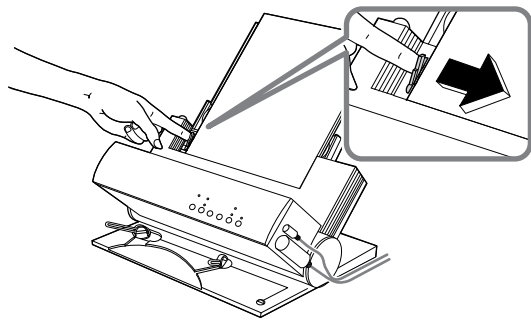
3. Take out a 0.2 inch (approximately 5 mm) stack of media and tap the stack edge on a flat surface to make it even.



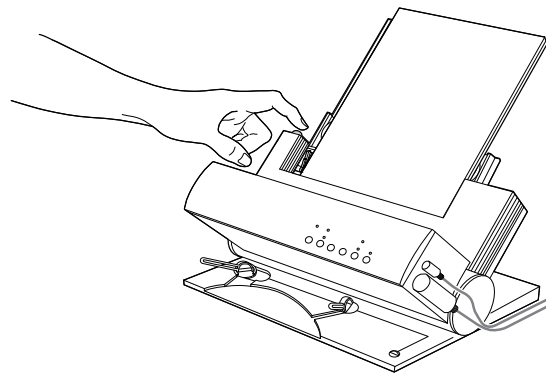
4. Insert the stack of media squarely into the IN tray, print side up, making sure that the right edge of the stack is aligned against the right side of the IN tray.



5. Slide the paper width adjustment bar to the edge of the media. Be sure the paper width adjustment bar does not buckle the media.



6. Press the gray pressure plate release button. This forces the media against the paper feed rollers.



Notes

- Be sure to load sheets into the IN tray with the print side *up*.
- When using the Desktop Sheet Feeder, be sure to select Sheet Feeder in the MEDIA SOURCE¹ group in Menu mode, or with the DJPMenu Configuration Utility¹ program, or through the software application. When you specify Sheet Feeder, the motor turns on for 8 seconds; this is enough time to bring in a sheet from the sheet feeder.

1. The older model C2614A of the HP DeskJet Portable printer does not have a "Media Source" group in its printer settings menu. You can only select "Sheet Feeder" in the software application's printer settings, or with the DJPMenu program (also see footnote 2 on the previous page).

Table 3-5. Media Loading Information

| Topic | Information |
|---|--|
| <i>Transparencies</i> | Transparencies can either be fed by hand or loaded into the sheet feeder. Do not use transparencies other than HP Premium and do not load more than 20 transparencies into the sheet feeder. |
| <i>Removing media from the sheet feeder</i> | To remove paper from the IN tray of the sheet feeder, first press on the stack of paper above the pressure plate. (The diagram in step 2 on the previous page shows the pressure plate.) Pressing the plate releases tension on the stack of paper in the IN tray. Then remove the stack. |
| <i>Printing on letterhead</i> | To print on the letterhead side of a page, place the letterhead face <i>up</i> in the IN tray. Position the paper with the top of the letterhead toward the printer, so that the letterhead end feeds into the printer first. |
| <i>Printing on labels</i> | When printing labels with the printer attached to the sheet feeder, rotate the printer so that it is in the vertical position. In this position, the printer provides a straight path for the heavy label paper stock. See step 3 in "Vertical Print Position" in this chapter. |
| <i>Feeding single sheets by hand with the sheet feeder attached</i> | To feed single sheets by hand with the sheet feeder attached to the printer, start from the "Normal Print Position". Then, while holding the printer to keep it at a 45-degree angle to the base, slide and hold the printer/feeder release button and rotate the IN tray flat against the sheet feeder base. Then load a single sheet by inserting it into the paper feed slot. See "Normal Print Position" and "Manual Feed Position" in this chapter. |
| <i>Media loading tips</i> | <ul style="list-style-type: none"> • Make sure that the paper meets the specifications listed in chapter 1. • Do not mix media types in the IN tray. • Always load a stack of paper into an empty IN tray. Don't place new paper on top of paper <i>already</i> in the IN tray. • Make sure to move the paper width adjustment bar against the IN tray paper. See the diagram in step 5 in "Normal Print Position, for Automatic Feeding of Sheets" in this chapter. |
| <i>Media to avoid</i> | Do <i>not</i> use the following kinds of media in the printer: <ul style="list-style-type: none"> • Weight greater than 24 lb. (90 g/m²) or less than 16 lbs. (60 g/m²) • Media that is torn or wrinkled or that has curled edges • Media with cutouts or perforations, like 2- and 3-hole-punch paper • Multiple part forms • Media that is heavily textured or embossed • Transparencies other than HP Premium • Labels other than HP 92296 Series or other high-quality labels for laser printers • Paper sizes other than U.S. letter, A4, U.S. legal, and U.S. executive; transparencies or label sheets other than U.S. letter or A4 size. |

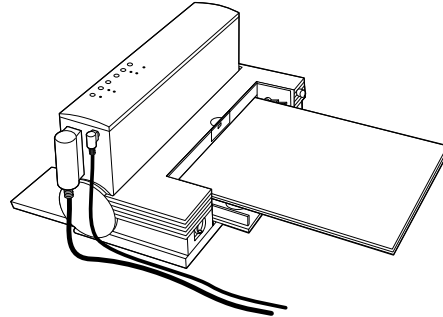
Installing/Replacing a Print Cartridge

Caution

Do not let the print cartridge contacts and nozzles touch any surface or object, including your fingers. Oil and dust can cause missing dots and other print quality problems.

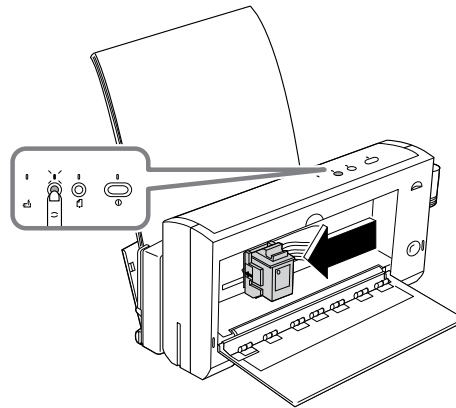
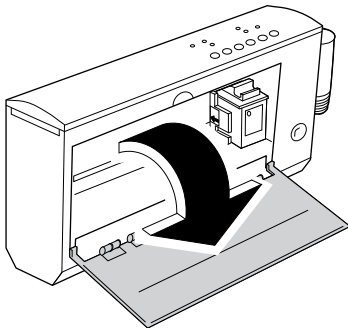
1. If the printer is off, turn it on.

2. Whether or not you are using the sheet feeder, set the printer in the vertical position.

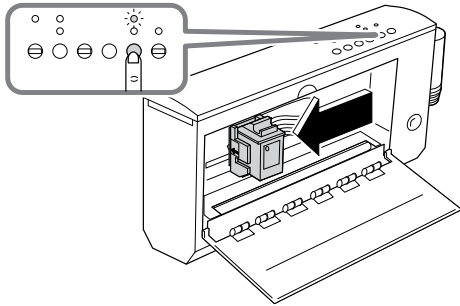


3. Open the access door. *If you are using the DeskJet 340, go to step 4, then step 6. If you are using the DeskJet 320, 310 or Portable, skip step 4.*

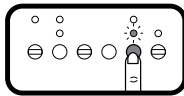
4. *For the DeskJet 340 user:* Press the Change Cartridge button to move the print cartridge to the loading position.



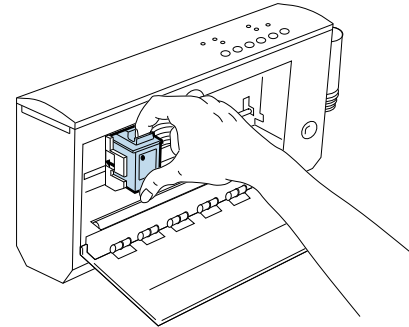
5. Press the Setup¹ button. This provides access to the print cartridge cradle. The Change Cartridge¹ light should be blinking.



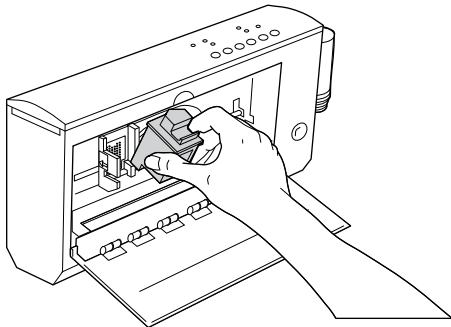
1. The older model C2614A of the HP DeskJet Portable printer has "Settings" instead of "Setup" and "Chg. Pen" instead of "Change Cartridge" written on the printer's front panel. Also, the "Chg. Pen" light is located immediately above the Setup button, as shown in the figure below:



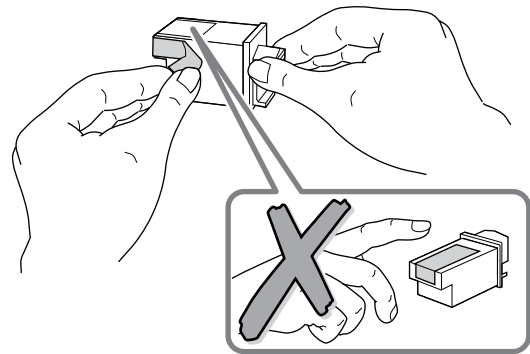
6. To remove a print cartridge from the printer, first pull the top of the cartridge toward you until the cartridge "pops" loose.



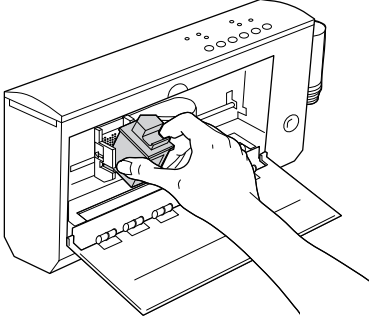
7. Lift the print cartridge out of the print cartridge cradle.



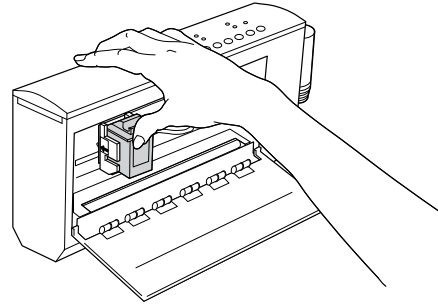
8. Open the new print cartridge container. Remove the tape(s) covering the nozzles. *Be careful not to touch the copper ribbon or the ink nozzles.*



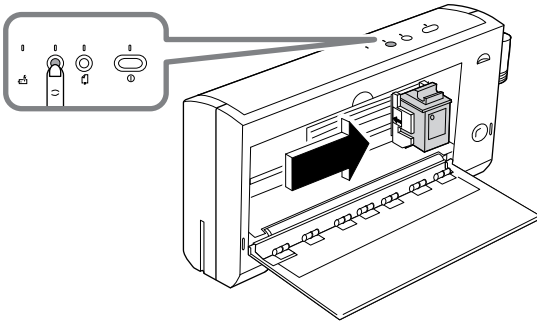
9. With the green arrow on top of the print cartridge facing the print cartridge cradle, tip and push the bottom of the print cartridge into the cradle. *Be careful not to slide the print cartridge along the contacts in the print cartridge cradle. This sliding motion can damage the cradle contacts.*



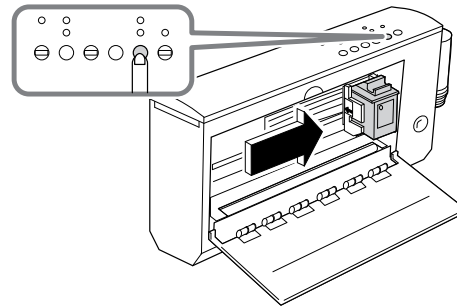
10. Push the green arrow forward toward the print cartridge cradle, "snapping" the print cartridge in place.



11. *For the DeskJet 340 user:* Press the Change Cartridge button to return the print cartridge to the home position. Close the access door.



12. *For the DeskJet Portable, 310 and 320 user:* Press the Setup¹ button to return the print cartridge to the home position. Close the access door.



Note

Use only the 51633A, 51633M or 51625A² print cartridges in HP DeskJet 300 Series printers. Other print cartridges, such as the 51626A high-capacity print cartridge, are not recommended for use with these printers.

1. The older model C2614A of the **HP DeskJet Portable** printer has "Settings" instead of "Setup" written on the printer's front panel.
2. The **HP DeskJet Portable** prints black only; it cannot use this color print cartridge.

Table 3-6. Common Problems with Print Cartridges

| Problem | Possible Causes | Solution |
|--|--|---|
| <i>Nothing prints</i> | <ul style="list-style-type: none"> • Tape may be covering the print cartridge nozzles. • The print cartridge is out of or nearly out of ink. • The print cartridge is faulty. • The printer is faulty. | See "Troubleshooting Print Cartridges" and "Solving Print Quality Problems" in chapter 6. |
| <i>Print fades, rows of dots are missing, or print quality is otherwise unsatisfactory</i> | <ul style="list-style-type: none"> • The print cartridge may be faulty. • The media may be causing unsatisfactory print quality. • The user may not be operating the printer for optimum print quality. • The printer may be faulty. | See "Troubleshooting Print Cartridges" and "Solving Print Quality Problems" in chapter 6. |
| <i>Change Cartridge¹ light is blinking</i> | The printer is waiting for the user to install a print cartridge and press the Setup ¹ button to return the print cartridge to the home position. | Install the print cartridge and press the Setup ¹ button. |
| <i>Print is faint or fuzzy</i> | <ul style="list-style-type: none"> • A problem with either the print cartridge or the media can cause this problem. • The print cartridge may need cleaning. | See "Troubleshooting Print Quality" and "Using the Print Cartridge Cleaning Routine" in chapter 6. |
| <i>Printouts are missing rows of dots</i> | <ul style="list-style-type: none"> • The print cartridge, printer, or the connection between the print cartridge and printer may be faulty. • The print cartridge may need cleaning. | See "Printouts Missing Rows of Dots" and "Using the Print Cartridge Cleaning Routine" in chapter 6. |
| <i>Print cartridge will not return to the home position (right side of the mechanism)</i> | <ul style="list-style-type: none"> • The print cartridge, printer, or the connection between the print cartridge and printer may be faulty. • The print cartridge may need cleaning. | See "Printout Missing Rows of Dots" and "Using the Print Cartridge Cleaning Routine" in chapter 6. |

1. The older model C2614A of the **HP DeskJet Portable** printer has "Settings" instead of "Setup" and "Chg. Pen" instead of "Change Cartridge" written on the printer's front panel.

Powering the Printer

Standard Charge and Quick Charge Rates

An HP DeskJet 300 Series printer charges a battery pack, that is less than fully charged, at either of two rates: a standard charge rate and a quick charge rate. The printer has a third “maintenance” charging rate which it uses to maintain the charge in a fully charged battery.

The printer uses the quick charge rate only with new and *fully discharged* battery packs or battery packs with a known charge level. At the quick charge rate, the printer will fully charge a battery in six hours.

The printer uses the standard charge rate to charge a battery pack with an unknown charge level. Standard charging avoids damaging a battery pack from overcharging. At the standard charge rate, the printer will fully charge a battery in ten hours.

The table below distinguishes the cases in which the printer uses a standard charge rate from those where it uses a quick charge rate. Note that, if the printer has finished charging a battery pack and finds that the battery is now fully charged, the printer will make sure that the battery pack *remains* fully charged, charging it at the slower “maintenance” rate as needed.

The printer can charge a battery whether the printer is on or off¹, as long as the power adapter is connected to an AC source.

Table 3-7. Battery Pack Charge Rates

| Battery Pack Situation | Charge Rate | Explanation |
|--|------------------------------|--|
| <i>Battery pack has been fully charged</i> | Maintenance charge as needed | The printer detects a <i>fully charged</i> battery pack. The printer makes sure the battery pack remains fully charged by charging it at the maintenance rate as needed. |
| <i>Battery pack has been fully discharged, through use or through the discharge function</i> | Quick charge | The printer detects a <i>fully discharged</i> battery pack and charges it at the quick charge rate. |
| <i>A partially charged battery pack that was previously fully charged in the printer</i> | Quick charge | The printer knew that the battery pack was fully charged when the printer finished charging it. As long as the battery pack was not removed and reinstalled in the printer, the printer continuously monitors and determines the battery's charge level. The printer reports the battery's charge level accurately on the battery level gauge. It charges the battery at the quick charge rate until it is fully charged. When the battery pack is fully charged, the printer makes sure the battery remains fully charged by charging it at the maintenance rate as needed. |

1. The older model C2614A of the HP DeskJet Portable printer only charges a battery when the printer is on. The battery is not charged when the printer is off.

Table 3-7. Battery Pack Charge Rates (Continued)

| Battery Pack Situation | Charge Rate | Explanation |
|---|--|--|
| <i>A partially charged battery pack has been newly installed in the printer</i> | Standard charge | <p>If a partially charged battery pack is installed in the printer, the printer cannot determine the present charge level of the battery pack.</p> <p>The printer reports this battery pack's charge level as $\frac{1}{4}$ charged on the battery level gauge and charges it at the standard charge rate.</p> <p>When the battery pack has been fully charged, the printer makes sure the battery pack remains fully charged by charging it at the maintenance rate as needed.</p> |
| <i>Battery pack is new</i> | Charge rate depends on the residual charge level in the battery pack | <ul style="list-style-type: none"> • If the printer detects a residual charge level in the battery pack, the printer will charge the battery pack at the <i>standard charge</i> rate. • If the printer fails to detect a residual charge in the battery pack — that is, the battery pack is fully discharged — the printer will <i>quick charge</i> the battery pack. |

Notes

- The printer stops charging the battery during printing, even though the Charge light remains lit. Once the printer finishes printing, it resumes charging the battery. If you are printing while charging a battery pack, the time to charge the battery pack will be longer than if you are not printing.
- To override the standard charge rate and set the printer to the quick charge rate, see “Configuring the Printer” in chapter 2.

Sleep Mode

When powering the printer with a battery pack, DeskJet 300 Series printers go into “sleep mode” after two minutes of inactivity. (For information on changing the interval, see below.) Sleep mode extends the length of a battery pack charge by minimizing the printer power requirements during periods of inactivity. All printer lights are turned off except for the Power light, which is dimmed.

Any one of the following actions will wake the printer from sleep mode:

- the printer receives data
- a printer button (other than the Power button) is pressed
- paper is fed into the printer
- the power adapter is plugged in.

If the printer is awakened from sleep mode by the pressing of a printer button, the printer ignores the function of that button. However, if the printer is awakened by data that is sent to it, the printer does not ignore or lose any of the data.

If the printer is left in sleep mode for 15 minutes¹ (or another user-specified interval), the printer will turn off. If the printer powers off, any data sent to it will be lost.

You can change the interval after which the printer goes into sleep mode by using the DJPMenu configuration utility². The options are 1 minute, 2 minutes (the factory default setting), 4 minutes, and Never. You can also change the interval after which the printer turns itself off; the options are 5 minutes, 15 minutes (the factory default setting), 30 minutes, and Never. See “Additional Configuration Options with the DJPMenu configuration utility” in chapter 2.

Note

- The printer will *not* go into sleep mode if the battery pack is being discharged.
-

Low Battery Condition

The Power light blinks if the printer detects a low battery condition and the printer is *not* connected to AC power. The DeskJet 300 Series printers can print approximately 5 *monochrome* pages after detecting a low battery condition.

1. The HP DeskJet Portable printer is in sleep mode for 30 minutes before turning off. This time cannot be changed.
2. The DJPMenu software cannot change the extended settings on the HP DeskJet Portable printer.

Power Adapter Information

Table 3-8. Power Adapter Information

| Power Adapter Topic | Information |
|---|--|
| <i>Power adapter¹ and power cord part numbers</i> | The multi-voltage power adapter is the same for all countries. It is provided with a power cord for the appropriate country's power receptacle. For the part numbers of power cords, see table 1-6. |
| <i>Power adapter and rapid rechargers</i> | Either the power adapter or a rapid recharger can be used to power DeskJet 300 Series printers. A multi-voltage power adapter is included with the printer. Rapid rechargers are accessories that are not included with any HP DeskJet 300 Series printer. |
| <i>Power adapter and rapid recharger AC voltage detection</i> | Both the multi-voltage power adapter and the rapid rechargers are designed to operate from any power source from 100 to 240 Vac, 50 or 60 Hz. Both the adapter and the recharger detect the input voltage and automatically provide the appropriate power output to the printer. |
| <i>Charging capabilities of the power adapter and rapid rechargers</i> | <ul style="list-style-type: none"> • The power adapter can charge a battery pack <i>in</i> the printer, but it cannot charge or discharge batteries <i>out of</i> the printer. Rapid rechargers can not only charge a battery pack <i>in</i> the printer; they can also charge or discharge up to two battery packs <i>out of</i> the printer. • The power adapter charges a fully discharged or new battery pack installed <i>in</i> the printer in 6 hours (10 hours for a partially charged battery pack). Rapid rechargers require only 1 hour to charge a battery pack <i>out of</i> the printer. • Neither the power adapter nor a rapid recharger can <i>discharge</i> a battery pack installed <i>in</i> the printer. |
| <i>Discharging capabilities of the power adapter and rapid rechargers</i> | <ul style="list-style-type: none"> • No battery pack installed in the printer can be discharged if either the power adapter or a rapid recharger is connected and powered on. • A battery pack installed in the printer can be discharged if neither a power adapter nor a rapid recharger is connected to the printer. If either a power adapter or a rapid recharger is connected to the printer, but it is not powered on, the printer can still proceed to discharge the battery pack. • A rapid recharger can discharge up to two battery packs <i>out of</i> the printer. |
| <i>Connecting power adapters</i> | <ul style="list-style-type: none"> • See "Connecting the Printer to a Power Adapter or a Rapid Recharger" in chapter 2. |

1. Some HP DeskJet Portable printers may have a country-specific power module instead of a worldwide power adapter and a country-specific power cord.

Rapid Recharger Information

Table 3-9. Rapid Recharger Information

| Rapid Recharger Topic | Information |
|--|---|
| <i>Cautions</i> | <ul style="list-style-type: none"> • It is normal for battery packs to feel warm after charging or discharging cycles. • Use only battery packs listed in this manual or recommended by Hewlett-Packard. |
| <i>Rapid recharger part numbers</i> | See "Power Cord, Rapid Recharger, and Battery Pack Part Numbers" in chapter 1. |
| <i>When to use a rapid recharger</i> | <ul style="list-style-type: none"> • Rapid rechargers may be used in place of the power adapter that is included with HP DeskJet 300 Series printers. • Rapid rechargers operate from any power source from 100 to 240 Vac, and at either 50 or 60 Hz. The rapid recharger detects the input voltage and automatically provides the appropriate power output to the printer. The detachable cord, included with the rapid recharger, adapts the rapid recharger to a country or region's power receptacle. (Note that these detachable cords cannot be ordered separately.) • The printer <i>will not</i> operate from a battery pack attached to the rapid recharger. <ul style="list-style-type: none"> – To use the printer in battery mode, remove the battery pack from the rapid recharger and install it in the printer. – To use the rapid recharger to power the printer, connect the rapid recharger to the printer and to the AC power receptacle. |
| <i>Using rapid rechargers worldwide</i> | <p>Since rapid rechargers detect the input voltage and automatically provide the appropriate power to the printer, a rapid recharger can be used anywhere with an appropriate receptacle adapter. The receptacle adapter makes it possible for the rapid recharger to plug into the power receptacle of a region or country.</p> <p>Do <i>not</i> use a rapid recharger with a transformer or voltage converter.</p> |
| <i>Capabilities of rapid rechargers and the power adapter¹ compared</i> | <ul style="list-style-type: none"> • The power adapter can provide power to an HP DeskJet 300 Series printer. Rapid rechargers can not only provide power to a printer, but can also charge and discharge up to two battery packs outside of the printer. • Rapid rechargers can charge a battery pack much faster than the power adapter can. The power adapter needs 6 hours to charge a fully discharged or new battery pack (<i>quick charge</i>) and 10 hours for a partially charged battery pack (<i>standard charge</i>) installed in the printer. Rapid rechargers require only 1 hour per battery pack (<i>rapid charge</i>). |
| <i>Rapid recharger lights</i> | <ul style="list-style-type: none"> • See "Rapid Recharger Lights and Buttons" in this chapter. |
| <i>Reviving/discharging with a rapid recharger</i> | <ul style="list-style-type: none"> • Nickel cadmium battery packs have a characteristic that reduces their charge capacity if they are not occasionally revived by fully discharging (draining) them and then charging them again. Hewlett-Packard recommends fully discharging battery packs approximately once a month. • A rapid recharger can discharge battery packs whether it is connected to an AC power source or disconnected from it. • Although the rapid recharger can charge one battery pack and discharge another at the same time, it can <i>discharge</i> only one battery pack at a time. A second battery pack will not begin discharging until the first battery pack is fully discharged. • For information on the rapid recharger lights and buttons, see "Rapid Recharger Lights and Buttons" in this chapter. |

1. Some HP DeskJet Portable printers may have a country-specific power module instead of a worldwide power adapter and a country-specific power cord.

Table 3-9. Rapid Recharger Information (Continued)

| Rapid Recharger Topic | Information |
|---|--|
| <p><i>Charging with a rapid recharger</i></p> | <ul style="list-style-type: none"> • The rapid recharger can rapid-charge a battery pack in approximately 1 hour. Once the battery pack is charged, the rapid recharger automatically switches to a trickle charge rate to maintain peak charge while the battery pack is attached to the rapid recharger. • It is normal for the battery packs to feel warm after charging or discharging. • Charging automatically begins as soon as a battery pack is installed on the rapid recharger and the rapid recharger is plugged into the AC power source. No further user action is required. • Press the Discharge button on the rapid recharger to toggle between charging and discharging modes. • The rapid recharger can hold one or two battery packs. If you are charging two battery packs, the rapid recharger can charge one battery pack while discharging the second. However, the rapid recharger does not begin charging the second battery pack until after the first battery pack has been fully charged. • The rapid recharger does not need to be connected to an HP DeskJet 300 Series printer in order to charge battery packs attached to the rapid recharger. • For information on rapid recharger lights and buttons, see “Rapid Recharger Lights and Buttons” in this chapter. |

Battery Pack Information

Table 3-10. Battery Pack Information

| Battery Pack Topic | Information |
|--|--|
| <i>Cautions</i> | <ul style="list-style-type: none"> • Use only battery packs listed in this manual or recommended by Hewlett-Packard. • Do not touch the battery pack contacts. • Do not directly connect (short circuit) one battery pack contact to the other. • Do not place any object other than a battery pack in the printer battery compartment. • Follow local regulations for proper disposal of battery packs. Do <i>not</i> dispose of battery packs in a fire. • It is normal for battery packs to feel warm after charging or discharging cycles |
| <i>Battery part numbers</i> | See "Power Cord, Rapid Recharger, and Battery Pack Part Numbers" in chapter 1. |
| <i>Battery specifications</i> | See "Specifications" in chapter 1. |
| <i>Battery installation instructions</i> | See "Installing/Replacing a Battery Pack" in chapter 2 of this manual or in the <i>User's Guide</i> included with the printer. |
| <i>Operating from a battery pack</i> | <ul style="list-style-type: none"> • For the printer to operate from a battery pack, the printer must be disconnected from an AC power source — power adapter or rapid recharger. • The printer will not operate from a battery pack mounted on a rapid recharger. For the printer to operate from a battery pack, the battery pack must be installed in the printer itself. |
| <i>Reviving/discharging information</i> | <ul style="list-style-type: none"> • Nickel cadmium battery packs have a characteristic that reduces their charge capacity if they are not occasionally fully discharged (drained) and then charged. This is known as reviving a battery pack. Hewlett-Packard recommends reviving battery packs approximately once a month. • If the printer begins to print fewer pages per battery charge cycle than it had previously, revive the battery pack by fully discharging and then charging the battery pack with the rapid recharger or the printer. See "Configuring the Printer" in chapter 2 for information on discharging (draining) and charging battery packs in the printer. • When reviving <i>two</i> battery packs on a rapid recharger, the rapid recharger fully discharges and then fully charges the first battery pack. The second pack starts discharging when the first pack starts charging. |
| <i>Charging information</i> | <ul style="list-style-type: none"> • Battery packs may be charged in the printer or on the rapid recharger. • If the printer is connected to AC power (power adapter or rapid recharger), the printer automatically charges the battery pack <i>whether or not the printer is turned on</i>.¹ The Charge light is lit while the battery pack is being charged. The Charge light turns off after the battery pack is fully charged. • The charging process is interrupted when the printer is processing data or printing. Once the printer is inactive again, the charging process resumes. • Charging is halted if the printer is disconnected from the AC power source. • HP DeskJet 300 Series printers have two battery pack charging rates: standard charge (10 hours) and quick charge (6 hours). For more information, see "Standard Charge and Quick Charge Rates" in this chapter. <i>Use the quick charging rate only for new or fully discharged (drained) battery packs.</i> For information on selecting the quick charge rate in Menu mode, see "Configuring the Printer" in chapter 2. • The rapid recharger will charge one battery pack at a time, at the rapid-charge rate (1 hour). If two battery packs mounted on the rapid recharger are to be charged, the rapid recharger charges one battery pack until it is fully charged, then charges the second battery pack. |

1. The older model C2614A HP DeskJet Portable printer can only charge the battery when it is turned ON.

Table 3-10. Battery Pack Information (Continued)

| Battery Pack Topic | Information |
|---|---|
| <p><i>Battery charge level and status indications</i></p> | <p>Printer Light Indications</p> <ul style="list-style-type: none"> • The Power light blinks when battery capacity is low, if the printer is not connected to AC power. The printer can print approximately 5 more <i>monochrome</i> pages in this condition. • The Charge light is on when the printer is charging the battery pack. • The Charge light is off when the battery pack is fully charged or when the printer does not detect a battery pack in the printer. • The Charge light blinks when the printer is discharging (draining) the battery pack. <p>Note: To see the current charge level of the battery pack, you can use the printer self-test, go into Menu mode, or run the DJPMenu configuration utility¹. For more information, see “Self-Test” in chapter 6 and “Configuring the Printer” in chapter 2.</p> <p>Rapid Recharger Light Indications</p> <ul style="list-style-type: none"> • If one of the green Charge lights is blinking, the battery pack on that side of the rapid recharger is being charged. • If one of the green Charge lights is lit continuously, the battery pack on that side of the rapid recharger is fully charged. • If one of the red Discharge lights is on, the battery pack on that side of the rapid recharger is being discharged. • If one of the red Discharge lights is blinking, the rapid recharger is currently discharging the battery pack on the <i>other</i> side of the recharger. When that battery pack is fully discharged, the recharger will then begin charging that battery pack and discharging the other battery pack <i>at the same time</i>. |
| <p><i>Sleep mode (power-saving mode)</i></p> | <ul style="list-style-type: none"> • Sleep mode is available only when the HP DeskJet 300 Series printer is powered from a battery pack. • After two minutes of inactivity, the printer will go into sleep mode. All printer lights are turned off except for the Power light, which is dimmed. Sleep mode extends the life of the battery pack by drawing less power from the battery during times when the printer is inactive. • If the printer is left in the sleep mode for 15 minutes² (or for whatever sleep time interval has been set by the user), the printer will automatically turn itself off. Any data in the printer after the printer turns off is lost. • You can change the interval after which the printer goes into sleep mode as well as the interval after which the printer turns itself off by using the DJPMenu configuration utility. See “Additional Configuration Options with the DJPMenu Configuration Utility” in chapter 2. • For more information on sleep mode, see “Sleep Mode” in this chapter. |

1. The **HP DeskJet Portable** printer does not have the DJPMenu configuration utility included with the printer; to get this software, see “Obtaining Printer Drivers” in chapter 6. For more information on DJPMenu, see “Additional Configuration Options with the DJPMenu Configuration Utility” later in this chapter.

2. The **HP DeskJet Portable** printer is in sleep mode for 30 minutes before turning off. This time cannot be changed.

HP Infrared Adapter

The Infrared Data Association, IrDA has established a worldwide industry standard for “point and beam” data transfer, allowing computers to link up with printers using an infrared connection.

The HP DeskJet 340 printer has an interface port which can be fitted with an infrared adapter¹. This replaces the printer cable, giving a wireless connection to any IrDA-compliant notebook PC.

Requirements

- HP DeskJet 340 printer
- Notebook PC with infrared capability
- IrDA-compliant software with printing feature obtained from notebook PC manufacturer

Setting up to print

1. Check that you have IrDA-compliant software with printing feature installed on your system. If you do not have this software, contact your notebook PC manufacturer.
2. Attach the Infrared Adapter to the HP DeskJet 340 printer interface port.
3. Set the printer within 1 m (3 ft) of the computer.
4. Make sure that the PC's infrared port is pointed directly at the printer's infrared adapter. Move the printer if necessary.
5. Swivel the lens of the infrared adapter so that the lens is pointing at the PC's infrared port.

The swivel lens allows you to position the printer conveniently on your desktop. Make sure that the adapter is positioned within the 30°-wide range of the PC's infrared port.

6. Select the HP DeskJet 340 printer in your application.
7. Once you have given the print command, allow time for the software to process the data. With a complex document, processing may require several minutes.

Verify that the light on the infrared adapter is lit. If the adapter light is blinking, you have a weak connection.

If this happens, or if the adapter light has not come on at all after several minutes, see section “Troubleshooting the Infrared Adapter” in chapter 6

1. The HP DeskJet Portable, HP Deskjet 310 and 320 do not have the infrared facility.

Maintenance

The HP DeskJet 300 Series printers do not require any scheduled maintenance. Periodic cleaning, however, not only enhances the look of the printer, but also maintains it in optimum condition. Cleaning may also make it easier to diagnose a problem visually.

Maintaining Print Cartridges

In order to maintain optimum print quality, the printer automatically performs the operations of “spitting”, wiping, and capping the print cartridge nozzles. These operations are not visible to the user and require no user intervention.

Although print cartridges require no routine maintenance, proper use and handling of them will help insure optimum print quality and print cartridge life. Read “Print Cartridge Tips” in this section for tips on using and handling the print cartridges.

| | |
|-------------|--|
| Note | See “Troubleshooting Print Cartridges” and “Solving Print Quality Problems” in chapter 6 for more print cartridge troubleshooting information. |
|-------------|--|

| | |
|----------------|--|
| Warning | The print cartridge ink contains diethylene glycol which may be harmful if swallowed. Keep new and used cartridges out of the reach of children. If ink is accidentally ingested, contact the HP Health Line (800) 457-4209 in North America. From all other international locations the HP Health Line can be reached by calling (503) 494-7199. For health related issues, this line is staffed 24 hours per day. |
|----------------|--|

Print Cartridge Safety

Ink used in the print cartridge does not pose a health hazard to customers. During the development of ink formulas, all the ingredients are screened and researched for known potential health related issues. Only those chemicals that meet or exceed worldwide safety and regulatory requirements are used in HP inks.

Cleaning the Print Cartridge

HP DeskJet 300 Series printers automatically carry out “spits and wipes” to help maintain the print cartridge. These printers also have a print cartridge cleaning routine to restore print cartridges to optimum functioning. See “Using the Print Cartridge Cleaning Routine” in chapter 6.

Material Safety Data Sheet

A Material Safety Data Sheet (MSDS) is available for the print cartridges. The MSDS includes product identification information, characteristics of the ink, and precautions for handling and use. To request an MSDS, write to the following address:

Hewlett-Packard
Customer Information Center
Department MSDS
P.O. Box 58059
Santa Clara, CA 95052-8059
Mailstop 51LSD

Alternatively, if you are in the U.S. or Canada, you can telephone (800) 752-0900 and ask for Department MSDS (6:00 AM to 5:00 PM Pacific Time).

Print Cartridge Tips

- Do not use print cartridges after the expiration date. See “Identifying the Print Cartridge Expiration Date” in chapter 6.
- Keep the print cartridges sealed in the packaging container until ready for use. The print cartridges have a longer life sealed in this container than in the printer.
- Keep opened print cartridges in the printer or in the print cartridge storage container.
- Turn off the printer by pressing the Power button rather than unplugging the power adapter or rapid recharger. Turning the printer off with the Power button caps the print cartridge, extending the life of the print cartridge.
- Do not allow the print cartridge contacts and nozzles to touch any surface or object, including your fingers. Oil and dust can cause print quality problems.
- If printouts are missing dots, read “Printout Missing Rows of Dots” in chapter 6.
- Print cartridges left out of the printer may experience a crusting of dried ink on the print cartridge nozzles. *Clean the dried ink off of the nozzles before installing the print cartridge in the printer.* See “Removing Crusted Ink from the Print Cartridge Nozzles” in chapter 6.
- Store print cartridges at room temperature.

Caution

The ink in the print cartridges has been carefully formulated by Hewlett-Packard to ensure superior print quality and compatibility with the printer. Damage to the printer resulting from modifying the print cartridge is not the responsibility of Hewlett-Packard.

Hewlett-Packard does not support refilling print cartridges. Hewlett-Packard cannot guarantee the print quality from refilled print cartridges. Printer damage caused by refilling print cartridges is not covered by the Hewlett-Packard warranty or customer service agreements.

Maintaining the Printer

The interior and exterior of the printer should be examined for smudges, dust, etc. Clean the exterior with a soft cloth moistened with mild detergent and water. Open the access door and examine the interior areas of the printer. Any accumulation of paper or lint should be carefully removed by brushing the loose material onto a cloth, or by using a small computer vacuum cleaner.

If the platen or pinch plate needs to be cleaned, follow the instructions in the next section.

Caution

Clean the printer with water only. Platen cleaners or alcohol may damage the printer.

Cleaning the Platen and Pinch Plate

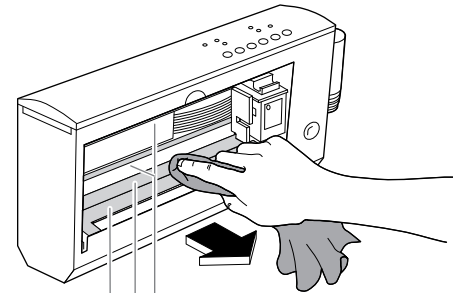
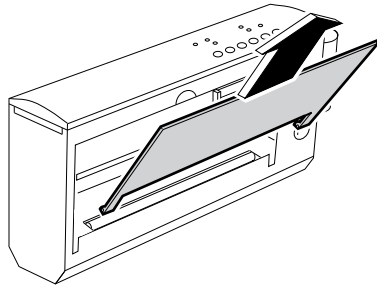
If ink, excess paper dust, or other contaminants are present on the platen or pinch plate, clean the platen and the pinch plate as described in the paragraphs below.

1. Turn off the printer by pressing the Power button. The print cartridge should now be locked in the home position.

2. Disconnect the power adapter or rapid recharger from the printer. Remove the battery pack, if one is installed.

3. Open the printer access door to a 45-degree angle. Gently pull on the access door until the door separates from the access door pins on the printer. *Place the access door in a safe location to protect the delicate star wheels on the access door.*

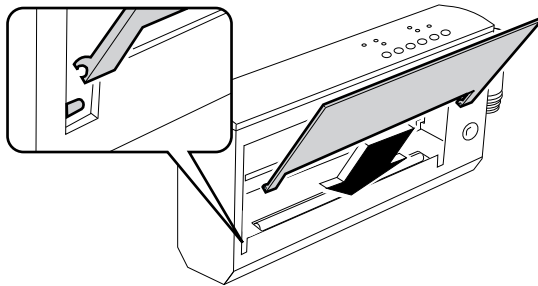
4. With a clean, lint-free cloth lightly moistened with water, gently wipe the pinch plate and platen using outward strokes. Do *not* wipe the printer carriage rods. Wiping the carriage rods will remove lubricants applied at the factory.



platen
pinch plate
carriage rods

5. Allow time for the platen to dry. Then install the access door on the printer by positioning it at a 45-degree angle to the printer and gently pressing it onto the access door pins until it snaps into position.

6. Close the access door. Connect the power adapter or the rapid recharger.



Thermal Inkjet II Technology

The HP DeskJet 300 Series printers use Thermal InkJet II (TIJ II) technology. This technology is based on a disposable print cartridge which propels ink out of 50 nozzles (48 nozzles for the color print cartridge¹). The basic principle of TIJ II is to apply heat to a tiny measure of ink until it expands and is propelled through a nozzle.

The first step in the process is to fill a small reservoir, known as the firing chamber, with ink. The next step is to heat the ink with a thin-film resistor layered above the firing chamber. As the ink heats up, it expands to form a bubble. The bubble continues to expand and finally bursts. At the climactic instant when the bubble bursts, the ink is forced through the nozzle located below the firing chamber and out onto the paper.

This process is repeated up to 5,000 times per second and creates residual heat in the resistor. A layer of silicon is placed above the resistor to cool it by transferring the residual heat away.

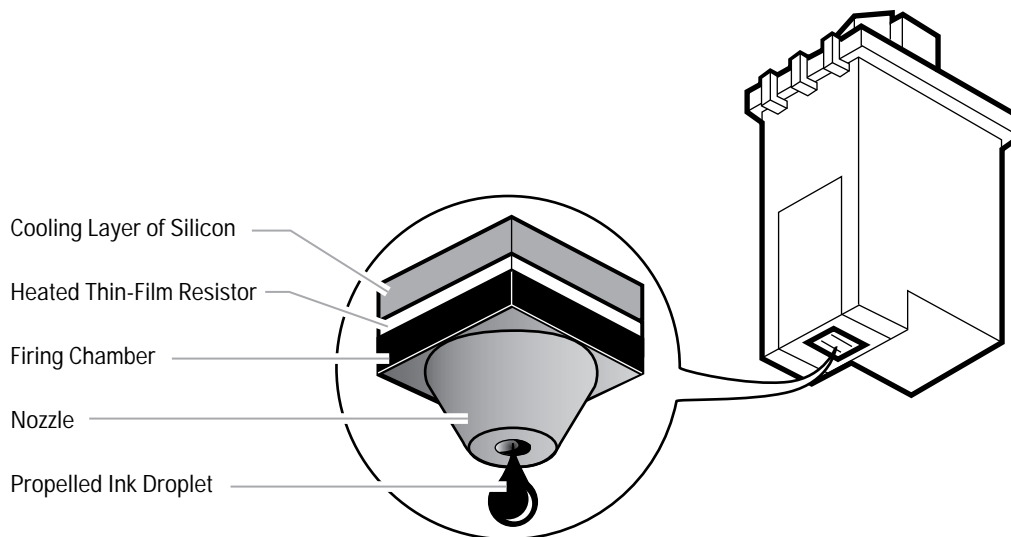


Figure 3-6. Thermal Inkjet II Technology

1. The HP DeskJet Portable prints black only; it cannot use the color print cartridge.

Printer Drivers for the PC

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Windows Printer Drivers¹

Hewlett-Packard and Microsoft provide several HP DeskJet 300 series printer driver solutions for Windows 3.0 and 3.1. This chapter identifies available printer drivers and which driver to choose for optimum performance.

Some users may choose to use the Microsoft printer driver in some circumstances, although the driver has limited capabilities when used with newer HP DeskJet printers. Microsoft's and Hewlett-Packard's printer drivers can be installed in Windows at the same time and assigned to the same port. Windows, however, allows only one default or active printer driver per port at a time. Selecting a printer as the default or active device automatically switches any other printer drivers assigned to the port to an inactive state. Note that the difference between the HP printer driver name and the Microsoft printer driver name is that the Microsoft printer driver does not have "Printer" in the driver name.

The next two sections describe Microsoft's printer drivers, included with Windows software, and Hewlett-Packard's printer drivers, included with DeskJet 300 Series printers.

1. If you are using a mac adapter for the HP DeskJet 340, refer to chapter 5.

Microsoft's Printer Drivers for Windows

The Microsoft printer drivers are printer drivers available from Microsoft or included in versions of Microsoft Windows.

Table 4-1. Microsoft's Printer Drivers for Windows

| Windows Version | Microsoft's Printer Drivers Included with Windows | Limited Microsoft Printer Driver Features |
|-----------------|---|--|
| Windows 3.0 | HP DeskJet Family Driver ² | <ul style="list-style-type: none">• Limited grayscale imaging; scanned images in particular will not print as well• Supports printer internal fonts in portrait mode only• No high quality landscape fonts• Small size; occupies only about 150K of disk space• Monochrome (black) text and graphics• No scalable fonts |
| Windows 3.1 | HP DeskJet Portable ³ | <ul style="list-style-type: none">• Limited grayscale imaging; scanned images in particular will not print as well• Supports printer internal fonts in portrait mode only• Small size; occupies only about 150K of disk space• Monochrome (black) text and graphics |

2. The HP DeskJet Family Driver included in Windows 3.0 is not compatible with Windows 3.1

3. For Windows 3.1, use the HP DeskJet 300 Series printer driver, provided with the printer or available from Hewlett-Packard, when printing to an HP DeskJet 300 Series printer.

Hewlett-Packard's Printer Drivers for Windows

The Hewlett-Packard printer drivers are printer drivers available from Hewlett-Packard or bundled with HP DeskJet 300 Series printers.

Table 4-2. Compatibility Summary of Hewlett-Packard's Printer Drivers for Windows

| Hewlett-Packard's Printer Drivers for Windows | HP DeskJet 300 Series Printer Compatibility | | | | Windows Compatibility | | Status |
|---|---|-------------|-------------|-------------|--------------------------|-------------|--------------------------------|
| | DeskJet Portable | DeskJet 310 | DeskJet 320 | DeskJet 340 | Windows 3.0 | Windows 3.1 | |
| HP DeskJet 300 Series v6.0 Printer Driver for Windows 3.1 only | | | | • | | • | Available |
| HP DeskJet 300 Series v5.0 Printer Driver for Windows 3.1 only | • | • | • | | | • | Available |
| HP DeskJet 300 Series v4.1 Printer Driver for Windows 3.1 only | • | • | • | | | • | Available |
| HP DeskJet 300 Series v4.0 Printer Driver for Windows 3.1 only | • | • | | | | • | Available |
| HP DeskJet 310 v1.0 Printer Driver for Windows 3.0 and 3.1 | • | • | | | • | • | Available |
| HP DeskJet Portable v2.0 Printer Driver for Windows 3.1 only | • | | | | | • | Available in Europe Only |
| HP DeskJet Portable v1.0 Printer Driver for Windows 3.1 only ¹ | • | | | | | • | Available In Asia Pacific Only |

1. Provided in English only.

Printer Driver Features and Capabilities

HP DeskJet 300 Series v6.0 Printer Driver for Windows (only for HP DeskJet 340)

The HP DeskJet 300 Series v6.0 Printer Driver for Windows provides the following features and capabilities:

- Windows 3.1x compatibility only
- Included with HP DeskJet 340 printers
- Supports HP's ColorSmart Technology for automatic selection of the best halftoning, intensity, and color control settings to provide the best quality printout
- Supports HP Spooler incorporated with the printer driver
- New Printing Status Monitor
- New RBPA Architecture
- New Jumbo Technology
- New Multi-Language Installer and Uninstall option
- Supports IrDA-compliant Serial Infra Red (SIR) printing
- Quick Tour with Sound Animation
- Black text and grayscale printing
- Color printing
- HP Premium Transparency and Glossy Paper Support
- Includes the HP setup program (SETUP)
- Includes print quality improvements (600x300 addressable rasterpoints per inch using Resolution Enhancement Technology)
- Improved WYSIWIG print regions for black and color printing
- Does NOT support Intellifont scalable fonts
- Does NOT support font cartridges or internal fonts
- Improved Graphical User Interface
- Displays a battery gauge icon on the computer screen when printing with a battery. This icon shows changes in the printer's battery level after the printing of each page.
- The DJPMenu program can now change all printer configuration settings; this is a DOS program included on the printer driver diskette

Summary of Other Printer Driver Versions

Table 4-3. Features and Capabilities of Other Windows Printer Drivers

| Printer Driver for Windows | Distribution of the Printer Driver | Features and Capabilities | Comments |
|--|---|---|---|
| <p>HP DeskJet 300 Series v5.0 Printer Driver for Windows</p> <p>Used with the HP DeskJet 300 Series Printers</p> | <p>Available from HP and shipped with HP DeskJet 320 printer. (Users should upgrade to the HP DeskJet 300 Series v7.0¹ Printer Driver to take advantage of the improved performance and features and Win95 support.)</p> | <ul style="list-style-type: none"> • TrueType scalable fonts (Windows 3.1) • Grayscale printing • Color printing (DeskJet 310 and 320). • Printing on transparencies and glossy paper (DeskJet 310 and 320). • Printing on special paper (DeskJet 310 and 320). | <ul style="list-style-type: none"> • Not compatible with Windows 3.0. • Includes the HPSETUP program for automatic driver installation into Windows 3.1. • Support both Microsoft Print Manager and HP Spooler distributed with the printer driver. • New Printing Status Monitor |
| <p>HP DeskJet 300 Series v4.x Printer Driver for Windows¹</p> <p>Used with the HP DeskJet 300 Series Printers</p> | <p>Available from HP. Not shipped with printer.</p> | <ul style="list-style-type: none"> • TrueType scalable fonts (Windows 3.1) • Grayscale printing • Color printing (DeskJet 310, 320 and 340). • Printing on transparencies and glossy paper (DeskJet 310, 320 and 340). • Printing on special paper (DeskJet 310, 320 and 340). | <ul style="list-style-type: none"> • Not compatible with Windows 3.0. • Includes the HPSETUP program for automatic driver installation into Windows 3.1. |
| <p>HP DeskJet 310 v1.x Printer Driver for Windows</p> <p>Used with the HP DeskJet 310 and HP DeskJet Portable Printers</p> | <p>Available from HP and shipped with the HP DeskJet 310 printer. (Users should upgrade to the HP DeskJet 300 Series v4.x Printer Driver to take advantage of the improved performance and features.)</p> | <ul style="list-style-type: none"> • TrueType scalable fonts (Windows 3.1) • Intellifont scalable fonts from 4 to 127 points¹ • Grayscale printing² • Color printing (DeskJet 310). • Printing on transparencies and glossy paper (DeskJet 310). • Printing on special paper (DeskJet 310). | <ul style="list-style-type: none"> • Compatible with Windows 3.0 and 3.1. • Comes with CG Times, Courier, and Univers typefaces. • Includes the HPSETUP program for automatic driver installation into Windows 3.0 and 3.1. |

Note

The HP DeskJet 300 Series version 7.0 will be introduced at a later date to support the DeskJet 320, 310 and the Portable.

Table 4-3. Features and Capabilities of Other Windows Printer Drivers

| Printer Driver for Windows | Distribution of the Printer Driver | Features and Capabilities | Comments |
|--|--|--|--|
| Microsoft's HP DeskJet Universal Printer Driver for Windows 3.1 Used with the HP DeskJet Portable Printer | Included with Windows 3.1 during and after 1993. | Printing fonts from: <ul style="list-style-type: none"> • Internal fonts, in portrait mode only • Optional cartridge fonts, in portrait mode only • TrueType scalable fonts | <ul style="list-style-type: none"> • Much better printing performance on systems with low memory than the scalable font printer drivers. • Supports black only printing. • Prints landscape using low resolution Windows screen fonts. |
| Microsoft's HP DeskJet Family Printer Driver Used with the HP DeskJet Portable Printer | Included with Windows 3.0 | Black Printing fonts from: <ul style="list-style-type: none"> • Internal fonts • Optional cartridge fonts, in portrait mode only | <ul style="list-style-type: none"> • Not compatible with Windows 3.1 • Supports black only printing. • Much better printing performance on systems with low memory than the scalable font printer drivers. • Prints landscape using low resolution Windows screen fonts. • Does not provide scalable fonts. |

1. Intellifont scalable fonts are supported by the HP DeskJet 310 v1.0 printer driver. Intellifont scalable fonts are not supported by the HP DeskJet 300 Series printer driver versions 4.0 or 4.1.
2. For best results when grayscale printing using the HP DeskJet 310 v1.x Printer Driver for Windows, select pattern or scatter mode in the Options dialog box.

Minimum Configuration for Hewlett-Packard's Printer Drivers

Hewlett-Packard's printer drivers require the following minimum system configuration:

| | |
|------------------------|--|
| CPU | 80386 processor or greater (for version 6.0 and above) |
| Memory | 2 MB of RAM for grayscale, and monochrome printing, 4 MB of RAM for color printing |
| Free Disk Space | 10 MB free of hard disk space (for installation of printer driver and fonts included with the printer) |

| | |
|-------------|---|
| Note | Although the HP DeskJet printer family can print with the above minimum configuration, the printing performance may be unsatisfactory to users. Increasing the computer's processing power or RAM may improve printing performance to a satisfactory level. |
|-------------|---|

Common Windows Printer Driver Problems

Table 4-4. Common Windows Problems

| Problem | Solution |
|---|---|
| Difficulty installing the printer driver. | <ol style="list-style-type: none">1. Close all other applications and memory resident programs.2. Reinstall the printer driver using the HP Printer Setup program (HPSETUP). Do not install through the Control Panel. |
| Printer won't print from Windows | <ol style="list-style-type: none">1. Make sure the printer is on, the Online light is on, and the printer is properly connected to the computer with the appropriate cable.2. Verify the correct printer model and port are selected in the Control Panel or Printer Setup menu.3. Verify the printer is the "Default" device in the Control Panel, is selected as the active printer in the application, and the correct port is selected.4. Are any of the printer lights flashing? If so, the printer detects an error (for example out-of-paper or a paper jam) and the printer is offline. See "Printer Light Indications" in chapter 6 for more information on light error patterns. |
| Illegible output when printing. | <ol style="list-style-type: none">1. Verify the proper printer model is selected in the Printer Setup menu.2. Verify the interface cable between the host and the printer is ok. (Print a directory from DOS.) |
| No transparency option available. | <ol style="list-style-type: none">1. Verify that the HP DeskJet 300 Series v6 Printer Driver is selected rather than the Microsoft printer driver included with Windows.2. If printing to an HP DeskJet Portable, DeskJet 310, 320 or 340 printer, verify the correct printer is selected in the Printer Setup menu. Otherwise, the transparency mode may not be selectable. |

Composite Black Ink

The printer driver produces composite black by mixing the colors of the color print cartridge to produce "black" ink. The printer driver uses composite black instead of true black ink because:

- The HP DeskJet 300 Series printer holds one color print cartridge *or* one black print cartridge. Therefore, any black on a color page must be printed using composite black.
- In most DOS applications, all of the black in any color graphic is printed with composite black. The printer driver does not separate the black from the color in a color graphic. Contact the DOS application vendor for color driver information.

Composite black is slower to print, depletes the color print cartridge more quickly, and the output may appear slightly greenish.

Increasing the Printing Speed

Table 4-5. Increasing the Printing Speed

| Printing Speed Factor | Solution |
|---|--|
| <i>Computer and printer configuration</i> | <ol style="list-style-type: none"> 1. Use a more powerful computer. For example, a computer with a Pentium processor rather than an 80386 processor. 2. Use the sheet feeder rather than feeding sheets manually into the printer. Paper handling is quicker with the sheet feeder. 3. When possible, use econofast mode on the printer while using either the power adapter or the rapid recharger. The printer prints faster in draft mode when using AC power. 4. Read the documentation included with the software application for tips on enhancing the output performance. |
| Windows 3.0 and 3.1 configuration | <ol style="list-style-type: none"> 1. In Printer Setup, select the correct printer model. 2. Install more memory (RAM) in the computer. <ul style="list-style-type: none"> – 2 MB minimum (640K + 384K extended) for black printing. – 4 MB minimum for color or grayscale printing. 3. Close all other applications running in Windows (screen savers and memory resident programs). 4. Delete unnecessary large Windows screen fonts. 5. When printing a draft of a color document to an HP DeskJet 310, 320 or 340 printer, print the document in grayscale with the black print cartridge rather than in color. 6. When printing drafts, select Draft or Normal Print Quality rather than Best Print Quality. (Note: Draft mode of TrueType fonts may not be supported in all applications. In this case, use Normal mode.) |
| <i>Complexity of the document</i> | <p>If possible, reduce the complexity of the document.</p> <p>Print draft copies at a lower resolution. This not only improves the printing performance for draft copies but also increases the life of the print cartridge.</p> |

Selecting a Printer Driver

If you use Microsoft Windows 3.0 or 3.1, install the HP DeskJet 300 Series printer driver provided with the printer. The accompanying printer software guide provides installation instructions, or see *Installing Windows Printer Drivers* in chapter 2.

For DOS applications, install an HP DeskJet 340 printer driver for the application you are using whenever one is available. Contact the software vendor for the latest version of an HP DeskJet 340 printer driver for the software application. For other options, see “Obtaining Printer Drivers” in chapter 6. However, when an HP DeskJet 340 printer driver is unavailable, one of these printer drivers will produce high-quality output with few limitations:¹

- HP DeskJet 320 (color)
- HP DeskJet 560C/550C (color)
- HP DeskJet 500C (color)
- HP DeskJet 520/510 (black only)
- HP DeskJet Portable (black only)
- HP DeskJet 500 (black only)

1. If an old software application has none of these printer drivers, then try the “HP DeskJet PLUS” or “HP DeskJet” printer driver.

The following table gives more detailed information about these printer driver options for particular types of software applications:

Table 4-6. Selecting Printer Drivers for HP DeskJet 300 Series Printers

| Type of Application | Printer Driver | Comments/Limitations |
|---------------------|---|--|
| <i>Windows 3.1</i> | HP DeskJet 300 Series v6.0 printer driver (included with the DeskJet 340) | <p>This printer driver supports HP DeskJet 340 printer in Windows 3.1 only, including the following features:</p> <ul style="list-style-type: none"> • Support HP Spooler incorporated with the printer driver. • New Printing Status Monitor. • New RBPA Architecture • New Jumbo Technology • New Multi-Language Installer and Uninstall option • Supports IrDA-compliant Serial Infra Red (SIR) printing • Quick Tour with Sound Animation • ColorSmart Technology • REt (HP's Resolution Enhancement technology) with DeskJet 320 and 340 only • 600 by 300 addressable rasterpoints per inch resolution (with DeskJet 320 and 340 only) • Color output with the optional Color Kit (with DeskJet 340, 320 and 310) • TrueType scalable fonts only • Transparencies • Feeding paper either manually or with the sheet feeder • Media sizes supported by the HP DeskJet 320 and 340 printer, including U.S. executive paper. |
| | HP DeskJet 300 Series v 5.0 printer driver | <p>This printer driver supports HP DeskJet 300 Series (excluding DeskJet 340) printers in Windows 3.1 only, including the following features:</p> <ul style="list-style-type: none"> • Support both Microsoft Print Manager and HP Spooler distributed with the printer driver. • New Printing Status Monitor. • ColorSmart Technology • REt (HP's Resolution Enhancement technology) with DeskJet 320 and 340 only • 600 by 300 addressable rasterpoints per inch resolution (with DeskJet 320 only) • Color output with the optional Color Kit (with DeskJet 310, 320 and 340) • TrueType scalable fonts only • Transparencies • Feeding paper either manually or with the sheet feeder • Media sizes supported by the HP DeskJet 320 printer, including U.S. executive paper. |

Table 4-6. Selecting Printer Drivers for HP DeskJet 300 Series Printers (Continued)

| Type of Application | Printer Driver | Comments/Limitations |
|---------------------|---|---|
| Windows 3.1 | HP DeskJet 300 Series v4.1 printer driver (included with the printer) | <p>This printer driver supports HP DeskJet 300 Series printers (except DeskJet 340) in Windows 3.1 only, including the following features:</p> <ul style="list-style-type: none"> • ColorSmart Technology • REt (HP's Resolution Enhancement technology) with DeskJet 320 only • 600 by 300 addressable rasterpoints per inch resolution (with DeskJet 320 only) • Color output with the optional Color Kit (with DeskJet 340, 320 and 310) • TrueType scalable fonts only • Transparencies • Feeding paper either manually or with the sheet feeder • Media sizes supported by the HP DeskJet 320 printer, including U.S. executive paper. |
| | HP DeskJet 300 Series v4.0 printer driver (not included with the printer) | <p>This printer driver supports HP DeskJet 300 Series printers in Windows 3.1 only, including the following features:</p> <ul style="list-style-type: none"> • Color output with the optional Color Kit • TrueType scalable fonts only • Transparencies • Feeding paper either manually or with the sheet feeder • Media sizes supported by the HP DeskJet 310 printer, including U.S. executive paper. |
| Windows 3.0 and 3.1 | HP DeskJet 310 printer driver v1.0 (included with the printer) | <p>This printer driver supports the HP DeskJet 310 and HP DeskJet Portable printers in Windows 3.0 and 3.1, including the following features:</p> <ul style="list-style-type: none"> • Color output with the optional Color Kit • TrueType scalable fonts only • Transparencies • Feeding paper either manually or with the sheet feeder • Media sizes supported by the HP DeskJet 320 and 340 printer, including U.S. executive paper. |
| | HP DeskJet Portable printer driver from Microsoft, <i>or</i> HP DeskJet Portable printer driver from HP | <p>This solution does <i>not</i> support color. On the other hand, this printer driver supports the HP DeskJet Portable printer in Windows 3.1 only, for monochrome output with all the following features:</p> <ul style="list-style-type: none"> • Internal fonts • TrueType scalable fonts (Windows 3.1 only) • Transparencies • Feeding paper either manually or with the sheet feeder • Media sizes supported by the HP DeskJet Portable printer, including U.S. executive paper. |

Table 4-6. Selecting Printer Drivers for HP DeskJet 300 Series Printers (Continued)

| Type of Application | Printer Driver | Comments/Limitations |
|----------------------------------|--|---|
| <i>DOS graphics applications</i> | HP DeskJet 340, 320 or 310 printer drivers | <ul style="list-style-type: none"> • The capabilities of the printer driver are dependent on the software vendor. Read the documentation included with the software application for any limitations to the printer driver. • Contact the software vendor for the latest version of the printer driver. Note that some DOS wordprocessing applications — for example, WordPerfect — can make use of their graphics capability to print color text. |
| | HP DeskJet 550C printer driver | <ul style="list-style-type: none"> • This printer driver should produce high-quality results and support all HP DeskJet 300 Series printer features, including all internal fonts, for most monochrome documents. • If importing color graphics into the document, choose the HP DeskJet 500C printer driver solution. |
| | HP DeskJet 500C printer driver | This solution results in HP DeskJet 500C printer output capabilities, including color graphics. <ul style="list-style-type: none"> • If you are using the black print cartridge, this printer driver solution does not support the additional internal fonts in an HP DeskJet 300 Series printer that are not in an HP DeskJet 500C printer. • With this printer driver, you will not be able to print on transparencies or executive size paper, since these features are not supported on the HP DeskJet 500C printer |
| | HP DeskJet Portable printer driver | This solution results in HP DeskJet Portable printer output capabilities and thus does <u>not</u> support color. |

Table 4-6. Selecting Printer Drivers for HP DeskJet 300 Series Printers (Continued)

| Type of Application | Printer Driver | Comments/Limitations |
|---|--|--|
| <p><i>DOS wordprocessing applications</i></p> | <p>HP DeskJet 340, 320 printer drivers, or DeskJet 310 printer drivers</p> | <ul style="list-style-type: none"> • The capabilities of the printer driver are dependent on the software vendor. Read the documentation included with the software application for any limitations to the printer driver. • Contact the software vendor for the latest version of the printer driver. • The DeskJet 310, 320 and 340 print text in black only. However, some DOS wordprocessing applications — for example, WordPerfect — can make use of their graphics capability to print color text. |
| | <p>HP DeskJet 550C printer driver</p> | <ul style="list-style-type: none"> • This printer driver should produce high-quality results and support all HP DeskJet 300 Series printer features, including all internal fonts, for most monochrome documents. • If importing color graphics into the document, choose the HP DeskJet 500C printer driver solution. |
| | <p>HP DeskJet 500C printer driver</p> | <ul style="list-style-type: none"> • This printer driver solution does not support the additional internal fonts in an HP DeskJet 300 Series printer that are not in an HP DeskJet 500C printer. • This printer driver solution does not support executive size paper since this feature is not supported on the HP DeskJet 500C printer. • While the DeskJet 500C printer driver supports <i>graphics</i> printing in color, like the DeskJet 300 Series printers it supports <i>text</i> printing in <i>black only</i>. However, some DOS wordprocessing applications — for example, WordPerfect — can make use of their graphics capability to print color text. |
| | <p>HP DeskJet Portable printer driver</p> | <ul style="list-style-type: none"> • This printer driver should produce high-quality results and support most HP DeskJet 300 Series printer features, including all internal fonts, for monochrome documents. • This solution does not support color for either text or graphics. |
| | <p>HP DeskJet 500 printer driver</p> | <p>This solution results in HP DeskJet 500 printer output capabilities.</p> <ul style="list-style-type: none"> • This printer driver solution does not support the additional internal fonts in an HP DeskJet 300 Series printer that are not in an HP DeskJet 500 printer. • This printer driver solution does not support transparency printing and executive size paper since these features are not supported on the HP DeskJet 500 printer. • This solution does not support color for either text or graphics. |

Installation and Printer Drivers for the Macintosh

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Host Requirements

This section identifies compatible systems and minimum configurations for the Macintosh computers.

Table 5-1. Host Requirements

| Specification | HP DeskJet 340 Printer Compatibility |
|---|---|
| Compatible Systems ¹ | <ul style="list-style-type: none">• Macintosh SE/30• Macintosh LC II, LC III• Macintosh Performa 200, 400, 550, 560, 600• Macintosh II, IIx, IIcx, IIci, IIsi, IIfx, IIvx, IIvi• Centris 610, 650• Macintosh PowerBooks 100, 140, 145, 160, 165c, 170, 180, 520, 520c, 540, 540c• Macintosh PowerBooks Duo 280, 280c• Macintosh Duo 210, 230• Macintosh Quadra 610/650/660AV/700/800/840AV/900/950• PowerMac 6100/60, 7100/66, 8100/80 |
| Hardware Requirements Disk storage System memory: <ul style="list-style-type: none">• System 7.0.1 or later | <ul style="list-style-type: none">• Hard disk drive with at least 5 MB of free disk space— At least 4 MB of system memory |
| System Software Requirements | <ul style="list-style-type: none">• System 7.0.1 or later |

¹ The HP DeskJet 340 printer is compatible with all Apple Macintosh computers using the 68030 chip and above.

Hard Disk Space Requirements

HP DeskJet 340 printer requires the Macintosh computer to have a hard disk. The table below lists the disk space needed for the printer drivers and the fonts included with the printers.

Table 5-2. Hard Disk Space Needs

| HP DeskJet 340 | |
|------------------------------------|-------|
| File or Font | Size |
| Printer Driver | 705 K |
| Spooler | |
| HP Background | 15 K |
| HP Print Monitor | 68 K |
| Printer Fonts | |
| ITC Avant Garde Gothic Book | 37 K |
| ITC Avant Garde Gothic Book Demi | 36 K |
| ITC Bookman Light | 43 K |
| ITC Bookman Light Italic | 43 K |
| ITC Bookman Demi | 43 K |
| ITC Bookman Demi Italic | 44 K |
| Helvetica Narrow | 54 K |
| Helvetica Narrow Bold | 55 K |
| New Century Schoolbook | 50 K |
| New Century Schoolbook Italic | 50 K |
| New Century Schoolbook Bold | 51 K |
| New Century Schoolbook Bold Italic | 51 K |
| ITC Zapf Chancery Medium Italic | 55 K |
| Milestones | 50 K |
| ITC Zapf Dingbats | 58 K |
| Bernhard Modern | 45 K |
| Cooper Black | 53 K |
| Dom Casual | 58 K |
| PL Torino Outline | 63 K |
| CG Poster Bodoni | 53 K |
| Graphite Light | 48 K |
| Graphite Light Narrow | 48 K |
| Lucida Casual | 54 K |
| Lucida Casual Italic | 56 K |
| PL Benguiat Frisky | 48 K |
| Phyllis | 50 K |
| Signet Roundhand | 60 K |
| ColorSync | 80 K |
| ColorSync Profile | 100 K |
| ColorSync System | 23 K |
| HP CMM | 110 K |
| HP Printer Guide | 135 K |

If the system disk or system folder is too full, remove any printer drivers, applications, fonts, or documents that are not used frequently.

Caution Before removing anything from the hard disk, be sure to make backup copies of items that may be needed in the future. New printers come with printer drivers. However, it is good practice to copy printer drivers to a backup disk before removing them from the hard disk. Be sure to remove only printer drivers from the system folder. Do not remove any other files from the system folder.

Cabling and Interface Pinout Information

Cable Requirements

The HP DeskJet 340 printer can be connected to a Macintosh computer with a Macintosh adapter.

Table 5-3. Cable Requirements

| Connection | HP order Number |
|--|-----------------|
| Mac Adapter for HP DeskJet 340 (Europe only), includes printer software and cable | C3278A |
| Mac Adapter for HP DeskJet 340 (US & Asia-Pacific only), includes printer software and cable | C3279A |

Interface Pinout Information

The Macintosh Adapter has an 8-pin mini-circular DIN interface connector port.

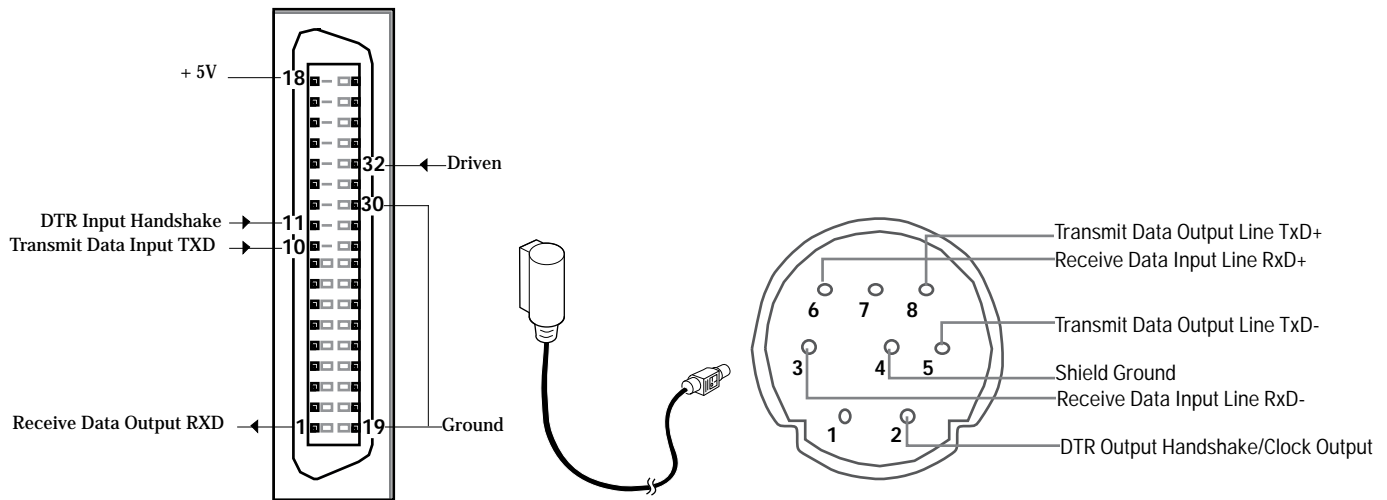


Figure 5-1. Connector Port for the Macintosh Adapter

Caution Do not attempt to insert an interface cable into the Apple Desktop Bus ports — the keyboard or mouse sockets on the back of the computer. The pinout configuration and number of pins for a keyboard are different from those for a printer interface cable.

Table 5-4. The Mac Cable Pin Assignments at the Centronics Connector

| Pin Number | Signal | Description |
|--|-------------------------------------|--|
| 1 | Receive Data Output RXD | This pin carries the bit serial data in logic level transmitted to the printer from the computer. |
| 10 | Transmit Data Input TXD | This pin carries the bit serial data in logic level transmitted to the computer from the printer. |
| 11 | DTR Input Handshake/ Clock Input | This pin carries the DTR logic level signal in asynchronous mode. |
| 18 | + 5V | This pin is to be connected to the printer's +5V. |
| 19 – 30 | Ground | These pins are to be connected to the printer's ground. |
| 32 | Driven | The printer uses this pin to enable or disable the pin 2, 5 and 8 at the 8 pin Mini DIN connector. The 8 pin Mini DIN's pin 2, 5 and 8 are output pins when the Driven pin is pulled low (0V) and in high impedance when the Driven pin is pulled high (5V). |
| 2 – 9, 12 – 14, 15 – 17, 31, 33 – 36 | Unused | |

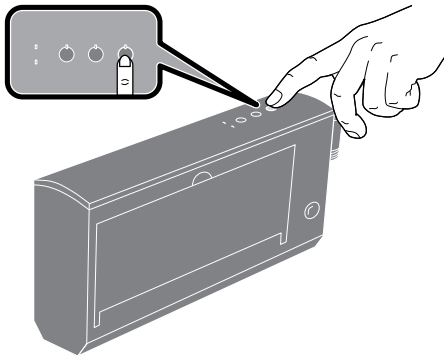
Table 5-5. The Mac Cable Pin Assignments at the 8 Pin Mini DIN connector

| Pin Number | Signal | Description |
|------------|-----------------------------------|--|
| 1 | Unused | |
| 2 | DTR Output Handshake | This pin sends DTR signal (asynchronous mode) or Clock signal (synchronous mode) from the printer to the computer. In asynchronous mode, the printer indicates when it is ready to receive information from the computer. Data transmission is enabled when DTR Output Handshake is set on (+5V) by the printer. Data transmission is disabled when DTR is set off (-5V) by the printer. In synchronous mode, the printer sends the Clock signal to synchronise the transmission between the printer and the computer. |
| 3 | Receive Data Input Line RxD- | Bit serial data transmitted to the printer from the computer. Used in conjunction with RxD+ (pin 6) |
| 4 | Shield Ground | Electrical ground line for connecting the cable shield. |
| 5 | Transmit Data Output Line TxD- | Bit serial data transmitted to the computer from the printer. Used in conjunction with TxD+ (pin 8). |
| 6 | Receive Data Input Line RxD+ | Bit serial data transmitted to the printer from the computer. Used in conjunction with TxD- (pin 3). |
| 7 | Unused | |
| 8 | Receive Data Output Line TxD+ | Bit serial data transmitted to the printer from the computer. Used in conjunction with TxD- (pin 5). |

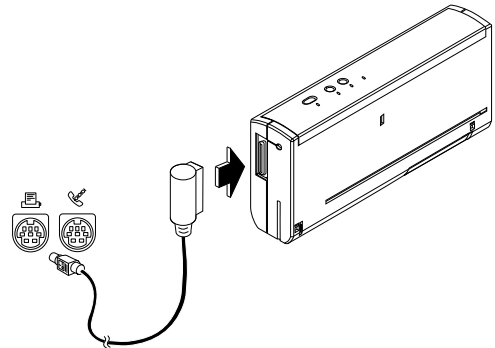
Connecting the Cable to a Macintosh Computer

- The HP DeskJet 340 printer can be connected to a macintosh computer with a Macintosh Adapter.

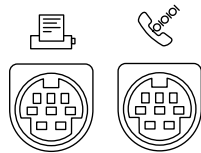
1. Make sure that both the printer and the computer are turned off.



2. Connect one end of the Macintosh Adapter cable firmly to the printer.



3. Connect the other end of the Macintosh Adapter cable to *either* the modem port *or* the printer port on the back of the computer.



Printer Software Installation Outlines

The printer software includes printer drivers *and* fonts. The following are only *outlines* of the software installation process. For more specific printer software installation information, see the documentation included with the printer.

Installing the Printer Driver¹

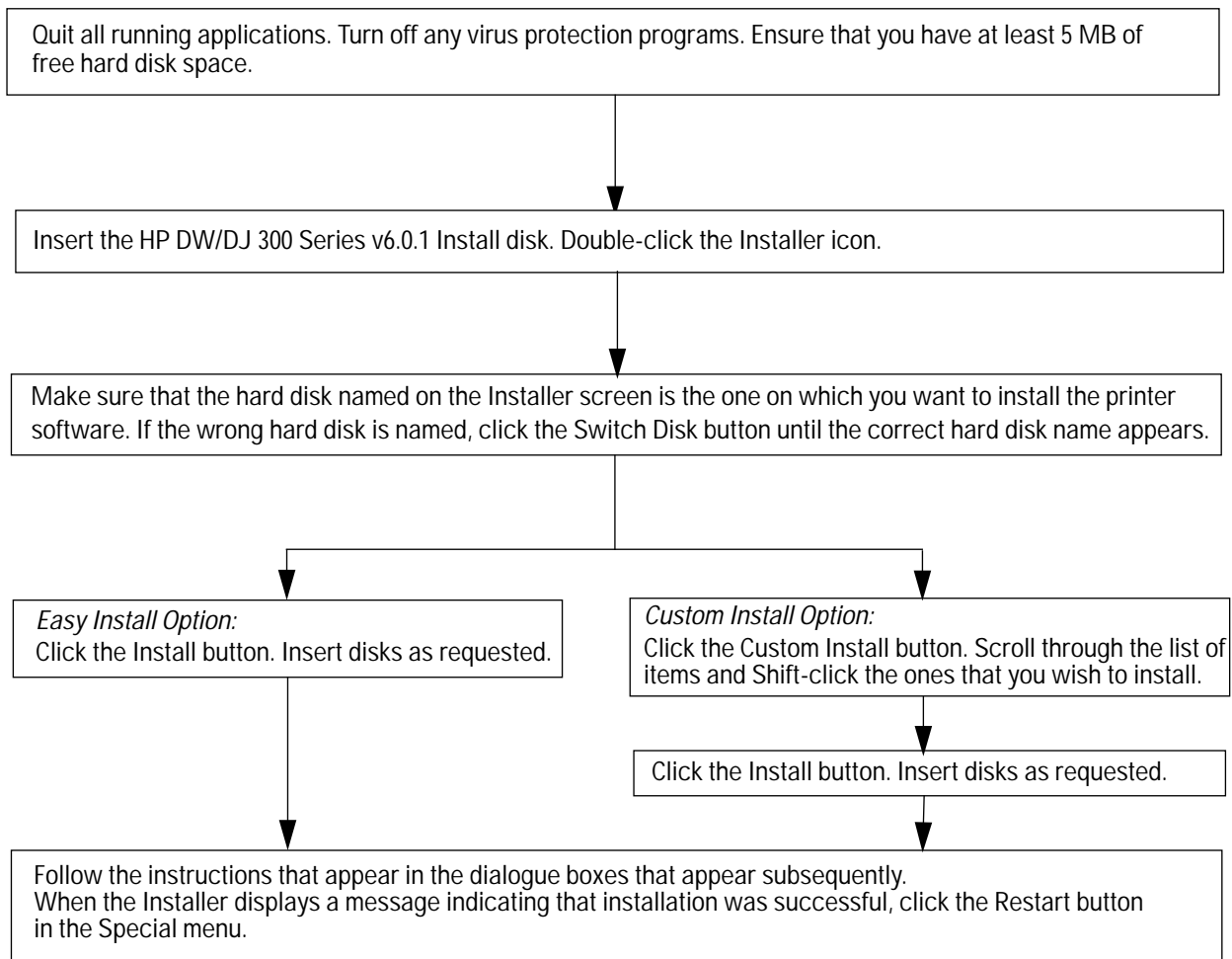


Figure 5-2. HP DW/DJ 300 Series v6.0.1 Printer Software Installation Outline

1. You can only install the HP DW/DJ 300 Series v6.0.1 printer driver if you are using System 7.0.1 and above.

Notes

The Easy Install option installs both the printer driver, as well as the fonts. If hard disk space is limited, delete one of the printer drivers after installation. See the documentation included with the printer driver for instructions.

Table 5-6. Additional Printer Driver Installation Information

| Topic | Information |
|-----------------------------|---|
| Installing fonts | See "Installing Fonts" in this chapter or the documentation included with the printer software disks for instructions on loading fonts. |
| Choosing the printer driver | After the printer driver and fonts are installed, select the printer driver in the Chooser from the Apple menu on the Macintosh desktop. <i>Be sure the AppleTalk is inactive.</i> See "Choosing the Printer Driver" later in this chapter. |

Installing Fonts

HP DeskWriter/DeskJet 300 Series Printer Driver Software

As of the printing of this guide, the current printer driver for the HP DeskJet 340 is the HP DeskWriter/DeskJet 300 Series Version 6.0.1 Printer Driver.

The Printer Software supplied with the HP DeskJet 340 includes 27 TrueType fonts and the printer driver on two high density disks. Easy Install will install both the printer driver *and* the fonts in the correct locations on the user's hard disk. See the table below for detailed information on where fonts are installed.

For more detailed information on installing fonts, see the Readme file on the Install disk and the *HP DeskJet 300 Series Printer Software Guide* included with the software.

Table 5-7. TrueType Fonts Installation

| System Version | Items | Location |
|----------------------|------------------|----------|
| System 7.0 and later | TrueType fonts → | System |
| System 7.1 and later | TrueType fonts → | Font |

Choosing the Printer Driver

Use the Chooser to select the printer driver, printer, and port.

To choose a printer, follow these steps:

- First call up the Chooser from the Apple menu.
- Select the HP DeskWriter/DeskJet 300 Series printer icon.
- Select either the printer or modem port on the right side of the screen.

Make AppleTalk *inactive* by clicking the Inactive button. See Figure 5-3.

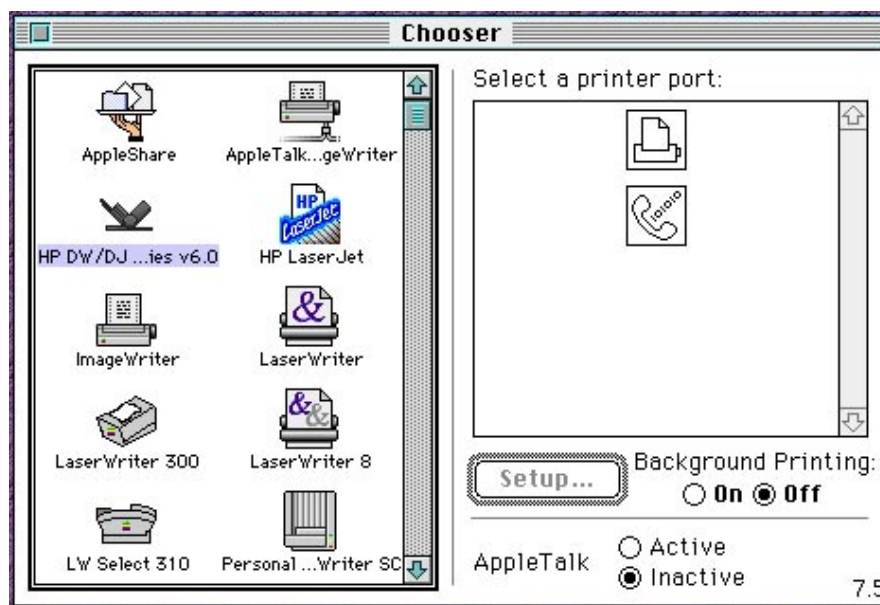


Figure 5-3. Choosing the HP DeskWriter/DeskJet 300 Series v6.0.1 Printer Driver

Whichever printer driver you have selected, select Background Printing by clicking the On button.

Finally, close the Chooser by clicking the close box in the upper left hand corner of the Chooser window.

Printer Driver Dialog Boxes

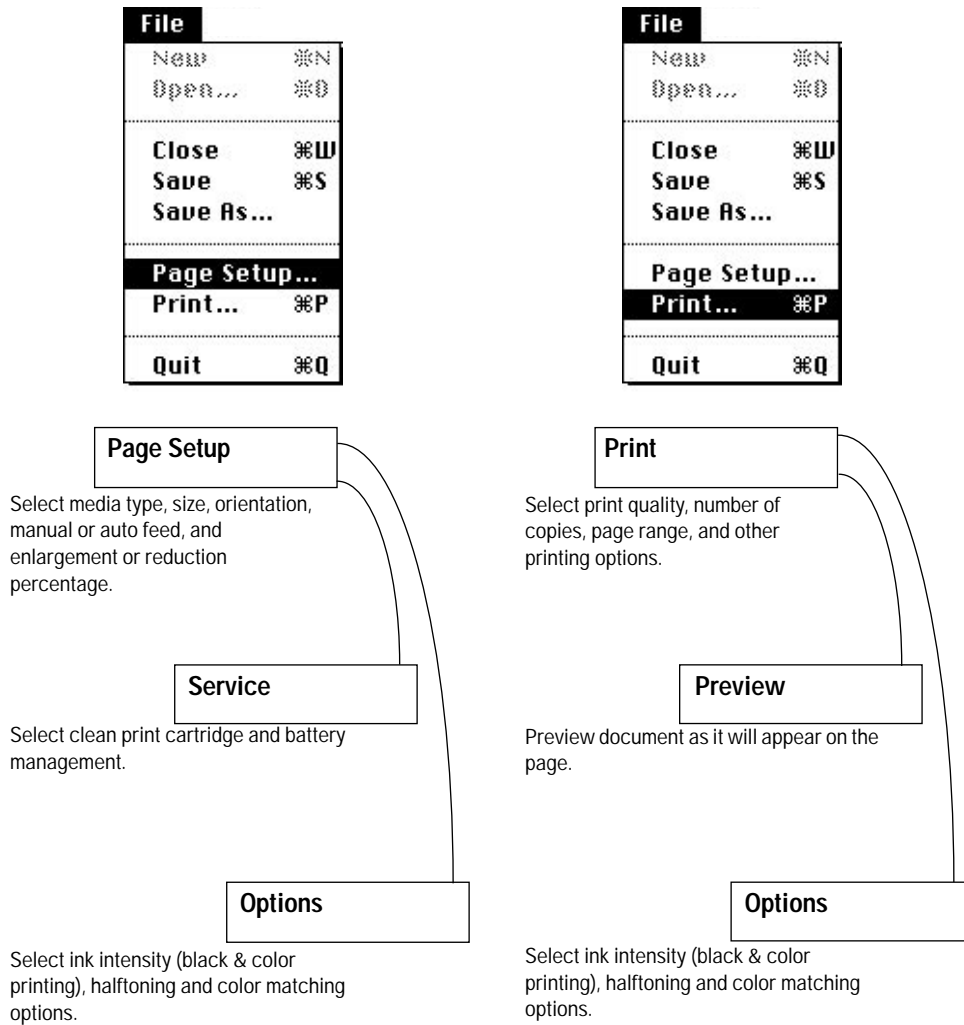


Figure 5-4. HP DeskJet 340 Printer Driver Dialog Box Roadmap

Optimizing Memory

Since HP DeskJet 340 printer driver image the pages in system memory, the amount of available system memory affects printer performance—the more memory available, the less time required to print a page. This section describes how the HP DeskWriter/DeskJet 300 Series Version 6.0.1 printer driver uses memory.

The Macintosh RAM is a large stack:

- HP DeskJet 340 printers require a total memory size of at least 4 MB on System 7.
- Recommended total memory size for *color and grayscale* printing is 4 MB *minimum*.
- Additional memory (5 MB or more) increases flexibility in working with applications.

The system heap loads into the lower portion of computer memory. The system heap includes the system code, the Finder code, and free allocated memory for the system heap.

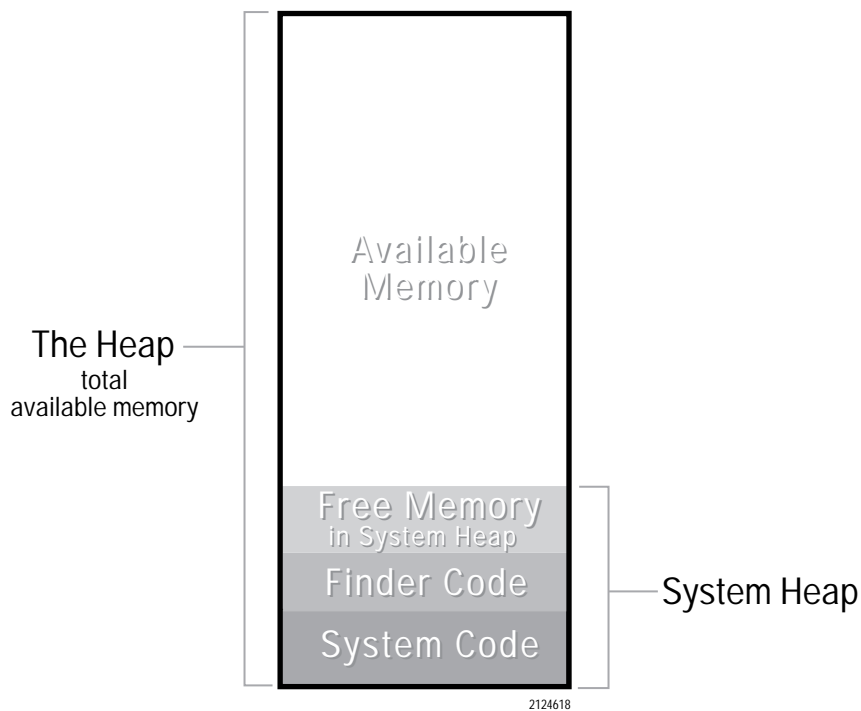


Figure 5-5. Macintosh Memory Stack

Running Under System 7 Finder

Under System 7 Finder, applications load into memory from the *top* (high memory) portion of the stack.

- Applications may have as much or little memory as they need, limited only by the amount of memory available.
- Additional applications load into memory from the top of the available memory.
- Any number of applications may be loaded, limited only by the amount of available memory.

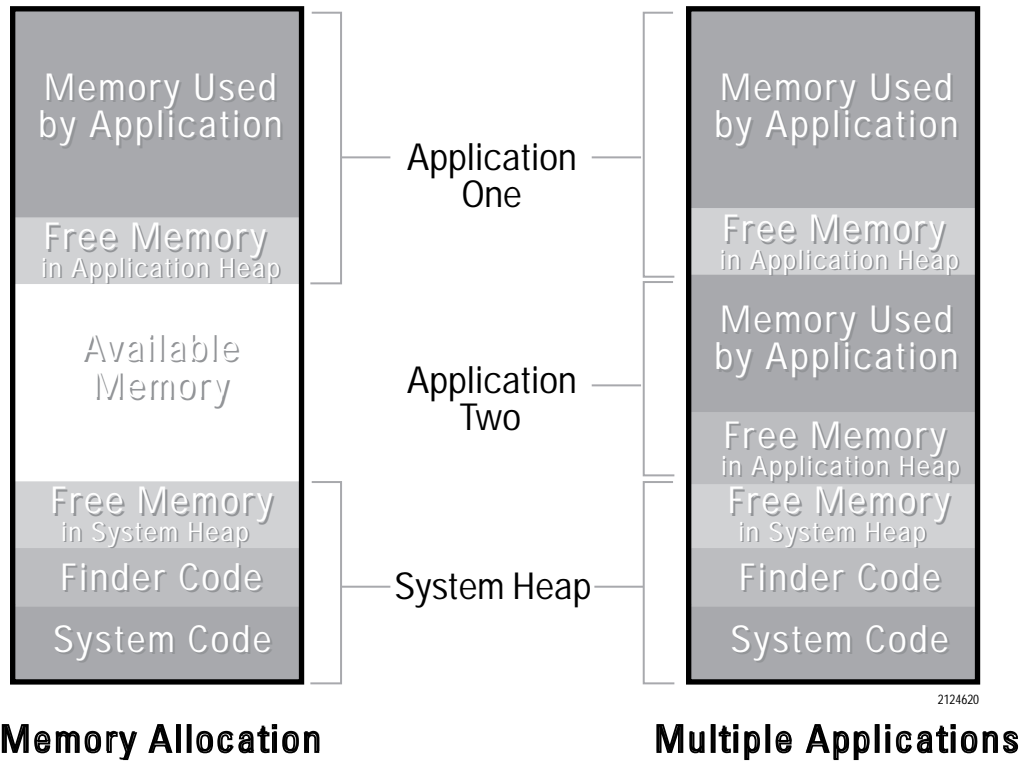


Figure 5-6. Memory Allocation Under System 7 Finder

Increasing the Partition Size for an Application

The size of the application heap is set in the Get Info dialog box. In general, the application size should be set 300K larger than the default for the application. To increase the partition size for an application, follow these steps:

1. Quit the application if it is currently running.
2. Click the application icon to select it.
3. Choose Get Info from the File menu.
4. Click the Current size box under Memory.
5. Enter a new number that is 300 larger than the Suggested size or the existing current size.
6. Close the Get Info dialog box and start the application.

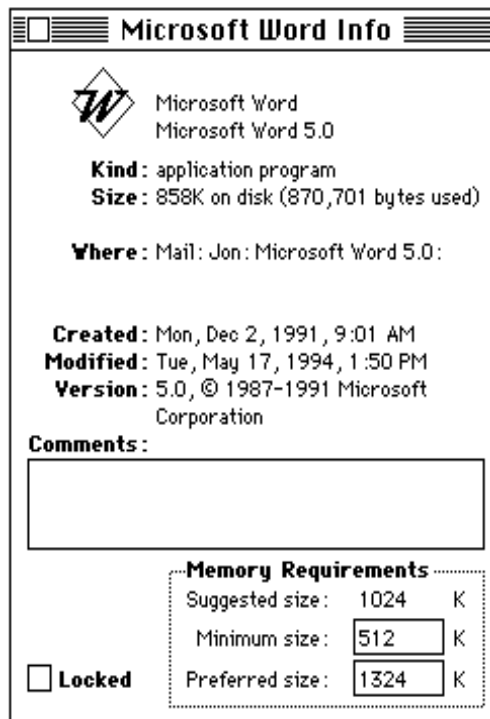


Figure 5-7. The Get Info Box

Optimizing the Macintosh Computer for Printer Performance

HP DeskJet 340 printer drivers are designed to deliver the best possible performance. The Installer program on the latest version printer drivers automatically increases System 7 memory size. However, printer output speed can be affected by the following:

- the amount of system memory available in the Macintosh computer. This amount depends on:
 - the number of applications open at the same time.
 - the start-up screen and number of initialization routines (INITs) or Control Panel Devices (CDEVs) stored in the System folder of the hard disk.
 - the degree of fragmentation of system memory.
 - the amount of memory reserved in the RAM cache.
- the amount of disk space available on the hard disk. This amount depends on:
 - the number of printer drivers, documents, and applications stored on the hard disk. Note that some of these are not frequently used and can be considered candidates for deletion. (This factor is most relevant when the hard disk is nearly full.)
 - the number of fonts and desk accessories installed in the System folder.
 - the degree of fragmentation of hard disk space.

Most techniques for optimizing printer performance require freeing Macintosh memory for the printer driver to use.

Table 5-8. Optimizing the Macintosh Computer for HP DeskJet 340 Printer

| Recommendation | Description |
|-------------------------------------|---|
| Install more RAM in the computer. | The HP DeskJet 340 printer <i>require</i> at least 4 MB of memory. Color and grayscale printing <i>require</i> at least 4 MB. Use additional memory (5 MB or more) to increase flexibility in using applications. |
| Free system memory. | Close all other applications running in the System 7 Finder. Close as many windows as possible. Remove start-up screens and INITs or CDEVs from the System folder. (Removing one or two of these files, however, may or may not significantly affect printer speed, depending on the size of the files.) Use background printing only with sufficient RAM, or turn off background printing. Read the Macintosh documentation for information on improving system performance. |
| Turn off or decrease the RAM cache. | The RAM cache allows some memory to be reserved where software applications can store information for quick retrieval. Turning off the RAM cache in the Control Panel increases the amount of system memory available for the printer driver. For information on turning off the RAM cache, see "Turning Off or Decreasing the RAM Cache" later in this section. |

Turning Off or Decreasing the RAM Cache

1. From the Apple menu, choose Control Panels.
2. Double-click on Memory.
3. Click the arrows next to the Cache Size box to reduce the disk cache to 32K. You must use at least a 32K cache.

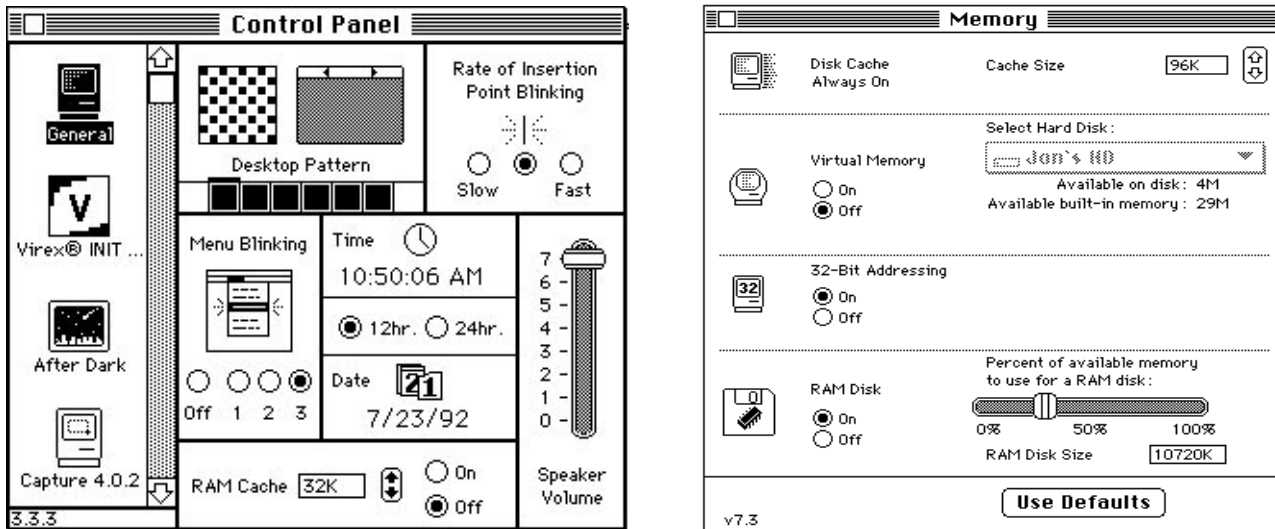


Figure 5-8. Turning Off or Decreasing the RAM Cache

Additional Printing Information

Table 5-9. Additional Printing Information

| Topic | Information |
|--|---|
| HP Printer Guide (This works on System 7.5 only) | Choose the HP Printer Guide from the Help menu in the upper right corner of the menu bar. This will give you information on Basic Printing Setup, Printing Option, Printing in Color and HP Supplies. |
| Balloon Help (System 7 only) | Choose Show Balloons from the Help menu in the upper right corner of the menu bar. If Show Balloons is not an option in the menu, Balloon Help is already <i>on</i> . To turn Balloon Help <i>off</i> , choose Hide Balloons from the Help menu icon. |
| Avoiding print option conflicts | Some applications provide printing option boxes, buttons, or fields in addition to the Page Setup and Print dialog boxes. A conflict can occur when the functions of these options are also covered by the printer driver. When the printer driver and software application both try to perform the same function, the result can be unexpected output. It is a good practice to ignore extra options provided by an application, if a similar option is already handled through the printer driver. For example, if an application provides an option similar to Complex Color Printing, do not select both options. It is usually preferable to choose the option provided by the printer driver. |
| Printing from preview | When previewing a range of pages, some of which contain black/text and some color/graphics, two or more of those pages can be printed. However, when trying to print only one of those pages, the printer driver prompts to change the print cartridge after that page has been printed. It is not necessary to switch print cartridges; simply click <i>OK</i> when the message appears. With a document/print cartridge mismatch (for example, the black print cartridge is installed when trying to print a color page), the printer driver prompts to change the print cartridge before printing. As usual, either switch print cartridges or proceed with the installed print cartridge. When the printer has finished printing the page, a message indicates that the remainder of the document is in a different color. It is not necessary to take any action other than clicking <i>OK</i> . |
| Printing the 8 basic colors from a Macintosh computer | Along with the type of Macintosh computer, the software application determines how color output appears. If an application supports only eight colors, the color output will look the same, whether using a QuickDraw, Color QuickDraw, or 32-bit QuickDraw Macintosh computer. In addition, some applications send only black-and-white data to the printer when running on a non-color QuickDraw Macintosh computer. |
| Printing a color document with the black print cartridge | Printing draft copies of a color document with a black print cartridge saves the color print cartridges and reduces the time to print the document. For best results when printing a color image with a black print cartridge, select Print with Blackand Best quality in the Print dialog box and Scatter blending in the Options dialog box. |

Table 5-9. Additional Printing Information (Continued)

| Topic | Information |
|---|---|
| Unexpected print cartridge swap message (black pages seen as color) | <p>Sometimes the HP DW/DJ 300 Series v6.0 printer driver interprets black-and-white data as color. The printer driver may also identify grayscale scanned images as color. Some applications, such as Photoshop and Pixel Paint Professional, use black and white pixels from a color palette to draw black-and-white objects. Because the pixels originate from a color palette, the printer driver interprets them as color data.</p> <p>When attempting to print a single page document with the black print cartridge installed, the printer driver provides a message that the document contains color and an option to change print cartridges or continue printing. Click Continue to print the document with the black print cartridge. The color print cartridge will not produce satisfactory results.</p> <p>With a multipage document, one or more of the black pages will be printed in composite black with the color print cartridge. Reprint the pages where the error occurred, making sure that the black print cartridge is installed. From the Print dialog box, select the "Print with black" setting in the pop-up box. The printer will now print the pages with the black print cartridge. When printing is complete, return to the Print dialog box and select the "Print with auto" setting in the pop-up box so that the printer driver warns of future document/print cartridge mismatches.</p> |
| Printed text and graphics are out of alignment | <p>Sometimes, text and graphics that align on the computer screen are out of alignment on the printed output. If available in the application, try turning on Fractional Widths in the Page Setup dialog box to obtain a closer match of text and graphics alignment. The printout will appear closer to what is on the screen.</p> |

Problem Resolution

Chapter Contents

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| Overall Troubleshooting | 6-3 |
| Troubleshooting Battery Pack and AC Operations | 6-4 |
| Solving Battery Pack Problems | 6-5 |
| Solving Power Adapter and Rapid Recharger Problems | 6-6 |
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Troubleshooting Tools

The following tools are recommended for troubleshooting the HP DeskJet 300 Series printers:

- Dial caliper or accurate linear scale
- Tissue paper
- Cotton swabs
- Rigid card stock
- Clean soft cloth
- Voltmeter (used to check the voltage out of the power adapter¹, a rapid recharger, and a battery pack)

1. Some **HP DeskJet Portable** printers may have a country-specific power module instead of a worldwide power adapter and power cord.

Overall Troubleshooting

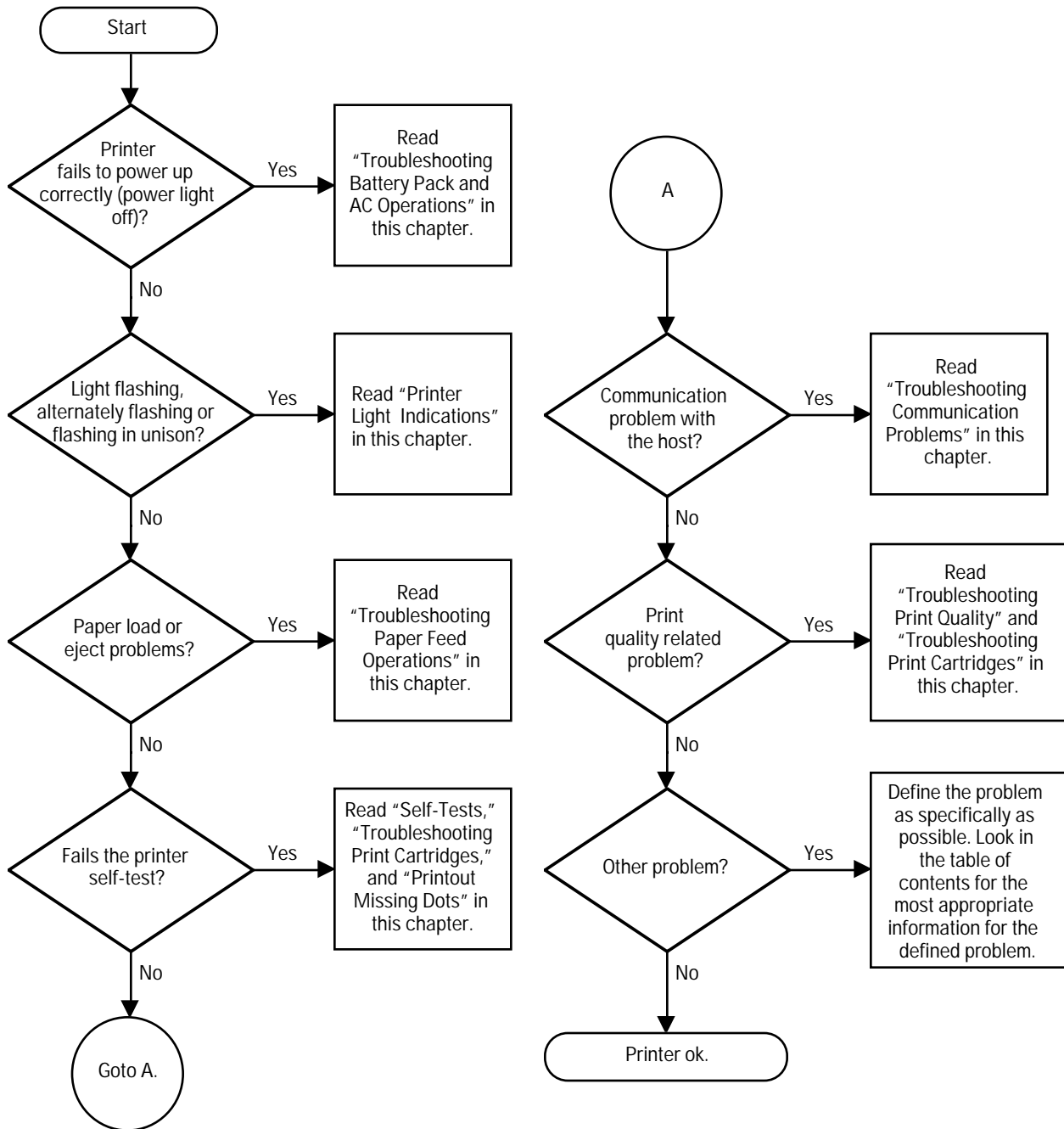


Figure 6-1. Overall Troubleshooting

Troubleshooting Battery Pack and AC Operations

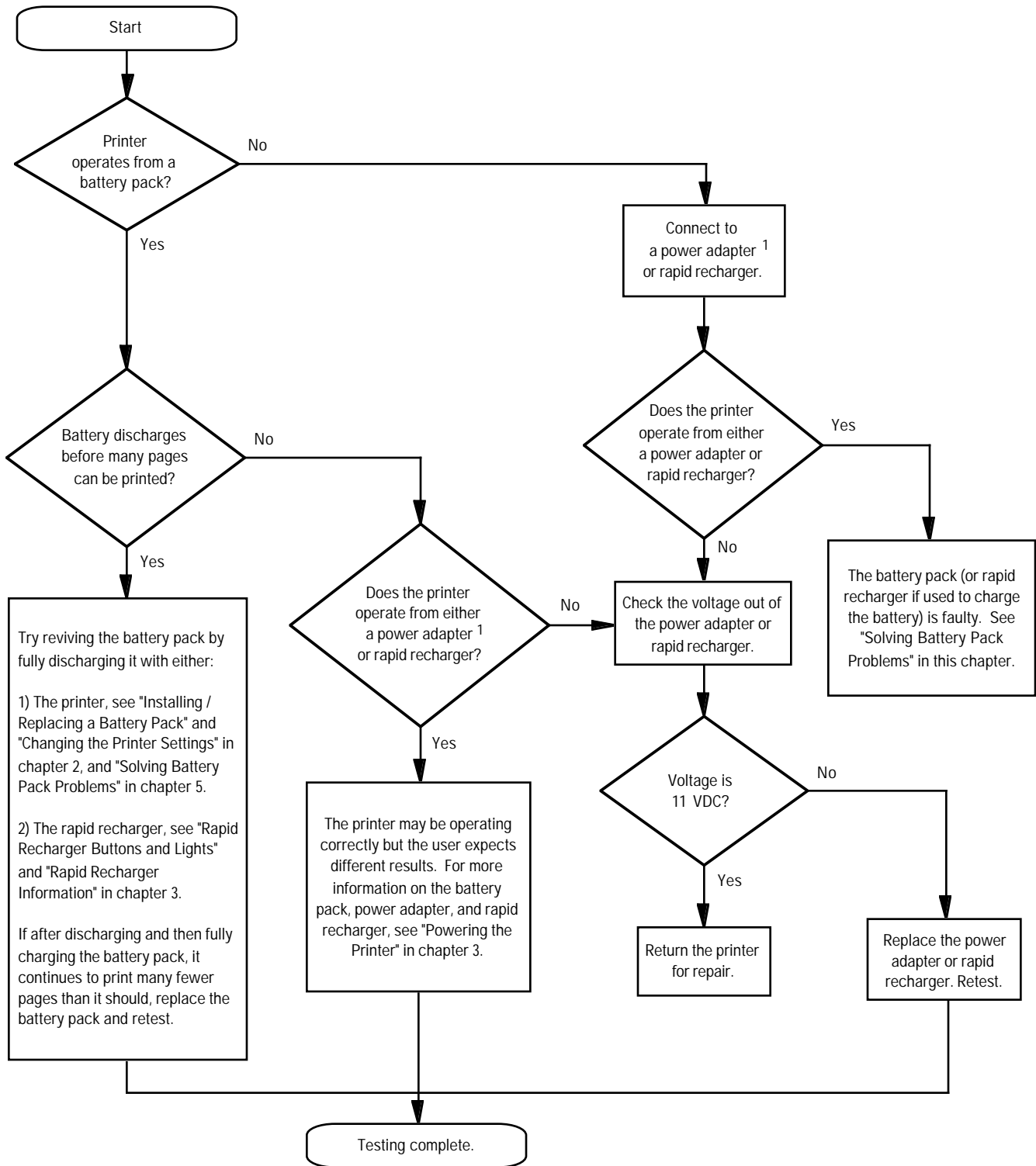


Figure 6-2. Troubleshooting Battery Pack and AC Operations

1. Some HP DeskJet Portable printers may have a country-specific power module instead of a worldwide power adapter.

Solving Battery Pack Problems

Table 6-1. Solving Battery Pack Problems

| Problem | Solutions |
|---|--|
| <p><i>Printer will not charge the battery pack</i></p> | <ol style="list-style-type: none"> 1. Verify that the power adapter¹ is plugged into a powered AC receptacle. 2. The user may not be pressing the Power button long enough. Press the Power button until the Busy light turns on. 3. Perform the printer self-test. Unless the printer prints a battery level gauge in the self-test, the printer does <i>not</i> detect a battery pack installed in the printer and cannot charge or discharge the battery pack. In that case, check the following: <ul style="list-style-type: none"> – Verify that the battery pack is the correct type. See table 1-7. – Verify that the contacts in the printer battery compartment or on the battery pack are not damaged. – Verify that the contacts on the battery pack are not covered by tape. – Verify that the battery pack is properly installed in the printer. See “Installing/Replacing a Battery Pack” in chapter 2 of this manual, or similar instructions in the <i>User’s Guide</i>. 4. If the battery pack is new, the battery must be fully charged before use. 5. If the printer does not charge the battery pack while printing, try allowing the printer to charge the battery pack when there is no printing activity. 6. If you are trying to charge the battery pack with the host computer <i>off</i>, try switching the printer <i>off</i> too. Under certain conditions, certain brands of host computers will not permit the printer to charge a battery pack if the computer is <i>off</i> and the printer is <i>on</i>. 7. If an optional rapid recharger is available, try to revive the battery pack by first fully discharging it and only then charging it. Then see if the printer will detect and charge the battery pack. 8. In general, if the rapid recharger charges the battery pack but the printer will not, the printer is probably faulty. If the recharger does <i>not</i> charge the battery pack, the battery pack is probably faulty. |
| <p><i>Optional rapid recharger will not charge the battery pack</i></p> | <ol style="list-style-type: none"> 1. Verify that the rapid recharger is plugged into a powered AC receptacle. 2. The rapid recharger charges one battery at a time. If the rapid recharger is charging a pack on the far side, it cannot at the same time charge a pack on the near side. 3. Verify that the battery pack is the correct type. See table 1-7. 4. Verify that the contacts on the rapid recharger and battery pack are not damaged. 5. Verify that the contacts on the battery pack are not covered by tape. 6. Verify that the battery pack is properly installed on the rapid recharger. See the documentation included with the rapid recharger. 7. Revive the battery pack by first fully discharging it and only then charging it. You can carry out this operation either in the printer or on a rapid recharger. 8. Try charging the battery pack on the other side of the rapid recharger. If the recharger charges the battery pack on one side but not the other, the recharger is faulty. Replace the rapid recharger. 9. Try charging a different battery pack. <ul style="list-style-type: none"> – If the second pack charges, the original pack is faulty. Replace the battery pack. – If the second battery pack does <i>not</i> charge, the rapid recharger is probably faulty. Replace the rapid recharger. 10. Disconnect the recharger from the AC power source, wait several minutes, then reconnect the rapid recharger to AC power and try charging the battery pack again. |

1. Some HP DeskJet Portable printers may have a country-specific power module instead of a worldwide power adapter.

Notes

- If the printer is connected to a power adapter or an optional rapid recharger, the printer always operates from the AC power. To operate the printer from a battery pack, you must disconnect the rapid recharger or power adapter from the printer.
- If a battery pack is attached to a rapid recharger, the printer continues to operate from the AC power. To operate the printer from the battery pack, disconnect the recharger from the printer, remove the battery pack from the recharger and install the battery pack in the printer. See “Connecting Power to the Printer” in chapter 2.

Solving Power Adapter¹ and Rapid Recharger Problems**Table 6-2. Solving Power Adapter and Rapid Recharger Problems**

| Problem | Solution |
|--|---|
| <i>Optional rapid recharger will not charge the battery pack</i> | See “Battery Pack Problems” in this chapter. |
| <i>Printer will not operate from the power adapter¹</i> | <ol style="list-style-type: none"> 1. Verify that the power adapter connector is fully seated in the printer’s power socket. 2. The user may not be pressing the Power button long enough. Press the Power button until the Busy light turns on. 3. Check the voltage out of the power adapter. Replace the power adapter if it is faulty. 4. The printer may be faulty. Return the printer for repair. |
| <i>Printer will not operate from an optional rapid recharger</i> | <ol style="list-style-type: none"> 1. The user may not be pressing the Power button long enough. Press the Power button until the Busy light turns on. 2. Check the voltage out of the rapid recharger. There is no power light on the rapid recharger. 3. Try using the power adapter included with the printer. <ul style="list-style-type: none"> – If the printer operates from the adapter but not the rapid recharger, the recharger is faulty. Replace the rapid recharger. – If the printer does not operate from the power adapter <i>or</i> the rapid recharger, the printer may be faulty. Return the printer for repair. 4. The rapid recharger may have been exposed to overvoltage. Unplug the rapid recharger, then plug it back into a powered receptacle from 100 to 240 Vac. |

1. Some **HP DeskJet Portable** printers may have a country-specific power module instead of a worldwide power adapter and power cord. Power modules, unlike power adapters or rapid rechargers, can operate from only one country-specific voltage.

Solving Infrared Adapter Problems

Table 6-3. Solving Infrared Adapter's Problems

| Problems | Solutions |
|--|---|
| <i>The infrared adapter's light is off or blinking</i> | <ul style="list-style-type: none">• Move the printer nearer to the PC and try again.• Rotate the swivel head of the infrared adapter so that it points at the computer's infrared port.• Make sure that no obstacle is blocking the light path between printer and computer.• Clean the infrared adapter's lens and the lens of the infrared port on the computer.• Check that there are no other infrared devices operating in the immediate area. It is also possible that sunlight or bright artificial light can interfere with infrared communication.• Make sure that the computer's infrared port is IrDA-compliant. Look for the IrDA logo in the computer documentation.• If you are using a DOS application, check the configuration of your printer software. You may need to contact the software supplier for specific setting or upgrade details.• Check that your computer's infrared port is properly configured for printing.• If you are using Windows, check that the PC is configured to use the infrared port. |
| <i>Both the printer's power light and the infrared adapter's lighting is not printing.</i> | <ul style="list-style-type: none">• Remove the infrared adapter and connect the printer to the computer with a printer cable. If the printer doesn't work, refer to the next section on Troubleshooting the printer. If the printer prints with the printer cable, reset the printer.<ol style="list-style-type: none">1. Turn off the printer.2. Plug in the power adapter.3. Press and hold the power button for about 5 seconds until the power light begins to blink.• If resetting the printer doesn't solve the problem, the infrared adapter may need repair. See your HP authorized reseller. |

Troubleshooting the Printer

Self-Tests

Power On Self-Test

HP DeskJet 300 Series printers perform a power-on self-test when the printer is turned on to test printer operation. There is no printout associated with the power-on self-test.

There are two possible outcomes to the power-on self-test:

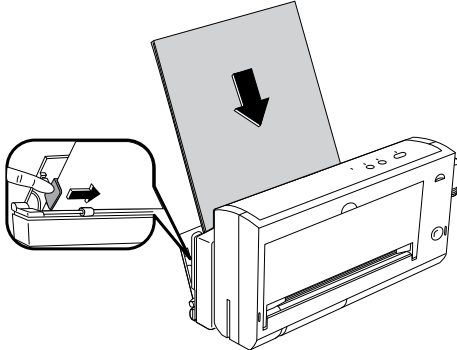
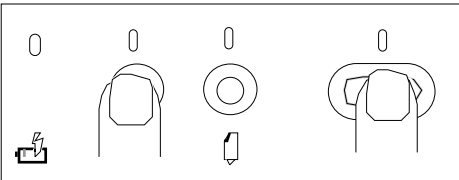
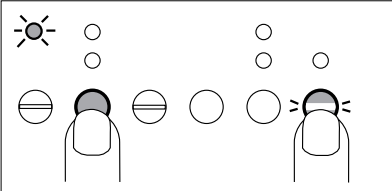
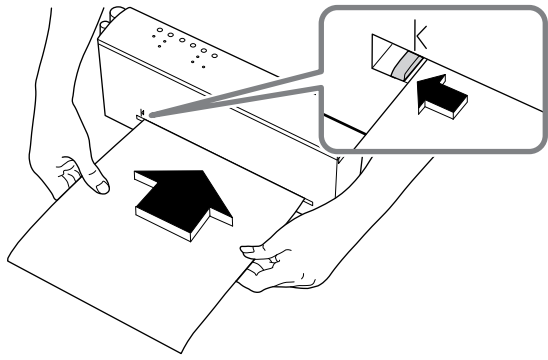
- If the printer *passes* the power-on self-test, the printer will power up with its current default settings and the Online light will be lit.
- If the printer *fails* the power-on self-test, the printer lights will blink in a pattern. Most error patterns have one printer light alternately blinking with all of the other printer lights. For more information on printer light error patterns, see "Printer Light Indications" in this chapter.

Printer Self-Test

The printer self-test pattern printed with a black print cartridge installed shows the following:

- An alphabetic character, following the letters “ID,” identifying the type of print cartridge installed.
- A nozzle test pattern that identifies any ink nozzles that are not printing. If the diagonal line has a gap, one or more nozzles may be clogged and you may need to clean the print cartridge.
- The printer firmware version and date.
- A battery capacity gauge indicating the charge level of the battery. This gauge appears only when a battery pack is installed in the printer.
- The current printer settings.
- If the DJPMenu configuration utility¹ is used to change either the sleep time, the power off time, or the graphics resolution, from their factory default settings, then the words “Extended Settings: On” appear in the self-test printout.
- The internal fonts.

To print the printer self-test, carry out the steps described below. If a black print cartridge is installed, the self-test printout should resemble figure 6-3. With a color cartridge, the printout will be different.

| | |
|---|--|
| <p>1. Turn the printer <i>off</i> by pressing the Power button.</p> | <p>2. If using the sheet feeder, load paper in the sheet feeder. See “Loading Media” in chapter 3 for instructions on loading paper in the sheet feeder.</p>  |
| <p>3. While pressing the Paper Feed button (for the HP DeskJet 340, press the Online button if you are using the HP Portable, DeskJet 310 or 320), press and release the Power button. The Busy light should turn on briefly.</p>  <p>For DeskJet 340</p>  <p>For DeskJet Portable, 310 and 320</p> | <p>4. If using the printer only, manually load a sheet when the Busy light turns on and the Online light starts blinking. See “Loading Media” in chapter 3 for instructions on manually loading paper.</p>  <p>The Online light will blink when the printer is ready for another sheet of paper.</p> |

1. The DJPMenu software cannot change the extended settings on the HP DeskJet Portable printer.

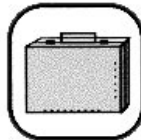
HP DeskJet 340



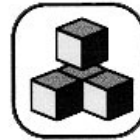
Professional quality printing
for your notebook PC or
PowerBook™ when and
where you need it



**Professional
Quality
Printing**



**Compact
and
Portable**



**Flexibility
with Optional
Accessories**



**Easy To Add
Color Option
Any Time**

PROFESSIONAL QUALITY PRINTING

- The HP Print Quality Advantage
 - HP's Resolution Enhancement Technology for crisp, clear black printing
 - Enhanced 256 levels of grayscale for better contrast of graphics
- Fast print speed of up to 3 pages per minute

EASY TO ADD COLOR OPTION ANY TIME

- Vivid color printing with HP's ColorSmart technology at the touch of a button
- Up to 16.7 million brilliant colors

COMPACT AND PORTABLE

- Easily fits in your briefcase
- 30-page sheet feeding
- HP's quality and reliability backed by international warranty

FLEXIBILITY WITH OPTIONAL ACCESSORIES

- Infrared adapter
- Rechargeable battery
- Worldwide rapid recharger
- Carrying case
- 60-page desktop sheet feeder
- Mac adapter

PRINTED ON THE HP DESKJET 340 INKJET PRINTER

• 10 E • 6.115 • 95/06/14 • MEDIA SOURCE = Sheet Feeder • MEDIA SIZE = US Letter •
• CR DEFINITION = CR-CR • PERF. SKIP = On • TEXT SCALE = Off • CHARACTER SET = PC 8 USA •

Figure 6-3. Demo Page from the DeskJet 340

Printing Problems

Table 6-4. HP DeskJet 300 Series Printing Problems

| Problem | Probable Cause | Solution |
|--|--|--|
| <i>Printing is skewed or slanted</i> | <p>Sheets are not feeding into the printer correctly.</p> <p>The print on your pre-printed forms is slanted.</p> | <p>See "Avoiding Print Skew" in this chapter.</p> <p>Re-print the forms.</p> |
| <i>The printer appears to be printing, but nothing is printed</i> | <p>The tape(s) that cover the ink nozzles of a new print cartridge have not been removed.</p> <p>The print cartridge wasn't snapped into place.</p> <p>The print cartridge is empty.</p> | <p>First remove the print cartridge from the printer. Then remove the tape(s) covering the ink nozzles and re-install the cartridge.</p> <p>Remove and re-install the print cartridge, making sure that you push the top of the cartridge forward until it snaps into place.</p> <p>Replace the print cartridge.</p> <p>For more information, see "Installing/Replacing a Print Cartridge" in chapter 3.</p> |
| <i>The printout is not correct</i> | The appropriate printer driver has not been selected in the software. | Check the printer driver selected in the software application. See "Selecting a Printer Driver" in chapter 4 or "Choosing a Printer Driver" in chapter 5 if you are using a Mac Adapter. |
| <i>The font specified in the document is not the font on the printout</i> | <p>The font specified in the document has not been installed in the software.</p> <p>The font was not correctly specified in the software.</p> | <p>Check the printer driver selected in the software application. See "Selecting a Printer Driver" in chapter 4 or "Choosing a Printer Driver" in chapter 5 if you are using a Mac Adapter.</p> <p>Check the software manual for instructions on specifying fonts. Fonts specified through the software will <i>override</i> fonts specified with the Font button on the printer.</p> |
| <i>Printed fonts, line length and/or character spacing do not match what you see on the screen</i> | Screen fonts are either not available or not correctly installed. | Refer to the software application manual. If you are using Windows, see the <i>HP DeskJet 300 Series Printer Software Guide</i> for instructions on installing screen fonts. |
| <i>Printing is slow, or you receive messages like "Not enough memory to print"</i> | There are problems with computer system memory. | <p>If you are using Windows:</p> <ul style="list-style-type: none"> • Exit all applications and Windows. • Re-start Windows and re-start only the application you need. <p>Delete the screen fonts that correspond to printer fonts that you use rarely.</p> <p>Purchase more RAM for the computer.</p> |

Printer Light Indications (HP DeskJet 340)

The HP DeskJet 340 printer lights blink on and off to give you information about what the printer is doing.

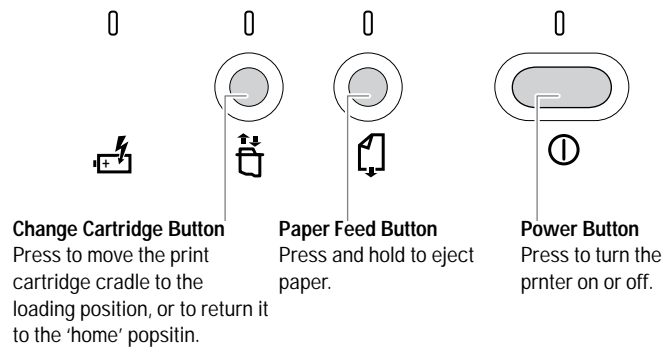


Figure 6-5. HP DeskJet 340 Printer Buttons and Lights

Table 6-5. HP DeskJet 340 Printer Light Indicators

| Printer Light Indication | Probable Cause | Solution |
|---|---|--|
| <i>The Power light is blinking</i> | The computer is sending data to the printer. | You do not need to do anything. |
| <i>The Paper feed light is blinking</i> | The printer is out of paper. The paper is not properly loaded. | Load paper into the sheet feeder. Push the paper release lever down and reposition paper. Push the paper release lever up and press the Paper Feed button to continue printing. |
| <i>The Change Cartridge light is blinking</i> | The printer is waiting for you to change the print cartridge. | Install a print cartridge. See "Installing a Print Cartridge" in chapter 3. |
| <i>The Charge light is blinking and the Power light is on</i> | The battery charge level is low. | Connect the power adapter to charge the battery pack. |
| <i>The Charge light blinks alternately with the other lights.</i> | There is a problem with the battery. | <ul style="list-style-type: none"> • Discharge the battery pack completely and charge it again. • Make sure you have installed a recommended battery pack. • Make sure that the battery pack is properly seated in the battery compartment. • Clean the battery pack contacts. • If the problem persists, replace the battery pack. |
| <i>All four printer lights are blinking at the same time.</i> | There is a problem with the printer. | <ul style="list-style-type: none"> • Turn the printer off and then turn it on again. • If the lights still blink, press and hold the Paper Feed button and locate the light pattern shown in this table. |
| <i>The Paper light is on</i> | Paper is jammed in the printer. | Turn off the printer and remove trapped sheet of paper. See "Troubleshooting Paper Feed Operations" in this chapter. |
| <i>The Change Cartridge light is on</i> | <ul style="list-style-type: none"> • The movement of the print cartridge may be blocked. • The automatic cradle lock may not have been released if the print cartridge cradle is in the "home" position and there is no object blocking its path. | Turn off the printer. Open the access door and remove any object blocking the movement of the print cartridge cradle. You may have to return your printer for servicing. |
| <i>The Change Cartridge and Paper Feed lights are on.</i> | The print cartridge may be jammed. | Open the access door. Gently push or tap the print cartridge cradle against the end of the printer. |
| <i>The Paper Feed and Power lights are on or The Change Cartridge and Power lights are on</i> | An internal printer error has occurred. | <ul style="list-style-type: none"> • Turn off the printer power and turn on again. • If this does not work, unplug the power adapter and remove the battery pack. Plug in the power adapter and turn on the printer. • Return the printer for servicing if this does not work. |
| <i>The Change Cartridge, Paper and Power lights are on</i> | An internal error has occurred. | Return your printer for servicing. |

Printer Light Indications (for HP DeskJet Portable, HP DeskJet 310 and 320)

The printer will identify printer status and error conditions with its own lights. Most error indications are displayed by a single light blinking alternately with the other printer lights. If a printer light error indication occurs, turn off the printer then turn on the printer again. If the failure occurs again, use the solutions described in table 6-4.

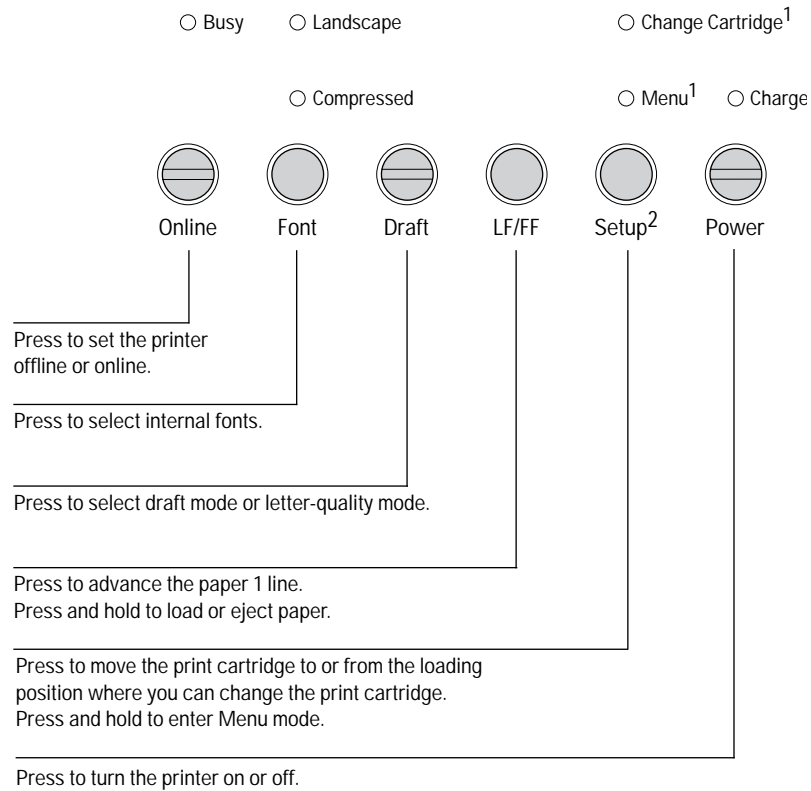


Figure 6-4. HP DeskJet 300 Series Printer Buttons and Lights (HP DeskJet Portable, HP DeskJet 310 and 320)

Note One or more blinking lights suggests that user intervention is needed.

1. The older model C2614A of the **HP DeskJet Portable** printer has these two lights reversed; instead of "Change Cartridge" the top light is labeled "Menu", and instead of "Menu" the bottom light is labeled "Chg. Pen".
2. The older model C2614A of the **HP DeskJet Portable** printer has this button labeled "Settings" instead of "Setup".

Table 6-5. HP DeskJet 300 Series Printer Light Indications (HP DeskJet Portable, HP DeskJet 310 and 320)

| Printer Light Indication | Probable Cause | Solution |
|--|--|---|
| <i>Online light is blinking</i> | The printer is out of media. | <ul style="list-style-type: none"> If using the optional sheet feeder, load media in the IN tray and press the gray pressure plate release button. Then press the Online button. If using the printer without the sheet feeder, insert a sheet in the paper feed slot and wait for the printer to pull it in. For more information, see "Loading Media" in chapter 3. |
| <i>Power light is dim (battery mode only)</i> | The printer is in sleep mode. | Sleep mode extends the life of a battery pack charge. The printer automatically exits from sleep mode when you press any printer button, send data to the printer, manually load a sheet, or plug in the power adapter. For more information, see "Battery Pack Information" and "Sleep Mode" in chapter 3. |
| <i>Power light is blinking</i> | The battery charge level is low (the printer is not connected to AC power). You will be able to print about 5 more pages of monochrome text. | Charge the battery pack. For more information, see "Configuring the Printer" in chapter 2 and "Powering the Printer" in chapter 3. |
| <i>Charge light is on</i> | The battery pack is being charged. | No user intervention is required. The printer can be used while the battery pack is being charged. However, the charging process is interrupted while the printer is actually printing. The Charge light turns off once the battery pack is fully charged. |
| <i>Charge light is off</i> | The printer detects no battery pack, or the battery pack is fully charged. | No user intervention is required. |
| <i>Charge light is blinking</i> | The printer is discharging the battery pack. | No user intervention is required. The printer can print while a battery is being discharged; however, the discharging process is interrupted while the printer is actually printing. If a power adapter or rapid recharger is plugged in, the discharging process is cancelled. |
| <i>Busy light is on</i> | The printer is busy processing or printing data. | No user intervention is required. Wait for the Busy light to turn off before using the Font, Draft, or LF/FF button. These buttons are disabled when the Busy light is on. |
| <i>Busy light is blinking and the printer will not print</i> | Unprinted data remains in the printer buffer. | Press and <i>hold</i> the LF/FF button to print the remaining data and eject the page. |
| <i>Change Cartridge¹ light is blinking; print cartridge cradle has moved to the center of the printer</i> | <ul style="list-style-type: none"> The printer is waiting for you to change the print cartridge. You may have loaded an incompatible print cartridge. The contacts on the print cartridge or print cartridge cradle may need to be cleaned. | Install a print cartridge and press the Setup ¹ button. For more information, see "Installing a Print Cartridge" in chapter 3. Make sure that you have installed a recommended print cartridge. See "Supplies and Accessories" in chapter 1. Clean the contacts as described in this chapter. |

Table 6-5. HP DeskJet 300 Series Printer Light Indications (HP DeskJet Portable, HP DeskJet 310 and 320) (Continued)

| Printer Light Indication | Probable Cause | Solution |
|--|---|--|
| <i>Menu light is blinking</i> | The printer is in Menu mode | Open the printer access door and use the printer buttons to specify the desired printer settings. After you have specified the setting you want, in a printer settings group, press the Select button. For more information, see "Configuring the Printer" in chapter 2. |
| <i>All lights are blinking simultaneously</i> | An internal printer error has occurred. | <ul style="list-style-type: none"> • Press the Power button to turn off the printer. If the printer stays on, unplug the power adapter and remove the battery pack. • Plug in the power adapter again and turn on the printer. • If the printer will not function normally after these steps, return it for repair. |
| <i>Busy and Online lights are blinking together with the Power light on steady</i> | Paper is jammed in the printer. | See "Troubleshooting Paper Feed Operations" in this chapter. |

1. The older model C2614A of the **HP DeskJet Portable** printer has "Chg Pen" instead of "Change Cartridge" and "Settings" instead of "Setup" written on its front panel.

Table 6-5. HP DeskJet 300 Series Printer Light Indications (HP DeskJet Portable, HP DeskJet 310 and 320) (Continued)

| Printer Light Indication | Probable Cause | Solution |
|--|---|--|
| <p><i>The lights below blink alternately with all other lights:</i></p> <ul style="list-style-type: none"> • <i>Draft light is blinking separately</i> • <i>Change Cartridge¹ light is blinking separately</i> • <i>Compressed light is blinking separately</i> • <i>Charge light is blinking separately</i> • <i>Power light is blinking separately</i> • <i>Busy, Landscape, Online, or Menu light is blinking separately</i> • <i>Charge and Power lights are blinking separately</i> | <p>The print cartridge cradle cannot move.</p> <p>The print cartridge capping mechanism ("service station") cannot move.</p> <p>The optional PCMCIA card may have failed.</p> <p>The printer did not succeed in charging the battery pack.</p> <p>The printer did not succeed in discharging the battery pack.</p> <p>An internal printer error has occurred.</p> <p>An error occurred while the battery pack was charging.</p> | <p>See the discussion of carriage stalls in "Solving Printer Stall Conditions" in this chapter.</p> <p>See the discussion of service station motor stalls in "Solving Printer Stall Conditions" in this chapter.</p> <p>Turn off the printer and remove any optional card installed in the PCMCIA Type 1.0 card slot. Turn on the printer.</p> <ul style="list-style-type: none"> • If the printer operates correctly, the optional card is faulty. • If the failure occurs with the optional card removed, the printer is faulty. Return the printer for repair. <p>Turn the printer off and on. Then discharge the battery pack completely and charge it again. If the printer still does not succeed in charging the battery pack, replace the battery pack.</p> <ul style="list-style-type: none"> • If the printer charges the new battery pack normally, the old battery pack is faulty. • If the printer fails to charge the new battery pack, the printer itself is faulty. Return the printer for repair. <p>Turn the printer off and on. Then try to discharge the battery pack again. If the printer still does not succeed in discharging the battery pack, replace it.</p> <ul style="list-style-type: none"> • If the printer discharges the new battery pack normally, the old battery pack is faulty. • If the printer fails to discharge the new battery pack, the printer itself is faulty. Return the printer for repair. <ul style="list-style-type: none"> • Press the Power button to turn off the printer. If the printer stays on, unplug the power adapter and remove the battery pack. • Plug in the power adapter again and turn on the printer. • If the printer does not function normally after these steps, return it for repair. <ul style="list-style-type: none"> • Unplug the power adapter and remove the battery pack. • Plug in the power adapter again. <ul style="list-style-type: none"> – If the printer operates normally from the power adapter, try re-installing the battery pack. – If the same error occurs after re-installing the battery pack, replace the battery pack and retest. |

1. The older model C2614A of the **HP DeskJet Portable** printer has "Chg Pen" instead of "Change Cartridge" written on its front panel.

Solving Printer Stall Conditions

The *Draft light blinks* alternately with the other printer lights when an HP DeskJet 300 Series printer detects a *carriage stall*. A carriage stall error condition occurs if the printer detects a problem with the movement of the print cartridge cradle along the printer carriage. In order to exit from a carriage stall, you have to turn the printer off.

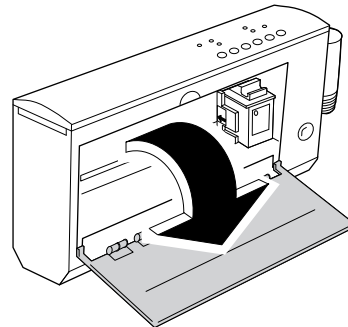
The *Change Cartridge¹ light blinks* alternately with the other printer lights when an HP DeskJet 300 Series printer detects a *service station motor stall*. The service station is the part of the mechanism below the print cartridge when the print cartridge is at the right end of the mechanism (the “home” position). It serves to cap the print cartridge so that the nozzles will not dry out. In order to exit from a service station motor stall, you have to turn the printer off.

Caution

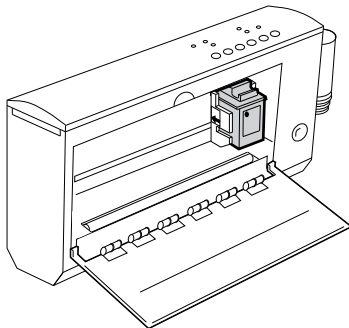
Do not attempt to manually move the print cartridge or print cartridge cradle from the home position (right end of the mechanism). The mechanism locks the print cartridge cradle in the home position, and attempting to slide the cradle or print cartridge in the locked position may damage the printer.

1. Turn the printer off and then back on.
 - If the stall condition does not reappear, no further troubleshooting is necessary. Monitor the printer for a period of time to make sure that the stall condition does not reappear.
 - If a carriage or service station motor stall occurs again, continue on to the next step.

2. Place the printer in an upright position and open the access door.



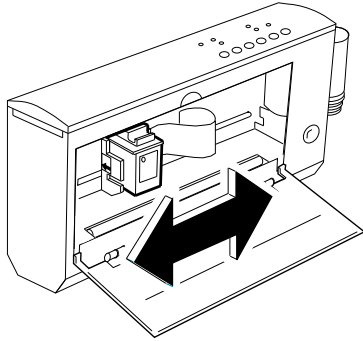
3. Look inside the printer and determine if the print cartridge and print cartridge cradle are in the home position (right end of the mechanism).
 - If the print cartridge and cradle are stuck in the home position, return the printer for repair.
 - If the print cartridge and cradle are *not* in the home position, continue on to the next step.



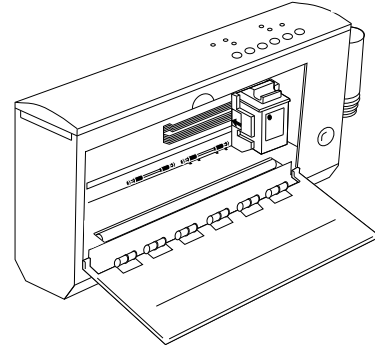
4. Turn the printer off. Because of the stall condition, the printer should turn off with the print cartridge out of the home position.

1. The older model C2614A of the HP DeskJet Portable printer has “Chg Pen” instead of “Change Cartridge” written on its front panel.

5. If the printer has a carriage stall error condition, look for obstructions or binding along the printer carriage path. Slide the print cartridge cradle back and forth across the printer mechanism. If the problem cannot be resolved, return the printer for repair.



6. If the printer has a service station motor stall error condition, look for any visible obstructions around the service station (right end of the mechanism) that may be hindering the service station operation. If the problem cannot be resolved, return the printer for repair.



7. Turn on the printer. The carriage should move along the carriage path and return to the home position.

- If the stall problem recurs, look again for anything that may be causing it. If there are no visible causes, return the printer for repair.
- If the printer operates without a stall, monitor the printer during printing operations. If the stall problem continues to occur, return the printer for repair.

Troubleshooting Paper Feed Operations

Table 6-6. Media Related Problems

| Problem or Indication | Possible Causes and Solutions |
|--|---|
| If you are using manual feed | |
| <i>Print is skewed or slanted</i> | See "Avoiding Print Skew" in this chapter. |
| <i>Printer does not pick up sheets fed by hand</i> | <ol style="list-style-type: none"> 1. Wait for the printer paper feed rollers to stop turning. Then insert the media in the paper feed slot again. 2. Make sure that the sheet you are feeding is lined up with the alignment mark in the paper feed slot. Hold the sheet squarely in position until the printer pulls it in. 3. Make sure that you have selected the manual feed option in your software. If the software does not allow you to specify the media source, use Menu mode or the DJPMenu configuration utility¹ to select the Manual Feed² printer setting. If Sheet Feeder² is currently selected, the printer paper feed rollers will turn on for several seconds longer than necessary for hand feeding. See "Changing the Printer Settings" in chapter 2. 4. Make sure that the media that you are feeding is not torn or dusty and that its edges are not curled. 5. If you are feeding by hand with the sheet feeder attached, make sure that you have moved the printer and sheet feeder into the <i>manual</i> feed position. See "Manual Feed Position" in chapter 3. |
| <i>Sheets do not eject from the printer</i> | <ol style="list-style-type: none"> 1. Press and <i>hold</i> the LF/FF button or the Paper Feed button to eject the pages. 2. If the computer was turned off during printing, turn it on again. The page will then be ejected. |
| <i>Online light is blinking</i> | The printer is out of paper. Feed a sheet into the paper feed slot. |
| <i>Busy light is blinking</i> | The printer has unprinted data but has not received a command to print the page. Press <i>and hold</i> the LF/FF button to print and eject the page. |
| <i>Busy and Online lights are blinking</i> | The printer detects a paper jam. See "Clearing Paper Jams" in this chapter. |

1. The **HP DeskJet Portable** printer does not have the DJPMenu configuration utility.

2. The older model C2614A of the **HP DeskJet Portable** printer does not have a "Media Source" group in its printer settings menu. To select "Manual Feed" or "Sheet Feeder" you must use the printer driver settings in the software application on the host computer.

Table 6-6. Media Related Problems (Continued)

| Problem or Indication | Possible Causes and Solutions |
|--|--|
| If you are using the sheet feeder | |
| <i>Media loading from the sheet feeder is skewed or slanted</i> | <ol style="list-style-type: none"> Media of different types or weights may be loaded together in the sheet feeder IN tray. If so, remove all the media and replace with a single type. Verify that the sheet feeder is in the normal print position for automatic feeding. See the diagrams in the discussion of the “Normal Print Position” in chapter 3. Reload the media. Make sure that: <ul style="list-style-type: none"> The stack of media is pushed against the right side of the IN tray. The paper width adjustment bar is pushed against the left edge of the media. The gray pressure plate release button has been pressed to secure the media in the IN tray. If more than a 0.2 inch (5 mm) stack of media is loaded in the Desktop Sheet Feeder (0.1 inch if using the Portable Sheet Feeder) IN tray, remove some of it. |
| <i>Printer loads multiple sheets from the sheet feeder</i> | <ol style="list-style-type: none"> Media of different types or weights may be loaded together in the sheet feeder IN tray. If so, remove all the media and replace with a single type. Make sure that there is no more than 0.2 inch (5 mm) of media in the IN tray. If you are printing transparencies, make sure than you have loaded no more than 20 sheets into the sheet feeder IN tray. Do not load paper on top of paper already in the IN tray. Load the paper into an empty IN tray as a single stack. If media are stuck together, remove the stack, separate the sheets and reload into the IN tray. |
| <i>Transparencies do not load into the printer from the sheet feeder</i> | Under very humid conditions, transparencies can stick together. If this is the case, feed them by hand, one at a time. |
| <i>Transparencies jam in the printer</i> | The edges of the transparencies may be curled. Use only transparencies with edges that are <i>not</i> curled. |
| <i>Printer does not pick up paper from the sheet feeder</i> | <ol style="list-style-type: none"> Verify that the paper meets the specifications listed in chapter 1. The paper may not be properly loaded in the sheet feeder. Reload the paper, making sure that: <ul style="list-style-type: none"> The paper is pushed against the right side of the IN tray. The paper width adjustment bar is pushed against the left edge of the paper. The gray pressure plate release button has been pressed to secure the paper in the IN tray. Verify that the sheet feeder is in the normal print position for automatic feeding. See “Normal Print Position” in chapter 3. Make sure that you have selected the automatic sheet feeding option in your software. If the software does not allow you to specify the media source, use Menu mode or the DJPMenu configuration utility¹ to select the Sheet Feeder² printer setting. If Manual Feed² is currently selected, the printer paper feed rollers will not remain turned on long enough for the printer to load a sheet from the sheet feeder. See “Changing the Printer Settings” in chapter 2. |
| <i>Unable to feed paper manually when the sheet feeder is attached</i> | The printer and sheet feeder may not be in the manual feed position. See “Manual Feed Position” in chapter 3 for diagrams and discussion of setting up the printer and sheet feeder in this position. |

1. The **HP DeskJet Portable** printer does not have the DJPMenu configuration utility.

2. The older model C2614A of the **HP DeskJet Portable** printer does not have a “Media Source” group in its printer settings menu.

To select “Manual Feed” or “Sheet Feeder” use the printer driver settings in the software application on the host computer. Or, if “Manual Feed” is selected, you can first turn the printer off and then “Sheet Feeder” is automatically selected when you turn the power on.

Table 6-6. Media Related Problems (Continued)

| Problem or Indication | Possible Causes and Solutions |
|--|--|
| If you are using the sheet feeder | |
| <i>Online light is blinking</i> | The printer is out of paper. Load a stack of media into the IN tray and press the Online button. |
| <i>Busy light is blinking</i> | The printer has unprinted data but has not received a command to print the page. Press <i>and hold</i> the LF/FF button to print and eject the page. |
| <i>Busy and Online lights are blinking</i> | The printer detects a paper jam. See “Clearing Paper Jams” in this chapter. |

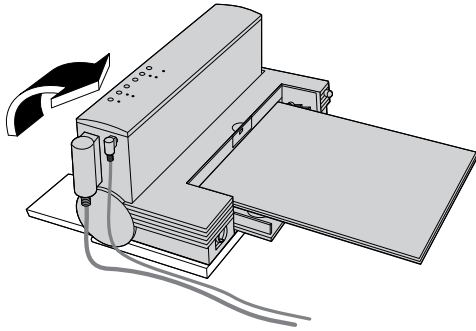
Clearing Paper Jams

If the Busy and Online lights are blinking, the printer detects a paper jam.

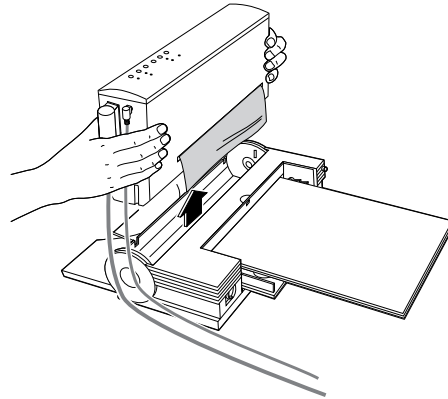
If you are not using the sheet feeder, go to step 4.

If you are using the Portable Sheet Feeder, go to step 3.

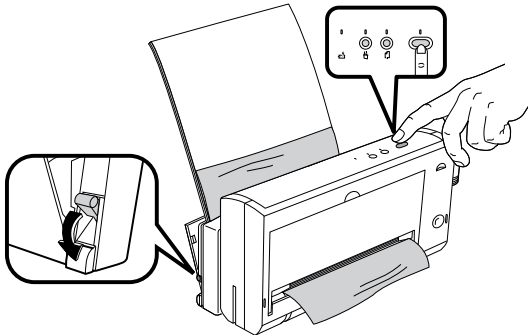
1. Rotate the printer and the IN tray so that the printer is in the upright position and the IN tray is against the Desktop Sheet Feeder base.



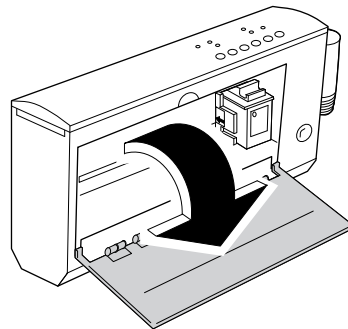
2. Press down on the pressure plate to release the paper from the sheet feeder. Lift the printer from the sheet feeder. The paper that is jammed in the printer should slide out of the sheet feeder.



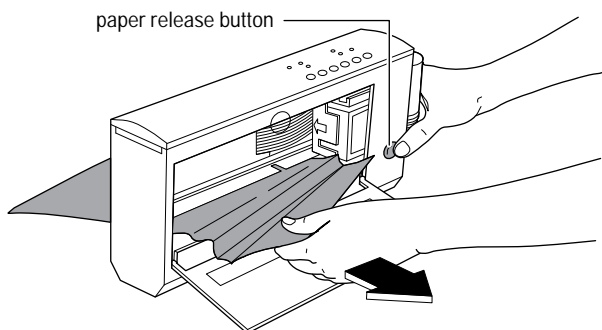
3. Turn off the printer. Push the paper release lever to the open position to release the paper and remove the paper from the portable sheet feeder.



4. Place the printer upright on a flat surface and open the access door.



5. While pressing the paper release button, pull the paper out of the printer as shown below.



6. Turn the printer off and then turn the printer on.

7. If using the sheet feeder, reinstall the printer on the sheet feeder and rotate the printer and IN tray to the normal operating position.

Table 6-7. Possible Causes for Paper Jams

| Possible Cause | Solution |
|---|--|
| <i>Paper is out-of-specification</i> | Use paper that meets the specifications listed in chapter 1. However, some paper that meets the specifications listed in chapter 1 will not produce satisfactory results in an HP DeskJet 300 Series printer. If this is the case, try a different brand of paper. |
| <i>IN tray is too full</i> | Make sure that the stack of paper in the IN tray is no more than 0.2 inch (5 mm) high. |
| <i>Paper is too long</i> | <ul style="list-style-type: none"> • Use only media sizes recommended in chapter 1. • Do not use continuous Z-fold paper in the printer. |
| <i>Paper is not loaded correctly</i> | If using the optional sheet feeder, make sure the paper is not buckled. For more information, see “Loading Media in the Sheet Feeder” in chapter 3. |
| <i>Obstructions block the paper path</i> | Look for obstructions in the paper path, both within the sheet feeder and within the printer itself. Open the access door and verify that the paper path within the printer is clear of any obstructions. Then lift the printer out of the sheet feeder and look for obstructions in the feeder. |
| <i>Either the printer or the sheet feeder may be faulty</i> | <ul style="list-style-type: none"> • If paper feeds properly through the printer but jams with the sheet feeder, the sheet feeder may be damaged. Try reinstalling the printer on the sheet feeder and reloading paper in the sheet feeder. If the sheet feeder continues to have problems feeding paper into the printer, return the sheet feeder for repair. • If paper does not properly feed through the printer manually, <i>without the sheet feeder installed</i>, the printer may be faulty. |

Avoiding Print Skew

Print skew results when the movement of paper in the mechanism is not square to the carriage movement. The result is inconsistent print margins along the paper's edge.

- Print skew is determined by three elements:
 - The printer itself may skew paper that is otherwise within specification and loaded correctly.
 - The paper may not be square.
 - The paper may not be properly loaded.
- The squareness of the paper can be measured (see below). Any *paper* skew will be added to or subtracted from the print skew attributable to the printer itself, resulting in a “total print skew.”
- Total print skew can be measured by the procedure described on the next page. From the total print skew you can subtract the paper skew to determine whether the print skew attributable to the printer itself is within acceptable tolerances.
- It is possible to reduce total print skew by proper loading and handling of the paper. Review the instructions included with the user documentation to ensure that the paper was properly loaded.

Note

When using the sheet feeder, always load a stack of paper into an empty IN tray rather than placing paper on top of paper *already* in the IN tray.

Printer Skew Specification

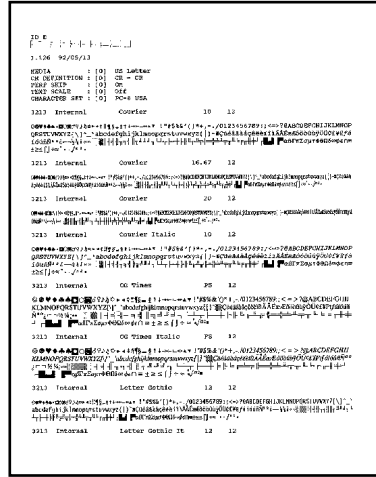
The print skew specification for HP DeskJet 300 Series printers is no more than 0.006 inches per inch on 95% of all pages printed. The squareness of the paper and how paper is loaded can also add to total print skew. Pre-printed forms with their own printing *already skewed* can increase the *apparent* print skew if the form is skewed in the direction opposite from the printer's skew. Any skew on the printed form must be taken into account when measuring print skew.

Measuring Paper Squareness

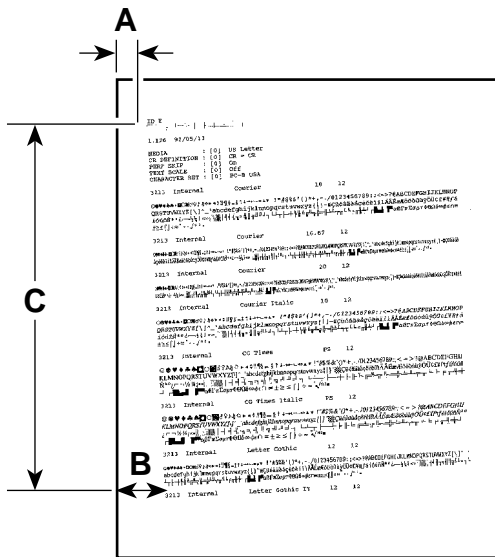
Total print skew may be affected by the squareness of the paper. The industry standard for paper squareness is no more than 0.003 inches per inch. This tolerance must be added to the printer's own print skew specification to obtain a true total print skew specification. Test the paper squareness by printing on one side of the paper, flipping the paper over, then printing on the other side. If the print slopes down on one side and up on the other side, the squareness of the paper may be affecting the total print skew. In this case, you may be able to reduce the total print skew by trying a different kind or brand of paper.

Measuring Print Skew

1. If using the sheet feeder, load a stack of paper in the IN tray. Use paper with squareness that is within tolerance.
2. Print a page of information that should display a consistent left margin down the page.



3. Take measurements to determine the print skew on the page.
 - A. Measure the distance from the left edge of the paper to the upper left corner of the printout. This is distance "A" in the figure below.
 - B. Measure the distance from the left edge of the paper to the lower left corner of the pattern. This is distance "B" in the figure below.
 - C. Measure the vertical distance between "A" and "B." This is distance "C" in the figure below.
4. Use one of the following equations to determine the total print skew on the page:
 - If $A > B$, use the equation $(A-B)/C$
 - If $B > A$, use the equation $(B-A)/C$
5. Repeat steps 2, 3, and 4 on at least 20 pages. The measurement should be within the print skew specification on 19 out of 20 pages.
6. Try the process again with a different type of paper.
7. If the print skew is consistently out of tolerance, return the printer for repair.



Troubleshooting Communication Problems

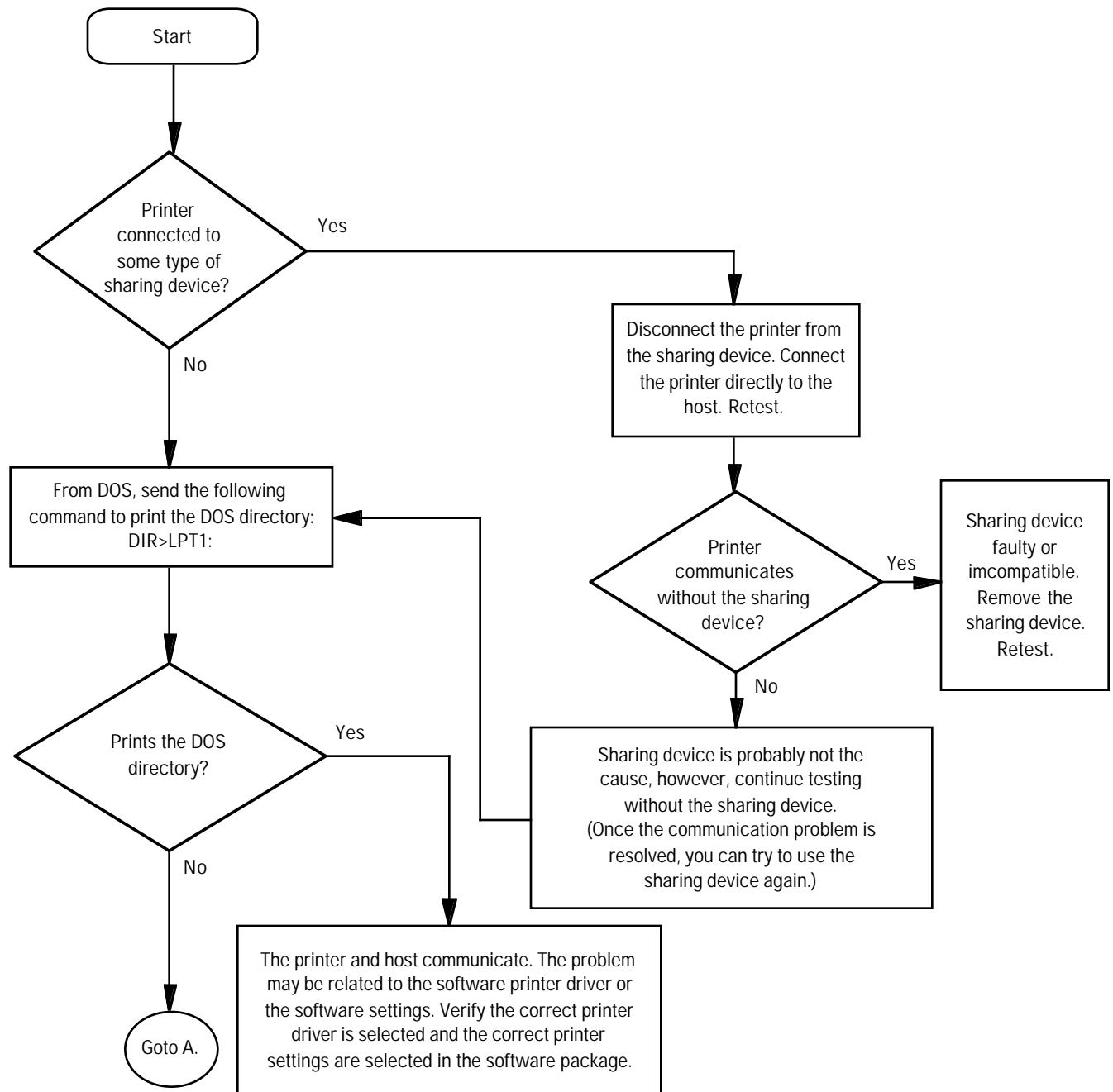


Figure 6-5. Troubleshooting Communication Problems

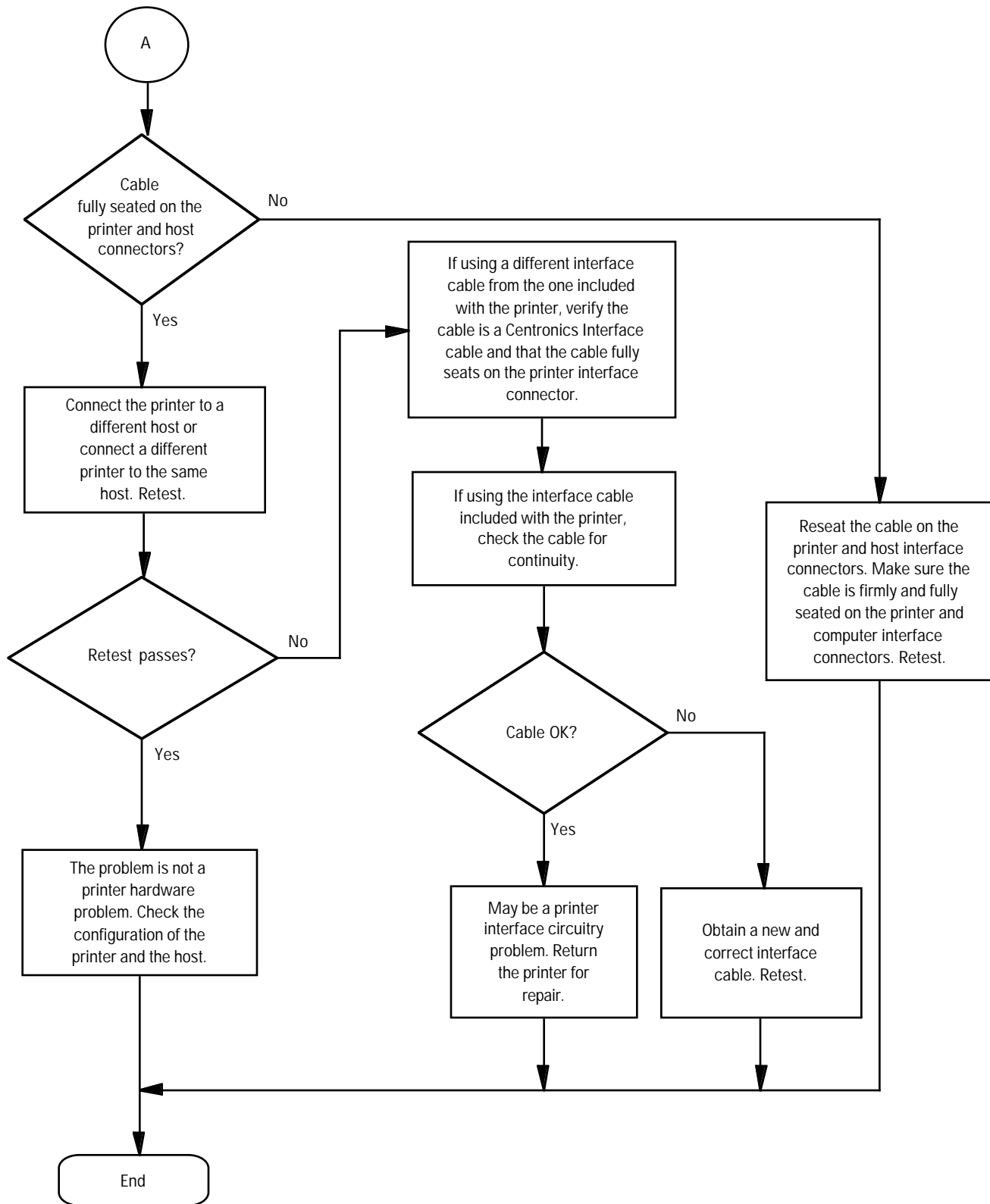


Figure 6-6. Troubleshooting Communication Problems (Continued)

Troubleshooting Print Cartridges

Short Print Cartridge Life

There are several causes for a short print cartridge life. The information below describes the average print cartridge life for the two recommended print cartridges and possible causes for a reduction to this expected print cartridge life.

Table 6-8. Print Cartridge Life Specifications — Ink Used

| Print Cartridge | Part Number | Print Cartridge Life Based on Ink Used | | |
|------------------------------------|-------------|--|-----------------------------------|----------------------------------|
| | | 1000 Characters Per Page Coverage | 1500 Characters Per Page Coverage | Normal Print Mode (8% Area Fill) |
| Black Print Cartridge ¹ | 51633A | 500 to 1000 Pages | 333 to 666 Pages | |
| Color Print Cartridge ² | 51625A | | | 250 Pages |

1. The **51633A** black print cartridge life specifications are based on printing Courier 10. The lower numbers in the specifications are based on using letter-quality print mode and the higher numbers in the specifications are based on using draft print mode. A now obsolete black print cartridge, part number **51608A**, had the same life specifications as this cartridge.
2. The **51625A** color print cartridge life specification is based on using Normal print mode in Windows with an average 8% area fill. The **HP DeskJet Portable** prints black only; it cannot use this color print cartridge.

Table 6-9. Possible Causes for Short Print Cartridge Life — Black or Color

| Possible Cause | Explanation |
|---|--|
| <i>Pages used a higher rate of ink coverage than that used for the cartridge life specification</i> | The rate of coverage on the page has a significant impact on the number of pages per print cartridge. Heavy concentrations of ink and higher print quality significantly reduce the number of pages per print cartridge. |
| <i>Pages contained graphics</i> | Generally, graphics use ink at a much higher rate than the Courier 10 font at the 1500 characters per page specification. If possible, print drafts of documents without the graphics. |
| <i>The selected print mode uses ink at a higher rate</i> | Higher quality print modes use more ink than draft print mode. To maximize print cartridge life, print drafts of documents in draft mode, then print the final copies in letter-quality mode. |
| <i>The print cartridge is past the expiration date</i> | Replace the print cartridge. Use a First In-First Out ("FIFO") inventory process to avoid a stock of expired print cartridges. |
| <i>The printer was turned off with the print cartridge away from home position</i> | A service station is located at the right end of the mechanism. This service station caps the print cartridge nozzles to minimize ink drying in the nozzles. Always allow the print cartridge to return to the home position so that the service station can cap the print cartridge nozzles when the printer is not in use. |
| <i>The print cartridge was open outside the printer</i> | Opened print cartridges must be stored in the printer or in the print cartridge storage container supplied with the optional Color Kit ³ . |
| <i>The print cartridge was refilled</i> | Hewlett-Packard does not recommend or guarantee the print quality or cartridge life of refilled print cartridges. Replace the print cartridge with a new print cartridge. |

3. The **HP DeskJet Portable** only prints black; the Color Kit is available for the HP DeskJet 310 and 320 only.

Table 6-9. Possible Causes for Short Print Cartridge Life — Black or Color (Continued)

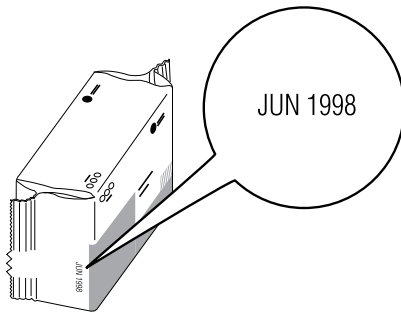
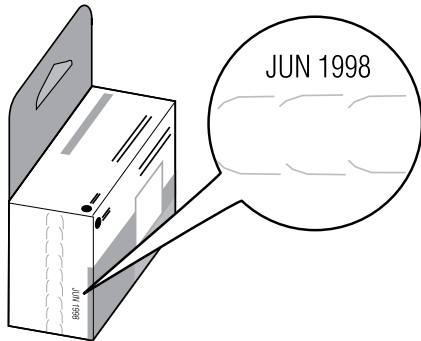
| Possible Cause | Explanation |
|--|--|
| <i>The print cartridge packaging seal was broken too soon</i> | The print cartridge has a longer life sealed in its packaging rather than in the printer. Keep print cartridges sealed in their packaging until needed. Then, install the print cartridge in the printer promptly. If you use both a black and a color print cartridge, keep one print cartridge in the printer and the other in the storage container provided with the optional Color Kit ¹ . |
| <i>The estimate of the number of pages actually printed was inaccurate</i> | Underestimating the number of pages actually printed is hard to avoid. When counting pages per cartridge, be sure to count drafts that have been thrown away. |
| <i>The print cartridge was faulty</i> | If a print cartridge proves to be faulty, replace it. If a pattern of faulty print cartridges develops, it is possible that a problem in the printer itself may be causing the print cartridges to fail. In this case, return the printer with the failed print cartridges for evaluation and repair. |
| <i>There may be a printer hardware problem</i> | The service station may be faulty, or the printer may be damaging the print cartridges. Return the printer with the failed print cartridges for repair. |
| <i>The print cartridge cleaning routine was used excessively</i> | The cleaning routine clears the ink nozzles and — if used in the appropriate circumstances — can have the effect of restoring a print cartridge. However, using this routine too frequently consumes significant quantities of ink. Avoid overusing the cleaning routine. |

1. The **HP DeskJet Portable** prints black only; the Color Kit is available for the HP DeskJet 310, 320 and 340 only.

Identifying the Print Cartridge Expiration Date

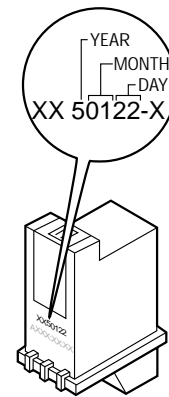
Print quality problems may be caused by print cartridges that have passed their expiration date. There are two methods for determining whether a print cartridge is past its expiration date:

1. If the print cartridge is in the original packaging, read the "Use Before" date printed on the box. The date can also be read from the plastic used to wrap the cartridge. If the print cartridge is not in the original packaging, continue on to the next step.



2. Determine the earliest and latest possible expiration dates from the code printed on the print cartridge.

- A. Determine the manufacturing date from the code printed on the print cartridge. In the example below, the print cartridge was produced on January 22, 1995.
- B. Determine the earliest and latest possible expiration dates from the code printed on the print cartridge.
 - Earliest Possible Expiration Date = Manufacturing Date + Open Life Specification
 - Latest Possible Expiration Date = Manufacturing Date + Shelf Life (Sealed in its Container)



- C. If you believe, based on these calculations, that the print cartridge has passed its shelf life expiration date — or, if open, its open life expiration date — replace the print cartridge. See table 6-11.

Notes

- Ink can evaporate through the nozzles, reducing the print cartridge life. Therefore, keep print cartridges sealed as long as you can. Then, once you have broken the seal, keep the cartridge either *in the printer* — so that it is capped by the service station at the right end of the mechanism — or in the storage container supplied with the optional Color Kit¹.
- For more tips on extending the print cartridge life, read "Maintaining Print Cartridges" in chapter 3.

1. The HP DeskJet Portable prints black only; the Color Kit is available for the HP DeskJet 310, 320 and 340 only.

Table 6-10. Print Cartridge Life Specifications — Age

| Print Cartridge | | Print Cartridge Life | |
|---------------------|-----------------------|--------------------------------------|--|
| Part Number | Description | Sealed in its Container (Shelf Life) | Open in the Printer or in the Storage Container ¹ |
| 51633A ² | Black Print Cartridge | 18 Months | 90 Days |
| 51625A ³ | Color Print Cartridge | 18 Months | 180 Days |

1. At office, with ambient printing at least once a month.
2. A now obsolete black print cartridge, part number **51608A**, had the same life specifications as this cartridge.
3. The **HP DeskJet Portable** prints black only; it cannot use this color print cartridge.

Table 6-11. Print Cartridge Expired?

| Period of Time After the Manufacturing Date | Print Cartridge Expired? | Explanation |
|--|--------------------------|---|
| From the manufacturing date to 90 days after the manufacturing date | No | The print cartridge has yet to exceed the open life specification. |
| 90 days to 18 months from the manufacturing date | Maybe | Expired if the print cartridge has been out of its packaging longer than the open life specification. |
| Longer than 18 months after the manufacturing date | Yes | The print cartridge has exceeded its 18 month shelf life. |

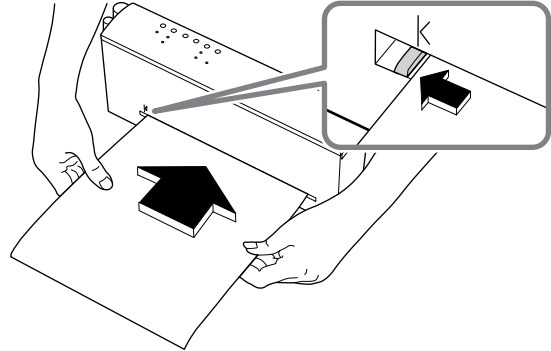
Note Use a First In, First Out (FIFO) inventory control process to avoid keeping print cartridges longer than their shelf life.

Using the Print Cartridge Cleaning Routine

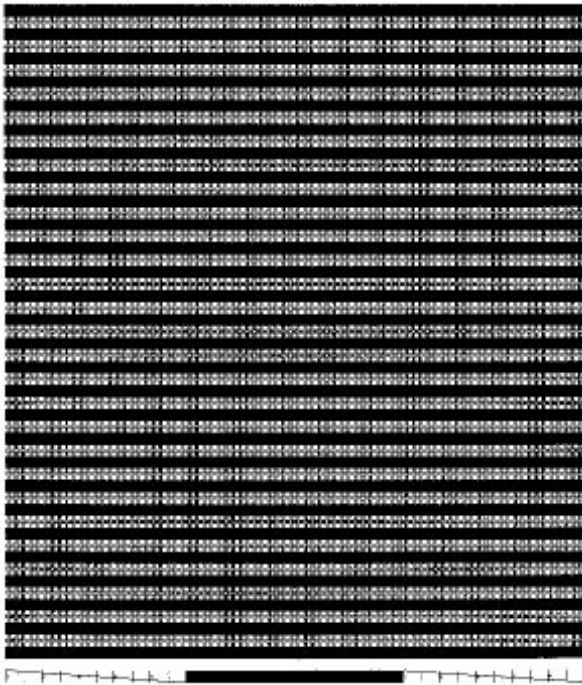
When dots or lines are missing from printouts, use the following routine to clear the print cartridge ink nozzles. The HP DeskJet 310, 320 and 340 printers can clean either a black or a color print cartridge¹.

1. For the DJ340 user: Hold the Change Cartridge button and press the power button to turn on the printer.
For the DJ320, 310 and Portable: While pressing the Draft button, press and release the Power button to turn on the printer.

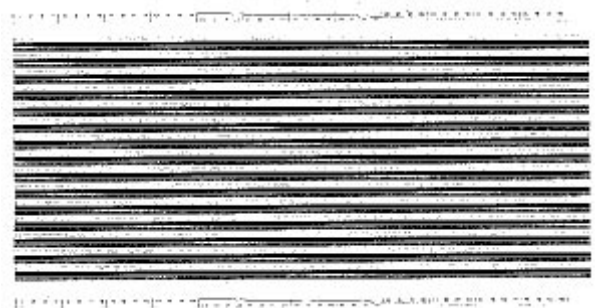
2. If you are using manual feed, insert a sheet of Letter- or A4-size paper in the paper feed slot.



3. The printer will perform a series of "spits and wipes" on the print cartridge nozzles. If you are using a *black* print cartridge, the printer will then print a page like the one shown:



4. If you are using a *color* print cartridge, the printer will then print a different page, like the one shown below:



If there are streaks in the horizontal bars or gaps in the diagonal test pattern at the **bottom** of the page, some of the ink nozzles may still be clogged. If necessary, repeat the cleaning process. If the cleaning routine *still* does not restore the print cartridge, try doing the procedure "Cleaning the Electrical Contacts" later in this chapter.

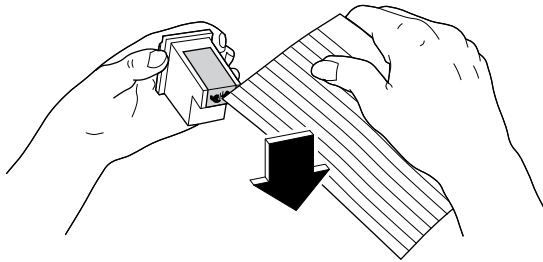
1. The HP DeskJet Portable prints black only; it cannot use the color print cartridge.

Removing Crusted Ink from the Print Cartridge Nozzles

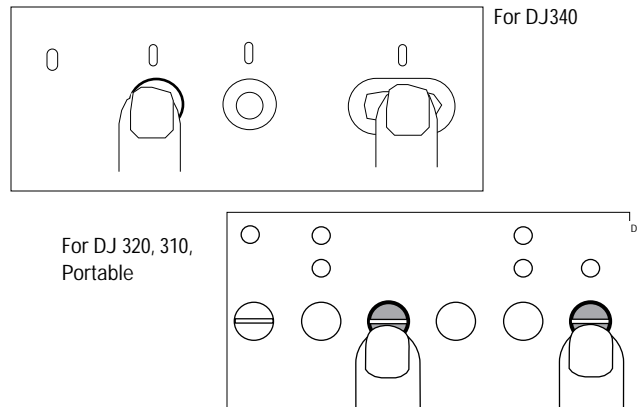
Print cartridges left out of the printer may have crusted ink on the print cartridge nozzles. **Do not install a print cartridge with crusted ink into the printer.** Use the following procedure to remove the crusted ink from the nose of a black print cartridge.

Caution Use care during this process to avoid staining your hands or clothes with ink from the print cartridge.

1. Grasp the print cartridge by the green top portion of the print cartridge. Use the edge of an index card or other rigid paper stock to scrape the dried ink off the print cartridge nozzles into a trash container.



2. Perform the print cartridge cleaning routine. This routine executes several "spits and wipes" on the print cartridge nozzles, and prints a page of horizontal bars. See "Using the Print Cartridge Cleaning Routine" on the previous page.



3. Perform the printer self-test. If the printout is not missing dots toward the end of the self-test printout, the print cartridge is restored to operating condition.



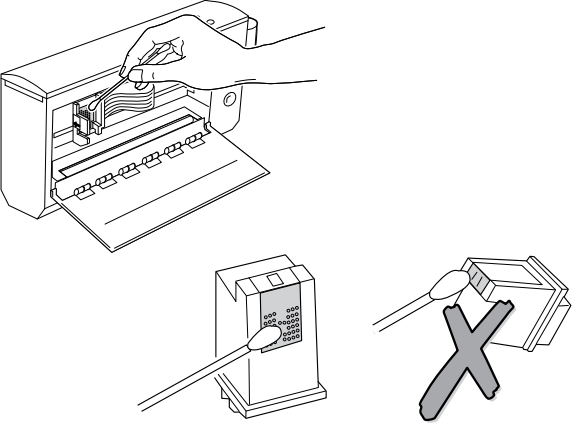
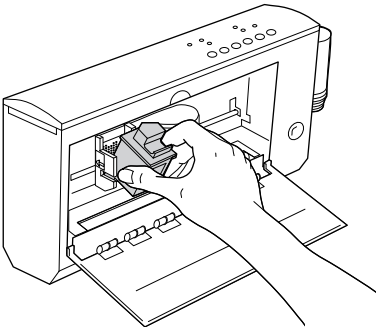
4. If the printout is still missing dots toward the end of the self-test printout, the print cartridge may have dirty electrical contacts or clogged nozzles. Follow the steps in the next section, "Cleaning the Electrical Contacts".

Cleaning the Electrical Contacts

You may need to clean the electrical contacts on the print cartridge if:

- the print cartridge cradle does not return to the home position when you press the Setup¹ button.
- the characters printed are incomplete, or if dots or lines are missing from the printouts.

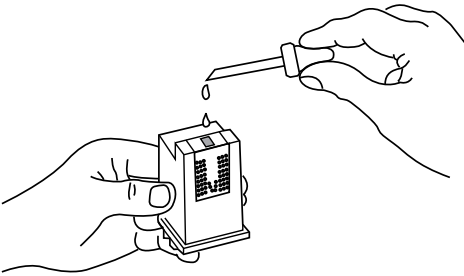
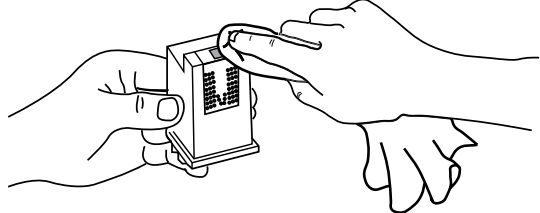
To clean the contacts, use the procedure described below:

| | |
|---|---|
| <p>1. Remove the print cartridge from the printer and clean the print cartridge and print cartridge cradle contacts. Use a cotton swab lightly moistened with water. <i>Do not wipe the ink nozzles on the print cartridge.</i></p>  | <p>2. Once the print cartridge and print cartridge cradle contacts are dry, reinstall the print cartridge.</p>  |
| <p>3. Do the self-test. If the self-test is missing dots or lines, you can try clearing the print cartridge nozzles, as described below.</p> | |

1. The older model C2614A of the HP DeskJet Portable printer has this button labeled "Settings" instead of "Setup".

Clearing Clogged Print Cartridge Nozzles

If printouts are missing dots or lines, first try cleaning the electrical contacts by following the steps above. If dots are still missing, then follow the steps below:

| | |
|--|---|
| <p>1. Hold the print cartridge so that the gold rectangle, in the middle of the raised end, points up. Place two drops of clean water on the gold rectangle.</p>  | <p>2. After 60 seconds, gently remove the water with a lint-free damp cloth.</p>  |
| <p>3. Reinstall the print cartridge and do the self-test.</p> <ul style="list-style-type: none">• If the self-test is not missing dots or lines, the print cartridge is restored.• If the self-test is missing dots or lines, repeat the self-test. If the dots are still missing, replace the print cartridge. | |

Troubleshooting Print Quality

Solving Black Print Quality Problems

Table 6-12. Solving Black Print Quality Problems

| Black Print Quality Issue | Possible Cause and Solution |
|--------------------------------------|--|
| <i>Print is faint or fuzzy</i> | <ol style="list-style-type: none">1. Was the print cartridge new when installed in the printer or was it a refilled print cartridge? If it was refilled, replace it with a new print cartridge. Hewlett-Packard does not recommend refilling print cartridges and cannot guarantee the quality from a refilled print cartridge. Also, refilled cartridges may be using ink formulations that can damage the service station.2. Verify that the print cartridge has not expired. See “Identifying the Print Cartridge Expiration Date” in this chapter.3. Run the print cartridge cleaning routine to clear the nozzles. See “Using the Print Cartridge Cleaning Routine” in this chapter.4. If you determine that the print cartridge is running out of ink, replace the print cartridge.5. The print cartridge may be faulty. Try printing with another print cartridge.6. Make sure that the media meets the specifications in chapter 1.7. Verify that the paper is not inkjet, ThinkJet, or special coated paper, unless it is recommended for HP DeskJet 300 Series printers.8. Turn the paper over and try printing on the other side. All papers have a recommended print side. <i>For HP DeskJet 300 Series printers, load paper with the print side up.</i> See the paper packaging for an arrow or other identification of the print side of the paper.9. Some paper that meets specifications in chapter 1 will not produce satisfactory results. Try a different brand of paper.10. If printing transparencies, verify that you are using HP Premium media.11. Verify that the printer is set to Letter Quality rather than Draft mode printing. If the Draft light is <i>on</i>, you are <i>not</i> printing in letter-quality mode.12. Adjust the intensity setting in your software to make sure that the correct amount of ink is thrown onto the page. See your software manual. |
| <i>Print density is inconsistent</i> | <ol style="list-style-type: none">1. The print cartridge nozzles may be clogged. Run the print cartridge cleaning routine to clear the nozzles. See “Using the Print Cartridge Cleaning Routine” in this chapter.2. Make sure that you insert media <i>print side up</i> in the printer. Check the packaging for an indication of the print side. If you are using plain paper, try turning the paper over and printing on the other side.3. Make sure that the media meets the specifications in chapter 1.4. If printing transparencies, verify that the media is HP Premium.5. Some paper that meets specifications in chapter 1 will not produce satisfactory results. Try a different brand of paper. |
| <i>Ink is smearing</i> | <ol style="list-style-type: none">1. Adjust the intensity setting in your software to reduce the amount of ink thrown onto the page. See your software manual.2. Verify that there is no crusting of ink on the print cartridge nozzles.3. Verify that the paper is not inkjet, ThinkJet, or special coated paper unless it is recommended for use with HP DeskJet 300 Series printers.4. Try printing in the vertical print position.5. Some kinds of paper that meet specifications in chapter 1 will not produce satisfactory results. Try a different brand of paper.6. If printing transparencies, verify that the media is HP Premium.7. Allow the ink to set before stacking paper or placing transparencies in sleeves. |

Table 6-12. Solving Black Print Quality Problems (Continued)

| Black Print Quality Issue | Possible Cause and Solution |
|--|--|
| <i>Output appears jagged</i> | <ol style="list-style-type: none"> 1. Verify that Letter Quality mode is selected (Draft light <i>off</i>) rather than Draft mode. 2. In Windows, check that Presentation mode rather than Normal or Draft mode is selected. |
| <i>Black printing is fading</i> | <ol style="list-style-type: none"> 1. Run the print cartridge cleaning routine to clear the nozzles. See “Using the Print Cartridge Cleaning Routine” in this chapter. 2. If the print quality does not improve, replace the print cartridge. |
| <i>Characters, dots or lines are incomplete or missing from printouts; or dark horizontal lines appear in gray areas</i> | <p>Missing dots may be caused by problems with any of the following:</p> <ul style="list-style-type: none"> • print cartridge • printer hardware • connection between the printer and the print cartridge. <p>See “Printouts Missing Rows of Dots” in this chapter for solutions.</p> <p>If you are printing from a Windows application:</p> <ul style="list-style-type: none"> • Select Presentation mode in the Printer Setup dialog box. • Print the page again using manual feed. |
| <i>Black output appears greenish</i> | <p>The HP DeskJet 340, 320 and 310 printers, when using a color print cartridge, produce composite black from the color print cartridge by mixing colors. If this composite black appears greenish or otherwise unsatisfactory, try to arrange the document so that each page is either <i>only color</i> or <i>only black</i>; you can then change to a black cartridge before printing a black only page.</p> |

Solving Color¹ Print Quality Problems

Table 6-13. Solving Color Print Quality Problems

| Color Print Quality Issue | Possible Cause |
|---|--|
| <i>Printout is faint. Colors appear washed out.</i> | <ol style="list-style-type: none"> 1. Make sure that Letter Quality mode is selected (the Draft light should be <i>off</i>). 2. Adjust the intensity setting in your software to increase the amount of ink thrown onto the page. See your software manual. |
| <i>Ink is smearing</i> | See the <i>Ink is smearing</i> solutions in table 6-13, Solving Black Print Quality Problems. |
| <i>Colors are missing or hues change on printouts</i> | <ol style="list-style-type: none"> 1. Run the print cartridge cleaning routine to clear the nozzles. See “Using the Print Cartridge Cleaning Routine” in this chapter. 2. If the print quality does not improve, the print cartridge may be running out of one color of ink. Replace the print cartridge. |
| <i>Print density is inconsistent</i> | <ol style="list-style-type: none"> 1. The print cartridge nozzles may be clogged. Run the print cartridge cleaning routine to clear the nozzles. See “Using the Print Cartridge Cleaning Routine” in this chapter. 2. Make sure that you insert media <i>print side up</i> in the printer. Check the packaging for an indication of the print side. If you are using plain paper, try turning the paper over and printing on the other side. 3. Make sure that the media meets the specifications in chapter 1. 4. If printing transparencies, verify that the media is HP Premium. 5. Some paper that meets specifications in chapter 1 will not produce satisfactory results. Try a different brand of paper. |

1. The HP DeskJet Portable prints black only; it cannot use the color print cartridge.

Table 6-13. Solving Color Print Quality Problems (Continued)

| Color Print Quality Issue | Possible Cause |
|--|--|
| <p><i>Printouts contain inconsistent color fill patterns with horizontal bands or thin lines running completely across the sheet</i></p> | <p>If bands or thin lines run all the way across the printout, the inconsistent color fill pattern can result from either of two problems: waitbanding or overlapping lines. These problems require different solutions.</p> <ul style="list-style-type: none"> • If you see horizontal <i>bands</i> of color, the printer may be experiencing waitbanding (“color banding”). See “Inconsistent Color Fill Patterns” at the end of this chapter for solutions. One approach is to print the document to a file; then you can print the file as a binary file from DOS. • If you see thin horizontal <i>lines</i> of color, the problem is likely to be overlapping lines. <ul style="list-style-type: none"> – Try printing the sheet again using manual feed. – If you are printing from a Windows application, select the “Best” setting under Print Quality in the Printer Setup dialog box. |
| <p><i>Printed colors do not match screen color</i></p> | <p>If you are using Windows, try the following:</p> <ol style="list-style-type: none"> 1. Verify that the “Match Screen”¹ option is selected under Color Control in the Options dialog box of the Printer Setup menu. 2. The print cartridge may be running out of one color of ink. 3. Try a different dithering method. <p>In DOS applications, a solution is dependent on the printer driver for that DOS software package. Refer to the software documentation or contact the software vendor for possible solutions.</p> |
| <p><i>Color smudges on transparencies</i></p> | <p>If you are using Windows:</p> <ol style="list-style-type: none"> 1. In the Printer Setup dialog box, make sure that you have selected “Transparency Film”¹ or “Transparency Film (Extra Dry Time)” in the “Media Type” field. <ul style="list-style-type: none"> • If you have selected “Transparency Film,” the printer will add several extra minutes of drying time before dropping another sheet on top of the transparency that was last printed. The Busy light flashes during the drying interval. • If you have selected “Transparency Film (Extra Dry Time),” the printer will print each transparency and stop before printing the next. You will see the message, “Remove Printed Page.” Remove the transparency and click the OK button in the dialog box. Place the removed transparency in a drying area, out of the sun. 2. Make sure that you load the transparency into the sheet feeder or directly into the paper feed slot with the <i>rough</i> side of the transparency up. 3. Wait several minutes before placing transparencies in sleeves or avoid placing transparencies in sleeves. |
| <p><i>Color smudges on glossy paper</i></p> | <p>If you are using Windows:</p> <ol style="list-style-type: none"> 1. In the Printer Setup dialog box, make sure that you have selected “Glossy Paper”¹ or “Glossy Paper (Extra Dry Time)” in the “Media Type” field. <ul style="list-style-type: none"> • If you have selected “Glossy Paper,” the printer will add several extra minutes of drying time before dropping another sheet on top of the sheet that was last printed. The Busy light flashes during the drying interval. • If you have selected “Glossy Paper (Extra Dry Time),” the printer will print each sheet and stop before printing the next. You will see the message, “Remove Printed Page.” Remove the sheet and click the OK button in the dialog box. Place the removed sheet in a drying area, out of the sun. 2. Make sure that you load the sheet into the sheet feeder or directly into the paper feed slot with the <i>glossy</i> side up. 3. Be sure to give the ink several minutes to dry. |

1. These option settings are from the HP DeskJet 300 Series v4.1 Printer Driver. This is the driver recommended for all DeskJet 300 Series printers.

Table 6-13. Solving Color Print Quality Problems (Continued)

| Color Print Quality Issue | Possible Cause |
|---|---|
| <i>Color fades on transparencies</i> | It is possible that the transparencies are being exposed to ultraviolet light, typically from the sun. Check other instruments and machinery near the printer to see that they do not create ultraviolet light. Be sure to protect transparencies from direct or reflected rays of the sun or other sources of ultraviolet. After the transparency is dry, you can cover it with a sheet of paper. |
| <i>Printouts have black output where you expected color</i> | <ol style="list-style-type: none">1. Verify that the black print cartridge is <i>not</i> installed. If it is, replace it with the color print cartridge and print the page.2. If using Windows, verify that you have not selected Black Text or Grayscale print modes in the Printer Setup dialog box. If you have selected Automatic, be sure you have not selected "Use Black", located immediately below the Automatic button, in the Printer Setup dialog box.¹ |
| <i>Characters, dots or lines are incomplete or missing from printouts</i> | Missing dots when printing color can be caused by the same problems that cause missing dots when printing black. These problems may be with any of the following: <ul style="list-style-type: none">• print cartridge• printer hardware• connection between the printer and the print cartridge. See "Printouts Missing Rows of Dots" in this chapter for solutions. If you are printing color from a Windows application: <ul style="list-style-type: none">• Select Presentation mode in the Printer Setup dialog box.• Print the page again using manual feed. |

1. These option settings are from the HP DeskJet 300 Series v4.1 Printer Driver. This is the driver recommended for all DeskJet 300 Series printers.

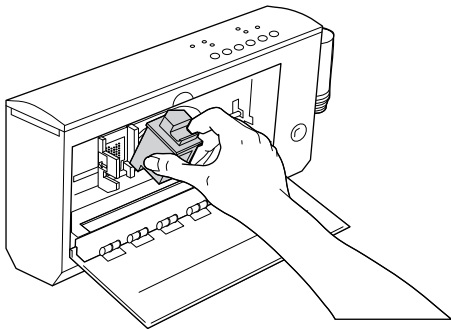
Printouts Missing Rows of Dots

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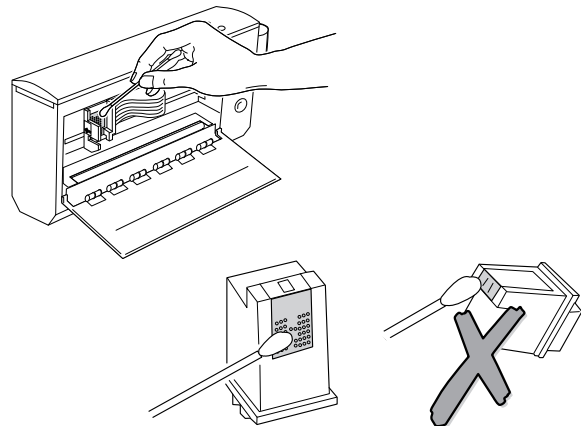
Figure 6-7. Printouts Missing Dots

Horizontal rows of dots missing on printouts may be the result of a connection problem between the print cartridge cradle contacts and the print cartridge contacts. This is known as an “interconnect problem.” You may be able to solve this problem using the following procedure:

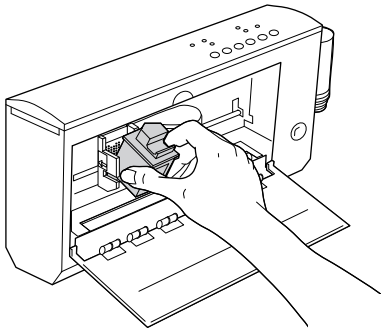
1. Remove and reinstall the print cartridge. Make sure the print cartridge snaps into place in the print cartridge cradle. Retest by printing the printer self-test.
 - If all of the rows of dots are printing, no further troubleshooting is necessary.
 - If rows of dots are still missing in the self-test printout, continue on to the next step.



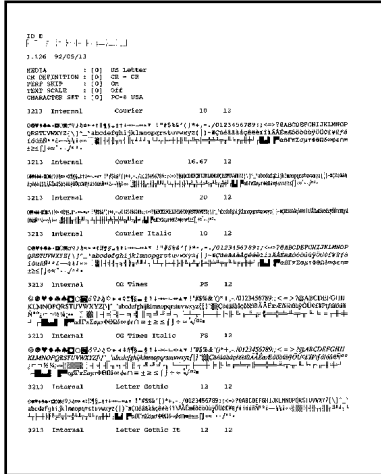
2. Remove the print cartridge from the printer and clean the print cartridge and print cartridge cradle contacts. Use a cotton swab lightly moistened with water. *Do not wipe the ink nozzles on the print cartridge.*



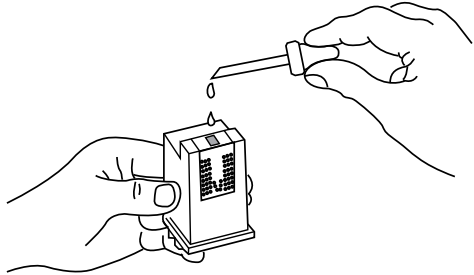
3. Once the print cartridge and print cartridge cradle contacts are dry, reinstall the print cartridge. Retest by printing the printer self-test.
 - If all of the rows of dots are printing, no further troubleshooting is necessary.
 - If rows of dots are still missing in the self-test printout, continue on to the next step.



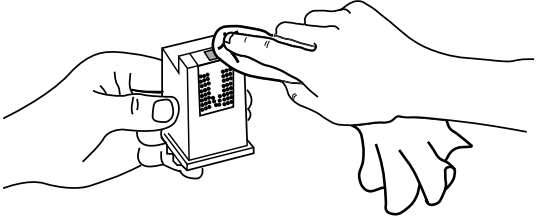
4. The print cartridge may be faulty. Replace the print cartridge and retest by printing the printer self-test.
 - If all of the rows of dots are printing, no further troubleshooting is necessary.
 - If rows of dots are still missing in the self-test printout, the print cartridge nozzles may be clogged, continue on to the next step.



5. Hold the print cartridge so that the gold rectangle, in the middle of the raised end, points up. Place two drops of clean water on the gold rectangle (shaded below).



6. After 60 seconds, gently remove the water with a lint-free damp cloth.



7. Repeat the above steps of installing the print cartridge, cleaning the print cartridge contacts, cleaning the print cartridge cradle contacts, and clearing the nozzles several times. If the problem consistently appears in the printer self-test with the same rows of dots missing on different print cartridges, return the printer for repair.

Inconsistent Color¹ Fill Patterns

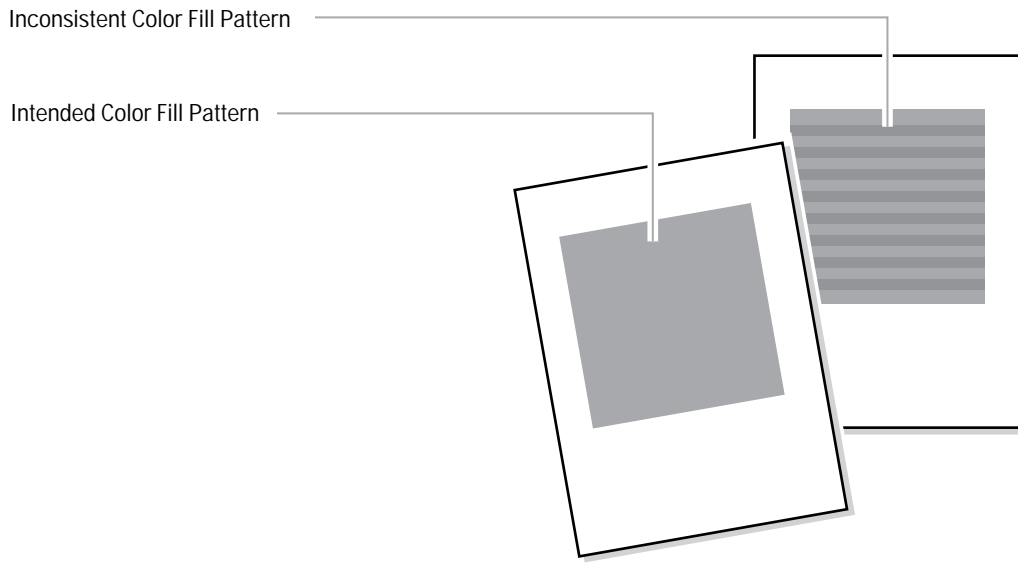


Figure 6-8. Inconsistent Color Fill Pattern

The print quality in color fill patterns is best if the computer sends data at the same rate as the printer prints it. If the computer sends the data slower than the printer prints it, the printer stops and waits for the computer to send more data, resulting in a color banding effect as shown above. This phenomenon is called “waitbanding.” If waitbanding occurs, try to speed up the computer by the methods listed below; also, see “Increasing the Printing Speed” in chapter 4.

Table 6-14. Avoiding Waitbanding

| Solution | Implementation |
|---|--|
| Speed up the host computer for printing | General Solutions <ul style="list-style-type: none"> • Install more memory (RAM) into the computer. • If possible, make the document less complex. • Use a more powerful computer. • Print the document to a file. Then print the file. • Read the software application's documentation for tips on improving the printing performance. |
| Optimize the Windows settings | Windows Specific Solutions <ul style="list-style-type: none"> • Close any other open applications running in Windows. • In Printer Setup, select Draft or Normal Mode rather than Presentation Mode. |

1. The HP DeskJet Portable prints black only; it cannot use the color print cartridge.

Service and Support Information

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Warranty Information

Hewlett-Packard maintains facilities throughout the world that can service HP DeskJet 300 Series printers. The warranty for HP DeskJet 300 Series printers varies, depending on the printer, the date of purchase, and the country of purchase.

For products returned under warranty, Hewlett-Packard may use one of the following options:

- Repair the product.
- Replace the product with a remanufactured unit.
- Replace the product with a product of equal or greater functionality.
- Refund the purchase price.

See the user documentation included with the product or contact an HP Customer Service Center, or HP Sales and Support Office, for specific warranty information, including exclusions and limitations to the product warranty.

U.S. Service Support Contracts

HP Express Exchange Service

Hewlett-Packard offers an express exchange service to minimize product downtime. With HP Express Exchange Service, a replacement unit is available by 10:30 the next working day.

HP Express Exchange provides next day exchange service (same as HP SupportPack) but is based on a per incident of repair rather than throughout the warranty period. This service does not need to be purchased within 30 days of the printer purchase date.

To order the HP Express Exchange Service, call toll-free at (916) 785-1200 from Monday to Friday, 6 am to 5 pm Pacific Standard Time.

HP SupportPack

HP SupportPack enhances the service offering by upgrading warranty repair service to a next day express exchange service and extends the warranty period from one year to three years. This service enhancement provides customers with a cost-effective and timely way to achieve quality support. HP SupportPack is sold exclusively through resellers (ordered like any other HP product) and is not available directly from Hewlett-Packard. Customers must purchase this service enhancement within 30 days of purchasing the printer. Additional information on HP SupportPack and the prices for the service upgrade are available through HPNN and the In-Touch newsletter.

HP Customer Return Repair Service

If down time is less critical, the HP Customer Return Repair Service provides maintenance service at the HP Customer Service Center located in Corvallis, Oregon. HP will repair the product within two working days from receipt and return via surface transportation. Service Authorized Resellers can call (916) 785-1200. Sales Authorized Resellers can call (800) 544-9976.

To order the HP Customer Return Repair Service for customers with non-critical applications, call toll-free (208) 323-2551.

Non-U.S. Service Support Contracts

HP SupportPack

HP SupportPack enhances the service offering during the warranty period by upgrading warranty repair service to a next day exchange service. This service enhancement provides customers with a cost-effective and timely way to achieve quality support. HP SupportPack is sold exclusively through resellers (ordered like any other HP product) and is not available directly from Hewlett-Packard. Additional information on HP SupportPack and the prices for the service upgrade is available through HPNN.

For other service and support contracts, contact the HP Sales and Support Office for that country.

Returning a Printer for Service

In the U.S.

If a printer requires service, the customer can contact a service authorized reseller. The reseller should verify that the printer is in need of repair and contact the HP Corvallis Service Center. Sales authorized resellers should call (800) 544-9976 to arrange for repair. Service authorized resellers should call (503) 750-2035.

Customers can contact Hewlett-Packard directly by calling HP Customer Support Center at (208) 323-2551. They will verify that the printer is in need of repair and transfer the customer to the HP Corvallis Repair Center. If packaging materials are needed, call the HP Resellers Response Line at (800) 544-9976.

Printer Return Instructions for the U.S.

If the printer needs to be shipped, be sure it is packed in a protective carton. Hewlett-Packard recommends that the original shipping container be saved for this purpose. In-transit damage is not covered by the warranty. It is suggested that shipments are always insured.

When either a customer or reseller calls HP to arrange for service, the HP Corvallis Service Center will dispatch a premium carrier to pickup the product at the reseller or customer location. The printer will be delivered to HP, at HP's expense, using second day delivery. The customer or reseller must still package the printer for shipment.

Once the printer is repaired, HP will ship it to the customer or reseller location using second day delivery.

You can help assure effective servicing of your customer's printer by following these guidelines:

1. Follow the troubleshooting instructions in this manual to be certain that the malfunction is in the printer and not the result of an interface error or a malfunction in the computer or software. If possible, identify the defective area or function.
2. If you determine that repair is required, please provide the following with the printer when returning the printer for service:
 - a. Make a copy of the HP DeskJet 300 Series Printer Repair Sheet (located at the end of this chapter).
 - b. Determine the appropriate error code from table 7-4 in the "Printer Repair Feedback Information" section in this chapter.
 - c. Fill out the repair sheet. Include specific information, such as the configuration at the time of the malfunction, the type of interface cable, a description of the computer or host, and a description of the software application in use.
 - d. If purchased through a Hewlett-Packard reseller, include a copy of the sales slip or other proof of purchase to establish the warranty coverage period.

In the UK, France, Germany, Switzerland, Austria, Belgium, Norway, Sweden, Denmark, Finland, and the Netherlands

If a printer fails during the warranty period, the customer should do the following:

1. Follow the troubleshooting procedures in this document or consult the HP FIRST facsimile assistance services.
2. If the customer is still unable to determine the cause of the failure, the customer should contact their local reseller or the European Customer Support Center.

Customer support representatives can answer questions about the setup, configuration, installation, and operation of the printer. They can also troubleshoot and diagnose printer problems and, if necessary, can give instructions for getting the printer serviced and repaired.

If available for your country and language, phone numbers for HP FIRST and the European Customer Support Center are given in a separate document shipped with the printer. If additional information is needed, customers can call the reseller or the nearest HP Sales and Support Office.

If a printer fails after the warranty period:

1. Follow the troubleshooting procedures in this document or the printer user's guide.
2. If the customer is unable to determine the cause of the failure, the customer should contact their local reseller or the nearest HP Sales and Support Office for instructions on returning the printer for service and repair.

Elsewhere in the World

If a printer fails during or after the warranty period:

1. Follow the Troubleshooting procedures in this document or the printer user's guide.
2. If the customer is unable to determine the cause of the failure, the customer should contact their local reseller or the nearest HP Sales and Support Office for instructions on returning the printer for service and repair.

Notes

- Include the power adapter when returning the printer for repair.
 - Include the print cartridge when returning the printer for repair *except* in the following situation:
 - when a printer is to be exchanged for another unit. You do this only if the faulty printer does *not* exhibit a print cartridge-related problem.When the print cartridge is *not* returned with the printer, remove the print cartridge and store it in the storage container provided with the optional Color Kit, or in a sealed plastic bag. If you have both a black and a color print cartridge, store one in the storage container and the other in a sealed plastic bag. When the exchange unit is received, promptly install one of your cartridges in the printer.
 - Do *not* include with the printer any operating accessories (for example, the sheet feeder, documentation, and software) unless the problem involves a particular accessory. In that case, include the one relevant accessory.
-

Service and Support Resources

Obtaining Printer Drivers

For the latest available versions of printer drivers, contact the appropriate software vendors directly.

Hewlett-Packard offers printer drivers through the HP Forum on CompuServe. As updated and new printer drivers become available, they are uploaded to the HP Forum for instant access by CompuServe members. To become a CompuServe member and gain access to the printer drivers through HP Forum, call (800) 848-8990 from within the U.S. From outside the U.S., call 1 (614) 457-8650.

In the U.S., printer driver updates are also available through the HP Customer Support Center at (208) 323-2551. Hours are Monday, Tuesday, Thursday and Friday 6 a.m.–5 p.m. and Wednesday 6 a.m.–3 p.m. Pacific Time.

In the U.S. and Canada, printer driver updates are also available through the HP Distribution Center at (303) 339-7009, 24 hours a day, except Sundays.

Authorized Resellers can obtain printer drivers through HPNN, an electronic bulletin board service, at your local international number, or at 1 (408) 553-7303.

Obtaining Support Information

For the latest information on a particular software application, contact the software vendor.

Hewlett-Packard offers a fax information system called HP FIRST (Hewlett-Packard Fax Information Retrieval Support Technology) distributes information on software and HP products to anyone with a touch-tone Group 3 fax machine.

To use HP FIRST, dial (800) 333-1917 from your fax machine in the U.S. or Canada. From outside the U.S. and Canada, choose a number from the list on the next page. A voice response system helps you select the information you need. HP FIRST then sends this information to your fax machine.

The table below summarizes the available resources for different types of information. For specific information on an available resource, see “Additional Resource Information” on the next page.

Table 7-1. Obtaining Drivers and Information

| To Obtain: | Check the Following Resources: |
|-----------------------------------|--|
| Printer Drivers | <ol style="list-style-type: none">1. Software Vendor2. HP BBS3. CompuServe and Internet4. HP Distribution Center (Users Only)5. HPNN (HP Authorized Resellers Only)6. HP Customer Support Center (Users Only) |
| HP SupportPack Information | <ol style="list-style-type: none">1. HPNN (HP Authorized Resellers Only)2. In-Touch Newsletter |
| Software Information | <ol style="list-style-type: none">1. Software Application Documentation2. Software Vendor3. HP FIRST or HP BBS4. CompuServe and Internet5. HPNN (HP Authorized Resellers Only) |

Table 7-1. Obtaining Drivers and Information (Continued)

| To Obtain: | Check the Following Resources: |
|------------------------------|---|
| Presales Information | <ol style="list-style-type: none"> 1. HP FIRST 2. HP Customer Information Center 3. HP Reseller Response Line (HP Authorized Resellers Only) 4. HP BBS 5. CompuServe and Internet 6. HPNN (HP Authorized Resellers Only) |
| Postsales Information | <ol style="list-style-type: none"> 1. HP FIRST 2. HP Audio Tips 3. HP Customer Support Center (End-User Customers Only) 4. HP Reseller Response Line (Authorized Resellers Only) 5. HP BBS 6. CompuServe and Internet 7. HPNN (HP Authorized Resellers Only) |

Additional Resource Information

Table 7-2. Resource Information

| Service/ Support Resource | Items Available | Phone Number | Hours (Pacific Time) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--|--|--|----------------------------|---------|--------------|-----------|-------------------|------------------|------|-----------------|---------------------------|--------------------|-------------|-----------------|-------------------|--------------------|---------|---------------|---------------|-----------|---------------|----------|----------|---------------|-----------|---------------|---------------|-------------|-----------|-----------------|----------|-----------|---------------|---------------|-------------|-----------------------------|--|--------------|
| CompuServe¹ (HP Peripherals Forum) | <ul style="list-style-type: none"> • Presales information • Printer drivers • Software notes • Post/Reply to questions | To join CompuServe call: (800) 524-3388 (U.S. and Canada) ask for representative 51 1 (614) 457-8650 (Outside U.S. and Canada) or call your local number On CompuServe use: GO HPPER | 24 hours/day | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| HP FIRST² | <ul style="list-style-type: none"> • Presales Information • Postsales Information • Software Notes | <table border="0"> <thead> <tr> <th>Language</th> <th>Country</th> <th>Phone Number</th> </tr> </thead> <tbody> <tr> <td rowspan="5">• English</td> <td>• U.S. and Canada</td> <td>• (800) 333-1917</td> </tr> <tr> <td>• UK</td> <td>• 0800 96 02 71</td> </tr> <tr> <td>• Any European Country</td> <td>• (31) 20 681 5792</td> </tr> <tr> <td>• Singapore</td> <td>• (65) 291 7951</td> </tr> <tr> <td>• other countries</td> <td>• 1 (208) 344-4809</td> </tr> <tr> <td rowspan="2">• Dutch</td> <td>• Netherlands</td> <td>• 06 022 2420</td> </tr> <tr> <td>• Belgium</td> <td>• 0800 11 906</td> </tr> <tr> <td rowspan="4">• French</td> <td>• France</td> <td>• 05 90 59 00</td> </tr> <tr> <td>• Belgium</td> <td>• 0800 17 043</td> </tr> <tr> <td>• Switzerland</td> <td>• 155 15 26</td> </tr> <tr> <td>• Germany</td> <td>• 01 308 100 61</td> </tr> <tr> <td rowspan="3">• German</td> <td>• Austria</td> <td>• 06 60 81 28</td> </tr> <tr> <td>• Switzerland</td> <td>• 155 15 27</td> </tr> <tr> <td colspan="2">(or call your local number)</td> </tr> </tbody> </table> | Language | Country | Phone Number | • English | • U.S. and Canada | • (800) 333-1917 | • UK | • 0800 96 02 71 | • Any European Country | • (31) 20 681 5792 | • Singapore | • (65) 291 7951 | • other countries | • 1 (208) 344-4809 | • Dutch | • Netherlands | • 06 022 2420 | • Belgium | • 0800 11 906 | • French | • France | • 05 90 59 00 | • Belgium | • 0800 17 043 | • Switzerland | • 155 15 26 | • Germany | • 01 308 100 61 | • German | • Austria | • 06 60 81 28 | • Switzerland | • 155 15 27 | (or call your local number) | | 24 hours/day |
| Language | Country | Phone Number | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| • English | • U.S. and Canada | • (800) 333-1917 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | • UK | • 0800 96 02 71 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | • Any European Country | • (31) 20 681 5792 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | • Singapore | • (65) 291 7951 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | • other countries | • 1 (208) 344-4809 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| • Dutch | • Netherlands | • 06 022 2420 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | • Belgium | • 0800 11 906 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| • French | • France | • 05 90 59 00 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | • Belgium | • 0800 17 043 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | • Switzerland | • 155 15 26 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | • Germany | • 01 308 100 61 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| • German | • Austria | • 06 60 81 28 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | • Switzerland | • 155 15 27 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | (or call your local number) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

1. CompuServe is an electronic bulletin board. Printer drivers and information can be downloaded from the HP Forum by CompuServe members.
2. HP FIRST (Hewlett-Packard Fax Information Retrieval Support Technology) is an automated support access program that sends printed product information to a facsimile machine. Call HP FIRST from a touch tone telephone/fax machine. Select the product information you want by navigating through the pre-recorded messages using the buttons on the telephone. HP FIRST sends selected product information to any Group 3 fax machine.

Table 7-2. Resource Information (Continued)

| Service/ Support Resource | Items Available | Phone Number | Hours (Pacific Time) |
|---|---|---|--|
| HP Audio Tips¹ | <ul style="list-style-type: none"> • Presales information • Postsales information | (800) 333-1917 (U.S. and Canada) 1 (208) 344-4809 (other countries) | 24 hours/day |
| HP Distribution Center | <ul style="list-style-type: none"> • Printer Drivers | (303) 339-7009 (U.S. and Canada only) | 24 hours/day Except Sundays |
| HPNN² | <ul style="list-style-type: none"> • Presales information • Printer drivers • HP SupportPack information • Software notes | 1 (408) 553-7303 or call your local number | 24 hours/day |
| HP Customer Information Center³ | <ul style="list-style-type: none"> • Presales Information | (800) 752-0900 (U.S. and Canada) or call your local number | Monday - Friday 6:00 am – 5:00 pm |
| HP Reseller Response Line | <ul style="list-style-type: none"> • Presales and postsales technical support for HP authorized resellers | (800) 544-9976 (U.S. and Canada) or call your local number | Monday - Friday 8:00 am – 4:00 pm |
| HP Partner Support Group | <ul style="list-style-type: none"> • Presales and Postsales Technical Support for HP Support Providers | Call your local number | |
| HP Customer Support Center | <ul style="list-style-type: none"> • Postsales technical support for all users and for dealers outside the U.S. and Canada | 1 (208) 323-2551 or call the local number provided with your printer | Monday, Tuesday, Thursday, Friday 6:00 am – 5:00 pm Wednesday 6:00 am – 3:00 pm |
| HP BBS⁴ | <ul style="list-style-type: none"> • Presales information • Printer drivers • Software notes • Troubleshooting hints | 1 (208) 344-1691 Set your communications software to: N, 8, 1 | 24 hours/day |
| Internet | <ul style="list-style-type: none"> • Printer drivers • Product and Support Information | FTP access at: 192.6.71.2 or ftp-boi.external.hp.com World-Wide Web access at: URL http://www.hp.com/home.html | 24 hours/day |

1. HP Audio Tips is a set of pre-recorded messages to answer common product questions. Navigate through the pre-recorded messages by pressing the buttons on a touch tone telephone.
2. HPNN (Hewlett-Packard News Network) is an electronic bulletin board service available only to HP authorized resellers.
3. The HP Customer Information Center is available to both resellers and users.
4. HP's computer bulletin-board system.

Printer Repair Feedback Information

1. Make a copy of the HP DeskJet 300 Series Printer Repair Sheet in this section.
2. Observe the problem with the printer. Verify the problem is repeatable.
3. Determine the applicable error code in table 7-3.
4. Fill out the repair sheet and return the repair sheet with the printer.

Table 7-3. HP DeskJet 300 Series Printer Error Code Table

| Keyword | Description | Code |
|-------------------------------------|--|------|
| Startup Problems | | |
| Power Up failed | No lights on, no noise, no movement/intermittent power failure | EX00 |
| Self-test failed | Self-test printout does not print out, is incomplete or wrong | EZ05 |
| Defective power cord/ module | Power cord/module is defective or damaged (<30 days) | EX05 |
| General start-up | Customer cannot describe problem | EZ20 |
| Recharger defective | Recharger is defective (< 30 days) | EZ25 |
| Battery Defective | Printer does not power up with battery | EX30 |
| Backup battery failed | Loses date/time and other information | EZ35 |
| Control Panel/Light Problems | | |
| Lights on steady | LEDs on front panel ON steady | EK00 |
| Lights flashing in unison | LEDs on front panel ON and flashing | EK05 |
| Lights flashing alternately | Different LEDs flash ON and OFF alternately | EK15 |
| No display/dead keys | Display is dead, no key operation | EK20 |
| Sticky keys | Display keypad keys sticky or intermittent operation | EK25 |
| General lights | Customer cannot describe problem | EZ35 |
| Media Advance/Eject Problems | | |
| No media pick up | Paper/transparency not loading properly | FF00 |
| Multiple pick | Several sheets/envelopes are picked together | FF05 |
| Incomplete feed | Sheet/envelope loads, then stops | FF10 |
| Media jam | Sheet/envelope/labels stuck inside the printer | FF15 |
| Skewed/slanted page | Sheet/envelope loads unevenly | FF20 |
| Media eject problem | Sheet/envelope fails to eject | FF25 |
| Continuous media feed | Continuously picks and feeds media | FF35 |
| General media handling | Customer cannot describe problem | FF55 |
| Intermittent Paper Pick | Intermittent paper loading | FF60 |
| Print Quality Problems | | |
| Missing dots | White line or streak through text or graphics | PP00 |
| Fuzzy print | Overspray of dots | PP05 |
| Vertical misalignment | Table columns of text/vertical lines are not well aligned (bi-directional shift) | PP10 |
| Solid black page | Sheet is solid black | PP15 |

Table 7-3. HP DeskJet 300 Series Printer Error Code Table (Continued)

| Keyword | Description | Code |
|-----------------------------------|---|-------------|
| Underlines or streaks in printing | Prints extra lines across media when printing self-test | PP20 |
| Wavy print | Print appears wavy on self-test | PP25 |
| Incomplete print | Parts of printed characters are missing on self-test | PP30 |
| General print quality | Customer cannot describe problem | PP35 |
| Blank page | Sheet contains no printing | PP40 |
| Solid black sheet | Sheet printed is solid black | PP40 |
| Carriage Problems | | |
| Carriage stall | No carriage movement | MH00 |
| Left side collision | Carriage slams to left side and stays there | MH05 |
| Right side collision | Carriage slams to the right side and stays there | MH10 |
| Carriage belt defective | Carriage belt frayed or broken | MH15 |
| General carriage problem | Customer cannot describe problem | MH20 |
| Noise Problems | | |
| Squeaky noise | Unusual, persistent squeaking noise | MN00 |
| Grinding noise | Unusual, persistent grinding noise | MN05 |
| Knocking noise | Frequent shock or clicking noise | MN10 |
| General noise | Customer cannot describe problem | MN15 |
| Cosmetic Problems | | |
| Scratched | External part is scratched | ZC00 |
| General cosmetic defect | Customer cannot describe problem | ZC05 |
| Access door defective | Access door bent or broken | - |
| Starwheel | Starwheel missing or broken | - |
| Communication Problems | | |
| I/O printer port failure | Input/Output from PC fails to print – not cable or PC problem | KR00 |
| General communication problem | Customer cannot describe problem | KR40 |
| Print Cartridge Problems | | |
| Short pen life | Cartridge life not to specifications | SD00 |
| Leaking cartridge | Print cartridge has leaked in printer and damaged printer | SD05 |
| Rejects cartridge – black | Printer rejects black cartridge | SD10 |
| Rejects cartridge – color | Printer rejects Cyan/Magenta/Yellow cartridge | SD15 |
| Service station, pen-cap problems | Service station upgrade, wider assembly, flex assembly, leaky pen | MW20 |
| General print cartridge failure | (Not something we would service) | SD20 |
| Deprimed Cartridge | Ink cartridge has deprimed/cartridge dries out/crust on nozzles | SD25 |

Table 7-3. HP DeskJet 300 Series Printer Error Code Table (Continued)

| Keyword | Description | Code |
|---|---|-------------|
| Accessory Problems | | |
| Missing manual | Manual is missing from shipment container | AM00 |
| Missing power cord/module | Power cord/module is missing from shipment container | AM05 |
| Missing driver | Driver disk is missing from shipment container | AM10 |
| Missing paper tray | Paper tray is missing from shipment container | AM15 |
| Missing print cartridges | Print cartridge is missing from shipment container | AM20 |
| Performance Problems | | |
| Intermittent operation | Powers OFF and ON intermittently | EZ40 |
| Print mechanism locks up | Printer locks up while printing | EZ45 |
| Stops printing | Prints part of page then stops | EZ50 |
| Burning smell | During operations, printer emits a burning smell | EZ55 |
| Smoking smell | During operations, printer emits a cigarette smell | EZ60 |
| Undefined Code and Miscellaneous | | |
| Undefined code | None of the above codes apply | ZZ00 |
| No code assigned | Printer is classified as DOA | - |

HP DeskJet 300 Series Printer Repair Sheet

Company Information

Company _____

Address _____

Phone _____

Your Name _____

Printer Information

Printer Model (Check one)

- HP DeskJet 340 Printer (Model C2655A)
- HP DeskJet 320 Printer (Model C2634A)
- HP DeskJet 310 Printer (Model C2621A)
- HP DeskJet Portable Printer (Model C2624A)
- HP DeskJet Portable Printer (Model C2614A)

Serial number _____

Date of purchase _____

Date that you are sending the printer _____

Printer error code (see table 6-3) _____

Failure is _____ intermittent, occasional intermittent, frequent continuous

Brand and model of your computer _____

Version of software you are using _____

The driver you are using _____

Other Information About the Problem

Actions Taken to Resolve the Problem and the Results

Included Information

Check any of the following boxes for additional troubleshooting information.

- Sample printout included
- Printer self-test included
- Unable to print the printer self-test

1/08/95

HP PCL Printer Commands and Control Codes

HP PCL Printer Command Summary

Table A-1. HP PCL Printer Command Summary

| Command Topic | Printer Feature | Printer Command | Decimal Equivalent | Hex Equivalent |
|---|------------------------------|---------------------------|-----------------------|-------------------|
| Printer Control Commands | | | | |
| Reset and Self-Test Control | Reset | E _c E | 027 069 | 1B 45 |
| | Self-test | E _c Z | 027 122 | 1B 7A |
| Paper Input Control (Media Source) | Eject page | E _c &−0H | 027 038 108 048 072 | 1B 26 6C 30 48 |
| | Feed from tray | E _c &−1H | 027 038 108 049 072 | 1B 26 6C 31 48 |
| | Manual feed ¹ | E _c &−2H | 027 038 108 050 072 | 1B 26 6C 32 48 |
| Print Mode | Unidirectional left to right | E _c &k0W | 027 038 107 048 087 | 1B 26 6B 30 57 |
| | Bidirectional | E _c &k1W | 027 038 107 049 087 | 1B 26 6B 31 57 |
| | Unidirectional right to left | E _c &k2W | 027 038 107 050 087 | 1B 26 6B 32 57 |
| Dry Time² | Dry time in seconds | E _c &b#T | 027 038 098 # 084 | 1B 26 62 # 54 |
| Underline | Single fixed | E _c &d1D | 027 038 100 049 068 | 1B 26 64 31 44 |
| | Double fixed | E _c &d2D | 027 038 100 050 068 | 1B 26 64 32 44 |
| | Single float | E _c &d3D | 027 038 100 051 068 | 1B 26 64 33 44 |
| | Double float | E _c &d4D | 027 038 100 052 068 | 1B 26 64 34 44 |
| | Turn off | E _c &d@ | 027 038 100 064 | 1B 26 64 40 |
| Line Termination | CR=CR, LF=LF, FF=FF | E _c &k0G | 027 038 107 048 071 | 1B 26 6B 30 47 |
| | CR=CR+LF, LF=LF, FF=FF | E _c &k1G | 027 038 107 049 071 | 1B 26 6B 31 47 |
| | CR=CR, LF=CR+LF, FF=CR+FF | E _c &k2G | 027 038 107 050 071 | 1B 26 6B 32 47 |
| | CR=CR+LF, LF=CR+LF, FF=CR+FF | E _c &k3G | 027 038 107 051 071 | 1B 26 6B 33 47 |
| End-of-Line Wrap | Turn on | E _c &s0C | 027 038 115 048 067 | 1B 26 73 30 43 |
| | Turn off | E _c &s1C | 027 038 115 049 067 | 1B 26 73 31 43 |
| Transparent Print Data | No. of bytes | E _c &p#X[data] | 027 038 112 #...# 088 | 1B 26 70 #...# 58 |
| Enhancement Control³ | Line-by-line on | E _c &k0E | 027 038 107 048 069 | 1B 26 6B 30 45 |
| | Line-by-line off | E _c &k1E | 027 038 107 049 069 | 1B 26 6B 31 45 |
| Display Functions | Turn on | E _c Y | 027 089 | 1B 59 |
| | Turn off | E _c Z | 027 090 | 1B 5A |
| SI/SO Control³ | Line-by-line on | E _c &k0F | 027 038 107 048 070 | 1B 26 6B 30 46 |
| | Line-by-line off | E _c &k1F | 027 038 107 049 070 | 1B 26 6B 31 46 |

Indicates the numeric value field.

1. This command is not used by the older model C2614A HP DeskJet Portable printer.
2. This command is only used by the HP DeskJet 310 and 320 printers.
3. This is an obsolete command. Hewlett-Packard suggests that it not be used in code developed for HP DeskJet 300 Series printers.

Table A-1. HP PCL Printer Command Summary (Continued)

| Command Topic | Printer Feature | Printer Command | Decimal Equivalent | Hex Equivalent |
|--------------------------------|---|----------------------|-------------------------|-------------------|
| Page Control Commands | | | | |
| Paper Size † | Default paper size | E _c &-0A | 027 038 108 048 065 | 1B 26 6C 30 41 |
| | US executive | E _c &-1A | 027 038 108 049 065 | 1B 26 6C 31 41 |
| | US letter | E _c &-2A | 027 038 108 050 065 | 1B 26 6C 32 41 |
| | US legal | E _c &-3A | 027 038 108 051 065 | 1B 26 6C 33 41 |
| | A4 | E _c &-26A | 027 038 108 050 054 065 | 1B 26 6C 32 36 41 |
| Line Spacing | Number of lines per inch | E _c &-#D | 027 038 108 #...# 068 | 1B 26 6C #...# 44 |
| Page Orientation † | Landscape | E _c &-1O | 027 038 108 049 079 | 1B 26 6C 31 4F |
| | Portrait | E _c &-0O | 027 038 108 048 079 | 1B 26 6C 30 4F |
| Page Length † | Number of lines per page | E _c &-#P | 027 038 108 #...# 080 | 1B 26 6C #...# 50 |
| Perforation Skip Mode † | On | E _c &-1L | 027 038 108 049 076 | 1B 26 6C 31 4C |
| | Off | E _c &-0L | 027 038 108 048 076 | 1B 26 6C 30 4C |
| Top Margin † | Number of lines | E _c &-#E | 027 038 108 #...# 069 | 1B 26 6C #...# 45 |
| Text Length † | Number of lines | E _c &-#F | 027 038 108 #...# 070 | 1B 26 6C #...# 46 |
| Side Margins † | Clear | E _c 9 | 027 057 | 1B 39 |
| | Left (column no.) | E _c &a#L | 027 038 097 #...# 076 | 1B 26 61 #...# 4C |
| | Right (column no.) | E _c &a#M | 027 038 097 #...# 077 | 1B 26 61 #...# 4D |
| Text Scale Mode | Off | E _c &k5W | 027 038 107 053 087 | 1B 26 6B 35 57 |
| | On | E _c &k6W | 027 038 107 054 087 | 1B 26 6B 36 57 |
| Cursor Positioning | Move to row no. | E _c &a#R | 027 038 097 #...# 082 | 1B 26 61 #...# 52 |
| | Move to column no. | E _c &a#C | 027 038 097 #...# 067 | 1B 26 61 #...# 43 |
| | Horizontal no. (decipoints) | E _c &a#H | 027 038 097 #...# 072 | 1B 26 61 #...# 48 |
| | Vertical no. (decipoints) | E _c &a#V | 027 038 097 #...# 086 | 1B 26 61 #...# 56 |
| | Horizontal no. (dots) | E _c *p#X | 027 042 112 #...# 088 | 1B 2A 70 #...# 58 |
| | Vertical no. (dots) | E _c *p#Y | 027 042 112 #...# 089 | 1B 2A 70 #...# 59 |
| | Horizontal motion index (no. of 1/120th inch moves) | E _c &k#H | 027 038 107 #...# 072 | 1B 26 6B #...# 48 |
| | Vertical motion index (no. of 1/48th inch moves) | E _c &-#C | 027 038 108 #...# 067 | 1B 26 6C #...# 43 |

† These printer commands are listed in the order in which they must be sent.

Indicates the numeric value field.

Table A-1. HP PCL Printer Command Summary (Continued)

| Command Topic | Printer Feature | Printer Command | Decimal Equivalent | Hex Equivalent |
|---|-------------------------------|-------------------------|---------------------------------|-------------------------|
| Font Selection Commands | | | | |
| Character Set † | PC-8 | E _c (10U) | 027 040 049 048 085 | 1B 28 31 30 55 |
| | HP Roman8 | E _c (8U) | 027 040 056 085 | 1B 28 38 55 |
| | PC-8 Danish/Norwegian | E _c (11U) | 027 040 049 049 085 | 1B 28 31 31 55 |
| | PC-850 | E _c (12U) | 027 040 049 050 085 | 1B 28 31 32 55 |
| | ECMA-94 Latin 1 | E _c (0N) | 027 040 048 078 | 1B 28 30 4E |
| | German (ISO 21) | E _c (1G) | 027 040 049 071 | 1B 28 31 47 |
| | French (ISO 69) | E _c (1F) | 027 040 049 070 | 1B 28 31 46 |
| | Italian (ISO 15) | E _c (0I) | 027 040 048 073 | 1B 28 30 49 |
| | Spanish (ISO 17) | E _c (2S) | 027 040 050 083 | 1B 28 32 53 |
| | Swedish Names (ISO 11) | E _c (0S) | 027 040 048 083 | 1B 28 30 53 |
| | Swedish (ISO 10) | E _c (3S) | 027 040 051 083 | 1B 28 33 53 |
| | Norwegian1 (ISO 60) | E _c (0D) | 027 040 048 068 | 1B 28 30 44 |
| | Norwegian2 (ISO 61) | E _c (1D) | 027 040 049 068 | 1B 28 31 44 |
| | Portuguese (ISO 16) | E _c (4S) | 027 040 052 083 | 1B 28 34 53 |
| | United Kingdom (ISO 4) | E _c (1E) | 027 040 049 069 | 1B 28 31 45 |
| | ANSI ASCII (ISO 6) | E _c (0U) | 027 040 048 085 | 1B 28 30 55 |
| | JIS ASCII | E _c (0K) | 027 040 048 075 | 1B 28 30 4B |
| | HP Legal | E _c (1U) | 027 040 049 085 | 1B 28 31 55 |
| | ISO IRV | E _c (2U) | 027 040 051 085 | 1B 28 32 55 |
| | Spacing † | Proportional | E _c (s1P) | 027 040 115 049 080 |
| Fixed | | E _c (s0P) | 027 040 115 048 080 | 1B 28 73 30 50 |
| Print Pitch † | Number of characters per inch | E _c (s#H) | 027 040 115 #...# 072 | 1B 28 73 #...# 48 |
| Point Size (Character Height) † | Number of 1/72nds inch | E _c (s#V) | 027 040 115 #...# 086 | 1B 28 73 #...# 56 |
| Style † | Upright | E _c (s0S) | 027 040 115 048 083 | 1B 28 73 30 53 |
| | Italic | E _c (s1S) | 027 040 115 049 083 | 1B 28 73 31 53 |
| Stroke Weight † | Normal | E _c (s0B) | 027 040 115 048 066 | 1B 28 73 30 42 |
| | Bold | E _c (s3B) | 027 040 115 051 066 | 1B 28 73 33 42 |
| | Extra Bold (optional) | E _c (s7B) | 027 040 115 055 066 | 1B 28 73 37 42 |
| Typeface † | Courier | E _c (s3T) | 027 040 115 051 084 | 1B 28 73 33 54 |
| | CG Times | E _c (s4101T) | 027 040 115 052 049 048 049 084 | 1B 28 73 34 31 30 31 54 |
| | Letter Gothic | E _c (s6T) | 027 040 115 054 084 | U1B 28 73 36 54 |
| | Univers | E _c (s52T) | 027 040 115 053 050 084 | 1B 28 73 35 32 54 |
| Print Quality | Letter | E _c (s2Q) | 027 040 115 050 081 | 1B 28 73 32 51 |
| | Draft | E _c (s1Q) | 027 040 115 049 081 | 1B 28 73 31 51 |
| Placement¹ | Superscript | E _c (s+1U) | 027 040 115 043 049 085 | 1B 28 73 2B 31 55 |
| | Normal | E _c (s0U) | 027 040 115 048 085 | 1B 28 73 30 55 |
| | Subscript | E _c (s-1U) | 027 040 115 045 049 085 | 1B 28 73 2D 31 55 |
| Primary Font² Designators | Default character set | E _c (0@) | 027 040 048 064 | 1B 28 30 40 |
| | Current primary character set | E _c (2@) | 027 040 050 064 | 1B 28 32 40 |
| | Default font | E _c (3@) | 027 040 051 064 | 1B 29 #...# 58 |

† These printer commands are listed in the order in which they must be sent.

Indicates the numeric value field.

1. This is an obsolete command. Hewlett-Packard suggests that it not be used in code developed for HP DeskJet 300 Series printers.
2. This is a testing command; it is not recommended for use.

Table A-1. HP PCL Printer Command Summary (Continued)

| Command Topic | Printer Feature | Printer Command | Decimal Equivalent | Hex Equivalent |
|--|--|---------------------------|-----------------------------|------------------------|
| Secondary Font¹ Designators | Default character set | E _c 0@ | 027 041 048 064 | 1B 29 30 40 |
| | Default primary chr. set | E _c 1@ | 027 041 049 064 | 1B 29 31 40 |
| | Current primary chr. set | E _c 2@ | 027 041 050 064 | 1B 29 32 40 |
| | Default secondary font | E _c 3@ | 027 041 051 064 | 1B 29 33 40 |
| Raster Graphics Commands | | | | |
| Set Graphics Print Mode | Graphics default | E _c *p0N | 027 042 112 048 078 | 1B 2A 70 30 4E |
| | Print graphics bidirectionally | E _c *p1N | 027 042 112 049 078 | 1B 2A 70 31 4E |
| | Print graphics left to right | E _c *p2N | 027 042 112 050 078 | 1B 2A 70 32 4E |
| | Print graphics right to left | E _c *p3N | 027 042 112 051 078 | 1B 2A 70 33 4E |
| | Conditionally print graphics bidirectionally | E _c *p4N | 027 042 112 052 078 | 1B 2A 70 34 4E |
| Start Raster Graphics | At leftmost position | E _c *r0A | 027 042 114 048 065 | 1B 2A 72 30 41 |
| | Current cursor position | E _c *r1A | 027 042 114 049 065 | 1B 2A 72 31 41 |
| End Raster Graphics | End graphics | E _c *rbC | 027 042 114 098 067 | 1B 2A 72 62 43 |
| Set Raster Graphics Resolution | 75 dots per inch | E _c *t75R | 027 042 116 055 053 082 | 1B 2A 74 37 35 52 |
| | 100 dots per inch | E _c *t100R | 027 042 116 049 048 048 082 | 1B 2A 74 31 30 30 52 |
| | 150 dots per inch | E _c *t150R | 027 042 116 049 053 048 082 | 1B 2A 74 31 35 30 52 |
| | 300 dots per inch | E _c *t300R | 027 042 116 051 048 048 082 | 1B 2A 74 33 30 30 52 |
| Set Raster Graphics Width | Number of pixels | E _c *r#S | 027 042 114 #...# 083 | 1B 2A 72 #...# 53 |
| Temporary X offset² | Horizontal offset for raster row | E _c *b#X | 027 042 098 #...# 088 | 1B 2A 62 #...# 58 |
| Set Raster Graphics Compression Method | Compression off | E _c *b0M | 027 042 098 048 077 | 1B 2A 62 30 4D |
| | Method 1 | E _c *b1M | 027 042 098 049 077 | 1B 2A 62 31 4D |
| | Method 2 | E _c *b2M | 027 042 098 050 077 | 1B 2A 62 32 4D |
| | Method 3 | E _c *b3M | 027 042 098 051 077 | 1B 2A 62 33 4D |
| | Method 9 | E _c *b9M | 027 042 098 057 077 | 1B 2A 62 39 4D |
| | Seed row source | E _c *b#S | 027 042 098 #...# 083 | 1B 2A 62 #...# 53 |
| Transfer Raster Graphics | Transfer graphics data by row | E _c *b#W[data] | 027 042 098 #...# 087 data | 1B 2A 62 #...# 57 data |
| | Transfer graphics data by plane ² | E _c *b#V[data] | 027 042 098 #...# 086 data | 1B 2A 62 #...# 56 data |
| Relative Vertical Pixel Movement | Number of dots | E _c *b#Y | 027 042 098 #...# 089 | 1B 2A 62 #...# 59 |
| Set Graphics Quality | Draft | E _c *r1Q | 027 042 114 049 081 | 1B 2A 72 31 51 |
| | Letter quality | E _c *r2Q | 027 042 114 050 081 | 1B 2A 72 32 51 |
| Set Number of Raster Planes Per Row³ | 3 planes, CMY palette | E _c *r-3U | 027 042 114 045 051 085 | 1B 2A 72 2D 33 37 |
| | Single plane palette | E _c *r1U | 027 042 114 049 085 | 1B 2A 72 31 37 |
| | 3 planes, RGB palette | E _c *r3U | 027 042 114 051 085 | 1B 2A 72 33 37 |
| Misc. Raster Graphics Commands | Raster graphics shingling | E _c *o#Q | 027 042 111 #...# 081 | 1B 2A 6F #...# 51 |
| | Raster graphics depletion ² | E _c *o#D | 027 042 111 #...# 068 | 1B 2A 6F #...# 44 |

Indicates the numeric value field.

1. This is a testing command; it is not recommended for use.
2. This is an obsolete command. Hewlett-Packard suggests that it not be used in code developed for HP DeskJet 300 Series printers.
3. This command is only used by the HP DeskJet 310 and 320 printers.

Control Codes

Table A-2. HP PCL Printer Control Codes

| Code Name | Symbol | Description | Value (Dec) | Value (Hex) | Keystroke |
|-----------------|-------------------|---|-------------|-------------|-----------|
| Backspace | <B _S > | Causes the printer to move the current print position one character position to the left. | 08 | 08 | CTRL H |
| Horizontal Tab | <H _T > | Causes the printer to move to the next predefined tab position. (Tabs are located every eighth character position, beginning at the left margin.) | 09 | 09 | CTRL I |
| Line Feed | <L _F > | Causes the printer to advance the paper one line at the current line spacing. | 10 | 0A | CTRL J |
| Form Feed | <F _F > | Causes the printer to advance the paper to the next top-of-form. Top-of-form is the first line of printing on the next page. | 12 | 0C | CTRL L |
| Carriage Return | <C _R > | Causes the printer to move the current print position to the left margin. Does not cause a paper advance. | 13 | 0D | CTRL M |
| Shift Out | <S _O > | Causes the printer to select the currently designated secondary font for use. | 14 | 0E | CTRL N |
| Shift In | <S _I > | Causes the printer to select the currently designated primary font for use. | 15 | 0F | CTRL O |
| Escape | <E _C > | Indicates to the printer that the characters immediately following are part of a printer command. | 27 | 1B | CTRL [|
| Space | <S _P > | Causes the printer to move the current print position one character to the right. | 32 | 20 | |

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